

Capital Karl Marx

VOLUME 1

TRANSLATED BY
PAUL REITTER

EDITED BY
PAUL NORTH &
PAUL REITTER

FIRST NEW
TRANSLATION
IN 50 YEARS

Capital

Capital

CRITIQUE OF POLITICAL ECONOMY
VOLUME 1

Karl Marx

TRANSLATED BY **PAUL REITTER**

EDITED BY **PAUL NORTH & PAUL REITTER**

FOREWORD BY **WENDY BROWN**

AFTERWORD BY **WILLIAM CLARE ROBERTS**

PRINCETON UNIVERSITY PRESS
PRINCETON & OXFORD

Copyright © 2024 by Princeton University Press

Princeton University Press is committed to the protection of copyright and the intellectual property our authors entrust to us. Copyright promotes the progress and integrity of knowledge. Thank you for supporting free speech and the global exchange of ideas by purchasing an authorized edition of this book. If you wish to reproduce or distribute any part of it in any form, please obtain permission.

Requests for permission to reproduce material from this work should be sent to permissions@press.princeton.edu

Published by Princeton University Press
41 William Street, Princeton, New Jersey 08540
99 Banbury Road, Oxford OX2 6JX

press.princeton.edu

All Rights Reserved

Library of Congress Cataloging-in-Publication Data

Names: Marx, Karl, 1818–1883, author.

Title: Capital : critique of political economy. Volume 1 / Karl Marx ; translated by Paul Reitter ; edited by Paul Reitter and Paul North ; foreword by Wendy Brown ; afterword by William Clare Roberts.

Other titles: Kapital. English

Description: Princeton : Princeton University Press, [2024] | Includes bibliographical references and index.

Identifiers: LCCN 2024002837 (print) | LCCN 2024002838 (ebook) | ISBN 9780691190075 (hardback ; alk. paper) | ISBN 9780691240466 (ebook)

Subjects: LCSH: Capital. | Economics. | BISAC: POLITICAL SCIENCE / Political Economy | BUSINESS & ECONOMICS / Economics / Theory

Classification: LCC HB501 .M356 2024 (print) | LCC HB501 (ebook) | DDC 335.4/12—dc23/eng/20240315

LC record available at <https://lccn.loc.gov/2024002837>

LC ebook record available at <https://lccn.loc.gov/20240028386>

British Library Cataloging-in-Publication Data is available

Editorial: Priya Nelson, Emma Wagh

Jacket: Chris Ferrante

Production: Danielle Amatucci

Publicity: James Schneider (US), Kate Farquhar-Thomson (UK)

Copyeditor: Stephen V. Beitel

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

Editorial Board

TITHI BHATTACHARYA

REBECCA COMAY

MICHAEL HEINRICH

JEFF JACOBS

SURESH NAIDU

KOHEI SAITO

Table of Contents

Foreword by Wendy Brown · xv

Editor's Introduction · xxxi

Translator's Preface · lxxvii

On the Choice of Edition · lxxxii

Quotations, Numerals, and Symbols in Marx's Text · lxxxv

Preface to the 1867 Edition 5

VOLUME ONE Capital's Process of Production

PART ONE The Commodity and Money

Chapter I	The Commodity	13
	1. The Two Factors of the Commodity: Use-Value and Value (Value-Substance, Magnitude of Value)	13
	2. The Double Character of the Labor Represented in Commodities	19
	3. The Value-Form or Exchange-Value	24
	A. Simple or Individual Value-Form	25
	1. The Two Poles of a Value Expression: Relative Value-Form and Equivalent Form	25
	2. Relative Value-Form	26
	a. The Content of the Relative Value-Form	26
	b. The Quantitative Determination of the Relative Value-Form	30
	3. The Equivalent Form	32
	4. Simple Value-Form in Its Entirety	37

	B. Total or Expanded Value-Form	39
	1. The Expanded Relative Value-Form	39
	2. The Particular Equivalent Form	40
	3. The Shortcomings of the Total or Expanded Value-Form	40
	C. The General Value-Form	41
	1. The Changed Character of the Value-Form	42
	2. The Interdependent Development of the Relative Value-Form and the Equivalent Form	44
	3. The Transition from the General Value-Form to the Money-Form	46
	D. The Money-Form	46
	4. The Fetish Character of Commodities—and the Secret It Entails	47
Chapter 2	The Exchange Process	60
Chapter 3	Money, or Commodity Circulation	69
	1. The Measure of Value	69
	2. The Means of Circulation	78
	a. The Metamorphosis of Commodities	78
	b. The Circulation of Money	88
	c. Coin: The Symbols of Value	98
	3. Money	103
	a. Amassing Money	103
	b. Means of Payment	108
	c. Worldwide Money	115
PART TWO	The Transformation of Money into Capital	
Chapter 4	The Transformation of Money into Capital	121
	1. The General Formula for Capital	121
	2. Contradictions in the General Formula	130
	3. Buying and Selling Labor-Power	140

PART THREE	The Production of Absolute Surplus-Value	
Chapter 5	The Labor Process and the Valorization Process	153
Chapter 6	Constant Capital and Variable Capital	174
Chapter 7	The Rate of Surplus-Value	185
	1. The Degree to which Labor-Power Is Exploited	185
	2. The Product's Value Represented as Proportional Parts of the Product	193
	3. Senior's "Last Hour"	196
	4. Surplus Product	201
Chapter 8	The Working Day	203
	1. Limits of the Working Day	203
	2. The Bottomless Appetite for Surplus-Labor. Manufacturer and Boyar	207
	3. Branches of English Industry Where the Law Doesn't Limit Exploitation	215
	4. Day Work and Night Work. The Shift System	227
	5. The Struggle for a Normal Working Day. Laws for the Compulsory Extension of the Working Day from the Middle of the Fourteenth Century to the End of the Seventeenth Century	235
	6. The Struggle for a Normal Working Day. Laws that Limit Labor-Time. English Factory Legislation from 1833 to 1864	247
	7. The Struggle for a Normal Working Day. The Impact of English Factory Legislation on Other Countries	267
Chapter 9	The Rate and Amount of Surplus-Value	273
PART FOUR	The Production of Relative Surplus-Value	
Chapter 10	The Concept of Relative Surplus-Value	285
Chapter 11	Cooperation	294

Chapter 12	The Division of Labor and the Manufacturing System	308
	1. The Double Origin of the Manufacturing System	308
	2. The Specialized Worker and His Tools	311
	3. The Two Basic Forms of the Manufacturing System—Heterogenous and Organic	314
	4. The Division of Labor in the Manufacturing System and the Division of Labor in Society	322
	5. The Capitalist Character of the Manufacturing System	330
Chapter 13	Machinery and Large-Scale Industry	341
	1. How Machinery Developed	341
	2. How Machinery Transfers Value to the Product	356
	3. The Immediate Effects of Machine-Driven Production on Workers	363
	a. Capital's Appropriation of the Labor-Power of Supplementary Workers: Women and Children	363
	b. The Extension of the Workday	371
	c. The Intensification of Labor	377
	4. The Factory	386
	5. The Struggle between Workers and Machines	394
	6. The Compensation Theory as It Applies to Workers Displaced by Machines	403
	7. How Machine-Driven Industry Attracts and Repels Workers as It Develops. Crises in the Cotton Industry	410
	8. How the Manufacturing System, Craft Labor, and Domestic Industry Are Revolutionized by Large-Scale Industry	421
	a. Superseding Cooperation Based on Craft Labor and the Division of Labor	421

	b. The Rebound Effect of the Factory System on the Manufacturing System and Domestic Industry	423
	c. The Modern Manufacturing System	424
	d. Modern Domestic Industry	427
	e. The Transition from the Modern Manufacturing System and Domestic Industry to Large-Scale Industry. How This Revolution Has Been Accelerated by the Application of the Factory Acts to These Modes of Industry	432
	9. Factory Legislation (Hygiene and Education Clauses). The Extension of Its Jurisdiction in England	442
	10. Large-Scale Industry and Agriculture	459
PART FIVE	The Production of Absolute and Relative Surplus-Value	
Chapter 14	Absolute and Relative Surplus-Value	465
Chapter 15	The Price of Labor-Power and the Magnitude of Surplus-Value Increase and Decrease	473
	A. The Magnitude of the Workday and the Intensity of Labor Remain Constant (fixed); Labor's Productive Power Varies	474
	B. The Magnitude of the Workday and Labor's Productive Power Are Constant, Labor's Intensity Varies	478
	C. Labor's Productive Power and Intensity Remain Constant, the Length of the Workday Varies	479
	D. Labor's Duration, Productive Power, and Intensity All Vary	480
Chapter 16	Different Formulas for the Rate of Surplus-Value	484

PART SIX	Wages	
Chapter 17	How the Value and Price of Labor-Power Are Transformed into Wages	491
Chapter 18	Time Wages	499
Chapter 19	Piece Wages	507
Chapter 20	Variations in Wages from Nation to Nation	515
PART SEVEN	Capital's Process of Accumulation	
Chapter 21	Simple Reproduction	521
Chapter 22	How Surplus-Value Is Transformed into Capital	533
	1. The Capitalist Production Process on an Ever-Larger Scale. The Conversion of the Proprietary Laws of Commodity Production into the Laws of Capitalist Appropriation	533
	2. Political Economy's Misunderstanding of Reproduction on an Ever-Larger Scale	538
	3. The Division of Surplus-Value into Capital and Revenue. The Abstinence Theory	541
	4. The Circumstances that Determine the Extent of Accumulation Independently of the Division of Surplus-Value into Capital and Revenue: The Degree to which Labor-Power Is Exploited; Labor's Productive Power; the Magnitude of the Capital Advanced; the Increasing Difference between the Magnitude of the Capital Employed and the Capital Consumed	549
	5. The So-Called Labor Fund	558
Chapter 23	The General Law of Capitalist Accumulation	562
	1. The Demand for Labor-Power Increases When Accumulation Occurs, if the Composition of Capital Stays the Same	562
	2. Variable Capital Decreases in Relative Terms during the Course of Accumulation and the Concentration that Accompanies It	570

	3. The Progressive Production of a Relative Surplus Population or an Industrial Reserve Army	575
	4. The Relative Surplus Population in Its Various Forms of Existence. The General Law of Capitalist Accumulation	586
	5. Illustrations of the General Law of Capitalist Accumulation	593
	a. England from 1846 to 1866	593
	b. The Poorly Paid Strata of Britain's Industrial Working Class	599
	c. The Nomadic Population	608
	d. How Crises Affect the Highest-Paid Members of the Working Class	612
	e. Britain's Agricultural Proletariat	615
	f. Ireland	639
Chapter 24	The So-Called Original Accumulation	650
	1. The Secret of Original Accumulation	650
	2. The Expropriation of the Rural Population's Land	652
	3. Bloody Legislation against the Expropriated since the End of the Fifteenth Century. Legislation Enacted to Lower Wages	667
	4. The Genesis of Capitalist Farmers	675
	5. How the Agricultural Revolution Reacted on Industry. The Creation of a Domestic Market for Industrial Capital	677
	6. The Genesis of Industrial Capitalists	681
	7. The Historical Tendency of Capitalist Accumulation	689
Chapter 25	The Modern Theory of Colonization	693
	Afterword	702

Acknowledgments · 711

The French Reconstruction of Capital, 1872–75
by William Clare Roberts · 715

Appendix 1 Comparative Tables of Contents · 731

Appendix 2 The First German Edition, Published 1867 · 735

Appendix 3 The French Translation, Published 1875 · 739

Appendix 4 Changes toward a Third German Edition · 747

Sources Cited by Marx · 749

Notes · 785

Index · 849

Foreword

WENDY BROWN

ONLY A FEW centuries old, capitalism's unprecedented mode of producing for human needs and generating wealth shapes present and future conditions of earthly existence more pervasively and profoundly than anything else humans have made. It affects the entirety of the planet's surface and crafts both possibilities and challenges for all life upon it. It arrays eight billion *homo sapiens* across a wildly uneven spectrum of opulence, comfort, poverty, and desperation. It contours all social relations and subjectivities, from practices of work and leisure to arrangements of kinship, intimacy, and loneliness. In addition to class, it constructs and mobilizes race and gender in continuously changing yet persistently exploitable ways. It powers technological revolutions and scatters the discarded remains of past ones everywhere on earth and in orbits circling it. It birthed the Anthropocene—the epoch in which human and “natural” histories are now permanently and dynamically entwined—and within it, the Great Acceleration: the short half-century in which fossil fuel use intensified so radically as to inaugurate what scientists term the Sixth Mass Extinction. And it incited the development of finance, artificial intelligence, and other practices animated by digital technologies that bode ever more intense and paradoxical ways to both dominate and serve the species that invented them.

Mainstream social science identifies capitalism as an economic system based in markets organized by free competition and spurred by the profit motive. But where is the power to make and destroy worlds in this

formulation, to draw everything into its orbit, to permeate and transform every physical and psychic cell of earthly life? For Marx, the thinness and superficiality of the mainstream account not only shrouds capital's power and plunder but ignores its conditions of existence, the social relations and social subjects constituting and constituted by it, the protean orders it creates, transforms, destroys, abandons. Indeed, what Marx's work forever challenged was not only capitalism's exploitative nature and commodifying effects, for which he is readily known, but the reduction of economics to markets and thus to a domain of knowledge and practice imagined to be independent of social relations, histories, laws, family forms, politics, policing, religion, language, representation, and psyche. In its place, Marx developed an understanding of political economy as the distinctive mode through which we build entire worlds through our singular cooperative powers—transforming nature, elaborating divisions of labor and organizations of ownership, producing wealth, creating ways of life, institutions, social forms, subjects, and subjectivities. The discipline of economics, then and now, slices markets out of these worlds and studies them as if they were an independent field of conduct and knowledge.

For Marx, understanding capitalism means grasping all of its conditions, requirements, drives, mechanisms, dynamics, contradictions, crises, iterations, and above all its world-making and world-destroying capacities, its life and death drives. It means tracking how capital brings into being not only particular kinds of markets, technologies, and industries, but classes, families, and political structures; race and gender orders; relations with “nature”; new formations of space and time; and legal codes and conflicts. Even at its birth, capital exhibited this power as it wrenched labor from the land to fill factories and cities that it would later empty in an era of dispersed global production. As it developed, it would transform everything humans needed first into a source of exchange-value and then, with financialization, into a source of speculative value. Producing new ways of life at every turn, its drives to extract, commodify, and monetize every living and fossilized element on earth also laid waste to whole regions, regimes, nonhuman species, and landscapes.

Marx knew that this unprecedented order of production and destruction, extraction and exploitation, an order that was at once world building and world eviscerating, was not easy to see or understand. This was especially so because it took place under the sign of freedom—free markets, free humans, and the free circulation of labor, capital, and commodities. Grasping capital's power and reach thus necessitated broadening and deepening the scope of political economy, departing from economists'

calculative economic frameworks for historical, philosophical, social-theoretical, and even theological ones. It requires leaving what he called the “noisy sphere” of the market not only to enter the factory (posted with its sign, “No admittance except on business”) to see where wealth was produced, but to adopt a framework that accounts for the perversity and illusion of markets coming to stand for the whole (page 148). It requires understanding why capital’s complex and distributed workings are less visible to the eye than previous modes of political economy, how its freedoms obscure the drives and effects that make it the greatest system of domination ever made or inhabited by humans. All of these requirements are counterintuitive to those who equate capitalism with markets, where buyers and sellers, supply and demand, money and price, are the only things elemental and visible.

What was necessary to capture and analyze capital’s vastness, power, complexity, and opacity, then, was not merely a new description of it but “a critique of political economy,” *Capital’s* subtitle. Political economy itself has a dual venue and meaning for Marx: it refers both to practical arrangements and practices of knowledge and, as we shall see, to their complex cogeneration and entwining. Moreover, critique of the practical arrangements entailed discerning both how capitalism worked and did not work, its engines and drives, its structural crises, and its wide ramifications and effects beyond markets. Critique of knowledge practices related to political economy included both its popular and erudite forms—the language of capitalists, the language of scholars, and the language of those in between such as that of left polemicists and journalists. Critique of erudite knowledge in turn comprised scope, method, and conceptualization as well as content. Marx’s task was enormous.

That said, critique was something Marx had honed since his college days, though as Paul North notes in his introduction to this volume, it took a new form in his late-life study of political economy. Marx knew what the archives were and how to handle them. He knew how to look beneath and through the concepts that political economists deployed to discover their premises or predicates, how to artfully invert (or “evert,” as North suggests) received formulations and antimonies, how to reveal the many-sidedness of seemingly simple or unified elements of political economy. And he knew how to discover relations and processes, histories, violence, and capacities in seemingly inert things, indeed how to make things “speak” such that they could appear as agentic elements in a system.

Marx had also argued since his youth that bourgeois representations, both popular and erudite, bore an intimate if perverse relationship to

the world they emanated from and depicted and that this relationship was part of what had to be investigated in order to surface power and the illusions protecting it. Critique thus always entailed a triple move—critique of thought or representation, critique of actual arrangements and dynamics of power, *and* a critical or symptomatic reading of the relation between the intellectual and the practical, or, to use Marx's terms, ideal and material life. Only this triple move could reveal bourgeois political economy and political theory as harboring crucial features of what it represented in distorted form, features that included the distortion itself. The classical political economists were therefore invaluable building blocks for Marx's thinking. On the one hand, they developed an early if incomplete labor theory of value, a version that could not answer the most fundamental questions about capital (What is the constitutive relation between labor and capital? Where does profit come from? What makes the entire system move, expand, falter, and crash?). On the other hand, this very incompleteness pointed to the self-obscuring manner in which capital appeared in the world and provided clues about the kind of critical theory required to reveal its true nature. Each, as we shall see, becomes an object of analysis in *Capital*.

Marx's critique of political economy, then, was a critique of then-prevailing political economic thought, a critique of the order it analyzed, and a critique of capital's self-representation. It was also a critique of the popular political ideologies built from and consolidating this self-representation, both bourgeois ideologies and those emanating from the left, such as utopian socialism. And it was a critique of extant epistemologies, ontologies, cosmologies, and historiographies. All of this was vital to discovering and explaining not just what capitalism is but what it does—to human lives, thinking, spirit, associational and institutional forms; to historical trajectories and constraints; and to the surface of the earth.

Marx's great work is widely understood to center on a core revelation: capital is the coagulated effect of the labor it exploits, and capitalism incessantly ramifies this exploitation in time and space. In his famous turn of phrase, "Capital is dead labor that acts like a vampire: it comes to life when it drinks living labor, and the more living labor it drinks, the more it comes to life" (205). Capital's requirements of increased labor exploitation over time—exploiting more workers and exploiting them more intensively—and in space—ever expanding markets for its commodities—constitute the life and death drives of capitalism, drives that are as insatiable as they are unsustainable. They reduce the masses to impoverishment, concentrate wealth among the few, and pile up crises that spell the system's eventual collapse, overthrow, or, as we have later learned, reinventions through the

social state, the debt state, neoliberalism, financialization, and the asset-enhancing and de-risking state. Since growth is essential for what Marx called the “realization of surplus-value” or profit, capitalist development becomes an almighty shredder of all life forms and practices, including its own recent ones. In North’s words, “Our beast has a giant gullet, sucking into its maw previous societal forms, serfs, landowners, capitalists too of course, raw materials, fruits of the earth that often have to be wrested from it by force, as well as the intellectual capacities of whole societies and epochs” (Editor’s Introduction, p. lvii). From small shops, family farms, and cities to gigantic industries, massive rain forests, and even states, everything capital makes or needs it will eventually also destroy. In Marx’s summary, “Capitalist production thus advances . . . only by damaging the very founts of all wealth: the earth and the worker” (461).

If capital’s basic life and death drives—global searches for cheap labor and materials; unregulated, untaxed production and investment; and new markets for its commodities, which together eventually generate systemic crises—are the essential story, why did Marx not tell it simply and straightforwardly, especially given his ambition for a working-class readership? Why instead does *Capital* comprise hundreds of pages of complex formulations, difficult abstractions, and long theoretical detours into everything from the nature of the commodity to the nature of money to the nature of value? And why so much engagement with classical theorists of economics and politics? Why a dense scholarly treatise on capitalism rather than a bold account of its productive and destructive powers?

We might begin to answer this way. In addition to political economy, *Capital* has been read as a work of social and intellectual history, political theory, literary criticism, satire, even drama. It is also a *philosophy of political economy*, and more precisely an account of why philosophy is *required* for an understanding of capital. Put the other way around, Marx’s critique of political economy is a philosophical critique of unphilosophical approaches to political economy, those not alert to its many elements beyond markets (including law, politics, militias, and police but also language, mystification, and theology), those that do not interrogate political economy’s fundamentals (labor, capital, value, money, the state) to discover their genesis, nature, and constitutive relations with one another, and those inapt to examining the relation between capital’s surfaces and depths.

Capital’s philosophical orientation is present in its opening lines, where Marx introduces an order of appearance that he will have to disassemble *and* analyze to get at the true nature of his object. Marx begins:

The wealth of societies dominated by the capitalist mode of production *appears* in the form of an “enormous accumulation of commodities.” The individual commodity appears as the elementary form of that wealth. Hence our investigation begins by analyzing the commodity. (13)

The verb “appears” suggests that capital is bound up with representation. But bound up in what way? More than a cover to be pulled off so that the truth might be revealed, capital’s many distracting and seductive semiotic surfaces are a vital part of what capital *is* and *does*. Neither separate nor precisely false, intrinsic to the system yet mystifying it, capital’s surfaces are simultaneously essential, dissimulating, and clues to understanding its structure and dynamics. In Marx’s hands, these appearances and their unreliable relation to the truth become a broad heuristic for grasping capital as processes and mediations, transmutations and transmogrifications, and as depletable and enhanceable—anything but an obdurate thing. They also signal that even as it covers and homogenizes the world, and promulgates its freedoms as universal, capital exercises distinct practices of division and separation. It divides different spheres of economic activity (production and exchange) and between social and political realms of power and identity (civil society and state). It separates humans from their labor (as labor-power) and from the product of their labor (as commodities). It divides labor itself ever more finely and will eventually divide processes of production so complexly and extensively as to generate what we today call global supply chains. It divides finance from production, management from ownership, ownership from control, and more. Above all, it divides owners from producers. Paradoxically, these divisions and separations underlie capital’s capacity to create historically unprecedented concentrations of wealth.

Together, these mediations, transmutations, divisions, and separations make every single-sided analysis of capital a mirage—precisely the mirage that bourgeois political theory and political economy orbit around. Yet, Marx will insist, the mirages are vital in leading us to the truth ordering the whole. Capital’s presentation as an “immense heap of commodities” is not pure red herring in discovering its secret. Rather, it is part of what must be explained to understand its true elementary form, namely the labor process coagulated in commodities, but which does not appear on their surfaces. The same is true of the capitalist marketplace more generally, where buyer and seller (including of labor-power itself) both appear “free” because the conditions producing them are invisible there. In short,

understanding capital requires grasping its generation of mystifying appearances as endemic to its production process. Nowhere is this clearer than in Marx's infamous passage on the fetishism of commodities, where "a particular social relation among people . . . assumes, for these people themselves, the phantasmagoric form of a relation among things!" This fetishism, Marx adds, "is inseparable from commodity production"—"labor products become fetishes the moment they are produced as commodities!" (49).

The text's beginning, which features capital's appearance as both fundamental and illusory, means that the field of political economy is vastly more than an ensemble of elements and dynamics. As Paul North writes in his introduction to this volume, this "more" is also manifest in the multiple aspects through which Marx considers labor, commodities, money, wages, and productivity. Marx's reformulation of David Ricardo's distinction between use and exchange-value, for example, does not simply describe a commodity's differential worth to different parties but posits capitalist commodities as borne through and as this twin aspect, just as the conceptual distinctions between labor and labor-power, between socially necessary and surplus labor-time, and between concrete and abstract labor, carry the secret of capital accumulation. Yet, none of these abstract concepts, aspects, or distinctions appears to the naked eye or within the discourse of capitalist societies. Rather, each captures something real about capital without having a direct referent in the object world. In this regard, Marx's infamous invitation to his readers to depart "the noisy sphere of the market" for "the hidden place of production" to discover the secret of capital itself oversimplifies this discovery. For even on the factory floor, nothing about where profit and capital come from is immediately self-revealing. What is needed instead is a critical theory that will crack the code of a multifaceted and complex, humanly produced order that is philosophical in nature.

Marx foretells this need in his own preface to the first German edition of *Capital*. Preparing the reader for the difficult conceptual work ahead, he writes:

"All beginnings are difficult" holds for every branch of science and scholarship. The first chapter—and especially the section that contains my analysis of the commodity—will therefore be the hardest to understand. . . . The value-form, which in its fully developed shape is the money-form, has little content and is actually quite simple. Yet for more than two thousand years, the human mind has failed to

comprehend it, while much more complex forms that have much more content have been analyzed with at least some degree of success. Why? A whole body is easier to study than its individual cells. Furthermore, microscopes and chemical reagents are of no help to us when we analyze economic forms. Our power of abstraction must do the work of both things, for in bourgeois society, the commodity-form of labor products, or the value-form of commodities, is the economic cell-form. To the untrained eye, analyzing these forms appears to be an exercise in splitting hairs. And in fact it is such an exercise—in the same way that microscopic anatomy is. (6)

Stare as we might at the misery of the toiling masses juxtaposed with the opulent lives of capital's owners, only through what Marx calls *our power of abstraction* can we understand why this condition exists, what produces and perpetuates it. This peculiar and distinctly human power of abstraction, Marx says, parallels microscopes and chemical reagents for its revelatory capacity, yet it is purely intellectual, a feat of mind rather than one dependent upon external instruments. Moreover, abstraction does not magnify or separate components, as laboratory instruments do, but develops registers other than manifest ones for critically representing processes constituting the object. And unlike social scientific modeling, it entails linguistic inventions to produce formulations that invert and theorize the relation of the concrete (illusory) and the abstract (real) to get at the truth of the whole. With abstraction, then, Marx does not aim simply to get underneath capital's self-representations—its “enormous accumulation of commodities” or “relations among commodities which are actually relations among men.” Rather, abstraction reveals capital's concrete elements and dynamics, their historical and social genesis and their constitutive relations with each other. This, for Marx, is the work of critical theory, and it is crucial to understand *Capital* as such a theory and to appreciate political economy as requiring it. Put differently, Marx places the philosophical question of what is true about a philosophical object (whose complexity and opacity require the philosophical generation of abstractions to surface this truth) at the foundation of his critical theory of capital. Bringing philosophy into the material sphere to explain capital and criticize previous accounts of it alters both crude understandings of materialism and the meaning and practice of philosophy such that it *becomes* critical theory.

Of course *Capital* is not only theory—its splendid pages include several kinds of histories, economic formulas, social descriptions, literary riffs, polemics, jokes, and more. However, Marx features capital as a relentlessly

theoretical subject, and one whose theoretical requirements are novel and challenging. This is not only because capital involves complex representations and dissimulations but because it is a system of intricate social relations and powers that flow beneath its surfaces. With our eyes, we see factories, laborers, capitalists, bushels of wheat, or money. We see capitalists and workers, wealth and poverty, comfort and toil. We do not see what has brought any of this into being, the relations among these things, or the premises, conditions, dynamics, conflicts, and crises of the entire system. We do not see the production of “free labor” (labor stripped of its capacity to sustain itself except by working for a wage); we do not see socially necessary and surplus labor-time, exploitation, or alienation. We do not see histories or social relations comprising capital and labor and bringing them into being as classes. We do not see the “dead labor” coagulated in every commodity. We do not see the drives that make capital voraciously and ceaselessly expand. We do not see the histories, spatialities, connections, and effects that together produce the totality of what capitalism is and does.

To understand capital, then, we need to see otherwise. This is the work of theory, a term that comes to us from the Greek *theoria*—meaning to see or watch from an intellectual or actual distance—in order to see more or other than one sees in the midst of things. Theoretical work is not ancillary or optional for understanding political economy but fundamental precisely because from money to markets, profit to productivity, nothing reveals its constitutive histories or processes, the nature of its relation with other components and to its dissimulating appearances. Every element is objective, yet none expresses its origin, place in the system, constitution, or power through its facticity.

In what ways is the necessity of critical theory unique to capital, or put the other way around, in what sense is capital a uniquely or especially philosophical object? Certainly Marx’s own intellectual formation has bearing on this question, particularly his absorption of a Hegelian historiography in which the modern world was becoming ever more philosophical, progressing from concreteness and transparency toward abstraction and complexity whose truth only philosophy reveals. This backdrop informs Marx’s account of feudal political economy as relatively transparent in its hierarchies, extraction of rents, and labor cooperation compared with the opacities of capital. There is also Marx’s related ongoing interest in capital’s twinning with a political ideology (and institutions) of universal yet abstract freedom and equality, an ideology that obscures relations of domination, stratification, and exploitation in the realm of civil society.ⁱ

However, more than Marx's Hegelianism and the distinctive mystifications of bourgeois constitutional orders is at play here.

Capital requires theory in part because it is a master separator; its power, efficiency, and even protection from its enemies derive from all that it divides and pulls apart. Again, it separates workers from the means of production (through the enclosure movements), from their products (through alienation), and from one another (through free labor, extensively divided). It separates the sphere of production from the spheres of exchange and consumption. It separates capital from land, finance from industry, state from civil society, town from country. The mediations that emanate from and secure these separations systematically invert their relations of generation and dependency, from positing capital as a priori, the source of all wealth, to positing the state rather than civil society as the locus of freedom and equality.

Capital also requires theory because it simultaneously massifies and disperses: it socializes the productive process and implicitly collectivizes labor, yet it produces and depends upon a distinctly atomized form of freedom, one in which the worker is free to dispense of their own labor-power and is thrown on their own means (wages) for survival.ⁱⁱ As proletarianization emancipates workers from overt control by feudal or slave masters, and bourgeois revolutions enfranchise them as citizens with rights, they are not only freed from servitude and formal political subjection but emancipated from all forms of dependence *and* protection. The free circulation of capital and labor and the emergence of commodity-based survival breaks up forms of association that provisioned life through interdependence, producing atomized consumer society in its stead. This "freedom," however, is installed within a machinery of capitalist domination, one that evades control even by the wealthy and powerful. The atomization makes possible the domination; the domination produces the atomization; "freedom" is essential to their coproduction. Such an operation of power is historically novel and, as with the many separations and divisions in political economy, is what theory brings to light.

Thus more than a century before Michel Foucault launched his critique of sovereign power as political theory's monarchical hangover, spied the importance of massification combined with separation ("*omnes et singulatum*"), and formulated power's circulating operations and irrigating effects, Marx grasped all three aspects of power. He discovered capital's great and intricate operations in processes, relations, and circulation, and in a structure of atomization and dispersion amid social massification and dynamic powers vastly exceeding any institutional or individual control. While

capital's power *appears* as an attribute of individuals (capitalists) and objects (commodities, wealth), for Marx these are but its effects. Moreover, while capital draws succor from states and organizes state institutions and conduct, it neither originates nor settles in state sovereignty and it itself behaves in a nonsovereign modality. Hence, again, the importance of abstractions—value, reification, fetishism, congealment, socially necessary labor-time, and more—and of tracking the separations and partitions among related processes, to cracking the code of capital.

If capital's separations and atomizations dissimulate its powers, they also carry revolutionary promise, both theoretical and practical. The theoretical promise is that, in capital's unprecedented "organized multiplicity of people united by the absence of community, by separation and by individuality," for the first time, "the secret of production" and with it the secret of history can be made manifest.ⁱⁱⁱ As we learn to look behind the dramatis personae of power that distract even the most politically savvy (and who litter Marx's work *so* that he can reveal their puppet strings^{iv}), we finally see political economy for what it is: namely, *modes of production* featuring relations and forces that animate history and that organize social and political orders dominating us until and unless we develop a new mode featuring collective ownership and control. Put differently, on Marx's account, capital's opaque surfaces—where reifications and fetishisms are in play—signal an order of political economy that has ripened into a *totality*, one comprising these unseeable relations and forces whose effects are unprecedented and only graspable theoretically. This is the complex truth into which Marx inducts his readers in the book's first half. It is a truth that features the disjunction between how capital appears and how it actually works as a disjunction produced by capital itself and as an explanation for the failures of previous political economists. In Marx's own words:

As accepted modes of thought, forms of appearance are reproduced spontaneously and without mediation, while their hidden underpinnings have to be discovered by science and scholarship. Classical political economy has come close to stumbling onto the true state of affairs, but it hasn't consciously formulated what it has found—and won't, as long as it remains in its bourgeois skin. (498)

And the practical revolutionary promise? Apprehension of capitalism's predicates and drives, relations and circulations, points to a practical overcoming of what has been pulled apart, of a massified productive force organized as dispersed human powerlessness, of the reifications and

fetishisms of capitalism along with its salient social features: exploitation, alienation, living to work rather than working to live, and ubiquitous domination by a machinery under no one's control. Concretely, there is connection across divided spheres and separated activities, cooperation hovering just below the atomization, and the great vulnerability of capital to organized resistance from labor, its source of sustenance. The workers unite not merely to redistribute wealth but to suture estranged spheres of activity and reconnect life with work, workers with one another, production with need, humans with the powers they have unleashed in the world.^v At this point, what was mystified becomes transparent, and theory no longer has to struggle with so much:

The religious mirroring of the real world won't vanish until the workaday world's practical relations become consistently transparent, rational relations among people and between people and nature. The form of the social life-process—i.e., the material production process—will not shed its foggy shroud of mystery until it becomes the product of freely associated people, planned and controlled by them. (56)



The world we inhabit today is unimaginable without capital but also without *Capital*. This is not because the former is responsible for everything—nothing is—or because the latter captured every power shaping this world—nothing does. Rather, Marx revealed capital as the first global mode of production, a “world-historical force” featuring unprecedented powers, unharnessable drives, and a peculiar set of freedoms enabling unprecedented domination of peoples and earth. Because Marx understood modes of production as far more than economic arrangements, indeed as conditioning histories, humans, and all their social relations and institutions, this revelation was profound beyond measure. Leaving aside the fantasy of a perfectly rational, controlled, and transparent communist political economy on the far side of a capitalist epoch, the brilliance and enduring relevance of Marx's anatomy of capitalism rest in his formulating of its object as at once singularly theoretical and material, as human made yet beyond human control, with more power to set the conditions for all planetary life than anything the species has ever unleashed.

Capital and *Capital* forever changed worldly imaginaries, as they changed Marx's own. Both also set permanent intellectual tasks before us, including that of developing and revising Marx's thought to take the measure

of capital's complex iterations and transmogrifications in the century and a half since he wrote. To name but the most obvious of these: There is the rise (and fall) of the regulatory and social state, and of the middle and professional classes. There is the growth of the corporation and, with it, transformations in the nature of ownership, management, and stratifications among workers exceeding anything Marx imagined. There is the rise of finance, with its radical transformations in the production and concentration of wealth, in class formation and reproduction, and in the relation of private and public, capital and states.^{vi} There is the emergence of thousands of autonomous economic zones that "perforate" the conventional economic and political fabric of nation-states.^{vii} There is globally disseminated production and, with it, new iterations of the racial stratifications accompanying capital accumulation since its inception. There is the (always partial) commodification of care work, which, as it moves from household to market, remakes gender, kinship, and family forms. There is the supplementation of commodity production by the service, information, and platform economies, and the transformations of capital and labor each entails. And there is what Marx termed "the free gift of nature" giving way to widespread recognition of planetary finitude and fragility, a recognition incited by catastrophic climate change and species extinction chains.^{viii}

Do these and other developments, as well as capital's proven ability to remake itself in relation to various regimes, technologies, political demands, and opportunities render Marx's great work anachronistic? If, for example, the "labor theory of value" no longer explains the production of all wealth, or the crisis of the planet today rivals human misery and injustice as an indictment of capitalism, should we still read the book? This question returns us once more to the importance of understanding *Capital* as a *critical theory* of political economy and capitalist political economy itself as a philosophical object revealed by critical theory. It returns us as well to capital's separations, this time considered ontologically and epistemologically.

In his introduction to this text, North reminds us that the term "capital" descends from the Latin *capitalis* and Middle English *caput*, both of which meant "head" and were linked to owned wealth (originally in the form of heads of cattle). In the framework of the classical political economists whom Marx takes to task, capital/head and labor/body are radically separated and autonomous from each other. This separation and imagined autonomy are replicated in the capitalist factory in the relation between boss (head) and workers (bodies), and again in the separation of production from exchange—laboring bodies produce the value of commodities but in the market, Marx

says, they have value “only in relation to each other”—like talking heads. Heads cut off from bodies is also the framework through which Marx reflects on the history of the division of labor, “which only becomes truly such from the moment when a division of material and mental labor appears.”^{ix} And it is how Marx theorizes the relation of the bourgeois state to civil society: Identifying the former with idealism in both senses of the word and the latter with material life, the material-ideal relation in this realm reiterates and consecrates the mystifications of the capital-labor and head-body relation in political economy.

A head-body estrangement and inversion are thus everywhere in capitalist societies and everywhere part of the problematic that *Capital* theorizes. Born from and sustained by labor, capital *appears* separate and self-made, and it makes an entire order in this image. Circulations of commodities, money, and capital in markets appear detached from the lives, labor, and production that generated them. Divisions of state from civil society, product from producers, production from exchange, wage worker from socialized production—everywhere the body and head are separated and their relations of dependency inverted or disavowed.

The head-body figure is not one on which Marx dwells, yet everything in his analysis follows from it, from his mocking personifications of the capitalist strutting self-importantly around the factory without understanding what produces his wealth, to the narratives of the misery of the English working class, to commodity fetishism, where relations among humans metamorphose into fantastical relations among things. It is also present in Marx’s account of capital itself as both a critical theoretical object (the head can only be explained through the body that keeps it alive) and a revolutionary object—the head must be cut off! Materialist critique returns again and again to life-giving bodies disavowed by heads that subordinate, exploit, and plunder them. The language of alienation and estrangement, far from essentialist, invokes this predicament.

This deep ontological and epistemological critique of capitalism and its political, cultural, and practical detachment from the many forms of life it saps or destroys, harbors the continued relevance of Marx’s work to two of the most significant challenges of late modernity: financialization and ecological catastrophe. Financialization today ransacks housing, health-care, childcare, education, union-protected jobs, farming, neighborhoods, fragile lands and waters, and more. It does so not through commodification but speculative monetization. Asset managers, private equity funds, real estate investment trusts, and continually proliferating derivatives, not to mention debt financing of everything from states to schools, intensify

capital's predation on life and its spectacular production of inequalities as they consolidate remote investors into vampiric powers feasting on the blood of anything for short-term returns. Human needs, toxic production and extraction, poor regions or states, natural or unnatural catastrophes, other financial institutions, even "healthy" capitalist entities brought to quick death after being drained of their value—all are game in the world of finance, a world that entangles everyone and everything in its webs. Or, to return to the head-body metaphor, with finance, capital has grown yet another head, this one more monstrous than anything Marx imagined in its detachment from the earthly life whose blood it sucks.

And what light might *Capital* shed on the planetary ecological catastrophe unfolding in the twenty-first century? Especially since Marx joined his contemporaries in differentiating humans from "nature" and followed Aristotle and Hegel in casting us as bound to incessantly transform nature for our own comfort and benefit?

Capital's voraciousness for profit, its growth through production for consumption or financialization of assets, and its wanton indifference to anything without exchange-value—these are obvious drivers of climate change, species collapse, fouled lands and waters. Again, however, capital's head-body ontology also shapes politics, social relations, knowledges, and subjectivities everywhere. Life cast as an instrumentalizable, exploitable resource, which is at the heart of capital accumulation, becomes a feature of general consciousness and general practice. Quotidian existence indifferent to conditions for a thriving planet arises from capital's production of our estrangement from what sustains life, both human and nonhuman. Just as commodities in the market do not announce the social relations that produced them, they do not carry on their surfaces the violations of earthly life through which they are constructed, transported, used, and eventually shed as "waste."

Consequently, throughout most of capital's reign on earth, few have been alert to the enormous ecological costs of its wanton practices of extraction, production, consumption, and disposal. As capital's cleaved processes, atomizations, and radical disavowals become features of consciousness, as all in its orbit detach from the provenance and processes of the multiple products sustaining them, as the head everywhere separates from and exploits the body, the well-being of earthly life is an inevitable casualty. This problem was not a primary focus for Marx, even if he eyes it when discussing the depleted "fertility of the soil" effected by large-scale agriculture.^x More important in analyzing and addressing our twenty-first-century ecological predicament are his critical theoretical notions of estrangement and

reification, of a head that imagines independence of the body that bears it, and of capital's relentless expansion and growth drives, which together produce new needs along with new devastations of all earthly life.



Finally, why a new translation of this singular work? Professors North and Reitter have provided a text in English that is exceptionally faithful to the original yet elegant and contemporary. Reitter's translation features Marx's creativity, inventiveness, humor, and literary style and makes bold the struggle to invent a grammar and vocabulary apt to capital's singularities. Above all, the translation captures Marx's theoretical effort to render the worlds of capital strange and estranging, even as it had already in his time—and all the more so in ours—become familiar and commonsensical. This making-strange of a familiar order by thinking it at once apart from and in critical relation to its self-representation is one of the most extraordinary accomplishments of Marx's critique of political economy. For having rendered that accomplishment in a different language and era with accuracy, lilt, and grace, and for providing splendid explanatory notes, generations of students and scholars will be indebted to Paul North and Paul Reitter.

Editor's Introduction

PAUL NORTH

Marx's Anger

Before I talk about Marx's "method," it is important to understand what motivated him to undertake his immense study, which, once begun, coincided with the limits of his lifetime. Books don't appear because they are needed, and least of all (look around) because they are true. This venture, the *Capital* venture, to construct the hidden whole of the capital system, was motivated in the first place by anger.

"This indignation birthed Marx's polemical spirit, the critical disposition," wrote Ludovico Silva in his book *Marx's Literary Style*.ⁱ Isaiah Berlin in his intellectual portrait of Marx says at one point that the critical theorist lived in a "cloud of anger and resentment."ⁱⁱ Marx's anger went through many phases, though, and it wasn't merely a personal issue as Berlin suggests. If some people are angry now because the pace of societal reform is too slow, because past crimes remain without justice, because too many of us and our friends get the short end of the economic stick, because too much of the world population lives precariously, moving in and out of the informal economy or caught between prison and a pine box, because the majority of the world lives at the mercy of climate downturns and despots, personal anger seems unavoidable. It is also problematic, insofar as it is a subjective reception of an objective situation. The same was true for Marx, absolutely—he was a person with a psychology, a life history, rational and irrational attachments and repulsions toward people around him and the news of the day. And yet, although he never lost his ability to get personally furious at events and at people, his anger developed into something more, something you could call objective. What is objective anger? A state of the soul continuous with the state of the world.

The state of the world was such that Marx, born as far from Paris as from Berlin, in the city of Trier, nonetheless as a child experienced the fight over systems of thought and political freedoms that had roiled Europe since the French Revolution. Marx's family were Jews in a Prussian city that had undergone liberalizing reforms under Napoleon's occupation and then was shocked back to restrictions on Jewish participation after Prussia took over. So, Marx grew up with repressive Prussia representing the afterlife of the old society of orders. Against this tendency, there was his father, Heinrich Marx, a lawyer from a family of rabbis (Heinrich was born Herschel Levi) who converted his family to Protestantism in order to continue to work under Prussian rule and who strongly represented liberal freedoms. And there were teachers still representing French radicalism who, on the quiet, advocated constitutionalism or even republicanism. As stable as his family was—his father rose in the local bureaucracy to become a well-paid public servant—Marx's world suffered a strong tension between the sentiments in the Prussian military march "Preußens Gloria" (1817), with its call to be "stolz, mutig, und ehrenvoll," "proud, brave, and noble," and the sentiment in the revolutionary French song "La Marseillaise" (1792), still sung in private gatherings, with its call "liberté, liberté chérie," "freedom, beloved freedom."

At university in Bonn, Marx studied literature and wrote it as well; later he transferred to the university in Berlin to study law, and there he encountered the younger version of freedom fighters, who were inspired by the philosophy of Georg Wilhelm Friedrich Hegel. He also discovered, as he wrote to his father in a letter in 1837, that "there could be no headway without philosophy."ⁱⁱⁱ Here started one of Marx's most tendentious relationships: with Hegel and his method. Marx's first go-round with German Idealist philosophy left him bewildered. "For some days my vexation made me quite incapable of thinking; I ran about madly in the garden by the dirty water of the Spree."^{iv} Hegel was the first statue Marx knocked off its pedestal, but by no means the last. He knocked Hegel off with the help of Hegel's critic, Ludwig Feuerbach, then knocked Feuerbach off with the help of a budding practical thinking akin to political economy; and then, famously, he knocked political economy off in his later work—in part with Hegel's help, though with an aspect of Hegel that did not conflict with Marx's basic anti-Hegelianism. It is true that Marx was often furious at particular people, unfairly perhaps, but no less truly, for not living up to a possibility he had once seen in them—friends, for instance, who became former friends after they hit their limitations. Their promise had been for him intellectual and political, not a matter of their individual person-

alities, although their problematic personal commitments often spelled the limitations of their philosophical and political potentials. For instance, Marx came to ridicule his one-time friend Bruno Bauer for his unshakable commitment to Hegel and liberal politics, nicknaming him “Saint Bruno” because his head stayed in the clouds, haloed by “pure criticism.” Marx maintained a long and sometimes distasteful animosity toward a fellow socialist, Ferdinand Lasalle, because Lasalle’s own personal vanity got in the way of his societal work, and the animosity on Marx’s part didn’t even end when Lasalle died in a duel brought on by that vanity. I won’t repeat the nicknames Marx invented for Lasalle in letters to Engels. Once Marx even wrote a faux obituary for a one-time collaborator, Moses Hess, who was still at least physically alive. No doubt Marx, especially early in his political and intellectual career, was a hothead—but even in these cases what irked him was others’ failure to see the consequences of their own false allegiances, wrong decisions, and personal foibles for the larger struggle.

Marx’s anger was looking for the right object; only then could it become objective. The process of finding the object took his mature lifetime and eventually took the shape of the *Capital* venture with its multiple drafts and volumes. Something as vexing and huge as the capital system called for an equally vexing and long smolder. Once schooled, Marx’s anger went from outrage at individuals and their bad politics and bad philosophy to a critique of a system and its mendacious representation by the science, political economy, that was supposed to understand it.

This other kind of anger, outrage at the system and its apologists, sparked at a particular moment in his life trajectory. Having decided that professing wasn’t for him after completing his doctorate in philosophy in Berlin, Marx joined the circles of liberals who struggled against the dominant power, Prussia. Liberal Germans’ anger was directed against princes; liberals, such as the Young Hegelians, wanted to establish a nation of rational laws instead of an aggregate of small autocratic principalities, wanted parliaments instead of only monarchs, free trade instead of tariffs. In 1842, when he was 24, Marx became editor in chief of the *Rheinische Zeitung*, a paper funded by wealthy liberals and the place where he first published his own writing beyond his doctoral dissertation on Ancient Greek atomism. At the paper, his subjective proclivity began to transform into objective work, while writing a series of articles on a scandal in the forests of Prussia. The Prussian government was tightening restrictions on freedoms for the people, and Marx exploited the particular scandal that arose to develop his anti-Prussian ideas. The poor were committing

“forest malfeasance,” argued the government, which had established new laws that prohibited the poor from gathering fallen timber in state forests, even though that wood had previously been free to them under gleaning rights and, moreover, the wood was crucial for fulfilling their basic needs.

In a five-part investigation between October and November 1842, Marx exercised the freedom, freedom of the press, that he believed at the time was key to bringing about other political freedoms. He excoriated the Prussian lawmakers and their new timber laws, along with the local enforcers. Most of his outrage, tuned to a boil, peppered with sarcasm and an occasional spray of fury, came out against the jurists’ inconsistencies as well as at the right to property that these laws began to impute to aristocratic landholders, a right that was now supposed to supersede the right to subsist held by rural paupers who needed wood not only for fireplaces, but also for brooms, tools, fishing rods, fence posts, and other essential means of living.^v His pen grumbled against the aristocracy’s skills and accomplices: “This firm wooden foundation of your argument is so rotten that a single breath of sound common sense is sufficient to shatter it into a thousand fragments.”^{vi} He learned something about anger here. The other side was angry too, and raw anger against raw anger might be a zero-sum game. The anger of owners expressed itself through laws, in fact, but also, most directly, through the forest wardens, who stalked the wood-gatherers and ultimately denounced them in court: “The warden, furthermore, is the denouncer. The charge he draws up is a denunciation. The value of the object, therefore, becomes the subject-matter of the denunciation. The warden loses his dignity as a judge, and the function of judge is most profoundly debased, because at that moment it is indistinguishable from the function of denouncer.”^{vii} The true object, the subsistence of the poor, is too important to become fodder for denunciation. Further, if you denounce the denouncer, you become one of them and similarly debase the true object. To produce a free society, even in the liberal sense of free individuals permitted to conduct business without interference by the state, it is not enough to badmouth an illiberal regime as if it has broken a higher moral law. Marx learned a lesson about moralizing—it is the instrument of the other side. Denouncing, along with its counterparts—blaming, vilifying, rebuking, accusing—makes the object a matter of dispute, or worse, of conviction. But the requirements for life are indisputable; they are not convictions but truths. Wood is not good or bad, mine or yours, because of law; the laws and Law itself are not bad or good, therefore, because someone implements them for their own interest. Before anything else a thing is for me or you to use according to need. Need, Marx

discovered in a visceral way through these arguments, is higher than law. And so, a different mode of anger was necessary to free the state of laws that do not recognize, above all, citizens' needs. Anger had to turn into the coldest, most ruthlessly thorough analysis of the system of needs.

In the articles on wood theft, Marx quietens his rage but doesn't soften it; he lets go of a personal aspect and channels his energies into an activity he likes to call, following a widespread practice of his day and milieu, critique. When, in 1862, his immense study started to be called "Das Kapital"—*Capital*—Marx had already for several years been referring to it as a "Critique of Political Economy." In the final version (final because of Marx's death, though not conclusive in several dimensions), this phrase became the book's subtitle. Marx's anger had gone through distinct phases. He took the Rhenish parliament down several pegs. Over decades, his hatred had had several targets, in turn the Prussian government, the "philistines," the reformers, the philosophers, Hegel, Hegel's followers, liberals, and most other socialists. Finally he settled on a grand target, or rather two. Political economy represented not only the obstacle but also the route to the second object of his magnificent outrage, the capital system.

Along the way there were enemies, who were often more like training dummies than people. Together with Engels, who was perhaps the only person never to become the butt of his ire, Marx developed his sense of what true criticism was by attacking those who claimed to be doing it already. He ridiculed their insistence on "critical criticism" by ironically adding one more critique to it, writing with Engels "The Holy Family, or Critique of Critical Criticism" against a loose group later known as the Young Hegelians, which included Bruno Bauer, Arnold Ruge, and Moses Hess, which counted among its progenitors Ludwig Feuerbach and David Strauss. In those circles everything was so "critical" that the word lost its force. Speaking generally, Young Hegelians critiqued the Prussian state and Germanic society for not making Hegel's categories into political realities, and Marx critiqued the Young Hegelians for being uncritical about their thought-master, Hegel, in his rationalism—founding the "kingdom of the idea," as Feuerbach wrote to Hegel, in the conviction that history unfolded rationally toward the perfect state—in their commitment to civil society as the protector of right, and in their belief that philosophy and history had come to their fruition and end in Hegel's system.

More than at the Hegelians personally, Marx aimed his first sustained attack at their flimsy edifice of theory that he was already convinced would lead neither to liberal democracy nor to the socialism he increasingly saw as the only route to human freedom. The years of critique of so-called critical

critique culminated in Marx's meticulous commentary on Hegel's lectures on civil society, which the latter had published in 1820 as *Elements of the Philosophy of Right* and which had become a bible for his followers. Marx's attack on Hegel's social thought was never finished or published, although its introduction came out in 1844 in the *Deutsch-Französische Jahrbücher* that Marx was editing in Parisian exile. In the published "Introduction to the Critique of Hegel's *Philosophy of Right*," anger becomes prose, becomes principle, form, style, and enduring attack. How do you attack Hegelianism? You produce sentences that rival the master's and last as long or longer in critical consciousness. A famous sentence from the tract runs: "The weapon of criticism cannot, of course, replace criticism by weapons, material force must be overthrown by material force; but theory also becomes a material force as soon as it has gripped the masses."^{viii} This is a good motto for the new shape of Marx's anger: theory become material force. Critique as a weapon that grips the masses. At that moment the object of Marx's critique was philosophy, which, he argued, did theory for theory's own sake, or worse—it didn't know that theory on its own reinforced the German bourgeoisie in its "moral self-confidence."^{ix} Critique did not mean, for Marx then, merely correcting a theory in order to make a better theory, any more than the one doing critique would be a bourgeois philosopher, comfortable with the weak political idea that theoretical maxims can be rules for action.

Anger can be intense, it can have different styles and intentions, it comes and goes; but in addition to having a target, it always also has a "for whom." In the 1840s, Marx found a "for whom" that changed the style, intensity, and scope of his anger—the masses, he called it in the "Introduction to the *Critique of Hegel's Philosophy of Right*." It grew somewhat less intense in order to grow much broader: it took in all of human history, including the future, and the whole planet. It became a magnificent anger. It wasn't monolithic but shifted styles from outrage and personal attack to sarcasm as a way of investigating the weaknesses of present methods, all embedded in the search for an analytic method that could lay bare the truths covered up or avoided by all those who had provoked his personal ire.

Method is educated anger. No matter how constructive, no matter how much his method aims toward securing knowledge, throughout his writing life it always also serves his anger, which goes underground, erupting occasionally in sardonic jokes, attacks on ludicrous figures, rueful regrets, and occasional outbursts—the recurring evidence of underground irritation is in his tactical use of exclamation points. Research converts ire at hypocrites and fury at mass misery into a drive toward absolute con-

ceptual precision about the mechanisms of immiseration. Exasperation at capitalists and their sometime stooges, political economists, becomes a conviction that the system is in fact impersonal, making everyone its stooge, as much capitalists as their apologists. Indignation at the state of understanding becomes revelation of a system that otherwise hides. Intense anger becomes dogged persistence on the project, despite the passage of years, personal suffering and poverty, repeated failure of revolutionary attempts across Europe, large economic crises, and, in his most intimate thoughts, a nagging sense that still, even after publishing volume 1, even after writing thousands of pages of drafts, he had not found the answers he had sought or, for that matter, the form to put them in.

Capital and *Capital*

“Capital” is the title of a book and the name of a thing. The thing has many peculiarities, and that is no less true of Marx’s book. The book is the mature outgrowth of his objective anger, aimed at the system that was taking over the world and the science that purported to study it, political economy. The thing called “capital” is full to the top with peculiarities, and Marx never stopped wondering at them. By means of capital, radically different entities transform into one another. A raw material turns into a finished product in production, one good becomes another good altogether through exchange, products become money through sales, activities become industries through incorporation and consolidation, and people with some money to seed their business become rich beyond what they started out with. Capital magically produces what never existed, or so it appears. It seems to hold a secret power that takes standing stock and makes out of it what was not already in it. Against all reason, out of the same capital makes more.

The peculiar thing called “capital” has a long history, and many of the elements that make up the system we know, where capital is king, existed for a long time before it. You can find elements of it in ancient worlds and also throughout early modernity. Elements like an independent money-form, surplus goods and surplus-labor, a stark division between owners and laborers, a drive to accumulate, and distribution of goods through a market: none of these is exactly new, and yet none of them stays exactly the same, either, when they come together in the way Marx recognized as startlingly new in the capital system, whose full-fledged, world-ordering form is at most five centuries old.

The name “capital” whispers “head.” In the Middle Ages, the low Latin neuter substantive adjective *capitalis*, “of the head,” came to refer

to property, in part because property is the system's top, its crown, its brain and leading part. English cognate of *capitalis*, "capital," was only one possible way to refer to stuff like property in early modernity; there were other words like "chattel" (cognate with "cattle"—also derived from "head"), "wealth," and "assets," each of which referred in different ways to goods you could possess. But capital took the lead and came to designate a thing that was more than just property. You could do things with it, such as gain more property.

Listening to the word "capital," you hear "head" as property, and also as leader; it is sovereign; it is also "ahead," racing and struggling to get out in front. You can hear echoes from centuries of interaction with other words like "wealth," "riches," and "funds," which it conquered and subordinated to its powers.^x By the time it became the title of Marx's book, economic actors in Europe, as well as the scholars who studied them, said "capital" to name a measurable sum of goods or money used for producing other goods and more money. Adam Smith designates the phrase "capital stock" as that which "is employed in setting [laborers] to work."^{xi} Smith's idea of what capital does is revolutionary; his use of the word "capital" is not. Centuries before, Thomas Hickock translated into English what the Venetian merchant Cesare Federici said about his voyage to India: "With this onely capitall, I aduentured to goe into the Indies."^{xii} You can hear things in Federici's word and later in Smith's word that still vibrate when we say it. Capital is a special kind of property that becomes world sovereign by getting out ahead and opening the world to those who want to take possession of some part of it, to dominate a subset of its people or lands, and to return home with more wealth than they went off with.

In the book called *Capital*, Marx takes the special powers attributed to "capital" and brings them back to earth, attempting to rid it of its mysteries. In order to demystify capital the book had to be extremely precise, but also complex, not to mention long. Volume 1 is only the first of what Marx early on projected would fill six independent books, although later he decided that, in an altered shape and with some altered contents, it would take up only four books.^{xiii} What we call volume 1 does not stand on its own without the other books; they expand the picture of capital with essential analyses of circulation in volume 2 and the different kinds of profit in volume 3. Volume 4 was not written. Because of the way Marx wrote the book—the *books*—you should think of volume 1 as a small part of a rangy project or venture always on the way to formulation. The material spreads across the few published works, like this volume and a somewhat different and much shorter predecessor from 1859 called in English

Contribution to the Critique of Political Economy, and a myriad of unpublished manuscripts, as well as notebooks filled with transcribed excerpts from sources plus Marx's commentaries on those sources, alongside several distinct projected plans for the finished work or works.

Marx reimagined the project several times. And so, for one thing, *Capital* is peculiar because there is no single finished version of the whole. That is, it is peculiar because it is incomplete. On one hand, it is incomplete because it is unfinished; on the other hand, it is incomplete because the project is essentially incomplete. The method was constantly under construction and the object of study kept eluding him, changing as he learned more about it and changing because one of capital's chief characteristics—identified by Marx—is to be in constant, savage change in multiple dimensions all the time. No book could completely capture its complexities and its shifting modes and practices.

Nonetheless, Marx tries to capture it in all its complexity and change. In the afterword to the second edition, Marx famously divided his attempt, which we can call “the *Capital* venture,” into two pursuits. To analyze the system, he had to find the right “mode of investigation,” and that would then subsequently require the right “mode of presentation.” The investigation had to “appropriate the material in detail, analyze its various forms of development, and trace their inner connection.” Successful appropriation, analysis, and tracing inner connections precedes, or so he asserts, shaping the material for readers. And then, “only once this work has been done can the real movement be presented in a suitable way.” With the words “real movement,” Marx hints at the special property of capital as he sees it: capital is labor-power “set in motion.”^{xiv} The suggestion is that the moving object requires a special, moving presentation. One challenge to both the method of investigation and the mode of presentation is that capital's motion is double—at least double. Capital causes things to move, such as laborers and raw materials, while the capital system itself moves in its own eccentric ways. Capital flows out, returns, cycles, increases and decreases, and bridges all sorts of gaps and expanses of time and space, which it also creates. At the same time, capital as a whole system grows and expands, unevenly but—so the theory goes—constantly. You can see why Marx was unsure how to trace its wild courses. Where would he find a conceptual vocabulary for the restless phenomena of the capital system? What kind of writing would he invent in order to capture them? For the investigation to succeed, even before he found the right mode of presentation, he needed to find a set of categories that would describe a polydimensional, interconnected, vast, and of course moving system.

Some of the peculiarity of Marx's *Capital* venture comes from the peculiarity of capital, a magical power that makes more from the same standing stock. Some of the peculiarity of the venture comes from the categories Marx felt he had to derive from all sorts of disparate sources in order to "appropriate the material" that was so complex and in motion in so many ways—buyers and sellers, producers and owners and banks, commodities and money, and so on. He raked words and thoughts out of sources as disparate as philosophy modern and ancient, political economy, literature, government reports, journalism, jurisprudence, histories, and political speeches, and on top of that he invented some concepts outright. Once he had gathered and adjusted a set of categories that could break the moving system into the right parts without abrogating their flux, then he could turn his attention to finding the best way to teach readers about the parts and their interconnections, motions, and consequences in human lives. More than half a lifetime was not enough for Marx to complete the investigation and devise a good way to present it.

He adopted the basic picture of an economy from Adam Smith and David Ricardo and their followers, and then he radically rewrote their accounts to adapt them to his vision of the whole, which differed in important ways from theirs. Value, he learned from Smith and Ricardo, has a relationship to the exchangeability of goods as well as to the labor needed to produce them. Value has two sides. He also learned that the division of labor had shifted and deepened and multiplied and became ever more intractable under capital, and that intractable labor divisions had produced a society divided into distinct classes that are hard to budge because of their opposing interests. He learned that the price of a commodity is not determined exclusively by supply and demand but varies around a "natural price" determined by the cost of production.^{xv} He learned that there are different forms of revenue, namely profit, rent, and interest. He learned that this economic and social mode, which he never called "capitalism" but has come to be called that, goes through phases. Under certain conditions of productivity, the system can be in an "advancing, stationary, or declining condition," in Smith's words.^{xvi} And then in Marx's earliest full draft of the *Capital* project, written between 1857 and 1858 (later titled by editors *Grundrisse* or "blueprints," running about 1,000 pages in the posthumously published German edition), he presents an extended critique of the figures he calls "D. Ricardo" and "A. Smith," along with their followers and late readers.

Marx comes to critique Smith and Ricardo and other political economists, in order that he can use important categories developed by them without some of the presuppositions and implications those categories

had in their original contexts. Economists love to call each other names, and Marx is no exception. When he claims to “critique” political economy, however, he cannot separate himself completely from those he wants to critique. Marx is and is not a classical political economist. But he “is not” one in a different way than he “is not” what is called today a neoclassical economist (sometimes called the orthodox position) or a Keynesian (sometimes called the heterodox position). Marx is much closer to Smith and Ricardo than he is to Alfred Marshall, John Maynard Keynes, and Milton Friedman. For this reason, as well as for the changes he wrought on economics as a whole, American and global readers today may not recognize the “economy” in what Marx calls “political economy.”

In contrast to what is sometimes known as “classical political economy,” which includes Smith and Ricardo and sometimes also Marx, neoclassical theory (a term coined by sociologist and critic Thorsten Veblen in 1900)^{xvii} has certain hallmarks. If you think of yourself as an individual actor motivated primarily by self-interest who proceeds by rational calculation and interacts with other individuals to gain a wanted good through the mediation of a thing called a “market” that automatically adjusts exchanges to the advantage of everyone who enters it, you have a neoclassical belief. If you then wonder how the individuals, each with private motivations, get along with one another or imagine their interdependence, you would be coming to an impasse in neoclassical thinking, which starts with the individual and ends with a lifeless aggregation, without a state or with a very atrophied one, without an obvious place for political negotiation about the best form of co-living, and without the social institutions that are obviously present and, even if not theoretically desirable, are certainly well used. If the system, described like this, is not working for you, this can be ascribed under neoclassical economic thought to imperfect implementation or to your imperfect understanding of the economy. Either some erroneous restriction has entered the market or you are an unsuccessful version of a market actor. A hallmark of neoclassical belief is that the system is perfect. Early thinkers in the field, English economist and logician W. S. Jevons for example, stated explicitly that economics should be modeled on physics, on a physics that never actually existed moreover—a science that describes our universe as a system naturally maintaining mechanical equilibrium, whose features are completely determined and so perfectly explainable. What neoclassical economics does not explain well are the imperfections, and further, the constitutional flaws—which we can name, with Marx, extraction, extortion, exploitation, and expropriation—that hide behind its idealizations.

Although full of apparent peculiarities, volume 1 of *Capital* is still the best place to begin if you want to understand the societal and economic system in which most of the world now lives. Observers in the mid-nineteenth century, not only economic thinkers, not even only scholars, but politicians as well as citizens, including especially laborers, recognized that life had changed dramatically in Europe and also around the planet. Changes had been happening for a long time; it wasn't that 1750 rolled around or 1800, and overnight as one unit the mass of handworkers became machine operators and independent subsistence farmers scurried off their land, pushed out by agrocapiitalists. For centuries Europeans and people under their colonial rule had been moving away from other societal systems, sometimes called "feudal," toward one organized around the production of capital; around the planet people are still making this move for the first time. What happened between the late eighteenth and the middle of the nineteenth century was that theories about these relocations began to be written in Europe and its satellites. Marx discovered, but also decided, over the period between receiving his doctorate in philosophy in 1841 and the failure of the antimonarchical revolutionary wave that crossed Europe in 1848, that he would dedicate his life—eight, ten hours a day in the library or at his desk, with especially great intensity for about twenty years, not unlike a laborer in the capital system—to composing as full a picture of the system as such a system demanded, because it was a system that tended toward fullness.

A monstrous behemoth was coming over the horizon. Smith and Ricardo saw the hairs on its great back; Marx's friend Engels sifted through its guts in the English factory owned by his father in 1844 and charted the abysmal conditions for workers there; and Marx made it his task, over decades, to construct the rest of the monster from the clues he and others could spy.

What kind of book is *Capital*? Above all it is the speculative construction of a system no one had yet seen or imagined in its entirety. Because his task was to put together the whole from parts and signs that had only ever been partially deciphered, Marx took a long time, read enormous numbers of others' books, articles, pamphlets, laws, and judgments, in and outside an array of fields and areas of society and culture—political economy, yes, but also philosophy, biology, chemistry, statecraft, history, literature, and newspaper reports—and in addition to all the reading, he wrote it out, and wrote it out again. As I mentioned, *Capital* does not consist of just the present volume; this is the first of three for which Marx wrote manuscripts, out of four he planned to write in the 1860s, after abandoning plans from

the 1850s to write six. The capital system was a beast, an organism whose operations you couldn't understand if organs were missing; if you dedicated a volume to describing its skin, you also needed volumes on its heart, lungs, and brain.

One peculiarity of the capital system is the vast interconnectivity among its parts. Another is the absolute necessity with which they must work together, and yet another is the local arbitrariness of actions. A single business or a group of workers could collapse or be driven out of work—none the worse for the system. On the other hand, every worker is connected to every other worker, each business to every other business, each sector of the economy to every other, through a reaction chain that can't be broken in any major way without disrupting the function of the whole. The general structure exists with extreme necessity, while the specific, concrete instances in which it operates are contingent and fungible. Prices, wages, supplies, demands, living standards, working conditions, and technological advancement—all of these rise and fall, depend on each other, and each varies in proportion to the others. Higher wages somewhere can bring wages up elsewhere, not to mention bringing profits down; scarcity of raw materials in one place can bring production crashing down in another place. The monster is both too big to change easily and incredibly sensitive, a homeostatic system that adjusts itself through negative feedback, to borrow a metaphor from biology. Describing the system, filling in the blanks in what we know and can know about it, Marx in fact borrowed metaphors all the time, not to mention methods, from biology and chemistry, as well as from political economy and philosophy. The science to study this system would need to be as eclectic, complexly articulated, and absorptive as the behemoth that was swallowing everything. “The method used in *Capital* has been poorly understood,” Marx wrote in the postface to the second edition of Volume 1.^{xviii} *Capital's* method is certainly peculiar, and for good reason. The object of study is too big and too hidden to treat in an obvious way; the relationships between the parts are too complex, in many cases illogical—according to customary logics; and many misunderstandings stand between us and the reality of things, misunderstandings purveyed by the system itself.

Fundamentally New Elements

Volume 1 is full of difficult technical issues. Some are difficult because they refer to a philosophical tradition not everyone is familiar with, some are difficult because they take problematics from political economy and

develop them in new ways, and some are difficult for the sheer degree of complexity, when all the processes that come together in them are combined into a whole picture. One basic fact stands: it is the stock and stem of the project, the object of Marx's objective anger, an outrageous fact that exists alongside every technical discussion in the book. The basic, outrageous fact is that workers are complicit in a system that does not benefit them, and everyone is complicit in a system that benefits no one in the long run. Most obviously, the system doesn't benefit workers since it extorts and exploits their powers and keeps them always at the lower end of societal wealth. Today it is excruciatingly obvious, although it was to Marx too, that it doesn't benefit the earth, since the system recklessly extracts raw materials and gives back putrid waste and toxic pollution.^{xix} It is also true that it doesn't benefit capitalists in the long run because it destroys the earth's surface; because it makes them into extorters and exploiters; and, moreover, because it simultaneously leaves them liable to failure, crises, and at the outside, popular revolution.

Marx's anger, not tempered but transformed, holds fiercely to a few convictions and, equally fiercely, leads him again and again to jettison dearly held ideas when they no longer serve his work. He never abandoned the plan he articulated in an early letter to his friend Arnold Ruge, "to discover the new world from a critique of the old one," even though the object of critique ceased to be Hegel or his followers and the meaning of critique shifted too.^{xx} Critique changed from a method for bringing a new world out of the old one to one that makes the real system appear by saying no to false pictures of it. What Marx calls vulgar or bourgeois economics, an offshoot of classical political economy, was, he found, not merely wrong about a few important things; it was often an exact negation of the facts, and so, if you read it emblematically, vulgar economics pointed negatively but directly at the reality of things. Adjusting the accounts of the political economists (Smith, Malthus, Ricardo) achieves the goal; it leads you to aspects of the capital system as it really is.^{xxi} "Yet while bragging about their special critical depth, the political economists . . . find that use-value belongs to things independently of their properties as things, whereas their value belongs to them as things. . . . With the value of things, it's the other way around: value is realized only in exchange—that is, a social process."^{xxii}

They are not liars, the political economists, but they start out from wrong premises. And this is not purely their failing or the failing of their science. The capital system is partly responsible for generating the false premises that the political economists adopt. The system puts up images

that conceal its “inner workings.” The book starts from one of these images: the commodity, which “appears as” a thing like any other thing yet commands behavior that no other kind of thing commands. Marx decided all the way back in 1858, at the very end of the long draft version now known as the *Grundrisse*, that he needed to put the commodity first in his analysis: “This section to be brought forward. The first category in which bourgeois wealth presents itself is that of the commodity.”^{xxiii} In the published versions of volume 1, Marx does treat the commodity at the very beginning of chapter 1, but notice he says it is the first category in which capital “appears,” which is somewhat misleading. The commodity is not the generative core of the system; it is part of the display window for capital’s self-presentation, behind which you find a back room, its “inner workings.” Everyone, workers and owners alike, is most familiar with commodities because we are all first and foremost consumers. We interact constantly with these exchangeable things; our lives depend on them. Unlike the theory of things propounded by Hegel and his followers, where things are inert, will-less lumps completely at the disposal of human beings who take possession of them and alienate them at will,^{xxiv} Marx shows in the first few chapters that commodities are complex not-merely-things whose thingly souls are animated by the system, which invests them with a will of their own that, no matter how illusory, is just as real as anything else. Under capital, things make us do things for them.

Refusing Hegel’s theory of things leads directly to an analysis of the metamorphosis that mere things undergo in the capital system. A commodity is never merely material in the sense that it is made out of matter. Like Hegel in fact, Marx is not a “materialist” in the ancient sense or the natural-scientific sense that believes everything, including life and ideas, is reducible to physical matter. Even if a commodity is made from physical matter (and it need not be—think of intellectual property) its material being is subsumed completely into its societal being. Matter serves societal ends and it is this social sense of materialism that becomes Marx’s credo. Unlike Hegel, Marx knows that this is not an effect of “spirit” or an “idea,” but an effect of the capital system, in which things take on an alien character. A commodity, whether a physical-material thing or not, has a societal function. A hammer, for example, has a physical body, but its spirit is social. Considered from an everyday perspective, it is a hammer because it is heavy. From Marx’s perspective, the hammer is heavy because society needs nails banged in. Heaviness is the quality wanted from a hammer because of the use our society has for it. Under the governance of capital,

the need changes—from a direct need to do something with a hammer to an indirect need for a hammer to be exchangeable for all other commodities, no matter how wildly unrelated to the hammer those other things might be. A hammer becomes an inert object with a very different societal use under capital—it becomes a bearer of value.

All the elements of the capital system are double like the hammer. They may be physical-material things and societally useful things at the same time. They are also always useful things and at the same time exchangeable things. Aristotle wrote that when two different qualities pertain to the same thing in the same respect at the same time, there is a contradiction. The things of *Capital* are, strictly speaking, contradictory. That is also to say that the system's main operation is doubling. Everything is this and that at the same time, and separating the doubles is what Marx often means by his method of "analysis." If you analyze it, a commodity, for instance, has a substrate, physical or not, and the substrate acts as a bearer of value. A hammer is heavy and it is also valuable—these are two very different kinds of traits. A hammer is two very different kinds of thing at the same time. And commodities are not the only elements of the system that double up. Value itself doubles. In the first step of the analysis, we learn there are two sides to a thing's value: value for use and value for exchange.

Political economy was not wrong; it was partial. It stuck with the first appearance of things and didn't move on to the second. It didn't see the special doubleness of things under capital, whose first appearances look like this: commodities are simple things for use; wages are equivalent to the amount of work worked; rent, profit, and interest are the most basic economic forms and innocently gained; labor is a power expended by one and rented by another. Now, these "appearances" are real. The system couldn't go on without them, just as you can't get on in the world without your appearance to others, no matter how much your feelings may differ from it. Your psychology, how you actually feel in societal situations, needs the outward face in order to pursue your wants in a world of conflicting wants. The opposite is just as true: the outward face is a distorted expression of the inner workings and serves their purposes. What political economy found when it looked at the capital system was not truth; it was its necessary public face. This is in part why the innovations in Marx's book were not immediately recognized by readers.

The first edition came out to near silence, and Marx complained to Engels about one of the few reviewers: "It is strange that the fellow does not sense the three fundamentally new elements of the book." Accord-

ing to Marx, to revise political economy and to go beyond it in significant ways, the three new elements he added demonstrated

- (1) That in contrast to all former political economy, which from the very outset treats the particular fragments of surplus-value with their fixed forms of rent, profit, and interest as already given, I first deal with the general form of surplus-value, in which all these fragments are still undifferentiated—in solution, as it were.
- (2) That the economists, without exception, have missed the simple point that if the commodity has a double character—use-value and exchange-value—then the labour represented by the commodity must also have a twofold character, while the bare analysis of labour without more, as in Smith, Ricardo, etc., is bound to come up everywhere against the inexplicable. This is, in fact, the whole secret of the critical conception.
- (3) That for the first time wages are shown to be the irrational form in which a relation hidden behind them appears, and that this is exactly represented in the two forms of wages—time wages and piece wages. (It was a help to me that similar formulas are often found in higher mathematics.)^{xxv}

You can see that the book's three "fundamentally new elements" were already there, hidden within existing economic discourse. Marx brings to light what the economists don't or can't see within their own discourse. 1) Within the three accepted modes of profit, there lies a single more general phenomenon—surplus-value. 2) Next to political economy's theory of the commodity there sits "the whole secret of the critical conception." 3) Behind workers' wages there lies a previously unknown relationship between owners and workers, which Marx comes to call "the capital relation."

I sell a hammer, I make a profit. It seems simple. But profit is not the most basic category for these phenomena. It is, rather, a version of something else; it points toward a thing held in common by the three modes of money making (profit, rent, and interest). Marx calls this "surplus-value," developing a category that Ricardo and others had established before him but placing it in a different position. Surplus-value is the general "solution" out of which precipitate the three specific public forms of gain that owners, landlords, and creditors, along with their dependents—workers, tenants, and debtors—handle every day. For Marx, the three types of gain share surplus-value as their common element. It makes them what they are. To understand any one of them, then, you need a proper theory of

surplus-value. The first step is to stop thinking of profit, rent, and interest as separate phenomena and start thinking of them as appearances of the same thing, which is not fixed and inert but the result of a process, the valorization process. Here is an important aspect of this new element: it is processual. Political economists tended to think from results, Marx from operations carried out in time that follow certain steps and lead to certain results, which then conceal the processes it took to produce them. Profit results from a process, the process of creating surplus-value, where workers work more intensely or longer, or both, than the time or intensity of work it takes to fund their wages. Surplus-value as the result of a process is the first “new element” in the book.

The second “new element” is an insight that political economists already had but didn't take far enough. To see the commodity as double, as a combination of use and exchange, is only part of the story. For a commodity to be double, Marx explains to Engels, the labor that makes it has to be double too. One aspect of labor makes use-value, and another aspect makes exchange-value—even though both labors happen at the same time, in the same factory, with the same pair of hands. A commodity is made, on one hand, and value is made, on the other. The first process Marx calls “concrete” labor, the second “abstract” labor. Capitalist production as a whole then is doubly double: it involves concrete labor making a thing that can be used and abstract labor making sure that the thing also has value.

As you can see, Marx is fearless with multiplicity. He isn't afraid to look at any phenomenon and find that it is more complex, less dependable, harder to know, more contradictory, that it has one more determination than previously thought. Therefore the “method,” the writing of its story, has to move among multiples, to retain complexity without descending into confusion or chaos. And just as Marx had to search, for years—indeed, decades—to invent a mode of presentation adequate to the complexity of the subject, so readers have to learn—invent, adopt, be taught—a more complex mode of reading that keeps myriad variables, their complex relations, and the processes that produce them in play while reading. Understanding changes its meaning when reading *Capital*.^{xxvi}

Marx complains—as he often does. He complains in the letter to Engels that the final “new element” that the early reviewer fails to react to in volume 1 is the wage-form (treated in Part 6 of this translation). Again a forgotten multiplicity plagues the common understanding of wages. If you think a worker's wages represent the amount worked, think again. An employer buys a certain amount of labor-power, say eight hours' worth. But then the employer receives whatever actual labor they can get out of the

laborer in that time. Negotiating in advance, they pay only for the time it takes for the worker to produce the amount of money they need to survive and return to work the next day, week, and year. They pay exactly enough to reproduce workers' labor-power, and not a cent more. But workers work for the length of time and at the pace that the employer needs them to in order to cover their own expenses and make a profit. It behooves the employer to get as much labor out of the laborer as they can in the time contracted, since, once the wage rate is set, they do not have to pay more. Labor paid by the piece is similar to labor paid by the hour. In both cases the employer can ratchet up the intensity of work during an hour, and the employer can also work to drive down the general cost of living and thus lower wages at the same time. Wages misrepresent the actuality of labor, because labor, when it is sold, is double:—a worker sells an owner their labor-power, but the owner gets the “living labor” or “labor-power in action” for the duration of work time. The output from that labor is flexible, although wages are fixed in advance; and, to add insult to injury, workers are paid much later, after the labor has been done, so that the workers, in addition to giving a percentage of their labor away to the owner for free, also lend it to the owner on a promise to be paid eventually.

And so Marx discovers, building on his predecessors in the classical economic tradition, Smith and Ricardo, that the outcomes of capital, profit, rent, and interest depend on a process of surplus-value creation or “valorization.” This process, in turn, depends on the deceptive double existence of wages, labor-power paid for but labor in action delivered. And this double existence depends on a relation, the capital relation, in which one side, the owner, owns the means of production and extorts the total labor output at a lower price than its eventual value from the other side, the worker. At the center of the capital system is a structural imbalance. This is what Marx calls “the whole secret.”

Capital is weird. It talks about the material conditions of life, and yet it does so at times in very abstract terms. You may ask, if Marx is supposed to be a “materialist,” where do all these nonmaterial factors come in, like secrets, appearances, powers, processes, and relations? How does value, which he calls a “sensual-supersensual thing” that has “ghostly objecthood,” still get to be part of a materialist revolution? It doesn't, as I mentioned, at least not in the philosophical sense of “materialism,” which puts, not unparadoxically (the category “material” belongs to highly nonmaterial philosophical thinking), physical matter higher than thought.

Marx's materialism developed substantially across his working life, starting from his dissertation on the ancient Greek thinkers Democritus

and Epicurus, who are traditionally understood to reduce reality to the smallest components of physical matter, to atoms. What interested Marx about atoms was not their bare physicality but the complexity and structure they assumed in groups. In his dissertation Marx attributes to Epicurean atoms an impetus toward self-determination, self-structuring, that foreshadowed Hegel's idealism. Yet he moved beyond this as well. Soon after finishing his doctorate, he wrote some texts in reaction to Ludwig Feuerbach, who believed that what counted for human beings was sensuous experience, entities perceived with the senses. In response, Marx proposed, in notes from 1845 that Engels published four decades later as the "Theses on Feuerbach," that materialism should change its meaning entirely. It should now mean neither the primacy of basic physical elements like atoms, nor the primacy of objects presented to human perception, but "sensuous practical activity by human beings."^{xxvii} Some of the elements of Marx's later "materialism," if we can call it that—he generally does not—are first sketched out in these theses. With regard to Feuerbach's sensuously perceiving human beings, Marx counters that human perception is only important if it is involved in practical activity. And even these instances alone are not enough to count as "materialist," unless we see such practical activity, together with sensuous perception, as taking place in an "ensemble of social relationships."^{xxviii} It is easy to see these theses now as a turning point in Marx's thought, and for that matter, in European history. In a very short space of text Marx distances himself from Feuerbach's critique of religion, which brings the focus of human beings from the divine to the life of their own senses. Here Marx uses Feuerbach's own model of critique to distance himself from Feuerbach's conclusions, which were still too philosophical. Two actions had to be taken, against Feuerbach and with him too, extending his critique of religion to a critique of philosophy. First, the subject of life needed to change from an abstract single sensing individual (which only made sense in what Marx calls "the bourgeois standpoint," the standpoint of all philosophy heretofore) to an active individual inextricable from a web of societal relations, and from there to a fundamentally societal human being and, further, to humanity as a whole organized into societies. "Material" now refers to what happens to a societal species, what must be in place order to keep its societal relations and activities alive, where all possibilities lie not in individuals but in their necessary interdependence with others. To this Marx adds a now famous codicil: it is not enough to study the material relations of society, philosophy itself has to become a practical activity. That is, although it might first analyze the societal species, it has to work to change it.^{xxix}

By the time he writes *Capital*, materialism, if we still want to call it that, means the mode of production of a particular society in a particular epoch in human history as well as that mode's relationship to nature, to the inner dependencies among the society's members, and to the processes used to reproduce itself and those relationships in perpetuity. In this societal, historical, relational, and processual materialism, the elements, such as raw materials, products, machines, food, and human bodies and minds, are subsumed into a system that operates according to a specifiable logic. *Capital* the book, its three now-published volumes—plus the other texts in orbit around it, those published before *Capital* and those published posthumously, along with those left in manuscript—lay out the logic of these societally material relations.

Unusual Thought Figures

You will need great powers of thought to read *Capital*, but the logic Marx wants you to employ doesn't reside in the mind or in a special realm accessible only to thinking; in fact, the logic that organizes societal life under the capital system is immanent to that life and accessible first and foremost in your own practices. As he writes in the *Grundrisse*, the aim of describing the capital system is not the "dialectic balancing of concepts" but "grasping real relations."^{xxx} When you buy or sell something; when you go to work in the morning; when you invest in a mutual fund; when you get laid off or switch careers; when you pay an employee or stockpile money in a cashbox or a bank, you act constantly with regard to the logic immanent to our form of interactions. Look no further than your everyday experiences.

The main operator in the logic immanent in capital's societal relations is "value," and although it is more like an idea than like a thing, it is also real, and it does have to take a sensuous form at some stage, embody itself in a commodity or in money. In your practical life you deal with it in exactly that way, as a real ideal. You try not to lose a twenty-dollar bill not because the paper is useful to you but because the powers that it represents are really represented in that currency or bankcard or ledger accounting and nowhere else. Try to buy a quart of milk with a stone, and you will discover just how real the idea of money is. A kindergartner learns to use money. In order to think critically about how it works, you need a special set of thought techniques, since what appears to you when you spend twenty dollars is not what it is but what it buys. You act as though the value were in the money, though in fact you are not thinking directly

about value at all when you buy or sell or save or invest. And you definitely don't ask how the value got there in the first place. For that, the thought techniques are not at hand—and these thought techniques are the main bounty Marx intends to give you in this book.

To read *Capital* well, you need to train your thought in new acrobatics, including the stunt where you refer always to concrete, real practices and at the same time to the ideas within them that govern them. The book is full of distinctive Marxian thought figures, which he adapts from his guiding lights, Ricardo, Hegel, his friend Engels, the utopian socialists, and literary suns like Shakespeare and Goethe, among many others. Marx borrows and bends and sometimes invents thought figures that we are not very familiar with today. One of them I have already mentioned. You have to accustom your thinking to doubles. Almost everything, he will tell you, is twofold. But there are other figures. A partial list would have to include inversion (or a better, rarer word, "eversion"), abstraction, reification and personification, metamorphosis, circuits and circuits of circuits, overcoming limits, tendencies among workers toward abjection and also toward cooperation, and the endless drive of the whole system to accumulate more and more of more.

First of all, to read this book you should get used to doubling: beyond commodities and wages, almost every item in the system has an unlike twin—or more, since some are quadruplets. Get used to thinking each thing twice, once as this and once as that, and then get used to combining them in an uneasy marriage. For instance, commodities and labor. In order to receive their reality as two sides of one, you must make your thought duplex, and this can be uncomfortable, even vertiginous. Analytically, you think at one time commodity and at another time labor; but to stand at the critical point from which you can take in their coincidence, you have to think them both at the same time and as both the "same" thing and not the same thing. Marx borrows a name for this doubleness in thought—sometimes he calls it "dialectical." Another Marxian name for this is "double character." Yet another is "contradiction." A frequent partner for all the doubling in the book is what can be called "eversion," an old word for the inversion of two elements plus a logical switcheroo in which what was once the leading element falls into second place, and a previously secondary or less important element becomes the leading element. So it is with use and exchange in the capital system. In a different society, use would lead, since use is the ultimate human purpose for human-made goods. Under the spell of capital, though, the relationship everts. Use and exchange switch places and use falls into second

place while exchange becomes the highest thing. Use becomes exchange's minion.

In addition to doubleness, you will start thinking in and about abstractions. We tend to imagine abstractions as removed from reality, as things existing only in thought or in pure logic, and as things that persist for a long time, perhaps forever—like Truth or Being. Can things so removed from practical existence and the courses of time help us get enough to eat or dry and secure housing? Being and Truth might seem as far from food and a roof as a distant galaxy, not to mention relatively empty of contents. This is one understanding of an abstraction, as an empty, removed, but nevertheless permanent and necessary thing. Another understanding has abstraction bringing many things together but with fewer properties than those things have in reality. This or that person may work hard or slack off, may have a lot of physical force or a little, may have great stamina or hardly any. Regardless of vast differences in characteristics, they can all be categorized under the category “worker,” so long as they do work. An abstraction, in this sense, isolates identifying characteristics and ignores others, in order to pull together a uniform group out of a multiplicity of differences. An abstraction is “absolutely indifferent to its particular specificity, but capable of all specificities,” Marx says.^{xxxii} And Marx insists that some abstractions, despite being indifferent to specificity, nevertheless play operative, practical roles in societies for very specific purposes. Capital produces particular abstractions, and those abstractions steer social relations in a particular direction.

Under capital, the main abstraction governing social life is value. It certainly is removed from direct experience—you can't eat it or live in it. Yet value operates in the system—it operates the system. Value may be an abstraction of a hammer, but this abstracted quality, its value, arises in a very different way than mere abstractions of thought like Truth or Being. To get to value from a hammer you do indeed have to draw away (abstract) from its multiple useful characteristics and consider just one. In this case it is the characteristic common to all commodities, not just hammers—to wit, their capacity to exchange for other commodities. When put up against a bushel of wheat or a computer program for purposes of exchange, the hammer-ness of the hammer matters very little; on the commodity market it becomes a hammer-shaped lump of value. The process works like this. When exchanged, two commodities have their differences abstracted away and are shown to share the same minimal quality, value. To reiterate, this kind of abstraction happens in real exchanges among real actors in time and space, not merely in anyone's head.

In brief, Marx seeks to name the abstractions produced by the system and to map their interconnections and effects. It is important to note that abstractions are not the primary elements of the system: its elements are always first and foremost concrete: this or that commodity, this or that laborer, this or that act of labor, this or that experience of using and consuming, this or that sale or purchase, each of these full to the top with experienceable characteristics. In order to function, though, the system picks out certain governing practical operations that it uses to reduce the differences among things, people, and acts. It does this to make what is concretely different comparable and exchangeable. This is an important difference between the system's use of abstractions and Marx's use of abstractions in the book. The system reduces differences in order to do certain things, to facilitate circulation or to compete with other businesses, to extort more labor or to plunder the earth. The book *Capital* shows us the special way capital reduces differences and teaches us about the costs these practical abstractions have in our lives. Marx uses the abstractions the system creates to differentiate its processes from other social systems. He uses these abstractions critically, not positivistically; you cannot build an economics on Marx's categories.

What's more, abstractions are results, results of concrete processes, and the difference between process and product is perhaps the most important practical abstraction in the system and the first critical abstraction to get accustomed to when reading this book. This difference comes from the system: capital the system celebrates products and plays down processes. Ever the contrarian, Marx celebrates the processes instead. Money is a prime example of this. Money exists as a thing. You focus on getting it, keeping it, multiplying it, getting it again, and so on. It is the object of fervent activity and passion. Money, as they say, makes the world go round. As Marx shows, going round is what money itself does; if you take it out of circulation it runs the risk of devaluing. Money as a mere thing or stockpiled money is not only illusory because it is only a marker of value, a store of value, but also because value only keeps its value in view of what further value it can set in motion. Money promises the amount of labor or commodities that can be activated—that must be actually activated—in order for value to persist. For this reason money is a dangerous thing. It is a product, but if it separates itself completely from the processes of circulation and production, if it stops and sits still as a mere thing, it risks losing its power. Money should be in process as much as possible, moving from here to there, making things happen.

You can look at process from a critical perspective as well. Labor is a process, but what kind? Like other processes in the capital system, it is

an active sequence of steps that coordinates interactions between living human beings, using their skills and knowledge, together with nature, with its processes and products—both of which are embedded deep in a social world. Labor means expending time, materials, and energy that can never be replaced into a product that soon enters a different circuit, the circuit of exchange. Early in his writing life, Marx identified in the labor process an effect he called “alienation,” insofar as in capitalistic labor, a product made by one person would be taken away and used to benefit someone else, not the worker but an owner who did not participate directly in making the product. Later in *Capital*, Marx identifies something else in this process, a new critical name for the process itself, an abstraction that he makes for critical purposes, looking at the concrete labor process, which he calls “reification.” With this word he names the way that, in the capital system, processes get rolled up and congealed in things. So we have to learn to think not only the superiority of processes over products, but also the self-concealing nature of capital processes, where products hide the actions that originally went into making them. We also have to learn to think processes that the capital system doesn't yet have names for, like reification, which Marx himself names and which is the process by which a capitalistic process conceals its life in a dead thing.

A companion process to reification is personification. Marx makes a lot of this one—he uses personification for critical and comic effect throughout this volume, although personification, as with other abstractions like reification, also originates in the system. It is not just a quirk of Marx's “literary style.” Processes result in and appear as things, which is what Marx calls reification. And things take on the characteristics of people—a commodity carries its owner to market, despite the fact that the owner, as Marx says in the first line of chapter 2, has to physically carry the product. At the same time, even more strangely, human beings, who were previously the model for personhood, become representatives of commodities, and thus they are persons in a specific way: they personify economic relations. One giant personified being dominates the system, and that is capital itself, which acts like the only sovereign individual in the world, pulling human beings' strings, putting them into relations, and directing processes and manipulating products within its sphere of influence. The big personification, capital, alongside the little personifications—commodities, and people too, as bearers of economic relations rather than, say, as moral or legal or psychological persons—start to blend into another critical use of personification. Where capital makes commodities into “persons,” Marx, in order to point this up, has commodities speak in the text as though they were indeed people. He also makes functional

roles speak, such as the “capitalist” and the “laborer.” Further, in his depiction of the system, he frequently uses personifying adjectives and verbs to describe the system’s processes. Labor can be living or dead. Capital thinks and wills, travels and sets up house. In response to a stupid assumption by a political economist, Marx retorts, “We know what capital will say to that.”^{xxxii}

Capital doubles, everts (reverses position and importance), abstracts, reifies, and personifies. If you learn to think in doubles, in eversions, in abstractions, to work backward from reifications and personifications to the processes and historical human beings involved in them, you are on your way to understanding the system in which you live. But, you might get the sense from this that capital exists in a set of stationary categories. That there are ways in which it always is. The situation is even more confounding because, by “value in motion,” Marx does not mean only that value travels from here to there. It regularly also changes its form. Value moves and transforms, and its change of form is necessary for the system to function. Therefore, a change of thought is necessary to understand it. Learn to think in transformational relays, where what was a commodity is now money and what was money is now a commodity again—in Marx’s famous formulas, C–M–C and M–C–M’. Formulas they may be, but they represent real circuits of transformation. Raw materials metamorphose into finished commodities, and an opposite process gets some attention here too, though more so in volume 2, where products, especially means of production, slowly wear away or get used up in production and consumption. Wearing out is one type of consumption, another transformation that value undergoes. Neither arbitrary nor sporadic, transformations happen continually in the system. From the perspective of production, for example, capital starts as commodities, in the form of raw materials, becomes a finished commodity that is traded for money, which then travels to production again, back in the hands of the original producer, to become, once again, commodities as raw materials. Metamorphic circuits proceed in cycles, and smaller cycles intersect to make bigger rounds of production, as all circuits reproduce themselves each year.

Volume 2 gives all the details about these circuits of transformation. Volume 1 introduces the ultimate motivator for the circuits and their revolving movement. They move—it all moves—because capital wants to increase. Because of forces only hinted at in this volume—one of the main forces being competition, which is treated more directly in the posthumously constituted volume 3—but also because of the ongoing and

changing needs of any business and economic sector, capital in total has to continually grow. Each capitalist has an independent drive toward accumulation and the system as a whole is shaped not like a circle but like a spiral (see chapter 23 in Engels's fourth edition). Around go the circuits in one motion; widening go the circuits in another. This is partly because, the more a capitalist accumulates, the more they are able to accumulate. And so, on one side, the relations among classes, between kinds of actors—owners, producers, merchants, financiers, bankers, transporters, communications workers, and so forth—among sectors, between economic institutions and the state that supports and protects them, all these relations need to be reproduced year after year without major breaks for all the actors to receive their livelihoods and for the businesses to stay in business. Marx asks you on one level to think in cycles that over time serve reproduction. On another level, capital necessarily goes through what we most often call growth, or what Marx calls “expansion.” He asks you furthermore to think in widening circles, in spirals, where production that needs to be reproduced adds “more” and “more of more.” Then it becomes important to think where the “more” comes from.

Our beast has a giant gullet, sucking into its maw previous societal forms, serfs, landowners, capitalists too of course, and raw materials, fruits of the earth that often have to be wrested from it by force, as well as the intellectual capacities of whole societies and epochs. When it needs to grow, where does it find more to suck in? Capital is relentlessly creative in finding the more it wants and needs to make the more of more it can't live without. It finds it in the productivity of workers, through inventing machines that speed up and intensify their work. It imperializes and colonizes land, goods, and peoples. It draws into the workforce previously unemployed populations—in Marx's mid-nineteenth-century milieu this included women and children, who had not entered the industrial labor marketplace before in any numbers. Now it draws into the workforce people who previously existed in different societal systems, as subsistence farmers or in other modes, where they still exist. It is also true that the system sucks in not only new materials, labor, and land, on the production side, but also markets and consumers, without which it could not realize its “more” of capital. In the middle chapters of volume 1, you are asked to think the way capital overruns whatever limits are placed on it. When workers in nineteenth-century England collectively fought back against long workdays of ten, twelve, fourteen and more hours, and when they won with legislation prohibiting long workdays, factory owners fought back by wringing more labor out of them in shorter times through intensification and

other productivity increases. Such a beast crashes through, sidles around, or digs underneath any limit set before it.

Perhaps the hardest thing to get used to in *Capital* is one thought figure. It is related to the doubling that happens all over the system and the book. Nowhere really does Marx condemn the capital system or call for revolution. That would be futile, maybe even silly; the system was taking over the world, and you would play right into its own personifying gesture to judge it as though it were a thinking, willing agent, like a sovereign state that could be countered with force. It is not one: it is an aggregate of actors and processes that together, despite the contingency of any particular “deal,” always works out in favor of the system. At only one point in the book does Marx recall his earlier revolutionary anger and evoke a future where capitalists, who had expropriated land and labor, get paid back in kind. The expropriators will be, he says, expropriated, by a liberated and educated mass of workers (see chapter 24). Despite this remnant of a manifesto, this cry for a future in which the whole system will have been overturned and turned into something better for everyone, the overwhelming mood of the book is ambivalence, another kind of double. Ambivalence is the double attitude Marx adopts toward the behemoth, which had become, in his mind, a largely immovable fact.

The beast is marvelous—look at all it does and can do. It reproduces itself year in and year out, overrides limits toward endless accumulation, wastes people’s life energies at the same time as it feeds, clothes, and houses them, and produces an abundance never before seen on earth, just when it plunders and wrecks the same earth, through abstractions ensuring that its own concretions get spread to every nation, every village, every forest, making the people dwelling there precarious and expendable. As marvelous as it is, it is also, as you can see, terrible and terrifying. The final chapters describe the way Marx saw capital’s marvelous and terrible history from the vantage point of the 1860s, how with bloody violence peasants were turned into workers in the first place.

Ambivalence: the system is neither good nor evil, or rather, it is good and evil—having become the exclusive standard for both. Nevertheless, it has to be changed. Some hints about how this change could come about are given by Marx, also in an ambivalent register. Take for example the way industry produces an “industrial reserve army” of surplus-labor (chapter 13). How could a new industry spring up without laborers standing by to fill it? The system gleefully throws huge numbers of people out of work whenever it needs to. It also gleefully immiserates the population as it tries to drive wages down. At the same time, the modern machine fac-

tory enables a new mode of social interaction, cooperation, which workers can only learn in the factory, and which could also become pivotal in a future socialized economy. Immiseration and cooperation: both are products of this system, which is on the whole beyond good and evil. Only if you're comfortable with a nonjudging attitude, with ambivalence, can you see the small ways a different mode of sociality is being produced in the belly of the beast.

Capital's Indiscipline

Marx's book belongs in many disciplines—some would argue in all of them! Scholars of philosophy, economics, sociology, political theory, history, and even literary studies claim it as indispensable for their methods and objectives. They teach it in classes and reflect on it in articles and books. Marx, although he carried out his investigations in a way that was meticulous and methodical, didn't belong to a particular discipline or, for that matter, to a particular profession. He was neither an academic nor a policy maker; he was neither a consultant to business nor a lobbyist to government. Marx worked in a space apart, which may not exist now, a place where revolutionaries met with thinkers, and thinkers gave speeches at worker congresses and on the barricades of nascent revolutions. He worked with disciplinary materials, but in a zone outside disciplinary rules and peer and career pressures, a zone you could describe as undisciplined. In this zone he could freely combine elements from several methods, bringing tools from one, idealist philosophy, into another, political economy—in this small but significant way, you could say Marx actually expropriated the appropriators. At the same time, he brought real-world problems of political economy, the puzzles over how wealth is created and how the means for creating wealth were changing in historic ways, into philosophy as a topic worthy of rigorous, methodical, and intense reflection. He performs a special alchemy between strongly bounded disciplines, bringing Hegelian thinking to bear on political economy's method and political economy's objects of study and, bringing political economy's objects and insights to bear on Hegelianism, such that neither remains the same.

What we know as the discipline called "economics" formed its practices in the second half of the eighteenth century, though under a slightly different name. As we know, Marx refers to and thinks of himself as working in an intimate relationship with "political economy," a field that features well-known names like Smith, Thomas Malthus, and Ricardo, as well as other lesser-known figures whom Marx mentions often as well,

like the French Jean-Baptiste Say, the English Nassau W. Senior, and the American Henry Carey. In the seventeenth century, people began using the term “political economy,” often with reference to an ancient treatise on economics then ascribed to Aristotle, now thought to have been written by one of his students. The pseudo-Aristotelian *Oikonomia* elaborates rules for managing a household, giving the *nomos* (“rule”) for the *oikos* (“house”), and then extrapolates good house management to larger political entities such as cities and palaces. Modern political economy had a very different content: it provided policies needed to run a modern nation-state, like managing a royal treasury and raising taxes, or like supporting and regulating private commerce within and between states. Political economy was truly political before the late nineteenth century; it was very close to what today we call political theory. When Adam Smith summed up this “new science” as being about “The Wealth of Nations,” he was accepting but also modifying the received meaning, since the wealth of the nation, or so he claimed in 1776, resided not in the king’s coffers but primarily in citizens’ daily working lives and attempts to procure their own well-being. For Smith, a nation’s wealth was the aggregate commercial activity of those who lived, worked, reproduced, and died within its territorial boundaries.

An example of an early political economist is French theorist François Quesnay, an important pioneer who reconceptualized the new thing called a “national economy,” inventing an important instrument for analyzing it, the “economic table” (*tableaux économique*, 1758). Marx refers to Quesnay several times in volume 1 (and uses his table in volume 2 as the chief model for the stations of circulation). Using Quesnay’s table, you can see at a glance the source of wealth—which Quesnay insisted was agriculture, setting up the school of thought later called the physiocrats—alongside the routes by which wealth gets distributed across social divisions, which take the shape of socioeconomic classes (the “proprietary,” who were landowners; the “productive,” who were laborers; and the “sterile,” who were merchants). A marvelous intellectual invention, the economic table made some assumptions that still inform economic thinking. First of all, economics’ object of study is “expenditures,” which are not static but exist in a movement or flow. Secondly, the independent actors and groups in a state all contribute to the whole. An economy is like an organism, with distinct chains of dependency, in Quesnay’s model all sectors ultimately depending on the agricultural sector for continued production and reproduction. These were the main questions answered by the table, and they are still by and large the central questions in this mode of thought: where the source

of value is, what the main divisions in society are, and how expenditures flow between them.

Henceforth and in keeping with important shifts in ideals over the eighteenth century, economics became the science that studied the welfare of a political people, often in order to promote, not only to study, their welfare. Economics still has this character, regardless whether economists think that the ultimate ideal is popular welfare, the creation of wealth, or individual success, regardless whether economics' ultimate object is indeed the individual or the people or the corporation or the state. Modern economics was born out of a general spirit of progress in which intellectual figuring was supposed to tell us how this new thing, the economy, worked, and then to identify procedures for improving it. The spirit of progress and the task of improvement are often gathered under the loose heading "Enlightenment." It is important to remember that modern economics was cultivated under this heading, and it keeps that particular flame, be it political economy or econometrics, classical, neoclassical, Keynesian, or Marxoid. Economic thought always pursues the ideal of improvement, even if its schools and movements and "worldly philosophers" fail to agree on the correct analysis of conditions or the proper methods for analyzing or improving them.

Political economy, in Marx's sense, will seem alien to many. In today's central economies, but also in peripheral economies where, under the drive to "develop," economic orthodoxies viciously take hold, the categories in today's "economics" differ from the main categories in what Marx calls "classical political economy." What has come to be called, again loosely, "neoclassical economics," has a very different account of the sources of value, the derivation of prices, the relative stability of economies, the origin of crises, and the conditions for long-term development, not to mention the correct methodology for economic science.

Classical political economy, Marx's theoretical reference point, presents value as deriving chiefly from labor inputs. For Ricardo, commodity prices do fluctuate according to supply and demand, but they are pulled toward a center of gravity around the costs of production, chief among them labor costs. Classical political economy already presents the distribution of wealth as unbalanced in favor of capitalists. Inequality is endemic to this system and something to be constantly monitored and battled. The division of labor in capitalist societies leads to divisions we are used to calling "classes," and those classes fight over the revenues from their economic activities. The classicals also tend to believe in balancing forces, which they call laws, that govern these potentially turbulent activities. "To determine the laws which

regulate this distribution is the principal problem in Political Economy," Ricardo wrote in the preface to *On the Principles of Political Economy and Taxation* in 1817, one year before Marx was born. To the extent that he also takes the derivation of economic laws as the main task of the science, and insofar as he also takes up many of Ricardo's categories, Marx is sometimes considered a Ricardian himself. He certainly shares the view that economic relations are human, all-too-human, that fair distribution of social goods is the goal to be reached, and that the object of study is not the individual or the system but the social relations underpinning them, which get their main shape through the types of labor carried out in a society.

Today's economists debate in specialized journals and in popular media whether human beings are fully "rational actors" or not and whether government agencies should intervene in commerce, finance, or labor markets, or not. These debates take for granted another conception of value and its source; value for neoclassical-type economists is determined by the psychology of consumers. How many of these do I want? is the decisive question. Moreover, "the market" (in reality a set of complexly linked markets, each market an aggregate of independent trades by definition potentially infinite) is by nature "free," completely self-regulating, and the proper methodology for studying this automatic distribution mechanism as well as the aggregate of (psychologically motivated) consumer choices is mathematical formalism.

There are as many variations on these neoclassical commitments as there are economists, but the basic outline of "neoclassical economics" is relatively stable. It takes its model consciously from Newtonian physics, imagining the economy to be a system that is essentially stable, which, when disturbed, naturally returns to equilibrium so long as "external" forces like states don't meddle too much in it, and whose processes and elements are fully determined, so that a science of them only needs to perfect its knowledge or method to approximate the perfection and lucidity of the system. In this tale, economic science continually improves its findings and its method to better approximate the perfect system, and, at the same time, it counsels economic actors in the system to perfect their actions by studying economics, in order to take better advantage of the system. A rational actor is the one who can best take advantage of a rational system. Every version of economics believes economies behave according to laws, from Ricardo to Marx to Milton Friedman to Joseph Stiglitz; some versions of economics—neoclassical and Keynesian both—believe that the correct use of human reason will allow humans to best conform to those laws,

although Keynesians famously temper optimism, denying that human actors can know enough to reasonably act in every situation.

As you will learn in *Capital*, Marx would have, had he lived to hear this, rejected many tenets of contemporary economics. Markets are not just imperfect: they drive individuals, businesses, industries, populations, and entire economies to ruin. The capital system's bloody past, in which force and law were used to dispossess groups living under different social forms of their livelihoods in order to convert them into wage workers, does not disappear once the system gets established. It lives on as other abuses, sometimes more refined and slower, but seldom less devastating. Furthermore, the system may be rational, if that means it has a set of laws that can be known, but human beings living within it cannot access the logic of the system without a critical shift in their thinking—no amount of deducing or ratiocinating can make the system clear or advantageous to them. It catches them up in insane machinations and spits them out when they don't suit its contingent ups and downs. Ruthlessly rational the system may be, but that is to no one's particular advantage and to everyone's ultimate disadvantage.

For Marx, as for Ricardo and to a lesser extent Smith, the basic element of capitalist society is not the individual but the class. This is one of the biggest changes the system wreaks; the individual soul alone before its god in search of grace in Lutheran religion becomes one class confronting another class in a struggle over access to earthly goods, to the requirements of life. Employment is never perfect, but the system is more than merely imperfect; huge swaths of workers must, not because of their needs but because of the system's needs, continually fall out of work, waiting at the lowest level of subsistence, at the limit of life, to be available when an industry grows and needs their labor again. Whole regions of the globe will be turned from closed, subsistence economies into wage slavers for goods exported elsewhere. Value is created by this labor, in the sphere of production, and although circulation is necessary to realize value—a product must be sold or else no value is actually created—consumer choice is not essentially involved. Indeed, nobody is choosing in Marx's speculative construction of the invisible whole. The market is not free, but constrained and constraining; individuals, workers, and capitalists alike submit to the needs of the system so that it can produce and reproduce itself and grow. Marx's great innovation is to discover that the endemic inequality at the heart of purported equality, which Ricardo hinted at, is intractable in this system. What I trade when I earn a wage is always greater than what I receive in return. Given the pressures on

the system to not only reproduce itself as it is but to expand, I can expect even worse. I call this the “satanic ratio,” where the more I work the less I earn proportional to my labor outlay. Things become even more satanic, since it is in the interest of employers to stretch as far as possible over time the portion of your labor they get for free and to diminish as far as possible the portion of your labor for which they have to pay.

This picture contrasts starkly with that provided by neoclassical and other contemporary economic theories and also goes beyond classical political economy in important ways, though it doesn't only critique Ricardo in economic terms. *Capital* goes beyond economic thinking. Although Marx's father wanted him to study law, and he did for a time, as a student Marx was passionate about literature and philosophy. He wrote poems in the idioms of his idols, aping the bombast of the Sturm und Drang movement and the airy transcendence of literary Romanticism. At the same time, he was mapping the philosophical landscape of the German 1830s, which was dominated by the problematics and vocabulary of Hegel. As I discuss above, Marx broke with the Hegelians and their dogmas spectacularly in the 1840s, through vicious critiques of the movement's representatives, and by turning squarely to political economy and reformulating the philosophical project in the hard-hitting text he wrote against Hegel, called *Critique of Hegel's Philosophy of Right*.

Yet, while working on his next critique, of political economy, in the 1850s, Marx came to believe that a few Hegelian thought figures that he had partly dismissed could take his critique of political economy beyond simple criticism, beyond the impulse to improve Ricardo's concepts in their own terms. Hegel had been wrong: his philosophy did not apply to the human mind and the modern state and to all of human history; however, it applied in some measure to the capital system, which was a totality coming into existence at a particular point in history and running a specific course with an ironclad necessitarian logic. Hegel had been partially right, but about the wrong object. In Hegelian philosophy, there were no natural objects, only historical ones. Beings had a historical ground. Historical entities were complex and they moved through circuits and phases, just as economic entities did for Marx. Reality, for Hegel, was a moving whole, which brought together the strangest bedfellows and reconciled opposites in healthy tensions. This was a good thought-contraption to help Marx rethink capitalism as something new on the earth, as a historical organism making its own peculiar sense.

At the top of the list of inventions in the field historians of philosophy label “German Idealism” stands a dynamical concept of relationality

best named “Wechselwirkung,” which could be translated in English as “reciprocal action.” Unlike the relatively inert entities of other philosophies, in Idealism, one thing acts upon another and the other thing acts back, the two mutually modifying one another in the process, to produce a third thing not contained in either alone. This is the core thought figure in Hegel’s logic, and it helps Marx articulate the system beyond economic categories. Reciprocal action and determination between positions—between, for example, subjects and objects—was intuited and put to use by the early post-Kantian philosopher Johann Gottlieb Fichte. It was developed first as a methodological instrument by Friedrich Wilhelm Joseph von Schelling and made into the central principle of thought and reality by Schelling’s one-time friend, Hegel. For his critique of political economy, Marx explores the form of “reciprocal action” that had come to be described as “dialectical.” In fact, though, in the *Capital* venture, Marx makes use of several logics. To start, the logic based on equivalence from political economy is still very much alive. To this he adds the dialectics of Hegel based on the Idealist motif of “Wechselwirkung.” On top of dialectics, he brings in a logic of material interchange he adapts from organic chemistry and biology that he sometimes calls metabolism, along with a logic of feedback mechanisms in his description of circulation, and a logic of instability and nonlinear dynamics in his theory of historical change and crises in the capital system. Marx’s indiscipline allows him to pick and choose among logics, and the conflict of logics cannot be captured by any single approach to the text, whether economic, dialectical, ecological, or historical. All are in play at different moments across the *Capital* venture, and no one logic is definitive for Marx’s analysis of the capital system. This too makes his venture peculiar.

Each of the logics—Hegelian-dialectical, economic equivalence-theoretical, biological-metamorphic, feedback-disruptive—leaves its traces in the *Capital* venture, which “appears in the form of an enormous heap” of drafts, versions, editions, and translations. Work on the *Capital* venture, depending how you count, spans twenty, thirty, or nearly forty years. Starting from his initial plans to study political economy in the early 1840s, the project of self-education and working through and writing and rewriting filled four decades to his death in 1883. Yet the *Capital* venture has not always been understood as a messy heap. Some noticed: Enrique Dussel, the exiled Argentine philosopher and reader of Marx, once calculated that the published volume 1 represents $\frac{1}{72}$ of what Marx projected to write and publish in the project. Only since the great advances in the second German critical edition, the *Marx-Engels Gesamtausgabe (MEGA)*,

over the last fifty years has it become clear that the range of texts pertaining to *Capital* is so eclectic that it can't in any meaningful way be called whole or complete; and, further, that Marx's arguments go through many changes, with some crucial earlier arguments getting abandoned along the way. The arguments, like the logics they draw on, are not contained in any one volume. They span the projected volumes, notes, drafts, and letters.

Only the first volume of *Capital* was published under the guidance of Marx himself. The books published as volumes 2 and 3, which contain investigations and arguments as crucial for understanding the capital system as any in volume 1, were valiantly collated from different manuscripts and edited with great care, and many good editorial decisions, by Engels during the last decade of his life. For volume 1, Marx brought two German editions of it into print, plus a translation into French that he was directly involved in (see below, "On the Choice of Edition"). Translations into English to date have taken only the third and fourth editions, edited and collated by Engels, as their sources. It is very hard to see the collations and edits that Engels made, however, in those editions and the translations made from them, without extensive study, and for this reason the current edition takes Marx's second German edition as its basis, with reference to the now-canonical changes in the French edition in an appendix and in an afterword by William Clare Roberts.

Translator's Preface

PAUL REITTER

I. Standard Editions and Translation Standards

When Karl Marx died in the winter of 1883, he left Friedrich Engels, his friend and writing partner for nearly half a century, with an injunction: “Publish what must be published.”ⁱ Engels took this to mean that he had a duty to shepherd into print a series of projects bearing the name *Capital*. A committed nonprocrastinator, he settled on a plan of action right away. He would finish the revisions to the third edition of *Capital*, volume 1; edit volume 2, which existed only as several incomplete manuscripts; oversee the English translation of volume 1; and so on.ⁱⁱ It was the second of these tasks that made Engels worry about how his formidable *sitzfleisch* would hold up. He initially lacked a clear sense of the extent to which volume 2 had remained incomplete, and what he did know unsettled him: there would be a large amount of Marx’s script to decipher, a “murderously difficult” job, as he put it in his correspondence.ⁱⁱⁱ Over the next two years, as Engels transcribed and emended the second volume of *Capital*, he did in fact point up how much time and effort he had to invest there. But such remarks are almost always followed by expressions of enthusiasm. In one letter, Engels mentions that editing volume 2 was “no walk in the park,” only to say that he “love[d] the work,” since it was bringing him “together with [his] old comrade.”^{iv} One of the projects on his list did, however, push his patience to its limit and cause him to engage in some epistolary handwringing. Writing to Marx’s daughter Laura in April 1886, Engels, as though about to burst, conveys his distress immediately. He begins his letter as follows: “The English translation of *Capital* is awful work.”^v

What made it so bad? The multistage production process that Engels and the translators had found their way to, and his responsibilities in it, were wearing on him. Using a separate sentence to describe each stage, he tells Laura Lafargue that Samuel Moore and Edward Aveling translate Marx's text into English; then he revises their work, gives additional suggestions as well, and sends everything back. After that, they all discuss unresolved issues, whereupon he has to go through the text again, checking to see that it is ready for the press "stylistically and technically." Another problem is that Aveling hasn't managed to turn in all the pages he was assigned. Engels clearly thought that his letter sketched out grim circumstances, and Laura may have agreed. On the other hand, she knew all about the challenges he faced, which also included the size and difficulty of the book being rendered into English and Moore's busy career as a lawyer. Thus she may have wondered what exactly Engels had expected. Since she also knew about his fraught relationship with attempts to translate Marx, she may have asked herself whether that dynamic, too, played a role in making him feel the way he did as he put together the first English edition of *Capital*.

Engels did not regard translation as a second-order intellectual pursuit that turns on, say, a mechanical matching of words across different languages. Rather, the hermeneutic engagement it can entail impressed him deeply. The two translators of *Capital* whose work he respected—Nikolai Danielson, who produced the first Russian version, and Moore—were, he once said, the only people "who really know the book."^{vi} But Engels also exhibited quite a bit of frustration, or even something like despair, in his responses to translations of Marx's writings, certainly much more than Marx himself ever did. Consider his pugnacious essay "How Not to Translate Marx," which appeared in the magazine *The Commonweal* in 1885. Here Engels had both personal and strategic motivation for going on the attack. The socialist reformer Henry Hyndman, whom he disliked, had translated and published some excerpts from *Capital*, and he worried that Hyndman might issue a rival English edition of Marx's magnum opus. At the same time, Engels believed that as a translator of Marx, Hyndman had committed a number of sins—sins he, Engels, had seen before: the objections he raises in the essay had often appeared in his letters, starting with a letter he wrote to Marx in the fall of 1852. *The Eighteenth Brumaire of Louis Bonaparte* was being translated into English, and the draft Engels read had disappointed him. How could it be otherwise when sometimes Marx's prose is, as he put it, "almost untranslatable"? Still, one should fault the translation in progress for its lack of conceptual precision, and for fail-

ing to preserve the vital force of Marx's text. Anticipating the line about linguistic "castration" in his remarks on the French edition of *Capital*, Engels complained that the translator of the *Eighteenth Brumaire* had "emasculated" the "choicest turns of phrase." Perhaps even worse, he had given Marx's work a "petit-bourgeois" flavor by subjecting it to a "floridity of style" foreign to what Engels would eventually describe as its "compressed" character—"gedrungen" is the word he used.^{vii}

Engels closes his letter about the *Eighteenth Brumaire* translation on an optimistic note. He offers to take over the job and says that the translator could turn things around if he tried harder. But as Engels encountered further Marx translations, he grew less sanguine about the prospects for success in this area, even though his basic concerns stayed largely the same. When Marx asked him to translate the preface to the first edition of *Capital*, volume 1, he sidestepped the issue. And in 1885, when he wrote to Laura Lafargue to congratulate her on her French translation of *The Communist Manifesto*, not only did he seem surprised to have liked it, but he confessed that he had spent "exhausting hours trying in vain to translate this most untranslatable document."^{viii} Nevertheless, Engels was not about to waver in his pledge to help get *Capital* rendered into English. How, then, to translate Marx? In his polemic against Hyndman, Engels lays down some rules. Match the rare "concision and vigor" of Marx's prose. Have the courage to follow Marx where he neologizes, and thus to break with the norms of fine or elegant writing. Be equipped to track Marx's literary references and preserve his sophisticated play with colloquial language. One must also be rigorous and absolutely consistent in ferrying his conceptual terminology into English or any other foreign language.^{ix}

If Engels applied his own standards to the English version of *Capital* he edited, that would help explain why he experienced moments of dismay as he guided the project to completion. Early in chapter 1, for example, the neologism and technical concept "Werthgegenständlichkeit" is rendered three different ways in a single short paragraph, and none retains the aggressively nonnatural feel of Marx's term.^x In one case, it is translated as "value," in another as "reality."^{xi} We can say something similar about the much more laconic promises that Ben Fowkes made when he introduced the second major English translation of *Capital*, volume 1, which appeared in 1976. In his "Translator's Preface," Fowkes claims that Marx and Engels were of one mind about Marx translations, with both prioritizing accessibility above all else. That may—or may not—have made sense in their day, Fowkes asserts; either way, it is now "no longer necessary to

water down *Capital* in order to spare the reader” with respect to “German philosophical terms.”^{xii} But while Fowkes’s translation does on the whole sound more technical than the Moore-Aveling edition, there are quite a few places where in dealing with such terms he adopts the solutions they arrived at almost a century earlier.^{xiii} To stay with chapter 1, Fowkes follows his predecessors in rendering the philosophical neologism “Werthding” as the phrase “object of value,” which, you could argue, points readers in the wrong direction.^{xiv} “Object of value” tends to mark a distinction, or to signify that an object has more value than most others, whereas with “Werthding,” Marx wants to name an ontological feature common to all commodities. Below I will say more about both “Werthding” and “Werthgegenständlichkeit,” which I translate as “value-thing” and “value-objecthood,” respectively.

Fowkes also invokes the “literary” character of Marx’s German as he frames his retranslation. Without citing specific lapses, he maintains that Moore and Aveling’s version “fails to do justice” to Marx’s “vivid use of the language.”^{xv} But Fowkes’s strict policy of noun-to-noun translation, among other decisions, doesn’t jibe with the aim of surpassing their efforts here. Hence in my estimation his text often falls short when it comes to preserving the vividness and resonant qualities of the language in *Capital*. For example, at the end of the chapter that explains the concept of “relative surplus-value,” Marx ridicules the benightedness and bad logic of certain political economists, and this moment of sardonicism sets up a change of register and a forceful concluding statement. John Ramsay MacColluch and theorists of his ilk hold, according to Marx, that when capitalist production increases labor’s productive power, this is meant to make the lives of workers easier. In MacColluch’s view, the appropriate expression of gratitude would be for workers to put in longer hours or, in other words, to cancel out much of what they stand to gain as a result of their increased productive power.

The truth, Marx insists, is that when capitalist production develops labor’s productive power, the point is to lengthen the part of the workday when surplus-value is produced for the capitalist. He writes, “Die Entwicklung der Produktivkraft der Arbeit, innerhalb der kapitalistischen Produktion, bezweckt den Theil des Arbeitstags, den der Arbeiter für sich selbst arbeiten muß, zu verkürzen, um gerade dadurch den anderen Theil des Arbeitstags, den er für den Kapitalisten umsonst arbeiten kann, zu verlängern.”^{xvi} While the double genitive construction at the beginning of the sentence is a mouthful, Marx quickly enlivens the prose by making the noun “development”—*Entwicklung*—into an active subject, something that is hard to retain in English. Then we have tight parallel clauses, which cre-

ate a moment of anticipation, since the parallel structure tells you what is coming, and when it is coming, before you get to the key term at the very end, namely, “to lengthen”—*verlängern*.

Fowkes begins his translation of the sentence with a triple genitive construction. This is followed by two prepositional phrases, neither of which is set off by commas. Fifteen words after the subject of the main clause comes the verb that goes with it. These choices don't leave readers with the impression that the author of the source text cared much about rhythm and cadence, yet the prose in *Capital* is characterized by mobility.^{xvii} It ventriloquizes rapid-fire capitalist apologetics and the aporetic reasoning of political economists, evokes, through its syntax, the circular path of commodity exchange, builds up again and again to the crescendo of a big reveal—say, how surplus-value is produced—and so on.^{xviii}

Fowkes's translation of the sentence in question reads as follows: “The objective of the development of the productivity of labour within the context of capitalist production is the shortening of that part of the working day in which the worker must work for himself, and the lengthening, thereby, of the other part of the day, in which he is free to work for nothing for the capitalist.”^{xix} My version tries to keep the parallel structure in the foreground and also preserve something of the emphasis that “verkürzen” and “verlängern” get in the original text, where they are set off nearly on their own in infinitival clauses. Instead of employing what are perhaps the most direct English matches for these terms, “shorten” for “verkürzen” and “lengthen” for “verlängern,” in this particular case I use words that, for me, draw more attention to themselves. Here is how I translate the sentence: “Under capitalist production, the purpose of developing labor's productive power is to compress the part of the workday when a worker has to work for himself and thereby enlarge the part when he can work for the capitalist for free.”^{xx}

Of course, to identify gaps between what a translation promises to do and what it does isn't to suggest that it lacks merit. I regard the Moore-Aveling and Fowkes editions of *Capital* as works that for the most part treat their source material carefully and thoughtfully. They also have moments of inventive brilliance, such as when Moore and Aveling translate “das Bürgertum und seinen doktrinären Wortführern” as “bourgeoisdom and its doctrinaire professors.”^{xxi} Since I read *Capital* before I started to learn German, I first engaged with the text in translation, and, as for many thousands of people, the experience of it proved meaningful in words chosen by Ben Fowkes. But since I owe readers some thoughts as to why they might want to engage with my translation alongside or instead of the previous ones, the occasion calls for me to address how my translation

differs from the Moore-Aveling and Fowkes versions. It seemed to me that the most respectful way to proceed would be to begin by taking up their translations on their own terms.

2. Translating *Capital* in the Twenty-First Century

Today many Marx scholars stress that even late in his career, Marx's thought changed in substantial ways. Not only in communist Eastern Europe, but in the West, too, there had been a tendency to see Marx as a thinker who produced the theoretical equivalent of the giant granite monuments that bore his likeness. In 1939, Isaiah Berlin declared that Marx's "intellectual system was a closed one, everything that entered was made to conform to a pre-established pattern."^{xxii} A decade later, Joseph Schumpeter wrote about *Capital* that "the totality of Marx's vision, as a totality, asserts itself in every detail."^{xxiii} Not everyone treated Marx as a "thinker of merciless consistency," to use Gareth Stedman-Jones's phrase.^{xxiv} However, when the Soviet Union still existed, it was difficult for scholars and other readers to appreciate the always in-progress character of Marx's work, since precisely the post-Soviet opening of archives made possible the research that has documented the extent of his revising and plans for further revision.

Much more than earlier biographies, recent ones, such as Stedman-Jones's *Karl Marx: Greatness and Illusion* and Sven-Eric Liedman's *A World to Win*, emphasize that Marx didn't break off projects simply because he was a procrastinator, or easily distracted by opportunities to feud with critics, or forever laid low by money, family, and health problems. It was also because his thought was always evolving, always responding to novel circumstances, and he often struggled to figure out what it was he wanted to say. This context of discussion has encouraged very different lines of interpretation, from attempts to question how coherent Marx's writings are and whether he was in command of his ideas, to attempts to resist the notion that Marx was a dogmatic thinker, determinist and blind to contingency. What has this meant for Marx translations?

As with the resurgence of interest in Marx since the financial crisis of 2008, the sense of being in a new epistemic moment with regard to his work has likely drawn translators to him. The last fifteen years or so have seen new translations or retranslations of *Capital* appear in Greek, Italian, Persian, Portuguese, and Japanese (which has the most translations of the book of any language), and Marx's whole corpus is currently being translated for the first time from German into Chinese. I like to think that

the openness I spoke of has also made for an enhanced sensitivity toward various aspects of Marx's language. For example, when the prominence of the in-progress character of his work increases, his neologisms, which he kept reformulating, take on a more searching quality. They now come across as emblems of that character and as critical sites of revision, and they embody the creativity Marx brought to the task of conceptualizing capitalist value.

Some of the most influential Marx scholarship produced since the 1990s has partaken of, and thus reinforced, the linguistic awareness I have in mind. Whereas works that seek to illuminate the philosophical importance of Marx's rhetorical daring could plausibly revel in their outsider status in the 1970s and 1980s, as both Ludovico Silva's *Marx's Literary Style* (1971) and Robert Paul Wolff's *Moneybags Must Be So Lucky: On the Literary Structure of Capital* (1988) did, that gesture would be out of place today.^{xxv} When the English translation of Silva's book was published in 2023, it appeared with endorsements from leading voices in Marx studies, in which the fall of the Berlin Wall or perceived "death of communism" led to vibrant conversation about the spectral motifs in Marx's critique of capitalism—its "hauntology," to speak with Jacques Derrida.^{xxvi} In a way, something similar happened with the "new reading of Marx" pioneered by several German scholars in the 1960s. Distancing themselves from an "economistic" approach to *Capital*, these scholars focused on the book's critical social theory, and to that end they tracked the conceptual genealogy, and what they took to be the unfinished development, of its value theory.^{xxvii} As Marx intimates in *Capital*, analyzing how capitalist value is expressed reveals the core social dynamic we otherwise wouldn't see, "Within the commodity world, labor's general human character [i.e., its abstract character] constitutes its specific social character." But the new reading of Marx didn't really win an international following or begin to burgeon in different directions until the 1990s.^{xxviii} Its highly productive philological turn was partly enabled by the post-Cold War expansion of the *Marx-Engels Gesamtausgabe (MEGA)*, whose thirty-two-volume section on *Capital* wasn't completed until 2012.^{xxix}

In addition, some of the main reasons for not preserving Marx's conceptual innovations have fallen away entirely, while others apply much less than they did when Fowkes's translation appeared. Theorists of retranslation from Goethe to Antoine Berman have discussed how first translations perform a particular kind of mediation: they introduce a text to a readership that hasn't had access to it and may also be unfamiliar with the author.^{xxx} And anyone who wants to know why Engels sometimes

violated his own rules for translating Marx should consult the letters where he wonders about the capacity of early English-language audiences to tolerate not just the difficulty of Marx's thought, but also how different it is from anything they would have been used to.^{xxx1} When Fowkes published his retranslation, nearly a third of the world's population lived under governments that considered themselves Marxist. Yet here, too, it isn't hard to see how the translator's context of production might have drawn him out of sync with some of his own translation standards. As he introduces Fowkes's translation, Ernest Mandel, who appears to have had an editorial role in the project, presents Marx's theory of value as a completed economic theory. To someone who reads *Capital*—and wants it to be read—this way, Marx's neologisms may well look like distracting, unwieldy jargon, or as parodying transmutations of the language of classical political economy, which uses terms such as “coatvalue” and “cornvalue.”^{xxx2} That person might be tempted to soften or efface these locutions, even if she thinks that it's wrong to “water down” his philosophical terminology.

Or she might not put that much of herself into thinking about them. With large-scale projects like *Capital*, translators obviously have to decide where to invest the most time and energy. If you aren't very interested in the intricacies of the value-form, or if the sections of the book where Marx invents a language to express them don't seem to be where the revolutionary potential lies, those sections won't be primary places of investment.

So, for instance, Fowkes not only follows Moore-Aveling in translating “Werthding” as “object of value,” whereby he, too, loses the neologism; he translates “Werthkörper,” a new term that Marx uses quite differently, and that Moore-Aveling render simply as “value,” with the same phrase: “object of value.”^{xxx3} Marx calls a commodity a “Werthding” to say that it exists as a hunk of objectified abstract human labor, or labor whose particular properties as useful labor have been abstracted away.^{xxx4} According to him, such labor constitutes the substance of a commodity's value. A commodity is also a physical thing, with a use-value that it owes to at least one particular kind of useful labor, but in the value relation between two commodities, it's their value character that matters. They relate to each other as “Werthdinge,” as value-things or, as Marx occasionally puts it, “gelatinous blobs of undifferentiated human labor.”^{xxx5} However, an important “peculiarity” of the value-form, one that causes people to misperceive the nature of capitalist exchange, is that in a simple value expression, the natural form of one of the commodities serves as the material for representing the other commodity's value. The term “Werthkörper,” or “value-body,” describes

this physical form that does nothing but express value in a simple value expression.^{xxxvi} It's because a commodity is a "Werthding" that its physical form can act as a "Werthkörper," but as a physical thing, a "Werthkörper" is the opposite of a value-thing; here, in other words, a physical body or "Körper" becomes the form of appearance of its opposite, value, and it's in this sense that a physical body counts merely as a value-body.

It's as a value-thing, or hunk of objectified abstract human labor, that a commodity has "Werthgegenständlichkeit," or "value-objecthood." Fowkes translates this term most often with a paraphrase, "the objectivity of commodities as values," again eliding the neologism.^{xxxvii} The key root nouns do line up well: the German term "Gegenstand" means "object," and it is a German translation of the Latin term. Furthermore, "objectivity" matches the morphology of the term "Gegenständlichkeit," which is also a noun whose two suffixes—"lich" and "-keit"—make it into an adjective and then back into a noun. But to me, "objectivity" feels too close to what the Moore-Aveling translation has, "reality," which is too general and quotidian, while at the same time it distracts the reader by necessarily bringing the idea of "disinterestedness" into play. The commodity's double life entails that as a special value-object made up of objectified abstract human labor, it has a special objecthood, a value-objecthood that simultaneously relies on and contrasts with the normal objecthood it has as a physical object produced by this or that kind of concrete useful labor.

When Marx uses the word "value" as a sort of prefix, the sense of doubling under capitalism is often vividly reinforced, and this is certainly so in the case of commodities' "Gegenständlichkeit" and "Wertgegenständlichkeit," where the latter term signifies something like an antiversion of what the former term signifies. Thus the shape of the terms also signals the logic of pairing that plays such an important role in the unfolding of concepts in *Capital*. Elsewhere, too, Marx tends to make pairings visible with the words he uses—such as "Stoffwechsel"/"Formwechsel" and "Schatzbildung"/"Werthbildung"—many of which are hard to render into English in such a way that this visibility is preserved. Often it isn't preserved, which gives us another reason to translate "Werthgegenständlichkeit" with a term that has a clear counterpart, that is, one with which it clearly forms an oppositional pair.

The term "value-objecthood" sounds strange, but so does "Werthgegenständlichkeit," and that, I think, is part of the point. In fact, when Marx introduces the idea of the "Gegenständlichkeit" of nonphysical things, he plays up this strangeness, speaking of "gespenstige Gegenständlichkeit," or "ghostly objecthood"—keep in mind that one of the connotations of

“Gegenständlichkeit” is “concreteness.” I would call this a programmatically weird moment in the text, one of the places where Marx tries to articulate how capitalism makes the relations between people and things, and the relations among people, extremely unnatural and incompatible with human flourishing.

Since this idea is at the center of the critical social theory in *Capital*, we would expect it to find expression in some of the book's most iconic lines, and it does. Witness “the personification of things and the thingification of people,” or “capital is dead labor that acts like a vampire: it comes to life when it drinks living labor, and the more living labor it drinks, the more it comes to life.” But the idea also gets expressed in quieter ways that can be difficult to identify. For we are talking in part about uncanny or inverted relations between things and people, and compared with English, German is a personifying language, where things are routinely addressed as “you” when they cause moments of frustration, and what can feel like a high degree of agency is often ascribed to nonliving objects—the writer Yoko Tawada calls this the “animism” of the German language.^{xxxviii} Think of the phrase “die Entwicklung bezweckt,” “the development intends,” from the sentence about relative surplus-value that I quoted early on. When you read *Capital*, it can be hard to say whether you are looking at a case of German being German or Marx being Marx. Reflexive verbs, which German often pairs with inanimate things, are a great source of this particular difficulty. Do commodities transform themselves in the circulation process, or are they transformed there?

If one of your priorities is to preserve the quieter moments of programmatic weirdness, or at least make them available to readers as interpretive possibilities, then you should be careful about how German your translation sounds elsewhere. If, say, its syntax often follows that of the German source text, and in translating reflexive verbs, you frequently drift into heavy personification, with commodities “confronting one another” in the market, then there's a good chance that those quietly weird moments will be experienced by readers as further indiscriminate foreignizing in a generally foreignizing translation.^{xxxix} They won't be legible as potentially important statements about agency and the relations between people and things under capitalism.

So as a general strategy, I steer toward natural prose in order to preserve nonnatural features of Marx's text.^{xl} My translation is therefore both more and less natural and colloquial than the previous English editions.^{xli} But how I handle the challenge of preserving the various qualities of Marx's prose, such as the concision Engels wrote about, varies from

case to case, of course. One of the things Marx does to achieve that concision is compress—leave out words where he can. The preface to the first edition contains a sentence that illustrates some of the translation difficulties this can present. I translated the sentence as “the country that is more developed with respect to industry merely shows the less developed one what its own future will look like.” The German text reads, “Das industriell entwickeltere Land zeigt dem minder entwickelten nur das Bild der eigenen Zukunft.”^{xlii}

Marx begins by spelling out what drives the action. His subject is the “industrially” (“industriell”) “more developed” (“entwickeltere”) “country” (“Land”). When he refers to the second country, or the indirect object, he’s less specific. He compresses, employing the resources of the language to make the reference to the second country more concise. Instead of “the less developed country,” he has simply “the less developed,” with the adjective “developed” now functioning as a noun. Anglophone translators can do that, too. However, because this type of nominalized adjective is used as a plural noun in English—“the beautiful and the damned,” and so on—if you follow Marx’s syntax, you wind up with a puzzling formulation that loosens his pairing: “The country that is more developed industrially only shows, to the less developed, the image of its own future.”^{xliii}

Like the word for “country” (“Land”), the word for “industrially” (“industriell”) occurs only once in Marx’s German sentence. I think it’s clear that the text signals compression here, too, because the logic of the comparison would be askew without an implied second occurrence of “industrially.” The phrase “more developed industrially” (or “with respect to industry”) establishes levels of industrialization as the logical basis of the comparison, the common thing in terms of which the two countries are being compared. The reader is thus directed to carry over a word from a sentence element that comes first, and just as with the nominalization of “developed,” this way of achieving compression tends to work better in German than in English. Moore-Aveling, Fowkes, and I all include many words that Marx leaves out of the German editions, words that he trusts his reader to carry over based on his syntax and the information he’s provided. Marx employs a similar technique in the very first sentence of chapter 1; none of our translations manages to retain it there.

The same holds for the French edition of *Capital*, which Marx worked on for years, thoroughly revising Joseph Roy’s translation. (He once said that it would have cost him less labor if he had brought the book into French himself.^{xliv}) In fact, *Le Capital* also forfeits much of the compression in the sentence from the preface: it adds the figure of an “industrial

ladder" ("l'échelle industrielle"), which reduces the ambiguity that comes with the style of the German line. Readers of the French edition know precisely what kind of country is being shown how its future looks—not simply the "less developed one," but the one that follows the country with more advanced industrialization on the industrial ladder. Where Marx implies in the German original, he specifies in the French text.

According to some scholars, this shift is the movement of revision. They claim that Marx clarified the relation between more and less developed countries because his thinking about how countries develop had changed, becoming less linear and Eurocentric. It would no longer do to present a country more developed with respect to industry as the future of any less developed country, because Marx now believed that not all countries were destined to follow the Western path. Thus as he translated the sentence for *Le Capital*, he decided that the German formulation was out of date, and he revised it, clarifying it in a principled way and giving the French text original content. Marx did say his work on the French *Capital* lent the text its own "scientific value," but in the case at hand, my sense is that he offers strong translation rather than outright revision. The German sentence fits into a pattern of compression in *Capital* that Marx mostly didn't try to reproduce in the French version, perhaps as a way of negotiating a difference between the two language systems, and perhaps because he had less faith in French readers than German ones. Even if, as already mentioned, a person translating from German to English has to contend with an analogous difference between language systems, I decided not to follow what I take to be Marx's strong translation. I think that the ambiguity and demands of the English sentence match those of the German source text reasonably well, and, moreover, the kind of strong translation that Marx produced strikes me as a prerogative of the self-translator.

At the same time, *Capital* contains many formulations where a measure of strong translation is called for, thanks to Marx's compressive tendencies. Where Marx introduces his concept of value, for example, he writes about labor products that as values are "crystallized pieces" of a "social substance" that is "ihnen gemeinschaftlich," which is, as I understand it, a very compact way of saying of "crystallized pieces" of "a social substance" that "they consist of collectively" (that is, values are crystallized pieces of, or made up of, this substance collectively, as a group; there couldn't be just one crystallized piece existing as value on its own). Since Marx replaced the term "gemeinsam" ("common") with "gemeinschaftlich" ("collective," "communal") as he prepared the second edition of *Capital* for publication, it seems important to register the particularity of the latter word, which

can also signify “common.” (Then there’s the problem that translating it as “common” yields a tautology: if as values labor products all consist of the same substance, that substance has to be common to them all.) It’s not easy to say what exactly the “ihnen gemeinschaftlich” line means: the other English versions of *Capital* give a different translation. But holding to something close to Marx’s minimalist combination of a pronoun and an adjective results in an English line that is far more difficult to make sense of (“a social substance communal to them”) than its counterpart in the German text. The clause “which they consist of collectively” loses some of the concision, and it lists in the direction of being a gloss, which is why I call it a strong translation; however, it stops well short of being a clarifying new figure, like an industrial ladder.

Compression is often a vehicle for humor in *Capital*. Moving along in a clipped way, Marx will catch you off guard with a bit of sarcasm or playfulness (“if commodities could talk, they would say . . .”), thereby maximizing the effect. *Capital* can make you laugh out loud, but rather than discussing other ways it does that—provocative analogies (Marx likens capital to the Holy Trinity), free indirect imitation, and so on—I ask that readers trust me on this point, at least for now, since those readers who have stayed with me will no doubt be eager to get to his text. Elsewhere I am hoping for readers who are ready to think for themselves, as Marx puts it in his preface. With a retranslation, this can mean that they engage actively with the more essayistic annotations and compare the solutions different translators arrived at in especially challenging or intriguing cases. Why not in other cases, too? You can’t expect people to read multiple versions of *Capital*—in their entirety—side by side. So in the end, I have to ask readers who don’t have German to trust me in a way that Marx’s original readers weren’t asked to trust him, which, I realize, is no small thing.

On the Choice of Edition

THIS IS THE first time that the second German edition of *Capital* volume 1 has been translated into English. The second edition of 1872 was the last authorized text of volume 1 published in the original German, in the sense that it is the last one that Marx revised himself and approved for publication. The other major translations into English, those of Moore-Aveling of 1887 and Ben Fowkes of 1976, were based, respectively, on the third (1883) and fourth (1890) German editions of volume 1, both of which were published posthumously after being compiled and edited by Marx's friend and literary executor, Friedrich Engels, who incorporated all sorts of other material into them, much of it earmarked by Marx for consideration, but never finally decided upon by him.

We made a different choice than the ones made by Moore-Aveling and Fowkes, not to mention Engels (who made the choice for Moore-Aveling). Marx's work on the *Capital* project is like a river that flows for twenty years and more, a river of research, plans, drafts, and revisions, not to mention complete restarts and rewritings. Any section lifted out of this flow is at once fascinating and false. You can't step into the same river twice, and in Marx's case, not even once. Revision was his continuous practice. With each set of revisions, earlier thoughts, even if they remain intact, look different in light of new conceptualizations as well as new material on government policy and laws, worker organizing, and technological change that he was constantly gathering. That is to say, anyone who claims a particular pile of pages in this ongoing flow is the definitive version is misleading you or has been misled.

Marx's project to write a critique of political economy and at the same time to provide the most precise and damning analysis of the system in which capital dominates social relations passed through several phases. Each of those phases resulted in different texts, themselves at different degrees of elaboration or completion. For ease of understanding, the

winding path Marx took to arrive at what we now have as volume 1 of *Capital* can be divided into two phases of composition. The first phase of composition started in the early 1850s and was loosely based on a six-book plan for the entire work. That first phase culminated in a now-famous unpublished manuscript written over the winter of 1857–58, later called *Grundrisse* or “blueprints,” and an 1859 published text, *A Contribution to the Critique of Political Economy*, which represented but a fragment of the overall project. Although many important arguments carry over from this early phase into *Capital*, neither *A Contribution* nor the *Grundrisse* becomes textually part of the work that later resulted. The second phase of composition started just after this and ran through the 1860s and into the 1870s, during which time Marx was working on a four-book plan. From about 1863 to 1867 Marx wrote manuscripts toward books 3, 2, and 1 of the entire work, but he revised and edited only what is now known as volume 1, first published in 1867, followed by a second revised edition in 1872.

After 1867 begins a phase in which Marx kept revising aspects of volume 1. Revisions are written into the margins of printed copies, laid out in lists of intended corrections, included in letters mailed to interlocutors, and concretized in the second edition, from which the present translation has been made. And the second edition was not the end of his revising. After this edition appeared, he kept imagining changes. During that time Marx also concerned himself with several translations of volume 1: one into Russian, which became the first completed translation of *Capital* into another language; one into English, which barely got started at that time; and one into French, which Marx himself spent years smoothing out and in places retranslating, while apparently adding somewhat altered solutions to a few theoretical problems lingering from the second German edition.

What often goes unaddressed in discussions of *Le Capital*, the first French translation, is that the text is a kind of philological black box. Since the manuscript that Marx reworked has been lost, it is for the most part impossible to know where Marx revised the formulations he was given or replaced them with his own renderings from the German—and where he merely signed off on the translator Joseph Roy’s efforts. We also don’t have the German source text that Roy and Marx used when they produced their French translation, although it is likely that Roy (and Marx) started working with the first edition and at some point switched to the second, once it appeared. It is therefore mostly impossible to know where the French translation renders the first edition, the published version of the second German edition, or a text revised beyond that. Complicating the matter

further is that, generally speaking, the passages in the French translation singled out by Marx himself in his instructions for future editions of *Capital* aren't the ones scholars have treated as the most vital changes.

Which is the real *Capital*? Three texts vie for consideration: the first German edition, the second German edition, and the French translation. It is important to understand that the changes that Marx indicated he wanted to make for a third German edition and the differences in the French edition, while they may at times be theoretically significant, do not alter his basic analysis of the system or his critique of the economists.

We don't claim that the second edition is authoritative, just that it is, at a minimum, authorized. The shape of what Marx set out to achieve in volume 1 was substantially achieved in the second edition of 1872. It is an important advance over the first edition, because it integrates arguments about the value-form, which were hidden in an appendix in the earlier edition. Many changes occur to him after the second edition, it is true, but despite a few loud voices saying that this or that change holds the key to the whole operation, the fundamentals don't change fundamentally. And in truth there is no way to establish which of the changes that Marx clearly indicated for a third German edition would have remained important and which he would have jettisoned, had he had the time and will to sit down and insert them. The fact that he didn't even start work on a third edition himself can't be read as definitive either, although it could suggest that, since he decided to do other work in the remaining years of his life, amidst worsening illness, instead of more revisions to volume 1, he had conceded to himself that the second edition was a good enough statement on the capitalist production process.

Engels, when he constructed the posthumous third edition, partially followed Marx's lists of changes and the French translation. He later carried his changes over into the fourth edition, where he added a few more of Marx's changes, but not all the rest of them. However valuable individual edits may be in themselves, it can't be claimed that the third and fourth editions are what Marx himself envisioned. To point this out isn't to attack Engels. The instructions Marx left him posed many challenges. Marx did not say which changes mattered most, what principle to follow in integrating them into the text, or how to decide which ones should actually stay. For that matter, he didn't say—in fact he couldn't have said—which historical events might already have proven some of those changes superfluous or wrong by the time of editing. But there are other considerations: for example, how to translate back into German the passages from the French translation that Marx wanted to see inserted into future German

editions? There is no way of knowing if he would have agreed with the translations that others produced. We can say that Marx's experience with the French translation suggests he would have raised objections: he spent three years revising the original translator's work.

Nonetheless, the material used to make the later editions is often interesting in its own right. An appendix to the present volume indicates a few passages from other versions we think readers will find illuminating. A thorough study of all the differences and potential changes Marx noted down has not yet been made. It is a vitally important task, especially if the motivation is rigorously philological and at the same time more than philological. Marx's purported revisions await a revolutionary philologist.

A note on the German source for this translation: The *Marx-Engels Gesamtausgabe* (MEGA) is a historic, century-long project to collect and rigorously edit the texts and letters of Marx and Engels. Started in Moscow in the late 1920s, the project began again in the 1960s in the GDR, and then again by the International Marx-Engels Foundation in Amsterdam in the 1990s. The current publisher of the MEGA gave permission for this translation to liberally consult their fine edition of the 1872 *Capital* along with the immensely informative commentary volume. For those editors' tireless work tracking down Marx's references, allusions, and sources, the editors of this volume are deeply grateful.

Quotations, Numerals, and Symbols in Marx's Text

IN *CAPITAL*, a text in which quotations play a very large role, Marx employs several modes of quoting. Sometimes he quotes in a manner that might be described as playful, altering lines from literary works to bring them into line with his claims. Here his use of quotation marks is inconsistent: he uses them in some cases but not in others. In addition, Marx frequently employs quotation marks when he is paraphrasing rather than quoting directly, often indicating to readers that they don't have before them a direct quotation by leaving out the bibliographical reference. However, even where Marx does give a bibliographical reference for a chunk of text set off by quotation marks, that chunk of text can deviate from the source text.

A great and sometimes puzzling feature of this book is Marx's footnotes, where he does a lot of intellectual work, quoting extensively, carrying out polemics, and amassing an enormous number and a wide range of references to works by other authors: classicists, chemists, poets, anthropologists, mystics, philosophers, socialists, factory inspectors, politicians, political economists, and so on. We think that it is important to convey as much as we can of the tone and feel of this intellectual work, and so we have preserved Marx's citation style, which was idiosyncratic even by the standards of his day. Marx is especially inconsistent in how he treats the titles of books and periodicals, abbreviating the same titles three or four different ways, offsetting titles with quotation marks in some cases but not others, and varying where he places quotation marks. Here, then, we have not followed modern convention: we haven't set the titles in Marx's footnotes in italics, since doing so would obscure the features we just described. In the body of Marx's text, where titles don't appear in the context of bibliographical references, we have taken the opposite approach. He did not italicize titles there either—titles mostly aren't italicized in

German. But for English-language readers accustomed to titles marked as such more conspicuously, it might be hard to recognize titles in the main text without italicization or underlining. Thus we italicized the titles of books and periodicals in the main text, while, however, retaining how Marx reproduced them; i.e., his inconsistent manner of abbreviation.

Marx often cited from his own hand-copied excerpts from books, rather than from the printed versions, and thus transcription errors were carried over into many of the quotations in *Capital*. But even where he had the printed version of his source material in his library, we often find deviations, for by today's standards, Marx took some liberties in citing. For example, he had published copies of many of the government reports he cites in *Capital*—the bulk of the quotations in *Capital* come from that source material—but often the passages reproduced as citations don't quite correspond to what is in the source text. A main reason why is that Marx frequently elides part of the source text without noting that he has done so. In some cases, his elisions make the quoted material more consistent with his arguments or into a better illustration of them. More often, however, he seems to change quotations for the purpose of compression: he leaves out material that supports his positions, without indicating to readers that he has removed a phrase or a sentence or several sentences. What adds another level of difficulty is that the government reports he frequently refers to were written in English, and for many of the quotations he adduces, Marx translated his source material into German. Since Marx had a rather freewheeling style of translation, which can go over into paraphrase, it can be hard to say whether a given deviation between the source material and the quotation has to do with misquotation, his practice of editing quotations, or his translation techniques.

Our policy is to present our readers with quotations that match the ones Marx presented to his readers, inconsistencies and all. We often mark where this entails changing the source material in a way that seems significant.

Sometimes Marx translates into German lines or passages from French translations of his English source material (without alerting readers to this), and sometimes he simply cites French translations (of English originals) without translating them. In these cases, we add citations from the original English texts—backtranslating into English a German translation of a French translation of English source material would be unlikely to get readers closer to the citations Marx provides in the German edition of *Capital*. We reserve backtranslating for the few places where the English source material Marx quotes and translates could not be located. The backtranslations have been marked as such.

Capital

For my unforgettable friend

Wilhelm Wolff

Bold, loyal, noble champion of the Proletariat

Born in Tarnau on June 21, 1809

Died in Manchester on May 9, 1864

Preface to the 1867 Edition¹

THIS BOOK IS the first volume of a work that continues the project of my *Contribution to the Critique of Political Economy*, which was published in 1859. I am offering it to the public only now, after such a long time, because of an illness that lasted for many years and repeatedly interrupted my work.¹

The substance of the earlier book is summarized in the first chapter of the present volume. That wasn't done merely for the sake of cohesion and completeness: my analysis is now presented more effectively. To the extent that circumstances permitted, many points that were only touched on earlier have been worked out more fully here, while, on the other hand, points worked out extensively there are sometimes only touched on below. The sections on the history of the theories of value and money have of course been left out entirely. In the notes to the first chapter, however, readers of the earlier book will find new sources having to do with the history of those theories.

“All beginnings are difficult” holds for every branch of science and scholarship.ⁱⁱ The first chapter—and especially the section that contains my analysis of the commodity—will therefore be the hardest to understand. As for the parts that deal with the substance and magnitude of value, there I have tried to make things as accessible as possible.² The value-form, which

1. An afterword to the second edition follows after the body of this work.

2. This seems all the more necessary when we consider where Ferdinand Lassalle commits some major errors of comprehension: namely, where he purports to convey the “the intellectual quintessence” of how I have explicated these matters—in just that section of his polemic against Schultze-Delitzsch. *En passant*: Lassalle may have taken from my work all the general theoretical propositions his economic writings contain, such as those having to do with the historical character of capital, the connection between the relations of production and the mode of production, and so on—he may have taken them nearly word for word, down to the terminology I invented, and without attribution. But his borrowing likely resulted from considerations of publicity. I am not speaking, naturally, of how he has worked out those propositions in detail and applied them. I had nothing to do with that. [Editor's note: The polemic Marx is referring to is Lassalle's book *Mr. Bastiat*

in its fully developed shape is the money-form, has little content and is actually quite simple. Yet for more than two thousand years, the human mind has failed to comprehend it, while much more complex forms that have much more content have been analyzed with at least some degree of success. Why? A whole body is easier to study than its individual cells. Furthermore, microscopes and chemical reagents are of no help to us when we analyze economic forms. Our power of abstractionⁱⁱⁱ must do the work of both things, for in bourgeois society, the commodity-form of labor products, or the value-form of commodities, is the economic cell-form. To the untrained eye, analyzing these forms appears to be an exercise in splitting hairs. And in fact it is such an exercise—in the same way that microscopic anatomy is.

Thus aside from the section on value-form, this book hardly invites the charge of being difficult to understand. I am of course assuming that my readers will want to learn something new and so are ready to think for themselves.

A physicist either observes natural processes where they appear most clearly and are least affected by muddying factors or, when he can, conducts experiments under conditions that allow such processes to occur undisturbed. What I am undertaking to investigate in this work is the capitalist mode of production and the relations of production and exchange that go with it. Up to the present day, England has been their classic location. Hence more than any other place England serves to illustrate the theory being developed. But if, nevertheless, my German reader were to self-righteously shrug his shoulders at the circumstances of English industrial and agricultural workers, or to comfort himself with the optimistic idea that the situation in Germany isn't nearly as bad, I would have to tell him: *De te fabula narratur!*^{iv}

The basic issue isn't whether the social antagonisms that result from the natural laws of capitalist production are more or less advanced. Rather, it is those very laws, those very tendencies, which operate and assert themselves with iron necessity. The country that is more developed with respect to industry merely shows the less developed one what its own future will look like.

But let's set this aside. Where capitalist production has truly made itself at home in Germany—for example, in actual factories—conditions are much worse than in England, because we don't have the counterweight of the Factory Laws. In all other spheres, the development of capitalist

Schulze von Delitzsch, der ökonomische Julian, oder Capital und Arbeit (Berlin, 1864). It is Lassalle's spelling of the subject's name, Schulze von Delitzsch, not Marx's spelling of it, that's correct.]

production causes suffering, but its lack of development does as well, as is so in the rest of continental Western Europe. We are oppressed not only by new dire circumstances but also by an array of inherited ones that still occur because antiquated, out-of-date modes of production have managed to keep limping along, accompanied by their entourage of anachronistic social and political relations. The living make us suffer, and the dead do, too. *Le mort saisit le vif!*^v

The social statistics kept in Germany and the rest of continental Western Europe are meager compared with those kept in England. Nevertheless, they lift the veil just enough to let us glimpse the Medusa's head behind it. We would be horrified by our own situation if, as in England, our governments and parliaments regularly appointed committees to inquire into economic conditions; if those committees, too, were armed with the same authority to find out the truth; and if for the sake of getting to that truth our politicians managed to fill the committees with men as competent, free of partisanship, and uncompromising as the factory inspectors in England, the medical experts there who report on "public health," and the commissioners who investigate the exploitation of women and children, the state of workers' food and housing, and so on. When Perseus hunted monsters, he needed a cap that made him invisible. We pull our own magic cap over our eyes and ears so that we can pretend monsters don't exist.

But we must not harbor any illusions here. Just as the American War of Independence was a call to arms for the European middle class in the eighteenth century, so the American Civil War is one for Europe's working class in this century. In England, you can feel that a process of fundamental change is underway. Once it has reached a certain point, it will have to spread to the Continent. Whether the forms this process takes as it plays out there are more brutal or humane will depend on how developed the working class has become. Thus genuine self-interest demands that the members of today's ruling class use the law—everywhere it can be used—to sweep aside obstacles that block the development of the working class, whatever their loftier motivations for doing so may be. It is in part for this reason that the present volume devotes so much space to the history, the substance, and the effects of the English Factory Laws. One nation can and should learn from another, but even when a society has identified the natural law of its own motion—and the ultimate goal of this work is to reveal modern society's economic law of motion—that society can neither leap over natural phases of development nor get rid of them by decree. What it can do is make the birth pangs shorter and milder.

To prevent possible misunderstandings, let me say this: I don't paint the figures of the capitalist and landlord in rosy colors—far from it. But

individual persons play a role here only insofar as they are the personifications of economic categories, or the bearers of particular class relations and interests. My approach treats the development of society's economic formation as part of natural history, as that type of process, and no other approach does less to make the individual responsible for conditions that he remains a creature of socially, however much he manages to transcend them subjectively.^{vi}

In the area of political economy, independent scholarly investigations don't merely encounter the same enemy that they face in every other area.^{vii} The peculiar nature of the material they deal with calls forth onto the field of battle the pettiest and most violent and hateful passions that dwell in the human heart—the furies of private interest. England's High Church would sooner forgive someone for attacking thirty-eight of its thirty-nine articles of faith than for attempting to take away $\frac{1}{39}$ of its cash income. These days even atheism is a *culpa levis* compared with a critique of traditional property relations.^{viii} That progress has been made is, nevertheless, unmistakable. Witness the Blue Book that was published just weeks ago: *Correspondence with Her Majesty's Missions Abroad, regarding Industrial Questions and Trade's Unions*.^{ix} Here representatives of the English Crown bluntly state that in Germany, France—in short, all civilized countries on the European continent—the existing relations of capital and labor are being transformed: this is as perceptible and inevitable as it is in England. Meanwhile, in public meetings on the other side of the Atlantic Ocean, Mr. Wade, the Vice President of the United States, has declared that with slavery abolished, the next item on the agenda is to transform the existing relations of capital and landed property! These are signs of the times that can't be hidden by purple coats or black cassocks.^x While they might not augur that miracles are going to happen tomorrow, they do point to a dawning sense on the part of the ruling classes themselves that today's society isn't a hard crystal, but rather an organism that can transform itself and is always in the process of transforming itself.

The second volume of this work will take up capital's circulation process (book II) and the different configurations of the total process (book III), while the third and last volume will take up the theory's history (book IV).

I welcome all judgments that issue from systematic critique. As for the prejudices of so-called public opinion, a thing I have never made any concessions to—with respect to them, I continue to subscribe to the motto of the great Florentine:

Segui il tuo corso e lascia dire le genti!^{xi}

London, July 25, 1867

Karl Marx

VOLUME ONE

Capital's Process of Production

PART ONE

The Commodity and Money

CHAPTER ONE

The Commodity

1. The Two Factors of the Commodity: Use-Value and Value (Value-Substance, Magnitude of Value)

The wealth of societies dominated by the capitalist mode of production appears in the form of an “enormous accumulation of commodities.”¹ The individual commodity appears as the elementary form of that wealth.ⁱ Hence our investigation begins by analyzing the commodity.

A commodity is, first of all, an external object—a thing whose properties satisfy human wants or needs of whatever kind. The nature of these wants and needs—whether they come from our belly or our imagination—doesn’t matter here.² It also doesn’t matter how an object satisfies them: whether directly, as a means of subsistence or enjoyment, or indirectly, as the means to produce something else.ⁱⁱ

Every useful thing—iron, paper, etc.—can be considered from two perspectives at once: quality and quantity. Since every such thing is a whole that combines many properties, it can be useful in different ways. Discovering these ways and thus the diverse applications of a thing is a historical act.³

1. Karl Marx: “Zur Kritik der Politischen Oekonomie Berlin, 1859,” pag. 3. [Editor’s Note: This book was published in English under the title *A Contribution to the Critique of Political Economy*. We cite the translation by S. W. Ryazanskaya in *Marx-Engels Collected Works (MECW)*, vol. 29 (Moscow: Progress Publishers, 1977), 269. Translation modified.]

2. “Desire implies want; it is the appetite of the mind, and as natural as hunger to the body . . . the greatest number [of things] have their value from supplying the wants of the mind.” Nicholas Barbon: “A Discourse on coining the new money lighter, in answer to Mr. *Locke’s* Considerations etc. London 1696,” pp. 2, 3.

3. “Things have an intrinsick vertue [this is Barbon’s specific locution for use-value], which in all places have the same vertue; as the loadstone to attract iron” (op. cit. p. 6). The

So is the creation of a society's standards for measuring amounts of useful things. The standards of measurement for commodities differ in part because of the natural differences among the objects measured, in part by convention.

The usefulness of a thing makes it into a use-value.⁴ Usefulness, in this sense, doesn't hover above us in the air. Determined by the properties of a commodity's body, it would not exist without them.ⁱⁱⁱ Thus a commodity's body—as with iron, wheat, diamonds, etc.—is itself a use-value or good. Whether or not it has this character doesn't depend on how much work, or how little, human beings have to do to appropriate its useful properties.^{iv} When considering use-values, we always suppose that we are dealing with definite amounts, for example, dozens of watches, yards of linen, tons of iron. The use-values of commodities supply the material for an independent discipline: commodity studies.⁵ Use-value is realized only when something is used or consumed. Whatever social form wealth takes, use-values make up its material content.^v Within the form of society that concerns us here, they also function as the material bearers of . . . *exchange-value*.^{vi}

Exchange-value first appears as a quantitative relation, the ratio in which one type of use-value is exchanged for another.⁶ This relation changes constantly, varying with time and place. Exchange-value thus seems to be something accidental and purely relative, and the idea of exchange-value as something inherent in (*valeur intrinsèque*) or imma-

magnet's property of attracting iron first became useful when, as a result of that property, magnetic polarity was discovered.

4. "The natural worth of anything consists in its fitness to supply the necessities, or serve the conveniences of human life" (John Locke, "Some Considerations of the Consequences of the Lowering of Interest. 1691" in "Works edit. Lond. 1777." V. II, p. 28). [Editor's note: Quotation not fully consistent with Marx's source text, which reads "the intrinsic, natural worth," rather than "the natural worth."] Seventeenth-century English writers still tended to use "worth" for use-value and "value" for exchange-value, which is very much in the spirit of a language with an affinity for expressing unmediated things with Germanic words and reflected things with Romance ones.

5. A governing notion in bourgeois societies is the *fictio juris* that every person who buys commodities also has an encyclopedic knowledge of them. [Editor's note: Here *fictio juris* means an assumption or presupposition that runs counter to reality.]

6. "Value consists in the exchange relation between one thing and another, between a given quantity of one product and a given quantity of another" (Le Trosne: "De L'Intérêt Social." Physiocrates, éd. Daire. Paris 1846, p. 889).

ment to a commodity seems to be a *contradictio in adjecto*.^{7vii} But let's take a closer look.

A single commodity, say eight bushels of wheat, can be traded for other goods in the most diverse ratios of exchange. But the wheat's exchange-value remains the same whether it is expressed as this much boot polish, that much silk, this much gold, or something else. Its exchange-value, then, must have a content that can be distinguished from these different modes of expression.

Let's now consider two commodities—for instance, wheat and iron. Whatever their relation of exchange may be, it can always be represented as an equation in which some quantity of wheat equals some quantity of iron: eight bushels of wheat, for example, equals 100 pounds of iron. What does this equation say? That the same amount of a common something exists in two different things: eight bushels of wheat and 100 pounds of iron. These two things are thus equal to a third, to something that in and for itself is neither the one nor the other. Each, insofar as it is an exchange-value, must be reducible to that something.

A simple geometrical example will illustrate this point. In order to establish and compare the surface areas of rectilinear figures, we redraw them as triangles, then reduce the triangles to an expression very different from their visible shapes: one-half the base times the height. The exchange-values of commodities are likewise reduced to a common something, which they represent in greater or smaller amounts.

This common something can't be a geometrical, physical, or chemical property, or any of a commodity's natural properties. The physical properties of commodities matter only insofar as they make commodities useful and, thus, into use-values. But what characterizes the exchange relation of commodities is clearly that it involves abstracting from their use-values. Within this relation, one use-value counts for exactly as much as any other, given the right proportion. Or as old *Barbon* says,^{viii} "One sort of wares are as good as another, if the value be equal. There is no difference or distinction in things of equal value."⁸ As use-values, commodities differ above

7. "Nothing can have an intrinsick value" (N. Barbon op. cit. p. 6). Or as Butler says:

The value of a thing
Is just as much as it will bring.

[Editor's note: An adapted line from Samuel Butler's poem *Hudibras*: "For what is the worth of any thing, but so much money as 'twill bring?"]

8. "One sort of wares are as good as another, if the value be equal. There is no difference or distinction in things of equal value. . . . One hundred pounds worth of lead or iron, is of as great a value as one hundred pounds worth of silver and gold" (N. Barbon op. cit. pp. 53

all with respect to quality; as exchange-values, they can differ only with respect to quantity, and they contain not even an atom of use-value.

If we set aside the use-value belonging to the physical bodies of commodities, just one quality remains: they are products of labor. But the product of labor, too, has been transformed in our hands. If we abstract from its use-value, we will be abstracting also from the physical components and forms that made it into a use-value in the first place. The product of labor is no longer a table, house, spool of yarn, or any other useful thing. All its sensuous components are wiped away. Neither is it any longer the work of carpentry, construction, weaving, or some other particular kind of productive labor. When the useful character of labor products disappears, so, too, does the useful character of the instances of labor represented in them; what happens, in effect, is that the different concrete forms of those instances of labor vanish as well. They can no longer be distinguished from one another and have all been reduced to the same human labor, abstract human labor.

Now let's consider what remains of these labor products. Nothing of them is left over except the same ghostly objecthood—a bare gelatinous blob of undifferentiated human labor, of human labor-power expended without regard to the form of its expenditure.^{ix} All that these things still represent is this: when they were made, human labor-power was expended, human labor accumulated. As crystallized pieces of this social substance, which they consist of collectively, they are . . . *values*.^x

The exchange-value of commodities presented itself to us in their exchange relations as something fully independent of commodities' use-values.^{xi} If we now abstract from the use-value of labor products, we will arrive at their value as it was defined above. The common something expressed by commodities' exchange relations or exchange-value is, in fact, their value. The course of this examination will eventually bring us back to the notion of exchange-value as value's necessary mode of expression^{xii} or form of appearance.^{xiii} First, however, we need to consider value without taking that form into account.

A use-value or good has value only because abstract human labor is objectified or materialized in it. How should the magnitude of its value be measured? By the amount of "value-creating substance" it contains: labor. The amount of labor is measured by its duration, and labor-time has its

and 7). [Editor's note: Marx translated the passage into German for the body of his text and quoted the original more fully in his footnote, misquoting it very slightly: "values" becomes "value," etc. He translated the word "value," as he often did, as "Tauschwerth," the German term generally rendered into English as "exchange-value."]

own standard of measurement in definite units of time, such as hours, days, and so on.

We might be tempted to think that since the amount of labor expended to produce a commodity determines its value, the lazier or more incompetent the person producing it, the more valuable the commodity will be. After all, he will take longer to produce it. But the labor that constitutes the substance of values is equal human labor—the expenditure of the selfsame human labor-power. All the labor-power represented in the values of the commodity world, the sum of a society's labor-power represented in them, counts for something here as one and the same human labor-power, even though labor-power belonging to innumerable individual people goes into it.^{xiv} Each person's labor-power is the same human labor-power as any other person's, insofar as it has the characteristic of being socially average labor-power and functions as such socially average labor-power, which means that it requires only the labor-time necessary on average, the labor-time socially necessary, to produce a given commodity. Socially necessary labor-time is the labor-time needed to produce a given use-value under a society's normal conditions of production, using labor that has an average level of skill and intensity. When the power loom was introduced in England, the labor needed to turn a given quantity of yarn into fabric likely fell to half of what it had been.^{xv} The English hand weaver had to expend as much labor-time as ever to transform the same amount of material, but now the product of his individual labor-hour represented only half a social labor-hour, and thus its value dropped by half.

It is solely the quantity of socially necessary labor—or the socially necessary labor-time—that goes into making a use-value that determines its magnitude of value.⁹ Here, each individual commodity counts for something only as an average instance of its type.¹⁰ Commodities that contain equal amounts of labor—in other words, commodities that can be produced in the same amount of labor-time—will therefore have the same magnitude of value. A commodity's value has the same relation to the value of

9. Note added to the second edition: "The value of them (the necessaries of life) when they are exchanged the one for another, is regulated by the quantity of labour necessarily required, and commonly taken in producing them" ("Some Thoughts on the Interest of Money in general, and particularly in the Public Funds etc." London, pp. 36, 37). This remarkable anonymous work from the previous century is undated. From its content, however, we can infer that it appeared during the reign of George II, probably in 1739 or 1740.

10. "All products of the same type properly form a single mass, the price of which is determined in general and without regard to particular circumstances" (Le Trosne op. cit. p. 893).

every other commodity that the labor-time required to produce it has to the labor-time required to produce every other commodity. “As values, all commodities are nothing but discrete masses of coagulated labor-time.”^{11,xvi}

A commodity’s magnitude of value will not vary, then, as long as the amount of labor-time needed to make it remains constant. But the labor-time it takes to produce a commodity varies whenever labor’s productive power does. A number of factors determine labor’s productive power, including workers’ average skill-level, how far scientific knowledge and its technological applications have developed, the social organization of the production process, the scope and efficiency of the means of production; and conditions in nature.^{xvii} The same quantity of labor that is represented in eight bushels of wheat during a good harvest might, for example, be represented in only four bushels during a bad one. The same quantity of labor will extract more metal from rich mines than poor ones, and so on. Diamonds are hard to find in the earth’s crust. Discovering them thus requires, on average, a lot of labor-time, and from this it follows that much labor is represented in a small quantity of diamonds. Jacob doubts that the price of gold has ever corresponded to its full value.^{xviii} That is even truer of diamonds. In 1823, according to Eschwege, the spoils from Brazilian diamond mines over the previous eighty years didn’t equal the total price of one and a half years of the country’s average sugar or coffee production, even though the diamonds represented far more labor, and thus more value.^{xix} Applied to more bountiful mines, the same quantity of labor would be represented in a larger number of diamonds, and the diamonds’ value would fall. If we could easily turn coal into diamonds, their value would drop below that of plain bricks. In general, the greater labor’s productive power, the smaller the amount of labor-time needed to make a good; and the smaller the amount of labor crystallized in a good, the smaller its value. The reverse is also true: the less productive power labor has, the greater the labor-time needed to produce a product and, in turn, the greater a product’s value. A commodity’s magnitude of value varies directly with the amount of labor realized in it, and inversely with that labor’s productive power.

A thing can be a use-value without being a value. This happens when labor doesn’t mediate a thing’s usefulness for human beings, as with air,

11. K. Marx op. cit. p. 6. [Editor’s note: The line can be found on p. 272 of the English translation, which has been modified. In the earlier text, Marx writes “Tauschwerthe,” “exchange-values,” but here he changes it to simply “Werthe” or “values.”]

virgin soil, naturally occurring meadows and trees, and so on. A thing can also be both useful and a product of human labor without being a commodity. Anyone who satisfies one of his own wants or needs with something he produced has made a use-value, not a commodity, because to produce a commodity is to produce not only a use-value but also a social use-value, a use-value for others. Finally, nothing can be a value without being a use-value. If a thing is useless, then so is the labor it contains. The labor doesn't count as labor and thus generates no value.

2. The Double Character of the Labor Represented in Commodities

First, the commodity presented itself to us as a double something: both use-value and exchange-value.^{xx} We then saw that labor, too, when it is expressed as value, loses the particular qualities it has as that which produces use-values. I was the first to offer a critical account showing that the labor contained in commodities has such a double nature.¹² Since this point has to be the nub of any real attempt to understand political economy, we need to examine it more closely here.

Let's say that we have two commodities, a coat and 10 yards of linen. The former has twice the value of the latter, so if 10 yards of linen = v , the coat = $2v$.

The coat is a use-value that satisfies a specific want or need. To make the coat, a certain kind of productive activity is required. This activity is defined by its goal, method, object, means, and result. As shorthand, we will say that "useful labor" is the kind whose usefulness is represented in the use-value of the product it makes, or in the product itself, in such a way that the product is a use-value. When we view labor from this perspective, we always consider it in terms of its useful effects.

Just as the use-values "coat" and "linen" are qualitatively different, so, too, are the forms of labor they owe their existence to: tailoring and weaving. If these things were not qualitatively different use-values, and thus the products of qualitatively different forms of useful labor, they couldn't interact as commodities. A coat is not exchanged for an identical coat; a use-value is not exchanged for the same use-value.

Appearing in the diverse totality of use-values or the physical bodies of commodities is another totality, just as multifarious: that of the

12. Ibid. pp. 12, 13 and *passim*. [Editor's note: English translation, p. 272.]

distinct species, varieties, and subvarieties of useful labor constituting a social division of labor. The social division of labor makes it possible for commodity production to exist. But the reverse isn't true. Commodity production isn't needed in order for the social division of labor to exist. In the ancient communities of India, labor is socially divided, but this doesn't mean that its products become commodities. Or, to take an example closer to home, labor is systematically divided in every factory, yet this division doesn't presuppose that workers exchange their individual products. Only the products of separate instances of private labor, carried out independently of one another, can interact as commodities.

So readers have seen that embedded in every commodity's use-value is an instance of useful labor: purposeful, productive activity of a particular kind. Use-values cannot interact as commodities if qualitatively different instances of useful labor aren't embedded in them. In a society whose products generally take the form of commodities—that is, in a society of commodity producers, where instances of useful labor are performed independently of one another as the private business of independent producers—this qualitative variety develops into a complex system: a social division of labor.

It doesn't matter to the coat, in any case, whether the tailor himself wears it or his customer does. The coat functions as a use-value in both scenarios. Similarly, it has no effect on the nature of the coat's relation with the labor that produces it whether or not tailoring has become a specialized profession, an independent pursuit within the social division of labor. Driven by their need for clothing, human beings made coats for thousands of years, doing a tailor's work, before a single person became a tailor. Coats, linen, and all other items of material wealth not found in nature have to be brought into being by a particular kind of purposeful, productive activity, one that assimilates specific natural resources to specific human wants or needs.^{xxi} As the creator of use-values, as useful labor, labor is a condition of human existence independent of all forms of society. It is an eternal natural necessity, needed to mediate the human metabolizing of nature and, thus, to mediate human life itself.^{xxii}

Use-values such as coats and linen—in short, the physical bodies of commodities—combine two elements: natural materials and labor. If we could remove all the different instances of useful labor embedded in coats, linen, and so on, what would be left, always, is the material substrate that exists in nature prior to any human activity. As producers, human beings can, in a sense, operate only as nature does: all they can do is change the

form of matter.¹³ In addition, they draw constantly on natural forces to carry out this labor of reshaping. Labor isn't the lone source responsible for the use-values it produces, or for material wealth; it is their father, to speak with William Petty, and the Earth is their mother.^{xxiii}

Moving on from the commodity as a useful object, let us now turn to commodity value.^{xxiv}

The coat in our example has twice the value of the linen: a purely quantitative difference that doesn't concern us at the moment. Thus it should suffice simply to remind readers that if the value of the coat is twice that of ten yards of linen, then twenty yards of linen has the same magnitude of value as the coat. As values, the coat and the linen are things made up of the same substance: they are objective expressions of homogeneous labor. But tailoring and weaving are qualitatively different forms of labor. There are of course social conditions in which a single person still alternately tailors and weaves, and these ways of working represent modified versions of a single individual's labor rather than the clearly demarcated functions of different individuals, just as the coat our tailor makes today and the pants he makes tomorrow merely imply variations of the same individual labor. One can see, moreover, that in our capitalist society a given portion of human labor now turns to tailoring, now to weaving, changing what it pursues as the demand for labor varies. This shape-shifting on labor's part doesn't happen without friction, but it has to happen.^{xxv} If we now set aside the particular nature of a productive activity, and thus the useful character of the labor involved, all that remains is an outlay of human labor-power. Although tailoring and weaving are qualitatively different as productive activities, when people engage in the one just as when they engage in the other, they productively expend the power of their brains, muscles, nerves, hands, and so on. Tailoring and weaving, in this sense, are human labor. They are merely two different forms in which human labor-power is expended. Human labor-power certainly needs to develop

13. "Our perception of everything in this world, whether produced by the hand of man or by the universal laws of physics, it is not of actual creation but only of transformation of matter. The only elements human ingenuity finds in analysing the idea of reproduction are bringing together and separating, and thus if, in the fields, soil, air and water are transformed into grain, this is reproduction of value [use-value, although Verri himself, in his polemic against the Physiocrats, doesn't really know which kind of value he is referring to] and wealth, just as it is if the hand of man transforms the silken filament from the mouth of an insect into velvet, or a few pieces of metal into a reproducing machine" (Pietro Verri: "Meditazioni sulla Economia Politica" [first printed in 1771] in Custodi's edition of the Italian economists, *Parte Moderna*, Vol. 15, pp. 21, 22). [Editor's note: See Pietro Verri, *Reflections on Political Economy*, trans. P. D. Groenewegen and Barbara McGilvray (Sydney: University of Sydney, 1986), p. 7.]

to this or that point in order to be expended in this or that form, but a commodity's value represents only human labor as such—only an outlay of human labor in general. Just as military commanders and bankers play a big role in bourgeois society, whereas human beings in general have a puny one, so it is here with human labor, too.^{14,xxvi} Human labor is the expenditure of simple labor-power: the labor-power that, on average, normal human beings possess in their physical organism without any special training. While what counts as this *simple average labor* varies according to country and cultural epoch, it is given in a particular society. More complex labor merely counts as *enhanced*, or better, *multiplied* simple labor, meaning that a smaller quantity of complex labor equals a greater quantity of simple labor. Experience shows that this reduction is constantly occurring. A commodity can be the product of the most complex labor; its *value*, however, makes it equal to the product of simple labor, and thus its value represents only a certain amount of simple labor.¹⁵ The diverse ratios in which diverse forms of labor are reduced to simple labor, as their unit of measurement, are established by a social process that takes place behind the backs of the producers, and so these ratios seem to them to be governed by tradition. In what follows, every type of labor-power will be considered as simple labor-power. This will merely spare us the trouble of reducing one type to another.

With the values “coat” and “linen,” the difference between their use-values is abstracted away, and the same thing happens with the labor represented in them: the difference between the useful forms of the two kinds of labor, tailoring and weaving, is abstracted away, too. As use-values, the coat and the linen unite a purposeful, productive activity with raw cloth and raw yarn, respectively. But as values, they are bare gelatinous blobs of homogeneous labor. Thus the instances of labor contained in these values count for something not because of their productive relation to cloth and yarn, but rather only as outlays of human labor-power. Tailoring and weaving can go into creating coats and linen as use-values only because those two kinds of labor have different qualities. They can constitute the substance of coats and linen as values only insofar as their particular qualities are abstracted away, and they possess the same quality, the quality of being human labor.

14. See Hegel, *Philosophie des Rechts*. Berlin 1840, p. 250, §190.

15. The reader should note that what is at issue here isn't the wage or value the worker receives for, say, a day's labor. Rather, it is the commodity value in which his day of labor is objectified. At this stage in our account, the category “wages” doesn't yet exist.

But the coat and the linen are not only values as such; they are values of a particular magnitude. According to our premise, one coat has twice as much value as ten yards of linen. Where does the difference between their magnitudes of value come from? From the circumstance that the linen contains half as much labor as the coat: in order to produce the coat, labor-power has to be expended for twice as long as it takes to produce the linen.

If the labor contained in a commodity counts for something only qualitatively with respect to use-value, that labor counts for something only quantitatively with respect to magnitude of value, once it has been reduced to human labor without further properties. In the first case, what matters is how the labor is performed and to what end; in the second, what matters is how much, for how long. Because a commodity's magnitude of value represents nothing but the amount of labor it contains, there must be certain ratios in which commodities are values of the same magnitude.

If the productive power of tailoring remains constant, and so does that of all the other useful labor needed to make a coat, the value of the coats produced will increase along with their number. One coat will represent x workdays, two coats will represent $2x$ workdays, and so on. Now imagine if the labor that goes into producing a coat doubled or fell by half. In the first scenario, one coat would have as much value as two coats had formerly; in the second, two coats would have as much as one used to have, even though in both cases a given coat would perform the same function, and the useful labor contained in it would be of the same quality as before. But the quantity of labor expended to produce it would have changed.

In and for itself, a greater quantity of use-value amounts to greater material wealth—two coats amount to more than one. Two coats can clothe two people, one coat just one person. Yet when the quantity of material wealth increases, this can correspond to a simultaneous drop in its value. This opposing movement arises from the double character of labor. Productive power is, of course, always the productive power of useful concrete labor, and it determines only how much a purposeful, productive activity can achieve in a given amount of time: useful labor makes more or fewer products in direct proportion to how much its productive power increases or decreases. But variations in productive power have no effect at all on the labor represented in value—on that labor in and for itself. Since productive power only has to do with the concrete useful form of labor, it naturally ceases to have any bearing on labor the moment labor's concrete useful form is abstracted away. The same labor of the same duration will always yield the same amount of value, regardless of whether its productive power varies. Within a given amount of time,

however, labor will create different amounts of use-values, more when its productive power increases, fewer when it decreases. The same change in productive power that increases the fruitfulness of labor, and therefore the number of use-values created, will reduce the total magnitude of value belonging to the larger final quantity if it shortens the total amount of labor-time needed to produce that quantity. And vice versa.

On the one hand, all labor is human labor-power expended physiologically; it is in this capacity as equal human labor or abstract human labor that labor creates commodity value.^{xxvii} On the other hand, all labor is human labor-power expended in a particular form that is determined by a goal; it is in this capacity—or as concrete useful labor—that labor produces use-values.¹⁶

3. The Value-Form or Exchange-Value

Commodities come into the world in the form of use-values or physical commodity bodies, such as iron, linen, wheat, and so on. That is their homespun natural form. They are commodities only as a double entity, at once a use-object and a bearer of value. Thus they appear as commodities, or have the form of commodities, only insofar as they have a double form: a natural form and a value-form.^{xxviii}

16. Note added to the second edition: In order to prove that “labour is alone the ultimate and real standard by which the value of all commodities can at all times and places be estimated and compared,” *Adam Smith* says: “Equal quantities of labor, at all times and places, may be said to be of equal value to the labourer. In his ordinary state of health, strength, and spirits; in the ordinary degree of his skill and dexterity, he must always lay down the same portion of his ease, his liberty, and his happiness” (*Wealth of Nations*, b. I, ch. V). On the one hand, Smith confuses the fact that value is determined by the quantity of labor expended to produce a commodity with the fact that commodity values are determined by the value of labor (Smith does this here but not everywhere), and he therefore tries to demonstrate that equal quantities of labor always have the same value. On the other hand, he senses that labor, insofar as it is represented in the value of commodities, counts for something merely as the expenditure of human labor-power, but then he once again views this expenditure merely as the forfeiting of rest, freedom, and happiness—not as being a normal life-activity as well. Of course, he has the modern wage laborer in mind. One of Smith’s predecessors, whose anonymous work is cited in note 11 [Editor’s note: Erroneous reference in the original. Marx probably meant the author cited in note 9.], put this much more aptly: “One man has employed himself a week in providing this necessary of life . . . and he that gives him some other in exchange, cannot make a better estimate of what is a proper equivalent, than by computing what cost him just as much labour and time: which in effect is no more than exchanging one man’s labour in one thing for a time certain for another man’s labour in another thing for the same time” (op. cit. p. 39).

The value-objecthood of commodities differs from Mistress Quickly in that one knows not where to have it.^{xxx} Not even an atom of natural material goes into their value-objecthood, in striking contrast to their objecthood as physical commodity bodies, which is a crude thing for the senses. However one might twist and turn an individual commodity, as a value-thing, it remains ungraspable.^{xxx} But we need to remind ourselves that commodities possess value-objecthood only insofar as they are expressions of the same social denominator, human labor, and that their value-objecthood is thus purely social. This point should make the following one clear: the value-objecthood of commodities can appear only in the social relation between commodity and commodity. In fact, we began with exchange-value, or the exchange relation of commodities, in order to pick up the trail of their value hidden within it. We must now turn back to exchange-value, that form of appearance of value.

Everyone knows, even if they know nothing else, that commodities have a common value-form that contrasts in the most dramatic way with the diverse natural forms of their use-values: the money-form. But here I want to do something bourgeois political economists have never even attempted: lay bare its genesis or, in other words, trace the development of the value expression contained in the value relation of commodities, starting with the simplest and most inconspicuous form, and proceeding all the way to the dazzling money-form. With that, the whole enigma of money will also be solved.

The simplest value relation is obviously one commodity's value relation with a single commodity of a different kind, any different kind. The value relation of two commodities provides us, then, with the simplest expression of commodity value.^{xxxi}

A. Simple or Individual Value-Form

x commodity A = y commodity B or:
 x commodity A is worth y commodity B.

(20 yards of linen = 1 coat or: 20 yards of linen is worth 1 coat)

1. *The Two Poles of a Value Expression: Relative Value-Form and Equivalent Form*

The entire mystery of the value-form lies hidden in this simple value-form. To analyze this form is therefore our real challenge.

Here two different commodities—A and B, the linen and the coat—play two distinctly different roles, as we can see. The linen expresses its value through the coat; the coat serves as the material for expressing the linen's value. The first commodity plays an active role; the second plays a passive one. The value of the first commodity is represented as relative value: the commodity is in the relative value-form. The second commodity acts as the equivalent: it is in the equivalent form.

The relative value-form and the equivalent form are a pair, inseparable and mutually determining. But at the same time, they are mutually exclusive, or positioned opposite each other—i.e., they make up the two poles of the same value expression. They continually distribute themselves to the different commodities that a value expression brings into relation with each other. For example, I cannot express the value of the linen through linen: “20 yards of linen = 20 yards of linen” isn't an expression of value. What the equation says, in fact, is the opposite: 20 yards of linen is nothing other than 20 yards of linen, a certain amount of the use-value “linen.” The linen's value can thus be expressed only relatively, through a different commodity. The linen's relative value-form presupposes some other commodity opposite it in the equivalent form. That other commodity, the one that acts as the equivalent, cannot also be in the relative value-form. It doesn't express its own value. All it does is supply the material for another commodity's value expression.

The expression “20 yards of linen = 1 coat,” or “20 yards of linen is worth 1 coat,” does imply the reverse equation: “1 coat = 20 yards of linen,” or “1 coat is worth 20 yards of linen.” But in order to express the coat's value relatively, I have to turn the equation around in this way, and as soon as I do that, the linen takes the coat's place as the equivalent. Thus the same commodity can't occupy both forms simultaneously in the same value expression; rather, these opposing forms exclude each other.

Whether a commodity is in the relative value-form or the opposing equivalent form depends entirely on its position within each expression of value—in other words, on whether it is the commodity whose value is being expressed or the one through which value is expressed.

2. Relative Value-Form

a. THE CONTENT OF THE RELATIVE VALUE-FORM: If we want to find out how a commodity's simple value expression lies hidden in the value relation between two commodities, we have to begin by examining this relation quite apart from its quantitative side. People have tended to proceed

the other way around, seeing in a value relation only the ratio in which certain amounts of two different types of commodities count as equal, and overlooking the fact that a quantitative comparison between the magnitudes of two different things isn't possible until they have been reduced to the same unit. Only as expressions of the same unit will they have a common denominator and thus be commensurable magnitudes.¹⁷

Whether 20 yards of linen = 1 coat or = 20 coats or = x coats—that is, whether a given quantity of linen is worth few coats or many—every such relation implies, without exception, that as magnitudes of value, linen and coats are expressions of the same unit, things of the same nature. Linen = coat is the basis of the equation.

But the two commodities that are equated qualitatively do not play the same role. Only the value of the linen is expressed. How so? In that the linen relates to the coat as its (the linen's) "equivalent" or the "thing it can be exchanged for." In this relation, the coat counts as value's form of existence—i.e., a value-thing—because only as such is the coat the same as the linen. The linen's own value-existence, on the other hand, comes into view, or attains an independent expression, because only as value can the linen relate to the coat as something of equal worth, or something that it (the linen) can be exchanged for. In the same way, butyric acid differs as a physical body from propyl formate, although they are made up of the same chemical substances—carbon (C), hydrogen (H), and oxygen (O)—in the same proportions, namely, $C_4H_8O_2$. If propyl formate were equated with butyric acid, first, the propyl formate would count in this relation merely as a form of existence of $C_4H_8O_2$; second, this would say that the butyric acid is also made up of $C_4H_8O_2$. Equating the propyl formate with the butyric acid would express the butyric acid's chemical substance rather than its physical form.

When we say, "As values, commodities are bare gelatinous blobs of human labor," our analysis reduces commodities to a value-abstraction but doesn't give them a value-form different from their natural forms.^{xxxii} Not so in the value relation of one commodity with another. What brings out a commodity's value-character here is its relation with a second commodity.

17. The few political economists who have tried to analyze the value-form, e.g., Samuel Bailey, haven't produced meaningful results. This is so for two reasons. First, they have confused value with the value-form. Second, working (from the start) under the crude influence of the practical bourgeois, they have focused exclusively on the issue of definite quantity. "The command of quantity . . . constitutes value" ("Money and Its Vicissitudes." Lond. 1837, p. 11). Author S. Bailey.

For example, when the coat is equated as a value-thing with the linen, the labor embedded in each of them is equated. The tailoring that produces the coat is not, of course, the same concrete labor as the weaving that produces the linen. But equating it with the weaving does in fact reduce the tailoring to what is actually the same in both forms of labor, to their common character as human labor. This also says, in a roundabout manner, that insofar as weaving weaves value, it too is indistinguishable from tailoring; hence it is abstract human labor. Only an expression of equivalence between different kinds of commodities brings into view the specific character of value-generating labor, and it does that by actually reducing the different forms of labor embedded in different kinds of commodities to their common something: human labor as such.¹⁸

It doesn't suffice, however, to express the specific character of the labor that makes up the linen's value. Human labor-power in its fluid state, in other words, human labor, creates value but isn't itself value. It becomes value in its coagulated state—in an objective form. In order for the linen value to be expressed as a gelatinous blob of human labor, it must be expressed as something that has "objecthood," as something that is different from the linen as a physical thing but, at the same time, is common to both the linen and another commodity.^{xxxiii} The problem has already been solved.

The coat counts as a qualitative equal in the linen's value relation, as a thing of the same nature, because it is a value. Here, then, the coat counts as a thing through which value appears or, in other words, a thing that in its natural, touchable form represents value. A coat, as the body of the commodity "a coat," is simply a use-value, of course. A coat as such expresses value just as little as a random piece of linen does. But this only shows that the coat means something more within the linen's value relation than it does outside that relation, just as some people are more important when they are wearing a fancy embroidered coat than they are without one.

18. Note added to the second edition: The famous Franklin, one of the first political economists after Petty to successfully peer into the nature of value, says, "Trade in general being nothing else but the exchange of labor for labor, the value of all things is . . . most justly measured by labor" ("The Works of B. Franklin etc.," edited by Sparks, Boston 1836, Vol. 2, p. 267). What Franklin didn't realize is that when he assessed the value of all things "in labor," he abstracted from the diversity of the instances of labor being exchanged, thereby reducing them to equal human labor. Yet he managed to say what he didn't know. He speaks first of "the one labor," then of "the other labor." Finally, and without further qualification, he speaks of "labor" as the substance of the value of all things.

When the coat is produced, actual human labor-power is expended in the form of tailoring. Human labor has therefore accumulated in the coat. From such a perspective, the coat is a “bearer of value,” though this quality never peeks out, even when the coat is at its most threadbare. And within the linen’s value relation, the coat means something only from this perspective, and thus it counts only as embodied value, as a value-body. Despite the coat’s buttoned-up appearance, the linen has recognized in it a kindred, beautiful value-soul. But when the coat represents value in its interactions with the linen, value for the linen necessarily takes on the form of a coat. It’s the same when individual A starts to relate to individual B as royalty. Right away, royalty for A necessarily takes on B’s physical form—that is, B’s facial features, beard, and those other characteristics that change with every new lord of the realm.

So within a value relation where the coat plays the role of the linen’s equivalent, the coat-form counts as the value-form. The value of the commodity “linen” is expressed through the body of the commodity “coat”; the value of one commodity is expressed through the use-value of the other. As a use-value, the linen is a thing tangibly different from the coat; as value, it is “something equal to the coat,” and it therefore looks like a coat. In this way, the linen acquires a value-form different from its natural form. That the linen exists as value becomes manifest through its being equal to the coat, just like a Christian’s sheep-like nature becomes manifest through his being equal to the Lamb of God.

As we can see, the moment that the linen begins to interact with another commodity, the coat, it tells us everything our analysis of commodity value has told us up to this point. The linen reveals its thoughts, however, in a language that it alone is familiar with: the language of commodities. In order to say that labor, in its abstract capacity as human labor, creates linen value, the linen says that it and the coat are made up of the same labor, insofar as the coat counts as its equal and, thus, is value. In order to say that its sublime value-objecthood differs from its starched linen body, the linen says that value looks like a coat and so, as a value-thing, it (the linen) is equal to the coat, just like two peas in a pod. A side note: the language of commodities has many other more or less correct dialects, besides Hebrew. Less forcefully than the Romance action term *valere, valer, valoir*, for instance, the German word *Werthsein* (to be worth) expresses that equating commodity B with commodity A is commodity A’s value expression. *Paris vaut bien une messe!*^{xxxiv}

Owing to the value relation, then, the natural form of commodity B becomes the value-form of commodity A—or, in other words, B’s body

becomes the mirror of A's value.^{19,xxxv} Commodity A relates to commodity B in such a way that B functions as a value-body, as the materialization of human labor. It thereby makes the use-value B into the material for its own value expression. When A's value is expressed through B's use-value in this way, it has the form of relative value.

b. THE QUANTITATIVE DETERMINATION OF THE RELATIVE VALUE-FORM: Every commodity with value to express is a given amount of a useful object: 15 bushels of wheat, 100 pounds of coffee, and so on. These given amounts of commodities contain certain amounts of human labor. Hence the value-form doesn't simply express value as such but, rather, quantitatively defined value, or magnitudes of value; and so in commodity A's value relation with commodity B, or the linen's value relation with the coat, it doesn't simply happen that the commodity type "coat," acting as an unspecified value-body, is qualitatively equated with linen. Rather, a certain quantity of the value-body or the equivalent—for example, one coat—is equated with a certain quantity of linen—for example, 20 yards.

The equation 20 yards of linen = 1 coat, or 20 yards of linen is worth 1 coat, presupposes that the same amount of value-substance is embedded in one coat as in 20 yards of linen, that the two quantities of different commodities cost the same in terms of the amount of labor or labor-time expended to make them. But the labor-time needed to produce 20 yards of linen, or one coat, varies as the productive power of weaving or tailoring does. Let's now take a closer look at how such variations affect the relative expression of magnitudes of value.

I. The linen's value varies while the coat's remains constant.²⁰ If the labor-time needed to make the linen doubles—say, because the flax-growing soil becomes less fertile—the linen's value will double, too. Instead of 20 yards of linen = 1 coat, it would be 20 yards of linen = 2 coats because one coat now contains only half as much labor-time as 20 yards of linen. If instead the labor-time it takes to produce 20 yards of linen decreases by half because of, say, better looms, the linen's value will fall to

19. In a way, human beings are in the same boat as commodities. Because human beings don't come into the world holding a mirror, or as Fichtean philosophers who would say, "I am I," they are first reflected only in other human beings. It was only by first relating to the human being Paul as his equal that the human being Peter began to relate to himself as a human being. Here Paul in the flesh, or Paul in his Pauline corporeality, counted for Peter as the form of appearance of the species "human being."

20. The term "value" is used here for quantitatively determined value, i.e., magnitude of value; it has at times been used that way already.

half of what it had been. So now 20 yards of linen = $\frac{1}{2}$ coat. Commodity A's relative value—that is, its value expressed through commodity B—rises and falls in exactly the same way as A's value does, as long as B's value remains the same.

II. The linen's value remains constant while the coat's varies. If the labor-time required to make a coat doubles—say, as a result of a bad wool season—20 yards of linen would now equal $\frac{1}{2}$ coat, rather than 20 yards of linen = 1 coat. If the value of the coat is halved, then 20 yards of linen = 2 coats. So if the value of A stays the same, its relative value, expressed through B, will rise and fall in inverse relation to how B's value changes.

When we compare the different cases given under I and II, we see that contrasting causes can bring about the same change in the magnitude of relative value. The equation 20 yards of linen = 1 coat thus becomes 20 yards of linen = 2 coats either when the linen's value doubles or when the coat's value is cut in half. It becomes the equation 20 yards of linen = $\frac{1}{2}$ coat either when linen's value falls by half or when the coat's value doubles.

III. The quantities of labor needed to produce the linen and the coat could change in the same direction at the same time, and in the same proportion. In such a case, twenty yards of linen would equal one coat, the same as before, regardless of how much their value changed. We would discover these variations in value the moment we compared the two commodities with a third whose value had remained constant. If the value of every commodity rose or fell at the same time, and in the same proportion, their relative values would remain unchanged. The way to detect this kind of change would be to see whether, on the whole, more or fewer commodities were being produced by the same expenditure of labor-time.

IV. The amounts of labor-time needed to produce the linen and the coat, respectively—and hence the linen's and the coat's values—might change in the same direction at the same time, but to different degrees, or these amounts could change in opposite directions, and so on. Simply by applying the cases described in I, II, and III, one could work out how all the possible combinations would affect a commodity's relative value.

Actual changes in the magnitude of value are thus reflected neither unambiguously nor exhaustively in its relative expression, that is, in the magnitude of the relative value. The relative value of a commodity can vary even if its value remains constant. A commodity's relative value can remain constant even if its value varies. Finally, we should hardly expect

simultaneous changes in a commodity's magnitude of value and the relative expression of that magnitude to occur in the same direction and to the same extent.²¹

3. *The Equivalent Form*

We have seen that when commodity A (the linen) expresses its value through the use-value of a different type of commodity, B (the coat), it impresses a special value-form on B, that of the equivalent. The coat, without taking on a value-form different from its bodily form, counts as equal to the linen—this is how the commodity “linen” brings into view that it exists as value.^{xxxvi} So, in fact, the linen expresses that it exists as value through the coat's being directly exchangeable with it. It follows that a commodity's equivalent form is the form in which it can be directly exchanged for another commodity.

One type of commodity, such as coats, serves as the equivalent of another commodity, such as linen, thereby taking on the characteristic property of being in a form in which it can be directly exchanged for the linen. But this fact alone won't tell us the ratio in which coats and linen can be exchanged. Since the linen's magnitude of value is given, this ratio depends on the coat's magnitude of value. The coat's magnitude of value remains determined, as before, by the labor-time needed to produce it and thus not at all by its value-form, regardless of whether the coat is expressed as the equivalent and the linen as relative value, or the other

21. Note added to the second edition: With its customary cleverness, vulgar political economy has exploited this incongruity between the magnitude of value and the relative expression of that magnitude. For example, “Once we admit that A falls, because B, with which it is exchanged, rises, while no less labour is bestowed in the meantime on A, and your general principle of value falls to the ground. If Ricardo allowed that when A rises in value relatively to B, B falls in value relatively to A, he cut away the ground on which he rested his grand proposition, that the value of a commodity is ever determined by the quantity of labour embodied in it; for if a change in the cost of A alters not only its own value in relation to B, for which it is exchanged, but also the value of B relatively to that of A, though no change has taken place in the quantity of labour required to produce B, then not only the doctrine falls to the ground which asserts that the quantity of labour bestowed on an article regulates its value, but also that which affirms the cost of an article to regulate its value” (J. Broadhurst: “Political Economy, London 1842,” pp. 11 and 14).

Mr. Broadhurst could just as well have said, consider the fractions $\frac{10}{20}$, $\frac{10}{50}$, $\frac{10}{100}$, and so on. The number 10 remains constant, and yet its proportional magnitude, its magnitude relative to the denominators 20, 50, 100, keeps falling. Thus the following major principle runs aground: the magnitude of a whole number—10, for example—is “regulated” by the number of times the number 1 is contained in it.

way around, with the linen being expressed as the equivalent and the coat as relative value. But the moment that the type of commodity “coat” assumes the role of the equivalent in a value expression, its magnitude of value is no longer expressed as a magnitude of value. The coat figures in the value equation, rather, only as a definite quantity of a given thing.

For example: 40 yards of linen is “worth” . . . what? Two coats. Because the type of commodity “coat” is playing the role of the equivalent here, and the use-value “coat” counts as a value-body in its interactions with the linen, a certain quantity of coats will suffice to express a certain quantity of the linen’s value. Two coats can therefore express the magnitude of value of 40 yards of linen, but never their own magnitude of value, the two coats’ magnitude of value. Along with many of his predecessors and successors, Bailey wound up in error due to a superficial reading of the fact that the equivalent in such a value equation never has any form except that of a simple quantity of a thing, of a use-value.^{xxxvii} He saw a purely quantitative relation in a commodity’s value expression. But the equivalent form of a commodity doesn’t contain any quantitative determination of value.^{xxxviii}

When we consider the equivalent form, the first peculiarity that stands out is this: use-value becomes the form of appearance of its opposite: value.

The natural form of a commodity turns into the value-form. Note, however, that this *quid pro quo* happens to a version of commodity B (the coat, or wheat, or iron, and so on) only within a value relation, where some other commodity, an A (linen, etc.), has joined it: only there, within that relation.^{xxxix} No commodity can relate to itself as its own equivalent; neither, then, can it make its natural skin into the expression of its own value. A commodity therefore needs to relate to another commodity in such a way that that other commodity acts as its equivalent: it needs to make the natural skin of another commodity into its own value-form.

This can be seen using a measure that applies to the physical bodies of commodities as physical bodies—in other words, as use-values. A sugarloaf, being a body, has heft, and thus it has weight, but one can’t see a sugarloaf’s weight or touch it. Now let’s say that we have some pieces of iron whose weight has already been determined. Viewed on its own, the iron’s physical form isn’t the form of appearance of weight any more than the sugarloaf’s is. Yet in order to express the sugarloaf as a weight, we put it into a weight relation with the iron. In this relation, the iron counts as a body that represents nothing but weight. Quantities of iron serve as measures of the sugarloaf’s weight, and with respect to the sugarloaf’s

body, they represent only the shape of weight—weight’s form of appearance. The iron plays such a role only within this relation, where it is joined by the sugarloaf, or some other physical body whose weight has to be determined. Only because both things have weight can they enter into this kind of relation, with one serving to express the weight of the other. If we put the two things onto a scale, we would see that, as weight, they are in fact the same, and so in the right proportions, they have the same weight. Functioning for the sugarloaf as the measure of weight, the iron’s physical body represents nothing but weight. Just so, the physical body of the coat represents nothing but value when it interacts with the linen in our value expression.

The analogy ends here, however. In the sugarloaf’s weight expression, the iron represents a natural property common to both bodies: their weight. But in the linen’s value expression, the coat represents a supernatural property shared by the two things, their value, which is something purely social.

A commodity’s relative value-form—say, the linen’s—expresses its value-existence as something very different from its body and physical properties: as something equal to a coat, for example. In doing so, this expression itself indicates that it conceals a social relation. It’s the other way around, however, with the equivalent form. Here a physical commodity body, such as the coat, a thing as it hangs from racks and shoulders, expresses value. The coat, then, gets its value-form from nature. Of course, this holds only within the value relation, where the commodity “linen” relates to the commodity “coat” as its equivalent.²² But a thing’s properties don’t stem from its relations with other things: its properties are merely activated in those relations. The coat thus seems to derive its equivalent form, its property of direct exchangeability, from nature in the same way that its properties of being heavy or keeping us warm come from nature. Hence the enigma of the equivalent form, which the political economist, with his crude, bourgeois way of seeing, fails to notice until he encounters it fully developed—that is, as money. Then, in an attempt to explain away the mystical character of gold and silver, he puts less dazzling commodities in their place and recites, with undying pleasure, the whole list of the plain commodities that have played the role of commodity equivalent in their day. He has no idea that even the simplest value expression, such as

22. Such reflective determinations are a curious thing. A man is a king only because other people behave toward him as his subjects. Of course, they believe themselves to be his subjects because he is their king.

20 yards of linen = 1 coat, holds the solution to the mystery of the equivalent form.

The physical body of the particular commodity that is serving as the equivalent always counts as the embodiment of abstract human labor, and it is also always produced by a particular instance of useful concrete labor. This concrete labor thus turns into an expression of abstract human labor. If the coat counts as nothing but the realization of abstract human labor, then the tailoring actually realized in the coat counts as nothing but the form in which abstract human labor is realized. In the linen's value expression, the usefulness of tailoring doesn't lie in the fact that it makes clothes—and thus also the man—but rather in this: it produces a body that we can tell is value, a gelatinous blob of labor that can't be distinguished from the labor objectified in the linen value.^{x1} In order for tailoring to make such a value-mirror, nothing can be reflected in it but its abstract property of being human labor.

Human labor-power is expended in tailoring as it is in weaving. Both forms of labor therefore have the general quality of being human labor. In certain cases that quality can be the only one that matters—when value is produced, for example. This is all very straightforward, but in a commodity's value expression, things become topsy-turvy. For instance, in order to express that weaving creates the linen value in its general capacity as human labor, rather than in its concrete form as weaving, tailoring, the concrete labor that produces the linen's equivalent, has to be set against it (weaving) as the tangible form in which abstract human labor is realized.

So a second peculiarity of the equivalent form is that concrete human labor becomes the form of appearance of its opposite, abstract human labor.

Since the concrete labor, tailoring, counts merely as an expression of undifferentiated human labor, it has a form in which it is equal to other labor: the labor embedded in the linen. And so even if, like all the labor that produces commodities, it is private labor, it is nevertheless labor in a directly social form. For just this reason it is represented in a product that is directly exchangeable for another commodity. The third peculiarity of the equivalent form is thus that private labor becomes the form of its opposite: labor in a directly social form.

Let us turn to a great discoverer, the first person to analyze the value-form and also many other intellectual, social, and natural forms: this will make it easier to understand the second and third peculiarities of the equivalent form. I am thinking of Aristotle.

First of all, Aristotle clearly states that a commodity's money-form is nothing other than a more developed version of the simple value-form—i.e., one commodity's value expressed through some random other commodity. He says:

“5 beds = 1 house” (κλῖναι πέντε ἀντὶ οἰκίας) is “no different” than “5 beds = this or that amount of money” (κλῖναι πέντε ἀντὶ . . . ὄσου αἰ πέντε κλῖναι).^{xli}

Further, he realizes that the value relation on which this expression of value is based itself requires the house to be qualitatively equated with the bed, and that without this essential equality these physically different things couldn't relate to each other as commensurable magnitudes. “Exchange cannot occur,” he says, “without equality, nor can equality exist without commensurability” (οὐτ' ἰσότης μὴ οὔσης συμμετρίας). But then he falters and gives up on further analysis of the value-form. “It is then in truth impossible [τῇ μὲν οὖν ἀληθείᾳ ἀδύνατον] that such disparate things can be commensurable,” i.e., qualitatively the same. This kind of equating must be something foreign to the real nature of the things involved and therefore only “a makeshift for practical purposes.”

So, Aristotle himself tells us what stymied his analysis—namely, he lacked a concept of value. What is the equal something—the shared substance—that the house represents for the bed in the bed's value expression? Such a thing “in truth cannot exist,” says Aristotle.^{xlii} Yet why? Opposite the bed, the house represents something equal as long as it represents what is truly the same in both. And that is . . . *human labor*.

Aristotle, however, wasn't able to glean from the value-form that in the form of commodity values, all kinds of human labor are expressed as equal human labor, and hence as equally valid. With slave labor serving as its natural foundation, Greek society rested on the inequality of people and their labor-power, while the mystery of the value expression—that all instances of labor are equal and equally valid because and insofar as they are human labor as such—could be solved only after the concept of human equality had become well established as a popular belief. But this can happen only in a society where the commodity-form is the general form of labor products, and thus the dominant social relation is that of people interacting as commodity owners. Aristotle's genius shines precisely in his discovery of a relation of equality in a commodity's value expression. It was only the historical constraint of the society in which he lived that prevented him from finding out how, “in truth,” this relation of equality is constituted.

4. Simple Value-Form in Its Entirety

A commodity's simple value-form is contained in its value relation with a different kind of commodity—that is, its exchange relation with such a commodity. Commodity A's value is expressed qualitatively by the circumstance that commodity B can be directly exchanged for commodity A. It is expressed quantitatively by the circumstance that a certain quantity of B can be directly exchanged for a given quantity of A. In other words, a commodity's value is expressed independently when it is represented as "exchange-value." The commodity is both a use-value and an exchange-value: readers will recall that line, which uses today's terminology, from the beginning of this chapter. The line is wrong, strictly speaking. The commodity is both a use-value, or a useful object, and "a value." It is represented as the double something that it is the moment its value acquires the form of exchange-value: a form of appearance of its own different from the commodity's natural form. But a commodity never has that form when viewed in isolation; rather, it has the form of exchange-value only within a value relation (or exchange relation) with a second commodity of a different type. If one keeps this in mind, it is harmless to say what we said earlier. It is just shorthand.

Our analysis has shown that the value-form or a commodity's value expression arises from the nature of commodity value, rather than the reverse—value and magnitude of value don't arise from their mode of expression as exchange-value. Yet the Mercantilists and their modern epigones, such as Ferrier, Ganilh, and others, subscribe to this crazy notion—as do their polar opposites: the modern salesmen of free trade, such as Bastiat and his lot.^{23,xliii} The Mercantilists focus above all on the qualitative side of the expression of value and therefore the commodity's equivalent form, whose fully developed shape is money. Modern free trade peddlers, in contrast, focus on the quantitative side of the relative value-form, needing as they do to unload their commodities at any price. It follows that neither value nor a commodity's magnitude of value exists for them except as expressed by relations of exchange—or, that is, as a list of the day's stock prices. In attempting to dress up the incoherent views of Lombard Street in the most learned attire, the Scotsman MacLeod

23. Note added to the second edition: F. L. A. Ferrier (*sous-inspecteur des douanes*): "Du Gouvernement considéré dans ses rapports avec le commerce. Paris 1805" and Charles Ganilh: "Des Systèmes de l'Économie Politique, 2ème éd. Paris 1821."

managed to create a synthesis of the superstitious Mercantilists and the enlightened peddlers of free trade.^{xliv}

When we looked closely at the value expression of commodity A contained in A's value relation with commodity B, we saw that within that relation, A's natural form counts as nothing but a shape of use-value, and B's natural form counts only as a value-form or value-shape. The internal opposition between use-value and value encased in the commodity is represented, then, as an external opposition. It is represented through the relation between two commodities, where the one commodity, whose value is to be expressed, directly counts as nothing but use-value, while the other, through which value is to be expressed, directly counts as nothing but exchange-value. A commodity's simple value-form is thus the simple form of appearance of its internal opposition: use-value versus value.

Labor products have been useful objects in all stages of society, but they were transformed into commodities only in a historically specific epoch of development, where the labor expended to make a use-thing came to be represented as the "objective" property of that thing, namely, its value. It follows that a commodity's simple value-form is at the same time a labor product's simple commodity-form, and also that the development of the commodity-form coincides with that of the value-form.

We can recognize at a glance the inadequacy of the simple value-form, the embryonic form that matured into the price-form only by metamorphosing a number of times.

When commodity A's value is expressed through this or that commodity B, A's value is distinguished only from its own use-value, and so expressing A's value in this way only puts A into an exchange relation with an individual commodity of a type different from A's; it doesn't represent A's qualitative equality with or quantitative proportionality to all other commodities. One commodity's individual equivalent form corresponds to the simple relative value-form of a single different commodity. Thus in the linen's relative value expression, the coat has the equivalent form, or the form of direct exchangeability, with regard to this one kind of commodity alone—the linen.

Here, nevertheless, the individual value-form turns into a more complete form on its own. Of course, the value of a commodity A is still expressed only through one other commodity of a different kind. But it doesn't matter at all which kind: coats, iron, wheat, and so on. Depending on whether a commodity enters into a value relation with this or that commodity, different simple expressions of its value, of the value

of one and the same commodity, will arise.²⁴ How many ways there are to express its value is limited only by how many different kinds of commodities there are. A commodity's isolated value expression is thus transformed into the indefinitely extendable series of its different simple value expressions.

B. Total or Expanded Value-Form

z commodity A = u commodity B or = v commodity C or = w commodity D or = x commodity E or = etc.

(20 yards of linen = 1 coat or = 10 pounds of tea or = 40 pounds of coffee or = 8 bushels of wheat or = 2 ounces of gold or = half a ton of iron or = etc.)

1. *The Expanded Relative Value-Form*

A commodity's value—the linen's, for example—is now expressed through countless other members of the commodity world. The physical body of every other commodity becomes a mirror of the linen's value,²⁵ and so its value truly begins to appear as a gelatinous blob of undifferentiated human labor. For the labor that makes up this value is now expressly represented as labor that counts as equal to all other human labor, whatever natural form that other labor has and thus whether it is objectified in a coat, or wheat, or iron, or gold, or something else.

24. Note added to the second edition: In Homer the value of a thing is expressed through a series of different things.

25. Hence people speak of the coat value of the linen when we represent its value as coats, its grain value when its value is represented as grain, and so on. Every such expression says that it's the linen's value that appears through the use-values coat, grain, and so on. "The value of any commodity denoting its relation in exchange, we may speak of it as . . . cornvalue, clothvalue according to the commodity with which it is compared; and then there are a thousand different kinds of value, as many kinds of value as there are commodities in existence, and all are equally real and equally nominal" ("A Critical Dissertation on the Nature, Measures, and Causes of Value: chiefly in reference to the writings of Mr. Ricardo and his followers. By the Author of Essays on the Formation etc. of Opinions. London 1825" p. 39). Samuel Bailey, the author this anonymous work, which caused a real stir in the England of its day, mistakenly thought that by pointing to the diverse relative expressions of one and the same commodity value, he had exploded all conceptual determinations of value. But despite Bailey's prejudices, he was able to identify significant weak points in Ricardo's thinking. Why else would Ricardo's followers have displayed so much irritation in carrying out their attacks against him (in the *Westminster Review*, for example)?

Owing to its value-form, the linen is now in a social relation with the whole commodity world and no longer just one different type of commodity. As a commodity, it is a citizen of that world. At the same time, the endless series of the linen's expressions of value shows that for a commodity value, the particular form of use-value through which it appears doesn't matter at all.

Twenty yards of linen = 1 coat: In this first form, it might be purely accidental that the two commodities can be exchanged in a certain quantitative ratio. In the second form, in contrast, the background that determines—and also differs essentially from—this accidental appearance shines through right away. The linen's magnitude of value remains the same, whether represented as a coat, coffee, iron, or countless other commodities belonging to owners of the most diverse ilk. The accidental relation of two individual commodity owners falls away. What becomes clear is that exchange doesn't regulate the magnitude of a commodity's value, but rather the reverse is true: a commodity's magnitude of value regulates its relations of exchange.

2. The Particular Equivalent Form

Every commodity—a coat, tea, wheat, iron—counts in the linen's expression of value as the equivalent and thus as a value-body. The particular natural form of each of these commodities is now a particular equivalent form among many others. Likewise, the diverse, particular, concrete, useful kinds of labor contained in the various physical commodity bodies now count as so many particular forms of realization—or forms of appearance—of human labor as such.

3. The Shortcomings of the Total or Expanded Value-Form

First, a commodity's relative value expression remains incomplete because the series of things through which it can be represented never ends. The chain in which one value equation gives way to another can be extended indefinitely, as each new kind of commodity provides the material for a new expression of value. Second, what takes shape here is a colorful mosaic of unconnected and diverse value expressions. If in the end the relative value of every commodity is expressed in this expanded form, as is inevitable, then every commodity's relative value-form is an endless series of value expressions different from the relative value-form

of every other commodity. The shortcomings of the expanded relative value-form are reflected in the equivalent form that goes with it. Here, the natural form of every individual kind of commodity is a particular equivalent form among countless others. So there are only limited equivalent forms, each of which excludes all the others. Similarly, the specific, concrete, useful kind of labor that every commodity equivalent contains is only one particular form through which human labor appears, and thus not an exhaustive one. Human labor has its complete or total form of appearance in the totality of its particular forms of appearance, of course. But this also means that it doesn't have a single unified form of appearance.

The expanded relative value-form is made up entirely, in any case, of an aggregation of simple relative value expressions or equations of the first type of form, such as:

$$\begin{aligned} 20 \text{ yards of linen} &= 1 \text{ coat} \\ 20 \text{ yards of linen} &= 10 \text{ pounds of tea and so on} \end{aligned}$$

Each of these equations also implies the identical equation in reverse:

$$\begin{aligned} 1 \text{ coat} &= 20 \text{ yards of linen} \\ 10 \text{ pounds of tea} &= 20 \text{ yards of linen and so on} \end{aligned}$$

In fact, if someone were to exchange his linen for many other commodities, thereby expressing its value through a series of other commodities, then many other commodity owners would necessarily be exchanging their commodities for linen, thereby expressing the value of various commodities through one and the same third commodity, the linen. Thus if we reverse the series 20 yards of linen = 1 coat or = 10 pounds of tea or = etc.—that is, if we express the reverse relation already implied in the series, we get:

C. The General Value-Form

$$\begin{aligned} 1 \text{ coat} &= \\ 10 \text{ pounds of tea} &= \\ 40 \text{ pounds of coffee} &= \\ 8 \text{ bushels of wheat} &= & 20 \text{ yards of linen} \\ 2 \text{ ounces of gold} &= \\ \text{half a ton of iron} &= \\ x \text{ commodity A} &= \\ \text{and so on} &= \end{aligned}$$

1. The Changed Character of the Value-Form

Commodities now represent their value simply (because through a single commodity) and also in the same way (because through the same commodity). Their value-form is simple, and they share the same one; it is therefore general.

Forms I and II served only to express a commodity's value as something distinct from its own use-value or physical commodity body.

The first form (I) yielded value equations such as 1 coat = 20 yards of linen, 10 pounds of tea = half a ton of iron, and so on. The coat value is expressed as something equal to linen, the tea value as something equal to iron, and so on. But these value expressions of the coat and the tea—"something equal to linen" and "something equal to iron"—are just as different as linen and iron. Clearly, this form occurs only in the very beginning stages, where accidental and occasional exchanges transform labor products into commodities.

The second form (II) distinguishes a commodity's value from its own use-value more adequately than the first form (I) does, because it is now through all possible forms that the coat's value, for example, faces its natural form: as something equal to linen, something equal to iron, something equal to tea, and so on—as everything except something equal to a coat. On the other hand, a common value expression for commodities is directly excluded, since now, in the value expression of any one commodity, every other commodity appears only in the form of the equivalent. The expanded value-form truly emerges only once it is customary, or no longer unusual, for a labor product—say, cattle—to be exchanged for various other commodities.

This newly attained form expresses the values of the whole commodity world through a single kind of commodity set apart from the rest—linen, for example, representing the values of all the other commodities through their being equal to that one commodity. As something equal to the linen, the value of every commodity is now distinguished not only from its own use-value but also from all use-value; and in just this way, the value of every commodity is expressed as what is common to all commodities. It is thus this form that actually brings all commodities into relation with one another as values—that allows them to present themselves to one another as exchange-values.^{xlv}

The two earlier forms (Form I and Form II) express the value of an individual commodity one at a time, either through a single commodity of another type, or through a series of many such commodities. In both cases,

it is an individual commodity's private business, so to speak, to give itself a value-form: a commodity achieves this without help from the other commodities, which play the merely passive role of the equivalent here. The general value-form, in contrast, can arise only as the commodity world's common project. A commodity acquires a general value expression only when all other commodities simultaneously express their value through the same equivalent, something that every new kind of commodity will have to do. What this brings into view is that because the value-objecthood of commodities is merely the "social existence" of these things, it can be expressed only through the range of their social relations. And so their value-form must be a socially valid form.

In the form of something equal to the linen, all commodities appear not only as qualitatively equal somethings, or values as such, but also as quantitatively comparable magnitudes of value. Because their magnitudes of value are reflected in the mirror of one and the same material, the linen, these magnitudes mirror one another. For example, 10 pounds of tea = 20 yards of linen, and 40 pounds of coffee = 20 yards of linen. So 10 pounds of tea = 40 pounds of coffee. Or, embedded in a pound of coffee is only $\frac{1}{4}$ as much value-substance—i.e., labor—as there is in a pound of tea.

The general relative value-form of the commodity world impresses the character of a universal equivalent on the linen, the equivalent commodity excluded from that world. The linen's own natural form becomes the commodity world's common value-shape, and, thus, the linen can be directly exchanged for all other commodities. Its physical form now counts as the visible incarnation, the general social chrysalis state, of all human labor. Weaving, the private labor that produces the linen, has at the same time a general social form: the form of being equal to all other kinds of labor. The general value-form is made up of the countless equations that one after the other equate the labor realized in the linen with the labor contained in every other commodity, thereby turning weaving into the general form of appearance of human labor as such. Not only is the labor objectified in a commodity value represented negatively, or as labor from which all the concrete forms and useful qualities of actual instances of labor have been abstracted away, but its positive nature is expressly revealed: it is the reduction of all actual instances of labor to their common character as human labor, to an expenditure of human labor-power.

The general value-form represents labor products as bare gelatinous blobs of undifferentiated human labor, and its own structure shows that it

is the social expression of the commodity world. This form thus shows that within the commodity world, labor's general human character constitutes its specific social character.

*2. The Interdependent Development of the Relative Value-Form
and the Equivalent Form*

How much the equivalent form has developed corresponds to how developed the relative value-form is. But in fact—and let's note this well—the equivalent form's development simply expresses and results from the development of the relative value-form.

One commodity's simple or isolated relative value-form makes another commodity into an individual equivalent. The expanded form of relative value, or the expression of one commodity's value through all other commodities, recasts these other commodities in the form of diverse particular equivalents. Finally, one particular kind of commodity attains the form of a general equivalent because all other commodities make it into the material of their uniform general value-form.

But as the value-form as such develops, the opposition between its poles—the relative value-form and the equivalent form—develops, too, and to the same degree.

Even Form I, 20 yards of linen = 1 coat, contains this opposition, although it isn't yet fixed there. If the same equation is read forward and then backward, each of the two commodity poles, the linen and the coat, will switch positions, going either from the relative value-form to the equivalent form, or the other way around. It still takes effort to keep the polar opposition fixed.

In Form II, different kinds of commodities can fully expand their relative value only one at a time. Only one commodity has the expanded relative value-form, that is, because and insofar as all the other commodities occupy the equivalent form in their interactions with this one commodity. We can no longer flip around the two sides of a value equation—such as 20 yards of linen = 1 coat or 10 pounds of tea or 8 bushels of wheat, and so on, without altering its whole character and changing it from the total value-form to the general value-form.

The last form, Form III, finally gives the commodity world a social relative value-form that qualifies as general, and this happens because, and insofar as, all commodities are excluded from the general equivalent form—with one exception. One commodity, the linen, comes to have a

form in which it can be directly exchanged for all the other commodities, i.e., a directly social form, because and insofar as all the other commodities do not occupy that form.²⁶

Conversely, the commodity that functions as the general equivalent is excluded from the commodity world's uniform and therefore general relative value-form. If the linen—in other words, some commodity occupying the general equivalent form—were to partake of the general relative value-form at the same time, it would have to serve as its own equivalent. We would then wind up with 20 yards of linen = 20 yards of linen, a tautology that expresses neither value nor magnitude of value. In order to express the general equivalent's relative value, we need instead to invert Form III. This equivalent doesn't share a relative value-form with all commodities; rather, its value expresses itself relatively through that endless series: the physical bodies of all other commodities. Thus the expanded relative value-form, or Form II, now appears as the equivalent commodity's specific relative value-form.

26. In fact, when we simply look at the form of general and direct exchangeability, we can't tell that it is an oppositional commodity-form, as inseparable from the form of non-direct exchangeability as the positivity of one pole of a magnet is from the negativity of the other pole. Hence one might imagine that it is possible to confer direct exchangeability on all commodities at the same time—in the same way that one might imagine that it is possible to make all Catholics into popes. Of course, the petit bourgeois, who sees the production of commodities as the *nec plus ultra* of human freedom and independence, wants the problems associated with this form, especially the nondirect exchangeability of commodities, to be wiped away. Proudhon's socialism is a version of this philistine utopia. As I have shown elsewhere, it doesn't even have the merit of originality: much earlier than Proudhon, Gray, Bray, and others developed far better versions. Yet this hasn't prevented such wisdom from becoming rampant in certain circles today, under the term "science." No school has ever thrown around that term more freely than Proudhon's, because,

“where concepts are lacking,
a word arrives at the right time to fill the gap.”

[Editor's note: In the last line of his footnote, Marx is quoting, in slightly altered form, a line from *Faust* (part 1, scene 4). Pierre-Joseph Proudhon (1809–1865) was a one-time ally of Marx's who became a rival, or really, an enemy. Known for his early advocacy of anarchism and mutualism, the latter of which was based on the idea that equality of value (in terms of labor) should be mandated in exchange, Proudhon wasn't actually a proponent of revolution, which is why Marx excoriated him as a petit bourgeois thinker. Marx also ridiculed what he saw as Proudhon's philosophical superficiality. For example, he inverted the title of a work by Proudhon, *The Philosophy of Poverty*, in his (Marx's) most comprehensive attack on him: *The Poverty of Philosophy*.]

3. *The Transition from the General Value-Form to the Money-Form*

The general equivalent form is a form of value as such, which means that any commodity can have it. On the other hand, a commodity can occupy the general equivalent form (Form III) only when, and insofar as, all other commodities have excluded that commodity from their ranks, thereby making it into their equivalent. Only once this exclusion has been definitively restricted to one specific kind of commodity will the commodity world's uniform relative value-form, now truly established, acquire general social validity.

A specific kind of commodity, a commodity whose natural form becomes socially intertwined with the equivalent form, emerges as the money commodity, or functions as money. To play the role of the general equivalent becomes this commodity's specific social function, and so it has a social monopoly on that role within the commodity world. Among the commodities that figure as linen's specific equivalents in Form II—and all express their relative value through the linen in Form III—one particular commodity has a history of capturing and holding onto this privileged position, namely, gold. If we replace the commodity “linen” with the commodity “gold” in Form III, we get, in fact:

D. The Money-Form

20 yards of linen =
 1 coat =
 10 pounds of tea =
 40 pounds of coffee = 2 ounces of gold
 8 bushels of wheat =
 half a ton of iron =
 x commodity A =

Fundamental changes take place during the transition from Form I to Form II and from Form II to Form III. In contrast, Form IV doesn't differ at all from Form III, except that the commodity that has the form of the general equivalent is now gold rather than linen. Gold is in Form IV what the linen was in Form III, i.e., the general equivalent. The only progress that has occurred is that owing to social convention, the form in which a commodity can be directly exchanged for any other commodity, in other words, the general equivalent form, has become definitively intertwined with the specific natural form of a particular commodity: gold.

Gold now functions as money in its interactions with all the other commodities only because it had previously interacted with them as a commodity. Like all other commodities, it too had functioned as an equivalent, whether as the individual equivalent in isolated exchange transactions, or as one particular commodity equivalent alongside others. Gradually, it began to act in smaller or larger circles as the general equivalent. The moment that gold seized the monopoly on this role in the commodity world's value expression, it became the money commodity, and then, or only after that had happened, did Form IV come to differ from Form III. Only then was the general value-form transformed into the money-form.

When a commodity's simple relative value expression, such as linen's, is put in terms of the commodity already functioning as the money commodity, such as gold, we have the price-form. Hence the "price-form" of linen:

20 yards of linen = 2 ounces of gold,

or, if 2 ounces of gold when coined are £2,

20 yards of linen = £2

The concept of the money-form presents one challenge, namely, to grasp the general equivalent form, and thus the general value-form as such—Form III. By working backward, we can reduce Form III to Form II, the expanded value-form, and its constitutive element is Form I: 20 yards of linen = 1 coat, or x commodity A = y commodity B. The simple commodity-form is therefore the seed of the money-form.

4. The Fetish Character of Commodities—and the Secret It Entails

A commodity seems, at first glance, like an obvious, trivial thing. However, when we analyze it, we see that it is very intricate, full of metaphysical quibbles and theological quirks. To the extent that a commodity is a use-value, there is nothing mysterious about it, whether I view it as something whose properties satisfy human wants and needs or something that has those properties only as the product of human labor. Anyone can see that human activity modifies natural materials so as to make them useful to people. We modify the form of wood, for example, when we use it to build a table. Of course, the table isn't any less made up of wood for having been worked on, and the wood remains an ordinary sensuous thing. But the moment the table begins to act as a commodity, it metamorphoses into a sensuous supersensuous thing. It doesn't simply stand before us with its feet on the ground; rather, in its relations with all other commodities,

it turns upside down and spins bizarre notions out of its blocky head, a performance far more fantastic than if it were to start dancing of its own accord.²⁷

Thus the commodity's mystical character doesn't arise from its use-value. It also doesn't arise from that which constitutes the determinants of value. For however diverse useful labor or productive activity may be, it is, first, a physiological fact that the varieties of useful labor are functions of the human organism, and that every such function, whatever its purpose and form, is essentially the exertion of a human brain, nerves, muscle, sensory organs, and so on. Second, with regard to how the magnitude of value is determined, i.e., how long an exertion lasts or how much labor is expended, the quantity of labor is manifestly different from its quality: under all conditions, people have had to think about how much labor-time is needed to produce their means of subsistence, although not to the same degree in all stages of development.²⁸ Finally, the labor people carry out also takes on a social form as soon as they begin to work for one another in some way.

The moment a labor product assumes the commodity-form, it has an enigmatic character, which comes from—where? From this form itself, clearly. The equality existing among different kinds of human labor takes on the thingly form of labor products' equal value-objecthood. Duration as the measure of expended human labor-power takes on the form of labor products' magnitudes of value. And the relations among the producers themselves, within which the social characteristics of their labor are activated, take on the form of a social relation among labor products.^{xlvi}

The mystery of the commodity-form amounts, then, simply to this: the form reflects back at people the social characteristics of their own labor

27. Readers will recall that China and tables began to dance as the rest of the world appeared to stand still—*pour encourager les autres*. [Editor's note: Some wordplay here by Marx, who is alluding to the fact that after the "failed" Revolution of 1848 (and thus as the rest of the world seemed to be standing still), séances, the German term for which is "table-shaking" ("Tischrücken"), became popular in Germany in aristocratic and bourgeois circles, while in China resistance to feudalism spiked. The phrase "pour encourager les autres" is a quote from French *philosophe* Voltaire, who satirized the execution of British Admiral John Byng by his own government because he lost a battle against the French in 1756 in a particularly spectacular manner. The severity of the punishment was infamous, and Voltaire made an ironic comment on its frivolousness.]

28. Note added to the second edition: Ancient Germans measured the size of a piece of land according to the labor of a day and hence called the acre a day's work (also *Tagwanne*) (*jurnale* or *jurnalis*, *terra jurnalis*, *jornalis* or *diurnalis*) *Mannwerk*, *Mannskraft*, *Mannsmaad*, *Mannhauet*, and so on. See Georg Ludwig von Maurer: "Einleitung zur Geschichte der Mark-Hof u. s. w. Verfassung," Munich 1854, pp. 129ff.

as objective characteristics of their labor products, as socio-natural properties of those things. And so the commodity-form also reflects back at people the producers' relation to the totality of labor as a social relation among objects that exists apart from and outside the producers themselves. Through this *quid pro quo*, labor products become commodities: sensuous supersensuous or social things. Similarly, the impression a thing makes on the optic nerve isn't perceived as a subjective stimulation of that nerve, but rather as the objective form of a thing external to the eye. This is, of course, a physical relation between physical things, with the light from one thing (the external object) actually hitting another (the eye). In contrast, the commodity-form has nothing at all to do with labor products' physical nature or the thing-to-thing relationships arising from it, and the same holds for the value relation of labor products, within which that form is expressed. Here, it is only a particular social relation among people that assumes, for these people themselves, the phantasmagoric form of a relation among things. To find an analogy, we have to travel into the misty place that is the religious world, where things produced by the human mind seem endowed with lives of their own: they seem to be autonomous figures interacting with one another and human beings. So it is in the commodity world, too, but with things produced by human hands. I call this "fetishism"; labor products become fetishes the moment they are produced as commodities, and this fetishism is thus inseparable from commodity production.^{xlvii}

As our analysis has already shown, the commodity world's fetish character arises from the peculiar social character of the labor that produces commodities.

Useful objects can become commodities only because they are made by instances of private labor carried out independently of one another. The aggregation of these instances constitutes a social totality of labor. Because producers don't come into social contact with one another until they exchange their labor products, it also happens that the specific social characteristics of their instances of private labor first appear within an exchange transaction. In other words, instances of private labor come to operate as components of a social totality of labor due to the relations that exchange establishes among labor products and, with the products mediating, among their producers. Thus to the producers, the social relations of their instances of private labor appear not as direct social relations in which human beings are connected by their work, but as what is in fact the case here: things mediate the relations among people, while there are social relations among things.^{xlviii}

Only when they are exchanged do labor products acquire an equal social value-objecthood that is distinct from their physically diverse use-objecthood. This division of the labor product into a useful thing and a value-thing isn't truly activated until exchange has proliferated enough (and become sufficiently important) for useful things to be made for the purpose of exchange, and thus their value-character comes into consideration as far back as when they are produced. The moment that exchange has caught on widely enough, the producers' instances of private labor gain a double social character. On the one hand, as particular instances of useful labor, they must satisfy a particular social want or need and thereby maintain their respective positions as parts of the totality of labor, i.e., the spontaneously arising social division of labor. On the other hand, useful instances of private labor satisfy their producers' diverse wants and needs only insofar as each can be exchanged for every other useful kind of private labor—i.e., can count as equal to every other useful kind of private labor. Different instances of labor can become fully equal only when their real nonequality is abstracted away, only when they are reduced to the common character they have as an expenditure of human labor-power: abstract human labor. This, the double social character of the private labor of private producers, is reflected in the brains of those producers only in the forms that appear in practical dealings, namely, the exchange of products. The socially useful character of the producers' labor is thus reflected in the form that their labor products must be useful—useful for others. And the social character of the equality existing among their different instances of labor is reflected in the form of the value-character common to their labor products, those physically different things.

So, people don't put their labor products into relation with one another as values because they regard these things as mere thingly husks that encase homogeneous human labor. It is the other way around. When people exchange their different kinds of products, they equate them as values, and when they do that, they equate their diverse instances of labor as human labor. They know not what they do.^{29,xlix} Value, then, doesn't come with its name written on its forehead.¹ Instead it transforms every labor product into

29. Note added to the second edition: Thus when Galiani said, "Value is a relation among people"—"La Ricchezza è una ragione tra due persone"—he ought to have added, a relation hidden under a physical shell (Galiani: *Della Moneta*, p. 221, Vol. 3 of Custodi's collection entitled "Scrittori Classici Italiani di Economia Politica." Parte Moderna. Milan 1803). [Editor's note: Marx has the Italian say value is a relation among people; a more direct translation would be: wealth is a relation between two people. See Ferdinando Galiani, *On Money: A Translation of Della Moneta*, trans. Peter Toscano (Chicago: University of Chicago, 1977), p. 110.]

a social hieroglyphic. Later on, people try to decipher the meaning of this hieroglyphic, to solve the mystery of their own social product; for a useful object's characteristic of being a value is a social product every bit as much as language is. When scholars belatedly discovered that labor products, insofar as they are values, are merely thingly expressions of the human labor expended to produce them, this was of epochal importance in the history of human development, but labor's social characteristics retained their appearance of objecthood. That the specific social character of independent instances of private labor consists in their equality as human labor, and that this specific social character takes on the form of labor products' value-character, are points valid for only one particular form of production, namely, commodity production. Yet to those caught up in the relations of commodity production, these points have seemed as definitively valid after the above-mentioned discovery as they did before it, or just as much as the fact that after scientists broke air down into its component parts, the air-form, in the sense of the physical form of the thing "air," remained unaltered.

When people exchange products, their first practical concern is: How much of the products of others can they get for their own? In what proportions are they exchanging their products? The moment these ratios achieve the stability of habit, they seem to arise from the nature of the labor products themselves. For example, a ton of iron and two ounces of gold seem to be equal in value just like a pound of gold and a pound of iron are equal in weight, despite the differences in their physical and chemical properties. But, in fact, the value-character of labor products becomes truly established only when they begin to function as magnitudes of value. These magnitudes vary constantly, independently of the will, foreknowledge, and actions of the people exchanging commodities. For these people, their own social movement has the form of the movement of things, which, rather than controlling, they are controlled by. Only once there is fully developed commodity production can experience lead to the following scholarly insight: instances of private labor carried out independently of one another—but also in many respects interdependent as parts of the social division of labor—are continually reduced to the proportions in which society needs them. For here the labor-time socially necessary to make products forcefully asserts itself as a regulative law of nature in the products' accidental, constantly fluctuating exchange ratios, just as the law of gravity does when someone's house falls on his head.³⁰ That labor-time determines the

30. "What are we to think of a law which can only assert itself through periodic upheavals? It is certainly a natural law based on the unconsciousness of the participants" (Friedrich Engels: "Umriss zu einer Kritik der Nationalökonomie" in *Deutsch-Französische Jahrbücher*, edited by Arnold Ruge and Karl Marx. Paris 1844). [Editor's note: English

magnitude of value is, then, a secret hidden under the manifest movements in relative commodity values. Once this secret is discovered, labor products' magnitudes of value no longer seem to be determined arbitrarily. But this hardly clears away the thingly form of their determination, which remains in place as much as before.

Reflections on the forms of human life—including the scholarly analysis of them—have run directly counter to the real development of those forms. People have begun with the end result of this process of development, that is, *post festum*.^{li} The forms that make labor products into commodities, and that are thus conditions necessary for commodity circulation, have already attained the rootedness of natural forms of social life before people attempt to understand, not their historical character, since they have treated these forms as immutable, but rather their content. And so it was solely the analysis of commodity prices that led people to identify how the magnitude of value is determined, and it was solely the shared money expression of commodities that led them to identify how commodities' value-character is established. Yet it is precisely the money-form—the commodity world's finished form—that obscures the social character of private labor, and thus the social relations among private workers, presenting them as relations among things rather than revealing them.^{lii} If I say that coats, boots, and so on enter into relations where linen acts as the general embodiment of abstract human labor, the insanity of this expression jumps out at us, but when the producers of coats, boots, and so on treat linen—or gold and silver, it makes no difference—as the general equivalent of their commodities, the relation between their private labor and the social totality of labor presents itself to them in just this absurd form.

Such forms make up the categories of bourgeois political economy. These forms of thought are socially valid for, and thus objective with regard to, the relations of production in this historically specific social mode of production, commodity production. Hence all the mysticism of the commodity world, all the magic and phantoms enshrouding labor products made on the basis of commodity production, disappears the moment we escape to other forms of production.

Since political economists love Robinson Crusoe stories,³¹ let's begin with Robinson on his island. Though undemanding by nature, he still has

translation: *Outline of a Critique of Political Economy* in *MECW* trans. Martin Milligan, vol. 3 (Moscow: Progress Publishers, 1975), 440.]

31. Note added to the second edition: Even Ricardo had his Crusoe stories. "Ricardo's primitive fisherman and primitive hunter are from the outset owners of commodities who

wants and needs of different kinds to satisfy, and so he has to perform different kinds of useful labor: making tools, building furniture, taming llamas, fishing, hunting, and so on. We will leave out prayer and things like that because our Robinson enjoys them and sees such activities as recreation, not labor. While he engages in a wide range of productive functions, he recognizes that, being performed by one and the same Robinson Crusoe, they represent different forms of his own activity, and are thus merely different modes of human labor. Necessity forces him to divide his time carefully among his different tasks. Whether one takes up more of the total time he spends working, and another less, depends on the difficulty, large or small, he has to overcome to achieve the desired useful effect. Experience teaches him this. And, good Englishman that he is, having rescued his watch, notebook, ink, and quill pen from the shipwreck, our Crusoe begins to keep a ledger about his life. His inventory includes a list of his use-objects, the different operations needed to produce them, and, finally, the labor-time it takes on average to produce specific quantities of these products. The relations between Robinson and the things that make up his self-created wealth are so simple and transparent that even Mr. Max Wirth could understand them without overtaxing his brain.^{liii} Yet these relations contain all the essential determinants of value.

Let's now go from Robinson's sunny island to the darkness of medieval Europe. Here we find, rather than an independent man, only dependent men: serfs and lords, vassals and suzerains, laymen and clergy. Personal dependence characterizes the social relations of material production, as it does the spheres of life based on this form of production. But precisely because personal relations of dependence constitute the existing social foundation, labor and its products have no need to take on a fantastic form at odds with their reality. They belong to society's economic activity as services and payments in kind. Labor's natural form or particularity is in this case its directly social form, whereas its generality is its directly social form under commodity production. Indentured labor can be measured in units of time just as well as commodity-producing labor can, but every serf

exchange their fish and game in proportion to the labour-time which is materialised in these exchange-values. On this occasion he slips into the anachronism of allowing the primitive fisherman and hunter to calculate the value of their implements in accordance with the annuity tables used on the London Stock Exchange in 1817. Apart from bourgeois society, the only social system with which Ricardo was acquainted seems to have been the "parallelograms of Mr. Owen" (Karl Marx: *Zur Kritik etc.*, pp. 38, 39). [Editor's note: English translation p. 300; the phrase "parallelograms of Mr. Owen" is a reference to the shape of the workers' settlement in one of Robert Owen's designs for an experimental socialist community.]

knows that he expends a certain quantity of his own personal labor-power in the service of his lord. The tithe the priest receives is easier to see than the blessing he offers. Whatever one thinks of the different actors' masks in which people interact with one another in such a society, at least the social relations among laboring people appear as their personal relations, and they aren't disguised as social relations among things, among labor products.

For an example of labor in common, or directly associated labor, we don't have to go all the way back to the form that arises spontaneously in all civilizations in their earliest stages.³² An example closer to hand would be the patriarchal rural industry of a peasant family that produces grain, cattle, yarn, linen, clothes, and so on, all to satisfy its own wants and needs. The family interacts with these different things as the various products of its family labor, but the things don't interact with one another as commodities. The different kinds of labor that produce these products—farming, cattle-breeding, spinning, weaving, tailoring, and so on—are social functions in their natural form by virtue of being functions of the family, which has its own spontaneously arising division of labor, no less than the system of commodity production does. Differences of age and sex, as well as changes in natural conditions that occur with the seasons, govern both the distribution of the various functions within the family and the labor-time individual family members expend.^{liv} But if the labor-power each individual expends is measured in terms of time, here the use of this standard appears by nature as labor's own social characteristic, because by nature these individual bearers of labor-power function only as organs of the family's common labor-power.

Finally, let's imagine, for variety's sake, an association of free people using communal means of production and who self-consciously expend their many individual instances of labor-power as one social labor-power. All the characteristics of Crusoe's labor are present here, too, only as social rather than individual ones. Everything Crusoe produced was nothing but

32. Note added to the second edition: "At present an absurdly biased view is widely held, namely that primitive communal property is a specifically Slavonic, or even an exclusively Russian, phenomenon. It is an early form which can be found among Romans, Teutons and Celts, and of which a whole collection of diverse patterns (though sometimes only remnants survive) is still in existence in India. A careful study of Asiatic, particularly Indian, forms of communal property would indicate that the disintegration of different forms of primitive communal ownership gives rise to diverse forms of property. For instance, various prototypes of Roman and Germanic private property can be traced back to certain forms of Indian communal property" (Karl Marx: *Zur Kritik etc.*, p. 10). [Editor's note: English translation, p. 275.]

his personal product and therefore served him directly as a use-object. The total production of this association of free people is, in contrast, a social product. Part of its product is used as new means of production. This part remains social. Members of the association consume another part as their means of subsistence, however, and so this latter part must be distributed among them. How it is distributed varies with the social organism of production itself, and also according to the producers' corresponding level of historical development. Now let's establish a parallel with commodity production. Let's therefore assume that every producer's share of the means of subsistence is determined by his labor-time. Labor-time would play a double role. Its systematic social allotment maintains the right proportions between the association's diverse labor-functions and diverse wants and needs. On the other hand, labor-time also serves as the measure of how much an individual producer contributes to the common labor, and hence of how much he gets of the consumable part of the common product. The social relations between people and their labor, and also between people and their labor products, retain a transparent simplicity here, in production as well as distribution.

Which form of religion corresponds most closely to a society of commodity producers, where what constitutes the general social relation of production is that the producers relate to their products as commodities—thus as values—and with their instances of private labor in that thingly form, they bring them into relation with one another as equal human labor? This distinction belongs to Christianity, with its cult of the abstract human being, which is especially pronounced in its bourgeois stage of development: Protestantism, Deism, and so on. In the modes of production we find in ancient Asia and Classical Antiquity, the transformation of products into commodities played a marginal role, and thus so did commodity production as a way of life, although both became more important the more the communal character of these societies declined. Like the gods of Epicurus, real trading peoples exist only in the *intermundia* of the ancient world or in its pores, like the Jews in Polish society.^{lv} These older social organisms of production are far simpler and more transparent than their bourgeois counterparts. But they are based either on the immaturity of the individual person, who hasn't yet ripped himself free of the umbilical cord of his natural species-connection with fellow humans, or on a direct relationship of domination and servitude. Such organisms of production are conditioned by the low level of development reached by labor's productive forces and the correspondingly limited relations of people within the process of creating and maintaining material

life—that is, their relations both to nature and with one another. This real limitation appears in imaginary form in old nature and folk religions. The religious mirroring of the real world won't vanish until the workaday world's practical relations become consistently transparent, rational relations among people and between people and nature. The form of the social life-process—i.e., the material production process—will not shed its foggy shroud of mystery until it becomes the product of freely associated people, consciously planned and controlled by them. But for this to happen, a society must attain a certain material basis or multiple material conditions of existence, which will arise spontaneously from a long and painful history of development.

Political economy has in fact analyzed value and magnitude of value, although not at all exhaustively,³³ and uncovered the content hidden in these forms. But it has never even posed the question of why this content takes that form, why labor is represented in value and the measure of labor

33. Readers of the third and fourth volumes of this work will be able to see where Ricardo's analysis of magnitude of value falls short—and his is the best one. As for value as such, nowhere does classical political economy distinguish, expressly and with full self-awareness, between labor as it is represented in value, and the same labor as it is represented in the use-value of the product it produces. In practice, of course, political economy makes this distinction, since it treats labor in quantitative terms in one case, and in qualitative ones in the other. But it never occurs to political economists that a purely quantitative distinction among instances of labor presupposes their qualitative uniformity or equality, i.e., the reduction of those instances of labor to abstract human labor. For example, Ricardo tells us that he agrees with Destutt de Tracy when the latter says, "As it is certain that our physical and moral faculties are alone our original riches, the employment of those faculties, labour of some kind, is our original treasure, and that it is always from this employment—that all those things are created which we call riches. . . . It is certain too, that all those things only represent the labor which has created them, and if they have a value, or even two distinct values, they can only derive them from that [the value] of the labour from which they emanate" (Ricardo: "The Principles of Pol. Econ. 3rd ed. Lond. 1821," p. 334). We will merely note that Ricardo is attributing to Destutt his, Ricardo's, more profound thinking. Destutt de Tracy does say, it is true, that all the things that make up wealth "represent the labor which has created them." But he also says that they get their "two different values" (use-value and exchange-value) from "the value of labor." He thus displays the same superficiality as the vulgar economists, who presuppose the value of one commodity (here labor) and then use it to determine the value of other commodities. But in his reading, Ricardo has Destutt claiming that labor (not its value) is represented in use-value and exchange-value. Ricardo himself, however, does so little with the double character of labor, which is represented in two ways, that he has to spend the whole chapter "Value and Riches: Their Distinctive Properties" laboriously analyzing the trivialities of a J. B. Say. And so in the end, Ricardo is astonished when he finds that Destutt agrees with him about labor being the source of value, while also agreeing with Say on the concept of value.

in terms of duration represents the labor product's magnitude of value.³⁴ Formulas clearly marked as belonging to a social formation whose production process controls people—and isn't yet under their control—are as much a self-evident natural necessity in the bourgeois consciousness of political economy as productive labor itself.^{lvi} Political economy thus deals with prebourgeois forms of the social organism of production more or less as the Church Fathers dealt with pre-Christian religions.³⁵

The dull, fatuous debate about the role of nature in creating exchange-value shows, among other things, how deeply some political economists are deluded by the fetishism of the commodity world—or, in other words, how thoroughly they have been misled by the appearance of objecthood that labor's social characteristics have here. But because exchange-value is a specifically social way to express the labor that has

34. One of the fundamental shortcomings of classical political economy is that it has never managed to analyze the commodity and, more specifically, commodity value, to the point where it could discover the form of value that makes value into exchange-value. Even the best representatives of classical political economy, such as Smith and Ricardo, treat the value-form as a matter of indifference, or as something external to the nature of commodities. The reason for this isn't simply that analyzing the magnitude of value commands so much of their attention. It lies deeper. The value-form of a product of labor is the most abstract but also the most universal form of the bourgeois mode of production, and it therefore marks that mode of production as a specific kind of social production and, thus, as historically specific. So if one misperceives it by taking it to be the eternal natural form of social production, then one will necessarily fail to see what is specific about the value-form and, in turn, about the commodity-form and the forms that develop from it: the money-form, capital-form, and so on. Hence we find among political economists who are thoroughly in agreement about labor-time being the measure of the magnitude of value the most motley and contradictory notions about money—i.e., the finished form of the general equivalent. This becomes strikingly evident where they address the banking system, an area where platitudinous definitions of money no longer suffice. And so a restored mercantilism (Ganilh) has sprung up to oppose them, seeing in value only the social form, or rather, the insubstantial semblance of that form. To state this once and for all, I understand under classical political economists all those thinkers who, since William Petty's day, have studied the real internal framework of bourgeois relations of production, whereas vulgar political economists merely root around in their apparent framework, endlessly pondering material supplied long ago by scholarly political economists, as they attempt to plausibly explain the crudest phenomena for the domestic purposes of the bourgeoisie. All the while, moreover, they limit themselves to pedantically systematizing, and proclaiming to be eternal truths, the banal and complacent notions that bourgeois agents of production harbor about their own world, which those agents regard as the best possible one.

35. "Economists have a singular method of procedure. There are only two kinds of institutions for them, artificial and natural. The institutions of feudalism are artificial institutions, those of the bourgeoisie are natural institutions. In this they resemble the theologians, who likewise establish two kinds of religion. Every religion which is not theirs is an invention of men, while their own is an emanation from God. . . . Thus there has been

gone into a thing, it can't contain natural matter any more than, say, a rate of exchange can.

The commodity-form's fetish character seems relatively easy to grasp, because this form is the most general and least developed one in bourgeois production—hence it was present early on, if not in the same dominant, and thus characteristic, way it is today. But even this appearance of simplicity vanishes in more concrete forms. Where do the illusions of the monetary system come from? The system couldn't tell by looking at gold and silver that as money they represent a social relation of production, only in the form of natural things with special social properties. As for modern political economists, who grin at the monetary system superciliously, doesn't their fetishism become something palpable as soon as they examine capital? The Physiocrats imagined that ground rent grows

history, but there is no longer any" (Karl Marx: "Misère de la philosophie. Réponse à la philosophie de la misère de M. Proudhon. 1847," p. 113). [Editor's note: English translation: *The Poverty of Philosophy*, in *MECW*, vol. 6 (Moscow: Progress Publishers, 1976), 174.] Truly comical is Mr. Bastiat, who imagines that the ancient Greeks and Roman lived from plunder alone. After all, if a people can live from plunder for centuries, there must always be something there to plunder—that is, the object of theft must be reproduced continuously. So it appears that the Greeks and Romans had a process of production and, thus, an economy, which made up the material foundation of their world as fully as the bourgeois economy makes up that of ours. Or does Bastiat mean that a mode of production that rests on slave labor depends on a system of plunder? He would be treading on dangerous ground. If a giant of thought like Aristotle erred in his appraisal of slave labor, why should a dwarf economist like Bastiat be right in his appraisal of wage labor? Let me take this opportunity to briefly respond to a criticism that a German-American publication leveled against my "Zur Kritik der Pol. Oekonomie," 1859. My position is that each particular mode of production and the relations of production that go with it at each particular moment—in short, "the economic structure of society"—constitutes "the real foundation on which a legal and political superstructure arises, and that definite forms of social consciousness correspond to that foundation." In my view, "the mode of production of material life determines the general processes of social, political, and intellectual life." [Editor's note: English translation, p. 263. Translation modified.] According to my critic, all this holds for today's world, where material interests dominate society, but not for the Middle Ages, where Catholicism dominated society, or for Athens and Rome, where politics did. First of all, it is strange for someone to assume that another person has somehow remained ignorant of these ubiquitous lines about the Middle Ages and the antique world. This much is clear, in any case: The Middle Ages couldn't survive on Catholicism, nor could the antique world survive on politics. Rather, it is the means and method through which those societies gained their livelihood that explains why Catholicism played a leading role in the one case and politics played such a role in the other. Furthermore, one doesn't need to be an expert on the history of the Roman Republic to know that the history of landed property represents its secret history. Then there is Don Quixote, who long ago paid a high price for making the mistake of believing knight errantry to be equally compatible with all economic forms of society. [Editor's note: Claude-Frédéric Bastiat (1801–1850) was a French economist who vigorously championed free trade and criticized protectionism just as vigorously.]

from the soil and not society: How long has it been since this illusion disappeared?

But in order to avoid jumping ahead, we will have to content ourselves with one further example relating to the commodity-form itself. If commodities could talk, they would say, "Although our use-value may interest people, it doesn't belong to us as things. What does belong to us as things is our value. How we interact as commodity things proves that this is so. We relate to one another only as exchange-values." Now listen to how the souls of commodities speak through the mouths of political economists: "Value [exchange-value] is a property of things, riches of man. Value, in this sense, necessarily implies exchanges, riches do not."³⁶ "Riches [use-value] are an attribute of man, value is an attribute of commodities. A man or a community is rich, a pearl or a diamond is valuable." A pearl or a diamond has value as a pearl or a diamond.^{37,lvi} No chemist has ever studied a pearl or a diamond and found exchange-value there. Yet while bragging about their special critical depth, the political economists who discovered this chemical substance find that use-value belongs to things independently of their properties as things, whereas their value belongs to them as things. What confirms them in this belief is the peculiar circumstance that the use-value of things is realized for people without exchange, hence in the direct relation between a thing and a person. With the value of things, it's the other way around: value is realized only in exchange—that is, a social process. Here one can't help but think of good Dogberry, who gives this advice to the night watchman Seacoal: "To be a well-favored man is the gift of fortune; but to read and write comes by nature."^{38,lviii}

36. "Observations of some verbal disputes in Pol. Econ., particularly relating to value, and to offer and demand. Lond. 1821," p. 16.

37. S. Bailey op. cit. p. 165.

38. Both the author of the "Observations" and Samuel Bailey accuse Ricardo of having transformed exchange-value from something merely relative into an absolute. The reverse is true: Ricardo reduced the semblance of relativity that these things—the diamond and the pearl—have as exchange-values to the true relation concealed by that semblance—to their relativity as mere expressions of human labor. If Ricardo's followers have responded to Bailey roughly but not persuasively, that is because Ricardo himself offers no insight into the inner connection between value and the value-form or exchange-value.

CHAPTER TWO

The Exchange Process

NO COMMODITY MAKES it to the market or is exchanged for other commodities without help. We need, then, to consider the keepers of commodities: commodity owners. Commodities are things and thus defenseless against people. If they are unwilling to belong to someone, that person can use force—in other words, simply take them.¹ Commodity owners can put things into a relation as commodities only when they treat one another as people whose wills reside in those things, and an owner doesn't acquire another's commodity unless both parties are willing. Each person, disposing of his own commodity, acquires someone else's only through an act of will common to both people. So each person must acknowledge the other as a private owner. This juridical relation has the form of a contract, whether worked out in accordance with a legal system or not; it is a relation of wills that reflects an economic relation. The economic relation determines the content of the juridical relation or the relation of wills.² Here, people exist for one another merely as representatives of

1. In the twelfth century, so famous for its piety, a person could often find very delicate things among these commodities. Thus, a French poet of that time listed "*femmes folles de leur corps*" among the commodities on display at the Landit fair, alongside clothes, shoes, leather, farming equipment, hides, and so on.

2. First Proudhon derived his ideal of justice, *justice éternelle*, from the legal relations that go with commodity production, whereby he showed that commodity production is as eternal as justice and thus gave the petty bourgeois a source of comfort. Then he turned around and tried to revise actual commodity production, and the actual legal system that corresponds to it, in accordance with his ideal. How would one feel about a chemist who, rather than studying actual metabolic laws and then drawing on those laws to solve particular problems, wanted to revise metabolic processes using the "eternal ideas" of "naturalité and affinité"? When we say that usury contradicts "justice éternelle" and "équité éternelle" and "mutualité éternelle," and other "vérités éternelles," do we know more about it than the Church Fathers did when they said that it contradicts "grâce éternelle," "foi éternelle," and "la volonté éternelle du Dieu"?

commodities—hence as commodity owners. Their economic actors' masks are, as we will see, merely personifications of economic relations, and they interact as the bearers of those relations.

What distinguishes a commodity owner from a commodity is mainly that for the latter, the physical body of every other commodity means something only as the form of appearance of its own value. Born as Levellers and cynics,ⁱⁱ commodities would pounce on the opportunity to trade not only their souls, but also their bodies, with any other commodity, even one more off-putting than La Maritornes herself.ⁱⁱⁱ The commodity lacks a feel for what is concrete in the physical bodies of commodities. But no matter: its owner makes up for that with his five basic senses, and others, too. His own commodity has no direct use-value for him. Otherwise he wouldn't bring it to the market. His commodity has use-value for others. For a commodity's owner, a commodity has direct use-value only as a bearer of exchange-value and, thus, as a means of exchange.³ That is why he wants to dispose of it in exchange for a commodity whose use-value satisfies one of his wants or needs. All commodities are non-use-values for their owners, use-values for their non-owners. Thus all commodities must change hands. When they change hands in this way, they are exchanged, and exchange brings them into a relation with one another as values and realizes them as values. Commodities must therefore be realized as values before they can be realized as use-values.

Commodities must prove themselves as use-values, however, before they can be realized as values. How so? The human labor expended to produce them counts only insofar as it is expended in a form useful to others, and only exchange establishes whether it is in fact useful to others, whether what it has produced satisfies another's want or need.

Every owner wants to dispose of his own commodity only in exchange for a commodity whose use-value satisfies one of his wants or needs. Here, exchange is a purely individual process for him. But the owner also wants to realize his commodity as a value: he wants to realize it in some other commodity of the same value, regardless of whether or not

3. "Every piece of property has two uses . . . one is proper to the thing and the other is not. Take the wearing of a shoe, for example, and its use in exchange. Both are uses to which shoes can be put. For someone who exchanges a shoe, for money or food, with someone else who needs a shoe, is using the shoe as a shoe. But this is not its proper use because it does not come to exist for the sake of exchange." (Aristoteles, *De rep.* 1.1. c. 9.) [Editor's note: Marx cites the Greek, the English can be found in Aristotle, *Politics*, trans. C. D. C. Reeve (Cambridge, MA: Hackett, 1998), 15.]

his own commodity has use-value for the other owner. Here, exchange is a general and social process for the owner. The same process can't be both purely individual and purely general and social, however, for all commodity owners.

When we take a closer look, we see that every commodity owner treats any commodity that isn't his as the particular equivalent of his own commodity, while treating his own commodity as the general equivalent of all the other commodities.^{iv} Because all commodity owners do this, no single commodity is the sole general equivalent, and thus commodities don't have a general relative value-form either: a form in which they are equated as values and compared as magnitudes of value. Commodities don't face one another as commodities, then, but rather solely as products or use-values.

As our commodity owners deal with this predicament, they think like Faust—in the beginning was the deed.^v They act before they think. The laws of a commodity's nature operate in the natural instincts of its owner. Commodity owners can put their commodities into relation with one another as values, and thus as commodities, only by putting their commodities into an antithetical and complementary relation with a commodity that functions as the general equivalent: Our analysis of the commodity showed that this is so. But only social action can make one particular commodity into the general equivalent. The social action of every other commodity sets one commodity apart, the one through which all the others represent their value, which is how the natural form of that one commodity gets its role as the socially valid equivalent form. As a result of this social process, the specific social function of the commodity that has been set apart is to be the general equivalent. That commodity thus turns into . . . *money*. “Illi unum consilium habent et virtutem et potestatem suam bestiae tradunt. Et ne quis possit emere aut vendere, nisi qui habet characterem aut nomen bestiae, aut numerum nominis ejus” (Revelation).^{vi}

The money crystal takes shape as a necessary product of the exchange process, in which diverse labor products are in fact equated with one another and, thus, actually transformed into commodities. Exchange widens and deepens over time, thereby developing the opposition between use-value and value slumbering in the commodity's nature. Commerce requires that this opposition be represented externally, which brings about a drive to create an independent expression of commodity value, and this need isn't definitively satisfied, nor does it even let up, until a commodity is doubled, becoming a commodity and money at the same time. At the

same rate at which labor products are transformed into commodities, one commodity is transformed into money.⁴

The direct exchange of products already has, in one respect, the form of a simple value expression, but in another respect, it doesn't yet have it. That form is x commodity A = y commodity B.⁵ The form of the direct exchange of products is x use-object A = y use-object B. Things A and B aren't commodities before they are exchanged; only through exchange do they become commodities. The first way it is possible for a use-object to be an exchange-value is for the object to exist as a non-use-value, as a quantity of use-value that goes beyond the immediate wants or needs of its owner. Things in and for themselves are external to human beings, who can therefore dispose of them.^{vi} In order to reciprocally dispose of these things that can be disposed of, all people need to do is tacitly agree to interact as the things' private owners, that is, as people who are independent of one another. Relationships characterized by this kind of reciprocal foreignness don't exist for the members of a spontaneously arising community, whether it has the form of a patriarchal family, an ancient Indian commune, the Incan state, or something else. Commodity exchange begins where such communities end: at points of contact with foreign communities or their members. But as soon as things have become commodities for the outside world, they turn into commodities inside a community as well, due to a rebound effect. At first, chance alone determines the quantitative ratios at which commodities are exchanged. Commodities begin to be exchanged because of an act of will: their owners agree to dispose of them reciprocally. In the meantime, people gradually come to rely on use-objects produced by others. Constant repetition makes exchange into a normal social process. And so, in time, at least some labor products must be created with exchange as their purpose, and there is a hardening of the distinction between the usefulness things have for meeting immediate

4. From this one can gain a sense of the craftiness of the petty bourgeois socialism that is out to perpetuate commodity production and, at the same time, abolish the "antagonism between money and commodities," that is, abolish money, since money only exists in and through that antagonism. One might just as well get rid of the Pope while letting Catholicism continue to exist. For a more detailed discussion of this point, see my "Zur Kritik der Pol. Oekonomie" p. 61ff. [Editor's note: English translation, *A Contribution to the Critique of Political Economy*, trans. S. W. Ryazanskaya, in *Marx-Engels Collected Works*, vol. 29 (Moscow: Progress Publishers, 1977), 320-23.]

5. As long as two distinct use-objects aren't exchanged for each other, but rather, a chaotic mass of things is offered as the equivalent for a third thing, a common practice among savages, we haven't yet advanced to the direct exchange of objects—we are only in its foyer.

wants and needs and their usefulness for exchange. From that moment on, the use-value of things splits off from their exchange-value, while the ratios at which things are exchanged now start to depend on how they are produced. Custom fixes things at specific magnitudes of value.

In the direct exchange of products, every commodity is for its owner a direct means of exchange, and for its nonowners an equivalent, though only insofar as it has use-value for them. Thus the exchange article doesn't yet have a value-form independent of its use-value, or of the individual wants and needs of those engaged in exchange. The need for such a form arose only as the commodities entering the exchange process grew in number and kind. As this need emerged, so did the means for meeting it. When there are commercial transactions in which commodity owners exchange their own goods for assorted other goods and compare their goods with other goods, assorted owners' assorted commodities are always exchanged for, and compared as values with, one and the same third type of commodity. In becoming the equivalent for assorted other commodities, this third commodity attains, directly but within narrow limits, the general or social equivalent form. This general equivalent form comes and goes with the momentary social encounters that bring it into being. Fleeting, it attaches now to one commodity, now to another. But as commodity exchange develops, the general equivalent form becomes firmly attached only to certain kinds of commodities, and thus it crystallizes into the money-form. At first, chance alone determines which type of commodity the money-form attaches itself to. Nevertheless, generally speaking, two circumstances play a decisive role. The money-form becomes attached either to the most important exchange articles from outside the community, which are in fact the spontaneously arising forms of appearance of local products' exchange-value, or else to the main use-object constituting the part of a community's property that can be disposed of: cattle, for example. Nomadic peoples were the first to develop the money-form because all their possessions were in a portable form and could thus be directly disposed of, and also because their way of life constantly brought them into contact with foreign communities, thereby inviting exchange with the outside world. Human beings often made other human beings, in the form of slaves, into the original money material, but they couldn't have imagined doing that with land. Such a thought could occur only in an advanced bourgeois society. The idea dates to the last third of the seventeenth century, and people first attempted to act on it on a national scale only a century later, during France's bourgeois revolution.^{viii}

The exchange of commodities bursts its merely local bonds, and commodity value thereby spreads to the point where it becomes the materialization of human labor as such. In the same proportion, the money-form is transferred to commodities whose nature makes them well suited to fulfill the social function of a general equivalent: precious metals.

“Although gold and silver are not by nature money, money is by nature gold and silver,”⁶ because the natural properties of gold and silver align with money’s functions.⁷ Up to now, however, we have discussed only one of its functions: to serve as commodity value’s form of appearance, as the material through which commodities’ magnitudes of value find social expression. A material has to have the same uniform quality in every instance in order to be an adequate form of appearance for value—i.e., to be the materialization of abstract and therefore equal human labor. On the other hand, the money commodity must be capable of expressing purely quantitative differences, because the differences among magnitudes of value are purely quantitative. Thus it needs to be something people can divide and recombine as they please. Gold and silver have these properties by nature.

The use-value of the money commodity undergoes a doubling. Gold, for example, has a particular use-value as a commodity: it can fill hollow teeth, serve as the raw material for luxury goods, and so on. It also gains a formal use-value stemming from its specific social function.

Since all the other commodities are simply money’s particular equivalents, with money being their general equivalent, they all interact with money as particular commodities interacting with the general commodity.⁸

Readers have seen that the precondition for the money-form is that a single commodity must become decisively established as the one in which relations among all other commodities are reflected. The fact that money is a commodity⁹ is news only to those who start with its finished form and

6. Karl Marx op. cit. p. 135. [Editor’s note: English translation p. 155.] “It is only natural that metals . . . are money” (Galiani: “Della Moneta” in Custodi’s collection, Parte Moderna, Vol. 3, p. 137).

7. For a detailed account of this, see the chapter on “The Precious Metals” in the work of mine just cited. [Editor’s note: English translation, pp. 385–88.]

8. “Money is the universal commodity” (Verri op. cit. p. 16).

9. “Silver and gold themselves, which we may call by the general name of Bullion are . . . commodities . . . rising and falling in . . . value. . . Bullion then may be reckoned to be of higher value, where the smaller weight will purchase the greater quantity of the product or manufacture of the country etc.” (“A Discourse of the General Notions of Money, Trade, and Exchange, as they stand in relations to each other. By a Merchant. Lond. 1695,” p. 7).

begin to analyze it there. The exchange process gives the commodity it transforms into money not its value, but its specific value-form. Confusing these two characteristics has misled people into thinking that the value of gold and silver is imaginary.¹⁰ Because money can be replaced by mere symbols for some functions, another error sprang up: the notion that money itself is merely a symbol. Then again, this error did suggest the idea that a thing's money-form is external to the thing itself, merely the form of appearance of the human relations hidden beneath it. In this sense, every commodity is a symbol, because as value, it is only the thingly husk of the human labor expended to produce it.¹¹ But in framing as mere symbols the

“Silver and Gold, coined or uncoined, tho’ they are used for a measure of all other things, are no less a commodity than wine, oyl, tobacco, cloth or stuffs” (“A Discourse concerning Trade, and that in particular of the East-Indies, etc., London 1689,” p. 2). “The stock and riches of the kingdom cannot properly be confined to money, nor ought gold and silver to be excluded from being merchandise” (“The East-India Trade a Most Profitable Trade. London 1677,” p. 4).

10. “Gold and silver had value as metals, before becoming money” (Galvani op. cit. p. 72). [Editor’s note: See Ferdinando Galvani, *On Money: A Translation of Della Moneta*, trans. Peter Toscano (Chicago University of Chicago Press, 1977), p. 28.] Locke says, “The universal consent of mankind gave to silver, on account of its qualities which made it suitable for money, an imaginary value.” Jean Law, on the other hand, asks “How different nations could give an imaginary value to a thing . . . or how this imaginary value could have been maintained?” But he himself comprehended almost nothing of this, stating, for example, “Money was exchanged on the basis of its value for uses, and it was given as money in exchanges based on its value. It received an additional value [*une valeur additionnelle*], equal to the increase in demand caused by its use as money.” (Jean Law: “*Considérations sur le numéraire et le commerce*” in E. Daire’s Edit. of “*Économistes Financiers du XVIII siècle*” pp. 469, 470).

11. “Money [in goods] is the sign” (de Forbonnais: “*Éléments du Commerce*, Nouv. Edit. Leyden, 1776,” part 2, p. 143). “As a sign it is attracted by goods” (ibid. p. 155). “Money is a sign of a thing and represents it” (Montesquieu, “*Esprit des lois*”. Oeuvres, Lond. 1767, part. 2, p. 3). “Money is not a mere sign, for it is itself wealth; it does not represent values: it is their equivalent” (Le Trosne op. cit. p. 910). “If one considers the concept of value, the thing [*Sache*] itself is regarded merely as a sign, and it counts not as itself but as what it is worth” (Hegel op. cit. p. 100). [Editor’s note: English version in G. W. F. Hegel, *Outlines of the Philosophy of Right*, trans. H. B. Nisbet (Cambridge: Cambridge University Press, 1991), 93.] Long before the political economists, lawyers made it fashionable to think of money as a mere symbol and of the value of precious metals as purely imaginary. Here they were serving royal power obsequiously—throughout the Middle Ages, they supported that power’s right to debase the coinage, doing so by invoking the traditions of the Roman Empire and the conceptions of money that obtained in the Digest. [Editor’s note: The Digest was a main component of Roman civil law; it was a compendium of excerpts from legal writings.] “Let there be no doubt,” says their apt pupil, Philip of Valois, in a decree of 1346, “that to only us and our royal majesty belongs the trade, the state, the provision of and all ordinances on currency, and the power to fix such a rate and such a price as pleases us and as we see fit.” [Editor’s note: Philip of Valois (Philip VI of France) waged many wars against England, and this necessitated various creative revenue-generating measures on his

social characteristics that things acquire—or the thingly characteristics that labor’s social determinations acquire—based on a particular mode of production, people have also framed these characteristics as an arbitrary product of human reflection. This was how people generally tried to enlighten themselves about the money-form in the eighteenth century. They used this explanation to make enigmatic forms of human relations no longer seem strange, at least provisionally, at a time when they couldn’t identify the genesis of those forms.

We noted above that a commodity’s equivalent form doesn’t imply the quantitative determination of its magnitude of value. Knowing that gold is money, and therefore directly exchangeable with every other commodity, doesn’t mean we know, for example, how much 10 pounds of gold is worth. Like all commodities, money has to express its magnitude of value relatively, through other commodities. Its own value is determined by the labor-time needed to produce it; its value is expressed through the quantity of every other commodity that contains the same amount of coagulated labor-time.¹² Money’s relative magnitude of value is established by direct exchange where money is produced. The moment that gold begins to circulate as money, its value is already given. Even in early analyses of money in the last decades of the seventeenth century, analyses that have been thoroughly improved upon, political economists understood that money is a commodity; ultimately, however, that was just an initial step. What is difficult isn’t recognizing that money is a commodity. It is figuring out how and why it got to be one.¹³

part.] It was a maxim of Roman Law that the value of money was fixed by Imperial decree. Treating money as a commodity was explicitly prohibited. “*Pecunias vero nulli emere fas erit, nam in usu publica constitutas oportet non esse mercem.*” [Editor’s note: This Latin sentence can be translated as “In truth, no one should be permitted to buy money, because it is right that money, which was established for public use, is not a reward.”] G. F. Pagnini provides a useful discussion of this in “Saggio sopra il giusto pregio delle cose. 1751,” printed in Custodi’s collection, Parte Moderna, Vol. 2. Here Pagnini polemicizes against the legal gentleman, especially in the second part of his work.

12. “If a man can bring to London an ounce of silver out of the earth in Peru, in the same time that he can produce a bushel of corn, then one is the natural price of the other; now if by reason of new and more easier mines a man can procure two ounces of silver as easily as he formerly did one, the corn will be as cheap at 10 shillings the bushel, as it was before at 5 shillings, *caeteris paribus.*” William Petty: “A Treatise of Taxes and Contributions. Lond. 1667,” p. 31. [Editor’s note: Petty writes of “more easie mines.”]

13. After teaching us about how “erroneous definitions of money can be divided into two main groups: those that treat it as more than a commodity and those that treat it as less than one,” the learned Professor Roscher follows up with a hodgepodge catalogue of writings about the essence of money. Here we don’t get even the glimmer of an insight into the true history of the theory. Then comes the moral: “For the rest, it is undeniable that most

As we have seen, even in the simplest expression of value (x commodity $A = y$ commodity B), the thing through which another thing's magnitude of value is represented seems to have the equivalent form independently of this relation, or as a socio-natural property. We have been tracking how this false semblance becomes entrenched: the process is complete the moment the general equivalent form intertwines with the natural form of a particular commodity—in other words, crystallizes into the money-form. A commodity doesn't seem to turn into money because all the other commodities represent their value through that commodity. It is the other way around: commodities all seem to represent their value through that commodity because it is money. The movement mediating this process is so thoroughly obscured by its own result that no trace is left. Commodities find their own value-shape as something ready-made: the physical body of a commodity that exists outside and also alongside them. Emerging from the earth's bowels, these things, gold and silver, incarnate, at once and directly, all human labor. Hence the magic of money. Human beings now behave in a purely atomistic way in their social production process, and their own relations of production have a thingly form independent of their control and conscious individual action; these circumstances, the former and thus also the latter, first appear through the fact that labor products generally take on the commodity-form. The enigma of the money fetish, then, is merely the enigma of the commodity fetish, now in a form in which we can see it well enough to be blinded by it.

later political economists don't maintain enough awareness of the peculiarities that make money different from other commodities [after all, it is either more or less than a commodity!]. . . . So far, Ganilh's semimercantilist reaction is not altogether without justification" (Wilhelm Roscher: "Die Grundlagen der Nationalökonomie. 3rd ed. 1858," pp. 207–210). More! Less! Not enough! So far! Not entirely! What a way to define one's concepts. And Mr. Roscher modestly anoints such eclectic professorial palaver "the anatomical-physiological method" of political economy! But he does deserve the credit for one discovery: namely, that money is "a pleasant commodity."

CHAPTER THREE

Money, or Commodity Circulation

I. The Measure of Value

For simplicity's sake, I assume in this book that gold is the money commodity.

What does gold do? First of all, it supplies the commodity world with the material it needs to express its values: gold represents commodity values as magnitudes of the same denominator, qualitatively equal, quantitatively comparable. It thus functions as a general measure of value, and it is solely based on this that gold—i.e., the specific equivalent commodity—becomes money.¹

Money doesn't make commodities commensurable with one another—it's the other way around. As values, all commodities are objectified human labor. Thus, in and for themselves commodities are commensurable, and their values can be measured communally in terms of a specific commodity. When their values are measured this way, that one specific commodity is transformed into their shared measure of value—into money. As a measure of value, money is the necessary form of appearance of commodities' internal measure of value: labor-time.¹

1. The question of why money doesn't represent labor-time directly, whereby a paper note would represent x hours of labor, simply comes down to the question, Why must labor products be represented as commodities when their production is based on commodity production? For when labor products are represented as commodities, this implies that they are doubled, becoming at once a commodity and a money commodity. Similarly, there is the question, Why can't private labor be treated as directly social labor—that is, its opposite? Elsewhere I have at length examined the shallow utopianism of a "labor-money" based on commodity production ("Zur Kritik der politischen Oekonomie," 1859, p. 61ff). [Editor's note: English translation, *A Contribution to the Critique of Political Economy*, trans. S. W. Ryazanskaya, in *Marx-Engels Collected Works*, vol. 29 (Moscow: Progress Publishers, 1977), 32off.] Here I want to add only that Owen's "labor-money" isn't "money," any more than a theater ticket is. Owen presupposes directly associated labor, a form of production diametrically opposed to commodity production. The labor certificate merely confirms what an individual has contributed to the community's labor and, accordingly, the share

The value expression of a commodity in gold— x commodity $A = y$ money-commodity—is its money-form, its price. An isolated equation, such as 1 ton of iron = 2 ounces of gold, now suffices to represent iron's value in a socially valid way. The equation no longer has to march along in step with the value equations of all the other commodities, because the equivalent commodity, gold, has already taken on the character of money, and this means that the general relative value-form of commodities now has its original shape again: that of commodities' simple or individual relative value-form. Meanwhile, the expanded relative expression of value—that endless series of relative value expressions—has become the money commodity's specific relative value-form. But now this series is something socially given, as the prices of commodities. All one needs to do is read a price list backward to find money's magnitude of value expressed through all kinds of commodities; money itself, in contrast, has no price. In order to have the same uniform relative value-form as all other commodities, money would have to relate to itself as its own equivalent.

The money-form of commodities (or their price) differs from their tangible and real bodily form just as their value-form as such does. In other words, their money-form is purely ideal or notional. Although invisible, the value of iron, linen, wheat, and so on does in fact exist in these things; it is represented through their equality with gold, a relation that lives its ghostly life only in the things' heads, so to speak. The commodity owner must lend their heads his tongue, or hang a tag around their necks, in order to communicate the things' prices to the outside world.² Because

he is entitled to with respect to the common product slated for consumption. However, it didn't occur to Owen to presuppose commodity production and then try to use money tricks to get around the necessary conditions of such production. [Editor's note: Robert Owen (1771–1858) was a wealthy textile manufacturer who championed various progressive causes, including the eight-hour workday, child labor laws, and coeducational public schools. He also supported workers' cooperatives and trade unionism. But his name is most closely associated with his drive to create socialist communities that would have small to medium-sized populations (500–3,000 people) and be run according to the principles of cooperatives. An important element of economic organization in these communities would be the currency: Owen envisioned a paper currency, which would be given out on the basis of the value of one's labor and used for satisfying basic wants and needs.]

2. The savage or half-savage uses his tongue differently. Captain Perry noted about the inhabitants of the west coast of Baffin's Bay, "In this case [during the exchange of products] . . . they licked it [the thing represented] twice with their tongues after which they seemed to consider the bargain satisfactorily concluded." [Editor's note: Marx is playing off the rather graphic formulation translated here as "act as its mouthpiece," which in the original German contains the word tongue, "Zunge"—"seine Zunge in ihren Kopf stecken" or, "he sticks his tongue into its head."] Similarly, eastern Eskimos engaged in trading will lick every article they receive. If the tongue functions in this way—that is, as the organ of

the expression of commodity values through gold is ideal, only ideal or notional gold can be used in this operation. All commodity owners know that when they give their commodities a price or a notional gold-form, they still have a long way to go to actually turn their commodities into gold. They also know that they don't need even the tiniest piece of real gold in order to estimate how much gold millions of different commodity values are worth. When money functions as a measure of value, it acts, then, as merely notional or ideal money. This circumstance has spawned the most bizarre theories.³ Although merely notional money serves as the measure of value, prices depend entirely on real money material. Value—the amount of human labor contained in, say, a ton of iron—is expressed through a notional quantity of the money commodity that contains just as much labor as the iron. Depending on whether gold, silver, or copper is serving as the measure of value, the value of a ton of iron will have very different price expressions—that is, it will be represented as very different quantities of gold, silver, or copper.

And so if two different commodities—gold and silver, for example—act simultaneously as measures of value, all commodities will have two different price expressions: a price in gold and a price in silver. These prices will operate alongside each other peacefully for as long as the value relation between gold and silver stays the same: for instance, 1:15. But every shift in this value relation will unsettle the ratio between the gold prices of commodities and their silver prices, thereby demonstrating that doubling the measure of value goes against its function.⁴

appropriation—in the North, then it is only fitting that in the South, the stomach is the organ of accumulation, and the Kaffir measures a man's wealth by how big his belly is. The Kaffirs are smart fellows. After all, whereas the official British Health Report of 1864 laments that the majority of the working class lacked fat-building substances, a certain Dr. Harvey, not the man who discovered the circulation of the blood, made a fortune at just that time selling fat-reducing recipes to the bourgeoisie and aristocracy. [Editor's note: According to that 1864 report, the average British worker consumed five ounces of fat per week.]

3. See Karl Marx: *Zur Kritik etc.*, "Theories of the Standard of Money," p. 53f. [Editor's note: English translation, p. 314f.]

4. Note added to the second edition: "Wherever silver and gold exist side by side as legal money, i.e., as measure of value, the vain attempt has always been made to treat them as one and the same substance. If one assumes that a given labour time is invariably objectified in the same proportion in silver and gold, then one assumes, in fact, that silver and gold are the same substance, and that silver, the less valuable metal, represents a constant fraction of gold. The history of the monetary system in England from the reign of Edward III up to the time of George II consists of a continuous series of disturbances caused by conflict between the legally established ratio between the values of gold and silver and the actual fluctuations in their value. Sometimes the value of gold was too high, sometimes that of silver. The metal whose value was estimated at too low a rate was withdrawn from circulation,

All commodities with definite prices are represented in the following form: a commodity A = x gold, b commodity B = y gold, c commodity C = z gold, and so on, where a , b , and c represent certain amounts of the commodities A, B, and C, and x , y , and z represent certain quantities of gold. Commodity values are thus transformed into different notional quantities of gold, into magnitudes of the same unit, or gold magnitudes—even as the physical bodies of commodities continue to vary in dizzying multiplicity. As different amounts of gold, commodity values can be compared with and measured against one another, and it becomes a technical necessity to put them into a relation with a fixed quantity of gold as their unit of measurement. This unit is further divided into fractional parts and thereby evolves into the general standard of measurement. Before gold, silver, and copper became money, they already had such standards in the form of their metal weights. For example, a pound, which serves as a unit of measurement, can be divided into ounces on the one hand, and it can be combined on the other hand to make up hundredweights.⁵ Hence with all metallic currencies, the preexisting names of the standard of weight are the original names of the money standard or the standard of price.

Money is performing two very different functions as the measure of value and the standard of price. In its role as the measure of value, money is the social incarnation of human labor; in its role as the standard of price, it is a

melted down and exported. The value ratio of the two metals was then once again changed by law; but soon the new nominal value in its turn clashed with the actual value ratio. In our own time, the slight and short-lived fall in the value of gold as compared with silver, brought about by the Indian and Chinese demand for silver, produced the same phenomenon on a large scale in France—the export of silver and the elimination of silver from the sphere of circulation by gold. During the years 1855, 1856 and 1857, the excess of France's gold imports over her gold exports amounted to £41,580,000, while the excess of her silver exports over silver imports came to £34,704,000. In countries like France, where both metals are legally sanctioned measures of value and both are accepted as legal tender, where moreover every person can pay in the one or the other metal as he pleases, the metal whose value rises is in fact at a premium, and its price like that of any other commodity is measured in terms of the over-rated metal, which thus serves alone as the measure of value. All historical experience in this sphere simply shows that, where two commodities function as legally valid measures of value, it is always one of them only which actually maintains this position" (Karl Marx op. cit. pp. 52, 53). [Editor's note: English translation, pp. 313–14.]

5. Note added to the second edition: The ounce of gold serves in England as the unit of the standard of money, and yet it isn't divided into fractional parts. This peculiar circumstance can be explained as follows: "Our coinage was originally adapted to the employment of silver only—hence an ounce of silver can always be divided into a certain adequate number of pieces of coin; but as gold was introduced at a later period into a coinage adapted only to silver, an ounce of gold cannot be coined into an adequate number of pieces." MacLaren: *History of the Currency*, p. 16, London 1858. [Editor's note: The first instance of "adequate" here is "aliquote" in the source text.]

quantity of metal with a fixed weight. As the former, money transforms the values of diverse commodities into prices, into notional quantities of gold; as the latter, money measures those quantities. The measure of value measures commodities as values, whereas the standard of price measures quantities of gold using a unit quantity of gold; in other words, it doesn't measure the value of one quantity of gold using the weight of another (quantity of gold). For the standard of prices to function, a definite quantity of gold must be fixed as the unit of measurement. As in all acts of measurement involving magnitudes of the same denomination, the measurement's stability is the decisive thing. The more stable the quantity of gold serving as the unit of measurement is, the more effective the standard of price will be. But gold can serve as a measure of value only because it is itself a labor product, that is, a value that has the potential to vary.⁶

When gold's value changes, this clearly does nothing to hinder it in its function as the standard of price. Different quantities of gold will always have the same ratio of value to one another, however gold's value changes. If its value were to fall by 1,000%, 12 ounces would still be worth twelve times as much as one ounce, and when it comes to prices, the ratio of different quantities of gold to one another is all that matters. At the same time, because the weight of an ounce of gold doesn't change when gold's value rises or falls, the weight of its fractional parts doesn't change either. Gold will therefore perform the same service as a fixed standard of price regardless of how much its value changes.

Nor is gold prevented from operating as a measure of value when its value varies. When gold's value rises or falls, all commodities are affected simultaneously. All other things being equal, commodities' ratios of value are thus left unchanged, even though their values are now expressed as gold prices that are higher or lower than before.

When the value of one commodity is represented through another's use-value, and when commodities' values are established in gold, all that is presupposed is that at a given moment, a given amount of labor is needed to produce a certain amount of gold. As for fluctuations in commodity prices in general, they are subject to the laws of the simple relative value expression, which we explicated earlier.

Where money's value remains constant, commodity prices can collectively rise only if commodity values increase. Where commodity values stay

6. Note added to the second edition: Among English writers the confusion about measure of value and standard of price (standard of value) defies description. Their functions and, as a result, their names, are mixed up constantly.

the same, commodity prices can collectively rise only if money's value falls. We can reverse this. Where money's value remains the same, commodity prices can collectively fall only if commodity values fall. If commodity values stay the same, commodity prices can collectively fall only if the value of money rises. It is not at all true, then, that if money's value rises, commodity prices have to fall proportionally, and if money's value falls, commodity prices have to rise proportionally. This would hold only for commodities whose value remains constant. As for commodities whose value rises along with money's, to the same degree and at the same rate as money's does, they retain their prices. If instead the value of commodities increases faster or slower than money's value, how much the movement of their value differs from that of money's will determine how much commodity prices rise or fall. And so on.

Let's now return to our discussion of the price-form.

Over time, the money names of metal weights separated from their original weight names. This happened for a number of reasons; historically speaking, the key reasons were: 1) foreign money was introduced among less developed peoples: for example, in ancient Rome gold and silver coins first circulated as foreign commodities. The names of these foreign coins were different from the local terms for weights. 2) As wealth evolved, the more precious metals dislodged the less precious ones from their role as the measure of value. Silver pushed out copper; then gold pushed out silver, despite what the poets' chronology says.^{7,ii} "Pound," for instance, became the money name for an actual pound of silver, and the moment that gold pushed out silver as the measure of value, the same name was attached to, say, $\frac{1}{15}$ of a pound of gold, depending on the ratio of value between gold and silver. In this case, "pound" as a money name and "pound" as a common term of weight are two distinct things.⁸ 3) Money was debased, a practice monarchs engaged in for centuries, with the result that nothing remains of the original weights of gold coins but the weights' names.⁹

7. In any case, it also lacks general historical validity.

8. Note added to the second edition: Thus the English pound sterling denotes less than a third of its original weight, the Scottish pound—before the Union—denotes only $\frac{1}{36}$ of its weight, the French livre denotes one $\frac{1}{74}$ of its original weight, the Spanish maravedi denotes less than $\frac{1}{1,000}$ of its original weight, and the Portuguese rei denotes an even smaller fraction of its original weight. [Editor's note: "The Union" refers to the union of England and Scotland in 1707.]

9. Note added to the second edition: "The coins that today are ideal are the oldest of all nations; and they were all once real, and because they were real people counted with them." (Galiani: *Della Moneta* op. cit. p. 153.)

These historical processes have made it normal to separate the money names of metal weights from their customary weight names. Because the money standard is purely conventional but also needs to be generally valid, it is in the end regulated by law. Some amount of a precious metal given in weight—for example, one ounce of gold—is officially divided into fractional parts that are baptized with legal names, such as pound, thaler, and the like. The fractional parts, which then count as money's actual units of measurement, are subdivided into other fractional parts that are also baptized with legal names—shilling, penny, and so on.¹⁰ Still, as before, a definite weight of metal is the standard for metallic money. All that has changed is how money is subdivided and denominated.

The ideal gold quantities into which commodities' values are transformed—namely, prices—are now expressed through money names: i.e., the legally valid names into which the gold standard is divided for practical purposes. So rather than saying, “eight bushels of wheat are worth an ounce of gold,” the English would say, “eight bushels are worth £3 17sh. 10¹/₂d.” In this way, commodities use their money names to say what they are worth, and money serves as money of account whenever it is necessary to fix a thing as value and, thus, to fix it in its money-form.¹¹

A thing's name is completely external to its nature. Let's say I know that a person's name is Jacob. This tells me nothing about that person. It's the same with money: a value relation disappears without a trace in the money names “pound,” “thaler,” “franc,” “ducat,” and so on. People are all the more confused about the secret meaning of these kabbalistic signs because money names express both commodities' values and the fractional parts of a particular metal weight: the standard of money.¹² But, unlike the

10. Note added to the second edition: In his “Familiar Words,” Mr. David Urquhart remarks on the monstrosity (!) that nowadays a pound (sterling), which is the unit of the English standard of money, is equal to about $\frac{1}{4}$ of an ounce of gold. “This is falsifying a measure, not establishing a standard.” He finds in this “false denomination” what he finds everywhere else, namely, the falsifying hand of civilization.

11. Note added to the second edition: “When someone asked Anacharsis why the Greeks needed money, he answered: to calculate with” (Athen. Deipn. 1 IV, 49, Vol. 2., ed. Schweighäuser, 1802). [Editor's note: This is a translation from Marx's German, which is a paraphrase of the Greek, although still quite accurate.]

12. Note added to the second edition: “Because as standard of price gold is expressed by the same names of account as the prices of commodities—for example £3 17s. 10¹/₂d. may denote an ounce of gold just as well as a ton of iron—these names of account are called the mint-price of gold. Thus the queer notion arose that gold [and silver, respectively] is estimated in its own material and that, unlike all other commodities, its price is fixed by the State. The establishing of names of account for definite weights of gold was mistaken for the establishing of the value of these weights. Gold has neither a fixed price nor any price

multifarious physical bodies we find in the commodity world, value must evolve to the point where it has this form, which is thingly and lacks all conceptual content, but is also simply social.¹³

Price is the money name for the labor objectified in a commodity. To say that there is an equivalence between a commodity and the amount of money called its price is thus to utter a tautology.¹⁴ In the same way, a commodity's relative value expression always expresses the equivalence between two commodities. But if price, as the exponent of a commodity's magnitude of value, is also the exponent of its exchange ratio with money, the reverse doesn't follow: that the exponent of a commodity's exchange ratio with money is necessarily the exponent of its magnitude of value. Say that equal amounts of socially necessary labor are represented in 8 bushels of wheat and 2 pounds (about $\frac{1}{2}$ ounce of gold). This 2 pounds expresses the wheat's magnitude of value through money—i.e., it is the wheat's price. Now imagine that circumstances cause the price to rise to 3 pounds or force it down to 1 pound. This 1 pound or 3 pounds would be too small or too large to accurately express the wheat's magnitude of value. Nevertheless, 1 pound or 3 pounds would be its price, in the first place because it is the wheat's value-form—money—and second, because it is the exponent of the wheat's exchange ratio with money. Assuming that the conditions of production remained the same, or labor's productive power stayed constant, the same amount of social labor-time as before would have to be expended to produce the eight bushels of wheat. This situation doesn't depend on the will of the wheat producer or any other commodity owners. Rather, a commodity's magnitude of value expresses a necessary relation

at all, when it is a factor in the determination of prices and therefore functions as money of account" (Karl Marx *op. cit.* p. 52). [Editor's note: English translation, pp. 312–13.]

13. See "Theories of the Standard of Money" in *Zur Kritik der pol. Oekon. etc.*, pp. 53ff. [Editor's note: English edition, pp. 76ff.] There have been fantastic ideas about raising or lowering the "mint-price" of money by inducing the state to transfer to larger or smaller weights of gold or silver the names already legally assigned to fixed weights of those metals, the idea being that, for example, $\frac{1}{4}$ ounce of gold could be minted into 40 shillings in the future, rather than 20. But Petty discussed these fantastic theories so thoroughly in his "Quantulumcunque concerning Money: To the Lord Marquis of Halifax. 1682," at least in the cases where their goal wasn't ponderous financial measures against public and private creditors, but rather charlatan economic solutions, that even his immediate followers, Sir Dudley North and John Locke, to say nothing of later ones, could only offer more superficial versions of what he had already said. "If the wealth of a nation," he observes, "could be decupled by a proclamation, it were strange that such Proclamations have not long since been made by our Governors" (*op. cit.* p. 36).

14. "Or indeed, one must assent that a value of a million in money is worth more than an equal value in goods" (Le Trosne *op. cit.* p. 919). And hence "that one value is worth more than another value equal to it."

to social labor-time, one immanent to the process that creates that value. When a commodity's magnitude of value is transformed into a price, this necessary relation appears as an individual commodity's exchange relation with the money commodity, something that exists outside the individual commodity.ⁱⁱⁱ However, this relation can express both a commodity's magnitude of value and the greater or lesser amount of money the commodity can be exchanged for under given circumstances. Inherent in the price-form itself, then, is the potential to have a quantitative incongruity between a commodity's price and its magnitude of value—the potential for its price to deviate from its magnitude of value. This doesn't reflect poorly on the price-form. On the contrary, it is what allows the price-form to be adequate for a mode of production whose laws can assert themselves only as averages blindly operating amid lawlessness.

But the price-form doesn't only make it possible to have a quantitative incongruity between magnitude of value and price, i.e., a magnitude of value and that magnitude's money expression. It can also harbor a qualitative contradiction that causes price to stop functioning as an expression of value, even though money is nothing but a commodity's value-form. Things that in and for themselves aren't commodities—for example, conscience, honor, and the like—can be sold by their owners for money. When these things are given a price, they also acquire the commodity-form. A thing can therefore (formally) have a price despite having no value. In such cases, an expression of price is imaginary, like certain figures in mathematics. On the other hand, the imaginary price-form can also conceal a real value relation or a relation derived from one. Witness the price of uncultivated land, which has no value because it doesn't contain any objectified human labor.

Like the relative value-form in general, price expresses a commodity's value, e.g., the value of a ton of iron, through the fact that a certain quantity of the equivalent, e.g., an ounce of gold, can be directly exchanged for the iron. But price definitely does not do that the other way around: it doesn't express a commodity's value through the fact that the iron, for its part, can be directly exchanged for gold. So a commodity has to shed its natural body,^{iv} has to turn itself from notional gold into real gold, in order to actually function as an exchange-value, even if it finds this transubstantiation “more painful” than the Hegelian “concept” finds the transition from necessity to freedom, than a lobster finds it to cast off its shell, or than the Church Father Jerome found it to put off old Adam.¹⁵ A commodity

15. In his youth, Jerome struggled mightily with the material flesh—witness how, in the desert, he wrestled with visions of beautiful women. But when he was old, he struggled

can have an ideal value-shape in its price, or a notional gold-shape, while it also has its real shape—for example, iron. But it can't be real iron and real gold at the same time. To establish a commodity's price, it suffices simply to equate a commodity with notional gold. The commodity must be replaced by actual gold, however, in order to serve its owner as a general equivalent. If the iron's owner were to approach, say, the owner of a worldly commodity and refer him to iron's price as though it were already the money-form, the commodity's worldly owner would respond as Peter in heaven did when Dante recited the creed:^v

Assai bene è trascorsa
D'esta moneta già la lega e'l peso
Ma dimmi se tu l'hai nella tua borsa.^{vi}

Thus the price-form implies both that commodities can be disposed of for money and that it is necessary to dispose of them. On the other hand, gold functions as an ideal measure of value only because it has already been acting as the money commodity in the exchange process. Hard cash lurks in the ideal measure of values.

2. The Means of Circulation

a. The Metamorphosis of Commodities

We saw earlier that the exchange process of commodities implies contradictory and mutually exclusive conditions. As commodities develop, these contradictions don't disappear, but a form arises in which they can move. Real contradictions are generally resolved in this way. We express a contradiction, for example, when we say that one body is constantly both falling toward another body and falling away from it. The ellipse is one of the forms of motion through which this contradiction is just as much realized as resolved.^{vii}

Insofar as the exchange process transfers commodities from hands in which they aren't use-values into hands where they are, it functions as a process of social metabolizing. A product made by one type of useful labor takes the place of a product made by a different type. When a commodity reaches a point where it can serve as a use-value, it falls out of the sphere

with the spiritual flesh. "I thought," he remarks, "I was in the spirit before the Judge of the Universe." "Who art thou," a voice asked. "I am a Christian." "Thou liest," the great Judge thundered back, "thou art nought but a Ciceronian." [Editor's note: From Jerome, *Letter 22, Ad Eustochium*.]

in which commodities are exchanged and into the sphere where they are consumed. The exchange sphere alone concerns us here, which means that we have to examine the entire process purely in terms of form—that is, purely in terms of the form change or metamorphosis of commodities that mediates the social metabolism.

A commodity's form change is quite poorly understood. People are confused about the concept of value; furthermore, what has gotten in their way is that a commodity's form change occurs when two commodities are exchanged: an ordinary commodity and the money commodity. If we focus exclusively on the material moment here—i.e., a commodity is exchanged for gold—we will overlook precisely what we should be looking at, namely, what has happened on the level of form. We won't see that gold, as a mere commodity, isn't money, and that the other commodities, with their prices, relate to gold as their own money-shape.

Commodities enter into the exchange process just as they are. In other words, they arrive on the market in their original homespun shape, unadorned and unsweetened. Exchange, however, causes a commodity to split into a commodity and money—an external opposition through which it represents its internal one between use-value and value. Commodities interact with money in this opposition as use-values interacting with exchange-value. Both sides of the opposition are nevertheless commodities, and thus they are unities of use-value and value. But this unity of differences is represented in inverted ways at opposite poles, whose reciprocal relation is thereby expressed as well. A commodity is in reality a use-value; its existence as value becomes visible only ideally, or through its price, by means of which the gold opposite the commodity relates to the commodity as the commodity's real value-shape. Inversely, the material "gold" counts here only as the materialization of value: as money.^{viii} In reality, then, the material "gold" is exchange-value. Its use-value now becomes manifest only ideally, through the series of relative expressions of value where it interacts with the commodities opposite it as the totality of its own real use-shapes. These antithetical forms of commodities are the real forms of movement in the process of commodity exchange.

Let's now accompany a commodity owner—say, our old friend the linen weaver—to the scene where the exchange process takes place: the commodity market. His commodity, 20 yards of linen, has a certain price, in this case £2. He exchanges his linen for £2, and then, salt of the earth type that he is, he exchanges that £2 for a family Bible whose price is also £2. So, he disposes of the linen, which he treats merely as a commodity or value-bearer, in exchange for gold, the linen's value-shape, which he in turn takes the linen

out of, disposing of it in exchange for another commodity, the Bible, a use-object that he brings into his house to satisfy spiritual needs. A commodity's exchange process is thus accomplished through two opposing but complementary metamorphoses: a commodity is transformed into money, and it is reverse-transformed, changing from money into a commodity.¹⁶ The components of this metamorphosis are at once transactions on the part of the commodity owner—he sells his commodity, or exchanges it for money, then buys, or exchanges the money for a different commodity—and the unity of both actions: selling in order to buy.

From the weaver's standpoint, the end result of his transactions is that instead of linen, he owns a Bible; instead of his original commodity, he owns a different one with the same value but a different application. He acquires his other means of both subsistence and production the same way. As he sees it, the whole process simply mediates the exchange of something produced by his own labor for something produced by another person's labor; it mediates the exchange of products.

Thus the process of exchanging commodities occurs through the following form change:

Commodity-Money-Commodity
C-M-C

With respect to the material content of this process, the movement is C-C. One commodity is exchanged for another—social labor is metabolized, and the process ends with that result.^{ix}

C-M. A commodity's first metamorphosis: it is sold. When commodity value leaps from the body of a commodity into a gold body, this is, as I have put it elsewhere, a commodity's *salto mortale*.^x If a commodity fails in its jump, it won't be hurt, but its owner certainly will be. The social division of labor makes the owner's labor as specialized as his wants and needs are varied. For this reason, his product serves him only as exchange-value. But only as money does his product acquire social validity as a general equivalent form, and here the money is in someone else's pocket. If it is to be lured out, what the commodity owner produces must be a use-value

16. ἐκ δὲ τοῦ . . . πυρὸς τ' ἀνταμείβεσθαι πάντα, φησὶν ὁ Ἡράκλειτος, καὶ πῦρ ἀπάντων, ὡς περ χρυσοῦ χρήματα καὶ χρημάτων χρυσός. (Ferdinand Lassalle: "Die Philosophie Herakleitos des Dunkeln. Berlin 1858," Vol. 1 p. 222). As Heraclitus says, all things are requital for fire, and fire for all things, as goods for gold and gold for goods (Plutarch, *Moralia*, The E at Delphi, 388D). [Editor's note: See Charles H. Kahn, *The Art and Thought of Heraclitus* (Cambridge: Cambridge University Press, 1979).] In his note on this passage (p. 224, n. 3), Lassalle mistakenly presents money as being merely a symbol of value.

for the money owner; the labor expended to make his commodity must be expended in a socially useful form—the labor must maintain its role within the social division of labor. However, the social division of labor is an organism of production that arises spontaneously, a thing whose strands were and are woven together behind the producers' backs. Perhaps a commodity is produced by a new mode of labor meant to satisfy a fresh want or need, or even to create a new want or need from scratch. A form of labor that was just yesterday one activity among many for someone producing a single commodity might today twist free, becoming independent, with the result that its specialized product arrives in the market as an independent commodity. Circumstances can be ripe or unripe for such a process of detachment. Today a product satisfies a social need. Perhaps tomorrow it will be partially or fully displaced by a similar product. And even if a type of labor, such as that performed by our weaver friend, has a recognized role in the social division of labor, the use-value of his 20 yards of linen is hardly guaranteed. As with all wants and needs, the social demand for linen has its limits. If our friend's competitors have already sated this demand with their linen, his product will be rendered superfluous, and thus useless. People tend not to look a gift horse in the mouth, but our friend doesn't go to the market to give his products away. Let's assume, however, that the use-value of his product holds up, and his commodity continues to attract money. Here we should ask, How much? No doubt the answer is already anticipated in the linen's price, the exponent of its magnitude of value. We can disregard any purely subjective calculation errors on the part of the commodity owner; the market will objectively correct them right away. In producing his commodity, he should have expended only the socially necessary average amount of labor-time. So the commodity's price is merely the money name for the amount of social labor objectified in it. But without the weaver's permission, behind his back, weaving's old and time-honored conditions of production start to ferment. What was, just yesterday, the social labor-time required to produce a yard of linen, ceases to be that today, as the money owner eagerly demonstrates using the price lists of the linen weaver's various competitors. Unfortunately for our friend, the world has many weavers. Finally, let's assume that every piece of linen on the market contains only as much labor-time as is socially necessary. It is still possible that the totality of these pieces of linen will contain labor-time that has been expended superfluously. If the market's maw can't swallow the total amount of linen at the normal price of 2 shillings per yard, then too much of the social totality of labor-time has been expended in the form of weaving. The effect would be the same if every single weaver expended more

than the socially necessary labor-time to produce his individual commodity. If a ship goes down, its whole crew gets very wet. All the linen in the market counts for something only as one single article of commerce, each piece of linen counts for something only as a fractional part of that whole. The value of each individual yard is in fact nothing but the materialization of the same socially determined amount of homogeneous human labor.

Clearly, commodities love money, but “the course of true love runs never smooth.”^{xi} The quantitative arrangement of the social organism of production, which displays its *dissecta membra* in the system of the division of labor, is just as spontaneously arising and arbitrary as its qualitative counterpart.^{xii} Our commodity owners learn, then, that the same division of labor that makes them into independent private producers also makes the social production process—and their relations within it—independent of them, the producers themselves: they learn that their independence from one another emerges in and is complemented by a system of all-around dependence on things produced by other people.

The division of labor transforms labor products into commodities and in doing so makes it necessary that they be transformed into money. At the same time, the division of labor makes it a matter of chance whether their transubstantiation fails or succeeds. But here we need to observe this process in its pure form, so we will assume that the process is taking place as it normally does. For it to take place at all, a commodity can’t be unsellable; the commodity has to undergo a form change. This normal form change sometimes includes an abnormal gain or loss of substance, i.e., of magnitude of value.

Gold replaces one owner’s commodity; a commodity replaces the other owner’s gold. What we see here is a commodity and gold, 20 yards of linen and £2, changing hands: we see the exchange itself. But what is the commodity exchanged for? That would be the commodity’s own general value-shape. As for the gold, it is exchanged for a particular form of its use-value. Why does the gold play the role of money in interacting with the linen? Because on account of its price (of £2), or money name, the linen has already been relating to the gold in a way where the gold functions as money. A commodity is divested of its original commodity-form when it is disposed of—in other words, the moment a commodity’s use-value actually attracts the gold that is merely imagined in its price. When a commodity’s price is realized, when a commodity’s merely ideal value-form is realized, the reverse is realized, too: money’s merely ideal use-value. When a commodity turns into money, money at the same time turns into a commodity. This single process has two sides: selling, from the commodity owner’s position at one pole; and

buying, from the money owner's position at the opposite pole. Or, selling is buying. C-M is also M-C.¹⁷

So far, we have explored just one kind of economic relation between people, the kind where a commodity owner appropriates another person's labor product only by disposing of his own. Thus one commodity owner can operate as a money owner in an interaction with another owner only if his labor product has the money-form as its natural form—if his labor produces pieces of gold, for example, or if his own commodity has already acquired a new skin, having sloughed off its original use-form. In order to function as money, gold must, of course, enter the commodity market at some point. This point is located at the site where gold is produced, where it is exchanged directly as a labor product for a different labor product with the same value. But from this moment on, gold always represents the realized price of some commodity.¹⁸ At the initial point where it is produced, gold plays a role in exchange that turns out to be the exception. In the hands of every other commodity owner, gold is the shape of a commodity that has been disposed of and thereby divested of its original shape—gold is the product of a sale or the first commodity transformation, that is, C-M.¹⁹ Gold became ideal money or a measure of value because all commodities measured their value in terms of it, making it into their value-shape, which is the notional opposite of their natural use-shapes. Gold became real money because in being generally disposed of, commodities made gold into their actually transformed use-shape, the shape they have after being divested of their use-shape; and thus they made it into their real value-shape, too. When a commodity takes on a value-shape, it sheds every trace of its natural use-value and also the specific useful labor that created it, in order to emerge as the uniform social materialization of undifferentiated human labor. That means one can't tell what kind of commodity has been turned into money just by looking at money. All commodities look alike in the money-form. Money can be dirt, but dirt isn't money. Let's say that the two gold coins for which our weaver disposed of his commodity are the transformed shape of eight bushels of wheat. If someone is selling linen, C-M, someone else has to buy it, M-C.

17. "Every sale is a purchase" (Dr. Quesnay: "Dialogues sur le Commerce et les Travaux des Artisans." Physiocrates, ed. Daire, Vol. 1, Paris 1846, p. 170), or as Quesnay says in his "Maximes Générales," "To sell is to buy."

18. "The price of one good can only be paid for by the price of another good" (Mercier de la Rivière: "L'Orde naturel et essentiel des sociétés politiques" (Physiocrates, ed. Daire, part 2, p. 554).

19. "To obtain this money, one must have made a sale" (ibid. p. 543).

Viewed as a transaction in which the linen is sold, this process initiates a circuit that ends when its opposite occurs: the Bible is bought. Viewed as a transaction in which the linen is bought, this process completes the circuit that began when its opposite took place: the wheat was sold. C-M (linen-money), the first phase of C-M-C (linen-money-Bible), is at the same time M-C (money-linen), the last phase of a different C-M-C circuit (wheat-money-linen). A commodity's first metamorphosis, which takes place when a commodity is transformed from the commodity-form into money, is always also a second and opposite metamorphosis, which occurs when a different commodity is reverse-transformed from the money-form into a commodity.²⁰

M-C. A commodity's second or final metamorphosis: it is bought. As the shape of all other commodities after they have been divested of their natural one, or as the product of their being generally disposed of, money is the absolutely alienable commodity. It reads all prices backwards and is, in this way, reflected back in the physical bodies of all commodities, the material offered up when money itself becomes a commodity. At the same time, prices, the bedroom eyes with which commodities wink at money, reveal the limit of money's capacity to be transformed: namely, its own quantity. Because a commodity disappears when it becomes money, one can't tell by looking at money how it got into its owner's hands, or which commodity has been transformed into it. *Non olet*,^{xiii} whatever its source may be. If, on the one hand, money represents a commodity that's been sold, on the other hand, it represents commodities that can be bought.²¹

M-C, buying is at the same time selling, and so C-M, one commodity's final metamorphosis, is another commodity's first metamorphosis. For our weaver, the life cycle of his commodity ends with the Bible into which he reverse-transforms his £2. The person who sells the Bible transforms this £2, now set free by the weaver, into schnapps. M-C, the final phase of C-M-C (linen-money-Bible), is also C-M, the first phase of C-M-C (Bible-money-schnapps). Since commodity producers make just one specialized product, they often sell large quantities of what they make. However, their many needs force them to constantly scatter the price they've realized, or the money that their selling sets free, into a variety of purchases. One sale flows into many purchases involving different kinds of commodities. Thus

20. As noted earlier, the actual producer of gold or silver is an exception. He exchanges his product without having sold it first.

21. "If the money in our hands represents the things we want to buy, it also represents the things we have sold for that money" (Mercier de la Rivière op cit. p. 586).

one commodity's final metamorphosis represents the beginning of many other commodities' metamorphoses.

If we consider a commodity's full metamorphosis, for instance the linen's, we see, first of all, that it is made up of two opposing but complementary movements, C-M and M-C. A commodity's two opposing transformations occur through two opposing social processes that are carried out by a commodity owner and reflected in the two opposing economic roles he plays.^{xiv} As the agent of the sale, he becomes a seller; as the agent of the purchase, he becomes a buyer. But just as a commodity's two forms, the commodity-form and money-form, are simultaneously present whenever a commodity is transformed, only at opposite poles, so the same commodity owner, when he is selling, faces another commodity owner who is buying and, when he is buying, faces another commodity owner who is selling. As a commodity undergoes its two inverted transformations in succession, turning from a commodity into money and from money into a commodity, one and the same commodity owner changes roles, switching from seller to buyer. These roles, then, don't remain fixed during commodity circulation; rather, they move constantly from person to person.

The simplest form of a commodity's complete metamorphosis involves two starting points, two endpoints, and three *dramatis personae*.^{xv} First, money positions itself opposite a commodity as the commodity's value-shape, which has the hard reality of a thing elsewhere, in someone else's pocket. A money owner thus comes to face a commodity owner. The moment a commodity is transformed into money, money turns into the commodity's disappearing equivalent form, whose content or use-value exists right here, in the physical bodies of other commodities. Money, as the endpoint of a commodity's first transformation, is also the starting point for its second one. Hence the person who sells in the first transaction becomes the person who buys in the second, where he encounters a third commodity owner who is acting as a seller.²²

The two inverted phases of movement in a commodity's metamorphosis constitute a circuit: a commodity starts off in the commodity-form, it sheds its commodity-form, it returns to the commodity-form. Here, of course, a commodity has opposing determinations. At its starting point, it is not a use-value for its owner, and at the endpoint, it is a use-value. Money first

22. "There are therefore four terms and three contracting parties, one of whom intervenes twice" (Le Trosne op. cit. p. 909).

appears as the solid crystal of value that a commodity is transformed into, only to dissolve as the commodity's mere equivalent form.^{xvi}

The two metamorphoses that make up one commodity's circuit are at the same time the inverse partial metamorphoses of two other commodities. A single commodity (linen) launches the series of its own metamorphoses and completes the total metamorphosis of another commodity (wheat). When a commodity is first transformed—that is, when it is sold—it plays these two roles as itself. However, as a gold chrysalis that goes the way of all flesh, the commodity also completes a third commodity's first metamorphosis. Thus the circuit formed by every commodity's series of metamorphoses interlocks inextricably with other commodities' circuits. This process, taken as a whole, is commodity circulation.^{xvii}

Commodity circulation differs from the direct exchange of products not only in terms of form, but also in its essence. Let's take just a moment to recall how commodity circulation works. The weaver has indeed exchanged his linen for a Bible, his own commodity for someone else's. But this goes only for him. The Bible seller, preferring a stiff drink to soft sheets, wouldn't think of exchanging a Bible for linen, while the weaver has no idea that wheat has been exchanged for his linen, and so on. B's commodity replaces A's, but A and B don't exchange their commodities directly. A and B can in fact buy directly from each other, but such a specific relation isn't at all conditioned by the general relations that commodity circulation entails. On the one hand, we see here how the exchange of commodities bursts the individual and local limits that go with the direct exchange of products, thereby advancing the metabolism of human labor. On the other hand, a whole network of natural social connections develops through commodity circulation, one that the human actors involved can't control. The weaver can sell his linen only because the farmer has already sold his wheat; the drunk can sell his Bible only because the weaver has already sold his linen; the distiller can sell his *eau-de-vie* only because the drunk has already sold the water of everlasting life, and so on.^{xviii}

For this reason, the circulation process doesn't end once use-values have changed places and hands, whereas the direct exchange of products ends there. Money doesn't disappear because it ultimately drops out of a commodity's series of metamorphoses. It keeps reentering commodity circulation in the places that commodities themselves have vacated. In the linen's complete metamorphosis (linen-money-Bible), for example, first the linen drops out of circulation, with money taking its place. Then the Bible drops out of circulation, and money takes its place, too. When one

commodity is substituted for another, money always winds up in the hand of a third party.²³ Circulation never stops sweating money.

Nothing could be more absurd than this dogma: the equilibrium of buying and selling is a necessary condition for commodity circulation because every purchase is a sale and vice versa. If this is supposed to mean that the number of sales that have actually been completed equals the number of purchases, then it is a crude tautology. But what it is really trying to say is that every seller brings his own buyer to the market with him. In fact, selling and buying make up one unified act as the reciprocal relation between two people in diametrically opposed roles, the commodity owner and the money owner. As transactions performed by one and the same person, they represent two diametrically opposed acts. The identity of purchase and sale thus implies that a commodity is useless if, having been thrown into the alchemical cauldron of circulation, it fails to reemerge as money—if, that is, the commodity owner doesn't sell it, and a money owner doesn't turn up to buy it. Furthermore, the same identity implies that when the process succeeds, it constitutes a moment of rest for the commodity, a particular phase in a commodity's life that can last for a shorter or a longer while. Because a commodity is both sold and bought when it is first transformed, this partial process is at the same time an independent process. The buyer has a commodity; the seller has money: in other words, the seller has a commodity that retains its circulation-ready form regardless of whether it reappears in the market sooner or later. No one can sell unless someone else buys. But no one needs to buy immediately just because he's sold something else. Circulation explodes the temporal, spatial, and individual limits that go with the direct exchange of products, and it does so by breaking up the immediate identity involved in direct exchange—disposing of one's own labor product and acquiring someone else's. What was once that immediate identity now becomes the opposition between selling and buying. These processes take place as mutually independent opposites but form an inner unity, which means that this inner unity moves via external oppositions. If things that complete each other internally, and thus aren't independent, become externally independent past a certain point, then their unity will make itself felt with great force, by way of . . . *a crisis*.^{xix} The commodity contains an inherent opposition: use-value versus value; private labor, which at the same time has to be represented as directly

23. Note added to the second edition: As obvious as this phenomenon may be, it has been largely overlooked by political economists, especially the free trader *vulgaris*.

social labor; particular concrete labor, which at the same time counts for something only as abstract general labor; the personification of things and the thingification of people. This inherent contradiction gains its developed forms of movement in the opposing phases of the commodity's metamorphosis. These forms thus imply the possibility of crisis, but only the possibility. Turning this possibility into a reality requires a whole web of conditions, conditions that, from the standpoint of simple commodity circulation, don't yet exist.²⁴

Money mediates commodity circulation; it thereby takes on the function of the means of circulation.

b. The Circulation of Money

C-M-C, the form change through which the metabolizing of labor products is accomplished, requires that one and the same value constitute the starting point of the process as a commodity and return to the same point as a commodity. So here, commodities move in a circuit. Their cyclical movement makes it impossible, however, for money to move the same way. This circuit causes money to move ever farther from its own point of departure. As long as the seller holds onto his commodity's transformed shape—i.e., money—his commodity will remain in the first metamorphosis stage; the commodity will have completed only the first half of its circuit. But when this process of selling in order to buy has run its full course, the money has left the hands of the original owner again. If the weaver sells more linen after buying the Bible, then money will flow back into his hands. But money doesn't flow back to him because the initial twenty yards circulated; its circulation took money out of his hands instead, putting it into the Bible seller's. Money will flow into the weaver's hands again only when the same process of circulation is

24. See my remarks about James Mill, "Zur Kritik etc." pp. 74–76. [Editor's note: English translation, pp. 165–66.] Here two operations are characteristic of how political economists carry out their apologetics. First, they equate commodity circulation with the direct exchange of products, doing so simply by abstracting from the differences between them. Second, they attempt to deny the contradictions of the capitalist process of production by dissolving the relations of its agents of production into the simple relations arising from commodity circulation. But commodity production and commodity circulation are phenomena that occur in the most diverse modes of production, even if they vary with respect to their size and significance. Thus one knows nothing about the *differentia specifica* of those modes of production, and therefore can't judge them, if one is only familiar with their shared abstract categories of commodity circulation. This combination of posturing and fundamental platiitudinousness reigns in political economy as nowhere else in the world of scholarship. *E.g.*, *J. B. Say* purports to be able to assess crises simply because he knows that a commodity is a product.

renewed or repeated with a new commodity, which will produce the same end result as before. Commodity circulation thus gives money a form of motion in which it continuously moves away from its starting point.^{xx} Money courses from one commodity owner's hands into another's—this is how money circulates (currency, *cours de la monnaie*).

The circulation of money features the constant, monotonous repetition of the same process. The commodity is always on the seller's side; money, as the means of purchasing, is always on the buyer's. Money functions as a means of purchasing in that it realizes a commodity's price. When money does that, it transports the commodity from the seller's hands into the buyer's, while also moving out of the buyer's hands and into the seller's. Then money repeats the same process with a different commodity. What is concealed is that this one-sided form of movement on money's part arises from the double-sided movement of a commodity's form changes.^{xxi} The very nature of commodity circulation makes it seem that the opposite happens. A commodity's first metamorphosis is visible as its own movement and not only as the movement of money. However, the commodity's second metamorphosis is visible only as money's movement. In the first half of its circulation, a commodity changes places with money. Here, the commodity's use-shape drops out of circulation and into the sphere of consumption.²⁵ The commodity's value-shape or money larva takes the place of its use-shape. The commodity then passes through the second half of its circulation not in its own natural skin but rather in its gold skin. At this point, there is continuity of movement only on money's side, and the same movement that involves two opposing processes for a commodity involves only one process for money, a process in which money keeps changing places with a different commodity. Thus the result of commodity circulation—one commodity is replaced by another—appears to be mediated not by a commodity's own form change, but by money functioning as a means of circulation. In this capacity, money circulates commodities that in and for themselves don't move, transporting them from hands where they aren't use-values into hands where they are, with its own course always going in the opposite direction. Money continuously removes commodities from the circulation sphere in that it continuously takes their place in the circulation process, thereby traveling ever farther away from its starting point. While its movement is thus only an expression of commodity circulation,

25. Even when a commodity is sold again and again, a phenomenon that for our purposes doesn't yet exist, it drops out of the sphere of circulation with its final and definitive sale: it ends up in the sphere of consumption, in order to serve there as a means of subsistence or a means of production.

appearances suggest the opposite. Commodity circulation seems to result from money's movement.²⁶

Money can function as the means of circulation, however, only because it is commodity value become independent. So its movement as the means of circulation is in fact merely the movement of commodities' form changes. This form-movement, then, must be visibly reflected in money's circulation. When we consider a commodity's full metamorphosis, its double form change is reflected in the same piece of money changing hands twice. And when we consider the interlocking of countless metamorphoses, that double form change is reflected in the same piece of money changing hands again and again. The very same coins that come into the seller's hands as a commodity divested of its natural shape leave them as the shape in which the commodity can always be disposed of. In both cases, money functions in the same way: as the means to purchase first the one commodity, then the other. But when a single commodity undergoes these two processes, the internal connection between them becomes manifest in the double and opposing movement to which the same coins are subjected. The same £2 that migrates out of the wheat farmer's pocket—and into the linen weaver's—when the farmer buys the linen, wanders onward when the Bible is purchased. It has changed positions twice. And if we regard the linen or its proxy as the center, then the changes go in opposite directions: positive when money comes in, negative when it is spent. In contrast, when merely one-sided commodity metamorphoses occur, mere selling or buying, the same money changes places only once. Its second change of position always expresses a commodity's second metamorphosis, in which it reverse-transforms from money into a commodity. Needless to say, all this holds only for the simple form of commodity circulation under discussion here.

All commodities step into the circulation sphere when their first form change occurs, then fall back out of it as new commodities keep entering. However, money, as the means of circulation, resides in the circulation sphere and is always on the move there. Thus we come to the question, How much money does this sphere constantly absorb?

Countless one-sided commodity metamorphoses occur every day in any given country, at the same time and thus separated by space: simple sales from one perspective, simple purchases from another. Before this hap-

26. "Money has no movement other than that which is imparted by production" (Le Trosne op. cit. p. 885).

pens, commodities are equated through their prices with definite, notional quantities of money. Furthermore, the direct circulation-form being discussed always sets the commodity and money opposite each other in the flesh, the one at the pole of the sale, the other at the opposite pole, the purchase. As a result, the sum of the prices of all commodities added together predetermines how much means of circulation the commodity world's process of circulation requires. Money merely represents in real terms the sum of gold already expressed in ideal terms in the sum of commodities' prices. It goes without saying that these sums will be equal. Yet we know that when commodities' values remain constant, their prices vary as the value of gold (the money material) does, rising proportionally when gold's value falls and falling proportionally when it rises. If the aggregate sum of commodities' prices rises or falls, the amount of circulating money must rise or fall to the same extent. Here money itself causes the amount of the means of circulation to change—not money functioning as the means of circulation, but rather money functioning as the measure of value. First, the prices of commodities vary inversely with the value of money, and then the amount of the means of circulation varies directly with the prices of commodities. The same thing would happen if, for example, gold's value didn't fall, but rather silver replaced gold as the measure of value, or if silver's value didn't rise, but instead gold dislodged silver from the role of the measure of value. In the one case, more silver would have to be in circulation than there had been gold; in the other case, less gold than there had been silver. And in both cases, the money material's value would have changed—the value of the commodity functioning as the measure of value; the price expression of commodity values would therefore change as well, as would the amount of circulating money that serves to realize their prices. We have seen that the circulation sphere of commodities has a hole in it, through which gold (or silver, or whatever the money material) enters this sphere as a commodity of a given value. Money's value is presupposed when it functions as a measure of value, and thus when prices are determined. If the value of the measure of value falls, this will first register as changes in the prices of the commodities directly exchanged for the commodity “precious metals” at the places where those metals are produced. Particularly in bourgeois society during its less developed stages, most other commodities long continue to be assessed according to the out-of-date, and thus illusory, former value of the measure of value. Yet because one commodity infects another through its value relation with that other commodity, the gold or silver prices of commodities gradually

align in the proportions determined by their values, until, finally, all commodity values are assessed according to metallic money's new value. As commodity values come to be assessed in this way, the quantity of precious metals is continuously growing—these metals stream in to replace the commodities they are directly exchanged for. Thus to the same extent that the corrected prices of commodities become universal, or to the same extent that commodities' values come to be assessed according to the money metal's new, lower value, which goes on falling until it reaches a certain minimum, the supplementary amount of money needed to realize commodities' prices will already be available. When new sources of gold and silver were discovered, a one-sided approach to the resulting circumstances misled seventeenth-century political economists—and especially eighteenth-century ones—into thinking that what had caused commodity prices to rise was an increase in the amount of gold and silver functioning as the means of circulation. In what follows, I will assume that gold's value is given, which in fact it is when a price is being estimated.

This assumption implies that the amount of the means of circulation is determined by the aggregate sum of prices to be realized when all commodities are sold. If we also assume that the price of every kind of commodity is given, the aggregate sum of commodities' prices clearly depends on how many commodities are moving through the circulation process. We don't have to tax our brains to see that if eight bushels of wheat cost £2, eight hundred bushels will cost £200, sixteen hundred £400, and so on, and that as a result, when the amount of wheat increases, the amount of money that changes places with wheat when it is sold must increase, too.

If the quantity of commodities in circulation remains constant, the amount of circulating money will ebb and flow with the ups and downs of commodity prices. The amount of money rises and falls with price changes, since the aggregate price of all commodities changes as their individual prices do. For such general fluctuations to occur, it is hardly necessary that all commodity prices rise or fall at the same time. If the prices of a certain number of popular commodities go up or down, that will be enough to increase or decrease the total price to be realized of all the commodities in circulation, and thus also to increase or decrease the amount of circulating money. Whether fluctuating commodity prices reflect actual changes in value, or merely the ups and downs of market prices, the effect of these fluctuations on the amount of the means of circulation will be the same.

Imagine a number of unconnected sales or partial commodity metamorphoses going on at the same time but in different places, involving, say, eight bushels of wheat, 20 yards of linen, one Bible, and four gallons of schnapps. If the price of each article is £2, and the total price to be realized is thus £8, then £8 must enter into circulation. But if, instead, these same commodities were to make up the components of our familiar series of transformations—eight bushels of wheat—£2—20 yards of linen—£2—one Bible—£2—four gallons of schnapps—£2—then the same £2 causes the various commodities to circulate, one after the other, by realizing their prices in succession. Thus the £2 also realizes the total price sum of £8 before it finally comes to rest in the distiller's hands. The £2 changes hands four times. This repeated change of position by the same coins expresses that the commodities undergo a double form change—that they move through two opposing stages of circulation and that the metamorphoses of different commodities interlock.²⁷ The antithetical but complementary phases that make up the circulation process can't occur alongside one another in space; they can only follow one another in time. The process is thus measured in units of time. In other words, the number of times the same piece of money changes places within a given time period measures the speed of money's circulation. Let's say, for example, that the circulation process of our four commodities takes one day. The price sum to be realized is £8; the same coins change hands four times over the course of the day; and the amount of circulating money is £2. So for any given period of time during the circulation process, we would have the following equation: the amount of money serving as the means of circulation equals the sum of the commodities' prices divided by the number of times coins of the same denomination change hands. This law is generally valid. On the one hand, of course, a given country's circulation process is made up at a given moment of many individual sales (and purchases) occurring simultaneously alongside each other. It consists, that is, of many partial metamorphoses in which the same pieces of money change places only once, or turn over a single time. On the other hand, a country's circulation process is made up of many series of metamorphoses, which partially take place alongside one another and partially interlock, with the

27. "It is production that sets it (money) in motion and makes it circulate. . . . The celerity of its (money's) movement compensates for its quantity. When necessary, it simply slides from one hand to the other without stopping for a moment" (Le Trosne op. cit. pp. 915-16).

number of stages involved varying, and with the same pieces of money turning over multiple times, whether several or many. The total number of place changes completed by all units of money of the same denomination will tell us, nevertheless, the average number completed by each individual piece, or the average speed of money's circulation. It is, naturally, the price sum of the commodities circulating at the same time and in different places that determines the amount of money put into the circulation process at the beginning of the day. But within this process, one piece of money is made responsible for another, so to speak. If the one piece increases its speed of circulation, another will slow down, or else be simply ejected from the circulation sphere, since the sphere can absorb only an amount of money that, when multiplied by the average number of times its basic unit turns over, is equal to the price sum to be realized. Hence if the number of cycles completed by separate pieces of money rises, then the total number of pieces in circulation will decrease. If the number of times they turn over falls, the total number of pieces will increase. Because the amount of money that can function as the means of circulation is fixed for a given average speed of circulation, one only has to put a certain number of £1 notes into circulation to pull out the same number of sovereigns, a trick that all banks know well.

All we are really seeing when money circulates is the circulation process of commodities, their circular path through opposing metamorphoses; in the same way, what we really see in the speed with which money circulates is the speed with which commodities change their forms, the continuous interlocking of their series of metamorphoses, the rushed manner of this metabolizing, the fast rate at which commodities disappear from the sphere of circulation, and the equally fast rate at which new commodities replace them. What in fact appears in the speed of money's circulation, then, is the fluid unity of opposing but complementary phases, where a use-shape is transformed into a value-shape and reverse-transformed into a use-shape, i.e., the fluid unity of the processes "sale" and "purchase." In contrast, what we are really seeing when money's circulation slows down is the separation of these processes and the antagonism that results from their becoming independent—we see that form changes are stagnating and thus so is the metabolization that form changes mediate here. We can't tell what's causing this stagnation by looking at the circulation process itself, of course: it merely presents us with that phenomenon. However, popular opinion, observing money appear and disappear less often at all points along the perimeter of circulation as it slows down,

wants to think that stagnation is caused by an insufficient supply of the means of circulation.²⁸

On the one hand, then, the aggregate price sum of the circulating commodity world determines the total amount of money functioning at a given time as the means of circulation, and, on the other hand, this amount is determined by how quickly or slowly the commodity world's antithetical processes of circulation are flowing, while the percentage of the price sum that the same piece of money can realize also depends on the speed of those processes. But the aggregate price sum of all the commodities in circulation depends on the quantity, as well as the price, of every kind of commodity. These three factors—the movement of prices; the quantity of commodities circulating; and, finally, the speed at which money is circulating—can all vary in different directions and to different degrees. And so the price sum to be realized, and thus the amount of the means of circulation that corresponds to that sum, can vary greatly as the combined effect of the three factors goes through countless variations. Here we will list only the combinations that have had the largest impact on commodity prices.

If commodity prices remain constant, the amount of the means of circulation can increase because the number of circulating commodities

28. "Money being . . . the common measure of buying and selling, every body who has anything to sell, and cannot procure chapmen for it, is presently apt to think, that want of money in the kingdom, or country, is the cause of why his goods do not go off; and so, want of money is the common cry, which is a great mistake. . . . What do these people want, who cry out for money? . . . The Farmer complains . . . he thinks that were more money in the country, he should have a price for his goods. Then it seems money is not his want, but a Price for his corn and cattle, which he would sell, but cannot . . . why cannot he get a price? . . . 1) Either there is too much corn and cattle in the country, so that most who come to market have need of selling, as he has, and few of buying; or, 2) There wants the usual vent abroad by Transportation . . . Or, 3) The consumption fails, as when men, by reason of poverty, do not spend so much in their houses as formerly they did; wherefore it is not the increase of specifick money, which would at all advance the farmer's goods, but the removal of any of these three causes, which do truly keep down the market. The merchant and shopkeeper want money in the same manner, that is, they want a vent for the goods they deal in, by reason that the markets fail . . . a nation never thrives better, than when riches are tost from hand to hand" (Sir Dudley North: "Discourse upon Trade. Lond. 1691," pp. 11–15 *passim*). Herrenschwand's fantastical notions come down to this: by increasing the means of circulation, society can overcome the contradictions that arise from the nature of commodities and, thus, appear in commodity circulation. Furthermore, the popular view that ascribes the stagnation of production and circulation to a lack of means of circulation may be an illusion, but the reverse hardly follows from this, namely, that a lack of means of circulation—for example, due to an official mishandling of "the regulation of currency"—can't itself bring about stagnation.

has increased, or because money is circulating more slowly, or because of both things. The reverse is also true. The amount of the means of circulation can decrease because the number of circulating commodities has decreased, or because money is circulating faster.

If prices are generally rising, the total quantity of the means of circulation will remain constant if the number of circulating commodities decreases proportionally to the increase in commodity prices, or if money's speed of circulation increases as fast as prices are rising, provided that the amount of circulating commodities remains constant. The amount of the means of circulation will decrease if the amount of circulating commodities decreases faster than prices do, or if money's speed of circulation increases faster than prices do.

If prices are generally falling, the quantity of the means of circulation will remain constant if the quantity of commodities increases proportionally to the decrease in their prices, or if money's speed of circulation decreases proportionally to that decrease. The quantity of the means of circulation will increase if the amount of commodities increases or the speed of circulation decreases faster than commodity prices fall.

The effects of the different factors can cancel one another out as the factors vary in different ways, with the result that even though things are constantly varying, the sum of commodity prices to be realized remains constant, and thus the amount of money circulating does as well. When we track the amount of money circulating in a given country—and especially when we track it over longer periods—we find, then, that it deviates from its average level much less than appearances might lead one to expect. The exceptions are the moments of violent disturbance that arise now and again from production and trade crises, but rarely because the value of money has increased or decreased.

Recall that the aggregate price sum of circulating commodities, together with money's average speed of circulation,²⁹ determines the

29. "There is a certain measure, and proportion of money requisite to drive the trade of a nation, more or less than which would prejudice the same. Just as there is a certain proportion of farthings necessary in a small retail Trade, to change silver money, and to even such reckonings as cannot be adjusted with the smallest silver pieces. . . . Now as the proportion of the number of farthings requisite in commerce is to be taken from the number of people, the frequency of their exchanges; as also, and principally, from the value of the smallest silver pieces of money; so in like manner, the proportion of money (gold and silver specie) requisite to our trade, is to be likewise taken from the frequency of commutations, and from the bigness of payments" (William Petty, "A Treatise of Taxes and Contributions, Lond. 1667," p. 17). [Editor's note: "Species" is the term in Petty's text, not "specie."] In his "Political Arithmetic. Lond. 1774," Andrew Young defends Hume's theory

amount of the means of circulation. This law can also be expressed as follows: with the total value of all commodities at a given magnitude, and commodities metamorphosing at a given average speed, the amount of circulating money, or money material, depends on money's own value. That the reverse is true—that the amount of the means of circulation determines commodity prices, and that the amount of the means of circulation for its part, is determined by the amount of money material that happens to be present in a country³⁰—is a misguided notion rooted in an absurd hypothesis subscribed to by the notion's initial champions: namely, that commodities enter into the circulation process without prices, and money enters into it without a value, and then, in the circulation sphere, a fractional part of this commodity mush is exchanged for a fractional part of the metallic heap.³¹

against criticisms by James Steuart, among others; the topic gets its own chapter there, entitled "Prices depend on quantity of money," p. 112ff. I noted in my "Zur Kritik etc., p. 149" [Editor's note: English translation, p. 399], "He [Adam Smith] quietly eliminates the question about the amount of coin in circulation by quite improperly regarding money as a simple commodity." This holds true only insofar as Smith treats money *ex officio*. Occasionally, however, he offers the correct view, doing that, for example, in his critique of early systems of political economy: "The quantity of coin in every country is regulated by the value of the commodities which are to be circulated by it. . . . The value of goods annually bought and sold in any country requires a certain amount of money to circulate and distribute them to their proper consumers, and can give employment to no more" (Wealth of Nations, 1. IV. ch. I). Similarly, Smith opens his work *ex officio*, apotheosizing the division of labor. But in his last book, which deals with the sources of state income, he sometimes restates the condemnations of the division of labor put forth by Andrew Ferguson, his teacher.

30. "The prices of things will certainly rise in every nation, as the gold and silver increase amongst the people; and, consequently, where the gold and silver decrease in any nation, the prices of all things must fall proportionally to such decrease of money" (Jacob Vanderlint: "Money answers all Things" Lond. 1734, p. 5). Having closely compared Vanderlint and Hume's Essays, I firmly believe that Hume knew and used Vanderlint's work, which is of no small importance. Barbon, too, and many other earlier writers advanced the view that the amount of the means of circulation determines prices. "No inconvenience," says Vanderlint, "can arise by an unrestrained trade, but very great advantage; since, if the cash of the nation can be decreased by it, which prohibitions are designed to prevent, those nations that get the cash will certainly find every thing advance in price, as the cash increases amongst them. And . . . our manufactures and every thing else, will soon become so moderate as to turn the balance of trade in our favour, and thereby fetch the money back again" (ibid. pp. 43, 44).

31. By having a price, every type of commodity becomes part of the price sum of all circulating commodities: this is self-evident. What is completely incomprehensible, in contrast, is how mutually incommensurable use-values can be exchanged *en masse* for the gold or silver in a given country. If, by some trick, we could transform the whole commodity world into one single total commodity, with each individual commodity representing a fractional part of that total commodity, we would get this lovely equation: the total

c. Coin: The Symbols of Value

Money takes the shape of coin due to its function as the means of circulation. In the circulation process, the weights of gold that are imagined as prices—as commodities' money names, in other words—have to operate opposite those commodities as coins or pieces of gold of the same denomination. The business of minting coins falls to the state, as does that of establishing a standard of price. The divide between the domestic or national sphere of commodity circulation and the general world market sphere takes on a visible form in the different national uniforms that gold and silver coins wear at home, and then remove when they are in the world market. Gold coins and gold bullion differ, then, only with regard to how they are physically configured, and gold is always transmutable from one form into the other.³² But the path from the mint is at the same time

commodity = x cwt. of gold; commodity A = a fractional part of the total commodity = the same fractional part of x cwt. gold. Montesquieu states this in all sincerity: "If one compares the mass of gold and silver that is in the world to the sum of the commodities that are in it, it is certain that each product or commodity, taken in isolation, can be compared to a certain portion of the other. Suppose that there is only one product or commodity in the world, or that there is only one that can be bought, and that it divides like silver: that part of that good would correspond to a part of the mass of silver; half of the total of one would correspond to half of the total of the other, etc. . . . the pricing of things always depends, fundamentally, on the ratio of the total amount of things to the total amount of signs" (Montesquieu op. cit. Vol. 3, pp. 12, 13). For a discussion of how Ricardo and his disciples, James Mill, Lord Overstone, and others further developed this theory, see my "Zur Kritik, etc." pp. 140–46 and 150ff. [Editor's note: English translation, pp. 390–97, 399ff.] Using his customary eclectic logic, Mr. John Stuart Mill is able both to agree with his father, James Mill, and subscribe to the opposite view. When we compare the text of his "Principles of Pol. Econ." with the preface to the first edition, where he introduces himself as the Adam Smith of his time, it's hard to know what to admire more: Mill's own naïveté, or that of a public that in fact regarded him as the new Adam Smith. After all, Mill resembles Smith about as much as General William of Kars resembles the Duke of Wellington. Neither broad nor deep, Mr. Mill's original researches in political economy can be found in tidy columns in his little pamphlet "Some Unsettled Questions of Political Economy," which was published in 1844. Locke explicitly asserts that there is a connection between the absence of value in gold and silver and the fact that their value is determined by quantity: "Mankind having consented to put an imaginary value upon gold and silver . . . the intrinsic value, regarded in these metals, is nothing but the quantity" ("Some Considerations, etc. 1691." Works ed. 1777, Vol. 2, p. 15).

32. Needless to say, discussing details such as the seigniorage on minting lies well outside what I want to accomplish. And yet, the following appraisal by Sir Dudley North provides a counterpoint to the views of Adam Müller, a romantic sycophant who admired "the wonderful generosity" of "the English government in minting for free": "Silver and gold, like other commodities, have their ebbs and flowings. Upon the arrival of quantities from

the road to the melting pot. As gold coins circulate, they wear down, some more, some less. Gold's name and its substance, its nominal content and its real content, begin to diverge. Gold coins of the same denomination come to vary in weight, and thus in worth. Gold as the means of circulation diverges from gold as the standard for prices; gold thereby ceases to be the actual equivalent of the commodities whose prices it realizes. The history of this confusion is the history of coinage in the Middle Ages and early modern period, all the way into the eighteenth century. The circulation process has a spontaneously arising tendency to transform a coin's existence as gold into the semblance of gold, or to transform a coin into a symbol of its official metal content. In fact, the most recent laws stipulating what degree of metal loss makes a piece of gold unfit for circulation, or "demonetizes" it, confirm this.

Money's circulation itself separates the nominal content of coins from their real content, their functional existence from their existence as metal, and thus it also implies the latent possibility of replacing the metallic money that functions as coins with tokens of some other material—in other words, with symbols. Small weights of gold and silver are hard to mint; the less precious metals are the ones that served first as a measure of value, not the more precious ones: silver instead of gold, copper instead of silver; and these less precious metals circulated as money until the more precious metals dethroned them. Such historical factors explain why silver and copper tokens have functioned as substitutes for gold coins. Silver and copper tokens replace gold on the paths of commodity circulation where coins circulate fastest, thereby wearing down fastest as well—that is, where small-scale selling and buying constantly occur. In order to prevent these lesser proxies from installing themselves permanently in gold's place, the law establishes tiny proportions as the only ones in which they are valid as an alternative payment. The particular paths that different kinds of coins follow in circulation overlap, of course. Small change serves alongside gold as payment for the fractional parts of

Spain . . . it is carried into the Tower, and coined. Not long after there will come a demand for bullion, to be exported again. If there is none, but all happens to be in coin, what then? Melt it down again; there's no loss in it, for the coining costs the owner nothing. Thus the nation has been abused, and made to pay for the twisting of straw, for asses to eat. If the merchant [North was himself one of the biggest merchants during the reign of Charles II] had to pay the price of the coinage, he would not have sent his silver to the Tower without consideration; and coined money would always keep a value above uncoined silver" (North op. cit. p. 18).

the smallest gold coins; gold continuously enters into retail circulation but is ejected from it just as continuously, due to being swapped for small change.³³

Laws establish the metal content of silver and copper tokens arbitrarily. As these tokens circulate, they wear down even faster than gold coins, and thus their practical function as coins doesn't depend at all on their weight—i.e., value. Gold's existence as coin no longer corresponds to its value-substance. Relatively worthless things, such as paper notes, can therefore serve as coinage in gold's place. The symbolic character of metal money tokens remains hidden, at least to some extent. But with paper money, this character is plain to see: *ce n'est que le premier pas qui coûte*.^{xxii}

Only national paper money concerns us here—money issued by the state and with forced currency. It emerges directly from the circulation of metallic money. Credit money, in contrast, requires conditions that are completely unfamiliar from the standpoint of simple commodity circulation. Still, let us note in passing that just as actual paper money arises from money's function as the means of circulation, so the spontaneously arising roots of credit money lie in money's function as the means of payment.³⁴

33. "If silver never exceed what is wanted for the smaller payments, it cannot be collected in sufficient quantities for the larger payments . . . the use of gold in the main payments necessarily implies also its use in the retail trade: those who have gold coins offering them for small purchases, and receiving with the commodity purchased a balance of silver in return; by which means the surplus of silver that would otherwise encumber the retail dealer, is drawn off and dispersed into general circulation. But if there is as much silver as will transact the small payments independent of gold, the retail dealer must then receive silver for small purchases; and it must of necessity accumulate in his hands" (David Buchanan, "Inquiry into the Taxation and Commercial Policy of Great Britain. Edinburgh 1844," pp. 248, 249).

34. The financial mandarin Wan Mao-in thought it would be a good idea to present the Son of Heaven with a proposal whose secret aim was to transform the *assignats* of the Chinese Empire into convertible bank notes. In the assignat-committee's report of April 1854, he had his head handed to him. Whether he also received the traditional beating with bamboo shafts isn't known. "The Committee," the end of the report reads, "has considered his project attentively and finds that everything in it is to the advantage of merchants while nothing is advantageous for the crown" ("Arbeiten der Kaiserlich Russischen Gesandtschaft zu Peking über China. Aus dem Russischen von Dr. C. Abel and F. A. Mecklenburg. Erster Band, Berlin 1858," pp. 47ff.). [Editor's note: "Son of Heaven" refers to Xianfeng (sometimes known as Wenzong), the emperor of China at the time.] Testifying before the House of Lords' Committee on the Bank Acts, a governor of the Bank of England had this to say about the abrasion of gold coins brought about by circulation: "Every year, a fresh class of sovereigns [not in the political sense; rather, sovereign is a name for pounds] becomes too light. The class that makes it through the year at the right weight will be worn down

From outside the circulation process, the state pours in paper notes stamped with money names such as £1, £5, and so on. Insofar as these notes actually circulate in place of gold sums worth the same amount, their movement merely reflects the laws of money's circulation. A law specific to paper money's circulation would have to arise from the proportion in which paper money represents gold. And this law is simply that the amount of paper money issued to symbolically represent gold (or silver) must be limited to correspond to the amount of gold (or silver) that would actually be circulating. Of course, the amount of gold that the circulation sphere can absorb constantly fluctuates, rising above and dipping below a certain average level. Yet in a given country, the amount of the circulating medium never falls below a certain minimum that can be established by experience. This minimum amount is made up of constantly changing components—i.e., pieces of actual gold—but that does nothing to alter the amount's dimensions or the fact that it flows nonstop in the circulation sphere. Thus it can be replaced by paper symbols. On the other hand, if all the channels of circulation were to be filled to their full capacity with paper money today, they might overflow tomorrow due to fluctuations in commodity circulation. Any standard would be lost. If paper money exceeds its limit—that is, if it exceeds the amount of gold coins of the same denomination that could be in circulation—then, setting aside the danger that the paper money will be generally discredited, it will still represent within the commodity world simply the quantity of gold determined by that world's immanent laws—in other words, the only quantity that can be represented. If £2 in paper notes were issued for every £1 in gold that is actually available, then in practice £1 wouldn't be the money name of $\frac{1}{4}$ of an ounce of gold but of $\frac{1}{8}$ of an ounce instead. This is exactly the effect that a change in gold's function as the standard of prices would produce. The same values expressed earlier as a price of £1 would now be expressed as a price of £2.

Paper money is a gold symbol or a money symbol. Its relation to commodity values is that those values are expressed ideally by quantities of gold that are represented symbolically and physically as paper. Only insofar as paper money represents quantities of gold, which, like all quantities of commodities, are also quantities of value, is it a value symbol.^{35,xxiii}

enough the next year to make poor showing at the scale" (H. o. Lords' Committee 1848, n. 429).

35. Note added to the second edition: The following passage in Fullarton shows that even the best commentators on the nature of money don't have a good grasp of money's

Finally, let's consider the question, How is it that utterly worthless symbols (of gold) can replace gold? As we have seen, gold can be replaced only to the extent that its function as coin or the means of circulation is singled out or made independent. Of course, gold's function as the means of circulation doesn't become independent in the case of individual gold coins, but we see that it becomes independent in the continued circulation of worn-down coins. Gold pieces are coins, or means of circulation, only as long as they are actually moving in the circulation sphere. What doesn't apply to individual gold coins does apply, however, to the minimum quantity of gold that can be replaced by paper money. This quantity always dwells in the circulation sphere, functions continuously as the means of circulation, and therefore exists only as the bearer of that function. Thus its movement merely represents how opposing processes continuously alternate in the commodity metamorphosis C-M-C, where a commodity's value-shape positions itself opposite the commodity, only to disappear immediately. Here a commodity's exchange-value is represented independently just for a moment. A different commodity replaces the first commodity right away. Even money's merely symbolic existence therefore suffices for this process, which constantly removes money from one set of hands and puts it into another. Money's functional existence absorbs, so to speak, its material counterpart. As a vanishing, objectified reflection of commodity prices, money functions only as a symbol of itself, and so other symbols can replace it.³⁶ All a symbol of money needs is its own objective social validity, and in forced currency it gets this. A state can force a currency only within a domestic circulation sphere circumscribed by the

different functions: "That, as far as concerns our domestic exchanges, all the monetary functions which are usually performed by gold and silver coins, may be performed as effectually by a circulation of inconvertible notes, having no value but that factitious and conventional value they derive from the law, is a fact, which admits I conceive, of no denial. Value of this description may be made to answer all the purposes of intrinsic value, and supersede even the necessity for a standard, provided only the quantity of issues be kept under due limitation" (Fullarton: *Regulation of Currencies*, 2nd ed. London 1845, p. 21). So, because mere value symbols can replace the money commodity in circulation, the money commodity is superfluous as both a measure of value and a standard of prices!

36. Insofar as gold and silver are coins, that is, function exclusively as the means of circulation, they become symbols of themselves. From this Nicholas Barbon derived the right of governments to "raise money," that is, to give a quantity of silver called a *groschen* the name belonging to a larger quantity, such as a thaler, and thus to pay creditors back in *groschen* instead of thalers: "Money does wear and grow lighter by often telling over. . . . It is the denomination and currency of the money that men regard in bargaining, and not the quantity of silver. . . . 'Tis the publick authority upon the metal that makes it money" (N. Barbon op. cit. pp. 29, 20, 25).

community's borders, but it is also only within those borders that money, fully absorbed by its function as the means of circulation or coin, can take on a mode of existence as paper money that is externally separate from its metal substance and purely functional.

3. Money

The commodity that functions as the measure of value, and thus also the means of circulation, whether in the flesh or through proxies, is money. Gold (or silver) is therefore money. On the one hand, gold functions as money where it has to appear in its golden (or silver) corporeality. Here it is the money commodity, neither merely ideal, as it is when functioning as the measure of value, nor something that can be represented, as when it plays the role of the means of circulation. On the other hand, gold also acts as money where its function fixes it as the sole shape of value, or the only adequate existence of exchange-value, opposite all other commodities, which are acting here simply as use-values. This holds whether gold itself is functioning in this way or its proxies are.

a. Amassing Money

As money courses unceasingly from person to person—as it functions as the *perpetuum mobile* of circulation—what appears in its movement is the continuous cycle of the two opposing commodity metamorphoses: sale and purchase alternating fluidly. As soon as a commodity is interrupted in its series of metamorphoses, and a sale isn't complemented by a purchase, money is immobilized, or, as Boisguillebert says, it is transformed from movable into immovable wealth, *meuble* into *immeuble*, from coin into money.^{xxiv}

When commodity circulation begins to develop, a new need and passion emerge as well: the desire to hold onto the product of the first metamorphosis, the commodity's transformed shape or its gold chrysalis.³⁷ A commodity is sold not so that its owner can buy a different commodity, but to replace the commodity-form with the money-form. Form change is no longer a way to mediate the metabolizing process: it has become an end in itself. The shape a commodity has when divested of its natural shape is prevented from functioning as its absolutely alienable shape or as the vanishing money-form. Instead, money hardens into a store of

37. "Wealth in money is only . . . wealth in products, converted into money" (Mercier de la Rivière op. cit. p. 373). "A value in the form of products has merely changed form" (ibid. p. 486).

treasure, and the person who sells commodities becomes a person who amasses money.^{xxv}

In the early stages of commodity circulation, only excess use-values were transformed into money. In this natural way, gold and silver became social expressions of a surplus or wealth. This naïve form of amassing wealth is still practiced by cultures where a traditional mode of production, oriented toward providing what the culture itself consumes, corresponds to a closed circle of wants and needs. We find such a state of affairs among Asians, especially Indians. Mistakenly believing that the amount of gold and silver in a country determines the prices of commodities, Vanderlint wonders why Indian commodities are so cheap. His answer: because Indians bury their money.^{xxvi} Between 1602 and 1734, he observes, they buried £150 million in silver that was originally transported from America to Europe.³⁸ Between 1856 and 1866—over the course of a decade, that is—England exported £120 million in silver, which had been acquired in exchange for Australian gold, to India and China (most of the metal exported to China flows back to India).

When commodity production becomes more advanced, every producer must obtain the *nervus rerum*—the “social pledge.”³⁹ His wants and needs are ceaselessly reborn, which compels him to ceaselessly buy the products of others. But it costs him time to produce and sell his own products, and both of these processes depend on arbitrary factors. In order to buy without selling, he must have already sold without buying. Performed on a general scale, this operation seems self-contradictory. However, precious metals are directly exchanged for other commodities at the sites where they (the metals) are produced, and sales take place there (on the commodity owner’s side) without purchases (on the gold and silver owner’s side).⁴⁰ Later, sales without ensuing purchases mediate the distribution of precious metals among all commodity owners. In this way, stores of gold and silver accumulate in different amounts at all points of commerce. People become greedy for gold once they can hold onto exchange-value as a commodity, or onto a commodity as exchange-value. As commodity circulation expands, so does the power of money, the absolutely social form of wealth, the form that is always ready for action.

38. “‘Tis by this practice they keep all their goods and manufactures at such low rates” (Vanderlint op. cit. pp. 95, 96).

39. “Money is a pledge” (John Bellers: “Essays about the Poor, Manufactures, Trade, Plantations, and Immortality.” Lond. 1699,” p. 13). [Editor’s note: The correct Latin expression would be *nexus rerum*.]

40. Buying, in a categorical sense, implies that gold and silver are already the transformed shape of commodities—in other words, the product of a sale.

“Gold is a wondrous thing! Whoever has it is master of all he desires. With money, one can even allow souls to enter paradise” (Columbus, letter from Jamaica, 1503). Since looking at money doesn’t tell one what has been transformed into money, anything, whether or not it is a commodity, can be turned into money. Now everything can be sold and bought. Circulation becomes the giant social melting pot that everything is dropped into, only to come out crystallized as money. Not even holy remains, let alone the more delicate *res sacrosanctae, extra commercium hominum*,^{xxvii} can resist this alchemy.⁴¹ Just as the qualitative differences among commodities are wiped away in money, money, as a radical Leveller, wipes away all differences.⁴² But money is itself a commodity, an external thing that can become anyone’s private property. So, social power becomes a private person’s private power. This is why ancient society condemned money as corrosive to the economic and moral order.⁴³ While modern society was still in its infancy, it pulled Pluto by the hair from the bowels of the earth,

41. Henry III, that most Christian King of France, robbed monasteries of their relics so as to turn what he took into silver. The Phocians’ plundering of the Delphic temple played a famously important role in the history of Greece. As is also well known, in ancient times temples served as dwelling places for the god of commodities. They were “holy banks.” For the Phoenicians, a trading people *par excellence*, money represented the transformed shape of all things. It was therefore only proper that at the feasts of the goddess of love, the virgins who gave themselves to strangers offered her the wage they received—that is, the coin those strangers gave them.

42. “Gold! yellow, glittering precious gold!
 Thus much of this, will make black white; foul, fair;
 Wrong, right; base, noble; old, young; coward, valiant
 What this, you gods! Why, this
 Will lug your priests and servants from your sides,
 Pluck stout men’s pillows from below their heads;
 This yellow slave
 Will knit and break religions; bless the accurs’d;
 Make the hoar leprosy ador’d; place thieves,
 And give them title, knee and approbation,
 With senators of the bench; this is it,
 That makes the wappen’d widow wed again:
 Come damned earth,
 Thou common whore of mankind.”
 (Shakespeare, *Timon of Athens*)

43. οὐδὲν γὰρ ἀνθρώποισιν οἷον ἄργυρος
 κακὸν νόμισι' ἔβλαστε. τοῦτο καὶ πόλεις
 πορθεῖ, τόδ' ἄνδρας ἐξανίστησιν δόμων:
 τόδ' ἐκδιδάσκει καὶ παραλλάσσει φρένας
 χρηστὰς πρὸς αἰσχροῦ πράγματ' ἴστασθαι βροτῶν:
 πανουργίας δ' ἔδειξεν ἀνθρώποις ἔχειν
 καὶ παντὸς ἔργου δυσσέβειαν εἶδέναι.

and now it salutes the gold grail as the shining incarnation of its most fundamental life principle.⁴⁴

As a use-value, a commodity satisfies a particular want or need and makes up a particular element of material wealth. But it is the commodity's value that serves as the measure of its power to attract all the elements that constitute material wealth; thus a commodity's value also measures the social wealth of its owner. For the crude barbarian commodity owner, and even for a Western European peasant farmer, value is inseparable from the value-form: so when stores of gold and silver increase, value increases, too. Of course, the value of money varies, whether because its own value changes or because the value of the other commodities does. But 200 ounces of gold will still contain more value than 100, 300 ounces will contain more value than 200, and so on, just as before; nor do these variations prevent the metallic natural form of this thing, gold, from remaining the general equivalent form of all commodities: the directly social incarnation of all human labor. The drive to amass money is by nature boundless. Qualitatively, or with regard to its form, money has no limits—it can represent material wealth universally because it can be transformed into any commodity. But at the same time, every real sum of money is of a finite quantity and therefore limited in how much it can achieve as a means of purchasing. This contradiction between money's quantitative limitations and its qualitative limitlessness keeps driving the person who amasses money back to the Sisyphean task of accumulation. His fate is the same as that of the world conqueror, whose every new conquest of land ends at a new border.

In order to hold onto gold as money, and thus as part of a store of money, it is necessary to make sure that gold doesn't circulate, doesn't dissolve as a

(Sophocles, *Antigone*, lines 295–301)

[Editor's note: English translation,

“For nothing current grows among us worse

For men than silver: money ravages

The cities, it forces men to leave their homes,

It teaches mortals with good thinking to turn

To shameful deeds, it shows men how to commit

All crimes, and know all kinds of irreverence”

(Sophocles, *Antigone*, trans. Reginald Gibbons and Charles Segal [Oxford: Oxford University Press, 2003], 66).]

44. “Ἐλπίζουσης τῆς πλεονεξίας ἀνάξειν ἐκ τῶν μυχῶν τῆς γῆς αὐτὸν τὸν Πλούτωνα” (Athen, Deipnos).

[Editor's note: English translation: “the desire of avarice to draw Pluto himself out of the recesses of the earth.” Athenaeus' *Deipnosophistae* or *The Banquet of the Learned*, trans. C. D. Yonge (London: Henry G. Bohn, 1854), p. 368.]

means to purchase an object of enjoyment. And so money amassers forgo acting on carnal desires for the sake of their gold fetish. They are serious about the gospel of renunciation. Then again, they can remove only as much money from circulation as they put into it in commodities. The more they produce, the more they can sell. Thus their cardinal virtues are industry, saving, and stinginess. Sell much and buy little: that is the sum of their political economy.⁴⁵

In addition to the direct form of wealth in money and precious metals, there exists an aesthetic form: owning gold and silver commodities. This form becomes more common as the wealth of bourgeois society increases. "*Soyons riches ou paraissons riches*" (Diderot).^{xviii} Hence, on the one hand, the emergence and continuous growth of a market for gold and silver that is independent of their function as money; hence, on the other hand, the formation of a latent source of monetary supply, which tends to flow during society's stormy periods.

Stored money performs various functions in an economy of metallic circulation. The first stems from the conditions needed for gold or silver coins to circulate. We have seen that because the number, speed, and prices of circulating commodities vary constantly, the amount of money in circulation ceaselessly ebbs and flows. It must have the capacity, then, to expand and contract. Money must come into circulation as coin one moment; coin must be pushed out as money the next. If the amount of money actually circulating is to always correspond to how saturated the circulation sphere is, a country's total quantity of gold or silver must be greater than the amount functioning as coin. Stores of money meet this need. Reserves of such wealth act as channels that circulating money can flow into and out of, so that circulation's internal channels never overflow.⁴⁶

45. "Increasing as much as possible the number of sellers of each commodity, diminishing the number of buyers as much as possible—these are the lynchpins around which political economy turns" (Verri op. cit. pp. 53, 53).

46. "There is required for carrying on the trade of the nation, a determinate sum of specifick Money, which varies, and is sometimes more, sometimes less, as the circumstances we are in require. . . . This ebbing and flowing of money, supplies and accommodates itself, without any aid of Politicians. . . . The buckets work alternately; when money is scarce, bullion is coined; when bullion is scarce, money is melted" (Sir D. North op. cit. [postscript] p. 3). John Stuart Mill, who served for a long time as an official with the East India Company, confirms that in India silver ornaments still function directly as a store of wealth: "Silver ornaments are brought out and coined when there is a high rate of interest, and go back again when the rate of interest falls" (John St. Mill's Evidence: Repts. on Bankacts 1857, n. 2, 101). According to an 1864 parliamentary document on gold and silver imports and exports in India, India's gold and silver imports exceeded its exports

b. Means of Payment

In the direct form of commodity circulation we have considered so far, we always find the same magnitude of value doubly present: as a commodity at the one pole, as money at the other. Commodity owners therefore come into contact with one another only as representatives of reciprocally available equivalents. However, where commodity circulation has developed further, conditions arise such that a commodity's price isn't necessarily realized when the commodity is disposed of—i.e., a temporal separation occurs. Here it will suffice to note the simplest of these situations. It takes more time to produce some commodities than others. Many kinds of commodities can be produced only during certain seasons. Some commodities are sold where they are born; others have to travel to faraway markets. So, some owners can begin to sell before others are ready to buy. Where the same transactions are continuously repeated, with the same people involved, the conditions for selling commodities are regulated to accord with the conditions of their production. With certain commodity types—for example, houses, their use is sold for a definite period of time. Only after the lease period has run out will the buyer have actually gotten the commodity's use-value. Thus he buys the commodity before he pays for it. The one commodity owner sells a commodity that is actually present, the other buys merely as the representative of money, or of future money. The seller becomes a creditor, the buyer a debtor. Because a commodity's metamorphosis, or the development of its value-form, changes when this happens, money too functions differently. It becomes the means of payment.⁴⁷

Here one's character as a creditor or debtor results from simple commodity circulation, whose form change stamps the seller and the buyer with this new relation. At first, then, these new roles come and go, just as those of seller and buyer do, with the same agents of circulation switching off between them, although this opposition looks to be by nature altogether

by £19,367,764 in 1863. During the eight years before 1864, imports of precious metals outpaced exports by £109,652,917. Well over £200,000,000 has been minted in India this century.

47. Luther distinguished between money as a means for purchasing and money as a means of payment: "You have caused me damage in two ways, for I cannot pay on the one hand and cannot buy on the other" (Martin Luther: "An die Pfarrherrn, wider den Wucher zu predigen. Wittenburg 1540"). [Editor's note: Luther's text lacks pagination; in his version of the passage, Marx partly modernizes Luther's German.]

less inviting, and its crystallizing potential is even greater.⁴⁸ The same characteristics can appear, however, even without commodity circulation. In the ancient world, class struggle played out mainly in the form of a struggle between creditors and debtors: this ended in Rome with the demise of the plebeian debtors, who were replaced by slaves. The medieval version of the conflict ended with the decline of the feudal debtors, who lost their political power along with its economic foundation. In this case, in fact, the money-form—and the relation between creditor and debtor has the form of a money relation—merely reflected a deeper antagonism, one having to do with economic conditions of existence.

Let's return to the sphere of commodity circulation. The two equivalents—the commodity and money—no longer appear simultaneously at the two poles of the selling process. Money now functions, first, as a measure of value used to determine the price of the commodity that is sold: the commodity's contractually established price measures the sum of money its buyer owes at a particular time. Second, money functions as a nominal means of buying. Although money exists only in the buyer's promise to pay it, it effects the change of possession. Only when the deadline for paying arrives does the means of payment actually begin to circulate—i.e., leave the buyer's hands for the seller's. The means of circulation has been transformed into a store of money, because the circulation process was broken off after its first phase, and the commodity's transformed shape was taken out of circulation. The means of payment will enter into circulation, but only after the commodity has been taken out of it. Money no longer mediates the process. It ends the process independently—as exchange-value's absolute form of existence, in other words, as the universal commodity. The seller transformed his commodity into money in order to satisfy a want or need with money; the money amasser did the same thing in order to keep his commodities in their money-form; the buyer who owed money did likewise in order to be able to pay. If he doesn't pay up, he'll face the forced sale of his things.^{xxix} So, due to a social necessity arising from the circulation process, or the conditions therein, a commodity's value-shape—money—now becomes an end in itself when a commodity is sold.

48. How were relations between creditors and debtors within the ranks of English traders at the beginning of the eighteenth century? Consider the following quotation: "Such a spirit of cruelty reigns here in England among the men of trade, that is not to be met with in any other society of men, nor in any other kingdom of the world" ("An Essay on Credit and the Bankrupt Act, Lond. 1707," p. 2).

The buyer transforms money back into a commodity before he has transformed a commodity into money: he carries out the second commodity transformation before the first one. The seller's commodity circulates and realizes its price, but only as a private legal claim to money. His commodity is transformed into a use-value before it has been transformed into money. Only afterward is its first metamorphosis completed.

The debts that must be paid during a given period of circulation represent the price sum of the commodities whose sale brought about those debts. The amount of money needed to realize this sum depends, above all, on how fast the means of payment is circulating. Two other circumstances determine this amount: first, the ways in which the relations of creditors and debtors interlock, meaning that A, upon getting money from his debtor B, passes it on to his own creditor C, and so on; second, the length of time between the different payment deadlines. This live chain of payments, or retroactive first metamorphoses, differs fundamentally from the interlocking series of metamorphoses we considered earlier. The course of the means of circulation no longer simply expresses the connection between seller and buyer; now, that connection only arises with, and exists through, the coursing of money. The movement of the means of payment, in contrast, expresses a preexisting social connection.⁴⁹

Sales are happening simultaneously and side by side, and this limits the extent to which the quantity of coins can be replenished by the velocity of circulation. On the other hand, this circumstance leads to advances in the economical use of the means of payment. With payments being concentrated in the same place, special institutions and payment methods develop spontaneously, such as the *virements* in medieval Lyon.^{xxx} A wants B to pay him, B wants C to pay him, C wants A to pay him, and so on—these debts and credits only need to be brought together for the parts to offset one another as positive and negative amounts, at least up to a certain

49. Note added to the second edition: The following passage, which comes from the work of mine that appeared in 1859, will enable readers to understand why the present text does not discuss the opposing form: "Conversely, in the transaction M-C, money as a real means of purchase may be alienated, thus realising the price of the commodity before the use-value of the money is realised, or before the commodity is handed over. This happens, for instance, in the well-known form of advance-payment; also in the form of payment used by the English government to buy opium from Indian ryots. In these cases, however, money functions only in the familiar form of means of purchase. . . . Of course capital, too, is advanced in the form of money . . . but this aspect does not lie within the scope of simple circulation" (Zur Kritik etc. pp. 119, 120). [Editor's note: English translation, p. 373.]

point. All that needs to be settled now is a single debt balance. The more the payments are concentrated, the smaller this balance will be relative to the total amount, and thus the smaller the amount of the means of payment in circulation will be as well.

How money functions as a means of payment is, in a way, inherently contradictory. Insofar as payments balance one another out, money functions only nominally, as money of account or a measure of value. Insofar as actual payments have to be made, money enters the scene not as the means of circulation, as the disappearing form that mediates a metabolizing process, but rather as the individual incarnation of social labor—the independent existence of exchange-value, the absolute commodity. This contradiction takes center stage during those moments of crisis in production and trade that we call monetary crises.⁵⁰ Such crises can occur only where the live chain of payments and an artificial system of settling them have achieved an advanced degree of development. Whenever the mechanism suffers a general disturbance, for whatever reason, money undergoes a sudden and direct conversion, changing from its merely nominal shape as money of account into hard cash. Profane commodities can no longer replace money. A commodity's use-value becomes valueless, and its value disappears before its own value-form. Drunk on prosperity, blinded by enlightenment, the bourgeois had just declared that money is an empty illusion: "Only a commodity can be money!" But now the cry "Only money can be a commodity!" resounds across the world market. As the hart pants after fresh water, so pants the soul of the bourgeois after money, the only wealth.^{51,xxx} In a crisis, the antagonism between a commodity and its value-shape, money, intensifies to the point of being an absolute contradiction. Thus money's form of appearance also doesn't

50. A monetary crisis as defined in the text, namely, as a phase of every crisis, shouldn't be confused with the particular kind of crisis that is also called a monetary crisis but can occur as a completely independent phenomenon, with the result that it affects industry and trade only through a rebound mechanism. The pivot of such a crisis is located in money capital, and thus its main sphere of influence is the sphere of money capital's state action, encompassing the banks, the stock exchange, and finance.

51. "This sudden transformation of the credit system into a monetary system adds theoretical dismay to the actually existing panic: and the agents of the circulation process are overawed by the impenetrable mystery surrounding their own relations" (Karl Marx *op. cit.* p. 126). [Editor's note: English translation, pp. 378–79.] "The Poor stand still, because the Rich have no Money to employ them, though they have the same land and hands to provide victuals and cloathes, as ever they had; which is the true Riches of a nation, and not the Money" (John Bellers: "Proposal for Raising a Colledge of Industry. Lond. 1696," pp. 3–4).

matter here. A money famine will be the same whether payment is rendered in, say, gold or credit money such as banknotes.⁵²

Let's now look at the total sum of money circulating in a given time period. With the means of payment and circulation moving at whatever speed, this sum equals the sum of the commodity prices to be realized plus the sum of payments due, minus the payments that offset one another. So even taking prices, the speed of money, and the system regulating payments as given, the amount of money circulating during a given period—a day, for example—will no longer correspond to the quantity of circulating commodities. Money that represents commodities long pulled out of circulation is still turning over. Also circulating are commodities whose money equivalent will appear only at some future date. And the debts incurred each day and the payments due each day are of entirely different magnitudes.⁵³

Credit money stems directly from money's function as a means of payment, because debt certificates for commodities that have already been sold keep circulating as a way to transfer debt from one person to another. But as the credit system expands, so does money's function as the means of payment. Money thus takes on its own peculiar forms of existence, and it is in these forms that money resides in the sphere of large-scale commercial

52. Let us see how the "*amis du commerce*" exploit such moments: "On one occasion [1839] an old grasping banker [in the City] in his private room raised the lid of the desk he sat over, and displayed to a friend rolls of banknotes, saying with intense glee there were £600,000 of them, they were held to make money tight, and would all be let out after three o'clock on the same day" ("The Theory of Exchanges. The Bank Charter Act of 1844. Lond. 1864," p. 81). The semi-official organ *The Observer* noted on 24 April 1864: "Some very curious rumours are current of the means which have been resorted to in order to create a scarcity of Banknotes. . . . Questionable as it would seem, to suppose that any trick of the kind would be adopted, the report has been so universal that it really deserves mention."

53. "The amount of sales or contracts entered upon during the course of any given day, will not affect the quantity of money afloat on that particular day, but, in the vast majority of cases, will resolve themselves into multifarious drafts upon the quantity of money which may be afloat at subsequent dates more or less distant. . . . The bills granted or credits opened, to day, need have no resemblance whatever, either in quantity, amount or duration, to those granted or entered upon to-morrow or next day; nay, many of to-day's bills and credits, when due, fall in with a mass of liabilities whose origins traverse a range of antecedent dates altogether indefinite, bills at 12, 6, 3 months or 1 often aggregating together to swell the common liabilities of one particular day" ("The Currency Theory Reviewed; a letter to the Scotch people. By a Banker in England. Edinburgh 1845," pp. 29, 30, *passim*). [Editor's note: Where Marx has "sales" in the first line of this quotation, the source text has "purchases."]

transactions, while gold and silver coins are for the most part forced back into the sphere of retail trade.⁵⁴

Once commodity production reaches a certain scale and advances far enough, money's function as a means of payment extends beyond the sphere of commodity circulation. Money becomes the universal commodity of contracts.⁵⁵ Rents, taxes, and so on are transformed from payment in kind into money payments. We can see how much the overall shape of the production process determines this change in, for example, the Roman Empire's two failed attempts to levy all taxes and tributes in money. The immense misery of French peasants under Louis XIV, decried so eloquently by Boisguillebert, Marshall Vauban, and others, wasn't simply an effect of high taxes: it was also caused by the fact that the tax in kind was transformed into a money tax.⁵⁶ In Asia, the natural form of ground rent, the main element in state taxation, is based on relations of production that reproduce themselves with the immutability of the seasons; at the same time, however, this form of payment helps preserve the ancient form of

54. The following example illustrates how little real money goes into actual commercial operations; these figures come from one of London's largest merchant banks—or, more specifically, a statement of its annual receipts and payments. The bank's transactions from the year 1856 involve many millions of pounds; here they have been reduced to the scale of one million.

Revenues		Expenditures	
Bankers' and merchants' bills, Payable after date	£533,596	Bills, payable after date	£302,674
Checks on bankers, etc., payable on demand	£357,715	Checks on London Bankers	£633,672
Country bank notes	£9,627	Notes from the Bank of England	£22,743
Notes from the Bank of England	£68,554	Gold	£9,427
Gold	£28,089	Silver and Copper	£1,484
Silver and Copper	£1,486		
Post Office Orders	£933		
Total sum	£1,000,000	Total sum	£1,000,000

(Report from the Select Committee on the Bankacts, July 1858, p. LXXI.)

55. "The Course of Trade being thus turned, from exchanging of goods for goods, or delivering and taking, to selling and paying, all the bargains . . . are now stated upon the foot of a Price in Money" ("An Essay upon Publick Credit. 3rd ed. Lond. 1710," p. 8).

56. "Money has become the scourge of all things." Finance is the "alembic that evaporates a frightful quantity of goods and commodities in order to extract that lethal essence." "Money has declared war on the entire human race" (Boisguillebert: "Dissertation sur la nature des richesses, de l'argent et des tributs," edit. Daire, "Économistes financiers. Paris, 1843," Vol. I, pp. 413, 419, 417, 418).

production and is one of the secrets of how the Turkish Empire has managed to survive. If the foreign trade that Europe has forced upon Japan transforms natural rents into money rents, Japan's model system of agriculture will be doomed. Its economic conditions of existence, which have a narrow foundation, will be swept away.

In every country, certain dates become established as the general deadlines for payments. These deadlines partly depend on natural conditions of production that are tied to the cycle of the seasons (here we are leaving aside other cycles of reproduction). The deadlines also regulate payments that don't come directly from commodity circulation, such as taxes, rents, and so on. Strewn across the whole surface of society, these individual payments require a certain amount of money on certain days of the year, causing periodic but wholly superficial disturbances in the economy of the means of payment.⁵⁷ From the law of how fast the means of payment circulates, it follows that the amount of the means of payment needed for all periodic payments, whatever their sources, is inversely proportional to how long the payment period lasts.⁵⁸

When money emerges as a means of payment, it becomes necessary to accumulate money for the payment deadlines of sums owed. Amassing money, insofar as it functions as an independent way to accumulate

57. "At Whitsuntide Monday, 1824," Mr. Craig said before a parliamentary investigative committee of 1826, "there was such an immense demand for notes upon the banks of Edinburgh, that by 11 o'clock we had not a note left in our custody. We sent round to all the different banks to borrow, but could not get them, and many of the transactions were adjusted by slips of paper only; yet by three o'clock the whole of the notes were returned into the banks from which they had issued! It was a mere transfer from hand to hand." "Although the average effective circulation of bank-notes in Scotland falls short of three million sterling, there occur several occasions yearly when every single note in the possession of the bankers, amounting in all to about seven millions, is called into activity. On those occasions the notes have a single and special function to perform, and, that office fulfilled, they flow back into the respective banks from which they issued" (John Fullarton: "Regulation of Currencies, 2nd ed. Lond. 1845," pp. 86, 87 nte). It should be helpful to mention that when Fullarton's work was published, notes, not checks, were given out for deposits in Scotland.

58. "If there were occasion to raise 40 millions p.a., whether the same 6 millions [gold] would suffice for such revolutions and circulations thereof as trade requires?" Petty responded to this question with his typical virtuosity: "I answer yes: for the expense being 40 millions, if the revolutions were in such short circles, viz, weekly, as happens among poor artizans and labourers, who receive and pay every Saturday, then $\frac{40}{52}$ parts of 1 million of money would answer these ends; but if the circles be quarterly, according to our custom of paying rent, and gathering taxes, then 10 millions were requisite. Wherefore, supposing payments in general to be of a mixed circle between one week and 13, then add 10 millions to $\frac{40}{52}$, the half of which will be $5\frac{1}{2}$, so as if we have $5\frac{1}{2}$ mill., we have enough" (William Petty: "Political Anatomy of Ireland. 1672," edit. Lond. 1691, pp. 13, 14).

wealth, disappears when bourgeois society develops further, which, however, also causes it to expand, only now in the form of the reserve fund of the means of payment.

c. Worldwide Money

As money exits the domestic circulation sphere, it sheds the local forms it took on there—standard of price, coin, small change, and value symbols—and reverts to its original form: precious metal in the shape of bullion. In world trade, the value of commodities is expressed so that it can be recognized universally. So here, too, the independent value-shape of commodities operates opposite them as worldwide money. Only on the global market does money begin to function in its full capacity as the commodity whose natural form is also the directly social form for realizing human labor *in abstracto*. Money's actual mode of existence becomes adequate to the concept of money.

In the domestic circulation sphere, only a single commodity can serve as the measure of value and thus as money. On the global market, a double measure of value reigns: gold and silver.⁵⁹

Worldwide money functions as the universal means of payment, the universal means of purchasing, and also as the absolute social materialization of wealth as such (universal wealth). Its most important function is the first of these, namely, the means of payment for covering international balances. Hence the mantra of the Mercantile System: Balance of trade!⁶⁰ Gold and

59. Hence the absurdity of all legislation prescribing that the national banks of a given country have reserves only of the particular precious metal functioning as money within that country. In this way, for example, the Bank of England created for itself “pleasant difficulties,” which are well known. On the key historical epochs with regard to the changing relative value of gold and silver, see Karl Marx *op. cit.* pp. 136ff. [Editor’s note: English translation, 387ff.] With his Bank Act of 1844, Sir Robert Peel tried to ameliorate the bad situation by allowing the Bank of England to issue notes on silver bullion, provided that the silver reserves not exceed one-fourth of the gold reserve. This is why the value of silver is assessed according to its market price (in gold) on the London market.

60. The opponents of the Mercantile System, which saw the settlement of surplus trade balances in gold and silver as the goal of international trade, were for their part thoroughly mistaken about the function of worldwide money. Elsewhere I used the example of Ricardo to show at length how a false conception of the laws regulating the amount of the circulating medium is reflected in a false conception of the international movement of the precious metals (*op. cit.* pp. 15off.). [English translation, p. 399ff.] “An unfavourable balance of trade never arises but from a redundant currency. . . . The exportation of the coin is caused by its cheapness, and is not the effect, but the cause of an unfavourable balance.” This false dogma of Ricardo’s was already present in Barbon’s works: “The Balance of Trade, if there be one, is not the cause of sending away the money out of a nation; but that proceeds from the difference of the value of Bullion in every country” (N. Barbon *op. cit.* pp. 59, 60). In

silver begin to function essentially as the international means of purchasing whenever the metabolizing that occurs between different nations experiences a sudden disturbance in its customary equilibrium. Finally, gold and silver serve as the absolute social materialization of wealth where transferring wealth from one country to another is at issue, rather than purchasing and payment, and when wealth can't be transferred in the commodity-form because of either the conjuncture of the commodity market or the transfer's purpose.⁶¹

Just as all countries need a reserve fund for their domestic circulation, so they need one for circulation in the world market. Thus stores of treasure function in ways resulting partly from money's function as the domestic means of circulation and payment, partly from its function as worldwide money.⁶² For the latter role, the actual money commodity is always required, gold and silver in the flesh, which is why James Steuart^{xxxii} expressly designated gold and silver, in contrast to their merely local proxies, as "the money of the world."

The stream of gold and silver has a double movement. On the one hand, launched from its source, it goes out to the entire world market. Different national circulation spheres absorb it in different amounts, bringing it into different domestic channels of circulation, where it replaces worn-down gold and silver coins, provides the material for luxury goods, and hardens into stores of treasure.⁶³ The direct exchange of the national

"The Literature of Political Economy, a classified catalogue. Lond. 1845," MacCulloch lauds Barbon's prescience, but smartly avoids even mentioning the naïve forms in which inane presuppositions about the "currency principle" still appear in Barbon's work. The uncritical and in fact dishonest character of MacCulloch's catalogue reaches its apogee in the sections on the history of the theory of money: there he flatters Lord Overstone (ex-banker Loyd), gushing about him as "the acknowledged king of the money merchants."

61. In the case of subsidies, money loans for waging wars or allowing banks to resume cash payments, and so on, value may be required in the money-form.

62. Note added to the second edition: "I would desire, indeed, no more convincing evidence of the competency of the machinery of the hoards in specie—paying countries to perform every necessary office of international adjustment, without any sensible aid from the general circulation, than the facility with which France, when but just recovering from the shock of a destructive foreign invasion, completed within the space of 27 months the payment of her forced contribution of nearly 20 millions to the allied powers, and a considerable proportion of that sum in specie, without perceptible contraction or derangement of her domestic currency, or even any alarming fluctuation of her exchanges" (Fullarton op. cit. p. 141).

63. "Money is divided between nations according to their need for it . . . it is always attracted by products" (Le Trosne op. cit. p. 196). "The mines which are continually giving gold and silver, do give sufficient to supply such a needful balance to every nation" (J. Vanderlint op. cit. p. 40).

labor realized in commodities for the labor that gold- and silver-producing countries realize in precious metals mediates the first movement. Yet gold and silver continually flow back and forth among the different national circulation spheres, and this movement follows the incessant oscillations of their exchange rate.⁶⁴

Countries with an advanced bourgeois system of production limit the large stores of treasure concentrated in bank vaults to the minimum amounts needed to perform the specific functions of these stores.⁶⁵ Some exceptions notwithstanding, when the treasure reserves rise dramatically above their average level, this means that commodity circulation is stagnating, or, in other words, that the flow of commodity metamorphoses has been interrupted.⁶⁶

64. "Exchanges rise and fall every week, and at some particular times in the year run high against a nation, and at other times run as high on the contrary" (N. Barbon op. cit. p. 39).

65. These different functions can conflict with one another in dangerous ways whenever gold and silver take on the additional function of serving as a conversion fund for banknotes.

66. "What money is more than of absolute necessity for a Home Trade, is dead stock, and brings no profit to that country it's kept in, but as it is transported in Trade as well as imported" (John Bellers op. cit. p. 13). "What if we have too much coin? We may melt down the heaviest and turn it into the splendour of plate, vessels or utensils of gold and silver; or send it out as a commodity, where the same is wanted or desired; or let it out at interest, where interest is high" (William Petty, *Quantulumconque*, p. 39). "Money is but the fat of the Body Politick, whereof too much doth as often hinder its agility, as too little makes it sick . . . as fat lubricates the motion of the muscles, feeds in want of victuals, fills up uneven cavities, and beautifies the body, so doth money in the state quicken its action, feeds from abroad in time of dearth at home; even accounts . . . and beautifies the whole; although [Petty ends with the wry remark] more especially the particular persons that have it in plenty" (W. Petty: "Political anatomy of Ireland," pp. 14-15).

PART TWO

The Transformation of Money into Capital

The Transformation of Money into Capital

I. The General Formula for Capitalⁱ

Capital begins with the circulation of commodities. Commodity production, commodity circulation, and advanced commodity circulation—in other words, trade—are the historical conditions under which capital arises. Its modern biography starts in the sixteenth century, when modern global trade and the world market were created.

When we set aside the material content of commodity circulation, namely, the exchange of different use-values, and consider only the economic forms brought forth by this process, we find that the process ultimately produces money. The ultimate product of commodity circulation is capital's first form of appearance.

Historically, when capital emerges opposite landed property, it always takes the form of money—money fortunes, merchant capital, and usury capital.¹ But we don't have to go back to capital's genesis story to see that money is its initial form of appearance. The same story plays out daily before our eyes. Even today, every new mass of capital goes on stage, that is, comes to the market—whether the commodity market, the labor market, or the money market—as money that certain processes are to transform into capital.

At first, the only difference between money as money and money as capital is that they have different forms of circulation.

The direct form of commodity circulation is C-M-C, where a commodity is transformed into money and reverse-transformed from money into

1. "No land without its lord," "Money has no master" ("Nulle terre sans seigneur," "L'argent n'a pas de maître"). These French sayings clearly express the opposition between the power of landed property, which rests on personal relations of subjugation and domination, and the impersonal power of money.

a commodity: selling in order to buy. But alongside this form, we find a second one that is quite different from the first: M-C-M, where money is transformed into a commodity and reverse-transformed from a commodity into money. This is buying in order to sell. Money that moves through the second circuit is transformed into capital, becomes capital, and, in terms of its purpose, already is capital.

Let's take a closer look at the M-C-M circuit. Like simple commodity circulation, it has two opposing phases of movement. In the first phase, M-C or a purchase, money is transformed into a commodity. In the second, C-M or a sale, the commodity is reverse-transformed into money. The unity of the two phases is their total movement; through it, money is exchanged for a commodity, and then the same commodity is exchanged for money: buying a commodity in order to sell it. Or, if one forgets about the formal differences between a purchase and sale, buying a commodity with money and buying money with a commodity.² The outcome, in which the entire process vanishes, is that money is exchanged for money, M-M. If I buy 2,000 pounds of cotton for £100, and sell that 2,000 pounds of cotton for £110, I have exchanged £100 for £110, money for money.

Anyone can see that the M-C-M circulation process would be absurd and pointless as a roundabout way to exchange an amount of money value for the same amount: for example, £100 for £100. Much simpler and more secure would be what the person who amasses money does. He doesn't expose his £100 to the dangers of circulation; he just holds onto his money. On the other hand, whether the merchant sells the cotton he bought with £100 for £110, or has to part with it for £100 or even £50, his money still moves in a characteristic and original way. It is thoroughly different from the movement in simple commodity circulation, where the farmer sells grain and buys clothes with the money his sale has freed up. So our next step will be to examine the formal differences between the M-C-M and C-M-C circuits. This will also reveal the difference in content lurking behind these differences in form.

First, let's look at what the two forms have in common.

Both circuits can be broken down into the same two opposing phases: C-M, a sale, and M-C, a purchase. In both phases, the same two thingly elements are positioned opposite each other, a commodity and money, and so are two people wearing the same economic actor's masks: those

2. "With money one buys goods, and with goods one buys money" (Mercier de la Rivière: "L'ordre naturel et essential des sociétés politiques," p. 543).

of a buyer and a seller. Each circuit is the unity of the same opposing phases, and in both cases, three partners in exchange mediate this unity. One person merely sells; another merely buys; the third alternately buys and sells.

The C-M-C and M-C-M circuits differ, above all, in that the same two opposing phases of circulation proceed in inverted order. Simple commodity circulation begins with a sale and ends with a purchase; money's circulation as capital begins with a purchase and ends with a sale. In the former, a commodity serves as the starting and end points of the movement, in the latter, money does. In the first form, money mediates the total process; in the second, conversely, a commodity mediates it.

The C-M-C circuit ends when money is transformed into a commodity that functions as a use-value. The money has thus been spent once and for all. In contrast, the buyer spends money in M-C-M, the reverse form, in order to attract money as a seller. When he buys, he puts money into circulation, only to take it back out when he sells the same commodity he purchased. He lets go of the money but he does so with a calculating attitude, or only in order to have it in his hands again. Here, then, the buyer merely advances the money.³

In the C-M-C form, the same piece of money changes places twice. The seller gets the money from the buyer and then uses it to pay another seller. The whole process, which begins when money flows to a seller in exchange for his commodity, ends when money flows away from a buyer in exchange for a different commodity. In the M-C-M form, the process works the other way around. The same commodity changes places twice, not the same piece of money. The buyer purchases a commodity from the seller and puts it into the hands of another buyer. When a piece of money changes places twice in simple commodity circulation, that money is removed, once and for all, from one set of hands and put into a different set. In M-C-M, in contrast, when the same commodity changes places twice, the effect is that money flows back to its starting point.

Money flows back to its starting point whether or not a commodity is sold for more than it originally cost. How much money a commodity attracts determines only the magnitude of the sum that flows back to the starting point. The phenomenon itself—money flowing back to its starting point—occurs the moment a commodity that had been bought is

3. "When a thing is bought, in order to be sold again, the sum employed is called money advanced; when it is bought not to be sold, it may be said to be expended" (James Steuart: *Works etc.* edited by General Sir James Steuart, his son. Lond. 1805, v. I, p. 274).

sold, thereby completing the M-C-M circuit. We have here a physical and observable difference between how money circulates as capital and how it circulates as mere money.

The C-M-C circuit is completed when a second commodity is purchased, and the money that the first commodity attracted when it was sold is drawn away. Money will return to the starting point again only when the whole circuit is restarted or repeated. If I sell eight bushels of grain for £3, and use this £3 to buy clothes, the £3 is out of my hands for good. I no longer have anything to do with it. The £3 now belongs to the clothes retailer. If I sell another eight bushels of grain, then money will flow back to me, but only because I have repeated the first transaction, not as a result of the first transaction. But this money, too, flows away from me when I complete the circuit—when once again I buy something. So in the C-M-C circuit, the way money is spent doesn't cause it to flow back to the starting point. But in the M-C-M circuit, how money is spent conditions its return there. If money doesn't flow back to the starting point, the operation fails: the circuit has been interrupted and is unfinished, since its second phase is missing: the sale that complements and completes the purchase.

A commodity is the starting point in the C-M-C circuit, whose endpoint is a second commodity. The second commodity falls out of circulation and is consumed. C-M-C's ultimate purpose is consumption or the satisfaction of wants and needs—in a word, use-value. In contrast, money is both the starting point and endpoint in the M-C-M circuit. The motive that drives this circuit and the goal that defines it is exchange-value.

In simple commodity circulation, both the starting point and endpoint have the same economic form. They are both commodities. They also have the same magnitude of value. On the other hand, they are qualitatively different use-values—say, grain and clothes. The content of the movement here is that products are exchanged—i.e., different things in which social labor is represented. Not so in the M-C-M circuit. At first, this circuit seems to be a tautology and therefore to lack content. The starting point and the endpoint have the same economic form: both are money. They aren't qualitatively different use-values, because money is simply the transformed shape of the commodities whose particular use-values have disappeared in it. To exchange £100 for cotton, and then the same cotton for £100—or to exchange money for money, a thing for that same thing in a roundabout way—seems to be an exercise that is as unproductive as it is

absurd.⁴ Sums of money differ from one another only with respect to their magnitude. A change that would give content to the M-C-M process cannot arise from a qualitative difference between its starting point and endpoint, since they are both money. Rather, such a change has to come from quantitative differences alone, which means that more money is taken out of circulation than was originally put in. Cotton that cost £100 is sold for £100 + £10, for example. The complete form of this process is therefore M-C-M', where $M' = M + \Delta M$, or M' equals the sum of the money originally advanced plus a supplement. I call this supplement—the amount that exceeds the original value—surplus-value. Here the value advanced in the beginning not only remains intact as it circulates, but it also alters its own magnitude. It takes on surplus-value, valorizing itself. This movement transforms the original value into capital.

Of course, the starting point and endpoint in C-M-C—C and C, the grain and clothes—can have quantitatively different magnitudes of value. The farmer can sell his grain for more than its value or buy clothes for less than theirs. Or the retailer selling the clothes can fleece the farmer. For this circuit, however, such differences in value remain purely accidental. The circuit doesn't lose all rhyme and reason, as the M-C-M process does, when the starting point and endpoint—the grain and the clothes—are equivalents. Instead the C-M-C circuit needs an equivalence of value in order to run its normal course.

4. "One does not exchange money for money," exclaims Mercier de la Rivière, in speaking to the Mercantilists (op. cit. p. 486). In a work that is *ex professo* about "trade" and "speculation," a work that deals with dealing, so to speak, we read: "All trade consists in the exchange of things of different kinds; and the advantage [to the merchant?] arises out of this difference. To exchange a pound of bread against a pound of bread would be attended with no advantage; . . . Hence trade is advantageously contrasted with gambling, which consists in a mere exchange of money for money" (Th. Corbet: "An Inquiry into the Causes and Modes of the Wealth of Individuals; or the Principles of Trade and Speculation explained. London. 1841," p. 5). While Corbet doesn't recognize that M-M, exchanging money for money, is not only the characteristic circulation-form of merchant-capital, but also that of all capital, he at least acknowledges that this form is common to games of chance and one kind of trade—speculation. But then MacCulloch arrives on the scene and claims that to buy in order to sell is to speculate; as a result, the difference between trade and speculation drops out of the picture: "Every transaction in which an individual buys produce in order to sell it again is, in fact, a speculation" (MacCulloch: A Dictionary practical etc. of Commerce. London 1847, p. 1058). With much more naïveté, Pinto, the Pindar of the Amsterdam stock-exchange, observes, "Commerce is a game [he borrows this sentence from Locke]; and it is not with beggars that one can win. If one were to win constantly, in everything and with everyone, one would have to give back voluntarily the greater part of the profit to start the game anew" (Pinto: *Traité de la Circulation et du Crédit*, Amsterdam, 1771, p. 231).

The act of selling in order to buy, i.e., the C-M-C circuit, is restarted and repeated for an ultimate purpose that lies outside the circulation sphere, and this act finds its measure and its meaning in that purpose: consumption—in other words, the satisfaction of particular wants or needs. But when a buyer purchases a commodity in order to sell it, he begins and completes the circuit with the same thing—money or exchange-value—which makes the movement of this circuit endless. M does in fact turn into $M + \Delta M$; £100 turns into £100 + 10. But from a purely qualitative standpoint, £110 is the same as £100, namely, money. And from a quantitative standpoint, £110 is a limited amount of value, as is £100. If the £110 were spent as money, it would abandon its role: it would no longer be capital. If the £110 were taken out of circulation, it would harden into a store of money, and it wouldn't grow by a single farthing even if it sat around till Judgment Day. When it comes to the valorization of value, £110 has the same need to be valorized as £100, because both sums are limited expressions of exchange-value, and both have the same calling: to go as far as they can in the direction of absolute wealth by increasing their magnitude. The original value of £100 may differ, for a moment, from the surplus-value of £10 that it takes on as it circulates, but this difference quickly falls away. When the process ends, the value that comes out is neither the original £100 nor the £10 of surplus-value. What comes out, rather, is a value of £110, which has exactly the same form as the original £100—the right form to be in to valorize itself again.⁵ Money comes out at the end of the movement ready to begin another circuit. Thus when commodities are bought in order to be sold, the end of every single circuit represents the beginning of a new one. Simple commodity circulation—selling in order to buy—serves as the means for an ultimate end that lies outside circulation: the appropriation of use-values or the satisfaction of wants and needs. But money's circulation as capital is an end in itself because the valorization of value exists only within this constantly restarted movement. The movement of capital thus has no limit.⁶

5. "Capital is divided once more into the original capital and profit—the increment of capital . . . although in practice profit is immediately lumped together with capital and set into motion with it (F. Engels: "Umriss zu einer Kritik der Nationalökonomie" in *Deutsch-Französische Jahrbücher*, edited by Arnold Ruge and Karl Marx. Paris 1844, p. 99). [Editor's note: English translation, *Outline of a Critique of Political Economy in Marx-Engels Collected Works*, vol. 3 (Moscow: Progress Publishers, 1975), p. 430.]

6. Aristotle counterposes household management and "chrematistics," using the former as his starting point. Insofar as it is the art of acquisition, it is limited to the procuring of goods that are needed to sustain life and are useful for the household or the state. "True wealth [ὁ ἀληθινὸς πλοῦτος] seems to consist in such goods. For the amount of this sort

The money owner becomes a capitalist when he acts as the conscious bearer of this movement. His person, or rather, his pocket, is money's starting point as well as the point it returns to. The change that gives this form of circulation its objective content—value is valorized—is his subjective goal; and he functions as a capitalist, or as personified capital endowed with consciousness and a will, only insofar as the sole motivation driving his operations is to appropriate more and more abstract wealth.ⁱⁱ Thus we should never regard use-value as the capitalist's immediate aim.⁷ This also holds for turning a profit in an individual transaction. What the capitalist wants—all he wants—is the movement of ceaseless profitmaking.⁸ The person who amasses stores of money and the capitalist share this absolute

of property that one needs for the self-sufficiency that promotes the good life is not unlimited. . . . But there is another type of property acquisition which is especially called chrematistics, and justifiably so. It is the reason wealth and property are thought to have no limit. . . . This also makes it clear that commerce [ἡ κατηλική means literally 'retail trade,' and Aristotle chooses this form because use-values predominate in it] is not a part of chrematistics by nature: for people needed to engage in exchange only up to the point at which they had enough." And so, as he goes on to demonstrate, the original form of trade was bartering; however, with the growth of that original form, the need for money emerged. When money was invented, bartering necessarily developed into κατηλική, trading commodities, and, again, now running counter to its original direction, this developed into chrematistics. What distinguishes chrematistics from household management is that "commerce has to do with the production of goods, not in the full sense, but through their exchange [ποιητικὴ χρημάτων . . . διὰ χρημάτων μεταβολῆς]. It is held to be concerned with money, on the grounds that money is the unit and limit of exchange [τὸ γὰρ νόμισμα στοιχείον καὶ πέρασ τῆς ἀλλαγῆς ἐστίν]. The wealth that derives from this kind of wealth acquisition is without limit . . . each of the crafts aims to achieve its end in an unlimited way, since each tries to achieve it as fully as possible. [But none of the things that promote the end is unlimited, since the end itself constitutes a limit for all crafts.] Similarly, there is no limit to the end of this kind of wealth acquisition, for its end is wealth in that form, that is to say, the possession of money. The kind of wealth acquisition that is a part of household management, on the other hand, does have a limit, since this is not the task of household management. . . . For one aims to increase it, whereas the other aims at a different end. . . . Each of the two kinds of wealth acquisition makes use of the same thing, so their uses overlap. . . . So some people believe that this is the task of household management, and go on thinking that they should maintain their store of money or increase it without limit" (Aristotle: *De Rep.*, ed. Bekker, lib. I, c. 8, 9 *passim*). [Editor's note: Marx's version of these quotations synthesizes a number of sections of Aristotle's text, interpolating some of his own terminology. The text comes from Aristotle's *Politics*, 1256b26–1257b40. The English translation has been modified to reflect Marx's changes. Aristotle, *Politics*, trans. C. D. Reeve (Indiana: Hackett, 1998), pp. 14–17.]

7. "Commodities [here in the sense of use-values] are not the terminating object of the trading capitalist . . . money is his terminating object" (Th. Chalmers: *On Politic Econ.* etc. 2nd edit. Glasgow 1832, pp. 165, 166).

8. "The merchant counts the profit he has just made almost as nothing; instead he always looks to the future" (A. Genovesi: *Lezioni di Economia Civile* (1765). In Custodi's edition of the Italian economists, *Parte Moderna*, Vol. VIII, p. 139).

drive to increase their wealth, this passionate pursuit of exchange-value.⁹ But whereas the money amasser is an insane capitalist, the capitalist is a rational money amasser. When the person who amasses money saves his money by keeping it outside circulation,¹⁰ he is striving after the ceaseless expansion of exchange-value; the cleverer capitalist actually achieves that goal by always giving his money over to circulation anew.¹¹

In simple circulation, the value of commodities takes on independent forms—money forms, which do nothing more than mediate commodity exchange. These forms disappear in the end result of the C-M-C circuit. In the M-C-M circuit, in contrast, both the commodity and money function only as value's different modes of existence: money as the general mode and the commodity as the particular or disguised mode, so to speak.¹² Value continuously passes from the one form into the other without losing itself as it moves back and forth, and in this way, value transforms itself into an automatic subject. If we stop this movement, freezing in place the particular forms of appearance that self-valorizing value alternately takes on during its life cycle, we will see that capital is money, and capital is also a commodity.¹³ But, in fact, what happens here is that value becomes the subject of a process in which it changes its own magnitude as it continuously goes back and forth between the forms “money” and “the commodity.” As surplus-value, value moves beyond itself, the original value, valorizing itself, for the movement within which its value grows is its own movement. And so when value is valorized, it is valorizing itself. It has acquired the occult ability to add value by virtue of being value. It spits out live children, or at least lays golden eggs.

9. “The inextinguishable passion for gain, the *auri sacra fames*, will always induce capitalists” (MacCulloch: *The Principles of Polit. Econ.* London 1830, p. 179). Naturally, this insight doesn't stop this same MacCulloch and his circle from getting into theoretical trouble—for example, in dealing with overproduction, they turn the very same capitalist into a solid citizen who only cares about use-value and even develops an all-consuming, werewolf hunger for boots, hats, eggs, calico, and other very common types of use-values. [Editor's note: “*Auri sacra fames*” is a line from Virgil's *Aeneid* meaning “the accursed hunger for gold.”]

10. “Σώζειν” is one of the Greeks' characteristic expressions for amassing wealth. Similarly, “to save” in English means both to rescue and put money aside.

11. “The infinite things do not have in the progression itself occurs in repetition” (Galiani). [Editor's note: The source here is Galiani op. cit. See Ferdinando Galiani, *On Money: A Translation of Della Moneta*, trans. Peter Toscano (Chicago: University of Chicago, 1977), p. 75.]

12. “It is not materials that make up capital, but the value of these materials” (J. B. Say: *Traité L'Econ. Polit.* 3ème éd. Paris, 1817, Vol. 2, p. 429).

13. “Currency [!] employed to productive purposes is capital” (MacLeod: “*The Theory and Practice of Banking.* London 1855,” v. I, c. I). “Capital is commodities” (James Mill: “*Elements of Pol. Econ.* Lond. 1821,” p. 74).

Value alternately takes on and sheds the money-form and the commodity-form, maintaining itself as it goes back and forth between them, and expanding all the while. As the dominant subject of this process, value needs, above all, an independent form that can affirm its self-identity. Money alone gives value such a form. Every circuit in which value is valorized therefore begins and ends with money. A value was £100, now it is £110, and so on. But here money is only one form of value, which has two. In order to become capital, money has to take on the commodity-form. So, here, money doesn't relate to commodities antagonistically, as it does when it is stored. The capitalist knows that however shabby commodities look, however foul they smell, they are, in their faith and in truth, money; on the inside, commodities are circumcised Jews—and also a wondrous means for turning money into more money.ⁱⁱⁱ

In simple circulation, the value of a commodity gains at most a form that is independent of the commodity's use-value—namely, the form of money. But in the M-C-M circuit, value suddenly presents itself as a substance that is in process and moves on its own, a substance for which the commodity and money are nothing more than forms. And now value doesn't simply represent the relations among commodities: instead it enters into a private relation with itself, so to speak. As an original value, value is different from itself as surplus-value, just as God the Father is different from Himself as the Son of God, even though they are the same age and are in fact one person. For it is solely the surplus-value of £10 that causes the £100 originally advanced to become capital, and the moment that the £100 becomes capital—the moment that the Son, and through the Son, the Father, are created—the difference between Father and Son vanishes, and they again become One, £110.

Thus value becomes value in process, money in process, and, as such, capital. Value emerges from circulation and flows back into it; value maintains itself and multiplies as it circulates, returns from circulation enlarged, and constantly begins the same circuit anew.¹⁴ M-M', "money which begets money"—that is how capital was described by the Mercantilists, its first interpreters.^{iv}

Now, buying in order to sell, or better, buying in order to sell at a higher price, M-C-M', appears to be just one kind of capital, the form peculiar to merchant capital. But industrial capital, too, is money that turns into a commodity and then, when it is sold, is reverse-transformed into more

14. "Capital . . . a value that is permanent and multiplying" (Sismondi, *Nouveaux Principes d'Econ. Polit.* Vol. 1, pp. 88, 89).

money. Transactions that take place between purchase and sale—outside the circulation sphere, that is—don't affect the form of this movement. Lastly, in interest-bearing capital, the $M-C-M'$ circuit presents itself, in terms of its result, in an abbreviated, unmediated, or, one might say, lapidary form: $M-M'$, money that instantly becomes more money, value that is greater than itself.

$M-C-M'$ is thus the general formula for capital as it directly appears in the circulation sphere.

2. Contradictions in the General Formula

The form of circulation where money emerges from its chrysalis as capital contradicts all the laws we have explicated up to now: those having to do with the nature of commodities, value, money, and also the nature of circulation itself. This other form of circulation differs from simple commodity circulation in that it reverses the order of the same two opposing processes, a sale and a purchase. By what magic does a purely formal difference transform the nature of these processes?

And another thing: the sequence of exchange is reversed for just one of the three friends of commerce doing business together. As a capitalist, I buy a commodity from A and resell it to B, whereas as a simple commodity owner, I sell my commodity to B and then buy a commodity from A. For the participants A and B, there is no difference between these two circuits. A and B enter into the transactions that make up the two circuits only as the buyer or the seller of a commodity. I interact with them in each case as either a simple money owner or a simple commodity owner, as a buyer or a seller. And in both sequences, in fact, it is merely as a seller that I interact with the one person and merely as a buyer that I interact with the other: it is merely as money that I interact with the one person and merely as a commodity that I interact with the other. I interact with neither person as capital or as a capitalist, or as the representative of something more than money or a commodity. In neither case am I the representative of something that can exert effects other than those of money and commodities. For me, buying from A and selling to B form a sequence. But the two transactions are connected only for me—A doesn't care about my transaction with B, and B doesn't care about my transaction with A. If I tried to explain to A and B how I profit when the sequence is reversed, they would probably tell me that I'm confused, and that the whole transaction didn't begin when something was bought and end when something was sold, but rather proceeded the other way

around. It began when something was sold and ended when something was bought. My first act, buying, was in fact selling from A's standpoint, and my second act, selling, was buying from B's. Not satisfied with that, A and B would declare the whole sequence to be unnecessary, nothing more than hocus-pocus. They would say that from now on, A will be selling his commodity directly to B, and B will be buying it directly from A. The whole transaction would shrink down to a one-sided act of regular commodity circulation. It would be merely a sale from A's standpoint and merely a purchase from B's. When we reverse the sequence, we don't wind up beyond the sphere of simple commodity circulation. Hence we have to ask whether the nature of simple commodity circulation allows the values that go into circulation to be valorized and, thus, surplus-value to be created.

Let's examine the circulation process in a form in which it presents itself simply as an exchange of commodities. We will find this form of circulation wherever two commodity owners buy from each other and, when it is time to pay, owe each other offsetting amounts that come out to a balance of zero. Here, money serves as money of account. It expresses commodities' values as their prices, but it isn't as a physical thing that this money positions itself opposite commodities. Insofar as use-value is concerned, both participants can profit, clearly. Each disposes of a commodity that he doesn't need or want as a use-value, and each acquires a commodity he needs or wants to use. And this might not be the only advantage for the exchangers. A, who sells wine and buys grain, will perhaps produce more wine than the grain farmer B could produce in the same amount of labor-time, and B, for his part, will perhaps produce more grain than A could in the same amount of labor-time. Thus A might wind up with more grain for the same exchange-value, and B with more wine, than each would have if the two weren't able to exchange goods and had to produce, respectively, their own wine and grain. With regard to use-value, one can say, "Exchange is a transaction in which both sides profit."¹⁵ Not so with exchange-value. "A man who has a large amount of wine and no grain trades with a man who has a lot of grain and no wine, and they exchange grain worth 50 for a value of 50 in wine. The exchange results in an increase in exchange-value for neither person, because before the exchange, each already possessed a value equal to the one he acquired

15. "An exchange is an admirable transaction in which both contracting parties profit—always [!]" (Destutt de Tracy, *Traité de la Volonté et de ses effets*. Paris 1826, p. 68). This work appeared in 1823 as "*Traité de l'Ec. Pol.*"

through the transaction.”¹⁶ Nothing about this situation changes when money, functioning as the means of circulation, steps between the commodities, and the acts of buying and selling commodities lose their direct physical connection.¹⁷ Prices represent commodities’ values before commodities begin to circulate. So prices don’t result from circulation; rather, circulation requires prices as a precondition.¹⁸

Let us now consider simple commodity circulation in the abstract. If we leave aside those conditions that don’t arise from its immanent laws, what do we see? One use-value is substituted for another, but beyond that, nothing happens except that a commodity is transformed or, in other words, it merely changes its form. The same exchange-value—the same quantity of objectified social labor—remains in the same commodity owner’s hands, alternately in the shape of his commodity, the shape of the money his commodity turns into, and the shape of the commodity into which the money is reverse-transformed. This form change doesn’t imply that the magnitude of value changes. The change that the commodity’s value undergoes has to do only with its money-form. Its money-form exists at first as the price of a commodity for sale, then as a sum of actual money, which has already been expressed as the commodity’s price, and, finally, as the price of an equivalent commodity. In and for itself, this form change implies a change in a commodity’s magnitude of value just as little as the value of a £5 note is altered when one exchanges it for sovereigns, half sovereigns, or shillings. Thus insofar as commodity circulation requires only that value change its form, this circulation, when it proceeds in its pure form, requires that equivalents be exchanged. Vulgar economists, having no idea what value is, presume that supply and demand match each other, or that the effects of supply and demand have come to a complete stop, whenever they feel like training their own peculiar sights on the phenomenon of commodity circulation in its pure form. If both parties in an exchange can profit with regard to use-value, they can’t with regard to exchange-value. The rule, rather, is, “Where equality exists, there is no gain.”¹⁹ Of course, it is possible to sell commodities at prices that deviate from their values, but such deviation presents itself as

16. Mercier de la Rivière op. cit. p. 544.

17. “Whether one of these two values is money, or whether they are both common commodities: nothing could be more indifferent” (Mercier de la Riveiere op. cit. p. 543).

18. “It is not the contracting parties who decide on the value; it is decided prior to the agreement” (Le Trosne p. 906). [Editor’s note: The source is Le Trosne op. cit.]

19. “Where there is equality there is not profit” (Galvani: Della Moneta in Custodi, Parte Moderna, Vol. IV, p. 244).

a violation of the law of commodity exchange.²⁰ In the pure form of commodity exchange, equivalents are exchanged. This isn't a way for someone to enlarge their value.²¹

Almost always lurking behind attempts to depict commodity circulation as that which generates surplus-value is a *quid pro quo*: use-value is confused with exchange-value.^v For example, Condillac writes, "It is wrong to say that in commodity exchange, we exchange value for the same value. It is the other way around. Both parties involved always give up a smaller value for a larger one. . . . In fact, if we always exchanged equal values, neither party could make a profit. But both do profit, or in any case should profit. Why? The value of things exists only as a function of our needs. Something that has more value for one person will have less for another and vice versa. . . . We shouldn't assume that we sell things that we absolutely need to consume. . . . We want to part with a thing that is useless to us as a way of acquiring a thing we need; we want to give up less in exchange for more. . . . It was natural to think that in exchange, we give up value for equal value, as long as the values of the things being exchanged are equal in terms of gold. . . . But another consideration must be taken into account as well: does each party exchange something superfluous for something he needs?"^{22,vi} We can see not only that Condillac makes a jumbled mess of use-value and exchange-value, but also that with all the sophistication of a toddler, he attributes the following situation to a society with advanced commodity production: the producer makes his own means of subsistence and puts only what he doesn't need, superfluous products, into circulation.²³ Yet today's political economists often repeat Condillac's argument, especially when they want to represent the advanced form of commodity exchange, commerce, as the factor that creates surplus-value. "Commerce," we read,

20. "The exchange becomes disadvantageous for one of the parties when some external circumstance diminishes or inflates the price: equality is then injured, but the injury comes from this cause and not from the exchange itself" (Le Trosne op. cit. p. 904).

21. "An exchange is, by its very nature, a contract of equality, made on the basis of equal value for equal value. It is therefore not a means of enriching oneself, since one gives as much as one receives" (Le Trosne op. cit. pp. 903, 904).

22. Condillac: "Le Commerce et le Gouvernement" (1776). Edit. Daire and Molinari in the "Mélanges d'Économique. Paris, 1847," pp. 267, 291.

23. Le Trosne is thus quite correct when he replies to his friend Condillac: "In a developed society, there is absolutely nothing that is superfluous." At the same time, he teases Condillac with the statement: "If both parties in the exchange receive more in return for an equal amount, and part with less in return for an equal amount, they both get the same amount." Because Condillac doesn't yet have the slightest idea about the nature of exchange-value, he is the right person to vouch for Herr Prof. Wilhelm Roscher's childish ideas. See Roscher's "Die Grundlagen der Nationalökonomie. Dritte Auflage. 1858."

“adds value to products, for the same products in the hands of consumers are worth more than in the hands of producers, and it may strictly be considered an act of production.”^{24,vii} But you don’t pay for commodities twice, first for their use-value and then for their value. And if the buyer needs a commodity’s use-value more than the seller, the seller needs the commodity’s money-form more than the buyer. Why else would he sell his commodity? We might just as well say that the buyer performs what is “strictly” an act of production when he turns a retailer’s stockings into money.

When people exchange commodities—or commodities and money—that have the same exchange-value, which is to say, when they exchange equivalents, it is obvious that no one takes more value out of circulation than he puts into it. No surplus-value is created. But it is the pure form of commodity circulation that requires the exchange of equivalents, and in reality, things don’t happen in a pure way. Let’s therefore assume that nonequivalents are exchanged.

When a commodity owner comes to the commodity market, he encounters only another commodity owner, and the power these two people exercise over each other is merely the power of their commodities. The material differences among commodities constitute the material motivation for exchange. These differences make the commodity owners dependent on each other. Neither has in his hands an object that satisfies one of his own wants or needs, while both have in their hands an object that satisfies one of the other person’s wants or needs. Beyond this material difference between commodities’ use-values, there is just one other difference between commodities—the difference between their natural form and their transformed form, between commodities and money. Commodity owners differ only in regard to whether they sell commodities they own or buy commodities with money they own.

Let’s now imagine that a seller enjoys an inexplicable privilege: he gets to sell his commodity for more than its value—for £110 when it is worth £100, and thus with a nominal price increase of 10%. The seller thus collects £10 in surplus-value. But after being a seller, he becomes a buyer. He now faces a third commodity owner who is acting as a seller, and this seller, too, gets to sell his commodity at a price that is too high by 10%. As a seller, our man made a profit of £10, only to take a loss of £10 as a buyer.²⁵

24. S. P. Newman: *Elements of Polit. Econ.* Andover and New York 1835, p. 175.

25. “By the augmentation of the nominal value of the produce . . . sellers are not enriched . . . since what they gain as sellers, they precisely expend in the quality of buyers” (“*The Essential Principles of the Wealth of Nations etc.* London 1797,” p. 66).

What the whole thing amounts to is that all commodity owners will sell their commodities for 10% more than they are worth, which is no different from all commodity owners selling their commodities at their value. When we give all commodities a nominal price increase of 10%, this creates the same effect as assessing all commodity values in silver instead of gold. The money names would grow larger—in other words, commodities' prices would rise, but their ratios of value would remain the same.

Let us now assume the reverse. The buyer has the privilege of buying commodities below their value. Here we don't need to be reminded that the buyer will become a seller again. He was a seller before he became a buyer, so he loses 10% as a seller before he gains 10% as a buyer.²⁶ All remains as before.

So one can't explain how surplus-value is created, or how money is turned into capital, by assuming that sellers can sell commodities above their value or that buyers get to buy them below their value.²⁷

If we smuggle irrelevant factors into our analysis, this will do nothing to simplify matters. Colonel Torrens, for example, says, "Effectual demand consists in the power and inclination [!], on the part of consumers, to give for commodities, either by immediate or circuitous barter, some greater portion of all the ingredients of capital than their production costs."^{28,viii} In circulation, producers and consumers interact only as sellers and buyers. To assert that the surplus-value going to the producer is created when consumers pay more for commodities than they're worth is merely to disguise the simple sentence: the commodity owner gets to sell commodities at prices that are too high. The seller has produced the commodities himself or serves as a proxy for the producers, but the buyer, too, has either produced the commodities represented in his money or is serving as a proxy for the people who produced them. A producer faces a producer. What distinguishes the two is that the one buys whereas the other sells. If a commodity owner sells his commodity for more than its value under the name "producer," and pays too much for commodities

26. "If a person were made to sell a given amount of some product for 18 livres when it is worth 24 livres, then if that person were to spend 18 livres as a buyer, he would purchase an amount of product that would otherwise cost 24 livres" (Le Trosne *op. cit.* p. 897).

27. "Each seller thus succeeds in generally increasing the prices of his commodities only by also submitting to paying generally more for the commodities of other sellers; and for the same reason, each consumer can generally pay less for what he purchases only by also submitting to a similar reduction in the prices of the things he sells" (Mercier de la Rivière *op. cit.* p. 555).

28. R. Torrens: "An Essay on the Production of Wealth." London 1821, p. 349.

under the name “consumer,” we still won’t get any farther in our analysis, not even an inch.²⁹

Those who consistently advance the misguided theory that surplus-value results from a nominal price increase, or from a seller’s privilege to sell his commodities for more than they’re worth, thus assume that there is a class of people who buy but don’t sell, who, in other words, consume but don’t produce. From the standpoint our analysis has reached, that of simple circulation, we can’t yet explain how such a class could exist. But let’s jump ahead. The money that this class of people buy with must constantly flow to them from the commodity owners themselves without exchange—the money must be free, by might or by right. To sell such people commodities for more than their value would merely be to swindle back some of the money that was given away.³⁰ The cities of Asia Minor paid an annual tribute of money to ancient Rome; with that money, the Romans bought their commodities at inflated prices. The people of Asia Minor fleeced the Romans, taking the route of trade to con back from their conquerors part of a yearly tribute. Yet the people of Asia Minor were still the ones being taken advantage of. The money they were paid for their commodities was their own money, after all. That isn’t the way to become rich or generate surplus-value.

We will therefore stay within the limits of commodity exchange, where sellers are also buyers, and buyers are also sellers. Perhaps our difficulty stems from how we have been conceiving of the persons involved, namely, as mere personified categories rather than as individual people.

Commodity owner A is crafty enough to fool two of his colleagues, B and C; despite their best efforts, they are unable to return the favor. Owner A sells wine worth £40 to B and in exchange acquires grain worth £50. He has transformed his £40 into £50; he has made less money into more, turning his commodity into capital. But what exactly has happened here? Before the exchange, there was £40 worth of wine in A’s hands and £50 worth of grain in B’s, a total value of £90. After the exchange, the total is the same. The value circulating hasn’t grown by even an atom. All

29. “The idea of profits being paid by consumers, is, assuredly, very absurd. Who are the consumers?” (G. Ramsey: *An Essay on the Distribution of Wealth*. Edinburgh 1836, p. 183).

30. “When a man is in want of demand, does Mr. Malthus recommend him to pay some other person to take off his goods?” an indignant Ricardian asked Malthus, who, like his student the pastor Chalmers, celebrated the economic activity of the class of mere buyers and consumers. See: “An Inquiry into those principles respecting the Nature of Demand and the Necessity of Consumption, lately advocated by Mr. Malthus” etc. London 1821, p. 55.

that has changed is how the £90 is distributed between A and B. What registers as surplus-value on the one side registers as negative value on the other; what registers as a plus on one side registers as a minus on the other. The same change would occur if A stole £10 from B outright, although the form of exchange conceals this fact. Clearly, the sum of circulating value can't be increased by changing how it is distributed—just as a Jew can't increase the amount of precious metal in a country by selling a farthing from the time of Queen Anne for a guinea. Taken as a whole, the capitalist class in a country can't cheat itself.³¹

The outcome will remain the same however much one twists or tugs. When equivalents are exchanged, no surplus-value is generated, and when nonequivalents are exchanged, it still isn't generated.³² Circulation or commodity exchange does not create value.³³

This, of course, is why our analysis of capital's elementary form hasn't yet said anything about merchant capital and usury capital, those famous and, so to speak, antediluvian forms of capital, and has instead focused on the form that capital has when it determines the economic organization of modern society.

The M-C-M' form, buying in order to sell at a higher price, finds its purest expression in true merchant capital. But the movement of M-C-M' occurs entirely within the circulation sphere, and because it is impossible from the standpoint of circulation to explain how money is transformed into capital—i.e., how surplus-value is created—merchant capital looks impossible as long as equivalents are exchanged.³⁴ Thus merchant capital

31. Destutt de Tracy, despite, or perhaps because, he was a *Membre de l'Institut*, held the opposite view. He asserted that industrial capitalists make their profits in that they "sell all the products that they make—and that they sell, first of all, to one another—for more than it costs to make them" (op. cit. p. 239). [Editor's note: In 1793, the French government founded the Institut de France to "promote the arts and sciences." It still serves as the umbrella organization for France's most prestigious cultural academies.]

32. "The exchange of two equal values neither increases nor decreases the amount of the values subsisting in society. Nor does the exchange of two unequal values . . . change the sum of social values, although it adds to the fortune of one what it takes away from the fortune of the other" (J. B. Say op. cit. part 2, pp. 443–44). Say, naturally untroubled by the implications of this claim, borrowed it word for word from the Physiocrats. The following example illustrates how he sacked their writings, which were unknown during his day, and used them to increase his own "value." Monsieur Say's most "celebrated" line, "Products are bought only with products," reads in the Physiocratic original, "Products are paid for only with products" (Le Trosne op. cit. 899).

33. "Exchange confers no value at all upon products" (F. Wayland, *The Elements of Pol. Econ.* Boston 1843, p. 169).

34. "Under the rule of invariable equivalents commerce would be impossible" (G. Opdyke, *A Treatise on Political Economy.* New-York 1851, p. 67). "The difference between

appears to be something that takes place only when a merchant parasitically inserts himself between commodity owners who are buying and selling in order to bilk both of them. This is what Benjamin Franklin had in mind when he said, “War is robbery, commerce is cheating.”³⁵ If we don’t want to think that merchant capital is valorized only when commodity owners are defrauded, we would need to take into account a long series of mediating factors; and here, at a point where we are presupposing only commodity circulation and its simple components, these factors are entirely absent.

What holds for merchant capital applies even more to usury capital. In merchant capital, the starting point and the endpoint—namely, the money put into the market and the greater amount taken out—are at least mediated by a purchase and a sale, or the movement of circulation. In usury capital, the form $M-C-M'$ is shortened to the unmediated starting point and endpoint $M-M'$: money that is exchanged for more money, a form that contradicts the nature of money and thus can’t be explained from the standpoint of commodity circulation. Hence Aristotle says, “There are two kinds of chrematistics. One has to do with commerce, the other with household management. The latter is necessary and commendable, but the kind that has to do with exchange is justly disparaged, since it is not natural but is from one another. Hence usury is very justifiably detested, since it gets wealth from money itself, rather than from the very thing money was devised to facilitate. For money was introduced to facilitate exchange, but interest makes money itself grow bigger. (That is how it gets its name [$\tau\acute{o}\kappa\omicron\varsigma$, ‘interest’ and ‘offspring’]; for offspring resemble their parents, and interest is money that comes from money.) Hence of all the kinds of chrematistics this one is the most unnatural.”³⁶

Later, we will see that like merchant capital, interest-bearing capital is a derivative form, and we will also see why they emerged earlier than the modern elementary form of capital.

Our analysis has shown that surplus-value can’t arise from circulation, that when surplus-value is created, something has to go on behind circulation’s back—something that can’t be seen in circulation itself.³⁷ But can

real value and exchange-value is based on one fact—namely, that the value of a thing differs from the so-called equivalent given for it in trade, that is, that this equivalent is not an equivalent” (F. Engels op. cit. pp. 95, 96). [Editor’s note: English translation, p. 427.]

35. Benjamin Franklin, Works, Vol. II, edit. Sparks in: “Positions to be examined concerning National Wealth.”

36. Arist. op. cit. c. 10. [Editor’s note: 158a39-b8. English translation, pp. 18–19, modified slightly.]

37. “Profit, in the usual condition of the market, is not made by exchanging. Had it not existed before, neither could it after that transaction” (Ramsay op. cit. p. 184).

surplus-value arise anywhere besides the circulation sphere? Circulation is the sum of all the mutual relations among commodity owners. Outside the circulation sphere, an individual commodity owner has just one relation left: his relation with his own commodity. With regard to the value of his commodity, this relation is limited to the fact that his commodity contains a quantity of his own labor measured according to definite social laws. This quantity is expressed as the commodity's magnitude of value, and because its magnitude of value is represented as money of account, it is expressed as a price: say, £10. But the owner's labor isn't represented in the commodity's value and a surplus beyond that value, as a price of £10 that is at the same time a price of £11—or, in other words, in a value that is greater than itself. The commodity owner's labor can create values but not self-valorizing values. His labor can enlarge a commodity's value: adding new labor, he can supplement existing value with new value for example, making boots from leather. The same material now has more value because it contains a greater quantity of labor. The boots have more value than the leather, but the leather's value remains what it was. It didn't valorize itself; it didn't take on surplus-value as the boots were being produced. Outside the circulation sphere, the commodity owner can't valorize his value without coming into contact with other commodity owners, and so he can't transform either money or a commodity into capital.

Capital, then, can't arise within circulation just as it can't arise outside circulation. It has to both arise and not arise there.

Our analysis has thus yielded a double result.

How money is transformed into capital has to be explicated on the basis of the immanent laws of commodity exchange. That equivalents are exchanged therefore has to be our starting point.³⁸ Our money owner, still

38. From the foregoing discussion, the reader will see that this simply means it must be possible for capital to form even when the prices of commodities are equal to their value, and the formation of capital cannot be explained as resulting from the nonalignment of those two things. If prices do in fact deviate from values, we must first reduce them to the latter—that is, we must disregard the deviation as something accidental, in order to examine the phenomenon of capital formation in its pure form and avoid being thrown off in our observations by muddying circumstances that aren't relevant to the workings of the actual process at issue. Moreover, we know that this reduction isn't simply a scholarly or scientific operation. The constant oscillations in market prices, their rising and falling, cancel or balance out one another, and in effect reduce those prices to an average that is their internal regulator. This regulator constitutes the lodestar of all the merchants or industrialists in every undertaking of significant duration. They know that when a long period of time is taken as a whole, commodities will be sold neither under nor over their average price but rather for their average price. So if disinterested thinking were in the capitalist's interest, he

a capitalist in larval form, has to buy commodities at their value and sell them at their value, yet in the end extract more value from the process than he put into it. He must, and can't, metamorphose into a butterfly in the circulation sphere. This is what we are up against. *Hic Rhodus, hic salta!*^{ix}

3. Buying and Selling Labor-Power

When money turns into capital, where does its change of value occur? Not in money itself: as a means of purchase or payment, money merely realizes the prices of the commodities it buys or pays for, and when money clings to its own form, it hardens into a magnitude of value that remains the same.³⁹ The money's value also can't change in the second act of circulation, a commodity's resale, because this act merely transforms a commodity from its natural form back into the money-form. The change has to take place in the commodity that is purchased in the first act of circulation, M-C; yet the value of this commodity can't change during the act of exchange, because equivalents are being exchanged: the commodity is bought at its value. So the change in the money's value has to proceed from the commodity's use-value as such; that is, the change has to take place when the commodity is consumed. In order to extract value from the consumption of a commodity, our money owner must be lucky enough to find circulating in the market a commodity whose use-value has the special characteristic of being a source of value. When this commodity is actually consumed, labor would be objectified, and thus value would be created. The money owner does in fact find just such a commodity in the market: labor-capacity or labor-power.

By "labor-power" and "labor-capacity," we mean all the capacities that exist in a person's bodily form and living personality, and that he activates whenever he produces use-values of any kind.

Various conditions have to be met before the money owner can actually find labor-power on the market as a commodity. Commodity exchange, in and for itself, doesn't imply any relations of dependence except the ones arising from its own nature. Given this, labor-power can appear in the market

would have to pose the question of capital formation as follows: Where does capital come from, given that prices are regulated by average prices—or, ultimately, by the value of commodities? I say "ultimately" because average prices don't coincide directly with commodities' magnitudes of value, in contrast to what Smith, Ricardo, and so on believed.

39. "In the form of money . . . capital is productive of no profit" (Ricardo: *Princ. of Pol. Econ.* p. 267).

as a commodity only insofar as and because its owner, the person it belongs to, offers it for sale or sells it as a commodity. And if the labor-power's owner is to sell his labor-power as a commodity, it must be fully his, something that he can do whatever he wants with. He must be the independent proprietor of his labor-capacity, of his own person.⁴⁰ The owner of the labor-power and the money owner encounter each other in the market—and enter into a relation—as commodity owners of the same standing, different only in that one buys and the other sells; they are equals before the law. In order to maintain this relation, the owner of the labor-power must sell his commodity for a limited time only. If he sold his labor-power all at once, in one big sale, he would be selling himself, transforming himself from a free person into a slave, from a commodity owner into a commodity. Here a person must always treat his labor-power as his property, hence as his own commodity, and he can do that only insofar as he puts his labor at the buyer's disposal temporarily—only insofar as he gives up his labor-power to be consumed for a specific time-period. He has to dispose of his labor-power without renouncing ownership of it.⁴¹

40. In encyclopedias of classical antiquity, one can read the following sort of nonsense: In the ancient world, capital was fully developed, “except that free workers and a credit system were missing.” Even Mr. Mommsen, in his “Roman History,” commits one *quid pro quo* after another. [Editor's note: Theodor Mommsen (1817–1903) was a German historian and politician known for trying to make classical studies more rigorous or “wissenschaftlich,” which, for some of his critics (e.g., J. J. Bachofen), amounted to Prussianizing them. In the late nineteenth century, Mommsen managed to secure millions of marks in funding from the German government to carry out vast data collection projects, sending scores of researchers into the field to produce “forensically sound” copies of Roman inscriptions. His partner in this general undertaking, the church historian Adolf Harnack, liked to call what they had set in motion “the heavy industry of scholarship.” In 1901, Mommsen won the Nobel Prize for Literature for his multivolume *Roman History*.]

41. Hence legislation in different countries has established a maximum length for labor contracts. Wherever free labor obtains, laws regulate the conditions for terminating labor contracts. In some countries, especially Mexico (and before the American Civil War, in those territories that the United States had torn away from Mexico, and also, practically speaking, in the Danube principalities before Cuza's takeover), slavery is or has been hidden under the form of peonage. Advances to be repaid with labor, and handed down from one generation to the next, make not only individual workers, but also their families, into the property of other people and the families of those people. Juarez abolished peonage, but the so-called Emperor Maximilian reintroduced it with a decree that was accurately denounced in the United States House of Representative as a decree to reintroduce slavery in Mexico. “I can alienate . . . my particular physical and mental skills and active capabilities to someone else and allow him to use them for a limited period, because provided they are subject to this limitation, they acquire an external relationship to my totality and universality. By alienating the whole of my time, as made concrete through work, and the totality of my production, I would be making the substantial quality of the latter, i.e. my universal activity and actuality or my personality itself, into someone else's property” (Hegel:

A second essential condition needs to be met before the money owner can find labor-power in the market as a commodity. The labor-power's owner can't sell commodities in which his labor has been objectified. Instead he has to sell as a commodity his labor-power itself, which exists only in his living body.

A person obviously has to own some means of production—for example, raw materials, instruments of labor, and so on—in order to sell commodities other than his own labor-power: he can't make boots without leather. He also needs some means of subsisting. No one can live on the products of the future, i.e., unfinished use-values. People have to consume things every day, both before they produce and while they are producing, just as they had to on the first day they appeared on the world stage. In addition, the things that people produce as commodities have to be sold after they have been produced, and they can satisfy the wants and needs of their producers only after they have been sold. The time it takes to sell commodities has to be added to the time it takes to produce them.

A money owner has to find a free worker in the commodity market—free in two senses—in order to turn money into capital. As a free person, the worker can do whatever he wants with his labor-power: he can sell it as his own commodity. Furthermore, he is otherwise commodity-free: he has none of the things he needs to realize his labor-power.

The money owner finds the labor market ready-made as a particular division of the commodity market and isn't interested in why he encounters this free worker in the circulation sphere. For the moment, neither are we. We are proceeding from this fact on the level of theory, whereas the commodity owner does so on the level of practice. But one thing is clear: nature doesn't produce money owners or commodity owners on the one side, and people who own only their labor-power on the other. This relation comes from natural history just as little as it is a social relation that we find in all historical periods. Clearly, it resulted from a prior historical development: it was produced by many economic revolutions in the past, or a whole series of older formations of social production going under.

The economic categories we examined earlier also carry traces of history. A product's existence as a commodity contains, veiled within it, definite historical conditions. If a product is to become a commodity, it can't be produced to serve its producer directly as a means of subsistence.

“Die Philosophie des Rechts. Berlin 1840,” p. 104, §67). [Editor's note: English translation, *Elements of the Philosophy of Right*, trans. H. B. Nisbet, ed. Allen W. Wood (Cambridge: Cambridge University Press, 1991), p. 97. Translation modified.]

Let's say that we had gone further and asked, Under what circumstances do all products, or even just the majority of them, take on the form of a commodity? We would have seen that this situation is always based on a very specific mode of production: the capitalist mode. But such a line of inquiry would take us far from an analysis of the commodity. Commodity production and commodity circulation can occur even if the vast majority of products, being slated to meet the immediate needs of their makers, aren't turned into commodities, or where exchange-value is still a long way from reigning over all areas of the social process of production. In order for products to be fashioned as commodities, the division of labor within society has to have developed enough for use-value and exchange-value to be fully separated, a process that merely begins with direct exchange. We find this stage of development, however, in economic social formations that belong to very different historical moments.

Let us now consider money, which exists only once a certain level of commodity exchange has been reached. Different forms of money—money as the commodity's mere equivalent, money as the means of circulation, money as the means of payment, money as stores of money and worldwide money—indicate very different stages in the social process of production, according to the extent and relative preponderance of one function or the other. Nevertheless, experience shows that even relatively undeveloped commodity circulation allows all these forms to emerge. Not so with capital. Its historical conditions of existence aren't yet present in the simple circulation of commodities and money—far from it. Capital arises only where a person who owns some means of production and subsistence finds a free worker in the market selling his own labor-power, and this one historical condition holds within it a whole history of the world. The appearance of capital announces a new epoch in the social process of production.⁴²

Here, then, we need to look more closely at labor-power, that special commodity. Like all other commodities, it has a value.⁴³ How is its value determined?

As with any other commodity, the labor-time needed to produce this particular article, and thus also reproduce it, determines its value.

42. Note added to the second edition: What characterizes the capitalist epoch, then, is that for the worker himself labor-power takes on the form of a commodity belonging to him, and his labor therefore takes on the form of wage labor. At the same time, it is only from this moment on that the commodity-form of labor products becomes universal.

43. "The Value or Worth of a man, is as of all other things, his price: that is to say, so much as would be given for the use of his power." Th. Hobbes: "Leviathan" in Works edit. Molesworth. London 1839-44, Vol. 3, p. 76.

Labor-power, insofar as it is value, represents nothing but the particular quantity of socially average labor objectified in it. Labor-power exists only as a capacity that belongs to a living individual. This individual must therefore exist in order for labor-power to be produced. So to reproduce or maintain this individual is in fact to produce labor-power. Since a living individual requires a certain amount of means of subsistence, the labor-time needed to produce labor-power equals the labor-time it takes to produce these means. In other words, labor-power's value is the value of the means of subsistence needed to maintain the labor-power's owner. Labor-power is realized, however, only by being expressed, and it is only activated in labor. When it is activated in labor, a definite quantity of human muscle, nerve, brain, and so on is expended, and this quantity has to be replaced. If more is expended, more has to be replenished.⁴⁴ If an owner of labor-power works today, he must be able to repeat the same process tomorrow with the same strength and health. Thus the total amount of means of subsistence must suffice to maintain the working individual as a working individual in his normal state. His natural wants and needs, such as nourishment, clothes, heating, housing, and so on, vary according to the climate and other natural features specific to a country. But the extent of his so-called necessary wants and needs, and his way of satisfying them, are themselves historical products, and thus they depend to a large extent on the stage of culture that his country has reached. Among other things, the conditions in which members of the class of free workers are formed also play an essential role here, since they shape the habits and living standards of those workers.⁴⁵ Moral and historical factors help to determine labor-power's value, in contrast to what we find with all other commodities. In a given country in a given period, the average amount of the necessary means of subsistence is nevertheless a known *datum*.

The owners of labor-power are mortal. If the person selling his labor is to appear in the market continuously, as he must when money is continuously transformed into capital, he has to perpetuate himself "in the way that every living being perpetuates itself, by procreation."⁴⁶ The labor-power that wear and tear and death take from the market must always be

44. As the person who oversaw agricultural slaves in ancient Rome, the *villicus*, "because his work was easier than that of the slaves," "got less than they did" (Th. Mommsen, *Röm. Geschichte* 1856, p. 810).

45. In his work "Over-population and Its Remedy. London 1846," W. Th. Thornton presents interesting evidence in support of this point.

46. Petty. [Editor's note: Marx's source text is Petty's work from 1691, *The Political Anatomy of Ireland*; the line appears to be a paraphrase.]

replaced with at least as much labor-power. Thus the sum of the means of subsistence needed to produce labor-power has to include the means of subsistence for replacements: the workers' children. That is how the members of this race of special commodity owners perpetuate themselves in the commodity market.⁴⁷

A particular kind of training or education is needed to modify the general nature of human beings in such a way that they become skillful and deft in a particular branch of labor, or, in other words, become developed and specialized labor-power. This training, in turn, costs an equivalent in commodities of a greater or lesser amount. Educational costs differ according to whether the character of labor-power is mediated a little or a lot. Vanishingly small for ordinary labor-power, these costs count as part of the overall value spent to produce labor-power.

Since labor-power's value equals only the value of a certain sum of the means of subsistence, it varies with the value of those means—i.e., with the magnitude of the labor-time required to produce them.

Some means of subsistence—for example, food, heating, and so on—are consumed daily and must be replaced daily. Others, such as clothes and furniture, last longer and don't need to be replaced as often. Commodities of one type must be bought and paid for anew every day; other types must be bought or paid for weekly, monthly, quarterly, and so on. But however the sum of these expenditures is spread out over the course of a year, an income of a certain daily average is needed to cover it. If the total amount of commodities consumed daily to produce labor-power = A, and the commodities consumed weekly = B, quarterly = C, and so on, then the daily average of these commodities will be $365xA + 52xB + 4xC +$ and so on, divided by 365. If we assume that six hours of social labor are embedded in the quantity of commodities needed for an average day, then half a day of socially average labor is objectified daily in labor-power. So to produce labor-power daily, half a day of labor is required. This, the quantity of labor required each day to produce labor-power, constitutes labor-power's daily value, or the value of the labor-power reproduced daily. If half a day of socially average labor is also represented in an amount of gold worth 3 shillings or 1 thaler, then 1 thaler would be the price that corresponds to

47. "Its [labor's] natural price . . . consists in such a quality of necessaries, and comforts of life, as, from the nature of the climate, and the habits of the country, are necessary to support the labourer, and to enable him to rear such a family as may preserve, in the market, an undiminished supply of labour." R. Torrens: "An Essay on the external Corn Trade. London 1815," p. 62. Here Torrens makes the mistake of using the word "labor" for labor-power.

the labor-power's daily value. If an owner of labor-power sells his commodity for 1 thaler per day, then its price equals its value, and, according to what we assumed above, the money owner who's so keen to transform his thalers into capital pays just that amount in value.

The lower or minimum limit of labor-power's value is the value of the commodities that the labor-power's bearer, a human being, needs daily in order to keep renewing his life-process: the value of his physically indispensable means of subsistence. If labor-power's price falls to that minimum, it will have fallen below its value. Under such circumstances, labor-power can be maintained and cultivated only in a broken condition, but what determines the value of every commodity is the labor-time needed to produce it with its normal level of quality.

This method of determining labor-power's value proceeds from the nature of the thing itself, and it is an extraordinarily cheap type of sentimentality that finds it harsh, whining along with Rossi, "To conceive labor-capacity [*puissance de travail*] while one abstracts from the workers' means of subsistence during the production process is to conceive a phantom [*être de raison*]. Someone who says labor, or labor-capacity, is also saying the worker and his means of subsistence, the worker and his wages."⁴⁸ But saying "labor-capacity" isn't the same as saying "labor," any more than saying "the capacity for digestion" is the same as saying "digestion." Digestion, as we know, requires more than a strong stomach—it needs food. To say "labor-capacity" isn't to abstract from the means of subsistence needed to maintain it. The value of these means is in fact expressed through labor-capacity's value. If a worker doesn't sell his labor-capacity, it does nothing for him; instead he will experience as a terrible natural necessity the fact that his labor-capacity, in order to be produced, has required a certain quantity of means of subsistence, and it keeps requiring those means all over again in order to be reproduced. Like Sismondi, he will discover that "labor-capacity . . . is nothing unless it is sold."^{49,x}

The special nature of labor-power, that singular commodity, is such that when a seller and buyer close their contract, the buyer doesn't actually have labor-power's use-value in his hands. As with every other commodity, labor-power's value is determined by the particular amount of social labor expended to produce it, and so its value is determined before it enters

48. Rossi: "Cours d'Écon. Polit. Bruxelles 1843," pp. 370, 371. [Editor's note: Pellegrino Rossi (1787–1848), an Italian economist and politician, took over Jean-Baptiste Say's chair in economy at the Collège de France upon the latter's death.]

49. Sismondi: "Nouv. Princ. etc." part 1, p. 114.

into circulation. But the use-value of labor-power doesn't come into being until its power is expressed, which happens only after it has been sold. There is a temporal gap, then, between the moment when power is parted with and the moment when it is in fact expressed, or exists as a use-value. When the moment that the use-value of a commodity is formally parted with (by being sold) and the moment that the buyer actually gets the use-value don't coincide,⁵⁰ the buyer's money functions most often as a means of payment. In all countries under the capitalist mode of production, labor-power isn't paid for until after it has functioned throughout the labor period that is established by the purchase contract, for example, at the end of each week. So the worker always advances the capitalist the use-value of his labor-power. He lets the buyer consume it before the buyer pays him; in other words, the worker always lets the capitalist buy on credit. This extending of credit is no mere illusion, which we see not only when wages bought on credit are lost due to the occasional bankruptcy on the part of a capitalist,⁵¹ but also from a series of even longer-lasting consequences.⁵² Whether money functions as a means of purchase or of

50. "All labour is paid, after it has ceased" ("An Inquiry into those Principles respecting the Nature of demand etc." p. 104). "Commercial credit must have begun when the worker, the first artisan of the product, was able, by means of his savings, to wait to receive the wages for his work until the end of the week, the fortnight, the month, the quarter, etc." (Ch. Ganilh: *Des Systèmes de l'Écon. Polit.* 2ème ed. Paris 1821, part 1, p. 150).

51. "The worker lends his industry": but then Storch cleverly adds that the worker "risks nothing" but "the loss of his wages. . . . The worker transmits nothing of a material nature" (Storch: *Cours d'Écon. Polit.* St. Petersburg, 1815, part 2, pp. 36, 37).

52. An example: In London, there are two kinds of bakers, the "full-priced" ones who sell bread at its full value, and the "undersellers" who sell it below that value. Members of the latter class make up more than three-quarters of all bakers. (See pp. XXXII-XXXIV in the "Report" of the government commissioner H. S. Tremenheere on the "Grievances complained of by the journeymen bakers etc. London 1862.") Nearly all the undersellers sell bread that has been adulterated with alum, soap, pearl-ash, chalk, Derbyshire stone dust, and other similarly pleasant, nourishing, and wholesome ingredients. (See the Blue Book cited above, as well as the report of the "Committee of 1855 on the Adulteration of Bread" and Dr. Hassall's "Adulterations Detected." 2nd edit. London, 1861.) Speaking before the Committee of 1855, Sir John Gordon stated: "In consequence of these adulterations, the poor man, who lives on two pounds of bread per day, does not now take in one-fourth of that amount of nutrition, not to speak of the deleterious effects on his health." [Editor's note: More a paraphrase than a direct quotation.] To explain why "a very large proportion of the labouring class" has come to terms with alum, stone dust, and so on, even though they know about these ingredients, Tremenheere makes the point (op. cit. p. XLVIII) that for workers it is "a matter of necessity to take, from their baker, or from the chandler's shop, whatever bread as may be offered to them." Because the workers aren't paid until the end of the week, "they are unable to pay for the bread consumed by their families during the week, before the end of the week," and Tremenheere adds, citing witnesses' statements, "It is notorious that bread composed of those mixtures, is made expressly for sale in this

payment, however, has no effect on the nature of the commodity exchange itself. Labor-power's price is contractually established, even if its price isn't realized until afterward, as is the case when a house is rented. Labor-power has in fact been sold, even if someone pays for it only later. To gain a pure understanding of this relation, it can thus be useful to assume that the labor-power's owner always receives the contractually stipulated price on the spot.

We have seen what determines the value a money owner pays an owner of labor-power for his special commodity. In return, the money owner gets use-value that first appears during consumption, or in the process during which the labor-power is actually consumed. The money owner buys everything he needs for this process in the market, such as raw materials and so on, paying full price. The process whereby labor-power is consumed is simultaneously the process of producing a commodity and also the process of creating surplus-value. Labor-power is consumed outside the market, i.e., outside the sphere of circulation, just like every other commodity. Let's therefore leave this noisy sphere, which resides on the surface for all to see—leave together with the money owner and the labor-power's owner, and follow them into the hidden place of production. As we are about to enter, we will see a sign: "No admittance except on business."^{xi} Here we will learn not just how capital produces things, but also how capital is produced. The secret of turning a profit will be revealed at last.

The sphere of circulation or commodity exchange, within whose limits the movement of buying and selling labor-power occurs, is in fact a veritable Eden of innate human rights. What reigns is exclusively freedom, equality,

manner." "In many English agricultural districts [but even more in Scotland], workers are paid every two weeks and even monthly. With this long pay period, the agricultural worker must obtain goods on credit. . . . He has to pay high prices and is practically restricted to the shop which gives him credit. Thus at Horningsham in Wilts, for example, where wages are monthly, flour costs 2s. 4d. per stone, whilst it was 1s. 10d. per stone elsewhere" ("Sixth Report" on "Public Health" by "The Medical Officer of the Privy Council etc. 1864," p. 264). "In 1853, the block-printers of Paisley and Kilmarnock (western Scotland) obtained through a strike the reduction of the pay period from monthly to fortnightly" ("Reports of the Inspectors of Factories for 31st October 1853," p. 34). We can see the following method, which is used by many English coal mine owners, as another deft development in the credit the worker extends to the capitalist. Here the worker isn't paid until the end of the month, and in the meantime, the capitalist gives him advances, often in the form of goods that he, the worker, has to buy above their market value (truck system). "It is a common practice with the coal masters to pay once a month, and advance cash to their workmen at the end of each intermediate week. The cash is given in the shop [that is, the tommy shop belonging to the master]; the men take it on one side and lay it out on the other" ("Children's Employment Commission, III. Report. Lond. 1864," p. 38, n. 192).

property, and Bentham. Freedom! Because only the free wills of the buyer and seller of a commodity, for example, labor-power, determine how these figures act. They enter into business dealings as free persons, equal before the law. The end result is the contract that represents a joint legal expression of their wills. Equality! Because they interact only as commodity owners and exchange an equivalent for an equivalent. Property! Because each owner does whatever he wants with only what is his. Bentham! Because each cares only about himself. The only force that brings the two parties together and into a relation with each other is self-concern, private interests, personal gain. And precisely because each person thus thinks only about himself and no one else, and also as the result of the preestablished harmonious order of things, or perhaps under the auspices of an infinitely shrewd Providence, their work advances nothing but mutual benefits, the common good, and collective interests.

Something changes, so it seems, in the physiognomy of our *dramatis personae* upon leaving this sphere of simple circulation or commodity exchange, the sphere on which the vulgar free trader bases his views, concepts, and the standards he uses to judge a society of capital and wage labor. The former money owner now strides ahead as a capitalist, while the owner of the labor-power follows him as his worker, one grinning self-importantly, eager to do business, the other wary and reluctant to continue, like someone who has brought his own hide to the market and now can't expect anything other than . . . *the tannery*.

PART THREE

**The Production of Absolute
Surplus-Value**

CHAPTER FIVE

The Labor Process and the Valorization Process

LABOR IS NOTHING but the use of labor-power. A person who buys labor-power consumes it by putting to work someone who has sold his labor-power, and in this way, the latter person actually becomes what he previously only had the potential to be: a bearer of labor-power in action—a worker. In order to be represented in commodities, his labor must first and foremost be represented in use-values, or things that serve to satisfy wants and needs of whatever kind. Thus the capitalist has the worker make a particular article or use-value. How use-values or goods are produced—the general nature of their production—doesn't change when a capitalist takes control of this process and someone else carries it out for him. We will therefore begin by considering the labor process independent of all particular social forms.

Labor is a process involving human beings and nature; in it, their own activity mediates, regulates, and controls their metabolizing of nature. When human beings work with materials found in nature, they are acting as natural forces. They set in motion the natural powers that belong to their bodies—arms and legs, head and hands—in order to appropriate natural materials in forms in which such materials serve human life. In applying this movement to the natural world around them, human beings alter it and at the same time alter their own nature. They cultivate the potential that slumbers in their nature and bring the play of its forces under their conscious control. We are not speaking of the earliest forms of labor, namely, instinctual and animal-like forms. When a worker arrives in the commodity market to sell his own labor-power, he is operating under conditions very far removed from those in which human labor hadn't yet advanced past the instinctual form it had initially (in primordial times). Here we are presupposing a form of labor that human beings alone are

capable of. Of course, spiders carry out operations that resemble a weaver's work, and bees produce honeycombs that would put some human builders to shame.ⁱ What separates the worst builder from the best bee is that before the builder creates a structure in wax, he creates it in his head. The end result of the labor process already exists when the process begins; it exists as an idea—as something a worker imagines. The worker doesn't simply shape natural materials into a new form; he also realizes a goal in doing so: a conscious goal that functions as a law determining both the work he performs and how he performs it, and to which, moreover, he must subordinate his will. When the worker subordinates his will to his goal, this is no isolated act. The whole time he is working, he must orient his will toward the purpose of his labor. He must stay focused, in other words, while he also exerts himself physically. The less the worker is drawn to the substance of his labor and the activities it involves, and, in turn, the less he enjoys his labor as the free play of his physical and mental powers, the more he has to train his attention on his work.ⁱⁱ

The basic components of the labor process are purposeful activity, or labor itself, and the object and means of labor.

Human beings encounter the land (which, economically speaking, includes water) as the ready-made general object of their labor, since, without their help, it supplies their original necessities or means of subsistence.¹ Anything where human labor merely breaks its connection to nature as a whole is an object of labor provided by nature: someone catches a fish and thus takes it out of its natural element, water; someone chops down a tree in a naturally occurring forest; someone removes ore from a vein in the earth; and so on. However, if an object of labor has been filtered, so to speak, through previous labor, we call it raw material—for example, the ore already broken loose, which is now ready to be washed. Raw material is always an object of labor. But not all objects of labor are raw material. An object of labor begins to count as raw material only after human labor has changed it in some way.

A means of labor is a thing or group of things that a worker puts between himself and the object of his labor. These things serve as conduits for his activity, conveying his labor to its object. He makes use of their mechanical, physical, and chemical properties, wielding them as means

1. "The earth's spontaneous productions being small in quantity, and quite independent of man, appear, as it were, to be furnished by nature, in the same way as a small sum is given to a young man, in order to put him in a way of industry, and of making his fortune" (James Steuart, *Principles of Polit. Econ.*, edit. Dublin 1770, Vol. 1, p. 116).

of power in order to purposefully alter other things.² With the exception of a ready-made means of subsistence that a person gathers using only his own body as his means of labor, such as fruits, the first thing a worker takes hold of is a means of labor, not an object of labor. Thus the natural world itself comes to function as an organ in the worker's activity, an organ with which he supplements the organs of his own body.ⁱⁱⁱ He thereby enlarges his natural stature, despite what the Bible says.^{iv} Just as the land is the worker's original pantry, so it is also his first toolbox. It supplies the stones, for example, that he throws and uses to grind, press, cut, and so on. The land itself is a means of labor, yet a whole series of other means of labor have to be invented, and labor-power has to reach a relatively advanced stage, before the land can serve as a means of agricultural labor.³ The moment the labor process starts to develop beyond its initial form, it requires means of labor that have been crafted by labor. We find tools and weapons made from stones in the oldest human dwellings. When human history was in its earliest stages, domesticated animals counted among the primary means of labor—i.e., animals that had been acted upon by labor or bred for particular purposes. So did stones, wood, bones, and shells that had been modified by purposeful human activity.⁴ Although some animals create and use means of labor, albeit in very rudimentary ways, these activities are characteristic of a labor process that only human beings can carry out. Hence Franklin defines the human being as “a toolmaking animal.” The remains of means of labor are as important for understanding past economic formations of society as the remains of bones are for understanding extinct species of animals. The distinguishing feature of an economic epoch isn't which things are made, but rather how things are made: which means of labor are used.⁵ Means of labor aren't simply yardsticks that tell us how far human labor-power has advanced; they also

2. “Reason is as *cunning* as it is *powerful*. The cunning consists generally in the activity of mediating, which, by letting the objects, in keeping with their own nature, act on one another and wear themselves out on one another, without meddling immediately in this process, achieves *its* purpose alone” (Hegel, *Enzyklopädie. Erster Theil. Die Logik*, Berlin 1840, p. 342). [Editor's note: English translation, *Encyclopaedia of the Philosophical Sciences in Basic Outline: Part 1, Logic*, ed. and trans. Daniel Dahlstrom and Klaus Brinkmann (Cambridge: Cambridge University Press, 2010), p. 281.]

3. In an otherwise dreadful work, “*Théorie de l'Écon. Polit.* Paris 1815,” Ganilh, in opposing the Physiocrats, aptly enumerates the long series of labor processes that make up the precondition of agriculture proper.

4. In his “*Réflexions sur la Formation et la Distribution des Richesses*” (1766), Turgot competently explicates the importance of domesticated animals in the early stages of human culture.

5. Of all commodities, luxury items proper are the least significant when it comes to comparing the technological capabilities of different epochs of production.

reflect the social conditions under which labor is performed. Mechanical means of labor—taking them all together, let’s call them the skeletal and muscular system of production—have characteristics that say much more about a given epoch of production than means of labor that merely act as containers for objects of labor do—let’s call these the vascular system of production. The vascular system is made up of pipes, barrels, baskets, pitchers, and so on. It began to play a significant role only when chemical-based production processes emerged.⁶

If we consider the means of the labor process more broadly, we can include not only all the things that mediate how labor acts upon its objects and therefore serve as conduits for human activity in one way or another, but also all the things that the labor process fundamentally requires. These things don’t enter into the labor process directly; without them, however, it either can’t take place at all or can’t run its full course. Here, too, the land itself is a general means of labor, for it supplies the worker with the very ground beneath his feet (or *locus standi*) and his labor process with its “field of employment.” Many such means of labor are mediated by previous labor, including workshops, canals, roads, and so on.

So in the labor process, human beings use means of labor to alter an object of labor, working from the start with a specific purpose in mind. The process vanishes in the product. Its product is a use-value, a piece of natural material whose form has been changed to make it suitable for satisfying human wants or needs. Labor is now bound up with its object. It has become objectified, while its object has been modified by labor. What appeared on the worker’s side in the form of restless activity now appears on the product’s side as a characteristic at rest—that is, now it appears in the form of being. A worker spins, and his product is something spun.

When one views the whole labor process from the standpoint of its result—namely, its product—the means of labor and the object of labor appear as means of production,⁷ while the labor appears as productive labor.⁸

6. Note added to the second edition: Up to now, history writing has neglected the development of material production, i.e., the foundation of all social life and thus all real history. But at least scholars have based their categorization of the prehistoric period on research in the natural sciences rather than so-called historical research, categorizing epochs according to the materials that tools and weapons were made of, or as the stone, bronze, and iron ages.

7. It may seem paradoxical to call a fish that hasn’t yet been caught a means of production in the fishing industry. But we don’t yet have a technique for catching fish in waters where they don’t occur.

8. This definition of productive labor, which proceeds from the standpoint of the simple labor process, hardly suffices for the capitalist production process.

As some use-values or products are emerging from the labor process, others, the products of earlier labor processes, enter into the process. The same use-value that was produced by labor later serves different labor as a means of production. The labor process doesn't simply create products, then; it also requires them.

Nearly all branches of industry apply labor to objects of labor that are raw material—in other words, objects that have already been filtered through previous labor and are thus themselves products of labor. The exceptions are the extractive industries, which find their objects of labor ready-made in nature: mining, hunting, fishing, and so on (farming counts only insofar as it begins by breaking up virgin soil). Seed used in agriculture, for example, is raw material. We tend to see plants and animals as natural products, but they aren't, and neither were they produced by last year's labor. Rather, as they exist today, plants and animals are products that took shape by being continuously transformed over many generations in a process controlled by human beings and mediated by their labor. But the vast majority of means of labor display such obvious signs of having been mediated by previous labor that even the most superficial observer won't miss them.

Raw material can constitute a product's main substance, or it can play an auxiliary part when a product is made. Auxiliary raw material is consumed by the means of labor—for example, coal consumed by steam engines, oil consumed by wheels, or hay consumed by horses. It can also be added to the primary raw material in order to change the latter's physical constitution—for example, chlorine added to unbleached linen, coal added to iron, or dye added to wool. Or, auxiliary raw material can serve to facilitate the labor process, as it does where it is used to light and heat the workplace. The difference between primary and auxiliary raw material becomes blurry in chemical compounds, since none of the raw materials that go into them reappears as the product's main substance.⁹

Because things have many properties, and can be put to use in different ways, one and the same product can function as raw material in very different processes of labor. Grain serves millers, starch manufacturers, distillers, and cattle breeders as raw material. In fact, grain as seed functions as the raw material needed to produce itself: grain. Similarly, mining both yields coal as its product and needs coal as a means of production.

9. Storch distinguishes between actual raw material, which he calls "matière," and auxiliary materials, which he terms "matériaux." Cherbuliez speaks of auxiliary materials as "matières instrumentales."

One and the same product can also function as both a means of labor and raw material in a single process of labor. This is the case where cattle are fattened: the cattle that workers apply their labor to as raw material also function as a means of producing manure.

Some products that are ready to be consumed outside the labor process can be used as raw material for making other products, as grapes are used as the raw material for wine. On the other hand, human labor also turns out products in forms where they can serve only as raw material. Raw material in this state is called semimanufactured; “graduated manufacture” would be a better term and would apply to cotton, string, yarn, and so on. Although already a product, the original form of this raw material may have to keep changing as it goes through a series of further labor processes, functioning anew as raw material in each one, until it comes out of the final process as a finished means of subsistence or means of labor.

We should be able to see that how a use-value appears at a given moment—whether as raw material, a means of labor, or a product—depends entirely on its specific function in the labor process, on its position there. As its position changes, so do its characteristics.

When a product is put into new labor processes as a means of production, it loses its character as a product. Now it functions only as an objective factor, as a thing that aids living labor. A spinner treats the spindle merely as the means for his spinning and flax merely as the object of his labor. He needs them, of course. A person can’t spin without both material to spin and a spindle: the material and the spindle have to be present before he can start spinning. What doesn’t matter for this process is that flax and the spindle are the products of previous labor, just as for the purpose of eating, it doesn’t matter that bread is the product of the combined previous labor of farmers, millers, bakers, and so on. However, when the means of production in the labor process fail, their character as previous labor is keenly felt. A knife that doesn’t cut, yarn that constantly comes apart—these things make it hard not to think of cutler A and spinner B. But when we look at products that are working well, we don’t see that their useful characteristics were brought about by previous labor: this process disappears in such cases.

A machine that doesn’t play a part in the labor process is useless. Not only that, what isn’t used will succumb to the destructive force of nature’s metabolizing. Iron rusts; wood rots. Yarn that no one weaves or knits with becomes spoiled cotton. Living labor must take hold of these things, wake them from the dead, and transform them from potential use-values into actual use-values that satisfy wants and needs. Kissed by labor’s flames,

these use-values are appropriated by labor as its own bodies, animated by it in the labor process so that they perform the functions, the work, they were made for; they are of course consumed, but they are consumed with a purpose. They become the elements that constitute new use-values—i.e., new products that count among the means of subsistence and satisfy individual wants and needs, or that are brought into new labor processes, where they serve as means of production.

So finished products don't merely result from the labor process; they also make that process possible. At the same time, the only way to maintain these products of past labor as use-values and realize them is to put them back into the labor process, where they make contact with living labor.

Labor uses up its own material elements, its objects and its means, devouring them, in effect, and it is therefore a process in which things are consumed. This productive consumption differs from the way an individual consumes in that in the latter case, products are consumed as the living individual's means of subsistence, while in the former one, they are consumed as labor's means of subsistence, as the means through which an individual's activated labor-power subsists. Individual consumption produces the consumer himself; what results from productive consumption is a product that isn't the consumer.^v

To the extent that labor's means and object are themselves products of labor, labor consumes some products in order to create others—it consumes products when it makes them into the means of production for other products. Yet the labor process originally involved human beings applying labor to the land as they first found it, and just so, some of the means of production that are currently serving in the labor process are naturally occurring and don't represent a connection between natural material and human labor.

We have laid out the labor process in terms of its simple and abstract elements. Presented in this way, it is an activity whose purpose is to create new use-values, the appropriation of natural materials to satisfy human wants and needs, and what universally allows the human metabolizing of nature to take place—the eternal natural condition of human life, which is therefore independent of all the ways people live, or common to all social formations. And so we didn't have to show the worker in the context of his relations with other workers. It sufficed to present the human being and his labor on the one side, and nature and its material on the other. But how wheat tastes doesn't tell us who grew it, and looking at the labor process in this way tells us just as little about the actual conditions in

which it is carried out: whether it runs its course under the slave overseer's brutal whip or the capitalist's watchful eye, whether it is Cincinnatus who completes a labor process by tilling his couple of *jugera* or a savage who does that by slaying wild beasts with a stone.^{10,vi}

Let us return now to our capitalist *in spe*.^{vii} We left him after he had purchased (in the commodity market) all the components required for the labor process: the objective components, namely, the means of production, and also the subjective factor, namely, labor-power. With a sharp and practiced eye, he selected all the means of production and types of labor-power that his particular undertaking needs, whether it's spinning, manufacturing boots, or something else. Our capitalist then set about consuming the commodity he had bought, labor-power. He had the worker, the bearer of the labor-power, consume the means of production with the labor he performed. Of course, the general nature of the labor process isn't altered when the worker carries it out for a capitalist instead of for himself. Nor do workers start to make boots and spin yarn differently the moment a capitalist inserts himself into the labor process. The capitalist must initially take labor-power as he finds it in the market, which means that he must also take labor itself as it is handed down from the time before capitalists. Only later can the subordination of labor to capital transform the mode of production. We will therefore examine that transformation later.

The labor process exhibits only two characteristic features as the process by which a capitalist consumes labor-power.

First, workers work under the supervision of a capitalist who owns their labor. The capitalist sees to it that this work is done properly and also that the means of production are used efficiently. Raw materials aren't wasted and the instruments of labor are spared as much as possible, or worn down only to the extent that the labor itself requires them to be.

Second, the product belongs to the capitalist, not the person who produces it most directly: the worker. When a capitalist pays what a day of labor-power is worth, he owns the use of the labor-power for a day, just as he would the use of any other commodity he rented for a day, say, a horse. The use of a commodity belongs to the person who's bought the commodity, and when the owner of the labor-power gives his labor to its buyer, he is merely giving the

10. Using impeccable logic, Colonel Torrens discovered the origin of capital in the savage's stone. "In the first stone which the savage flings at the wild animal he pursues, in the first stick that he seizes to strike down the fruit which hangs above his reach, we see the appropriation of one article for the purpose of aiding in the acquisition of another, and thus discover the origin of capital" (R. Torrens, *An Essay on the Production of Wealth* etc. pp. 70–71). That original stick [Editor's note: "Stock" in German] is likely the reason why in English the word "stock" is synonymous with "capital."

buyer the use-value he has bought. From the moment the worker enters the capitalist's workshop, the capitalist owns the use-value of his labor-power—or, in other words, the use of it, namely, labor. Having bought labor-power, the capitalist can incorporate labor as a live, fermenting agent into the dead components—also owned by him—that go into the product. From the capitalist's standpoint, the labor process is merely the consuming of a commodity that he's bought, labor-power, although he can consume this commodity only when he provides it with some means of production. The labor process is a process that takes place between things a capitalist has bought, things he owns. A product that issues from this process therefore belongs to him as much as the product that results from the process of fermentation taking place in a wine cellar.¹¹

The product, which is the capitalist's property, is a use-value: yarn, boots, and so on. Although boots, for example, make social progress possible (to some extent), and our capitalist is clearly a man of progress, he doesn't manufacture boots for their own sake. Use-value is hardly the main thing—"qu'on aime pour lui-même"—in commodity production.^{viii} Here use-values are produced only because and insofar as they are the material substrate, the bearers, of exchange-value. Our capitalist cares about two things: first, he wants to produce a use-value that has an exchange-value, i.e., an article made to be sold: a commodity. Second, he wants to produce a commodity whose value exceeds the combined value of the commodities that go into producing it, namely, the means of production and the labor-power for which he has to advance good money in the commodity market. Our capitalist wants to produce a commodity and not merely a use-value; not merely use-value but also value; and not merely value but also surplus-value.

11. "The products are therefore appropriated before being converted into capital, and this conversion does not free them from appropriation" (Cherbuliez, *Riche ou Pauvre*, édit. Paris 1841, p. 54). "The proletarian, by selling his labor for a definite quantity of the means of subsistence [*approvisionnement*], renounces all claim to a share in the product. The products continue to be appropriated as before: this is in no way altered by the bargain we have mentioned. The product belongs exclusively to the capitalist, who supplied the raw materials and the *approvisionnement*. This follows rigorously from the law of appropriation, a law whose fundamental principle was the exact opposite, namely that every worker has an exclusive right to the ownership of what he produces" (ibid. p. 58). [Editor's note: The correct title and date of publication for Cherbuliez's book are: *Richesse ou Pauvreté: exposition succincte des causes et des effets de la distribution actuelle des richesses sociales*, 1840.] James Mill, *Elements of Pol. Econ.* etc. pp. 70, 71: "When the labourers receive wages for their labor, the capitalist is then the owner, not of the capital only [i.e., the means of production] but of the labour also. If what is paid as wages is included, as it commonly is, in the term capital, it is absurd to talk of labour separately from capital. The word capital as thus employed includes labor and capital both."

Given this, and also that we are examining commodity production here, it should be obvious that up to this point, we have considered only one side of the process. Just as every commodity is a unity of use-value and value, its production process has to be a unity of two processes: the labor process and the process of creating value.

Let's now view the production process as being at the same time the process of creating value.

We know that the value of every commodity is determined by the amount of labor materialized in its use-value—in other words, the amount of socially necessary labor-time that goes into producing it. This holds also for the finished product that our capitalist has in his hands at the end of the labor process. What we have to do first, then, is calculate the amount of labor objectified in his product.

Suppose his product is yarn.

The first thing that someone who wants to produce yarn needs is raw material, let's say in this case 10 pounds of cotton. We don't have to begin by investigating the cotton's value, because our capitalist has bought it in the market at its full value, let's say 10 shillings. The cotton's price has already represented the labor it took to produce the cotton as general social labor. Now let's assume as well that the amount of spindle used up in producing the yarn stands in for all the means of labor consumed, and that it has a value of 2 shillings. If it takes twenty-four hours of labor, i.e., two workdays, to produce an amount of gold worth 12 shillings, then two workdays are objectified in the yarn.

We shouldn't let ourselves be misled by the fact that the cotton has changed its form and the used-up part of the spindle has disappeared. According to the general law of value, 10 pounds of yarn will be an equivalent for 10 pounds of cotton together with $\frac{1}{4}$ of a spindle if the value of 40 pounds of yarn = the value of 40 pounds of cotton + the value of a whole spindle—in other words, if the same amount of labor-time is required to produce both sides of this equation. In this case, the same amount of labor-time is represented in different things: the use-value "yarn" and the use-values "cotton" and "spindle." Value doesn't care whether it appears in yarn, a spindle, or cotton. The spindle and cotton become bound up with each other in the spinning process—they don't just lie quietly side by side—but this doesn't affect their value any more than converting them into their equivalent in yarn through an act of simple exchange would.

The labor-time it takes to produce the cotton, the yarn's raw material, constitutes part of the labor-time needed to produce the yarn, and this

labor-time is therefore contained in the yarn. This is also true of the labor-time it takes to produce the part of spindle that has to be consumed in order for the cotton to be spun.¹²

For the purpose of considering the yarn's value—i.e., the labor-time it takes to produce the yarn—we can regard as different, successive phases in one and the same labor process the different individual labor processes that have to be carried out, separated by time and space, to make the cotton and the part of the spindle that is used up and, finally, to make yarn out of cotton and a spindle. All the labor contained in the yarn is past labor. It doesn't matter at all that the labor-time that went into producing the yarn's components is deeper in the past, that it is in the pluperfect, whereas the labor directly applied in the final process, the spinning, is in the perfect tense, nearer to the present. Let's say that it takes a certain quantity of labor, for example, 30 days, to produce a house. The total quantity of labor incorporated into the house is not affected by the fact that the labor performed on the last day goes into the product 29 days later than the labor done on the first day. Thus the labor-time contained in the material of labor and the means of labor can be regarded as though it were merely expended during a stage of the spinning process that precedes the labor added in the form of actual spinning.

Expressed as a price of 12 shillings, the combined value of the means of production—the cotton and the spindle—thus figures as a component of the yarn's value, in other words, the product's value.

But for this to happen, two conditions need to be met. First, the cotton and the spindle must actually serve to produce a use-value. In this case, they must be turned into yarn. It makes no difference to value if one particular use-value acts as its bearer rather than another; what value needs is for some use-value to play that role. Second, it must be presupposed that the amount of labor-time spent doesn't exceed the amount required under the given social conditions of production. So if under these conditions one pound of cotton is needed to spin one pound of yarn, then only one pound of the former can be consumed to produce a pound of the latter. The same holds for the spindle. The capitalist might dream of using gold spindles instead of iron ones, but the only labor that counts toward the yarn's value is socially necessary labor—that is, the labor-time needed to produce iron spindles.

12. "Not only the labour applied immediately to commodities affects their value, but the labour also which is bestowed on the implements, tools, and buildings with which such labor is assisted." Ricardo *op. cit.* p. 16.

We now know what part of the yarn's value is made up by the means of production, the cotton and the spindle. It amounts to 12 shillings—in other words, the materialization of two days of labor. What we have to do next is examine the part of the yarn's value that comes from the labor that the spinner bestows on the cotton.

This means looking at his labor from a perspective very different from that of the labor process. What mattered there was the purposeful activity of turning cotton into yarn. The more effective the labor working toward this aim, the better the yarn will be, provided that all other conditions remain the same. The spinner's labor was of a specific kind, different from other types of productive labor, and this difference came to light—subjectively and objectively—in the particular purpose of his labor, his particular mode of operation, the particular nature of his means of production, and the particular use-value of his product. The labor of spinning requires cotton and spindles, but these things won't help anyone make grooved cannons. On the other hand, insofar as the spinner's labor creates value, i.e., functions as a source of value, it is no different from the labor of a person who drills grooves or, to use examples closer to home, from the labor of the cotton farmer and the labor of the spindle maker realized in the yarn's means of production. Only this identity of different forms of labor allows cotton farming, spindle making, and spinning to constitute merely quantitatively different parts of one total value, the yarn's value. The quality of labor, its constitution or content, is no longer at issue here; all that matters now is its quantity. And all we have to do is calculate it. Let's assume that spinning is simple labor, in other words, socially average labor. Later we will see that it makes no difference if we assume that it isn't.

During the labor process, labor changes its form continuously, going from restless activity to simply being, from the form of movement to that of objecthood. At the end of an hour of labor, the physical movement of spinning is represented in a certain quantity of yarn; thus a certain quantity of labor, an hour of it, has been objectified in the cotton. We are using the general term "hour of labor," because the labor of spinning counts for something here only as expended labor-power, and not as the specific labor of spinning.

The process whereby cotton is transformed into yarn must consume only the socially necessary labor-time: this is now of decisive importance. If x pounds of cotton are made into y pounds of yarn in an hour under normal or average social conditions of production, then only a workday during which $12x$ pounds of cotton are turned into $12y$ pounds of yarn

qualifies as a workday of twelve hours. For only socially necessary labor-time counts as labor-time that creates value.

Both the raw material and the product look quite different than they did from the standpoint of the labor process. The raw material now counts only as something that absorbs a certain quantity of labor. As the raw material absorbs labor, it is in fact transformed into yarn, since the labor of spinning is being applied to it. But the product, the yarn, is now merely a yardstick that measures how much labor the cotton has absorbed. If $1\frac{2}{3}$ pounds of cotton are spun in an hour—in other words, transformed into $1\frac{2}{3}$ pounds of yarn, then 10 pounds of yarn indicate that a certain quantity of labor has been absorbed, namely, six hours. Definite quantities of products now represent only discrete masses of coagulated labor-time, while experience establishes how great or small these masses are. A given quantity of the product is now only the materialization of an hour of social labor, or two hours, or a day of it.

It doesn't matter that the labor is spinning, its material is cotton, and its product is yarn, just as it also doesn't matter that as raw material, the object of labor is itself a product. If the worker were employed in a coal mine instead of as a spinner, then the object of his labor, coal, would be a naturally occurring material. Yet every definite quantity of coal that he broke loose from the earth would still represent a definite quantity of labor that has been absorbed into the object.

We assumed that when the labor-power was bought, its daily value = 3 shillings, and that six hours of labor were embodied in this sum; so we assumed that it takes six hours of labor to produce the worker's average daily means of subsistence. If our spinner turns $1\frac{2}{3}$ pounds of cotton into $1\frac{2}{3}$ pounds of yarn in an hour of labor,¹³ then in six hours, he will turn 10 pounds of cotton into 10 pounds of yarn, and during the process of spinning, the cotton will absorb six hours of labor. The same amount of labor-time is represented in a quantity of gold worth 3 shillings, which means that the labor of spinning adds 3 shillings of value to the cotton.

Let's look at the total value of the product, namely, the 10 pounds of yarn. Two and a half days of labor have been objectified in these 10 pounds: the cotton and the used-up part of the spindle contain two days of labor, while half a day was absorbed during the actual spinning process. The same labor-time is represented in a quantity of gold worth 15 shillings. Fifteen shillings is therefore the price that corresponds to the value of 10 pounds of yarn, and 1s. 6d. is the appropriate price for a pound of yarn.

13. These figures are completely arbitrary.

Our capitalist can't believe it. The product's value merely equals the value of the capital he advanced. The value he advanced hasn't valorized itself. It hasn't created surplus-value; hence it hasn't transformed money into capital. Fifteen shillings is the price of the 10 pounds of yarn, and in the commodity market our capitalist paid 15 shillings for the components that make up this product or, in other words, the factors of the labor process: 10 shillings for the cotton, 2 shillings for the part of the spindle consumed by labor, and 3 shillings for labor-power. It doesn't help him that the yarn's value is relatively large because its value is merely the sum of the cotton's, the spindle's, and the labor-power's individual value, and surplus-value will never be generated when existing values are simply combined in this way.¹⁴ Value is now concentrated in one thing, but it was also concentrated in the capitalist's 15 shillings before he dispersed them by making three separate purchases.

This result shouldn't surprise us. If a pound of yarn has a value of 1s. 6d., then our capitalist would have to pay 15 shillings for 10 pounds of yarn in the commodity market. If a person buys a house to live in, the money he pays for it won't increase just because he decides to have it built instead of purchasing his house ready-made. Neither way of acquiring a house causes what he has spent to grow.

Our capitalist, who is well versed in vulgar political economy, will perhaps say that he advanced money in order to make more money. But the road to hell is paved with good intentions, and he might just as well have intended to make money without producing a thing.¹⁵ He warns that he won't be caught off guard again. From now on, he will buy his commodity ready-made in the market instead of producing it himself. But if all his capitalist brothers were to do that, where in the market would he find his commodities? And he can't make a meal out of his money. He begins to sermonize. One should appreciate his abstinence. He could have frittered

14. This is the Physiocrats' fundamental principle—the basis for their doctrine that all nonagricultural labor is unproductive. Professional political economists treat it as irrefragable. "This way of imputing to a single thing the value of several others [for example, to linen the consumption of the weaver], of applying, so to speak, layer upon layer, several values to a single one, makes the latter grow all the more. . . . The term 'addition' aptly describes the way in which the price of labor is established; this price is simply the total of several values consumed and added together; yet adding is not the same as multiplying" (Mercier de la Rivière *op. cit.* p. 599).

15. Hence, during the years 1844 to 1847, he withdrew part of his capital from productive undertakings and spent it speculating, unsuccessfully, on railroad stocks. Hence, too, he shuttered his factory during the American Civil War, putting his workers out on the street so that he could gamble on the Liverpool cotton exchange.

away his 15 shillings, but he spent them productively, using them to manufacture yarn, and he has yarn now rather than pangs of conscience. What he must not do is amass wealth by simply taking it out of circulation: we have seen what such asceticism brings. Not only that, where there is nothing, the emperor has lost his rights, and whatever the merit of the capitalist's act of renunciation may be, he can't be compensated for it, because there is nothing to compensate him with.^{ix} In this case, the process yields a product whose value merely equals the combined value of the commodities he put into it. Our capitalist might have found solace in the idea that virtue is its own reward, but instead he starts to raise his voice. The yarn is of no use to him—he made it in order to sell it. Thus he should sell it, or better yet, he should produce only things that satisfy his own wants and needs, a trusted therapy that MacCulloch, his personal doctor, has prescribed to help against the epidemic of overproduction. Our capitalist becomes defiant and defensive, rearing up on his hindquarters. He asks, Can a worker make commodities out of thin air simply by using his arms and legs? Didn't he supply his worker with the material the worker needed to embody his labor and in which his labor is thus embodied? Given that penniless persons make up the vast majority of society, hasn't our capitalist rendered an immeasurable service to society by providing the means of production—namely, the cotton and the spindle? Hasn't he done the worker a great service, too, by giving him his means of subsistence? And shouldn't he get something in return for this service? But hasn't the worker in fact done our capitalist an equivalent service by turning the cotton and the spindle into yarn? Moreover, the notion of service is out of place here.¹⁶ A service occurs when a use-value, whether a commodity or labor, exerts useful effects.¹⁷ For the moment, however, what matters is exchange-value. Our capitalist paid the worker value

16. "Boast about yourself if you wish to, bejewel and adorn yourself. . . . Whoever takes more or better [than he gives], that is usury which means that this person has not served his neighbor but rather has harmed him, just as when one steals or robs. Not everything that one calls a service and a benefit to one's neighbor is in fact a service or a benefit. For an adulteress and an adulterer do each other a great service and give each other great pleasure. A horseman does a highwayman by helping him rob on the highway assault the people and the land. The papists do our people a great service when in that they do not drown, burn, or murder them all, or have them rot in prison, but instead let some live and drive them out or take from each person what he has. The devil himself does his servants an immeasurably great service. . . . To sum up: the world abounds with great, splendid services and good deeds performed every day" (Martin Luther, *An die Pfarrherrn, wider den Wucher zu predigen* etc. Wittenberg, 1540).

17. In my "Zur Kritik der Pol. Oek," p. 14 [Editor's note: English translation, *A Contribution to the Critique of Political Economy*, trans. S. W. Ryazanskaya, in *Marx-Engels Collected Works*, vol. 29 (Moscow: Progress Publishers, 1977), p. 278.], I remark about this:

amounting to 3 shillings. The worker paid the capitalist back exactly the same quantity of value with the 3 shillings of value he added to the cotton: value for value. Our friend, who'd been cocky in the way of capital, suddenly takes on his worker's modest demeanor. Hasn't he worked, too? Hasn't he performed the labor of overseeing, of managing, the spinner? Shouldn't his work, too, generate value? The capitalist's own "overlooker" and his manager shrug at this. In the meantime, he has begun to grin broadly: his old expression is already back. His whole speech was just a ploy. Such discussions don't interest him at all. He will leave the lazy excuses and shallow arguments to the people who are paid to deliver them: professors of political economy. He is a practical man, and while he might not always know what he's talking about elsewhere, when it comes to business, he knows what he's doing.

Let's take a closer look at this. The labor-power's daily value amounts to 3 shillings because half a day of labor is objectified in it—or, in other words, because it takes half a workday to produce that labor-power's daily means of subsistence. But there's a quantitative difference between the past labor embedded in the labor-power and the living labor that arises when the labor-power is used, between what it costs to maintain the labor-power daily and what its expenditure can generate daily. The first quantity determines the labor-power's exchange-value, while the second quantity constitutes its use-value. The fact that half a workday is required to maintain a worker for twenty-four hours hardly prevents someone from working a whole day. Thus labor-power's value and its valorization during the labor process represent two different magnitudes. This difference in value doesn't go unnoticed by our capitalist, who has his eye on it when he buys labor-power. Labor-power's useful character, that it can make yarn or boots, is merely a *conditio sine qua non*, because only labor that is expended in a useful form creates value. The decisive factor, however, is labor-power's special use-value: its ability to function as a source of value—of value greater than its own value. This is the specific service the capitalist expects it to perform, and here he is operating in accord with the eternal laws of commodity exchange. The worker who sells his labor-power is merely doing what everyone who sells a commodity does: realizing the exchange-value of his commodity while disposing of its use-value. In order to have the one thing, he must part with the other. A person who has sold the use-value of his labor-power—that is, who has sold his labor—doesn't own it any more

"It can easily be seen what 'service' the category 'service' must render to economists such as J. B. Say and F. Bastiat."

than an oil merchant owns the use-value of oil he's sold. The money owner pays what a day of labor-power is currently worth, and for a day the use of the labor-power belongs to him: he gets a day of labor. But it takes only a half a day of labor to maintain the labor-power for a day, whereas the labor-power can be activated throughout the entire workday, and the value created when the labor-power is consumed during the day is thus twice as large as the labor-power's own daily value. This circumstance may be especially fortunate for the person who buys the labor-power, yet it is hardly unfair to the person who sells it.

Our capitalist foresaw this *casus*, which makes him laugh.^x Hence the worker finds the factory equipped with the means of production needed for a twelve-hour labor process, not one that lasts only six hours. If 10 pounds of cotton absorb six hours of labor and turn into 10 pounds of yarn, then 20 pounds of cotton will absorb twelve hours of labor and turn into 20 pounds of yarn. Let's examine the product of this new, extended labor process. Five days of labor are now objectified in the 20 pounds of yarn: four days are objectified in the cotton and the part of the spindle that has to be consumed, and one day of labor is absorbed into the cotton as it is being spun. Expressed as a quantity of gold, five days of labor comes out to 30 shillings or £1 and 10s., which is also the price of the 20 pounds of yarn. A pound of yarn still costs 1s. 6d. But while the combined value of the commodities put into the labor process is 27 shillings, the yarn's value is 30 shillings. The product's value is now $\frac{1}{9}$ greater than the value that was advanced in order to produce it. In this way, 27 shillings have turned into 30, gaining a surplus-value of 3 shillings. The magic trick works at last. Money has been transformed into capital.

Every aspect of the capitalist's problem has been solved, and not a single law of commodity exchange has been violated. For equivalents have been exchanged. Acting as a buyer, the capitalist purchased the cotton, part of the spindle, and the labor-power, paying for each commodity at its full value. Next he did what everyone who buys commodities does: consume their use-value. The process in which the labor-power was consumed, which is also the commodity's process of production, yielded 20 pounds of yarn—a product with a value of 30 shillings. Having bought commodities in the market, our capitalist now returns to the market to sell them. He sells one pound of yarn for 1s. 6d.—in other words, its exact value, not a penny more or less—yet the amount he takes out of circulation exceeds what he originally put into it by 3 shillings. This entire process—the transformation of his money into capital—takes place in the circulation sphere, yet also not in that sphere. In the circulation sphere, because when the

capitalist buys labor-power in the commodity market, this is mediated by circulation. Not in the circulation sphere, because circulation merely initiates the process of valorization, which actually happens in the production sphere. And so “tout pour le mieux dans le meilleur des mondes possibles.”^{xi}

When the capitalist transforms money into the commodities that serve as the ingredients of a new product, or the components of the labor process, that is, when he incorporates living labor-power into their dead objecthood, he transforms value—past, objectified, dead labor—into capital: self-valorizing value, a live monster that begins to “work” “as if its body were possessed by love.”^{xii}

To put this in terms of a comparison, the valorization process is nothing more than a process of creating value that has been extended past a certain point. If value is created only to the point where the value of the labor-power purchased by capital is replaced by a new equivalent, then what has occurred is simply the process of creating value. When the process runs past this point, it becomes the valorization process.

Now let's compare the process of creating value with the labor process. The latter is made up of actual labor that produces use-values. We view its movement qualitatively, focusing on how the specific labor that it involves is carried out—on its purpose and content. But the same labor process is represented differently in the context of the process of creating value, or only in quantitative terms. All that matters is how much time labor takes to perform its task, in other words, the length of the time during which labor-power is expended. Here, the various commodities that enter into the labor process don't count for something as the functionally defined, material factors of labor-power that is activated for a particular purpose. They count for something only as definite quantities of objectified labor. Whether labor was already objectified in the means of production or has been freshly added by living labor-power, it counts for something only in terms of time. It amounts to x number of hours, days, and so on.

Of course, labor counts for something here only insofar as the time spent producing a use-value is socially necessary. Several things follow from this. Labor-power must function under normal conditions. If the spinning machine has become a society's dominant means of labor for spinning, one can't hand a worker a spinning wheel. Nor can he be given material that constantly comes apart instead of standard-quality cotton. In both cases, he would need more than the socially necessary labor-time to produce a pound of yarn, and the extra time wouldn't generate value or money. Yet whether the things needed for the labor process meet society's

standards depends on the capitalist, not the worker. Another requirement is the normal character of labor-power. Whatever area the owner of labor-power specializes in, he must display what is at the time the average level of skill, dexterity, and speed. Our capitalist does in fact buy labor-power of normal quality in the labor market. But this labor-power has to be expended with the usual degree of exertion, the socially average degree of intensity. Thus our capitalist monitors the worker's effort anxiously, making sure that he doesn't waste any time not working. The capitalist buys labor-power for a limited amount of time, and he insists on getting what is his. He won't let anyone steal from him. Nor will he allow the raw material and means of labor he's purchased to be consumed impractically—he has his own *code pénal* for such infractions, because squandered materials and means of labor represent quantities of objectified labor that have been expended without gain. They don't count for something in—i.e., go into—the product of the value-creating process.¹⁸

18. This is one of the circumstances that make production based on slavery more expensive. Here, as the ancients' apt phrase has it, what distinguishes a worker from an animal is only that he is an *instrumentum vocale*, whereas an animal is an *instrumentum semi-vocale*, and the same goes for the distinction between the worker and dead equipment, the *instrumentum mutum*. The worker himself makes the animals and equipment feel that he is a human being and therefore different from them. He gains this sense of standing apart from them by mistreating and ruining them *con amore*. And so in this mode of production, one of the guiding economic principles is to use only the roughest and most ungainly equipment, which is hard to destroy precisely because of how tough and durable it is. Hence, up until the beginning of the Civil War, one could find in slave states bordering on the Gulf of Mexico ploughs built according to the ancient Chinese model—ploughs that could turn the soil in the manner of a mole or pig but couldn't split it into furrows. See J. E. Cairnes, "The Slave Power. London 1862," p. 46ff. In his "Sea Bord Slave States," Olmsted recounts, among other things, "I am here shewn tools that no man in his senses, with us, would allow a labourer, for whom he was paying wages, to be encumbered with; and the excessive weight and the clumsiness of which, I would judge, would make work at least ten percent greater than with those ordinarily used with us. And I am assured that, in the careless and clumsy way they must be used by the slaves, anything lighter or less rude could not be furnished them with good economy, and that such tools as we constantly give our labourers, and find our profit in giving them, would not last out a day in a Virginia cornfield—much lighter and more free from stones though it be than ours. So, too, when I ask why mules are so universally substituted for horses on the farm, the first reason given, and confessedly the most conclusive one, is that horses cannot bear the treatment that they always must get from the negroes; horses are always soon foundered or crippled by them, while mules will bear cudgelling, or lose a meal or two now and then, and not be materially injured, and they do not take cold or get sick, if neglected or overworked. But I do not need to go further than to the window of the room in which I am writing, to see at almost any time, treatment of cattle that would insure the immediate discharge of the driver by almost any farmer owning them in the North." [Editor's note: The source text is Frederick Law Olmsted's *A Journey in the Seaboard Slave State; With Remarks on their Economy*, 1856.]

In analyzing the commodity, we distinguished between labor in its capacity as the producer of use-value and the same labor in its capacity as the producer of value. We see that this distinction returns here, only now it is represented as the difference between the two sides of the production process.

As the unity of the labor process and the process of creating value, the production process is the process of producing commodities. As the unity of the labor process and the valorization process, it is the capitalist process of production—the capitalist form of commodity production.

As noted earlier, it doesn't matter in the process of valorization whether the labor appropriated by the capitalist is simple, socially average labor or complex labor, which is highly specialized, weightier labor. Labor that counts as complex labor, as opposed to socially average labor, results from using labor-power whose training costs are higher. It takes more labor-time to produce such labor-power, which thus has more value than its simple counterpart. With its higher value, this labor-power is expressed as higher labor and, when active for the same amount of time, it will be objectified in a proportionally greater amount of value. But however different the level of skill involved in spinning and, say, jewelry making, there is no qualitative difference between the labor with which the jeweler merely replaces the value of his own labor-power and the additional portion that creates surplus-value. Here as elsewhere, surplus-value is generated only by producing a quantitative excess—i.e., extending the duration of the same labor process, yarn production in the one case and jewelry making in the other.¹⁹

19. In part, the distinction between higher and simple labor, or “skilled” and “unskilled labor,” rests on mere illusions, or at the very least on differences that long ago ceased to be real and still exist only due to tradition or convention. In part, the distinction is based on the comparatively helpless condition of certain strata of the working class, as a result of which their members can't insist on getting the value of their labor-power. Accidental factors can play such a great role that the two kinds of labor occasionally switch places. For example, where the physical substance of the working class has been weakened and worn down, relatively speaking, as is the case in all countries with advanced capitalist production—here, strenuous jobs that require a great deal of physical strength wind up standing above ones that require more refined labor, and the latter sink to the level of unskilled labor. Hence in England the position of a bricklayer ranks well above that of damask-weaver. Yet at the same time, the job of fustian cutter counts as “simple” labor, even though it demands great physical strength and damages a worker's health. Nor should we imagine that so-called “skilled labor” makes up a large part of the national labor force. Laing has calculated that in England (and Wales) 11 million people earn their livelihood doing simple labor. When he arrived at this figure, the total population there numbered 18,000,000. If we subtract one million for the “genteel population,” and a million and a half for the paupers, vagabonds, criminals, prostitutes and so on, we get 4,650,000 members of

On the other hand, complex labor must be reduced to socially average labor in every process of creating value. For example, one day of complex labor must be reduced to x days of simple labor.²⁰ The assumption we have been making, that the worker the capital employs is performing simple socially average labor, merely lets us avoid an unnecessary operation and simplifies our analysis.

the middle class, including small pension-holders, civil servants, writers, artists, teachers, and so on. To come up with this figure of $4\frac{2}{3}$ million, Laing counts among the working part of the middle-class population not only bankers, but the better-paid "factory workers," too! Also included among these "high-powered workers" are bricklayers. And so Laing is left with the 11 million people already mentioned (S. Laing, *National Distress* etc. London 1844). "The great class, who have nothing to give for food but ordinary labour, are the great bulk of the people" (James Mill in Art. "Colony," *Supplement of the Encyclop. Brit.* 1824).

20. "Where reference is made to labour as a measure of value, it necessarily implies labour of one particular kind . . . the proportion which the other kinds bear to it being easily ascertained" (*Outlines of Polit. Economy* London 1832," pp. 22, 23).

Constant Capital and Variable Capital

THE DIFFERENT COMPONENTS of the labor process play different roles in creating a product's value.

A worker adds new value to the object of his labor by applying a certain amount of labor to that object, whatever the specific content, purpose, or technical character of his labor may be. The value of the used-up means of production simply reappears as part of the new product's value: for example, the cotton's value and the spindle's value reappear in the yarn value. The value of the means of production is thus transferred to the product and thereby preserved in it. This transfer takes place as the means of production are being turned into the product, in other words, during the labor process. It is mediated by labor. How so?

A worker doesn't work twice, first to give the cotton new value by applying his labor to it, and then again to preserve the cotton's old value—i.e., transfer to the yarn the value of the cotton he works on and the value of the spindle he works with. Rather, he preserves the old value simply by adding new value. Adding new value to an object of labor and preserving the old value there are two very different things, yet a worker does both at the same time, in a single act of labor. Clearly, then, only the twofold character of his labor can account for this twofold result. His labor must operate in two capacities at once, in one capacity creating value, in the other capacity preserving or transferring it.

How does a worker add labor-time and thus value? Only by performing a specific type of productive labor. A spinner adds labor-time by spinning, a weaver by weaving, a smith by forging, and so on. However, when workers add labor as such, and therefore new value, in the specific forms of spinning, weaving, and forging, they transform the means of production (cotton, spindles, yarn, looms, iron, anvils) into the elements that consti-

tute a new use-value or product.¹ The old forms of these use-values wear away, but only to be incorporated into new forms of use-value. In examining the process of creating value, we saw that insofar as a use-value is consumed in order to produce a new use-value, the labor-time needed to produce the old use-value being employed makes up part of the labor-time required to produce the new one. That labor-time is transferred from the means of production being consumed to the new product. Hence it isn't by adding labor as such that a worker preserves the value of a used-up means of production, or transfers its value to a new product as an element of the new product's value. Rather, what enables him to preserve the value of the means of production is the particular useful character of his labor: the specific, productive form of the labor he adds. In this form, or as a purposeful, productive activity—as spinning, weaving, or forging—labor needs only to touch the means of production in order to raise those means from the dead. This labor animates the means of production, turning them into factors of the labor process and combining with them to become new products.

If a spinner changed jobs, he would no longer be making yarn from cotton and thus wouldn't be transferring the cotton's value and the spindle's value to the yarn. On the other hand, if he became a carpenter, a day of his labor would still add value to his material, just as before. His labor adds value not because it has the particular form "spinning" or "carpentry," but rather insofar as it is abstract social labor as such, and his labor adds a particular magnitude of value not because it has a particular useful content, but because it is performed for a certain amount of time. It is in its abstract general capacity—or as an expenditure of human labor-power—that the spinner's labor adds new value to the cotton's value and the spindle's value. And it is in its capacity as concrete, particular, useful labor—in other words, as spinning—that his labor transfers the value of the means of production to the product, preserving that value in it. Thus labor performed just once yields a double-sided result.

Simply adding a quantity of labor adds new value, whereas the quality of the added labor is what preserves the old value of the means of production in the product. The double-sided effect that arises from labor's double-sided character becomes palpable in an array of phenomena.

Suppose that, thanks to some new invention, a spinner can spin as much cotton in six hours as he used to spin in thirty-six hours. The power

1. "Labour gives a new creation for one extinguished" (*An Essay on the Polit. Econ. of Nations*. London 1821, p. 13).

of his labor as a purposeful, useful, productive activity has increased sixfold. Its product is six times greater than it was: 36 pounds of yarn instead of six pounds. But now 36 pounds of cotton absorb only as much labor as six pounds used to. Only a sixth of the previous amount of new labor is absorbed by each pound of cotton due to the new method, and so the amount of new value added to each pound is only one-sixth of its former magnitude. However, the product, 36 pounds of yarn, now receives six times as much old value from the cotton as before. Six times as much old value coming from the raw material is preserved in or transferred to the product during the six hours of spinning, while only one-sixth as much new value is added to the same raw material. This shows how labor preserves old value in a fundamentally different capacity from how it creates new value, even though the labor is being performed in a single, indivisible process. The more necessary labor-time that is added to a given quantity of cotton during the spinning process, the greater the amount of new value added will be. The more cotton that is spun in a given amount of labor-time, the greater the amount of old value preserved in the product will be.

Now imagine the opposite scenario. The spinner's productivity remains constant: it takes just as much time as before to turn a pound of cotton into yarn. However, the exchange-value of the cotton varies. The price of a pound of cotton rises or falls sixfold. Whether it rises or falls, the spinner would add the same amount of labor-time, and thus the same amount of value, to a given amount of cotton. Similarly, he would produce the same amount of yarn in the same amount of time. But the value that he transfers from the cotton to the yarn would be six times greater in the one case and only one-sixth as much in the other. The same thing would happen if the means of labor became more expensive or cheaper yet continued to perform the same service in the labor process as before.

If the technological conditions of the spinning process don't change, and the value of the means of production remains constant, too, then with the spinner working the same amount of time, he will consume the same quantities of raw material and machinery, containing the same quantities of value. The old value that the spinner preserves in the product is in this case directly proportional to the new value he adds to it. He adds twice as much labor in two weeks as in one, thus, twice as much value. At the same time, the spinner consumes twice as much material, worth twice as much, while using up twice as much of the machinery as before, also worth twice as much. Thus he preserves in the product of two weeks of labor twice as much value as in the product of one week. If the conditions

of production don't change, then the more new value a worker adds to his product, the more old value he also preserves in it. However, he doesn't preserve more old value because he is adding more new value, but simply because he is adding it under conditions that remain the same and are independent of the labor he performs.

In a way, of course, a worker always preserves old value in direct proportion to the new value he adds. Whether the price of the cotton rises from 1 shilling to 2 or falls to 6 pence, when a worker works for an hour, he always transfers half as much value from the cotton as he would if he worked for two hours instead. If the worker's productivity changes, he will spin either more or less cotton in an hour than before; and, accordingly, he will transfer either more or less value from the cotton to the product of an hour of his labor. But however his productivity varies, he will transfer twice as much value in two hours of labor as he would in one hour.

Value exists only in a use-value, in a thing, with the exception of the purely symbolic representation of value in tokens. (The human being, regarded as the mere existence of labor-power, is itself a natural object, a thing—even if it is a living thing with consciousness—and labor is the physical expression of this power.) If a thing loses its use-value, it will lose its value, too. However, the means of production don't instantly lose their value when they lose their use-value, because they lose the original shape of their use-value in the labor process only in order to take on the shape of a different use-value, that of the product. But while value can only exist in a use-value, it doesn't matter at all which use-value it exists in, as we saw when considering the metamorphosis of commodities. From this it follows that in the labor process value is transferred from the means of production to the product only to the extent that these means lose their exchange-value when they lose their independent use-value. In other words, the means of production give a new product only as much value as they themselves lose when the product is made. Here, however, the objective factors of the labor process don't all behave the same way.

The coal fed to a machine vanishes without a trace; the same is true of the oil used to grease an axle, and so on. Dyes and other auxiliary materials disappear but resurface as the characteristics of the products they go into. Raw material makes up a product's substance, but the raw material's form always changes: raw materials and auxiliary materials lose the independent shapes in which they enter into the labor process as use-values. Not so with the actual means of labor. Machines, factory buildings, and containers serve in the labor process only for as long as they keep their original form and can enter the process each day in the same form as the day before.

And just as these things retain an independent form separate from that of the product during their lives, i.e., during the labor process, they also retain such a form after they die. The corpses of machines, tools, and factory buildings always continue to exist independently of the products they helped make. Let us now consider the entire lifespan of a means of labor, from the day that it enters the workshop to the day that it is tossed onto the junk pile. Its use-value is used up completely during this period, and thus its entire exchange-value is transferred to the product it is employed to make. If a spinning machine's lifespan is a decade, then during the ten years it serves in the labor process, its total value is transferred to the products manufactured during that time. Thus the life of a means of labor encompasses the labor processes, however many, that are carried out with its help again and again. Human beings and means of labor share this fate. For every person loses twenty-four hours of life each day. Furthermore, while it is impossible to know just by looking at someone exactly how many of these daily deaths he has experienced, that doesn't prevent life insurance companies from using the average human life expectancy to come up with precise and also very lucrative projections, and the same thing holds for means of labor. Experience tells us how long, on average, a given means of labor—say, a particular type of machine—will last. If it takes only six days for its use-value to be consumed in the labor process, then each day it will give an average of one-sixth of its value to the day's product. This is how we calculate the rate at which a means of labor wears out, or how much value it loses daily and the corresponding amount of value it gives each day to a new product.

What should be crystal clear is that a means of production never gives more value to a product than it loses when its use-value is destroyed in the labor process. If a means of production had no value to lose, if it weren't itself a product of human labor, then it wouldn't give any value to a new product. It would serve to create use-values without serving to create exchange-value. This is in fact the case with all those means of production that are found ready-made in nature, such as land, wind, water, the iron in the earth, the wood in natural forests, and so on.

Here we encounter another interesting phenomenon. Let's say that a machine is worth £1,000 and wears out in a thousand days. Thus a thousandth of the machine's value is transferred each day to the product it helps make. Meanwhile, the entire machine continues to serve in the labor process, albeit with less and less vitality. So, a factor of the labor process, a means production, enters that process as a whole, but it enters the valorization process piecemeal. The difference between the labor process and

the valorization process is thus reflected in their objective factors. As an element of the labor process, a means of production contributes to the production process only in its (that means's) entirety, but as an element of the process of creating value, the same means contributes to the same production process only piecemeal.²

Yet a means of production can also enter the valorization process as a whole even as it enters the labor process only piece by piece. Suppose that for every 115 pounds of cotton spun each day, 15 pounds always wind up destroyed, or turned into "devil's dust" rather than yarn.¹ If losing these 15 pounds of cotton is normal—if that is an unavoidable side effect of spinning the cotton, then the value of these 15 pounds of cotton goes into the yarn just as surely as the 100 pounds that make up the yarn's substance, despite the fact that the 15 pounds aren't actually part of the yarn. The use-value of 15 pounds of cotton has to be turned into dust in order to produce 100 pounds of cotton. Pulverizing this cotton is therefore a condition of production that must be met. Because it is a necessary condition, and for that reason alone, the value of the 15 pounds is transferred to the yarn. This holds for all the unavoidable waste that labor processes produce, at least insofar as the waste can't function as new means of production and thus also as independent use-values, such as the mountains of iron shavings we see in Manchester's large machine-building factories. Thrown off by gargantuan

2. At issue here aren't the repairs that means of labor, machines, and buildings require. A machine that is being repaired functions as the material of labor rather than a means of it. One doesn't work with such a machine; one works on it to restore its use-value. For our purposes, this labor of repairing can always be treated as part of the labor that goes into producing a means of labor. In the body of this text, however, we have dealt with the kind of wear that no doctor can cure and gradually leads to death: "that kind of wear which cannot be repaired from time to time, and which, in the case of a knife, would ultimately reduce it to a state in which the cutler would say of it, it is not worth a new blade." As we saw there, it is as a whole that a machine enters every single labor process, but it is only piecemeal that the same machine enters the process of valorization taking place concurrently. If we keep this in mind, we can appreciate the following conceptual confusion: "Mr. Ricardo speaks of the portion of the labour of the engineer in making stocking machines," as contained, for example, in the value of a pair of stockings. "Yet the total labour that produced each single pair of stockings . . . includes the whole labour of the engineer, not a portion; for one machine makes many pairs, and none of those pairs could have been done without any part of the machine" (*Observations on certain verbal disputes in Pol. Econ.*, particularly relating to Value, and to demand and supply. London 1821, p. 54). The author, an uncommonly smug "wiseacre," is justified in his confusion, and thus in his polemic, only insofar as Ricardo and all other political economists, both before him and after him, have failed to distinguish precisely between the two sides of labor and have therefore done even less to analyze their different roles in creating value. [Editor's note: Marx uses the English term "wiseacre."]

leveling machines, they are carted away to the foundry in the evening, only to be brought back to the factories the next day as solid masses of iron.³

As the means of production operate in the shape of old use-value during the labor process, they transfer value to a product's new shape of use-value only to the extent that they lose value. Clearly, the means of production can lose only as much value as they have when they enter the labor process: the value they lose is limited by the labor-time it took to produce them in the first place. Thus they never contribute more value to a new product than they possess independently of the labor process they are serving in. However useful a material of labor, a machine, or some other means of production may be, if it costs £150 (say, 500 days of labor), it can't give more than £150 to the total product or products it is used to make. Its value is determined not by the labor process it enters into as a means of production, but rather by the labor process out of which it issued as a product. A means of production can serve in the labor process only as a use-value—a thing with useful properties. It won't contribute value to a product unless it already has value before it enters that process.

When productive labor transforms the means of production into the elements used to make a new product, a transmigration of souls comes about. The value of these means passes from a consumed body into one that is newly formed. But this transmigration happens behind the back of the actual labor being carried out. A worker can't add new labor—in other words, he can't create new value—without preserving old value. For he

3. From this we gain a sense of the insipid J. B. Say's absurdity. Say wanted to derive surplus-value (interest, profit, rent) from the *services productifs* supplied in the labor process by the use-value of various means of production—land, instruments of labor, leather, and so on. Not one to let the clever apologetic ideas that pop into his head go unpublished, Wilhelm Roscher exclaimed, "J. B. Say correctly remarks (*Traité*, Vol. I. ch. 4) that the value an oil well produces after all costs have been subtracted is something new, something fundamentally different, from the labor that made the well" (*ibid.* p. 82 note). Quite right! The "oil" produced by the well is something very different from the labor required to build the well. And under "value," Mr. Roscher understands such things as "oil," because "oil" has value, although petroleum can be found ready-made "in nature," if also in relatively "small quantities," which is what he seems to have in mind when he remarks, "It [nature!] hardly ever produces exchange-value." Here Mr. Roscher's nature and the exchange-value it yields are like the foolish virgin who confesses that she has a child, but "only a very small one." This same "scholar" ("*savant sérieux*") also uses the occasion mentioned above to say, "Ricardo's school tends to subsume capital as 'accumulated labor' under the heading of labor. This is inept [!] because [!] the owner of capital [!] has done more [!] than simply [?!] create [?] and [??] preserve the same [what?]: namely [?!?], he has refrained from using it for his own pleasure, demanding in return interest, for example [!!!]." This "anatomical-physiological method" of political economy, which takes a mere "demand" and explicates it into "value," is so very "deft"!

has to add new labor in a particular, useful form, and he can't add labor in such a form without making products into a new product's means of production, and thereby transferring the value of the older products to the new product. Activated labor-power—that is, living labor—naturally has the capacity to preserve value as it adds new value. This natural gift, which doesn't cost a worker a thing, is a boon for the capitalist: it preserves his existing capital value.⁴ If the capitalist's business is running smoothly, he will be too focused on turning a profit to notice labor's generosity. But if the labor process is disrupted in some dramatic way, if a crisis occurs, he will be painfully aware of it.⁵

The only part of a means of production that is used up is its use-value: labor makes products precisely by doing that. The value of the means of production isn't consumed,⁶ and so it can't be reproduced. Instead this value is preserved, not because of something that is done to it during the labor process, but rather because even though the use-value it exists in originally does disappear, it merely disappears into a different use-value. The value of a means of production reappears in the product's value, yet isn't, strictly speaking, reproduced there. What is produced is a new use-value in which the old exchange-value simply reappears.⁷

4. "Of all the instruments of the farmer's trade, the labour of man . . . is that on which he is most to rely for the re-payment of his capital. The other two . . . the working stock of the cattle, and the . . . carts, ploughs, spades, and so forth, without a given portion of the first, are nothing at all (Edmund Burke, "Thoughts and Details on Scarcity, originally presented to the R. Hon. W. Pitt in the month of November 1795, edit. London 1800," p. 10).

5. The 26 November 1862, issue of the Times printed the whinings of a cotton manufacturer whose mill employed 800 workers, while consuming, on average, 150 bales of East Indian cotton per week or 130 bales of American cotton. He wanted to publicly complain about what he had to pay in overhead expenses even when his factory wasn't in use. These he estimated to amount to £6,000 annually. Many of the expenses factored in don't concern us here: rent, taxes, insurance premiums, salaries for employees who are paid by the year, such as the manager, bookkeeper, engineer, and so on. But the owner also included £150 worth of coal used to warm the mill occasionally and start the steam engine. In addition, he listed the wages of the workers employed now and then to keep the machines "in working order" and, finally, £1,200 for the wear and tear suffered by the machines, since "the weather and the natural principle of decay do not suspend their operations because the steam-engine ceases to revolve." He expressly stated that he gave such a low sum, just £1,200, because his machines had already deteriorated a great deal.

6. "Productive Consumption: where the consumption of a commodity is part of the process of production. . . . In these instances there is no consumption of value." S. P. Newman *op. cit.* p. 296.

7. In a North American compendium (that has gone through perhaps twenty editions), we read, "It matters not in what form capital reappears." After garrulously enumerating every possible ingredient of production whose value reappears in the product, the book finally states, "The various kinds of food, clothing, and shelter, necessary for the existence

Not so with the subjective or human component of the labor process: the activated labor-power. Every instant that labor is in motion, transferring the value of the means of production to new products, thanks to its purposeful form, and preserving their value there, it also creates additional value—new value. Suppose a production process stops at the point where a worker produces the equivalent of the value of his own labor-power: for example, where he has generated value worth 3 shillings in six hours of labor. These 3 shillings are the part of the product's value that doesn't come from the means of production. They are the only part actually generated during the production process, the only new part. Of course, this new value merely replaces the money that the capitalist advances when he buys the labor-power, which is also money that the worker spends on his means of subsistence. So the 3 shillings of new value appear to merely reproduce the 3 shillings that the capitalist advances—in other words, the original value. But this doesn't merely seem to be so, as is the case with the value of the means of production. The original 3 shillings really are reproduced. Here, the production of new value mediates the process whereby one value replaces another.

But we already know that the labor process extends past the point where merely the equivalent of the labor-power's value is reproduced and added to the object of labor. Six hours would suffice to do that; instead, the labor process lasts longer, say, twelve hours. Thus activated labor-power doesn't only reproduce value; it also produces an excess value. This surplus-value is the part of the product's value that exceeds the value of the factors consumed in the production process, namely, means of production and labor-power.

When we described the various roles that the different components of the labor process play in forming product value, we were in fact characterizing the various functions of capital's different components in its own valorization process. The amount by which a product's total value

and comfort of the human being, are also changed. They are consumed from time to time, and their value re-appears, in that new vigour imparted to his body and mind, forming fresh capital, to be employed again in the work of production" (F. Wayland op. cit. p. 32). Setting aside all other oddities, it isn't the price of bread that reappears in a worker's renewed power, but rather its nourishing substances. In contrast, what reappears in the value of his power isn't his means of subsistence but rather their value. The same means of subsistence, even if they cost half as much, would produce just as much muscle, bone, and so on—in other words, the same amount of power, but not power of the same value. This converting of "value" into "power," and also the author's quite pharisaic lack of clarity, obscure a futile attempt to spin surplus-value out of the mere reappearance of the value advanced.

exceeds the combined value of the elements that went into making it is the amount by which the valorized capital exceeds the value of the capital that was originally advanced. The means of production on the one side and labor-power on the other: these are merely the forms of existence that the original capital value took when it shed its money-form and was transformed into the different factors of the labor process.

The value of the part of capital that turns into the means of production—i.e., raw material, auxiliary materials, and means of labor—doesn't increase or decrease during the production process. I will therefore call it the constant part of capital, or more simply, "constant capital."

In contrast, the part of capital's value that turns into labor-power does change during the production process. This part reproduces its own equivalent and produces value in excess of it, surplus-value, which can also vary: surplus-value can be smaller or larger. In other words, this part of capital is continuously transformed from a constant magnitude into a variable one. I will therefore call it the variable part of capital, or more simply, "variable capital." The same components of capital that from the standpoint of the labor process differ as objective factors versus subjective ones differ from the standpoint of the valorization process as constant capital versus variable capital.

Of course, the concept of "constant capital" in no way implies that the value of this capital's component parts can't change. Imagine that a pound of cotton costs 6d. today, but tomorrow its price rises to 1 shilling as a result of a bad harvest. Old cotton that is still being worked on was bought for 6d. Now, however, it adds 1 shilling of value to the product. And the cotton that has already been spun and might already be circulating in the market as yarn also adds twice its original value to the product. It is easy to see that these changes take place independently of the cotton's valorization in the actual spinning process. Old cotton that hasn't even entered the labor process can be resold for 1 shilling instead of 6d. In fact, the fewer labor processes the cotton has gone through, the more certain this result will be. So, as a rule, when such changes of value occur, capitalists speculate on raw material in its rawest forms: they would rather speculate on yarn than cloth; they would rather speculate on cotton than yarn. Here the change of value comes about in the process that produces the cotton, not the process in which cotton functions as a means of production and thus as constant capital. A commodity's value might be determined by the amount of labor the commodity contains, but this quantity itself is socially determined. One and the same quantity of a commodity, for example, cotton, represents more value during bad harvests than during good ones, and if the amount of the

social labor-time it takes to produce a commodity changes, this will affect all existing commodities of the same kind. For a commodity counts for something only as an individual member of a species,⁸ and its value is always measured in terms of socially necessary labor—the labor necessary to produce it under the social conditions of the day.

Just as the value of raw material can vary, so too can the value of the means of labor serving in the production process: machinery and so on. Thus the amount of value they contribute to the product can vary as well. Suppose that someone invents a way to produce a new machine using less labor than it took to make the old one. The old machine will be devalued to a great or lesser extent, and it will therefore give less value to a new product. But here, too, the change of value arises outside of the production process in which a thing—in this case, a machine—functions as a means of production. Within that process, as we know, a means of production never contributes more value to new products than it possesses independently of the process.

A means of production remains constant capital even when the magnitude of its value changes after it has already entered the production process. Nor is the functional difference between constant capital and variable capital affected when the ratio between their magnitudes of value varies. It doesn't matter if the technological conditions of the labor process are altered so radically that a single worker using an expensive machine can now do to a large quantity of material what 10 workers wielding 10 inexpensive tools used to do to an amount of raw material 100 times smaller. In such a case, the constant capital—the quantity of value contained in the means of production—would rise sharply, and the capital's variable part, advanced in the form of labor-power, would fall sharply. But this change would affect only the ratio of constant capital to variable capital—i.e., the ratio between the constant capital's and the variable capital's respective shares of the total capital. The essential difference between constant and variable capital would remain unaltered.

8. "All products of the same type properly form but one single mass, the price of which is determined in general and without regard to particular circumstances" (Le Trosne op. cit. p. 893).

The Rate of Surplus-Value

I. The Degree to which Labor-Power Is Exploited

The surplus-value generated in the production process by C , capital that has been advanced—in short, C 's valorization—is represented, first of all, as the amount by which a product's value exceeds the combined value of all the elements that go into its production.

Capital, C , breaks down into two parts— c , a sum of money that is spent on the means of production, and v , a sum spent on labor-power: c represents the part of capital's value that is turned into constant capital, while v represents the part that is turned into variable capital. At the beginning of the production process, then, $C = c + v$. Let's say that the total capital is £500, and it breaks down as £410 constant + £90 variable. In the end, the production process yields a commodity whose value is $(c + v) + s$, where s represents surplus-value: say (£410 constant + £90 variable) + £90 surplus. The original capital C has been transformed into C' ; £500 has been transformed into £590. The difference between the two sums is s , the surplus-value of £90. Since the value of the elements of production equals the value of the capital advanced in the production process, it is in fact tautological to say that the amount by which the product's value exceeds the value of its elements of production will equal the amount by which the capital has been valorized—in other words, the amount of surplus-value that has been produced.

But we still need to take a closer look at this tautology. What we are comparing is the product's value and the combined value of the elements consumed when the product is made. As we have seen, the part of the constant capital that goes into the means of labor gives only some of its value to the product and otherwise continues to function in its earlier form of existence. Since the part that continues to function in its old form doesn't play a role in forming the product's value, we can disregard it: nothing would

change if we included it in our calculations. Suppose that $c = £410$, and it breaks down as follows: £312 goes into raw materials, £44 into auxiliary materials, and £54 into the wear and tear that machines incur during the production process, while the total value of the machines employed amounts to £1,054. Of that £1,054, only the £54 the machines lose during the production process, and thus give to the product, counts as capital—as capital that is advanced to create the product's value. If we counted the £1,000 of value that continues to exist in the old form of, say, a steam engine, we would have to include it on both sides of the equation: the side of the advanced value and the side of the product's value,¹ or £1,500 and £1,590, respectively. The difference—i.e., the surplus-value—would still be £90. And so unless a particular context calls for us to do otherwise, when we speak of “the constant capital that is advanced to produce value,” we are referring only to the value of the means of production that are actually consumed in the production process.

With this in mind, let us look again at the formula $C = c + v$, which turned into $C' = (c + v) + s$, with C thereby becoming C' . We know that the value of the constant capital merely reappears in the product. Thus, contrary to what at first seems to be the case, the value product—the value that is in fact newly created in the production process—isn't the same as the value of the product. The newly created value isn't $(c + v) + s$, or £410 constant + £90 variable + £90 surplus, but rather $v + s$, or £90 variable + £90 surplus. It is £180, not £590. If the amount of c , the constant capital, were zero—if there were a branch of industry where a capitalist didn't need to use any means of production produced by labor, whether raw materials or auxiliary materials or instruments of labor, but only materials found ready-made in nature plus labor-power, then there would be no constant part of the advanced value to be transferred to the product. This element of the product's value, £410 in our example, would drop out of the equation. If it did, the magnitude of the £180 of new value, £90 of which is surplus-value, wouldn't change, just as this magnitude wouldn't change if the magnitude of c were unimaginably large. We would have $C = (0 + v) = v$, and C' , the valorized capital, $= v + s$, so that $C' - C = s$, as before. However, if the opposite were the case, and $s = 0$ —that is, if the labor-power advanced as variable capital produced only its own equivalent—then $C = c + v$, and C'

1. “If we reckon the value of the fixed capital employed as a part of the advances, we must reckon the remaining value of such capital at the end of the year as a part of the annual returns” (Malthus: “Princ. of Pol. Econ. 2nd ed. London 1836,” p. 269).

(the product's value) = $(c + v) + o$, or $C = C'$. The capital that was advanced wouldn't have valorized itself.

As we already know, surplus-value results from a change in the value of v , the part of the capital that is turned into labor-power: thus $v + s = v + \Delta v$ (v plus the change in v). But the actual change of value that occurs here—and the ratio of change, too—is obscured, since an increase in the variable part of capital causes the total advanced capital to increase. The total capital was £500; it becomes £590. So if we want to carry out a pure analysis of this process, we have to fully abstract from the part of the product's value in which constant capital merely reappears. We have to set c at 0, which simply means applying a rule of mathematics that is used whenever constant and variable magnitudes are related to one another only by the symbols of addition and subtraction.

A further difficulty arises from the original form of the variable capital. In our example, $C' = \text{£410 constant capital} + \text{£90 variable capital} + \text{£90 surplus-value}$. Because £90 is a given (and thus constant) magnitude, it seems wrong to treat it as variable. But here “£90 variable capital” is just a symbol for the process that this value undergoes. The part of the capital that is spent on labor-power is a definite quantity of objectified labor, in other words, a constant magnitude of value, as is the value of the labor-power that the capitalist buys. However, during the labor process itself, activated labor-power replaces the £90 that is advanced; living labor replaces dead labor; a fluid magnitude replaces a fixed one; a variable magnitude replaces a constant one. The result is that v is reproduced with an increase of v . Seen from the standpoint of capitalist production, this entire process is the autonomous movement of value that was originally constant and has been transformed into labor-power. Both the process and its result are the work of this value. If the formulations “£90 variable capital” and “£90 self-valorizing value” seem contradictory, this is simply because they express a contradiction that is inherent in capitalist production.

At first, it feels strange to set the constant capital to zero; but people do this all the time in everyday life. If someone wants to calculate the profit England has made from the cotton industry, he starts by subtracting the sums England has paid other countries for cotton: the United States, India, Egypt, and so on. He begins by reducing the value that merely reappears in the product's value to zero.

The ratio of surplus-value to the part of capital that it directly issues from, and whose change of value it thus represents, is economically very significant. But so is its ratio to the total capital advanced. These ratios will therefore be examined at length in volume 3. In order for one part

of capital to be valorized by being transformed into labor-power, another part has to be transformed into means of production. Variable capital can't perform its function, in fact, unless constant capital is advanced in the right proportion, something that depends on the specific technical character of the labor process. But a chemist can need special beakers and other containers to stage a chemical process and still ignore them when he analyzes its results. When we consider the processes of producing and altering value on their own, or in a pure way, the physical forms of constant capital—i.e., of the means of production—merely provide the material in which fluid, value-creating power becomes fixed. Thus the nature of that material—whether it is cotton or iron—doesn't matter. The value of the material also doesn't matter: all that is needed is enough material to absorb the amount of labor to be expended during the production process. If a sufficient quantity of material has been provided, its value can rise or fall; it can also have no value, as with the land and the sea. None of this affects the process of creating and altering value.²

We will therefore begin by setting the constant capital's value to zero. The capital advanced can be reduced from $c + v$ to v , and the product's value can be reduced from $(c + v) + s$ to the newly created value or value product $(v + s)$. Let's assume that the newly produced value = £180. So, the labor that was fluid during the entire labor process is now represented in this money sum. By subtracting the value of the variable capital, which equals £90, we arrive at the surplus-value: £90. The figure $£90 = s$ expresses the absolute magnitude of the surplus-value that has been produced. The relative magnitude of the surplus-value—in other words, the ratio in which variable capital has valorized itself—is clearly determined by the ratio of surplus-value to variable capital and expressed as s/v . In our example, the ratio is $90/90$, or 100%. I call this relative valorization of the variable capital, or the surplus-value's relative magnitude, "the rate of surplus-value."³

We have seen that during one part of the labor process, a worker produces only the value of his own labor-power, which is the value of his

2. Note added to the second edition: What Lucretius says is self-evident: "*nil posse creari de nihilo.*" Nothing comes from nothing. Value is "created" when labor-power is turned into labor. For its part, labor-power is above all natural material that has been converted into a human organism.

3. The English employ the terms "rate of profit" and "rate of interest" to express this ratio. In volume 3 of the present work, we will see that the rate of profit is easy to grasp once one understands the laws of surplus-value. But if we were to proceed the other way around, we would comprehend "*ni l'un, ni l'autre.*"

necessary means of subsistence. Since he works in a situation based on the social division of labor, he doesn't produce his means of subsistence directly. Rather, in the form of a particular commodity (for example, yarn), he produces an amount of value equal to the value of those means, or to the money he uses to buy them. Whether the part of the workday when he creates this value is larger or smaller depends on the value of his average daily means of subsistence—on the average labor-time needed to produce them each day. Now suppose the value of the worker's average daily means of subsistence represents six objectified labor-hours. He would have to work six hours a day, on average, to produce that value. If the worker worked just for himself, independently, rather than for a capitalist, then assuming that the other conditions of his labor remained constant, he would still have to work the same fractional part of the day to produce the value of his labor-power, and thereby acquire the means of subsistence he needs to maintain or reproduce himself daily. But during the part of the day when the worker produces the daily value of his labor-power (say, 3 shillings), he merely produces an equivalent of the value already paid by the capitalist. In other words, the worker merely replaces with newly created value the value of the variable capital that the capitalist has advanced, and because this is so, the production of value here appears as reproduction. I will call the part of the day when the worker reproduces value "necessary labor-time" and the labor expended during that time "necessary labor."⁴ Necessary for the worker, because it is independent of the social form of his labor, and necessary for capital and its world, because their basic precondition is that workers continue to exist.

In the second part of the labor process, the worker moves beyond the limits of necessary labor. This costs him labor—he is still expending labor-power—but he no longer creates any value for himself. Instead the worker generates surplus-value, which smiles at the capitalist with all the allure of something he gets for free. I call this part of the workday "surplus labor-time" and the labor expended here "surplus-labor." Just as we need to see value as coagulated labor-time—as nothing but objectified labor—in order to understand it, so too do we need to see surplus-value as coagulated surplus labor-time, or as nothing but objectified surplus-labor, in order

4. Up to now, this work has used the term "necessary labor-time" to denote the socially necessary labor-time that goes into producing any given commodity. From now on, however, we will also use it to denote the labor-time needed to produce one particular commodity: labor-power. Using one and the same technical term in different ways is, of course, unfortunate. On the other hand, there is no field of scholarship in which it can be avoided entirely. See, for example, the higher and lower branches of mathematics.

to understand it. All that distinguishes economic social formations from one another, e.g., the slave-owning society and the one where wage labor predominates, is the form in which surplus-labor is squeezed out of the person who directly produces, namely, the worker.⁵

Since the value of variable capital equals the value of the labor-power it buys, and since the value of that labor-power determines the necessary part of the workday, while surplus-value, for its part, is determined by the magnitude of the nonnecessary part of the workday, it follows that surplus-value has the same ratio to variable capital as surplus-labor has to necessary labor. The rate of surplus-value s/v is equal to $\frac{\text{surplus-labor}}{\text{necessary labor}}$. The two ratios express the same thing in two different ways: once using objectified labor, and then using fluid labor.

Thus the rate of surplus-value accurately expresses how far capital has gone in exploiting labor-power, i.e., the degree to which a capitalist has exploited a worker.⁶

We assumed that the product's value = £410 constant + £90 variable + £90 surplus, with the amount of capital advanced thus being £500. Since the surplus-value = £90, and the capital advanced = £500, if we calculated the rate of surplus-value (which is often confused with the rate of profit) in the standard way, we would arrive at 18%—a rate so low that

5. Displaying a brilliance that evokes Gottsched's, Herr Wilhelm "Thucydides" Roscher discovered that if the creation of surplus-value or surplus product, and the accumulation that goes with it, are attributed nowadays to the "thrift" of the capitalist, who "demands interest" in return, things were very different "in the least advanced stage of culture," where "the strong forced the weak to exhibit thrift" (op. cit. pp. 82, 78). Thrift with respect to labor? Or with respect to the surplus products that didn't exist? In addition to actual ignorance, it is an apologetic fear—a fear of the subversive results that a careful analysis of value and surplus-value might yield—that compels Roscher and his ilk to contort the capitalist's more or less plausible justifications for his appropriation of existing surplus-value into explanations of how surplus-value came into being. [Editor's note: Johann Christian Gottsched (1700–1766) enjoyed considerable prominence as a person of letters in eighteenth-century Germany. Known for being well connected and helping to import Enlightenment ideas from France, he wrote without much pithiness or wit and wasn't regarded as a brilliant mind. Wilhelm Roscher (1817–1894) founded the historical school of political economy in Germany and, thus, invoked for himself the title of the "Thucydides" of that discipline.]

6. Note added to the second edition: Although the rate of surplus-value accurately expresses the degree to which labor-power is exploited, it doesn't tell us the absolute magnitude of the exploitation. For example, if the necessary labor = 5 hours and the surplus-labor = 5 hours, the degree of exploitation stands at 100%. Here the magnitude of exploitation is measured by 5 hours. If the necessary labor = 6 hours and the surplus-labor = 6 hours, the 100% rate of exploitation remains unchanged, but the magnitude of exploitation has grown by 20%, from 5 hours to 6.

Mr. Carey and the other harmonizers might be pleasantly surprised.ⁱ However, the rate of surplus-value doesn't equal s/C or $s/c + v$, but rather s/v : it isn't $90/500$, but rather $90/90 = 100\%$, more than five times what seems to be the degree of exploitation. Although there is much we don't know in this case, such as the absolute magnitude of the workday, the length of the labor process (days, weeks, and so on), and the number of workers simultaneously set in motion by the variable capital of £90, the rate of surplus-value (s/v) still tells us the exact ratio of the workday's two components because it can be converted into $\frac{\text{surplus-labor}}{\text{necessary labor}}$. Here that ratio is 100%.

The worker spends half the day working for himself and the other half working for the capitalist.

In short, the way to calculate the rate of surplus-value is as follows. We take a product's full value and set the value of the constant capital, which merely reappears there, to zero. What remains is the new value—the value that is actually created when the commodity is produced. If we know the surplus-value, then we subtract it from the total new value to find the variable capital. If we know the variable capital and want to identify the surplus-value, we do the reverse. If we know both values, all we have to do is perform the final calculation, s/v , in order to arrive at the ratio of surplus-value to variable capital.

As simple as this method may be, it still seems right to give a few examples so that readers can work their way into the unfamiliar mode of viewing that underlies it.

Say a spinning mill has 10,000 mule spindles, each of which spins No. 32 yarn from American cotton and produces one pound of yarn per week. The waste generated amounts to 6%. So each week, 10,600 pounds of cotton are spun into 10,000 pounds of yarn, creating 600 pounds of waste. In April 1871, this cotton cost $7\frac{3}{4}$ d. per pound; thus the 10,600 pounds cost about £342. The 10,000 spindles cost £1 per unit, in other words, £10,000, which includes both the steam engine and the machinery that prepares the cotton to be spun. The machines wear down at a rate of 10%, or £1,000 per year, losing roughly £20 of value weekly. It costs £300 a year, or £6 a week, to rent the factory building. The 11 tons of coal consumed weekly cost, at 8 shillings 6d. per ton, about £4 $\frac{1}{2}$ (for one hundred horsepower over a sixty-hour week, with each horsepower requiring four pounds of coal per hour and the heating included in this). Gas costs £1 per week, oil £4 $\frac{1}{2}$. All the auxiliary materials combined cost £10 per week. In total, £378 is the sum spent each week on the constant

capital. Wages amount to £52 per week. The price of yarn is $12\frac{1}{4}$ d. per pound, which means that the price of the 10,000 pounds is £510. The surplus-value is therefore £510 - £430 = £80. We now set the constant capital's part of the value (£378) to zero, since it doesn't contribute any new value. If the value produced each week is £132, i.e., £52 variable + £80 surplus, then the rate of surplus-value = $\frac{80}{52} = 153\frac{11}{13}\%$. In an average workday of 10 hours, the necessary labor = $3\frac{31}{33}$ hours, and the surplus-labor = $6\frac{2}{33}$ hours.⁷

Another example: Jacob provides the following calculation for the year 1815. The price of wheat is 8 shillings per quarter, and an average harvest yields 22 bushels per acre, so each acre brings in on average £11. Because various prices have been adjusted over the years, Jacob's calculation is now badly out of date. Nevertheless, it will suffice for our purposes.

Amount of Value Produced per Acre

Wheat	£1 St. 9 shillings	Tithes, Rates, Taxes	£1 St. 1 sh.
Fertilizer	£2 St. 10 shillings	Rents	£1 St. 8 sh.
Wages	£3 St. 10 shillings	Leaseholder's Profits and Interest	£1 St. 2 sh.
Total	£7 St. 9 shillings	Total	£3 St. 11 sh. ⁱⁱ

The surplus-value is distributed here under the various headings "profit," "interest," "tithe," and so on, with it always being assumed that a product's price equals its value. The headings don't concern us. We simply add them together and arrive at a surplus-value of £3 11 sh. The £3 19 shillings spent on seed and fertilizer is the constant capital, which we set to zero. What remains is the variable capital, the £3 10 shillings that the capitalist advanced for labor-power. This is replaced by a newly produced value of £3 10 sh. + £3 11 sh. Thus $\frac{s}{v} = \frac{£3\ 11\ sh.}{£3\ 10\ sh.}$, or more than 100%.

7. Note added to the second edition: The example offered in the first edition of this book, namely, that of a spinning mill for the year 1860, contained some factual errors. The data given here, which a Manchester manufacturer supplied me with, are quite correct. We should note that in England, the old horsepower of an engine was calculated using the diameter of its cylinders; the new horsepower is taken from a meter that measures the actual power of the machinery.

The worker spends more than half his workday producing surplus-value, which different people claim a share of using different pretexts.⁸

2. The Product's Value Represented as Proportional Parts of the Product

Let us now come back to the case of the spinner, which illustrates how a capitalist turns money into capital. The spinner's necessary labor amounts to six hours, as does his surplus-labor. The rate of exploitation is therefore 100%.

The product of a twelve-hour workday is 20 pounds of yarn worth 30 shillings. No less than $\frac{8}{10}$ of the yarn's value (24 sh.) come from the used-up means of production, whose value merely reappears in the product's value: this part of the yarn's value is made up of constant capital (20 pounds of cotton worth 20 sh. and a part of the spindle worth 4 sh.). The remaining $\frac{2}{10}$ are new value: the 6 sh. produced during the spinning process. Of these 6 shillings, half replace the labor-power's daily value, i.e., the variable capital, while the other half represent a surplus-value of 3 sh. The total value of the 20 pounds of yarn is thus constituted as follows:

Yarn worth 30 sh. = 24 sh. constant + 3 sh. variable + 3 sh. surplus.

Since this total value is represented in 20 pounds of yarn, it must be possible to represent its different value-elements as proportional parts of the product.

If a yarn value of 30 shillings exists in 20 pounds of yarn, then $\frac{8}{10}$ of this value, i.e., the constant part of 24 shillings, exist in $\frac{8}{10}$ of the product, or in 16 pounds of yarn. Of these 16 pounds, $13\frac{1}{3}$ represent the value of the raw material, namely, the cotton that is spun (worth 20 shillings), and $2\frac{2}{3}$ pounds represent the value of the auxiliary materials and the used-up part of the means of labor (the 4 shillings' worth of spindle).

Thus $13\frac{1}{3}$ pounds of yarn can represent all the cotton that was spun into 20 pounds of yarn—in other words, all the raw material in the total product. But if they do represent that, they can't represent anything else. While there are only $13\frac{1}{3}$ pounds of cotton with a value of $13\frac{1}{3}$ shillings in $13\frac{1}{3}$ pounds of yarn, the additional value of $6\frac{2}{3}$ shillings constitutes an equivalent for the

8. The calculations presented here are meant to serve merely as illustrations. We are assuming that price = value. In volume 3, we will see that it isn't possible to make such an assumption in this simple way, not even when we are dealing with average prices.

other $6\frac{2}{3}$ pounds of cotton that are spun into the 20 pounds of total product. It is as though all the cotton were torn out of 20 pounds of yarn and stuffed into $13\frac{1}{3}$ pounds of it. But now these $13\frac{1}{3}$ pounds of yarn contain not even an atom of the value transferred from the used-up auxiliary materials and the means of labor. Nor do they contain any of the new value created in the actual spinning process.

In just the same way, another $2\frac{2}{3}$ pounds of yarn, which contain the rest of the constant capital (4 shillings), represent nothing but the value of the used-up auxiliary materials and means of labor in the total product: 20 pounds of yarn.

When viewed as a physical use-value, or as 16 pounds of yarn, $\frac{8}{10}$ of the product are as much the creation of spinning as the other parts of the product, but in the present context, they don't contain any spinning. They have absorbed none of the labor performed during the actual spinning process. It is as though the 16 pounds were turned into yarn without being spun—as though the form of yarn weren't real, but rather a trickster's illusion. And, in fact, when the capitalist sells these 16 pounds of yarn for 24 shillings, thereby reselling his means of production, we see that they are merely cotton, part of a spindle, and coal in disguise.

The remaining $\frac{2}{10}$ of the product (or the remaining four pounds of yarn) represent nothing but the 6 shillings of new value created in the twelve-hour spinning process. What they contained by way of the value of the used-up raw material and means of labor has already been extracted and incorporated into the 16 pounds of yarn. The spinning labor embodied in the full 20 pounds of yarn has been concentrated into $\frac{2}{10}$ of the product, as though the spinner has spun 4 pounds of yarn out of thin air, or with cotton and a spindle that he found ready-made in nature and, thus, that don't contribute to the product's value.

Of the 4 pounds of yarn that contain all the value created by the day's spinning process, half merely represent the value that replaces the money spent on the expended labor-power, i.e., the variable capital of 3 shillings. The other 2 pounds of yarn represent the 3 shillings of surplus-value.

If the spinner's twelve hours of labor are objectified in 6 shillings, then sixty hours of labor are objectified in yarn worth 30 shillings. These hours of labor exist in the 20 pounds of yarn, $\frac{8}{10}$ (16 pounds) of which are the materialization of forty-eight hours of labor that were expended before the spinning process took place. Thus forty-eight hours of labor are objectified in the yarn's means of production, while $\frac{2}{10}$ (or 4 pounds) of the product are the materialization of the twelve labor-hours expended in the spinning process itself.

Earlier we saw that the yarn's value equals the new value created when the yarn is produced plus the value preexisting in the means of production used to produce the yarn. Here we have seen that these elements of the product's value, which differ in terms of function or purpose, can be represented as proportional parts of the product.

We divided the product, or the result of the production process, into three parts: one quantity of product that represents only the labor contained in the means of production (i.e., the constant capital); another that represents only the necessary labor added during the production process, or the variable capital; and, finally, a third that represents only the surplus-labor, or surplus-value, added to the product in the same process. This act of division is as important as it is simple, as will become clear when we bring it to bear on complex problems that have remained unsolved.

We have been viewing the total product as the completed product of a twelve-hour workday. But we can also accompany the product through its process of production and still represent the partial products as a series of functionally different parts of the total product.

In twelve hours, the spinner produces 20 pounds of yarn; therefore, he produces $1\frac{2}{3}$ pounds in one hour and $13\frac{1}{3}$ pounds in eight hours, a partial product that equals the value of the cotton spun during the whole day. The partial product of the next hour and thirty-six minutes = $2\frac{2}{3}$ pounds of yarn, which represent the value of the means of production that are consumed during the twelve hours when the yarn is spun. Similarly, in the one hour and twelve minutes after that, the spinner produces 2 pounds of yarn that are worth 3 shillings, an amount of the product's value equal to the value that the spinner produces during his 6 hours of necessary labor. And in the last hour and twelve minutes, he produces another 2 pounds of yarn, whose value equals the surplus-value that his half day of surplus-labor generates. English manufacturers make use of this kind of calculation all the time. They say that during the first eight hours or two-thirds of the workday, they get back the value of their cotton, and so on. Their formula is correct, as we have seen; it is in fact the formula we just employed, only here a spatial way of thinking, in which the finished parts of the product are side by side, has been translated into a temporal one, in which the parts are produced in a sequence. But the formula can also go with the crudest notions, especially in the minds of people whose practical interest in the process of valorization is as great as their motivation for misunderstanding it theoretically. For example, a person might imagine that our spinner produces or replaces the value of the cotton during the first eight hours of his workday, the value of the wear and tear that the means of labor incur during

the next one hour and thirty-six minutes, and the value of his own wages during the one hour and twelve minutes after that, which would mean that he devotes himself to the production of surplus-value for the manufacturer only during the day's famous "last hour." The spinner is tasked with making a double miracle happen: he is supposed to produce all the things he spins with—the cotton, the spindle, the steam engine, the coal, and the oil—even as he spins with them, and he is supposed to turn one day of work at a given level of intensity into five such days. For in the case at hand, it takes four twelve-hour days to produce the raw material and the means of labor, while an additional twelve-hour workday is needed to turn them into yarn. Rapacity believes in miracles of this kind, and it never lacks a doctrinaire sycophant who claims to have proved that such miracles exist. A famous historical example shows that this is so.

3. Senior's "Last Hour"

One fine morning in 1836, Nassau W. Senior was summoned from Oxford to Manchester. Well known for his work in political economy and his elegant style (we might say that he was the Clarendon of English economists), Senior was supposed to learn political economy in the latter place rather than teach it in the former.ⁱⁱⁱ The manufacturers had chosen him to be their man in the ring against both the newly passed Factory Act and the even more ambitious Ten Hours' Agitation. But with their characteristic acumen in practical matters, they had recognized that the professor "wanted a good deal of finishing," and so they sent him to Manchester. The professor, for his part, wrote up the lessons he'd received from the manufacturers, doing so in the pamphlet *Letters on the Factory Act, as it affects the cotton manufacture* (London 1837). Among other things, he offered his readers this edifying nugget:

"Under the present law, no mill in which persons under 18 years of age are employed can be worked more than 11½ hours a day, that is, 12 hours for five days in the week and 9 on Saturday. Now, the following analysis [!] will show that in a mill so worked, the whole net profit is derived from the last hour. I will suppose a manufacturer to invest £100,000: £80,000 in his mill and machinery, and £20,000 in raw material and wages. The annual return of that mill, supposing the capital to be turned once a year, and gross profits to be 15%, ought to be goods worth £115,000. . . . Of this £115,000 each of the twenty-three half hours of work produces $\frac{5}{115}$, or $\frac{1}{23}$. Of these $\frac{23}{23}$ (constituting the whole £115,000), $\frac{20}{23}$, that is to say £100,000 out of the £115,000, simply replace the capital; $\frac{1}{23}$, or £5,000

out of the £15,000 gross profit [!], makes up for the deterioration of the mill and machinery.^{iv} The remaining $\frac{2}{23}$, that is, the last two of the twenty-three half-hours of every day, produce the net profit of 10%. If, therefore, (prices remaining the same) the factory could be kept at work 13 hours instead of $11\frac{1}{2}$, by an addition of about £2,600 to the circulating capital, the net profit would be more than doubled. On the other hand, if the hours of working were reduced by 1 hour per day (prices remaining the same), net profit would be destroyed—if they were reduced by $1\frac{1}{2}$ hours, even gross profit would be destroyed.”⁹

And the professor calls that an “analysis”! If he thought the manufacturers were right to complain that workers waste the best part of the day producing—and thus reproducing or replacing—the value of the buildings, machinery, cotton, coal, and so on, he wouldn’t have needed to carry out his own investigation. He could simply have replied, “Gentleman! If you have your workers work for ten hours instead of eleven and a half, then assuming all other conditions remain the same, your workers would reduce the time they spend each day consuming the cotton, the machinery, and so on by ninety minutes. You would gain exactly as much as you would lose. From now on, your workers would waste less time—ninety minutes less—reproducing or replacing the value of the capital you advanced.”

9. Senior op. cit. pp. 12, 13. We won’t get into the *curiosa* that aren’t directly relevant here, such as the claim that manufacturers treat the amount required to cover the machinery’s wear and tear—that is, to replace a part of the capital—as part of their profit, whether gross or net, dirty or pure. Nor will we discuss whether or not Senior’s figures are correct. In “A Letter to Mr. Senior etc. Lond. 1837,” Leonard Horner shows that they are as worthless as Senior’s so-called “analysis.” Horner was one of the Factory Inquiry Commissioners in 1833; he was an Inspector, in fact, Censor of Factories, until 1859, and what he achieved for England’s working class is unforgettable. In addition to waging a lifelong battle against the aggrieved manufacturers, he fought against the Cabinet, whose members cared more about the number of “votes” they received in the House of Commons than the number of hours “hands” had to work in the factories. An addendum to this note: Not only is Senior’s content faulty, he presents it in a confused way. What he actually meant to say is that the manufacturer employs his worker for $11\frac{1}{2}$ hours or $\frac{23}{2}$ hours a day, and the worker’s total annual labor is $11\frac{1}{2}$ multiplied by the number of workdays in the year. Presupposing this, the 23 half hours of daily labor produce a total yearly product of £115,000; each half hour of labor produces $\frac{1}{23} \times £115,000$; 20 half hours of labor produce $\frac{20}{23} \times £115,000 = £100,000$, that is, they merely replace the capital that was advanced. What remains are 3 half hours of labor that produce $\frac{3}{23} \times £115,000 = £15,000$, which represents the gross profit. Of these 3 half hours of labor, one produces $\frac{1}{23} \times £115,000 = £5,000$: it produces value equal to that of the wear and tear that the factory and the machines incur. The last 2 half hours of labor, in other words, the last hour, produce $\frac{2}{23} \times £115,000 = £10,000$, which is the net profit. In his text, Senior turns the last $\frac{2}{23}$ of the product into parts of the workday itself.

However, if the professor didn't think the manufacturers were right, but rather decided that he, the expert, should analyze the situation for himself, then in order to answer a question that turns on the relation between net profit and the length of the workday, he would have to ask the manufacturers for help. Instead of lumping together into one messy heap machinery and factory buildings and raw material and labor, would they kindly record in one column the constant capital that goes into the means of production and, in another, the capital advanced as wages? If it turned out that according to the manufacturers' calculations, a worker reproduced or replaced his day's wages in $2\frac{1}{2}$ hours, i.e., in one hour of labor, the professor would have to continue as follows:

"The figures you provided tell us that a worker produces his wages in the penultimate hour of labor, and that he produces surplus-value, or your net profit, in the last hour. But let's take a closer look. Since the worker produces equal amounts of value in equal periods of time, he must produce the same amount of value in the penultimate hour as in the last one. Furthermore, he produces value only when he works, and the quantity of labor he expends is measured in terms of his labor-time, which amounts to eleven and a half hours per day, according to your figures. He uses one part of these eleven and a half hours to produce or replace his wages; the other he uses to produce your net profit. He does this and nothing else during the workday. Now since, as you say, the value of his wages equals the surplus-value he generates, it is clear that he spends the first five and three-quarters hours of the day producing his wages and the second half of the day producing your net profit. And since the value of the yarn that he produces in two hours equals the combined value of his wages and your net profit, the yarn's value has to be measured in terms of eleven and a half hours of labor, half of which measures the value of the yarn produced in the penultimate hour of labor, while the other half measures the value of the yarn produced in the very last one. We have arrived at the tricky part. Watch out! The penultimate hour of labor is an ordinary hour of labor, just as the first hour is. *Ni plus, ni moins*. How can the yarn the spinner produces in one ordinary hour have a value that represents five and three-quarters hours of labor? In truth, the spinner performs no such miracle. The use-value he produces in one hour of labor is a definite quantity of yarn. The value of this yarn amounts to five and three-quarters hours of labor, to which he contributes only one hour. The other four and three-quarters hours were expended independently of him. They are embedded in the means of production that are consumed each hour (cotton, machinery, and so on). His wages are produced in five

and three-quarters hours, and the yarn produced in one hour of spinning also contains five and three-quarters hours of labor. There isn't any kind of witch's spell, then, behind the fact that the value product of his five and three-quarters hours of spinning is equal to the product value spun in one hour. So you have it all wrong if you think that a worker wastes even a fraction of a second reproducing or 'replacing' the value of the cotton, the machinery, etc. When his labor turns cotton and spindle into yarn—in other words, when he is working—the value of the cotton and the spindle migrates on its own to the new product. This occurs due to the quality of his labor, not its quantity. Of course, he will transfer more value to yarn in an hour than in thirty minutes, but only because he spins more cotton in an hour than in half that time. You should now see that when you say the worker produces the value of his wages in the penultimate hour, and your net profit in the last hour, all you are really saying is that eleven and a half hours of labor, or as many hours as there are in the whole workday, are embodied in the product of two hours of the worker's labor, whether those hours are the day's first hours or its last. And when I say that he produces his wages in the first five and three-quarters hours of the day and your net profit in the other five and three-quarters hours, all I am really saying is that you pay him for the first half of the day but not for the second half. (This is how you talk, by the way; I would speak of paying for 'labor-power' rather than 'payment for labor.')

Gentlemen, if you were to examine the ratio of the labor-time you pay for to the labor-time you get for free, you would find that it is half a day to half a day: 100%, a tidy percentage. And if you were to squeeze thirteen hours of labor out of the 'hands' you employ rather than eleven and a half, and count the extra ninety minutes of labor as pure surplus-labor (which is definitely something you would do), causing the surplus-labor to go from five and three-quarters hours to seven and a quarter hours, then the rate of surplus-value would increase from 100% to $126^{2/23}\%$. You are therefore being wildly optimistic if you think that the rate of surplus-value will rise to 200% and beyond, that it will 'more than double,' because ninety minutes have been added to the workday. On the other hand, the human heart is a marvelous thing, especially when we keep it in our wallet, and it's absurdly pessimistic of you to worry that reducing the workday from eleven and a half hours to ten and a half will wipe out all your profits. Not by a long shot! All other conditions remaining the same, the surplus-labor would fall from five and three-quarters hours to four and three-quarters hours, which would still make for a robust rate of surplus-value: $82^{14/23}\%$. The fateful 'last hour,' about which you tell more tales than millenarians

tell about Judgment Day, is ‘all bosh.’ If you lose this hour, it won’t cost you your ‘profits,’ nor will it cost the boys and girls you work to the bone the ‘purity of their souls.’”¹⁰

10. If Senior proved that the net profit of manufacturers, the very existence of the English cotton industry, and England’s position of power in the world market all depend on “the last hour of work,” Dr. Andrew Ure demonstrated that when factory children and teens under 18 years old aren’t confined for a full 12 hours in the warm and pure moral atmosphere of the factory, but are instead cast out into the heartless and frivolous outside world “an hour” earlier, the salvation of their souls falls prey to indolence and vice. Since 1848, the factory inspectors have been mocking the manufacturers’ “fatal” “last hour.” The inspectors have done this in their semiannual reports, where they have shown no signs of letting up. Thus Mr. Howell writes in a report dated May 31, 1855, “Had the following ingenious calculation [he quotes Senior] been correct, every cotton mill in the United Kingdom would have been working at a loss since the year 1850” (“Reports of the Insp. of Fact. for the half year ending 30th April, 1855,” p. 19). As the Ten Hours’ Bill made was making its way through Parliament in 1848, the manufacturers forced some workers in rural flax spinning mills, namely, mills scattered between the counties of Dorset and Somerset, to sign a counterpetition. Here we read, among other things: “Your petitioners, who are parents, conceive that an additional hour of leisure will tend more to demoralise their children than otherwise, believing that idleness is the parent of vice.” On this point, the factory report of 31st October, 1848, says, “The atmosphere of the flax mills, in which the children of these virtuous and tender parents are employed, is so loaded with dust and fibre from the raw material that it is extremely disagreeable to remain in one of the rooms; even for ten minutes, for you cannot do so without experiencing a sensation of considerable distress, in consequence of the eyes, ears, nostrils, and mouth being immediately filled with the clouds of flax dust from which there is no escape on any side. The employment, by reason of the rapid motion of the machinery, requires the untiring exercise of great dexterity and activity, under the guidance of incessant vigilance; and it appears somewhat hard that their own parents should apply the term ‘idleness’ to the condition of children, who kept working for ten good hours (over and above meal times), at such an employment, in such an atmosphere. . . . This uncharitable talk about ‘idleness and vice’ is deservedly denounced as mere cant and hypocrisy. . . . They who, some twelve years ago, were startled by the confidence with which it was gravely proclaimed to the public, under the sanction of high authority, that the whole net profit of the master was derived from the ‘last hour,’ and that if the hours of working should be reduced by one hour per day, net profit would be destroyed, will be scarcely less surprised to find that the original discovery of the virtues of ‘the last hour’ has been so far improved upon as to comprehend morals as well as profit, so that if the duration of children’s labour be reduced to ten hours, their morals must be destroyed, together with the net profit of their employer; both depending on the last—the fatal—hour” (“Repts of Insp. of Fact. for 31st Oct. 1848,” p. 101). [Editor’s note: Passage modified to match Marx’s version, which amplifies the parents’ faults—he adds the sarcastic phrase about how they are “virtuous and tender” (“tugendhaft-zärtlich”), for example.] The report goes on to provide examples of the “morality” and “virtue” of these same manufacturers, of the tricks, scams, inducements, threats, fraud, and lies they deployed to get a few poor and exhausted workers to sign such petitions and send them to Parliament as petitions coming from a whole branch of industry, or from entire counties. It is quite characteristic of the state of so-called economic “scholarship” that neither Senior, who, to his credit, later vigorously supported the Factory Laws, nor his original and later opponents, cleared away the false

“If your precious ‘little last hour’ actually strikes, think of the professor from Oxford. I hope to meet you honorable gentleman again in a better world. For now, farewell!”¹¹ On April 15, 1848, the battle cries sounded once more for the “last hour” Senior discovered in 1836, this time in a polemic against the Ten Hours’ Bill that was written by James Wilson, one of the leading mandarin economists, and published in the *London Economist*.

4. Surplus Product

We will use the term “surplus product” (*produit net*) for the part of the product in which surplus-value is represented—in our example, $\frac{1}{10}$ of 20 pounds of yarn, or 2 pounds. Recall that the rate of surplus-value is determined by the ratio of surplus-value to the capital’s variable part rather than to the capital’s total value. In the same way, the relative amount of the surplus product is determined by the ratio of the surplus product to the part of the product in which necessary labor is represented, rather than its ratio to the remaining part of the total product. Because the defining aim of capitalist production is to produce surplus-value, a given quantity of wealth has to be measured not by the absolute amount produced, but rather by the relative magnitude of the surplus product.¹²

conclusion drawn from the “original discovery.” They appealed to actual experience; as a result, the why and wherefore of things remained a mystery.

11. Yet the esteemed professor did manage to profit from his trip to Manchester, at least to some extent! In his “Letters on the Factory Act,” Senior makes all net gain, “profit” and “interest,” and even “something more” depend on a single unpaid hour of the worker’s labor! And a year earlier, in his “Outlines of Political Economy,” which he wrote for the benefit of Oxford students and educated philistines, he “discovered” that in contrast to what Ricardo’s labor theory of value holds, profit derives from the capitalist’s labor and his interest derives from his asceticism, i.e., his “abstinence.” The ruse was old, but the word “abstinence” was new. Herr Roscher correctly rendered into it German as “Enthaltung.” Less well versed in Latin, his compatriots Wirthe, Schulzen, and Michels translated the term as “Entsagung,” which is the language of the monastery. [Editor’s note: It is also the language of what would later be called German bourgeois realist fiction, which reached its high point around the time *Capital* appeared. Two of its main achievements, Gottfried Keller’s *Der grüne Heinrich* (1855) and Adalbert Stifter’s *Der Nachsommer* (1857), point up the importance of “Entsagung” for successful socialization. Marx doesn’t consistently act on his etymological point and often uses “Entsagung” as a synonym for the term “Abstinenz.” Hence in this translation “Entsagung” is rendered as “absintence” in some places and as “renunciation” in others.]

12. “To an individual with a capital of £20,000, whose profits were £2,000 per annum, it would be a matter quite indifferent whether his capital would employ a hundred or a thousand men, whether the commodity produced sold for £10,000, or for £20,000, provided, in all cases, his profits were not diminished below £2,000. Is not the real interest of the nation similar? Provided its net real income, its rents and profits be the same, it is of no

Necessary labor and surplus-labor taken together—in other words, the periods of time during which a worker produces both the replacement value of his labor-power and surplus-value—constitute the absolute magnitude of his labor-time, or . . . *the working day*.

importance whether the nation consists of 10 or of 12 millions of inhabitants” (Ricardo op. cit. p. 416). Long before Ricardo, Arthur Young, a surplus product fanatic, and, in addition, a windy, naïve writer whose reputation was inversely proportional to his merits, wrote, “Of what use in a modern kingdom would be a whole province thus divided, in the old Roman way, by small independent peasants, however well cultivated, except for the mere purpose of breeding men, which singly taken, is a most useless purpose?” Arthur Young, “Political Arithmetic etc. London 1774,” p. 47. What is remarkable is “the strong inclination to represent net wealth as beneficial to the labouring class . . . though it is evidently not on account of being net” (T. Hopkins, *On Rent of Land* etc. London, 1828, p. 126).

CHAPTER EIGHT

The Working Day

I. Limits of the Working Day

We began by assuming that labor-power is bought and sold at its value. Like the value of every other commodity, labor-power's is determined by the labor-time needed to produce it. If it takes six hours of labor to produce a worker's average daily means of subsistence, then on average, he must work six hours a day to produce his labor-power—that is, to reproduce the value for which his labor-power is sold. Here the necessary part of his working day amounts to six hours and is a given quantity, provided all other conditions remain the same. But with this, the length of the working day as a whole isn't yet given.

Imagine that the line A—B represents the duration of the necessary labor-time, which is six hours. If labor is extended beyond this line by different amounts of time, say, one hour, three hours, or six hours, its extension will result in three different lines that represent three different working days:

Working Day I (seven hours)

A—B-C

Working Day II (nine hours)

A—B—C

Working Day III (twelve hours)

A—B—C

The extension BC represents the surplus-labor. Since the working day = AB + BC, or simply AC, it varies with the varying magnitudes of BC. Since AB is fixed, the ratio of BC to AB can always be calculated. In Working Day I, BC is $\frac{1}{6}$ of AB, in Working Day II, $\frac{3}{6}$ of AB, and in Working Day III, $\frac{6}{6}$. And since the ratio $\frac{\text{surplus labor-time}}{\text{necessary labor-time}}$ determines the rate of

surplus-value, the ratio of BC to AB gives us that rate. In these three different working days, it amounts to $16\frac{2}{3}\%$, 50%, and 100%, respectively. But the rate of surplus-value doesn't tell us by itself the magnitude of the working day. If the rate of surplus-value were 100%, the working day could be eight hours, ten hours, or twelve hours, or longer or shorter. A rate of 100% says only that the two parts of the working day, the part for necessary labor and the part for surplus-labor, are of equal magnitude. It doesn't say how large or small those magnitudes are.

The magnitude of the working day is thus variable rather than constant. Of course, one part of the day is determined by the labor-time it takes to continually reproduce the worker. But the total length of the working day varies with the length or duration of the surplus-labor. So while the length of a particular working day can be determined, the working day is by nature indeterminate.¹

Although the working day's magnitude is fluid rather than fixed, it varies only within certain limits. Its minimum limit, however, can't be determined. If we set the segment BC (the amount of surplus-labor) to zero, then we will obviously have a minimum limit: the part of the day during which workers perform the necessary labor that maintains them. Yet under the capitalist mode of production, necessary labor can take up only part of the working day, and so the workday can never be reduced to that minimum. On the other hand, the working day does have a maximum limit: it can't be extended beyond a certain point. This maximum limit is doubly determined. First, by labor-power's physical limitations: during a natural day of twenty-four hours, a human being can expend only so much vital power, just as a horse can only work eight hours a day. A bearer of this power has to rest and sleep during one part of the day and satisfy additional physical needs during another—eating, washing, dressing, and so on. And not only do purely physical needs limit the extension of the workday; moral limits play a role here, too. A worker requires time to satisfy his intellectual and social needs, which are determined (with respect to how far reaching and numerous they are) by the general state of culture. While the magnitude of the working day varies, it thus varies within both physical and social limits. Both kinds of limits are by nature highly elastic, affording a great deal of latitude. Hence we see working days of many different lengths: eight hours, ten hours, twelve, fourteen, sixteen, and eighteen hours.

1. "A day's labour is vague, it may be long or short." "An Essay on Trade and Commerce, containing Observations on Taxation etc. London 1770," p. 73.

A capitalist buys labor-power at its daily value. The labor-power belongs to him for the duration of one working day. He has obtained the right to put the worker to work during this time. But what is a working day?² It has to be shorter than a natural day of life. The question is: Shorter by how much? The capitalist has his own view on this *ultima Thule*, the necessary limit of a workday.¹ As a capitalist, he is merely capital personified. His soul is the soul of capital, which knows only one drive in life: the drive to valorize itself; to create surplus-value; to use its constant part, the means of production, to absorb the greatest possible quantity of surplus-labor.³ Capital is dead labor that acts like a vampire: it comes to life only when it drinks living labor, and the more living labor it drinks, the more it comes to life. The time when the worker is working is the time when the capitalist consumes the labor-power he has bought.⁴ When a worker uses his disposable time for his own purposes, he is stealing from the capitalist.⁵

The capitalist can therefore invoke the law of commodity exchange. Just like every other buyer, he tries to consume the use-value of his commodity as fully as he can. But then the worker, having fallen silent amid the din of the production process, suddenly lets his voice be heard:

“The commodity I sold you differs from the great mass of other commodities in that it creates value when it is consumed—more value than it costs. That is why you bought it. What you see as the valorization of capital presents itself to me as labor-power expended past the point of excess. In the market, you and I know only one law: that of commodity exchange, according to which the person who sells a commodity isn’t the one who

2. This question is infinitely more important than the one Sir Robert Peel famously put to the Birmingham Chamber of Commerce: “What is a pound?” A question that could only be posed because Peel was just as confused about the nature of money as “the little shilling men” of Birmingham were. [Editor’s note: The phrase “little shilling men” refers to a school of monetary theory in early-nineteenth-century England, or really Birmingham. Its members called for the gold content in shillings to be reduced and named their campaign “the little shilling project.”]

3. It is the aim of the capitalist “to obtain the greatest possible amount of labor from the capital spent” (“D’obtenir du capital dépense la plus forte somme de travail possible”). J. G. Courcelle-Seneuil, “Traité théorique et pratique des entreprises industrielles. 2ème édit. Paris 1857,” p. 62.

4. “An Hour’s Labour lost in a day is a prodigious injury to a commercial state.” “There is a very great consumption of luxuries among the labouring poor of this kingdom; particularly among the manufacturing populace: by which they also consume their time, the most fatal of consumptions.” “An Essay on Trade and Commerce etc.” pp. 47 and 153.

5. “If the free laborer takes a moment’s rest, the sordid economy that follows him with worried eyes, claims he is stealing it” (N. Linguet: “Théorie des Lois Civiles etc. London 1767,” Vol. 2, p. 466).

has the right to consume it. The person who buys it has that right. Thus you own the use of my daily labor-power. But with the money I'm paid for my labor-power daily, I have to be able to reproduce it daily and keep selling it anew. Even though I will slow down, of course, as I grow older, I have to be able to work tomorrow with the same normal health, strength, and energy that I bring to my labor today. You are forever preaching the gospel of 'thrift' and 'self-restraint.' Fair enough! I want to treat the only wealth I have, my labor-power, the way a sensible, frugal innkeeper would and refrain from spending it recklessly. I want to activate—to set in motion or turn into labor each day—only as much of my labor-power as is compatible with allowing it to develop properly and not using it up prematurely. When you extend the workday beyond all limits, you activate more of my labor-power in one day than I can replace in three. What you gain in labor I lose in labor's substance. To use my labor-power and to steal it are two very different things. If the average worker can live for an average of 30 years while shouldering a reasonable workload, then the value of the labor-power you pay me for daily is $\frac{1}{3}65 \times 30$, or $\frac{1}{10,950}$ of its total value. But when you consume my labor-power in 10 years instead of 30, you are paying me $\frac{1}{10,950}$ of its total value per day instead of $\frac{1}{3},650$. In other words, you are paying me just $\frac{1}{3}$ of its daily value: you are stealing $\frac{2}{3}$ of my commodity's value daily. You are paying for one day of labor-power but consuming three days of it. This violates both our contract and the law of commodity exchange. I therefore demand a working day of normal length. I won't appeal to your heart, because sentimentality and matters of money don't mix. For all I know, you are a model citizen. Perhaps you belong to an association devoted to eradicating the mistreatment of animals. Maybe the 'odor of holiness' wafts about you. But in your dealings with me, you are a thing that has no heart. What seems to be beating in your chest is actually my own heartbeat. I demand a normal working day because I demand to be paid what my commodity is worth, just as every seller does."⁶

6. During the builders' great strike in London (1860–61), which aimed at reducing the working day to nine hours, their committee published a manifesto that partially overlaps with our worker's plea. Not without irony, the manifesto alludes to the fact that the most rapacious profitmonger among the "master builders," a certain Sir M. Peto, was in the "odour of sanctity" (in 1867, this Peto suffered the same fate that later befell Strousberg!). [Editor's note: Peto's firm went bankrupt in 1866; about a decade later, that also happened to the German fancier B. H. Strousberg. He was thereupon charged with fraud and, subsequently, expelled from Russia. The phrase "odour of sanctity" was associated with the medieval Christian notion that the bodies of saints emitted a pleasant smell, even upon becoming corpses.]

It should be clear that the nature of commodity exchange doesn't impose any limits on the working day and thus surplus-labor, except certain very elastic ones. The capitalist is asserting his right as a buyer when he tries to extend the working day as much as possible and, where possible, turn one workday into two. On the other hand, the special nature of the commodity purchased here implies a limit to how much of it a buyer can consume, and the worker is asserting his right as a seller when he calls for the workday to be limited to a certain normal magnitude. We have come to a theoretical impasse: right versus right, each as legitimate as the other under the law of commodity exchange. In such situations, whoever has more power will decide which right is enforced. The normalization of the working day has thus played out, over the course of the history of capitalist production, as a struggle over the limits of the workday—a struggle between the collective capitalist, or the members of the capitalist class, and the collective worker, or the members of the working class.

2. The Bottomless Appetite for Surplus-Labor. Manufacturer and Boyar

Capital didn't invent surplus-labor. Wherever part of society owns all the means of production, a worker, whether a free person or not, has to work beyond the time it takes to produce what he needs to maintain himself. The labor he performs during this excess labor-time produces something else: what the person who controls the means of production needs to maintain himself.⁷ This holds whether that person is an Athenian *καλὸς καγαθός*, an Etruscan theocrat, a *civis romanus*, a Norman baron, an American slave owner, a Wallachian Boyar, a modern landlord, or a capitalist.^{8,ii} But when the use-value of products, rather than their exchange-value, figures decisively in an economic formation of society, surplus-labor will of course be limited by a greater or smaller aggregation of wants and needs, while a limitless appetite for

7. "Those who labour . . . in reality feed both the pensioners called the rich, . . . and themselves" (Edmund Burke *op. cit.* pp. 2–3).

8. In his "Roman History," Niebuhr remarks quite naïvely, "We cannot disguise from ourselves that works like the Etruscan, the very ruins of which astonish us, could not be executed in small [!] states without taskmasters and bondmen." [Editor's note: Barthold Georg Niebuhr, *The History of Rome*, vol. 1, trans. Julius Charles Hare and Connop Thirwall (Cambridge: Cambridge University Press, 1828), p. 106.] Sisoni is much deeper when he says that "Brussels lace" presupposes wage masters and wage slaves.

surplus-labor won't arise from the very character of production. Thus in antiquity, overwork became terrifying where the goal was to acquire exchange-value in its independent money-shape by mining for gold and silver. Here, to be brutally worked to death was the official form of overwork—the writings of Diodorus Siculus amply illustrate this fact.⁹ Such practices may not have been typical in the ancient world, but what happens when nations whose forms of production operate on the lower levels of slavery and serfdom are pulled into the world market, where the capitalist mode of production reigns, and the primary aim is to sell products abroad? The civilized horrors of overwork are grafted onto the barbaric horrors of slavery, serfdom, and so on. Hence as long as cotton was being produced in the southern states of the US mainly to satisfy the owners' immediate wants and needs, the use of Negro labor there retained its moderate, paternalistic character. But to the same extent that exporting cotton emerged as a vital interest of these states, overworking Negroes became a factor of production in a calculating and calculated system, where overwork sometimes meant that whole lives were consumed in seven years of labor. The goal was no longer to squeeze a certain number of useful products out of slaves; instead it was to produce surplus-value itself. The same can be said of *corvée* labor in the Danubian principalities.ⁱⁱⁱ

It is particularly useful to compare the bottomless appetite for surplus-labor there with the equally bottomless appetite for it in English factories, because in the Danubian case, surplus-labor has an independent form that we can actually see.

Suppose the workday is made up of six hours of necessary labor and six hours of surplus-labor. Each week, a free worker would perform 6 × 6 hours (or thirty-six hours) of surplus-labor for the capitalist who buys his labor-power. This amount wouldn't change if the worker spent three days a week working only for himself and the other three days working for the capitalist without pay. But in the case of a wage laborer, we don't see any such separation. Rather than being divided, surplus-labor

9. "When one beholds these unfortunate people [in the gold mines between Egypt, Ethiopia, and Arabia], who aren't even able to clean their bodies or clothe their nakedness, one can't help but lament their sad fate. Those who are ill, infirm, or old are not spared at all, nor are allowances made for female weaknesses. Compelled by blows, all must keep toiling until death puts an end to their pain and their distress" (Diod. Sic. Historische Bibliothek, Buch 3, c. 13). [Editor's note: Marx inserts the context "in the gold mines between Egypt, Ethiopia, and Arabia" into the translation of Diodorus Siculus he is using here, translated by Julius Friedrich Wurm, which has been translated into English here.]

and necessary labor flow together, so I could express the same ratio just as well by saying that a worker spends half of each minute working for himself and half working for the capitalist. Not so with *corvée* labor. A Wallachian peasant does his necessary labor, the labor through which he maintains himself, in one place and carries out surplus-labor for a Boyar in another. He performs the one kind of labor on his own field; he performs the other on his lord's estate. The two parts of his labor-time exist independently of each other, separated by space, and the separation between the parts will be clearly demarcated wherever surplus-labor takes the form of the *corvée*. Of course, whether surplus-labor has one form of appearance or another doesn't affect its ratio to necessary labor. Whether we call three days a week of surplus-labor "*corvée* labor" or "wage labor," it is three days that produces no equivalent value for the worker. But whereas the capitalist's bottomless appetite for surplus-labor is expressed by his drive to extend the working day beyond all limits, the Boyar's is expressed more simply and directly when he tries to increase the number of *corvée* days.¹⁰

In the Danubian principalities, *corvée* labor was interlinked with rents in kind and the other concomitants of serfdom. However, the *corvée* was the most important tribute paid to the ruling class. Where this was the case, the *corvée* rarely stemmed from serfdom; rather, serfdom most often stemmed from the *corvée*, as in the Romanian provinces. The original mode of production there was based on communal property, although not in the Slavic sense, let alone the Indian one. Members of the commune cultivated one part of the land on their own—as free private property. Another part, the *ager publicus*, was tended communally.^{iv} The products of this communal labor were used partly as a reserve fund to help in the event of bad harvests and other misfortunes, and partly as a state treasury to cover the costs of wars, religion, and other communal expenses. Over time, military and religious eminences usurped the communal property and with it the communal labor that was owed. The labor that free peasants had performed on communal land was turned into *corvée* labor serving the people who had, in effect, stolen the land. Master-serf relations were established, but only in practice, not by law. It was Russia—that great force for world freedom—that raised these relations to the level of a legal institution, doing so under the pretext of abolishing serfdom. When the Russian general Kisseleff proclaimed the

10. What follows refers to the circumstances in the Romanian provinces prior to the transformations that have taken place since the Crimean War.

Corvée Code in 1831, it was of course dictated by the Boyars themselves. And so, with one bold stroke, Russia both conquered the magnates of the Danubian principalities and won the unthinking approval of liberal cretins throughout Europe.

The legal code of *corvée* labor is known as the *Règlement organique*, and it established that every Wallachian peasant owed the so-called estate owner not only a certain amount of specific goods, but also the following: 1) 12 days of general labor, 2) one day of labor in the fields, and 3) one day of carrying wood. *Summa summarum*: 14 days of labor per year. This system was developed, however, with a deep understanding of political economy. The working day here isn't taken in its ordinary sense, but rather as the working day necessary to produce the average daily product, which is cleverly defined so that not even the most industrious Hercules could produce it in twenty-four hours. Thus, in the dry phrasing that is characteristic of real Russian irony, the *Règlement* declares that 12 working days actually refers to the product of 36 days of manual labor. One day of labor in the fields refers to three days, and one day of carrying wood means three times that. *Summa*: 42 days of *corvée* labor. There is also the so-called *jobbaggio*, which is the service that the estate owner is entitled to for special production needs. Each year, villages have to supply (for the *jobbaggio*) a group of workers proportional to their population. This additional *corvée* labor amounts to about 14 days for every Wallachian peasant, bringing the total number of days of *corvée* labor to 56 annually. In Wallachia, agricultural labor can be performed just 210 days a year because of the climate, and of these days, 40 are Sundays and holidays. In an average year, moreover, bad weather makes agricultural work impossible on another 30 days. So a total of 70 days are excluded, leaving 140 working days. The ratio of *corvée* labor to necessary labor—56:84 or $66\frac{2}{3}\%$ —represents a much lower rate of surplus-value than the one that governs English agriculture and industry. But this is only *corvée* labor as set forth by law. Formulated in a spirit even "more liberal" than the English Factory Laws, the *Règlement organique* makes it easy to get around its own rules. Not only are 12 days turned into 54; the nominal daily labor to be performed on each *corvée* day is framed so that additional labor has to be performed on the ensuing days. Weeding a whole field might be called the work of a single day when in fact that operation can take twice as long, as it does in wheat fields. What the law establishes as an agricultural task requiring a day of work can sometimes be interpreted in such a way that this one day begins in May and ends in October. (The laws are even harsher in Moldavia.) A Boyar

once bellowed, drunk on victory, "The 12 *corvée* days of the *Règlement organique* last all 365!"^{11,v}

If the *Règlement organique* of the Danubian principalities expresses the bottomless appetite for surplus-labor positively, making it legal with every one of its paragraphs, the English Factory Acts express the same appetite negatively.^{vi} These laws reined in capital's drive to exploit labor-power beyond all measure. They are the mechanism a state run by capitalists and landlords used to forcibly limit the workday. What prompted this legislation to restrict factory work? Aside from the workers' movement, which was becoming more menacing by the day, it was brought about by the same necessity that led to the use of guano on England's fields. The same blind rapacity that ruined the soil in the one case grabbed hold of the nation's vital forces by their roots in the other. Epidemics broke out again and again, which says a great deal about what took place here, as does the fact that the minimum height requirement in the English and French armies had to be lowered.¹²

The Factory Act of 1850, whose rules are still in effect, permits a ten-hour average workday. The workday is twelve hours during the first five days of the week—6 A.M. to 6 P.M.—with a half-hour off for breakfast and an hour break for lunch legally required. Thus ten and a half hours of labor are actually performed. On Saturday, the workday is eight hours—6 A.M. to 2 P.M., with a half-hour break for breakfast. The workweek therefore amounts to sixty hours of labor: ten and a half hours on each of the first five days, seven and a half hours on the last day.¹³ This law has its own

11. Further details can be found in "E. Regnault. Histoire politique et sociale des Principautés Danubiennes. Paris 1855."

12. "On the whole, when organic beings are larger than the average size of the type to which they belong, this expresses—albeit not in every case—that they are thriving. A man's height will be less if circumstances, whether physical or social, disturb his growth. The average height of adult men has decreased in all European countries that have conscription, and men there are generally less fit for military service than they were when conscription was introduced. The minimum height for the French infantry was 165 cm. prior to 1789. But in 1818 (law of March 10), it was set at 157 cm., and in 1832, it was set at 156 cm. by the law of March 21. In France, over half of all conscripts are now typically turned back, either because they are not tall enough or their constitution is poor. The minimum height for the military in Saxony was 178 cm. in 1780. It has been reduced to 155 cm., while Prussia's is now 157 cm. On May 9, 1862, the *Bayrische Zeitung* published a statement by Dr. Meyer in which he asserts that for the past nine years, an average of 716 Prussians out of 1,000 have been deemed unfit for military service—317 for not meeting the standard for height and 399 due to physical defects. . . . In 1858, Berlin failed to send a full group of recruits, falling short by 156 men" (J. v. Liebig: "Die Chemie in ihrer Anwendung auf Agrikultur und Physiologie. 1862. 7th edition." Vol. 1, pp. 177, 118). [Editor's note: This quotation shows heavy editing by Marx.]

13. The history of the 1850 Factory Act will be related over the course of this chapter.

guardians: namely, the factory inspectors who answer directly to the Home Secretary and write biannual reports that are published by order of Parliament. Hence these inspectors regularly provide official statistics that document the capitalist’s bottomless appetite for surplus-labor.

Let’s take a moment to listen to the factory inspectors.¹⁴

“The fraudulent mill-owner begins work a quarter of an hour (sometimes more, sometimes less), before 6 A.M., and leaves off a quarter of an hour (sometimes more, sometimes less) after 6 P.M. He takes 5 minutes from the beginning and end of the half hour nominally allowed for breakfast, and 10 minutes at the beginning and end of the hour nominally allowed for dinner. He works for a quarter of an hour (sometimes more, sometimes less), after 2 P.M. on Saturdays. Thus his gain is,

Before 6 A.M.	15 minutes	
After 6 P.M.	15 minutes	
At breakfast time	10 minutes	sum over 5 days: 300 minutes
At dinner time	20 minutes	
	60 minutes	
5 days	300 minutes	
On Saturdays, before 6	15 minutes	
At breakfast time	10 minutes	total weekly yield: 340 minutes
After 2 P.M.	15 minutes	
	40 minutes	

Or 5 hours and 40 minutes weekly, which multiplied by 50 working weeks in the year (allowing two for holidays and occasional stoppages) is

14. Only here and there do I discuss the period that begins when heavy industry was introduced in England and lasts until 1845. Let me refer readers, then, to “Die Lage der arbeitenden Klasse in England,” by Friedrich Engels (Leipzig 1845). The factory reports (on mines, etc.) that were published after 1845 show how profoundly Engels understood the spirit of the capitalist mode of production. And even briefly comparing his work with the official reports of the “Children’s Employment Commission” (1863–67), which were published eighteen to twenty years later, gives us a sense of how admirably precise he was in his portraiture. These reports deal for the most part with the branches of industry where, in 1862, the factory laws hadn’t been introduced and even today have been introduced only partially—in other words, with the branches where external authorities have imposed little or no change on the conditions that Engels depicted. I have taken my examples mainly from the period of free trade after 1848, that Edenic time that features commercial travelers, as brash as they are ignorant of scholarship, telling their German audiences tall tales. Finally, England occupies the foreground here simply because it is the classical case of capitalist production, and England alone has kept official statistics on our objects of inquiry.

equal to 27 working days.”¹⁵ “Five minutes a day’s increased work, multiplied by weeks, are equal to two and a half days of produce in the year.”¹⁶ “An additional hour a day, gained by small instalments before 6 A.M., after 6 P.M., and at the beginning and end of the times nominally fixed for meals, is nearly equivalent to making thirteen months in the year.”¹⁷

Crises disrupt production, causing labor to be reduced to “short time” (i.e., done only several days a week). But when this happens, the drive to extend the working day isn’t affected, needless to say. If fewer transactions take place, each transaction has to yield more profit. If a worker spends less time working, a greater part of it has to be surplus labor-time. The factory inspectors had the following to report about the period of crisis from 1857 to 1858:

“It may seem inconsistent that there should be any overworking at a time when trade is so bad; but that very badness leads to the transgression by unscrupulous men; they get the extra profit of it.” “In the last half year,” says Leonard Horner, “122 mills in my district have been given up; 143 were found ‘standing,’ yet overwork is done beyond the legal hours.”¹⁸ “For a great part of the time,” says Mr. Howell, “owing to the depression of trade, many factories were altogether closed, and a still greater number were working ‘short time.’ I continue, however, to receive about the usual number of complaints that half or three quarters of an hour in the day are snatched from the workers by encroaching upon the times professedly allowed for rest and refreshment.”¹⁹

This phenomenon recurred on a smaller scale during the terrible cotton crisis of 1861 to 1865.²⁰

“It is sometimes advanced by way of excuse, when persons are found at work in a factory either during a meal hour or at some other illegal time, that they will not leave the mill at the appointed hour, and that compulsion is necessary to force them to cease work [cleaning the machines, etc.], especially on Saturday afternoons. But, if the hands remain in a factory

15. “Suggestions etc. by Mr. L. Horner, Inspector of Factories,” in “Factories Regulation Acts. Ordered by the House of Commons to be printed 9 Aug. 1859,” pp. 4, 5.

16. “Reports of the Insp. of Fact. for the half year ended 31st Oct. 1856,” p. 35.

17. “Reports etc. 30th April 1858,” pp. 9, 10.

18. “Reports etc.” *Ibid.* p. 10. [Editor’s note: The last part of this quotation—i.e., the line about overwork—isn’t part of the passage Marx cites here and appears to be an instance of paraphrase.]

19. “Reports etc.” *Ibid.* p. 25.

20. “Reports etc. for the half year ending 30th April 1861.” See Appendix number 2: “Reports etc. 31st Octob. 1862,” pp. 7, 52, 53. The violations grew again in the second half of 1862. See “Reports etc. ending 31st Oct. 1863,” p. 7.

after the machinery has ceased to revolve, they would not have been so employed if sufficient time had been set apart specially for cleaning, etc. either before 6 P.M. or before 2 P.M. on Saturday afternoons.”²¹

“With such over-working in the violation of the Act, the profit to be gained by it appears to be, to many, a greater temptation than they can resist; they calculate upon the chance of not being found out; and when they see the small amount of penalty and costs, which those who have been convicted have had to pay, they find that if they should be detected there will still be a considerable balance of gain.”²² “In cases where the additional time is gained by a multiplication of small thefts in the course of the day there are insuperable difficulties to the Inspector making out a case.”²³ The factory inspectors also describe these “small thefts” of the workers’ time for meals and rest as “petty pilferings of minutes”²⁴ and “snatching a few minutes.”²⁵ The workers have their own technical term for them: “nibbling and cribbling at meal times.”²⁶

21. “Reports etc. 31st Oct. 1860,” p. 23. The following odd incident demonstrates the fanaticism with which the factory hands themselves resisted every interruption of their labor, according to court testimony given by the manufacturers. At the beginning of June 1836, the magistrates of Dewbury (Yorkshire) received denunciations claiming that the owners of eight large mills in the vicinity of Batley had violated the Factory Act. Some of these owners were accused of having five boys 8 to 15 years old work from 6 A.M. on Friday until 4 P.M. on Saturday—without permitting them any rest, except for meals and an hour of sleep at midnight. And these boys had to perform their 30 hours of continuous labor in the “shoddy-hole,” as the pit where they worked was called. This was the place for shredding wool rags, which produced clouds of dust and waste that made even adult workers cover their faces covered with a handkerchief to protect their lungs! The accused men testified, though not under oath—as Quakers, they were too scrupulously religious to take an oath—that they felt great compassion for the poor children and, thus, they allowed them to have four hours of sleep. But the hard-headed children just wouldn’t go to bed! The Quakers were fined £20. Dryden had a presentiment of these Quakers:

Fox full fraught in seeming sanctity,
That feared on oath, but like the devil would lie,
That look’d like Lent, and had the holy leer,
And durst not sin! Before he said his prayer!

[Editor’s note: From John Dryden, “The Cock and the Fox: or, the Tale of the Nun’s Priest” (1700). Marx is reading “Fox” as a reference to George Fox (1624–91), who helped found the Religious Society of Friends (whose members were known as Quakers).]

22. “Rep. etc. 31st Oct. 1856,” p. 34.

23. *Ibid.* p. 35.

24. *Ibid.* p. 48.

25. *Ibid.*

26. *Ibid.* [Editor’s note: The term given in the factory inspectors report is actually “nibbling,” or “cribbing at mealtimes.”]

Here, as we can see, it's no secret that surplus-labor is used to create surplus-value. "If you allow me," said a highly respectable master to me, "to work only ten minutes in the day over time, you put one thousand a year in my pocket."²⁷ "Moments are the elements of profit."²⁸

Nothing is more characteristic of all this than the practice of labeling the workers who work full time "full-timers" and applying the term "half-timers" to the children under 13 who are allowed to work only six hours a day.²⁹ Workers are thereby reduced to nothing but personified labor-time. The distinction between "full-timers" and "half-timers" blots out all individual differences.

3. Branches of English Industry Where the Law Doesn't Limit Exploitation

Up to this point, we have observed the drive to extend the workday, truly a werewolf's bottomless appetite for surplus-labor, only in places where colossal outrages led people to restrain capital with the chains of legal regulation—according to one bourgeois English economist, these outrages rival the atrocities that the Spanish committed against the Redskins in America.³⁰ Let us now look at some branches of industry where labor-power is still freely exploited, or regulation has only just begun.

"It was declared by Mr. Broughton, a county magistrate, who filled the chair at a meeting held in the Nottingham Town Hall on Saturday last, that there is an amount of suffering and privation among that portion of the local population connected with the lace trade such as is utterly unknown in any other district of the civilised world. . . . Why, that children of nine or ten years of age are dragged from their squalid beds at two, three, or four o'clock in the morning, and compelled to work for a bare subsistence until ten, eleven, or twelve at night, their limbs wearing away, their frames dwindling, their faces whitening, and their humanity absolutely sinking into a stone-like torpor utterly horrible to contemplate. . . . We are

27. *Ibid.* p. 48.

28. "Rep. of the Insp. etc. 30th April 1860," p. 56.

29. This expression has official status in the factories and also the inspectors' reports.

30. "The cupidity of mill owners, whose cruelties in pursuits of gain, have hardly been exceeded by those perpetrated by the Spaniards on the conquest of America, in the pursuit of gold." John Wade, "History of the Middle and Working Classes 3rd ed. Lond. 1835," p. 114. The theoretical part of Wade's book, a kind of outline of political economy, contains things that were quite original for his time: for example, his account of trade crises. On the other hand, the author's shameless plagiarizing of Sir M. Eden's "History of the Poor. London 1797" compromises the historical part of his book.

not surprised that Mr. Mallett or any other manufacturer, should stand forward and protest against discussion. . . . The system, as the Rev. Montagu Valpy, describes it, is one of unmitigated slavery, socially, physically, morally, and spiritually. . . . What can be thought of a town which holds a public meeting to petition that the period of labour for men shall be *diminished to eighteen hours a day*, . . . We declaim against the Virginian and Carolinian cotton-planters. Is their black-market, however, their lash, and their barter of human flesh more detestable than this slow sacrifice of humanity, which takes place in order that veils and collars may be fabricated for the benefit of capitalists?"³¹

During the past 22 years, the potteries of Staffordshire have been the object of three parliamentary investigations whose findings are recorded in the following places: the report that Herr Scriven produced for the "Children's Employment Commissioners" in 1841; Dr. Greenhow's report of 1860, which was published by order of the Privy Council's medical official (*Public Health 3rd Report*, I, 102–13); and, finally, Mr. Longe's contribution to the *First Report of the Children's Employment Commission*, which is dated June 15, 1863. For my purposes, it will suffice to quote the testimony of exploited children that is included in the reports of 1860 and 1863. By extrapolating from their statements, we can gain a sense of how adult workers—especially women—were treated in a branch of industry that makes cotton spinning and the like seem pleasant and wholesome.³²

William Wood, age 9, "was 7 years 10 months when he began to work." He "ran moulds." He arrived each day at 6 A.M. and worked until around 9 o'clock at night. "I give over about 9. I work to 9 six days in the week. I have done so seven or eight weeks." A child of seven working fifteen-hour days! John Murray, a twelve-year-old boy, says, "I turn jigger [turn the wheel] and run moulds. I come at 6. Sometimes I come at 4. I worked all night last night, till 6 o'clock this morning. I have not been in bed since the night before last. There were eight or nine other boys working last night. All but one have come this morning. I get 3s. 6d. I do not get any more for working at night. I worked two nights last week."^{vii} John Fernyhough, a ten-year-old boy: "I have an hour for dinner at 1. Not always an hour; generally. I have only half an hour sometimes; on Thursday, Friday, and Saturday."³³

31. London Daily Telegraph of 17th January 1860.

32. See Engels, "Lage etc." pp. 249–251.

33. "Children's Employment Commission First Report etc. 1863," Appendix, pp. 16, 19, 18.

Dr. Greenhow has stated that in the pottery districts of Stoke-upon-Trent and Wolstanton, the average life expectancy is extraordinarily short. In the district of Stoke, 36.6% of men over 20 are employed in pottery factories, and in Wolstanton the percentage is even lower: 30.4%. Yet in the former district, more than half the deaths among men that age result from respiratory disease suffered by potters, while in the latter district, nearly two-fifths of the deaths do. Dr. Boothroyd, a physician in Hanley, claims, "Each successive generation of potters becomes more dwarfed and less robust than the preceding one." Similarly, Mr. McBean, another doctor, reports, "I have observed a marked degeneration in the potters, especially shown in a diminution of stature and breadth, since I commenced practice among them 25 years ago." (These testimonies come from Dr. Greenhow's report of 1860.)³⁴

The Commissioners' report of 1863 contains the following. Dr. Arledge, senior physician at the North Staffordshire Infirmary, says, "The potters as a class, both men and women, . . . represent a much degenerated population, both physically and mentally. They are, as a rule, stunted in growth, ill-shaped, and frequently, deformed in the chest; they become prematurely old, and are certainly short-lived; they are phlegmatic and bloodless, and exhibit their debility of constitution by obstinate attacks of dyspepsia, and disorders of the liver and kidney, and by rheumatism. But of all diseases, they are especially prone to chest disease, to pneumonia, phthisis, bronchitis, and asthma. One form would appear peculiar to them, and is known as potter's asthma or potter's consumption. Scrofula, attacking the glands or bones or other parts of the body, is a disease affecting two-thirds of the potters. . . . That the 'degenerescence' of the population of this district is not even greater than it is, is due to the constant recruiting from the adjacent country, and to intermarriages with more healthy races." In a letter to Commissioner Longe, Charles Parsons, who was until recently House Surgeon at the same hospital, writes, among other things, "I can only speak from personal observation and not from statistical data, but I do not hesitate to assert that my indignation has been aroused again and again at the sight of poor children whose health has been sacrificed to gratify the avarice of either parents or employers." He lists the causes of potters' diseases, bringing them to a point with the phrase "long hours." The Commissioners' report expresses the hope that "a manufacture which

34. "Public Health. 3rd Report etc." pp. 102, 104, 105. [Editor's note: In the factory inspectors' report, this quotation is presented as reported speech: "He had observed a marked degeneration. . . ."]

has assumed so prominent a place in the eye of the whole world will not long be subject to the remark, that its great success is accompanied with the physical deterioration, wide-spread bodily suffering, and early death of the workpeople . . . by whose labour and skill such great results have been achieved.”³⁵ What is true of England’s potteries holds also for Scotland’s.³⁶

Matches have been manufactured since 1833, when a way to apply phosphorous to the match itself was discovered. Since 1845, this industry has grown rapidly in England, spreading from densely populated parts of London to Manchester, Birmingham, Liverpool, Bristol, Norwich, Newcastle, and Glasgow. As it has become more pervasive, so has tetanus, which, as early as 1845, a Viennese doctor identified as the signature disease of the workers who make sulfur matches. Children under 13 and teenagers under 18 account for half of those workers. Their labor is so notoriously unhealthy and awful that only the most desperate members of the working class, such as “half-starved widows,” send their children, their “ragged, half starved, untaught children,” to do this work.³⁷ Of the witnesses whom Commissioner White interviewed (in 1863), 270 were younger than 18, 40 were under 10, 10 were only eight years old, and five were just six years old. The workday varied, amounting alternately to twelve, fourteen, or fifteen hours. It involved night work and irregular mealtimes. The meals themselves were most often consumed in workrooms where the air was thick with phosphorous. Dante would have found in this industry horrors that exceed even his most terrifying visions of hell.^{viii}

In wallpaper factories, machines are used to print the coarser types; the finer ones are printed by hand (block printing). The busy season starts at the beginning of October and runs until the end of April. During this time, work often begins at 6 A.M. and lasts until 10 at night and later. Breaks are rare.

J. Leach testifies, “Last winter [1862] six out of nineteen (girls) were away from ill health at one time, from over work, that is to say. I have to bawl at them to keep them awake.” W. Duffy: “The children could none of them keep their eyes open for the work; indeed, none of us could.” J. Lightbourne: “Am 13. . . . We worked last winter till 9 [at night] in this winding-up room, and the winter before till 10. I used to cry with sore feet every night last winter.” G. Aspden: “That boy of mine, when he was 7 years old I used to carry him on my back to and fro through the snow, and he used to have 16 hours a day. . . . I have often knelt down to feed him as he

35. “Children’s Employ. Commission, 1863,” pp. 24, 22, and XL.

36. *Ibid.* p. XLVII.

37. *Ibid.* p. LIV.

stood by the machine, for he could not leave it or stop.” Smith, the managing partner of a Manchester factory: “We [he means his “hands” who work for “us”] work on, with no stoppage for meals, so that the day’s work of 10½ hours is finished by 4½ p.m., and all after that is overtime.”³⁸ One wonders whether this Mr. Smith himself goes ten and a half hours without eating a meal. “We [Smith again] seldom leave off working before 6 P.M. [he means leave off consuming ‘our’ labor-power machines], so that we [*iterum crispinus*] are really working overtime the whole year round. . . . For all these children and adults alike (152 children and young persons, and 140 adults . . .) the average work in the last 18 months has been at the very least 7 days 5 hours, or 78½ hours a week. For the six weeks ending May 2nd this year [1863] the average was higher—8 days, or 84 hours a week.”^{ix} Yet this same Mr. Smith, who is so fond of the *pluralis majestatis*, adds with a grin, “Machine work is not great.”^x Those who employ block printers say much the same thing: “Manual labour is healthier than machine work.” Yet on the whole, the proposal to “at least shut down the machines during mealtimes” has elicited indignation and resistance from the majority of manufacturers. “A clause which allowed labor-hours between, say, 6 A.M. and 9 P.M.,” remarks Mr. Ottley, manager of a wall-paper factory in the Borough, “would suit us [!] very well, but factory hours, 6 A.M. to 6 P.M., are not very suitable to us [!] . . . Our machine is always stopped for dinner [how generous!]. There is no waste of colour and paper to speak of.” However, “I can understand the loss of time not being liked,” he adds sympathetically. The Commission’s report naïvely suggests that if some “leading firms” fear losing time (time in which they appropriate the labor of others) and thus “profit,” that isn’t a “sufficient reason” to allow children under 13, along with persons under 18 who work 12 to 16 hours a per day, to “lose their dinner,” or to have them take in food as they work the way a steam engine takes in coal and water, wool gets soap, and gears are given oil. Here workers’ food is turned into mere auxiliary material for a means of labor.³⁹

38. This shouldn’t be taken in the same sense as our surplus labor-time. These gentlemen regard 10½ hours of labor as the normal working day, which includes the normal amount of surplus-labor. Then “overtime” begins, and it pays somewhat better. Later we will see that during the so-called working day, workers are underpaid for the use of their labor-power. Hence “overtime” is merely a trick the capitalist employs to squeeze more “surplus-labor” out of workers. Of course, this would still hold for overtime even if the labor-power expended during the “normal day” were paid for at its full value.

39. Ibid. Appendix pp. 123, 124, 125, 140, and LXIV.

More than any other branch of industry in England, baking has retained archaic, even pre-Christian methods of production, as we can see from the Roman poets of the Imperial period (although lately there have been pathbreaking developments in the use of machines to make bread).^{xi} But capital, as we noted earlier, doesn't initially concern itself with the technical side of the labor process it has come to control. Capital takes the labor process as it finds it.

The outrageous adulteration of bread, particularly in London, was brought to light by the Committee of the House of Commons "on the adulteration of articles of food" (1855-56), and also by Dr. Hassall's book *Adulterations Detected*.⁴⁰ These revelations led to the law of 6th August 1860, "for preventing the adulteration of articles of food and drink," a law that has failed to have any effect because, of course, it bends over backward to accommodate every free trader who wants "to turn an honest penny" by buying and selling adulterated goods.⁴¹ The Committee itself sounded rather naïve in formulating its conviction that free trade is essentially trade with adulterated articles, or, as the English cleverly put it, "sophisticated goods." This form of "sophistry" can demonstrate that black is white and white is black even more deftly than Protagoras, and it can show that all that is real just appears to be so even more convincingly than the Eleatics.^{42,xii}

The Committee nevertheless managed to open the public's eyes to its "daily bread" and thus to the baking trade as well. At the same time, the journeymen bakers in London were protesting against overwork, their shouts resounding from open meetings and petitions. These shouts

40. Alum, finely ground or mixed with salt, is a normal article of trade; tellingly, it is called "baker's stuff."

41. Soot is known to be a very active form of carbon, and capitalist chimney sweeps sell it to farmers as fertilizer. In legal proceedings that took place in 1862, it fell to the British "Juryman" to decide whether soot that had been doctored without the buyer's knowledge, and was now 90% dust and sand, still counted as "genuine" soot in a "commercial" sense. Or had it become "adulterated" soot in a legal sense? The "amis du commerce" rejected the claims of the plaintiff farmer, who had to pay the court costs.

42. In a work about the "sophistications" of commodities, the French chemist Chevallier lists 10, 20, or 30 different methods of adulteration for many of the more than 600 objects he examined. He adds that he does not know all the methods being applied and hasn't even presented all the methods he does know of. He mentions six ways of adulterating sugar, nine ways of adulterating olive oil, 10 ways for butter, 12 for salt, 19 for milk, 20 for bread, 23 for schnapps, 24 for flour, 28 for chocolate, 30 for wine, 32 for coffee, and so on. [Editor's note: The reference here is probably to Chevallier's work *Dictionnaire des altérations et falsifications des substances alimentaires médicamenteuses et commerciales avec l'indication des moyens de les reconnaître*, the first edition of which came out in 1850.]

became so urgent that Mr. H. S. Tremenheere, also a member of the abovementioned Committee of 1863, was named Royal Commissioner of Inquiry. His report,⁴³ which included testimony from witnesses, struck a chord with the public—in its stomach, not its heart. With their solid command of the Bible, the English knew that if a person isn't elected by grace to be a capitalist or landlord, or to hold a sinecure, he is destined to earn his bread by the sweat of his brow. But they didn't know that the bread such persons eat every day contains a certain amount of human sweat mixed with discharge from infections, cobwebs, the carcasses of cockroaches, and spoiled German yeast, plus alum, sand, and other nourishing mineral ingredients. What His Holiness "Free Trade" wanted was therefore disregarded, and the formerly free business of baking was brought under the supervision of state inspectors (at the close of Parliament's 1863 session). By the same Act of Parliament, apprentice bakers under 18 could no longer be made to work from 9 at night until 5 the next morning. The last clause speaks volumes about overwork in a business that tends to come across as quaint.

"The work of a London journeyman baker begins, as a rule, at about 11 at night. At that hour he 'makes the dough'—a laborious process, which lasts from half an hour to three quarters of an hour, according to the size of the batch or the labour bestowed upon it. He then lies down upon the kneading board, which is also the covering of the trough in which the dough is 'made'; and with a sack under him and another rolled up as a pillow, he sleeps for about a couple of hours. He is then engaged in rapid and continuous labor for about five hours—throwing out the dough, 'scaling it off,' moulding it, putting it into the oven, taking the batch-bread out of the oven, etc. The temperature of a bakehouse ranges from about 75 to upwards of 90 degrees, and in the smaller bakehouses approximates usually to the higher rather than to the lower degree of heat. When the business of making the bread, rolls, and so on is over, that of its distribution begins; and a considerable proportion of the journeymen in the trade, after working hard in the manner described during the night, are upon their legs for many hours during the day, carrying baskets or wheeling handcarts, and sometimes again in the bakehouse; leaving off work at various hours between 1 and 6 P.M., according to the season of the year, or the amount and nature of their master's business; while others are again engaged in the bakehouse in 'bringing out' more batches, until late at

43. "Report etc. relating to the Grievances complained of by the Journeyman Bakers etc. London 1862" and "Second Report etc. London 1863."

night.”⁴⁴ “During what is called ‘the London season,’ the operatives belonging to the ‘full-priced’ bakers at the West End of town generally begin work at 11 P.M., and are engaged in making the bread, with one or two short (sometimes very short) intervals of rest, up to 8 o’clock the next morning. They are then engaged all day long, up to 4, 5, 6, and as late as 7 o’clock in the evening, carrying out bread, or sometimes in the afternoon in the bakehouse again, assisting in the biscuit-baking. They may have, after they have done their work, sometimes five or six, sometimes only four hours sleep before they begin again. On Fridays they always begin sooner—some about 10 o’clock, and continue, in some cases, at work either in making or delivering the bread, up to 8 P.M. on Saturday night, but more generally up to 4 or 5 o’clock. Also in some ‘full-priced’ shops they have to attend to Sunday bakings, which alone will occupy four or five hours. . . . The men employed by the ‘underselling masters’ [who sell their bread under the full price] have not only to work on the average longer hours, but their work is almost entirely confined to the bakehouse. The underselling masters, who, as noted earlier, make up three-fourths of all London bakers, generally sell their bread to their customers in the shop. If they send it out, which is not common, except as supplying chandlers’ shops, they usually employ other hands for that purpose. It is the most ordinary practice in the underselling trade for the men to begin on Thursday night at 10 o’clock, and continue on, with only slight intermissions, until late on Saturday evening. Nearly all the underselling trade does Sunday baking.”⁴⁵

Even the bourgeois observer could see what the “underselling masters” were up to: “The unpaid labour of the men was made the source whereby the competition was carried on.”⁴⁶ And in fact the “full-priced bakers” denounced their “underselling” competitors to the Commission of Inquiry, claiming that they had stolen the labor of others and adulterated their own product. “They only exist now by first defrauding the public, and next getting 18 hours’ work out of their men for 12 hours’ wages.”⁴⁷

In England, the practice of adulterating bread, along with the formation of a baker class that sells bread below its full price, dates to the beginning of the eighteenth century, when baking’s guild character dissipated

44. Op. cit. First Report etc. pp. VI, VII. [Editor’s note: In the English source text, the last line of the passage quoted speaks of other workers “being engaged in the bakehouse” “until late in the afternoon.” Marx’s German translation in *Capital* has them engaged there a little longer—“until midnight” (“Mitternacht”).]

45. Ibid. p. LXXI.

46. George Read: “The History of Baking London. 1848,” p. 16.

47. Report (First) etc. Evidence. Testimony of the “full-priced baker,” Cheesman, p. 108.

and capitalists in the form of millers or flour dealers began to exert greater influence on nominal master-bakers.⁴⁸ This laid the foundation for capitalist production in baking, heedlessly extending the workday and adding night work, although even in London the last of these developments didn't take root until 1824.

It should come as no surprise, then, that the Commission's report included journeymen bakers among those workers who don't live long—who, having managed to survive childhood, a very dangerous time for all members of the working class, seldom reach the age of 42. Yet there is always a glut of people who hope to pursue baking as their trade. These bearers of "labor-power" stream into London from Scotland, England's western farming regions, and . . . *Germany*.

From 1858 through 1860, journeymen bakers in Ireland spent their own money to organize large protest meetings against night labor and work on Sundays. The public supported the journeymen with the warmth of the Irish, especially at the meeting in Dublin in May 1860. As a result of this movement, night labor was prohibited in Wexford, Kilkenny, Clonmel, Waterford, and elsewhere. "In Limerick, where the grievances of the journeymen are demonstrated to be excessive, the movement has been defeated by the opposition of the master-bakers; the miller bakers being the greatest opponents. The example of Limerick led to a retrogression in Ennis and Tipperary. In Cork, where the strongest possible demonstration of public feeling took place, the masters, by exercising their power of turning the men out of employment, have defeated the movement. In Dublin, the master-bakers have offered the most determined opposition to the movement, and by discountenancing as much as possible the journeymen promoting it, have succeeded in leading the men into acquiescence in Sunday-work and night-work."⁴⁹ The English government is armed to the teeth in Ireland, yet its Committee there merely, if solemnly, admonished the implacable master-bakers of Dublin, Limerick, Cork, and so on: "The Committee believe that the hours of labour are limited by natural laws which cannot be violated with impunity. For master bakers to induce

48. George Read op. cit. Even at the end of the seventeenth century and the beginning of the eighteenth century, the factors (or agents) pushing their way into every possible branch of trade were still officially denounced as "public nuisances." Thus in the county of Somerset, at the quarterly meeting of the justices of the peace, the Grand Jury sent the House of Commons a "presentment" stating, among other things, "that these factors of Blackwell Hall are a Publick Nuisance and Prejudice to the Clothing Trade and ought to be put down as a Nuisance" ("The Case of our English Wool etc. London 1685," p. 7).

49. "Report of Committee on the Baking Trade in Ireland for 1861."

their workmen, by the fear of losing employment, to violate their religious convictions and their better feelings, to disobey the law of the land, and to disregard public opinion [about Sunday work], is calculated to provoke ill feeling between workmen and masters, to lower employers in the eyes of their men, and affords an example dangerous to religion, morality, and social order. . . . The Committee believe that any constant work beyond 12 hours a day encroaches on the domestic and private life of the working man, and so leads to disastrous moral results, interfering with each man's home and the discharge of his family duties as a son, a brother, a husband, and a father. That work beyond 12 hours has a tendency to undermine the health of the working man, and so leads to premature old age and death, to the great injury of families of working men thus deprived of the care and support of the head of the family when most required."⁵⁰

We were just in Ireland. Let us now look at Scotland across the water. Agricultural workers, men of the plow, are protesting against their thirteen- and fourteen-hour workdays in raw conditions and the four additional hours of labor on Sundays (in this land of Sabbatarians!).⁵¹ Meanwhile, three railway workers—a conductor, a locomotive operator, and a signalman—stand before a grand jury in London. A massive train accident conveyed hundreds of passengers into the next life. Negligence on the part of the workers caused the accident. All three workers testify that 10 or 12 years ago, their workday lasted only eight to ten hours. But during the past 5 to 6 years, they have been forced to work fourteen, sixteen, eighteen, even twenty hours a day, and during the busiest travel periods, such as when the excursion trains are running, they often work shifts of forty to fifty hours without a break. They are ordinary people—human beings, not Titans. At a certain point, they could no longer work. Exhaustion had taken hold of them. Their brains stopped thinking; their eyes stopped seeing. The thoroughly “respectable British Jurymen” answered with a verdict that sent the accused to the Assizes to be tried for manslaughter. In a mild addendum to the verdict, the jury piously wished that the capitalist magnates of the railroad would be more profligate when buying the “labor-power” they need, and more “abstemious” or “self-denying” or “thriftier” when they exploit the hired bearers of that labor-power.⁵²

50. *Ibid.*

51. Public meeting of the farmers in Lasswade near Glasgow, 5th Jan. 1866. (See the “Workman’s Advocate” of 13th Jan. 1866.). That a Trader’s Union has formed among the farm workers since 1865—above all, in Scotland—is a historic event.

52. “Reynold’s Newspaper” of 20th Jan. 1866. Every week, this weekly paper publishes a list of railway tragedies under such “sensational headings” as “Fearful and fatal accidents,”

Young and old, male and female, the ragtag throng of different workers crowds around us more desperately than the souls of the dead crowded around Odysseus, and even if we don't notice the Blue Books under their arms, we see right away that they bear the signs of overwork.^{xiii} Let us consider two more figures from this group. These figures, a milliner and a blacksmith, are very different, which is why they will show us that all people are alike before capital.

During the last weeks of June 1863, the daily newspapers in London ran a paragraph under the "sensational" headline "Death from Simple Overwork." It related an account of how the milliner Mary Anne Walkley died, at twenty, while employed by a respected dressmaking firm and being exploited by a woman with the cheerful name "Elise." It was an old and often repeated story that had now been rediscovered.⁵³ Young female milliners work on average sixteen and a half hours without a break, although during the busy season, they often work thirty hours consecutively, sometimes resorting to sherry, port wine, or coffee to keep their "labor-power" fluid when it starts to falter. And it was in fact the height of the busy season. A ball had been organized to honor the newly imported Princess of Wales; the milliners had the task of instantly conjuring up exquisite clothes for the wealthy women who were invited. Together with 60 other young women, Mary Anne Walkley sewed and stitched for twenty-six and a half hours without stopping to rest. The young women worked 30 to a room, and the rooms had just $\frac{1}{3}$ of the air required per cubic foot. At night, they slept two to a bed, barely able to breathe in the airless holes

"Appalling tragedies," and so on. This prompted a worker on the North Stafford line to reply, "Everyone knows the consequences that may occur if the driver and fireman of a locomotive engine are not continually on the lookout. How can that be expected of a man that has been at such work for 29 or 30 hours, exposed to the weather, and without rest? The following is an example which, unfortunately, is of very frequent occurrence: One fireman commenced work on the Monday morning, at a very early hour. When he had finished what is called a day's work, he had been on duty 14 hours 50 minutes. Before he had time to get his tea, he was again called on for duty. The next time he finished he had been on duty 14 hours 25 minutes, making a total of 29 hours 15 minutes without intermission. The rest of the week's work was made up as follows: Wednesday, 15 hours; Thursday, 15 hours 35 minutes; Friday, 14 $\frac{1}{2}$ hours; Saturday, 14 hours 10 minutes, making a total for the week of 88 hours, 40 minutes. Now, sir, fancy his astonishment on being paid 6 $\frac{3}{4}$ days for the whole! Thinking it was a mistake, he applied to the time-keeper and inquired what they considered a day's work, and was told 13 hours [i.e., 78 hours]. He then asked for what he had made over the 78 hours per week, but was refused. However, he was at last told they would give him another quarter—i.e., 10d." (ibid. 4th February 1866).

53. See F. Engels op. cit. pp. 253, 254.

that had been partitioned into bedrooms with assorted wooden boards.⁵⁴ And this was one of London's best millineries! Mary Anne Walkley fell ill on a Friday and died two days later. Ms. Elise was shocked—Ms. Walkley hadn't managed to finish the piece of finery she had been working on. Mr. Keys, the physician called too late to the deathbed, testified before the Coroner's Jury in blunt language: Mary Anne Walkley died from "long hours of work in an overcrowded apartment, and sleeping in a close badly ventilated bedroom." To give the doctor a lesson in good manners, the Coroner's Jury expressed itself very differently, announcing that "the deceased died of apoplexy, but there is reason to fear that her death was accelerated by working long hours in a crowded workroom."^{xiv} "Our white slaves," exclaimed the *Morning Star*, the paper of the free traders Cobden and Bright, "our white slaves who are toiled into the grave for the most part silently pine and die."⁵⁵

54. Dr. Letheby, Consulting Physician on the Board of Health, maintained, "The minimum each adult should have in a sleeping room is 300 cubic feet, and in a lodging or sitting room 500 cubic feet of air." Dr. Richardson, Senior Physician at one of the hospitals in London: "With needlewomen of all kinds, including milliners, dressmakers, and ordinary sempstresses, there are three miseries—over-work, deficient air, and either deficient food or deficient digestion. Needlework, in the main is infinitely better adapted to women than to men. But the mischiefs of the trade, in the metropolis especially, are that it is monopolized by some twenty-six capitalists, who, under the advantages that spring from capital, can bring in capital to force economy out of labour. This power tells throughout the whole class. If a dressmaker can get a little circle of customers, such is the competition that in her home she must work to the death to hold together, and this same overwork she must of necessity inflict upon any who may assist her. If she fail, or do not try independently, she must join an establishment, where the labour is not less, but where her money is safe. Placed thus, she becomes a mere slave, tossed about with the variations of society. Now at home in one room, starving, or near to it, then engaged 15, 16, aye, even 18 hours out of the 24, in an air that is scarcely tolerable, and on food which, even if it be good, cannot be digested in the absence of pure air. On these victims, consumption, which is purely a disease of bad air, feeds" (Dr. Richardson: "Death from Simple Overwork," in "Social Science Review," July 1863).

55. *Morning Star*, 23rd July 1863. The *Times* seized this opportunity to defend American slaveholders against Bright, etc. "Very many of us think," claims a featured article of 2nd July 1863, "that, while we work our own young women to death, using the scourge of starvation instead of the crack of the whip as the instrument of compulsion, we have scarcely a right to hound on fire and slaughter against families who were born slave-owners, and who at least feed their slaves well and work them lightly" (*Times* 2nd July 1863). In much the same way, *The Standard*, a Tory newspaper, reproached the Reverend Newman Hall: "He excommunicated the slave owners, but prays with the fine folk who, without remorse, make the omnibus drivers and conductors of London, etc., work 16 hours a day for the wages of a dog." Finally, the oracle spoke, namely, Thomas Carlyle, of whom I wrote as early as 1850, "The genius has gone to the devil; the cult has remained." [Editor's note: Marx first refers to this sentiment, a paraphrase of Carlyle, in a review of the author's pamphlets that Marx published in the *Neue Rheinische Zeitung* on 4th April 1850.] In a little

“It is not only in dressmakers’ rooms that working to death is the order of the day, but in a thousand other places; in every place where ‘a thriving business’ has to be done. . . . We will take the blacksmith as a type. If the poets were true, there is no man so hearty, so merry, as the blacksmith; he rises early and strikes his sparks before the sun; he eats and drinks and sleeps as no other man. Working in moderation, he is, in fact, in one of the best of human positions physically speaking. But we follow him into the city or town, and we see the stress of work on that strong man, and what then is his position in the death rate of his country? In Marylebone [one of London’s largest neighborhoods], blacksmiths die at the rate of 31 per thousand per annum, or 11 above the mean of the male adults of the country in its entirety. The occupation, instinctive almost as a portion of human art, unobjectionable as a branch of human industry, is made, by mere excess of work, the destroyer of the man. He can strike so many blows per day, walk so many steps, breathe so many breaths, produce so much work, and live an average say of fifty years, he is made to strike so many more blows, to move so many more steps, to breathe so many more breaths per day, and to increase altogether a fourth of his life. He meets the effort, and the result is, that, producing for a limited time a fourth more work, he dies at thirty-seven for fifty.”⁵⁶

4. Day Work and Night Work. The Shift System

Seen from the standpoint of the valorization process, constant capital—in other words, the means of production—exists only in order to absorb labor and with it, with every drop of it, a proportional quantity of surplus-labor. If the means of production fail to do that, then simply by existing they cause the capitalist to suffer a “passive” loss. When the means of production are idle, all they represent for him is a useless advance of capital. The capitalist’s loss becomes “active” the moment he has to spend additional money to restart the production process. Extending the workday beyond the limits of the natural day, or into the night, is a palliative measure that only partially satisfies his vampiric thirst for the blood of living labor. The

parable, he reduces the one truly important event of the present, the American Civil War, to this: Peter from the North wants to put all his might into bashing in the brains of Paul from the South, because Peter from the North hires his workers “by the day,” and Paul from the South hires his “for life” (Macmillan’s Magazine. Ilias Americana in Nuce. August 1863). In this way, the bubble of Tory sympathy for urban wage laborers—not, by God, for rural ones—finally burst. The nub of it is . . . *slavery!*

56. Dr. Richardson op. cit. pp. 476ff.

drive to appropriate labor during all twenty-four hours of the day is in fact inherent in capitalist production. But it is physically impossible to exploit the same bearers of labor-power all day and all night, and so if capital is to overcome that physical limit as it appropriates labor, the bearers of labor-power whom it eats up during the day and those whom it eats up at night have to switch off. They can do this in different ways. For example, one group of workers can be put to work at different times and made to perform their labor during the daytime one week and at night the next. We know that this shift system, this economy of alternating, predominated in the bountiful early years of England's cotton industry and is still in full bloom in Moscow's cotton-spinning factories, among other places. This round-the-clock system of production still exists in many of the branches of British industry that have remained "free," such as the blast furnaces, forges, rolling mills, and other sites in England, Wales, and Scotland where metals are manufactured. Here the labor process runs twenty-four hours a day, not only during the six days of the workweek but also most Sundays. Men and women make up the labor force along with youths and children of both sexes, whose ages range from 8 (actually 6, in a few cases) to 18.⁵⁷ In some branches of industry, girls and women work at night with the male personnel.⁵⁸

Night work might have generally harmful effects,⁵⁹ but a production process that operates nonstop offers that most welcome thing: a way to

57. "Children's Employment Commission." Third Report. London. 1864, pp. IV, V, VI, VII.

58. "Both in Staffordshire and in South Wales young girls and women are employed on the pit banks and on the coke heaps, not only by day, but also by night. This practice has been often noticed in Reports presented to Parliament, as being attended with great and notorious evils. These females, employed with the men, hardly distinguished from them in their dress, and begrimed with dirt and smoke, are exposed to the deterioration of character arising from the loss of self-respect which can hardly fail to follow from their unfeminine occupation." *Ibid.* 194, p. XXVI. See Fourth Report (1865) 61, p. XIII. The same holds in glass factories.

59. "It seems but natural," remarked a steel manufacturer who had children perform night work, "that boys who work at night at all cannot sleep and get proper rest by day, but will be running about" (Fourth Rep. 63, p. XIII.). A doctor made, among other observations, the following one about how the body needs sunlight to grow and maintain itself: "Light also acts upon the tissues of the body directly in hardening them and supporting their elasticity. The muscles of animals, when they are deprived of a proper amount of light, become soft and inelastic, the nervous power loses its tone from defective stimulation, and the elaboration of all growth seems to be perverted. . . . In the case of children, constant access to plenty of light through the day, and to the direct rays of the sun for a part of it, is most essential to health. Light assists in the elaboration of good plastic blood out of the food, and hardens the fibre after it has been laid down. It also acts as a stimulus upon the organs of sight, and by this means brings about more activity in the various cerebral

exceed the limit of the nominal working day. In the very strenuous branches of industry just mentioned, the official workday is in almost every case twelve hours, whether the labor is performed during the day or at night. But the amount of overwork performed beyond that limit is, in the words of the official English report, "truly fearful."⁶⁰ "It is impossible," according to the report, "for any mind to realize the amount of work described in the following passages as being performed by boys of from 9 to 12 years of age without coming irresistibly to the conclusion that such abuses of the power of parents and of employers can no longer be allowed to exist."⁶¹

"The practice of boys working at all by day and night turns, either in the usual course of things or at pressing times, seems inevitably to open the door to their not unfrequently working unduly long hours. These hours are indeed, in many cases, not only cruelly but even incredibly long for children. Amongst a number of boys it will of course not unfrequently happen that one or more are from some cause absent. When this happens their place is made up by one or more boys, who work in the other turn. That this is a well-understood system, is plain from the answer of the manager of some large rolling mills, who, when I asked him how the place of boys absent from their turn was made up, answered, 'I dare say, sir, you know that as well as I do,' and admitted the fact."⁶²

"A boy at a rolling-mill, where his proper hours were from 6 A.M. to 5¹/₂ P.M., worked about 4 nights every week till 8:30 P.M. at least, and this for six months." "Another, at 9 years old, sometimes made three twelve-hour shifts running, and when 10 has made two days and two nights running." "A third boy, now 10, worked from 6 A.M. to 12 P.M. three nights, and till 9 P.M. the other nights." "A fourth boy, now 13, worked from 6 P.M. till 12 noon next day for a week together, and sometimes for three shifts together, e.g., from Monday morning till Tuesday night." "A fifth boy, now 12, has worked in an iron foundry at Stavely from 6 A.M. to 12 P.M. for a fortnight on end; could not do it any more." "George Allinsworth, age 9: 'Came

functions." Dr. Strange, Senior Physician at the Worcester General Hospital (this passage comes from his book "Health," 1864), writes in a letter to Mr. White, one of the Commissioners, "I have had opportunities formerly, when in Lancashire, of observing the effects of night-work upon factory children, and I have no hesitation in saying that, contrary to what some employers were fond of asserting, those who were subjected to it soon suffered in their health" (Children's Employment Commission, Fourth Report, 284, p. 55). That such questions ever generated serious controversies shows, as nothing else does, how the capitalist mode of production affects the "mental functions" of capitalists and their retainers.

60. *Ibid.* 57, p. XII.

61. *Ibid.* (4th Rep. 1865), 58, p. XII.

62. *Ibid.*

here as a cellar-boy last Friday. Next morning we had to begin at 3, so I stopped here all night. Live five miles off. Slept on the floor of the furnace over-head, with an apron under me and a bit of jacket over me. The two other days I have been here at 6 A.M. Aye! it is hot in here. Before I came here I was nearly a year at the same work at some works in the country—a very large place. Began there, too, at 3 on Saturday mornings—always did, but was very gain [near] home, and could sleep at home. Other days I began at 6 in the morning, and gi'en over at 6 or 7 in the evening.”⁶³

63. *Ibid.* p. XIII. The level of education of these “bearers of labor-power” must be how it appears in the following dialogues with a member of the Commission of Inquiry. Jeremiah Haynes, age 12, “Four times four is eight; four fours are sixteen. A king is him that has all the money and gold. We have a King, told it is a Queen. They call her the Princess Alexandra. Told she married the Queen’s son. The Queen’s son is the Princess Alexandra. A Princess is a man.” William Turner, age 12, “Don’t live in England. Think it is a country, but didn’t know before.” John Morris, age 14, “Have heard say that God made the world, and that all the people were drowned but one; heard say that one was a little bird.” William Smith, age 15, “God made man; man made woman.” Edward Taylor, age 15, “Do not know of London.” Henry Matthewman, age 17, “Have been to chapel, but have missed a good many times lately. One name that they preached about was Jesus Christ, but I cannot say any others, and I cannot tell anything about Him. He was not killed but died like other people. He was not the same as other people in some ways, because he was religious in some ways, and others isn’t” (*ibid.* p. XV). “The devil is a good person. I don’t know where he lives.” “Christ was a wicked man.” “This girl spelt God as dog, and did not know the name of the queen” (Ch. Empl. Comm. Fifth Report, 1866, p. 55, n. 278). The same system, that is, the system that reigns in the abovementioned manufacturing of metals, reigns also in glass and paper factories. In the paper factories that use machines to manufacture paper, night work is the rule for all processes except sorting rags. Thanks to the shift system, night work goes on all week in some cases, generally from Sunday night to midnight the following Saturday. Workers on the day shift work five twelve-hour days and one eighteen-hour day each week; workers on the night shift work five twelve-hour nights and one six-hour night. In other cases, each shift works 24 hours every other day, with one shift working 18 hours on Monday and 6 hours on Saturday to reach a full 24 hours. There are also cases where an intermediate system is used. All employees who work at the papermaking machines work 15 to 16 hours every day. According to the Commissioner Lord, this combines all the evils of the twelve-hour and the twenty-four-hour shift-systems. It has children younger than 13, teens under 18, and women work at night. In the twelve-hour system, such workers sometimes have to work a double shift of 24 hours when those who are supposed to relieve them don’t show up. Eyewitness accounts tell us that boys and girls very often have to work overtime, which not infrequently goes on for 24 and even 36 hours without interruption. Among those who carry out the “continuous and unvarying” work of glazing are girls of 12 who work fourteen-hour days for a whole month, “without any regular relief or cessation beyond two, or, at most, three breaks of half an hour each for meals.” In some of the factories where night work has been abolished, workers perform a frightening amount of overtime labor, “and that is often in the dirtiest, and in the hottest, and in the most monotonous of the various processes” (“Children’s Employment Commission, Fourth Report,” 1865, pp. XXXVIII and XXXIV).

Let's hear how capital itself conceives of this twenty-four-hour system. Naturally, it says nothing about the more extreme forms, i.e., all the abuses and the "cruel and incredible" extension of the working day. It speaks only about the system in its "normal" form.

"Messrs. Naylor and Vickers, steel manufacturers, who employ between 600 and 700 persons, among whom only 10%, are under 18, and of those only 20 boys under 18 work in the night sets, thus express themselves: 'The boys do not suffer from the heat. The temperature is probably from 86 degrees to 90 degrees. . . . At the forges and in the rolling mills the hands work day and night in relays, but all the other parts of the work are day-work, i.e., from 6 A.M. to 6 P.M. In the forge the hours are from 12 till 12. Some of the hands always work in the night without any alternation of day and night work. . . . We do not find any difference in the health or work of those who work regularly by night and those who work by day [including the health of Messrs. Naylor and Vickers?], and probably people can sleep better if they have the same period of rest than if it is changed. . . . About 20 of the boys under the age of 18 work in the night sets. . . . We could not well do without lads under 18 working by night. The objection would be the increase in the cost of production. . . . Skilled hands, and the heads in every department, are difficult to get, but of lads we could get any number. . . . But from the small proportion of boys that we employ, the subject (i.e., of restrictions on night work), is of little importance or interest to us.'"⁶⁴

"Mr. J. Ellis, one the firm of Messrs. John Brown & Co., steel and iron works, employing about 3,000 men and boys, part of whose operations, namely, 'iron and heavier steel work, goes on night and day by relays,' states that 'in the heavier steel work one or two boys are employed to a score or two men.' They have 'upwards of 500 boys in their employment under the age of 18, and of these about 170, or $\frac{1}{3}$, are under the age of 13.' Mr. Ellis's opinion as to the exclusion of boys under 18 from working in the night relays is as follows—'I do not think it would be very objectionable to require that no person under the age of 18 should under any circumstance work more than 12 hours in the 24. But we do not think that any line could be drawn over the age of 12 at which boys could be dispensed with for night work. But we would sooner be prevented from employing boys under the age of 13, or even as high as 14, at all, than not be allowed to employ boys that we do have at night. Those boys who work in the day sets must take their turn in the night sets also, because men could not

64. Fourth Report etc. 1865, 79, p. XVI.

work in the night sets only; it would ruin their health. . . . We think, however, that night-work in alternate weeks is no harm. [Messrs. Naylor and Vickers took the opposite position, which aligns with the best interests of their business: they claimed that alternating between day shifts and night shifts, rather than continual night work, damages a worker's health.] We find the men who do it as well as the others who do other work only by day. . . . Our objections to not allowing boys under 18 to work at night would be on account of the increase of expense, but this is the only reason. [What cynical naïveté!] We think that the increase would be more than the trade, having due regard to its being successfully carried out, could fairly bear. [What a mealy-mouthed formulation!] Labour is scarce here, and might fall short if there were such a regulation.” In other words, Ellis, Brown & Co. might wind up in a fatal situation: they might have to buy labor-power at its full value.⁶⁵

The “Cyclops Steel and Iron Works” owned by Messrs. Cammell & Co. operates on the same large scale as the just-mentioned firm, John Brown & Co. Its managing director did in fact submit his written testimony to Commissioner White. But when he got it back so that he could make revisions, he saw fit to hold onto it. No matter: Mr. White has a very good memory. According to his detailed recollections, the Cyclops gentlemen believed that banning night work among children and teens would be “impossible . . . it would be tantamount to stopping our works.” And yet only about 6% of their workers are boys under 18, and only 1% of the boys are younger than 13 years old!⁶⁶

On the same subject, Mr. E. F. Sanderson, of the firm Sanderson, Bros & Co., Steel Rolling Mills and Forges, Attercliffe, states, “Great difficulty would be caused by preventing boys under 18 from working at night. The chief would be the increase of cost from employing men instead of boys. I cannot say what this would be, but probably it would not be enough to enable the manufacturers to raise the price of steel, and consequently it would fall on them, as of course the men [these people are so wrong-headed!] would refuse to pay it.” Mr. Sanderson doesn't know exactly how much he pays the children who work for him, but “perhaps the younger boys get from 4s. to 5s. a week. . . . The boys' work is of a kind for which the strength of boys is generally [“generally,” but of course not always “in particular”] quite sufficient, and consequently there would be no gain in the greater strength of the men to counterbalance the loss, or it would

65. Ibid. 80.

66. Ibid. 82.

be only in the few cases in which the metal is heavy. The men would not like so well not to have boys under them, as men would be less obedient. Besides boys must begin young to learn the trade. Leaving day-work alone open to boys would not answer this purpose." Why not? Why can't boys learn their trade during the day? What is it that gets in their way, Mr. Sanderson? "Owing to the men working days and nights in alternate weeks, the men would be separated half the time from their boys, and would thus lose half the profit which they make from them. The training which they give to an apprentice is considered as part of the return for the boys' labor, and thus enables the men to get it at a cheaper rate. Each man would want half of this profit. [That is, Messrs. Sanderson would have to have to dig into their own pockets to pay part of the men's wages instead of using the boys' night work. The Sandersons would see their profits fall, which is the simple Sandersonian reason why boys can't learn a trade during the day.]⁶⁷ In addition to this it would throw regular night-work on those who worked instead of boys in the other turn, which they would not stand. The difficulties, in fact, would be so great that they would very likely lead to giving up night-work altogether." "As far as the work itself is concerned," says E. F. Sanderson, "this would suit as well, but—" But the Sandersons have more to make than steel. Making steel is just a pretext for making profits. And the steel furnaces, rolling mills, etc.—the buildings and machines, the iron and coal—have more to do than just transform themselves into steel. They are there to absorb surplus-labor, and, naturally, they can absorb more of that in twenty-four hours than in twelve. In fact, on the authority of God and law, those means of production direct the Sandersons to keep a certain amount of labor-power activated twenty-four hours a day, because they stop being capital the moment they cease to absorb labor, becoming pure loss for the Sandersons. "But then there would be the loss from so much expensive machinery lying idle half the time, and to get through the amount of work which we are able to do on the present system we should have to double our premises and plant, which would double the outlay." Why is it that precisely these Sandersons claim an advantage over other capitalists, who are allowed to put their

67. "In our time, rich as we are in reflection, and given to abstract argumentation, someone who does not know how to advance a good ground for everything, even for the worst and most perverse views, cannot have come far. Everything in the world that has been corrupted, has been corrupted on good grounds" (Hegel, *Enzyklopädie der philosophischen Wissenschaften Erster Teil. Die Wissenschaft der Logik*, p. 249). [Editor's note: English translation, G. W. F. Hegel, *The Encyclopaedia Logic (with the Zusätze)*, ed. Théodore F. Geraets, Wal. A. Suchting, and Henry. S. Harris (Cambridge: Hackett, 1991), pp. 191–92.]

workers to work only during the day, and whose buildings, machines, and raw materials therefore “lie idle” at night? Answering in the name of all Sandersons, E. F. Sanderson says, “It is true that there is this loss from machinery lying idle in those manufactures in which work now only goes on by day. But the use of furnaces would involve a further loss in our case. If these were kept up there would be a waste of fuel [so the workers’ living substance is wasted instead], and if they were not there would be loss of time in laying the fires and getting the heat up [whereas when workers lose sleep, even those as young as 8, the Sanderson clan gains labor-time], and the furnaces themselves would suffer from the changes of temperature.”⁶⁸ Whereas of course those same furnaces don’t suffer any damage when night work follows day work!

68. *Op. cit.* 85. Similarly, the glass manufacturers voiced tender reservations about “regular meal-times” for children, declaring them to be “impossible” because they would result in a “pure loss” or “waste” of a “certain quantity” of the heat generated by the furnaces. Commissioner White responded to this quite differently than Ure, Senior, and their puny German epigones, such as Roscher—i.e., men who are moved by the “abstinence,” the “self-denial,” and the “thrift” that capitalists have displayed in matters of money, and by their Timurlane-like “prodigality” when it comes to human lives: “A certain amount of heat beyond what is usual at present might also be going to waste, if meal-times were secured in these cases, but it seems likely not equal in money value to the waste of animal power now going on in glass-houses throughout the kingdom from growing boys not having enough quiet time to eat their meals at ease, with a little rest afterwards for digestion” (*ibid.* p. XLV). And this was in 1865, the “year of progress”! Aside from the energy such a child expends lifting and carrying, he walks 15 to 20 (English) miles every 6 hours as he performs his labor—without breaks—in the sheds where bottles and flint glass are made! And his shift often lasts for 14 or 15 hours! As in Moscow’s spinning mills, in many of these glass sheds, the six-hour shift-system reigns. “During the working part of the week six hours is the utmost unbroken period ever attained at any one time for rest, and out of this has to come the time spent in coming and going to and from work, washing, dressing, and meals, leaving a very short period indeed for rest, and none for fresh air and play, unless at the expense of the sleep necessary for young boys, especially at such hot and fatiguing work. . . . Even the short sleep is obviously liable to be broken by a boy having to wake himself, if it is night, or by the noise if it is day.” Commissioner White cites cases where boys worked for 36 hours without a break. He also presents cases in which boys of 12 toiled until 2 in the morning and then slept where they worked until 5 A.M. (3 hours!), only to resume their labor right after that. According to Tremeneere and Tufnell, who compiled the general report, “The amount of work of done by boys, youths, girls, and women in the course of their daily or nightly spell of labour is certainly extraordinary” (*ibid.* pp. XLIII and XLIV). Meanwhile, glass capital wobbles home from the club, perhaps at an advanced hour, full of “abstinence” and drunk on port wine, droning idiotically, “Britons never, never shall be slaves!” [Editor’ note: “Britons never, never shall be slaves!” is a line from the song “Rule, Britannia.” Written in 1740, it functioned for centuries as a second national anthem.]

5. The Struggle for a Normal Working Day. Laws for the Compulsory Extension of the Working Day from the Middle of the Fourteenth Century to the End of the Seventeenth Century

“What is a working day?” For how long can capital, having paid what a day of labor power is worth, consume labor-power? How far can the working day be extended beyond the labor-time it takes to reproduce the labor-power being consumed? We know what capital will say to that: “The hours in the working day number the full twenty-four, minus the few hours of rest that labor-power absolutely needs in order to perform its service anew.” From this perspective, a worker self-evidently lives his whole life as nothing but labor-power. Thus, by nature and by right, all his disposable time is labor-time that belongs to capital’s process of self-valorization. Time spent on human and intellectual growth or social functions and interactions or the free play of vital physical and mental powers, or even time spent resting on Sundays—it’s all just a waste! (And this in a country of Sabbatarians!⁶⁹) But with its blind drive, its bottomless werewolf-hunger for surplus-labor, capital doesn’t merely push past the moral limits of the working day. It does the same with the physical limits, too. Capital usurps the time that the body needs to grow and develop, and also the time for maintaining the body in a healthy condition. It steals the time it takes to get fresh air and sun. It chips away at mealtimes, incorporating them into the production process wherever it can; as a result, food is added to workers as though they were merely so many means of production, or the same way a boiler is fed coal, machines are fed grease and oil, and so on. Sound sleep restores and refreshes a person’s vital powers, enabling him to build

69. In rural England, for example, workers can still be, and sometimes are, sent to prison for desecrating the Sabbath when they work at home in the front garden. The same workers would be punished for breach of contract if they didn’t come to work on Sunday at the metal factory, the paper mill, or the glass factory, even if they stayed away because of some religious quirk. Parliament, that orthodox body, doesn’t worry about the sanctity of the Sabbath when it is violated during the capitalist “process of valorization.” In a petition of August 1863, in which the workers in London’s fish and poultry shops demand that Sunday work be abolished, we read that workers’ labor lasts on average for 15 hours a day during the first six days of the week and 8 hours to 10 hours on Sunday. We also learn that the delicate gourmands among the aristocratic hypocrites at Exeter Hall have been especially energetic in encouraging this “Sunday work.” These “saints,” so eager “*in cute curanda*,” prove that they are good Christians through the humility with which they endure the overwork, privation, and hunger of others. *Obsequium ventris istis* (the workers’) *perniciosius est*. [Editor’s note: Constructed in 1831 on the north side of London’s Strand, Exeter Hall was a gathering place for religious groups. The Latin lines come from Horace’s *Epistles* and *Satires*, respectively, and mean, respectively, “preoccupied with physical pleasure” and “over-indulgence does more to harm their (the workers’) stomachs.”]

up his strength, but capital reduces it to only as many hours as it takes to revive a totally exhausted organism. Here, what determines the limits of the working day isn't the time that labor-power needs to maintain itself in a normal state, but rather the maximum amount of labor-power that can be expended in a day, regardless of the cost in terms of ill-health, violence, and suffering. Capital doesn't think about whether the bearers of labor-power die young or old. Only one thing interests capital: the maximum amount of labor-power that can be activated in a workday. It achieves this goal by shortening the lives of labor-power's bearers, just like a greedy farmer gets the most out of the land by rendering it barren.

When capitalist production—in essence, the production of surplus-value or the absorption of surplus-labor—extends the working day, it doesn't merely rob human labor-power of normal conditions, both moral and physical, in which to develop and function, thereby causing labor-power to deteriorate; it also produces the premature exhaustion and death of the bearers of labor-power.⁷⁰ Capitalist production extends the amount of time a worker works in a given period by shortening his life.

Labor-power's value includes the value of the commodities needed to reproduce the worker and perpetuate the working class. What happens to labor-power's value when the working day is extended unnaturally, which capital, with its heedless drive to valorize itself, inevitably seeks to do—what happens when the lifespan of individual workers is thereby decreased, and thus their labor-power is, as well? When workers break down faster, they have to be replaced more often. The cost that arises from their deterioration, and therefore the cost of reproducing labor-power, increases, just as the part of a machine's value that has to be reproduced daily will increase if the machine starts to wear down faster. So a normal working day would seem to be in capital's own interest.

A slave owner buys his workers the same way he buys his horses. If he loses a slave, he loses capital that he has to replace by spending more money in the slave market.^{xv} However, “the rice-grounds of Georgia or the swamps of the Mississippi may be fatally injurious to the human constitution; but the waste of human life, which the cultivation of these districts necessitates, is not so great that it cannot be repaired from the teeming preserves of Virginia and Kentucky. Considerations of economy, moreover, which afforded some security for humane treatment by identi-

70. “We have given in our previous reports the statements of several experienced manufacturers to the effect that over-hours . . . certainly tend prematurely to exhaust the working power of the men.” *Ibid.* 64, p. XIII.

fyng the master's interest with the slave's preservation, when once trading in slaves is practiced, become reasons for racking to the uttermost the toil of the slave; for, when his place can at once be supplied from foreign preserves, the duration of his life becomes a matter of less moment than its productiveness while it lasts. It is accordingly a maxim of slave management, in slave-importing countries, that the most effective economy is that which takes out of the human chattel in the shortest space of time the utmost amount of exertion it is capable of putting forth. 'It is in tropical culture, where annual profits often equal the whole capital of plantations, that negro life is most recklessly sacrificed. It is the agriculture of the West Indies, which has been for centuries prolific of fabulous wealth, which has engulfed millions of the African race. It is in Cuba, at this day, whose revenues are reckoned by millions, and whose planters are princes, that we see, in the servile class, the coarsest fare, the most exhausting and unremitting toil, and even the absolute destruction of a portion of its numbers every year, by the slow torture of overwork and insufficient sleep and rest.'^{71,xvi}

Mutato nomine de te fabula narrator!^{xvii} For "slave trade," read labor market; for "Kentucky and Virginia," read Ireland and the farmlands of England, Scotland, and Wales; for "Africa," read Germany! We know what overwork did to London's bakers, and yet the labor market in London always has an oversupply of Germans and other candidates for work—and thus death—in the bakeries. The life expectancy of potters ranks, as we saw, among the lowest of any workers. Has that resulted in a labor shortage? In 1785, Josiah Wedgwood, who invented modern pottery (after starting out as an ordinary worker), declared before the House of Commons that in all of Great Britain the industry employed 15,000–20,000 people.⁷² By 1861, its population in the urban centers alone had grown to 101,302 workers. "The cotton trade had existed for 90 years . . . it had lasted through three generations of the English race and destroyed nine generations of the cotton operatives themselves."⁷³ Of course, frenzied expansion has at times led to notable gaps in the labor market, as it did in 1834.^{xviii} But the manufacturers simply asked the Poor Law Commissioners to send the "surplus population" of the agricultural districts to the north, explaining that they would "absorb it and use it up."⁷⁴ Those

71. Cairnes, *op. cit.* pp. 110, 111.

72. John Ward, "History of the Borough of Stoke-upon-Trent. London 1843," p. 42.

73. Ferrand's speech in the House of Commons on 27th April 1863.

74. "That the manufacturers would absorb it and use it up. Those were the very words used by the cotton manufacturers." *Ibid.*

were the manufacturers' own words. "Agents were appointed in the town of Manchester, with the consent of the Poor Law Commissioners, lists of those workpeople were made out and sent to these agents, the manufacturers went to the offices, and, having selected such as suited them, the families were sent down from the South. They were forwarded ticketed, like so many bales of goods—by canal and carriers' carts—some tramped, and many were found in the manufacturing districts lost and half starved. This had grown up into a regular trade. The House would hardly believe it, that this regular trade, this traffic in human flesh—for it was nothing else—had continued to be carried on, and these people were bought and sold by the agents in Manchester to the cotton manufacturers just as regularly as slaves were sold to the cotton growers in the Southern States. . . . In 1860 the cotton trade was at its zenith, but when the mills were built and filled with machinery there were no hands. The millowners applied to the flesh agents, as they were called, and they sent to the downs of Dorset, to the glades of Devon, and to the plains of Wilts, but the surplus population had been used up. The *Bury Guardian* complained that after the Anglo-French trade agreement was signed, 10,000 additional hands could be absorbed—such was the phrase—in Lancashire, and that between 30,000 or 40,000 would be needed. After the agents and sub-agents had scoured the agricultural districts in 1860 and found the surplus population absorbed, a deputation from the cotton manufacturers waited upon the right hon. gentleman the President of the Poor Law Board [Mr. Villiers], to ask him—the head guardian of the poor England—to supply them again with the poor orphans from the workhouses.⁷⁵

75. *Ibid.* Villiers was "legally" obligated to reject the manufacturers' requests, despite his good intentions. Those gentlemen managed, nevertheless, to achieve their goals because the local Poor Law boards proved to be so compliant. Mr. Alexander Redgrave, a factory inspector, avowed that this time, the system under which orphans and paupers' children had the "legal" status of apprentices "was not accompanied with the old abuses" (on these "abuses," see Engels *op. cit.*), even though in one case, there most certainly was "abuse of this system with respect to a number of girls and young women brought from the agricultural districts of Scotland and Lancashire and Chesire." Under this "system," the manufacturers entered into a contract with the authorities at the poorhouses for a limited period. The manufacturers fed the children, and also provided them with lodging and a small cash allowance. The following remark by Mr. Redgrave seems quite odd, especially when we consider that even by the standards of the boom years for England's cotton industry, the year 1860 has a singular status, and, moreover, wages were high because the extraordinary demand for labor ran up against population implosion in Ireland, unprecedented migration to Australia and America from the agricultural areas in England and Scotland, and actual population decreases in several English agricultural districts, which resulted, in part, from an intentional and successful undoing of the workers' powers of reproduction, and also from the fact that the supply of a disposable population had already been dis-

What experience tends to show the capitalist is that there is chronic overpopulation: i.e., at any given moment the population exceeds what capital requires for its valorization, although the source of this excess is generations of worn-out, rapidly replaced people who die young—in a phrase, people plucked from the vine before they were ripe.⁷⁶ On the other hand, experience shows the intelligent observer that even if capitalist production began just yesterday, historically speaking, it has quickly and firmly grabbed the nation's vital forces by their very roots. It also shows him that the only thing slowing the degeneration of urban workers is the fresher elements from the country continuously being absorbed by the urban population. Yet despite the healthy rural air that these workers once took in and the principle of natural selection that reigns among them, letting only the strongest individuals survive, the intelligent observer sees that they, too, have already begun to die off.^{77,xix} Capital has “good reasons” to ignore how generations of workers all around it have suffered, and in its actual movement it is affected by the prospect of humanity's coming ruin and unstoppable depopulation just as much or as

persed by human traffickers. Yet despite all this, Mr. Redgrave says, “This kind of labour, however [i.e., the labor of the poorhouse children], would only be sought after when none other could be procured, for it is a high-priced labour. The ordinary wages of a boy of 13 would already be about 4s. per week; but to lodge, to clothe, to feed, and to provide medical attendance and proper superintendence for 50 or 100 of these boys, and to set aside some remuneration for them, could not be accomplished for 4s. a head per week” (“Rep. of the Insp. of Factories for 30th April 1860,” p. 27). Mr. Redgrave forgets to say how the worker can afford to do this for his children with their wages of 4 shillings per week when the manufacturer can't do it for 50 or 100 children who live, eat, and are supervised together. But in order to make it less likely that someone will draw false conclusions from the text, I should note here that since becoming subject to the Factory Act of 1850, and its rules about labor-time, etc., the English cotton industry has become the model English industry. In every respect, the English cotton worker stands above his counterpart on the Continent. “The Prussian factory operative labours at least ten hours per week more than his English competitor, and if employed at his own loom in his own house his labour is not restricted to even those additional hours” (“Rep. of Insp. of Fact. 31st Oct 1855,” p. 85). After the industrial exhibition of 1851, the factory inspector mentioned above, Mr. Redgrave, traveled on the Continent, in particular throughout France and Prussia, in order to investigate factory conditions there. He says the following about the Prussian factory worker: “He receives a remuneration sufficient to procure the simple fare, and to supply the slender comforts to which he has been accustomed . . . he lives upon his coarse fare and works hard, wherein his position is subordinate to that of his English competitor” (“Rep. of Insp. of Fact. 31st Oct. 1853,” p. 85).

76. “The overworked die off with strange rapidity; but the places of those who perish are instantly filled, and a frequent change of persons makes no alteration in the scene” (“England and America. Lond. 1833,” Vol. 1, p. 55. Author E. G. Wakefield).

77. See “Public Health. Sixth Report of the Medical Officer of the Privy Council. 1863.” Published in London in 1864. This report focuses on agricultural workers: “Sutherland is

little as by the possibility that the earth will fall into the sun. Every time some swindle causes a stock to soar, everyone knows that the stock will eventually crash, and every person hopes that before this happens he will manage to collect the rain of gold and store it safely while someone else is caught outside in the lightning and thunder. “Apres moi le déluge!”^{xx} is the watchword of every capitalist and every capitalist country. Capital takes into account the well-being and mortality rates of its workers only when society forces it to.⁷⁸ When capital responds to complaints about stunted physical and intellectual development, premature death, and the agony of overwork, it says, “Why should the torments you list torment us? They increase our pleasure—that is, our profit.” Overall, however, this behavior doesn’t come down to the individual capitalist’s will, to whether his will is good or bad. Free competition makes the immanent laws of capitalist production operate for individual capitalists as external laws that they are forced to obey.⁷⁹

commonly represented as a highly improved county but recent inquiry has discovered that even there, in districts once famous for fine men and gallant soldiers, the inhabitants have degenerated into a meagre and stunted race. In the healthiest situations, on the hill sides fronting the sea, the faces of their famished children are as thin and pale as they could be in the foul atmosphere of a London alley” (Thornton op. cit. pp. 74, 75). They resemble in fact the 30,000 “gallant Highlanders” whom Glasgow thrusts together with prostitutes and thieves in its wynds and closes.

78. “But, though the health of a population is so important a part of the national capital, we are afraid it must be said that the class of employers of labour have not been the most forward to guard and cherish this treasure. The consideration of the health of the operatives was forced upon the mill-owners” (“Times” 5th November 1861). “The men of the West Riding became the clothiers of mankind, the health of the workpeople was sacrificed, and the race in a few generations must have degenerated. But a reaction set in. Lord Shaftesbury’s Bill limited the hours of children’s labour, etc.” (“Report of the Registrar General for October 1861”).

79. Thus, for example: at the beginning of 1863, 26 firms that owned large potteries, including Josiah Wedgwood & Sons, petitioned for “some legislative enactment.” “Competition with other capitalists” prevented them from “voluntarily” limiting the labor-time of children: “Much as we deplore the evils before mentioned it would not be possible to prevent them by any scheme of agreement between the manufacturers. . . . Taking all these points into consideration, we have come to the conviction that some legislative enactment is wanted.” Children’s Emp. Comm. Rep I, 1863, p. 322.

Addendum to note 79: The recent past offers us a much more striking example. By mutual agreement, the manufacturers of Blackburn shortened the labor-time in their mills for a certain period, which ended in late November 1871. They did this during a moment of intense activity, and what prompted them to take that step was the high price of cotton. As a result of the agreement, production dropped. The wealthier manufacturers, who combined cotton and weaving, used this circumstance to expand their business, thereby making large profits at the expense of the smaller employers. In their desperation, these smaller

When a normal working day was finally established, this was the result of a centuries-long struggle between capitalists and workers. Over the course of its history, the struggle has exhibited two opposing tendencies, which we see when we compare the English factory laws of our own time with England's labor statutes from the fourteenth century to the 1760s and the 1770s.⁸⁰ The modern Factory Acts made it compulsory to shorten the workday. The purpose of the earlier statutes, in contrast, was to compel lengthening it. Of course, when capital is still in its embryonic form and relies to some extent on state power—not merely the force of economic relations—to secure the right to absorb a sufficient quantity of surplus-labor, what it demands appears quite modest compared with what it will later, as an adult, grudgingly give up. It took centuries for workers set “free” by an advanced capitalist mode of production to get to the point where they would sell—in other words, would be forced by society to sell—the entire active period of their lives, even their very capacity to work itself, for the price of their normal means of subsistence: to get to the point where they are forced to exchange their firstborn for a bowl of lentil stew. From the mid-fourteenth century to the end of the seventeenth century, capital used the power of the state to try to impose on adult workers an extended workday that, naturally enough, coincides more or less with the limits the state has occasionally imposed on the transformation of children's blood into capital in the second half of the nineteenth century. Massachusetts, until recently the freest state in the North American Republic, now has a law limiting the workday of children under 12 to what was even in mid-seventeenth-century England the normal workday of seasoned artisans, robust farmhands, and hulking blacksmiths.⁸¹

employers turned to the factory workers and exhorted them to agitate in earnest for the nine-hour system, promising them financial support if they did!

80. These labor statutes, which we also find at this time in France, the Netherlands, and so on, weren't formally abolished in England until 1813. By then, the relations of production had long since made them irrelevant.

81. “No child under the age of 12 shall be employed in any manufacturing establishment more than 10 hours in one day.” “General Statutes of Massachusetts.” Sect. 3, ch. 60. (The ordinances were enacted from 1836 to 1858.) “Labour performed during a period of 10 hours on any day in all cotton, woollen, silk, paper, glass, and flax factories, or in manufactories of iron and brass, shall be considered a legal day's labour. And be it enacted, that hereafter no minor engaged in any factory shall be holden or required to work more than 10 hours in any day, or 60 hours in any week; and that hereafter no minor shall be admitted as a worker under the age of 10 years in any factory within the state.” “State of New Jersey. An Act to limit the hours of labor etc.” § 1 and 2 (law of 18th March 1851). “No minor who has attained the age of 12 years and is under the age of 15 years, shall be employed in any manufacturing establishment more than 11 hours in any one day, nor before 5 o'clock in the

The immediate pretext for the first “Statute of Labourers” (23 Edward III. 1349) was the great plague that wiped out much of the population. As a Tory writer put it, this had the following effect: “The difficulty of getting men to work on reasonable terms [that is, on terms that allowed the people putting them to work to gain a reasonable quantity of surplus-labor] grew to such a height as to be quite intolerable.”⁸² (The plague was the pretext here, not the cause; laws of this kind stayed in place long after the pretexts for them were gone.) Reasonable wages were thus established by law, as was the limit of the working day. This limit, which is our sole concern here, was set forth again in the Statute of 1496 (under Henry VII). From March until September, all craftsmen (or “artificers”) and field workers were supposed to begin working at 5 A.M. and go until between 7 and 8 P.M., although that was never actually enforced. And with one hour for breakfast, ninety minutes for lunch, and half an hour for “noon-meate,” the hours for mealtimes amounted to twice as much as what the current Factory Acts entitle workers to.⁸³ Workers were supposed to work from 5 A.M. until dark in the wintertime, and they were granted the same amount of time for meals and rest. In 1562, Elizabeth promulgated a statute that didn’t change the length of the working day for all workers “hired for daily or weekly wages,” but sought instead to limit their breaks to two and a half hours in the summer and two hours in the winter. The mid-day meal was supposed to last only an hour, and workers were permitted an “afternoon sleep of half an hour” only from the middle of May until mid-August. For every hour a worker was absent, 1d. (about 10 cents) was deducted from his wages. But the workers’ actual conditions were far better

morning, nor after 7^{1/2} in the evening.” *Revised Statutes of the State of Rhode Island etc.* ch. 139, § 23, 1st July 1857.”

82. “Sophisms of Free Trade. 7th edit., Lond. 1850,” p. 205. In addition, the same Tory admits, “Acts of Parliament regulating wages, but against the labourer and in favor of the master, lasted for the long period of 464 years. Population grew. These laws were then found, and really became unnecessary and burdensome” (*ibid.* p. 206).

83. John Wade is correct when he remarks about this statute, “From the statement above, it appears that in 1496 the diet was considered equivalent to one-third of the income of an artificer and one-half the income of a labourer, which indicates a greater degree of independence among the working classes than prevails at present; for the board, both of labourers and artificers, would now be reckoned at a much higher proportion of their wages” (John Wade *op. cit.* pp. 24–25, 577). The idea that this difference stems from the difference between the relative prices of food and clothing then and today should be discredited by even the most cursory glance at “*Chronicon Precosium etc.* By Bishop Fleetwood. 1st edit. London 1707. 2nd edit London 1745.”

than those prescribed by the statute. William Petty, who founded political economy and helped invent statistics, writes in a work published in the last third of the seventeenth century, “Labouring men [which at the time meant “agricultural workers”] work ten hours per diem, and make twenty meals per week, viz., 3 a day for working-days, and two on Sundays; whereby it is plain, that if they could fast on Friday nights, and dine in one hour and an half, whereas they take two, from 11 to 1; thereby this working $\frac{1}{20}$ more, and spending $\frac{1}{20}$ less, the $\frac{1}{10}$ above-mentioned might be raised.”⁸⁴ How right Dr. Andrew Ure was when he complained that the Twelve Hours’ Bill of 1833 took society back to the Dark Ages.^{xxi} The regulations in the statutes, and mentioned by Petty, also applied to apprentices, but from the following lament we can see what child labor still looked like at the end of the seventeenth century: “Our youth, here in England, being bred to nothing before they come to be apprentices, make a very slow progress, and require much longer time—seven years—wherein to reach the perfection of accomplished artists.” Germany, on the other hand, was lauded because children there were raised from the cradle on to have at least “something of employment.”⁸⁵

84. “W. Petty: Political Anatomy of Ireland. 1672. edit. 1691,” p. 10.

85. “A Discourse on the Necessity of Encouraging Mechanick Industry. London 1689,” p. 13. Macaulay, who falsified English history to advance the interests of the Whigs and the bourgeoisie, declaims as follows: “The practice of setting children prematurely to work prevailed in the seventeenth century to an extent which, when compared with the extent of the manufacturing system, seems almost incredible. At Norwich, the chief seat of the clothing trade, a little creature of six years old was thought fit for labour. Several writers of that time, and among them some who were considered as eminently benevolent, mention, with exultation, the fact that in that single city boys and girls of tender age, created wealth exceeding what was necessary for their own subsistence by twelve thousand pounds a year. The more carefully we examine the history of the past, the more reason shall we find to dissent from those who imagine that our age has been fruitful of new social evils. That which is new is the intelligence which discerns and the humanity which remedies them” (“History of England,” Vol. 1, p. 417). Macaulay might also have reported that in the seventeenth century, “extremely well-disposed” *amis du commerce* recounted “with exultation” the story of a child of 4 who was put to work by a poorhouse in Holland, and that in all the writings of humanitarians *à la* Macaulay, this instance of “applied virtue” is accepted as adequate evidence, though only up to Adam Smith’s day. It is true that when manufacturing, as opposed to handicrafts, began its ascent, traces of the exploitation of children started to appear, traces that to some extent were always present among peasants, and the heavier the yoke pressing upon the peasants, the more developed those traces were. This tendency on the part of capital is unmistakable, but the facts themselves are as isolated as the phenomenon of two-headed children. “With exultation,” therefore, perceptive “friends of commerce” depict them as peculiar and admirable, recommending that they serve as models for the present and posterity. Macaulay, that smooth-talking Scottish sycophant, also says, “We hear today only of retrogression and see only progress.” What eyes he has, and, even more so, what ears!

It wasn't until the last decades of the eighteenth century—or the epoch of large-scale industry—that capital successfully took possession of a worker's whole week, which it managed to do by paying for the weekly value of his labor-power. (Agricultural workers were an exception here.) Since workers could live for an entire week from the wages they earned in four days of labor, they didn't see why they should spend the other two days working for a capitalist. Acting in the service of capital, one faction of English political economists vehemently condemned the workers' stubbornness; another faction defended the workers. Let's listen to the debate between Postlethwayt, whose dictionary of commerce was as well regarded then as similar writings by MacCulloch and MacGregor are today, and his opponent, the author of *An Essay on Trade and Commerce*, which was cited earlier.⁸⁶

Postlethwayt says, among other things, "We cannot put an end to these few observations, without noticing that trite remark in the mouth of too many, that if the industrious poor can obtain enough to maintain themselves in five days, they will not work the whole six. Whence they infer the necessity of, even the necessaries of life, being made dear by taxes, or any other means, to compel the working artisan and manufacturer to labour the whole six days in the week without ceasing. I must beg leave to differ in sentiment from those great politicians, who contend for the perpetual slavery of the working people of this kingdom; they forget the vulgar adage, all work and no play. Have not the English boasted of the ingenuity and dexterity of her working artists and manufacturers, which have hitherto given credit and reputation to British wares in general? What has this been owing to? To nothing more, probably, than the relaxation of the working people in their own way. Were they obliged to toil the year round, the whole six days in the week, in a repetition of the same work, might it not blunt their ingenuity, and render them stupid, instead of alert and dexterous; and might not our workmen lose their reputation, instead

86. Of the workers' accusers, the fiercest is the anonymous author of the abovementioned "An Essay on Trade and Commerce, containing Observations on Taxation etc. London 1770." See also his earlier work, "Considerations on Taxes. London 1765." There is also Polonius Arthur Young, an insufferable statistical babbler. Chief among the workers' defenders are: Jacob Vanderlint in "Money answers all things. London 1774," Rev. Nathaniel Forster, D.D. in "An Enquiry into the Causes of the Present High Price of Provisions. London 1767," Dr. Price, and especially Postlethwayt, in both a supplement to his "Universal Dictionary of Trade and Commerce" and "Great Britain's Commercial Interest explained and improved. 2nd edit. London 1759." The facts here are confirmed by the writings of many other contemporary writers—Josiah Tucker, among others.

of maintaining it by such eternal slavery? And what sort of workmanship could we expect from such hard-driven animals? . . . Many of them will execute as much work in four days, as a Frenchman does in five or six. But, if Englishmen are to be eternal drudges, 'tis to be feared they will degenerate below the Frenchmen. As our people are fam'd for bravery in war, do we not say it is owing to good English roast beef and pudding in their bellies, as well as our constitutional spirit of liberty? And why may not the superior ingenuity and dexterity of our artists and manufacturers, be owing to that freedom and liberty they enjoy to divert themselves in their own way? And, I hope, we shall never have them deprived of such privileges, and of that good living from whence their ingenuity, no less than their courage, may proceed."⁸⁷

The author of *An Essay on Trade and Commerce* writes in response, "If the making every seventh day an holiday is supposed to be of divine institution, as it implies the appropriating the other six days to labour [he means to capital, as we are about to see] surely it will not be thought cruel to enforce this commandment from God. . . . That mankind, in general, are naturally inclined to ease and indolence, we fatally experience to be true, from the conduct of our manufacturing populace, who do not labour, upon an average, above four days in a week, unless provisions happen to be very dear. . . . Suppose that the bushel of wheat shall cost five shillings and represent all the worker's means of subsistence, and he earns a shilling a day by his labour; he then would be obliged to work five days only in a week. If the bushel of wheat should cost but four shillings, he would be obliged to work but four days; but, as wages in this kingdom are much higher, in proportion to the price of necessaries, the manufacturer [i.e., the worker in the manufacturing workshop], who labours four days, has a surplus of money to live idle with the rest of the week. . . . I hope I have said enough to make it appear that the moderate labour of six days in a week is no slavery. Our laboring people [i.e., agricultural workers] do this, and, to all appearance, they are the happiest of all our labouring poor;⁸⁸ but the Dutch do this in manufactories, and appear to be a very happy people. The French do so, when holidays do not intervene.⁸⁹ . . . But our manufacturing populace have

87. Postlethwayt op. cit. "First Preliminary Discourse," p. 14.

88. "An Essay etc." He takes it upon himself to tell us (p. 96) what had come to constitute "the happiness" of English agricultural workers as early as 1770. "Their working powers are always upon the stretch, they cannot live cheaper than they do, nor work harder."

89. By turning almost all traditional holidays into workdays—and not only by doing that, Protestantism played an important role in the genesis of capital.

adopted a notion, that as Englishmen they enjoy a birthright privilege of being more free and independent than in any country in Europe. Now, this idea, as far as it may affect the bravery of our troops, may be of some use; but the less the manufacturing poor have of it, certainly the better for themselves and for the state. The labouring people should never think themselves independent of their superiors. . . . It is extremely dangerous to encourage mobs in a commercial state like ours, where, perhaps, seven parts out of eight of the whole, are people with little or no property.⁹⁰ . . . The cure will not be perfect, till our manufacturing poor are contented to labour six days for the same sum which they now earn in four days.⁹¹ How does capital's "faithful Eckhart" propose to achieve this end,^{xxii} while also "extirpating idleness, debauchery, and excess," fostering "a spirit of industry," and "lowering the price of labour in our manufactories"?^{xxiii} He recommends the tried-and-true method of locking up workers who depend on public assistance (in a word, paupers) in an "ideal workhouse." "Such an ideal workhouse must be made a 'House of Terror,' and not an asylum for the poor, where they are to be plentifully fed, warmly and decently clothed, and where they do little but work.⁹² In this 'House of Terror,' this 'ideal workhouse,' the poor shall work 14 hours in a day, allowing proper time for meals, in such a manner that there shall remain 12 hours of neat labour."^{93,xxiv}

Twelve hours of labor a day in the "ideal workhouse"—1770's "House of Terror"! Sixty-three years later, or in 1833, Parliament reduced the workday in four branches of factory labor, limiting it to twelve hours for children 13 to 18, and England's friends of industry thought that Judgment Day had arrived! In 1852, when Louis Bonaparte tried to improve his standing with the bourgeoisie by taking aim at the legal workday, members of the French working class shouted in unison, "The law that shortened the workday to twelve hours is the only good left over from the Republic!"^{94,xxv} In Zurich, the workday has been restricted to twelve hours

90. "An Essay etc." pp. 15-17 *passim*.

91. *Ibid.* p. 69. Why did capitalists complain about the workers' laziness? As early as 1734, Jacob Vanderlint declared that the secret behind this was really quite simple: The capitalists were claiming six days of labor for the same wages they had paid for four days.

92. *Ibid.* pp. 242, 243.

93. "The French," he says, "laugh at our enthusiastic ideas of liberty" (*ibid.* p. 78).

94. "They especially objected to work beyond the 12 hours per day, because the law which fixed those hours is the only good which remains to them of the legislation of the Republic" (Rep. of Insp. of Fact. 31st Octob. 1855, p. 80). The French Twelve Hours' Bill of 5th September 1850, a bourgeois version of the Provisional Government's decree of 2nd March 1848, applies to all workshops without exception. Before it was enacted, the

for children over 10. In Aargau, in 1862, the workday of children 13 to 16 years old was reduced from twelve and a half hours to twelve. The same thing happened in 1860 for Austrian children 14 to 16 years old—their workday was likewise reduced to twelve hours.⁹⁵ So “much progress since 1770,” Macaulay would cry out “with exultation”!

The “House of Terror” for paupers that capital’s soul could only dream about in 1770 came into being just a few years later, taking the shape of a giant “workhouse” for industrial workers. We call this a factory. Here the dream version pales in comparison with the actual thing.

6. The Struggle for a Normal Working Day. Laws that Limit Labor-Time. English Factory Legislation from 1833 to 1864

It took capital centuries to extend the working day to its normal maximum limit—and then to the point where its limit was the natural twelve-hour day.⁹⁶ But since the birth of large-scale industry in the last third of the eighteenth century, change has come like an avalanche. Limits have been overrun violently and heedlessly. All boundaries have crumbled: those set by tradition and nature, age and sex, day and night. Even the concepts

French workday had no legal limit and amounted in the factories to 14 hours, 15 hours, or even longer. See “Des classes ouvrières en France pendant l’année 1848. By Monsieur Blanqui.” The Mr. Blanqui in question here is the political economist, not the revolutionary—the political economist whom the government had given the task of examining the condition of the working class.

95. When it comes to regulating the workday, Belgium has shown itself to be the model bourgeois state. Lord Howard de Walden, the English plenipotentiary in Brussels, reported to the Foreign Office on 12th May 1862, “Minister Rogier stated to me that neither general law nor local regulations imposed any restriction on the labour of children; that for the last three years the Government has had under consideration each session the opportuneness of presenting to the Chamber a law upon the subject, but that they had encountered obstacles in the jealousy manifested in many quarters of the legislation at variance with the principle of perfect liberty of labour.”

96. “It is certainly much to be regretted that any class of persons should toil 12 hours a day, which, including the time for their meals and for going to and returning from their work, amounts, in fact, to 14 of the 24 hours. . . . Without entering into the question of health, no one will hesitate, I think, to admit that, in a moral point of view, so entire an absorption of the time of the working classes, without intermission, from the early age of 13, and in trades not subject to restriction, much younger, must be extremely prejudicial, and is an evil greatly to be deplored. For the sake, therefore, of public morals, of bringing up an orderly population, and of giving the great body of the people a reasonable enjoyment of life, it is much to be desired, that in all trades some portion of every working-day should be reserved for rest and leisure” (Leonard Horner in: “Insp. of Facts. Reports. 31st Dec. 1841”).

“day” and “night,” which were as simple as peasant life in the old statutes, have been twisted around. As recently as 1860, an English judge had to summon Talmudic incisiveness before he could figure out how to “legally” define them.⁹⁷ Capital was celebrating its orgies.

The din caused by so much production left members of the working class stunned, but once they had recovered their senses (at least to some extent), they began to mount resistance in England, the birthplace of large industry. For three decades, the concessions they managed to win there remained purely nominal. While Parliament passed five labor laws between 1802 and 1833, it was clever enough not to appropriate a single penny for the resources that their compulsory implementation required, such as bureaucratic personnel.⁹⁸ The laws remained a dead letter. “The fact is, that prior to the Act of 1833, young persons and children were worked all night, all day, or both *ad libitum*.”⁹⁹

Modern industry’s first normal working day dates only to the Factory Act of 1833 (which covered the cotton, wool, and flax and silk textile industries). Nothing characterizes the spirit of capital better than the history of the English factory legislation enacted between 1833 and 1864!

The Act of 1833 set forth that “the ordinary working day should begin at 5:30 in the morning and end at 8:30 in the evening. Within these limits, a fifteen-hour period, it was legal to put young persons, i.e., persons 9 to 18 years old, to work at any time of the day, provided, always, that no single young person worked more than 12 hours in any one day, though exceptions were permitted in certain cases expressly identified as such.” The sixth section of the Act stipulated that “there shall be allowed in the course of every day not less than one and a half hours for meals to every such person restricted as herein-before provided.” The Act made it illegal to employ children under 9 years old, although with exceptions that we

97. See “Judgment of Mr. J. H. Otway, Belfast, Hilary Sessions, 1860.”

98. It is entirely characteristic of the regime of Louis Philippe, the “*roi bourgeois*,” that the lone factory law passed under him (the Law of 22nd March 1841) was never enforced. And this law addressed only child labor. It established 8 hours as the workday limit for children 8 to 12, and 12 hours for children 12 to 16 years old, and so on. There were many exceptions, and these made night work permissible for children as young as 8. The supervision and implementation of the law was left to the good will of the “*amis du commerce*”—and this in a country where every mouse has to register with the police. Only since 1853 has there been a paid government inspector, and only in a single department, the “Département du Nord.” No less characteristic of the development of French society in general is that until 1848, Louis Philippe’s law stood alone in the great spinning factory of French laws!

99. “Rep. of Insp. of Fact. 30th April 1860,” p. 50.

will note later. For children 9 to 13, the workday was limited to eight hours. Night work, which the Act defined as labor performed between 8:30 P.M. and 5:30 A.M., was prohibited for all persons 9 to 18 years old.

The lawmakers wanted to avoid laying even a finger on capital's freedom to exploit adult labor-power, or, as they put it, "the freedom of labor"—so much so that they devised a special system to prevent their own legislation from having such an egregious effect.

"The great evil of the factory system as at present conducted," says the first report of the Central Board of the Commission (June 28, 1833), "has appeared to us to be, that it entails the necessity of continuing the labour of children to the utmost length of that of the adults. The only remedy for this evil, short of a limitation of the labour of adults, which would, in our opinion, create an evil greater than that which is sought to be remedied, appears to be the plan of working double sets of children." This "plan" was thus implemented under the name "system of relays." ("Relay" refers in English, as it does in French, to the system of switching post horses at different stations). One team of children 9 to 13 years old had to pull the stagecoach from, say, 5:30 A.M. until 1:30 P.M., another team had to pull it from 1:30 in the afternoon until 8:30 in the evening, etc.

To reward the manufacturers for blatantly disregarding every child labor law enacted over the previous twenty-two years, the lawmakers took all the bitterness out of the pill the manufacturers were forced to swallow. Parliament decreed that after March 1, 1834, no child under 11 would be allowed to work more than eight hours in a factory. After March 1, 1835, this would also apply to children under 12, and after March 1, 1836, to children under 13 as well! The "liberalism" that treated "capital" so gently was all the more remarkable for an additional reason. In their testimony before the House of Commons, Dr. Farre, Sir Carlisle, Sir Brodie, Sir Bell, Mr. Guthrie, and others—in short, London's most eminent physicians and surgeons—all claimed that *periculum in mora!*^{xxvi} Dr. Farre was somewhat blunter: "Legislation is equally necessary for the prevention of death, in any form in which it can be prematurely inflicted, and certainly this [the factory modus] must be viewed as the most cruel form of inflicting it." Since Parliament had such a nurturing attitude toward the manufacturers, it condemned children under 13 to the hell of seventy-two-hour weeks of factory labor, sending them there, moreover, for years to come. Yet with the Emancipation Act, which also granted freedom drop by drop, the same "reformed" Parliament made it illegal for planters to work any Black slave more than forty-five hours a week—and that restriction went into effect right away!

None of this did much to placate capital, which proceeded to launch a noisy campaign that went on for years and turned on the question: At what ages should young people be categorized as “children”? (As children, they were permitted to work only eight hours a day and subject to some measure of compulsory education.) According to capitalist anthropology, childhood ends in the tenth year of life, at the latest in the eleventh. As the deadline approached for implementing the Factory Act in full, namely, the fateful year 1836, the manufacturers’ protests became increasingly wild. In fact, the mob of manufacturers managed to intimidate the government to such an extent that in 1835, it proposed to make 12 years of age instead of 13 the end of childhood. But in the meantime, the pressure from the other side had reached a menacing level of intensity. The House of Commons lost its nerve. It refused to throw 13-year-olds under the juggernaut wheels of capital for longer than eight hours a day, and the Act of 1833 went into effect in its entirety. No revisions were made until June 1844.

Thus the Act regulated factory labor for a decade, although at first only part of it was in force. The reports that factory inspectors produced during this time abound with complaints about the impossibility of implementing the Act. Under the Law of 1833, the gentlemen of capital could have “every young person” and “every child” start, interrupt, and finish his or her twelve- and eight-hour shift, respectively, at any time during the fifteen-hour period between 5:30 A.M. and 8:30 P.M., and they could also have workers eat their meals at irregular times. This allowed those gentlemen to develop a new “relay system” in which the workhorses weren’t rotated out at fixed stations; rather, they were harnessed anew at rotating stations. Since we will have to come back to the beauty of this system, we won’t discuss it any further here. Still, we can see this much at a glance: the system nullified not only the spirit of the whole Factory Act but also its letter. The bookkeeping for every child and teenager became extremely complex, and given that, how were factory inspectors supposed to enforce the legal restrictions on labor-time? How were they to determine whether every single child and teen was working only as long as the law allowed and getting the time for meals he was legally entitled to? In many factories, brutal old tricks regained their former prominence and went unpunished. During one meeting with the Home Secretary (in 1844), the factory inspectors showed how the new relay system undermined all their attempts to monitor it.¹⁰⁰ By then, however, circumstances had changed dramatically. Factory workers had made the Ten Hours’ Bill into

100. “Rep. of Insp. of Fact. 31st October 1849,” p. 6.

their economic watchword, particularly since 1838, just as they had made the Charter their political mantra. One group of manufacturers, a group that had been operating in accord with the Act of 1833, inundated Parliament with petitions about immoral “competition” from the “false brethren” who violated the law because they were more shameless, or because local conditions more readily allowed them to. In addition, however much individual manufacturers may have wanted to give their customary greed free rein, the mouthpieces and political leaders of the manufacturing class admonished them to behave and speak in a new way in their dealings with workers. The manufacturers had initiated a campaign to repeal the Corn Laws that wouldn’t be successful without the workers’ help!¹⁰¹ Hence they promised not only to double the workers’ loaf of bread but also to accept the Ten Hours Bill in the millennium of free trade.¹⁰¹ This left the manufacturers less inclined—and less able—to oppose a measure meant to make the Act of 1833 a reality. Lastly, the Tories, who believed that their most sacred institution, ground rent, was under threat, railed with philanthropic indignation against the “nefarious practices” of their enemies.^{102,xxviii}

The supplementary Factory Act of June 6, 1844, was brought about by these developments. It went into effect on October 1, 1844, and established a new category of workers who enjoyed legal protections, namely, women over 18. In every respect, their protections were equal to the ones in place for teenagers (up to 18 years old). Their daily labor-time was reduced to twelve hours, it was now illegal to have them perform night work, etc. For the first time, lawmakers had felt compelled to directly and officially regulate the labor of adults. The Factory Report of 1844–45 wryly observed about the response of female workers, “No instances have come to my knowledge of adult women having expressed any regret at their rights being thus far interfered with.”¹⁰³ The daily labor of children under 13 was reduced to six and a half hours, although under certain circumstances, they were allowed to perform seven hours of labor.¹⁰⁴

To put an end to abuses of the fraudulent “relay system,” the law included, among other things, the following important regulatory details: “The hours of the work of children and young persons shall be reckoned

101. “Rep. of Insp. of Fact. 31st Oct. 1848,” p. 98.

102. Leonard Horner in fact uses the expression “nefarious practices” as an official term. (“Reports of Insp. of Fact. 31st October 1859,” p. 7.)

103. “Rep. etc. for 30th Sept. 1844,” p. 15.

104. The Act allows children to be employed for 10 hours but not on consecutive days, only every other day. For the most part, this clause had no effect.

from the time when any child or young person shall first begin to work in the morning.” Thus if A starts working at 8 A.M. and B begins at 10 A.M., B’s workday still has to end at the same time as A’s. “The workday should begin when the time for that is shown on a public clock, such as the nearest railway clock, by which, moreover, the factory bell is to be rung. The manufacturer must hang up a printed notice with large type that gives the hours for when work begins and ends, and when the breaks for meals are permitted. Children whose work starts before noon may not be employed after 1 P.M. The afternoon shift must therefore be made up of children who didn’t begin working before 1 P.M. All protected workers should have their ninety minutes of meal breaks at the same time, and they must at least get one hour for meals before 3 in the afternoon. No child or young person may work more than five hours before 1 P.M. without getting at least a thirty-minute break for meals. No child, young person, or woman is allowed to spend a meal break in a room where a manufacturing process is occurring.”^{xxix}

We have seen that Parliament didn’t simply dream up these highly specific regulations, which used the stroke of the clock to impose military uniformity on labor’s schedule—in other words, when workers worked, how long they worked for, and the amount of rest they had. Rather, the regulations gradually arose out of real circumstances, or as natural laws of the modern mode of production. That they were proposed at all, and that they won official recognition and were promulgated by the state, resulted from a protracted class struggle. One of their first consequences was that in practice the workday of adult males also became subject to them, because in most processes of production, men couldn’t perform their labor if children, teenagers, and women weren’t performing theirs. Thus during the period 1844–47, the twelve-hour day generally came to apply to all workers in the branches of industry that were regulated by the Factory Laws.

The manufacturers, however, wouldn’t accept such “progress” if there were no “regress” to counterbalance it. At their instigation, the House of Commons changed the minimum age of children eligible to be exploited, lowering it from 9 to 8. This way, capital would have the “additional supply of factory children”¹⁰⁵ that it was owed, according to divine and human law.

105. “As a reduction in their hours of work would cause a large number (of children) to be employed, it was thought that the additional supply of children from eight to nine years of age, would meet the increased demand” (ibid. p. 13).

The years 1846–47 are of epochal importance in England's economic history. The Corn Laws were repealed! The tariffs on cotton and raw materials were abolished! Free trade was declared the lodestar of legislation! In short, its thousand-year empire began. But at the same time, the Chartist movement reached its peak, as did the agitation for a ten-hour day.^{xxx} Both found allies in the Tories, who were out for revenge. Despite the fanatical opposition mounted by an army of perjured free traders, with Bright and Cobden leading the way, Parliament passed the Ten Hours' Bill. The struggle was long, but now its goal was finally achieved.

The new Factory Act of June 8, 1847, established that on July 1, 1847, a provisional reduction would go into effect: the working day of "young persons" (13 to 18 years old) and all female workers would be shortened to eleven hours. On May 1, 1848, the workday would be definitively reduced to ten hours. In all other areas, this Act was merely a supplementary amendment to the laws of 1833 and 1844.

Capital responded with a preliminary campaign to stop the Act from being implemented in full on May 1, 1848. Furthermore, the workers themselves, who were said to have learned from experience, were supposed to help destroy their own work. Capital's timing was deft. "It must be remembered, too, that there has been more than two years of great suffering [in consequence of the terrible crisis of 1846–47] among the factory operatives, from many mills having worked short time, and many being altogether closed. A considerable number of the operatives must therefore be in very narrow circumstances, many, it is to be feared, in debt; so that it might fairly have been presumed that at the present time they would prefer working the longer time, in order to make up for past losses, perhaps to pay off debts, or get their furniture out of pawn, or replace that sold, or to get a new supply of clothes for themselves and their families."¹⁰⁶ The manufacturers tried to intensify the natural effect of these circumstances with a universal wage reduction of 10%, which was how they inaugurated the new era of free trade. Wages were then reduced by another 8¹/₃% the moment the eleven-hour limit went into effect, and by twice that amount when the workday was finally shortened to ten hours. Wherever conditions permitted it, wages were slashed by at least 25%.¹⁰⁷ Under these propitious, carefully arranged circumstances, the manufacturers

106. "Rep. of Insp. of Fact. 31st Oct. 1848," p. 16.

107. "I found that men who had been getting 10s. a week, had had 1s. taken off for a reduction in the rate of 10 per cent, and 1s. 6d. of the remaining 9s for the reduction in time, together 2s. 6d., and notwithstanding this, the majority of them said they would rather work 10 hours" (ibid).

began to agitate against the Act of 1847 among the workers, calling for it to be repealed and seeing no form of deceit, seduction, or intimidation as out of bounds. Still, it was all in vain. The workers were forced to submit half a dozen petitions in which they lamented their “oppression by the Act.” However, when they were interviewed, the workers acknowledged that they had been coerced into signing them. They were in fact being oppressed, “but by something other than the Factory Act!”¹⁰⁸ Having failed to put words into the workers’ mouths, the manufacturers shouted even more loudly in the workers’ name, both in the press and before Parliament. They denounced the factory inspectors as a group of radical commissioners, who were operating in the tradition of the Convention and ruthlessly sacrificed the poor workers as they tried to realize their fantastical plans to improve the world.^{xxxii} Like the other measures that the manufacturers deployed, this one fell short. Factory inspector Leonard Horner organized many interviews with witnesses in the factories of Lancashire, conducting some in person and assigning others to subinspectors. About 70% of the workers who were interviewed said that they were in favor of the ten-hour day. A much smaller percentage claimed to prefer the eleven-hour limit. The ones who wanted to keep the old twelve-hour rule in place constituted a tiny minority.¹⁰⁹

Another “friendly” trick was to have adult male workers work twelve to fifteen hours, then announce that this was what the workers wanted in their heart of hearts. But the “heartless” inspector Horner appeared on the scene again. The majority of the “overtimers” declared “that they would much prefer working 10 hours for less wages, but they had no choice; that so many were out of employment, so many spinners getting very low wages by having to work as piercers, that if they refused to work the longer time, others would immediately get their places, so that it was a question with them of agreeing to work the long time, or of being thrown out of employment altogether.”¹¹⁰

108. “Though I signed it [the petition] I said at the time I was putting my hand to a wrong thing.” “Then why did you put your hand to it?” “Because I should have been turned off if I had refused.” “Whence it would appear that this petitioner felt himself ‘oppressed’ indeed, but not exactly by the Factory Act” (ibid. p. 102).

109. Ibid. p. 17. In Mr. Horner’s district, 10,270 adult male workers were interviewed in 181 factories. Their testimonies can be found in the appendix of the factory report for the half-year ending in Oct. 1848. These witness statements are a valuable resource in other regards as well.

110. Ibid. See the statements collected by Horner himself: Nos. 69, 70, 71, 72, 93, as well as those collected by sub-inspector A.: 51, 52, 58, 59, 62, 70. These can all be found in the “appendix.” In one case, a factory gave offered candid responses. See No. 14 after 265, ibid.

Capital's preliminary action failed; the Ten Hours' Law went into effect on May 1, 1848. Meanwhile, the Chartist Party's spectacular demise—the leaders were sent to jail, the organization was dissolved—had shattered the self-confidence of the members of the English working class. Then the June insurrection in Paris and its bloody suppression united all the factions of the ruling classes on the Continent, just as it did in England: land owners and capitalists, wolves of the stock market and shopkeepers, protectionists and free traders, the party in power and the opposition, priests and atheists, young whores and old nuns.^{xxxii} All were brought together under the common mantra "Save property, religion, the family, society!" Everywhere, members of the working class were outlawed and smeared, and the "*loi des suspects*" was wielded against them.^{xxxiii} The manufacturers no longer needed to hold back. Now they openly rebelled, against not only the Ten Hours' Law, but also all the post-1833 legislation that was meant to rein in (at least to some extent) the "free" exploitation of labor-power. This was a proslavery revolt in miniature, carried out over more than two years with cynical abandon and conspiratorial energy, both of which came all the more easily because the capitalists weren't risking anything but the skin of their workers.

In order to make sense of what happened next, one has to remember, first, that the Factory Acts of 1833, 1844, and 1847 were all in effect at the same time—except those parts of the Act of 1833 that were amended by the latter two Acts, and those parts of the Act of 1844 that were amended by the last one; second, that none of the Acts limited the workday of male workers older than 18; and, finally, that since 1833, the fifteen-hour period from 5:30 A.M. to 8:30 P.M. had remained the legal "day," during which teenagers and women were to perform their twelve hours of labor, and later their ten hours of it, under the prescribed conditions.

In a few places, manufacturers began to let go a portion of the teens and women they employed—sometimes as many as half—and also to reestablish night work (which had mostly disappeared) for men. The Ten Hours' Bill left them no choice, they cried.¹¹¹

After that, the manufacturers turned to the required breaks for meals. Let's listen again to the factory inspectors: "Since the restriction of the hours of work to ten, the factory occupiers maintain, although they have not yet practically gone the whole length, that supposing the hours of work to be from 9 A.M. to 7 P.M., they fulfil the provisions of the statutes by allowing an hour before 9 A.M. and a half hour after 7 P.M. [for meals]. In

111. "Reports etc. for 31st October 1848," pp. 133, 134.

some cases they now allow half an hour for dinner, insisting, at the same time, that they are not bound to allow any part of the hour and a half in the course of the factory working day.”¹¹² Thus the manufacturers were asserting that the painstakingly precise regulations contained in the Act of 1844 permitted workers to eat and drink only before they arrived at the factory and after they left it—in other words, only at home! And in fact why not? Why shouldn’t workers have their midday meal before 9 o’clock in the morning? Nevertheless, the Crown lawyers decided that the prescribed mealtimes “must be in the interval during the working hours, and that it will not be lawful to work for 10 hours continuously from 9 A.M. to 7 P.M. without any interval.”¹¹³

But these were just the genial preliminaries. Capital now began to revolt in earnest, taking a step that conformed to the letter of the Law of 1844 and was thus legal.

That law had made it illegal to put children 8 to 13 years old to work after 1 P.M. if they had worked before noon. Yet it had done nothing to regulate the six and a half hours of labor performed by children who began working at 12 P.M. or later! Thus if a child of 8 began working at 12 P.M., he could be employed from noon to 1 P.M. (one hour), from 2 P.M. to 4 P.M. (two hours), and from 5 P.M. to 8:30 P.M. (three and a half hours), all of which amounts to the lawful six and a half hours! Or, even better: in order to align their use of child labor and adult labor, the manufacturers needed only to have children not work until 2 P.M. but then keep working in the factory until 8:30 in the evening—without a break! “And it is now expressly admitted, that the practice exists in England from the desire of millowners to have their machinery at work for more than 10 hours a day, to keep the children of both sexes at work with male adults after all the young persons and women have left, and until half-past eight P.M. if the factory owners choose.”^{114,xxxiv} Workers and factory inspectors condemned this practice on hygienic and moral grounds. Capital replied:

My deeds upon my head! I crave the law,
The penalty and forfeit of my bond.^{xxxv}

According to the statistics presented to the House of Commons on July 26, 1850, as of ten days earlier, 3,743 children were in fact being subjected to this “practice” in 257 factories, despite all the protests.¹¹⁵ But cap-

112. “Reports etc. for 30th April 1848,” p. 47.

113. “Reports etc. for 31st Oct. 1848,” p. 130.

114. “Reports etc. 31 October 1848,” p. 142.

115. “Reports etc. for 31st Oct. 1850,” pp. 5, 6.

ital wanted more, and its eagle eye spotted another omission. The Act of 1844 established that a worker couldn't do more than five hours of labor in the morning without getting a break of at least thirty minutes. However, it didn't contain any such rules for labor performed in the afternoon. Capital thus demanded—and through force of will won—the pleasure not only of having eight-year-old children toil away from 2 P.M. until 8:30 P.M. without a single break, but also of making them go hungry!

Ay, his breast,
So says the bond.^{116,xxxvi}

In clinging, like so many Shylocks, to the letter of the Act of 1844 insofar as it regulated child labor, the manufacturers were trying to mount an open revolt against the Act only insofar as it regulated the labor of “young persons and women.” We will recall that the law's primary aim and substance had to do with putting an end to the “fraudulent relay system.” The manufacturers launched their revolt with a simple declaration. Those sections of the Act of 1844 that made it illegal to employ women and teens in random small blocks of time during the fifteen-hour workday were “comparatively harmless, as long as the workday remained twelve hours. The sections became a grievous hardship, however, under the Ten Hours' Bill.”¹¹⁷ Coolly, the manufacturers indicated to the inspectors that they were going to stray from the letter of the law and would take it upon themselves to reintroduce the old system.¹¹⁸ But their plan would actually serve the interests of the workers, who had been misadvised. According to the manufacturers, “it would allow them to pay higher wages.” And

116. Whether capital is in its undeveloped or advanced form, its nature remains the same. In the legal code that, thanks to the influence of slave owners, was imposed on the Territory of New Mexico shortly before the American Civil War, we read that since the capitalist has bought the worker's labor-power, the worker “is his” (the capitalist's) “money.” The same view was widely shared among Roman patricians. The money they advanced the plebeian debtor was transformed into flesh and blood when he consumed his means of subsistence. That “flesh and blood” was thus the patricians' money. Hence the Law of the Ten Tables, which now evokes Shylock. On the other hand, Linguet's theory that the patrician creditors would sometimes hold feasts on the other side of the Tiber where they would consume the roasted flesh of debtors is as unconvincing as Daumer's theory about the Lord's Supper. [Editor's note: The correct name is the Law of the Twelve Tables. This was Rome's oldest legal code. In his book *Die Geheimnisse des christlichen Altertums* (1847) (The Secrets of Christian Antiquity), Georg Friedrich Daumer polemically makes the case that “the horror of human sacrifice” has played an important role Christian ritual, including the Lord's Supper. “Nothing is more absurd,” according to him, than the conventional wisdom that suggests otherwise.]

117. “Reports etc. for 31st Oct. 1848,” p. 133.

118. Thus, among others, the philanthropist Ashworth, in a letter to Leonard Horner that is repellent in the way of the Quakers.

there was “no better plan for maintaining the manufacturing supremacy of Great Britain, now when the working hours are reduced to ten.”¹¹⁹ “Perhaps it may be a little difficult to detect irregularities under the relay system; but what of that? Is the great manufacturing interest of this country to be treated as a secondary matter in order to save some little trouble to Inspectors and Sub-Inspectors of Factories?”¹²⁰

These subterfuges didn’t work, naturally: the factory inspectors fought them in court. The manufacturers, for their part, quickly overwhelmed Sir George Grey, the Home Secretary, with so many petitions that in a circular (of August 5, 1848), he instructed the inspectors “as a general rule,” not “to lay informations against millowners for a breach of the letter of the Act as to the employment of young persons and women by relays, in cases in which there is no reason to believe that such workers have been actually employed for a longer period than that sanctioned by law.”^{xxxvii} In response, the factory inspector John Stuart allowed the so-called shift system to be used during the fifteen-hour workday in all of Scotland, where the system flourished just as it had before. On the other hand, English factory inspectors claimed that the Secretary lacked the authority to suspend laws by fiat. They continued to wage their legal battle against the proslavery rebellion.

But why summon everyone to court when the courts—the county magistrates, in this case¹²¹—acquitted everyone? The manufacturers even served as their own judges. An example: A certain Eskrigge, a cotton-spinner with the firm Kershaw, Leese & Co, wanted to introduce a relay system at his mill. He formulated a plan and presented it to the factory inspector in his district. When his proposal was rejected, Eskrigge seemed at first to have no response. A few months later, an individual named Robinson, also a cotton-spinner, and if not Eskrigge’s Man Friday then at least his relative, went before the Borough Justices in Stockton, having been charged with instituting exactly the version of the relay system that Eskrigge had designed. There were four judges—three of them cotton-spinners—with none other than the ubiquitous Eskrigge presiding. Eskrigge acquitted Robinson and then declared that if something was lawful for Robinson, Eskrigge could do it, too. On the basis of a legal

119. *Ibid.* p. 138.

120. *Ibid.* p. 140.

121. These “county magistrates, the “Great Unpaid,” as W. Corbett calls them, are unremunerated justices of the peace chosen from among the eminences in each county. They in fact constitute the patrimonial courts of the ruling classes.

precedent established by his own verdict, he promptly introduced the relay system at his mill.¹²² Of course, the very makeup of the tribunal openly violated the law. "These judicial farces," exclaimed Inspector Howell, "urgently call for a remedy . . . either that the law should be altered so as to be made to conform to these decisions, or that it should be administered by a less fallible tribunal, whose decisions would conform to the law. . . . When these cases are brought forward I always long for a stipendiary magistrate."¹²³

The Crown's lawyers argued that the manufacturers were interpreting the Act of 1844 in absurd ways, but society's saviors didn't let that faze them. Leonard Horner reported, "Having endeavoured to enforce the Act by 10 prosecutions in seven magisterial divisions, and having been supported by the magistrates in one case only, I considered it useless to prosecute more for this evasion of the law. That part of the Act of 1844, which was framed for the purpose of securing uniformity in the hours of work, is thus no longer in force in my district [Lancashire]. Neither have the Sub-Inspectors or myself any means of satisfying ourselves, when we inspect a mill working by shifts, that the young persons and women are not working more than 10 hours a day. . . . At the end of April 1849, the number of young persons and women in my district working by shifts amounted to 114, and it has been for some time rapidly increasing. In general the time of working the mill is extended to 13^{1/2} hours, from 6 A.M. to 7^{1/2} P.M.; in some instances, it amounts to 15 hours, from 5^{1/2} A.M. to 8^{1/2} P.M."¹²⁴ As early as December of 1848, Horner had a list of 65 manufacturers and 29 factory inspectors who all stated that under this relay system, no means of inspection could stop large amounts of overwork from occurring. Sometimes the same children and young persons were "shifted" from the weaving room to the spinning room. Sometimes they were shifted from one factory to another over the course of a fifteen-hour day. How to monitor such a system? A system that "under the guise of relays is some one of the many plans for shuffling 'the hands' about in endless variety, and shifting the hours of work and of rest for different individuals throughout the day,

122. "Reports etc. for 30th April 1849," pp. 21, 22. For similar examples, see *ibid.* pp. 4, 5.

123. Section 10 of I. and II. William IV, c. 24, known as Sir John Hobhouse's Factory Act, made it illegal for the owner of a cotton-spinning or weaving mill, or the father, son, or brother of such an owner, to function as a justice of the peace in matters having to do with the Factory Act.

124. "Reports etc. for 30th April 1849," p. 5.

so that you may never have one complete set of hands working together in the same room at the same time."^{125,xxxviii}

But without all the actual overwork, the so-called relay system would still be a child of capital's imagination unsurpassed even in Fourier's humorous sketches of the *courtes séances*.^{xxxix} Only now "the attraction of labor" had been transformed into the attraction of capital. Consider those systems of employment that the respectable press has celebrated as models of "what a reasonable degree of care and method can accomplish." Workers were sometimes divided into 12 to 14 categories, with the composition of the categories constantly changing. During the fifteen hours of the factory day, capital would haul a worker into the factory for thirty minutes, or for an hour, and then send him away, only to bring him in and send him away once again. It would hound the worker back and forth in these scattered scraps of time, not loosening its grip until he had performed his ten hours of labor. Workers were made to operate like actors who appear on stage in multiple scenes and acts. And just as actors belong to the theater for the full duration of a play, workers belonged to the factory during all of the workday's fifteen hours, not counting the time it took to get to work and also back home. Hours that might have been used for rest thus became hours of enforced idleness. This system drove young male workers into bars and their female counterparts into brothels. Whenever a capitalist concocted a new way to keep his machines running for twelve or fifteen hours without employing additional workers, something that happened daily, workers had to wolf down their food at a different (leftover) time. As workers were campaigning for the ten-hour day, the manufacturers wailed that what that mob really wanted was to be paid twelve hours' worth of wages for ten hours of work. The manufacturers had turned the tables. They were now paying ten hours' worth of wages to have labor-power at their disposal for twelve or fifteen hours!¹²⁶ This was the nub of it; this was the manufacturers' edition of the Ten Hours' Law.^{xl} These were the same sanctimonious free traders who radiated warmth and good will—and had spent ten whole years during the time of the agitation against the Corn Laws showing workers detailed calculations meant to demonstrate that given England's industrial capa-

125. "Rep. etc. for 1st Dec. 1848," p. 95.

126. See "Reports etc. for 30th April 1849," p. 6 and the extensive reckoning with the "shifting system" undertaken by the factory inspectors Howell and Saunders in "Reports for 31st Oct. 1848." See also the petition against the "shift system" that the clergy of Ashton and the surrounding area sent to the Queen in the spring of 1849.

bilities, the nation's capitalists could easily turn a profit under a ten-hour workday, as long as the grain tariffs were lifted.¹²⁷

Capital's revolt went on for two years before it finally reached its climax. On February 8, 1850, the Court of Exchequer, one of England's four highest courts, ruled that while the manufacturers' behavior clearly went against the intent of the Act of 1844, the Act rendered itself meaningless with some of its own language. "With this decision the Ten Hours' Bill has been abolished."¹²⁸ Many of the manufacturers who had been too timid to use the relay system for teens and female workers eagerly introduced it.¹²⁹

Just when capital appeared to have won a decisive victory, it suffered a reversal of fortune. The resistance offered by the workers had been largely passive, if also resolute and unflagging. Now they began to protest in loud, fiery meetings in Lancashire and Yorkshire. The so-called Ten Hours' Bill was nothing but a ruse, a parliamentary swindle. There had never been a real ten hours' bill. Factory inspectors urgently warned the government that class antagonism was spiking at an incredible rate. Even some manufacturers grumbled: "The contradictory decisions of the magistrates have brought about a very abnormal and anarchic situation. One law is valid in Yorkshire, while another holds in Lancashire; one law is valid in one parish of Lancashire, while a different law holds in its immediate neighbourhood. The manufacturer in large towns could circumvent the law, while the manufacturer in country districts could not find the personnel needed for the relay system, and still less for the shifting of hands from one factory to another, etc."^{xi} But the right to exploit labor-power equally is capital's most basic human right.

Squaring off under these circumstances, the manufacturers and workers were able to reach a compromise that Parliament sealed with the new supplementary Factory Act of August 5, 1850. The workday of "young persons and women" was extended to ten and a half hours during the first five days of the week and limited to seven and a half hours on Saturday. All

127. See, for example, "The Factory Question and the Ten Hours Bill. By R. H. Greg, 1837."

128. F. Engels, "Die englische Zehnstundenbill" (in the "Neuen Rh. Zeitung. Politischen-ökonomischen Revue." Edited by me, April 1850, p. 13). [Editor's note: English translation, Friedrich Engels, "The English Ten Hours' Bill," *MECW*, vol. 10, trans. Hugh Rodwell, pp. 288-300, p. 288.] During the American Civil War, the same "high" court discovered another verbal twist that directly inverted the meaning of a law making it illegal to arm pirate ships.

129. "Rep. etc. for 30th April 1850."

their labor had to be performed between 6 A.M. and 6 P.M.,¹³⁰ with ninety minutes for meal breaks that all workers would have at the same time and that would be in accord with the regulations established in 1844. This put an end to the relay system once and for all.¹³¹ The child labor regulations in the Act of 1844 remained in effect.

One group of manufacturers again secured special seigneurial rights to proletarian children. These were the silk manufacturers. In 1833, they had howled menacingly, "If the liberty of working children of any age for 10 hours a day were taken away, it would stop our works." That is, they wouldn't be able to buy a sufficient number of children over 11. The silk manufacturers extorted the privilege they wanted. The pretext they used was investigated later and found to be a bold-faced lie,¹³² which didn't stop them, however, from spinning silk ten hours a day from the blood of children so small that they had to be lifted onto stools to perform their labor, a practice that went on for a decade.¹³³ Of course, the Act of 1844 "took away" the silk manufacturers' "liberty" to make children under 11 toil for more than six and a half hours daily, but, on the other hand, it gave them the "privilege" to make children 11 to 13 do that for ten hours a day, thereby exempting those children from the education requirement that applied to other child workers. This time the manufacturers' rationale was as follows: "The delicate texture of the fabric in which they [the children] were employed requiring a lightness of touch, only to be acquired by their early introduction to these factories."¹³⁴ So these children were slaughtered because they had delicate fingers, much as horned cattle are slaughtered in southern Russia for their hides and fat. In 1850, the privilege that had been conceded in 1844 was finally restricted to silk-twisting and silk-winding, although in this case, capital received compensation for the "liberty" it lost in that the labor-time of children 11 to 13 years old was increased from ten hours to ten and a half. Here the pretext was that "labour in silk mills was lighter than in mills

130. In the winter, the period from 7 in the morning till 7 in the evening can take its place.

131. "The present law [of 1850] was a compromise whereby the employed surrendered the benefit of the Ten Hours' Act for the advantage of one uniform period for the commencement and termination of the labour of those whose labour is restricted" ("Reports etc. for 30th April 1852," p. 14).

132. "Reports etc. for 30th Sept. 1844," p. 13.

133. *Ibid.*

134. "Reports etc. for 31st Oct. 1846," p. 20.

for other fabrics, and less likely, in other respects also, to be prejudicial to health."¹³⁵ Official medical inquiries would eventually prove the opposite: "The average death rate is exceedingly high in the silk districts, and amongst the female part of the population is higher even than it is in the cotton districts of Lancashire."¹³⁶ Although factory inspectors have been

135. "Reports for 31st Oct. 1861," p. 26.

136. Ibid. p. 27. In general, the physical condition of the working population subject to the Factory Act has improved greatly. All the doctors who have studied the matter agree, and observing different periods has convinced me, too, that this is so. Nevertheless, and leaving aside the atrocious mortality rate for children in their first years of life, Dr. Greenhow's official reports show the terrible state of health in the factory districts as compared with "agricultural districts of normal health." See, for example, the following table from his report of 1861.

Percentage of males engaged in manufactures

14.9 (Wigan)
42.6 (Blackburn)
37.3 (Halifax)
41.9 (Bradford)
31.0 (Macclesfield)
14.9 (Leek)
36.6 (Stoke-upon-Trent)
30.4 (Woolstanton)

Death rate from pulmonary affections per 100,000 males

598 (Wigan)
708 (Blackburn)
547 (Halifax)
611 (Bradford)
691 (Macclesfield)
588 (Leek)
721 (Stoke-upon-Trent)
726 (Woolstanton)
305 (Eight healthy agricultural districts)

Death rate from pulmonary affections per 100,000 females

644 (Wigan)
734 (Blackburn)
564 (Halifax)
603 (Bradford)
804 (Macclesfield)
705 (Leek)
665 (Stoke-upon-Trent)
727 (Woolstanton)
340 (Eight healthy agricultural districts)

objecting to this dirty business twice a year, it is still very much with us today.¹³⁷

The Act of 1850 turned the fifteen-hour period from 5:30 A.M. to 8:30 P.M. into the twelve-hour period from 6 A.M. to 6 P.M., but only for “young persons and women.” In other words, not for children, who could still be used from half an hour before this period began until two and a half hours after it ended, provided that a child’s total daily labor didn’t exceed six and a half hours. As the law was being debated, factory inspectors presented Parliament with a statistical account of the outrageous abuses that were legal because of this lacuna. But it didn’t help. Lurking in the background here was the goal of using children to push the workday of adult workers back up to fifteen hours in times of prosperity. What happened during the next three years showed that attempts to achieve that end couldn’t overcome the resistance they elicited from adult male workers.¹³⁸ Thus in 1853, the Act of 1850 was finally completed. It became illegal to employ “children in the morning before and in the evening after young persons and women were employed,” and starting in 1853, the Factory Act of 1850 regulated the workday of all the workers in the branches of industry subject to it, with only a few

Percentage of females engaged in manufactures

18.0 (Wigan)
 34.9 (Blackburn)
 20.4 (Halifax)
 30.0 (Bradford)
 26.0 (Macclesfield)
 17.2 (Leek)
 19.3 (Stoke-upon-Trent)
 13.9 (Woolstanton)

Type of female occupation

cotton (Wigan)
 ditto (Blackburn)
 worsted (Halifax)
 ditto (Bradford)
 silk (Macclesfield)
 ditto (Leek)
 earthenware (Stoke-upon-Trent)
 ditto (Woolstanton)

¹³⁷ We know that the English “free traders” didn’t want to give up protective tariffs on silk manufacture. The defenselessness of English factory children now serves in place of protection against French imports.

¹³⁸ “Reports for the 30th April 1853,” p. 30.

exceptions.¹³⁹ By then, it had been half a century since the first Factory Act was passed.¹⁴⁰

Factory legislation didn't expand beyond its original sphere until the "Printworks Act" was passed in 1845. Capital's displeasure in accepting this "extravagance" speaks through every line of the Act, which limits the workday for children 8 to 13 years old, and also for women, to sixteen hours of labor between 6 A.M. and 10 P.M., with no prescribed breaks for meals. The Act permits male workers over 13 to be worked for any length of time, day or night.¹⁴¹ It is a Parliamentary abortion.¹⁴²

Yet the principle of regulation had already triumphed because it had won the day in those great branches of industry that are the most characteristic creatures of the modern mode of production. Their astonishing development between 1853 and 1860, which even the least attentive observers were struck by, went hand in hand with the moral and physical renewal of factory workers. Manufacturers who had fought at every turn against attempts to legally regulate the workday during a fifty-year civil war now made a show of pointing up the contrast between the regulated areas of exploitation and the ones that remained "free."¹⁴³ The Pharisees of "political economy" celebrated their insight about the need for laws that regulate the workday, hailing it as an emblematic recent accomplishment

139. During the peak years of the English cotton industry, 1859 and 1860, some manufacturers dangled the prospect of higher wages for overtime in an attempt to get adult male spinners to support a longer workday. The hand-mule spinners and self-actor minders put an end to this experiment by handing their employers a petition that contained, among other things, the passage: "Plainly speaking, our lives are to us a burthen; and, while we are confined to the mills nearly two days a week [20 hours] more than the other operatives of the country, we feel as helots in the land, and that we are perpetuating a system injurious to ourselves and future generations. . . . This, therefore, is to give you the most respectful notice that from New Year's Day on, we shall work 60 hours per week, and no more, or from six to six, with one hour and a half out" ("Reports etc. for 30th April 1860," p. 30).

140. On the way in which the wording of the Act provides the means for violating it, see the Parliamentary Return: "Factories Regulation Acts" (9th August 1859) and the contribution by Leonard Horner that it contains: "Suggestions for Amending the Factory Acts to enable the Inspectors to prevent illegal working, now become very prevalent."

141. "Children of the age of 8 years and upwards, have, indeed, been employed from 6 A.M. to 9 P.M. during the last year [1857] in my district" ("Reports etc. for 31st Oct. 1857," p. 39). [Editor's note: Marx gives a strong translation for the term "employed," rendering it as "abgerackert," which means "worked to the bone."]

142. "The Printworks Act is admitted to be a failure, both with reference to its educational and protective provisions" ("Reports etc. for 31st Oct. 1862," p. 52).

143. Thus Potter, for example, in a letter of 24th March 1863 to the Times. The Times reminded him of the manufacturers' revolt against the Ten Hours' Bill.

of their “systematic scholarship.”^{144,xlii} It should come as no surprise that after the magnates of manufacturing had bowed to the inevitable, capital gradually lost its power to resist, whereas the workers’ capacity to attack grew as they gained more allies among members of the social classes that weren’t directly affected. Hence since 1860, progress has come relatively rapidly.

In 1860, dye-works and bleach-works¹⁴⁵ were brought under the Factory Act of 1850; in 1861, stocking and lace factories were as well. The first report of the Committee on the Employment of Children (1863) had the effect that the same fate was shared by all manufacturers of earthenware products (not just potteries), matches, percussion caps, cartridges, carpets, and fustian cuttings, and also by manufacturers in many industries that are grouped together under the name “finishing.” In 1863, “bleaching in the open air”¹⁴⁶ and “baking” got their own acts, with the first of them

144. Thus, among others, Mr. W. Newmarch, a contributor to and the editor of Tooke’s “History of Prices.” When someone cravenly bows to public opinion, should we say that he has achieved scholarly progress?

145. For dye-works and bleach-works, the act passed in 1860 established that on 1st August 1861, the working day would be provisionally fixed at 12 hours, and it would be permanently fixed at 10 hours on 1st August 1862, that is, at 10½ hours on regular workdays and 7½ hours on Saturdays. But when 1862, the year of reckoning, arrived, the old farce played out again. The manufacturers petitioned Parliament to grant them yet one more year of twelve-hour days for workers in their teens and women. . . . “In the existing condition of the trade [it was the time of the great cotton famine], it was greatly to the advantage of the operatives to work twelve hours per day, and make wages when they could.” A bill with this aim had been successfully brought into the House of Commons, “and it was mainly due to the action of the operative bleachers in Scotland that it was abandoned” (“Reports etc. for 31st Oct. 1862,” pp. 14, 15). Defeated in this way by the very workers in whose name it purported to speak, capital, now wearing its juridical glasses, discovered that like all Parliamentary legislation enacted “for the protection of labour,” the Act of 1860, with its convoluted phrasing, gave it, capital, a pretext for excluding the “calenders” and “finishers” from what protection the Act did offer. Always capital’s faithful servant, English jurisprudence sanctioned this casuistry in the Court of Common Pleas. “The operatives have been greatly disappointed, and it is greatly to be regretted that the clear intention of the legislature should have failed by reason of a faulty definition” (ibid. p. 18).

146. The “open-air bleachers” had gotten around the Act of 1860 by falsely claiming that no female bleachers worked at night. As the factory inspectors were exposing this lie, workers’ petitions stripped Parliament of its pleasant illusions about the work done here—the fresh breeze of the meadow! In this aerial bleaching, drying rooms with temperatures from 90 to 100 degrees Fahrenheit are used, and it is mostly young women who work in them. “Cooling” is the technical term for the practice of occasionally escaping from the drying room for some fresh air. “Fifteen girls in stoves. Heat from 80 to 90 for linens, and 100 and upwards for cambrics. Twelve girls ironing and doing up in a small room about 10 feet square, in the centre of which is a close stove. The girls stand round the stove, which throws out a terrific heat, and dries the cambrics rapidly for the ironers. The hours

making it illegal to put children, teenagers, and women to work at night, or from 8 in the evening until 6 A.M., while the baking act prohibited the use of journeyman bakers under 18 from 9 at night until 5 A.M. As for how the above-mentioned Committee later threatened, through further proposals, to take away the “liberty” of every important branch of industry in England except agriculture, mining, and transportation, we will come back to that.¹⁴⁷

7. The Struggle for a Normal Working Day. The Impact of English Factory Legislation on Other Countries

Readers will recall the specific aim and content of capitalist production: aside from any transformation of the mode of production that might arise from subordinating labor to capital, its aim is to produce surplus-value—i.e., extract surplus-labor. Readers will also recall that, from the standpoint we have been explicating, capitalists buy only the labor-power of free adult workers who are their equals before the law. Of course, the labor of those who are physically and legally minors has played an important role

of work for these hands are unlimited. If busy, they work till 9 or 12 at night for successive nights” (“Reports etc. for 31st October 1862,” p. 56). A physician explains: “No special hours are allowed for cooling, but if the temperature gets too high, or the workers’ hands get soiled from perspiration, they are allowed to go out for a few minutes. . . . My experience (which is considerable) in treating the diseases of stove workers, compels me to express the opinion that their sanitary condition is by no means so high as that of the operatives in a spinning factory [before Parliament, capital portrayed these workers as rosy-cheeked and healthy—like figures in a painting by Rubens!]. The diseases most observable amongst them are phthisis, bronchitis, irregularity of uterine functions, hysteria in its most aggravated forms, and rheumatism. All of these, I believe, are either directly or indirectly induced by the impure, overheated air of the apartments in which the hands are employed, and the want of sufficient comfortable clothing to protect them from the cold damp atmosphere in winter when going to their homes” (ibid. pp. 56–57). Factory inspectors remark about the Law of 1863, which the jolly “open-air bleachers” were eventually made to accept: “The Act has not only failed to afford that protection to the workers which it appears to offer, but contains a clause . . . apparently so worded, that unless persons are detected working after 8 o’clock at night they appear to come under no protective provisions at all, and even if they do so work, the mode of proof is so doubtful that a conviction can scarcely follow” (ibid. p. 52). “To all intents and purposes, therefore, as an Act for any benevolent or educational purpose, it is a failure; since it can scarcely be called benevolent to permit, which is tantamount to compelling, women and children to work 14 hours a day with or without meals, as the case may be, and perhaps for longer hours than these, without limit as to age, without reference to sex, and without regard to the social habits of the families of the neighbourhood in which such works [bleaching and dyeing] are situated” (“Reports etc. for 30th April 1863,” p. 40).

147. Note added to the second edition: Since 1866, when I wrote these passages, a reaction has again set in.

in our historical sketch, as has modern industry. But those minors have merely functioned as a particularly striking example of labor's exploitation, while modern industry has merely functioned as a particular sphere where that exploitation takes place. Without jumping ahead in our analysis, we can determine the following simply by connecting historical facts.

To begin with, capital's drive to extend the workday ruthlessly or heedlessly was first satisfied in the industries that were revolutionized by water, steam, and machinery prior to all the others—i.e., in the earliest creations of the modern mode of production: the spinning and weaving of cotton, wool, flax, and silk. This new material mode of industrial production, along with the new social relations among producers that correspond to it,¹⁴⁸ led at first to heedless excess, then called forth countervailing mechanisms of social control, and the working day was limited, regulated and standardized by law, with breaks mandated as well. During the first half of the nineteenth century, such social control thus took the form of extraordinary legislative measures.¹⁴⁹ However, by the time factory legislation had conquered the original areas of the new mode of production, not only had many other branches of industry been brought under the modern factory system, so had various types of manufacturing with antiquated methods. Some of those types had long operated under the capitalist system of exploitation every bit as much as factories: pottery and glass works, and also old-fashioned modes of craft work, such as baking, and, finally, even assorted kinds of so-called domestic labor, like nail-making.¹⁵⁰ Over time, factory legislation was thus forced to give up its exceptional character. Or, where this legislation was developed with Roman casuistry, as it was in England, it was forced to call any house where someone was working “a factory.”¹⁵¹

Second, the history of how the workday came to be regulated in certain areas of production, together with the ongoing struggle to regulate

148. “The conduct of each of these classes [capitalists and workmen] has been the result of the relative situation in which they have been placed” (“Reports etc. for 31st Oct. 1848,” p. 113).

149. “The employments placed under restriction were connected with the manufacture of textile fabrics by the aid of steam or water power. There were two conditions to which an employment must be subject to cause it to be inspected, viz., the use of steam or water power, and the manufacture of certain specified fibres” (“Reports etc. for 31st October, 1864,” p. 8).

150. The most recent reports of the “Children’s Employment Commission” contain extremely rich material on the state of the so-called domestic industries.

151. “The Acts of the last Session [1864] . . . embrace a diversity of occupations the customs in which differ greatly, and the use of mechanical power to give motion to machinery is no longer one of the elements necessary, as formerly, to constitute in legal phrase a Factory” (“Reports etc. for 31st Oct. 1864,” p. 8).

it in other areas, shows concretely that the worker on his own—that is, the worker as the “free” seller of his labor-power—succumbs without resistance once capitalist production has reached a certain stage in its development. A normal working day thus came about as the product of a protracted, more or less hidden civil war between members of the capitalist class and members of the working class. Since this struggle began in the arena of modern industry, it was first waged on modern industry’s native land: England.¹⁵² English factory workers were therefore the defenders of not just the English working class but of the working class in general, just as their theorists were the first to throw down the gauntlet before the theory of capital.¹⁵³ This led the manufacturers’ philosopher Ure to declare that members of the working class brought eternal shame upon themselves when they wrote “the slavery of the Factory Acts” on their banners and waved them at capital, which, meanwhile, was fighting manfully for “the perfect freedom of labour.”¹⁵⁴

France has been limping along slowly, trailing behind England. It took the February Revolution for the French Twelve Hours’ Law to be enacted,¹⁵⁵ and that law has more weak points than the English original.

152. There isn’t a trace of this movement in Belgium, the paradise of continental liberalism. Even in its coal and metal mines, workers of both sexes and of all ages are consumed with complete “freedom,” for any length of time during any period. Out of every 1,000 people employed in the mines, 733 are men, 83 are women, 135 are boys, and 49 are girls under 16. In the blast furnaces, etc., out of every 1,000 workers, 668 are men, 149 are women, 98 are boys, and 85 are girls under 16. Add to this the low wages that are paid in return for the outside exploitation of both adult and child bearers of labor-power. A man earns on average 2s. 8d. per day; a woman earns on average 1s. 8d. daily, a boy 1s. 2½d. Thanks to this system, between 1850 and 1863, Belgium was able to nearly double the amount and value of its exports of coal, iron, etc.

153. Not long after 1810, Robert Owen not only stressed the necessity of limiting the workday on the level of theory; he also introduced the ten-hour workday at his factory in New Lanark. Observers mocked this policy as the stuff of a communist utopia. Similarly, they laughed at his “combination of children’s education with productive labour,” and also the workers’ cooperative societies that he was the first to establish. Today, the first of those utopian policies has become the law, the second serves as an official phrase in all the “Factory Acts,” and the third is already being used to cloak reactionary swindles.

154. Ure (French translation). “Philosophie des manufactures. Paris. 1836,” Vol. 2, pp. 39–40, 67, 77, etc. [Editor’s note: Marx cites the French translation he had handy. In the English original, these passages can be found in Andrew Ure, *The Philosophy of Manufacture or, an Exposition of the Scientific, Moral, and Commercial Economy of the Factory System of Great Britain* (London: Charles Knight, 1835), pp. 302, 321, 329 respectively.]

155. In the *Compte Rendu* of “The Paris International Statistical Congress 1855,” we read the following, among other things: “The law of France, which restricts the duration

But the special advantages of the French revolutionary mode have still made themselves felt. With one blow, the French established a uniform working day for all workshops and factories (no exceptions), whereas English legislation keeps bowing reluctantly to outside pressures on all manner of issues and is thus heading straight toward a royal mess of contradictions.¹⁵⁶ Moreover, the French law takes as a foundational principle what in England could at first only be won in the name of children, teenagers, and women, and has only recently been claimed as a universal right.¹⁵⁷

In the United States of North America, every independent movement of workers remained paralyzed as long as slavery disfigured part of the Republic. Labor cannot emancipate itself in white skin where its black skin is branded. New life sprang up right away from the death of slavery. The first fruit of the Civil War was the agitation for an eight-hour day, which strode forward in the seven-league boots of the railroad, going from the Atlantic Ocean to the Pacific, from New England to California. The General Workers' Congress in Baltimore (Aug. 1866) declared, "The first and grand desideratum of the hour, in order to deliver the labor of the country from this thralldom, is the adoption of a law whereby eight hours shall constitute a legal day's work in every State of the American Union, and we are determined never to relax our efforts until this glori-

of daily labour in factories and workshops to 12 hours, does not limit that labour between certain fixed hours, as is required for the hours of work of children, i.e., between 5 A.M. and 9 P.M. Hence, some manufacturers using the right which this grievous silence gives, admit of no interruption of the work of their establishments, except, perhaps, upon the Sunday, by employing two sets of workmen, neither of which spends more than twelve hours in the workshop, but the work of the establishment is prolonged during the day and night. The law is satisfied, but is humanity equally so?" In addition to pointing up "the unhappy effect upon the human frame of the deprivation of natural sleep," it also emphasizes "the fatal influence upon morals of the nightly association of the two sexes in the same dimly lighted workshops."

156. "For instance, there is within my district, one occupier who within the same curtilage, is at the same time a bleacher and dyer under the Bleaching and Dyeing Works Act, a printer under the Print Works Act, and a finisher under the Factory Act" (Report of Mr. Baker in "Reports etc. for 31st Oct. 1861," p. 20). After listing the various provisions of these acts and the complications proceeding from them, Mr. Baker observes, "It will hence appear that it must be very difficult to secure the execution of these three Acts of Parliament where the occupier chooses to evade the law." Yet one thing is in fact secured by this means: lawsuits for lawyers.

157. And so the factory inspectors finally dared to say, "These objections [capital's objections to imposing legal limits on the workday] must succumb before the broad principle of the rights of labour . . . there is a time when the master's right in his workman's labour ceases, and his time becomes his own, even if there was no exhaustion in the question" ("Reports etc. for 31st Oct. 1862," p. 54).

ous result is conserved.”¹⁵⁸ Responding to a proposal by the General Council in London, the Congress of the International Working Men’s Association in Geneva resolved at just the same time (the beginning of Sept. 1866), “We regard the limitation of the working day as a precondition without which all further attempts at improvement and emancipation will necessarily fail. . . . We propose eight hours as the legal limit of the working day.”

So on both sides of the Atlantic, the workers’ movement, having developed instinctively out of the conditions of production, endorsed the words of the English factory inspector Robert J. Saunders: “Further steps toward a reformation of society can never be carried out, with any hope of success, unless the hours of labour be limited, and the prescribed limit strictly enforced.”¹⁵⁹

It must be said that when our worker emerges from the production process, he isn’t the same as he was before entering it. He arrived in the market as the owner of a commodity, “labor-power,” and encountered other commodity owners—one commodity owner facing another. The contract through which our worker sold his labor-power to a capitalist offers proof in black and white, so to speak, that as a free person, he can do whatever he wants with himself. But after the exchange is made, what comes to light is that he wasn’t actually a “free agent,” that the hours of his labor-power he is free to sell are the hours he is forced to sell,¹⁶⁰ and that his exploiter won’t let go of him as long as “there is a muscle, a sinew or a

158. “We, the workers of Dunkirk, declare that the amount of work required under the present system is too great, and that far from leaving the worker time for rest and education, it thrusts him into a condition of servitude but little better than slavery. That is why we have decided that eight hours are enough for a working day, and should be legally recognized as enough. It is why we are attempting to enlist the help of that powerful mechanism, the press . . . and why we shall consider all those that refuse us this help as enemies of the reform of labor and of the rights of the worker” (Resolutions of the Workers of Dunkirk, State of New York, 1866). [Editor’s note: The source for the quotation in the footnote couldn’t be located, and so Marx’s German translation, translated into English here, couldn’t be checked against the original text.]

159. “Reports, etc. for 31st Oct. 1848,” p. 112.

160. “These proceedings [the maneuvers of capital, for instance, from 1848 to 1850] have afforded, moreover, incontrovertible proof of the fallacy of the assertion so often advanced, that operatives need no protection, but may be considered as free agents in the disposal of the only property they possess, the Labour of their hands and the sweat of their brows” (“Reports etc. 30th April 1850,” p. 45). “Free labour, if so it may be termed, even in a free country requires the strong arm of the law to protect it” (Reports etc. for 31st Oct. 1864,” p. 34). “To permit, which is tantamount to compelling . . . to work 14 hours a day without meals etc” (“Reports etc. 30th April 1863,” p. 40).

drop of blood left to extract profit from.”¹⁶¹ In order to “protect” themselves against the serpent that torments them,^{xliii} workers have to put their heads together and, acting as a class, have to force a national law into being, an insurmountable social barrier that prevents workers from voluntarily selling themselves and their families into slavery and death.¹⁶² The flashy catalogue of “inalienable human rights” is replaced by the modest Magna Carta of a workday with legal limits, which finally establishes “when the time which the worker sells is ended, and when his own begins.”^{163,xliv} *Quantum mutatus ab illo!*^{xlv}

161. F. Engels op. cit. p. 5. [Editor’s note: English translation, “The English Ten Hours’ Bill,” in *MECW*, vol. 10, pp. 288–300, p. 288.]

162. In the branches of industry subject to the Ten Hours’ Act, the Act has “put an end to the premature decrepitude of the former long-hour workers” (“Reports etc. for 31st October 1859,” p. 47–52). “Capital [in factories] can never be employed in keeping the machinery in motion beyond a limited time, without certain injury to the health and morals of the labourers employed; and they are not in a position to protect themselves” (ibid. p. 8).

163. “A still greater boon is, the distinction at last made clear between the worker’s own time and his master’s. The worker knows now when that which he sells is ended, and when his own begins, and by possessing a sure foreknowledge of this, is enabled to pre-arrange his own minutes for his own purposes” (ibid. p. 52). “By making them masters of their own time, they [the Factory Acts] have given them a moral energy which is directing them to the eventual possession of political power” (ibid. p. 47). With restrained irony, and in very cautious language, the factory inspectors intimate that the current Ten Hours’ Act has unburdened the capitalist of some of the natural brutality he possesses as the mere embodiment of capital, and has given him time for a bit of “self-cultivation.” Earlier, “the master had no time for anything but money: the servant had no time for anything but labour” (ibid. p. 48).

The Rate and Amount of Surplus-Value

HERE WE WILL assume that the value of labor-power, or the part of the working day needed to reproduce or maintain labor-power, is a given, constant quantity, just as we did in the previous chapters.

If labor-power's value is in fact such a quantity, and we know the rate of surplus-value, we will also know how much surplus-value an individual worker creates for a capitalist in a given period of time. If the day's necessary labor amounts to six hours and can be expressed as a gold quantity of 3 shillings or 1 thaler, then 1 thaler is the daily value of one worker's labor-power—i.e., the value of the capital that is advanced when a day of a worker's labor-power is purchased. And if the rate of surplus-value is 100%, then the amount of surplus-value that a thaler of variable capital produces is 1 thaler, while the amount of surplus-labor a single worker supplies is six hours.

But variable capital is the monetary expression of the combined value of all the labor-power that a capitalist employs simultaneously in a given process of production. If the daily value of a single worker's labor-power is 1 thaler, then 100 thalers of capital would have to be advanced daily to exploit 100 bearers of labor-power: capital worth n thalers has to be advanced each day to exploit n bearers of labor-power. The value of the variable capital therefore equals the average value of a single worker's labor-power multiplied by the number of workers whose labor-power is being activated. Thus if labor-power's value is given, the magnitude of the variable capital's value will vary directly with the amount of labor-power that is appropriated, or the number of workers being used at the same time.

If a thaler of variable capital, or the daily value of a single worker's labor-power, produces 1 thaler of surplus-value daily, then 100 thalers of

variable capital will produce 100 thalers of surplus-value daily, and variable capital of n will produce a daily surplus-value of 1 thaler $\times n$. The amount of surplus-value produced thus equals the amount produced by each worker during his working day multiplied by the number of workers who have been put to work. Now when labor-power's value is given, the amount of surplus-value that each worker produces is determined by the rate of surplus-value, and what follows from this is that the amount of surplus-value produced equals the amount of variable capital advanced multiplied by the rate of surplus-value—in other words, the magnitude of surplus-value is determined by the product of the number of workers being exploited at the same time by a single capitalist and the extent to which he exploits each individual worker.

So if one of these factors decreases, a capitalist who wants to produce a certain quantity of surplus-value can offset that by increasing the other factor. If the variable capital decreases and at the same time the rate of surplus-value increases proportionally, the amount of surplus-value being produced won't change. Let's say that the capitalist has to advance 100 thalers in order to exploit 100 workers daily, and the rate of surplus-value is 50%. His variable capital of 100 thalers will yield a surplus-value of 50 thalers, i.e., 100×3 hours of labor. If the rate of surplus-value doubles—if the workday is extended from six hours to twelve instead of from six to nine—half as much variable capital would also yield a surplus-value of 50 thalers, or 50×6 hours of labor. This means that if the variable capital decreases, the decrease can be counterbalanced by proportionally increasing the extent to which labor-power is exploited. Or, a drop in the number of workers can be counterbalanced by proportionally extending the length of the workday. Within certain limits, then, capital can extort additional labor without adding additional workers.¹ On the other hand, a decrease in the rate of surplus-value won't alter the amount of surplus-value produced, as long as the amount of the variable capital—i.e., the number of workers—increases proportionally.

But when it comes to offsetting a smaller supply of workers (or a smaller magnitude of variable capital) with a higher rate of surplus-value (or a longer workday), some limits can't be circumvented. Whatever labor-power's value may be, whether the labor-time needed to maintain the

1. Vulgar political economists appear to be unaware of this elementary law. Like an upside-down Archimedes, they take up the idea that the market price of labor is determined by supply and demand, and believe that in this they have found the fulcrum that will enable them not to lift the world up, but instead to bring it to a standstill.

worker daily amounts to two hours or ten, the total value that a worker can produce day after day will always be smaller than the value in which twenty-four hours of labor are objectified—i.e., smaller than 12 shillings or 4 thalers, if that is how twenty-four hours of objectified labor is being expressed in terms of money. Earlier we assumed that it takes six hours of labor each day to reproduce the labor-power (or replace the value of the capital that is advanced when the labor-power is bought). It follows that if 500 thalers of variable capital is spent on 500 workers with the rate of surplus-value at 100%, or the length of the workday at twelve hours, that capital will produce a surplus-value of 500 thalers daily: 6×500 hours of labor. If 100 thalers of variable capital is spent daily on 100 workers with the rate of surplus-value at 200%, or the working day at eighteen hours, it will produce a surplus-value of only 200 thalers: 12×100 hours of labor. Furthermore, the total value that the capital produces, which is the equivalent of the variable capital advanced plus the surplus-value generated, can never reach a daily average of 400 thalers—in other words, 24×100 hours of labor. The absolute limit of the average workday, which by nature is always less than twenty-four hours, represents the absolute limit for offsetting a decrease of variable capital by increasing the rate of surplus-value, or for offsetting a decrease in the number of workers being exploited by increasing the extent to which each bearer of labor-power is exploited. This readily observable law can help us understand many things that arise from a phenomenon to be explicated later: capital's tendency to reduce as much as possible the number of workers it employs or, that is, the variable part of itself that is turned into labor-power. For this tendency runs counter to capital's other tendency: to produce as much surplus-value as possible. On the other hand, if the amount of labor-power activated (or the magnitude of the variable capital) increases, but not proportionally with the decrease in the rate of surplus-value, then the amount of surplus-value produced will fall.

A third law results from the circumstance that these two factors, the rate of surplus-value and the magnitude of the variable capital, determine the amount of surplus-value produced. If the rate of surplus-value (or the extent to which bearers of labor-power are exploited) and labor-power's value (or the magnitude of the necessary labor-time) are both given, then of course the greater the variable capital, the more value and surplus-value are produced. If the limit of the working day is given, and so is the limit of its necessary part, then, needless to say, the amount of value and surplus-value that an individual capitalist produces will depend solely on the amount of labor he sets in motion. Under the conditions

we are presupposing, that last amount depends on the amount of labor-power, or the number of workers, he exploits, and this number, for its part, depends on the amount of variable capital he advances. Thus when the rate of surplus-value and labor-power's value are given, the amount of surplus-value produced varies directly with the amount of variable capital advanced. As we know, however, the capitalist divides his capital into two parts. He spends one part on the means of production: the constant part. He turns the other part into living labor-power: the variable part. Among different branches of industry based on a single mode of production, the division of capital into constant and variable parts breaks down in different ways. It also varies within individual branches, where the ratio between the two parts varies as both the technological foundation and social organization of the production process change. But whatever the ratio of constant to variable capital may be, whether it is 2:1, 10:1, or $x:1$, the law we just identified isn't affected, because as our analysis established earlier, the value of the means of production doesn't contribute to the new value generated during the production process. Their value merely reappears in the product's value. The labor of 1,000 spinners naturally creates a greater demand for raw material and spindles than the labor of 100 spinners. But the value of the additional means of production can rise, fall, or remain constant, and it can be large or small; whatever the case may be, the magnitude of that value doesn't affect the valorization process of the labor-power whose bearers put the means of production into motion. The law established above can therefore be expressed as follows. If both the value of labor-power and the extent to which labor-power is exploited remain constant, the quantities of value and surplus-value that different amounts of capital produce will vary directly with the variable part of those amounts—in other words, the part of capital that has been turned into living labor-power.

This law obviously contradicts all experience based on direct observation. Everyone knows that a cotton manufacturer who spends a relatively large part of his total capital on the constant part doesn't necessarily wind up with less profit or surplus-value than a baker who advances a relatively large amount of variable capital and a relatively small amount of constant capital. Many intermediate terms are needed to resolve this apparent contradiction, just as they are in basic algebra to show how % can represent an actual magnitude. Although classical political economy never formulated this law, it has held to it instinctively, because the law is a necessary consequence of the law of value in general. In the face of appearances that contradict the law, classical political economy has tried to save it by resort-

ing to a forced abstraction. Later, we will see² how Ricardo's school tripped over this stumbling block. Here as elsewhere, vulgar political economy, having "really learned nothing,"ⁱ clings to mere semblance instead of taking up the law of phenomena. In contrast to Spinoza, it believes that "ignorance is sufficient reason."ⁱⁱ

The labor that a society's total capital sets in motion daily can be treated as a single working day. If there are a million workers, and each worker has an average workday of ten hours, then the social working day will be made up of 10 million hours. If the length of the workday is fixed, whether for physical or moral reasons, the only way to increase the amount of surplus-value is to increase the number of workers, that is, enlarge the working population. So here population growth represents the mathematical limit of how much surplus-value can be produced by a society's total capital. And vice versa. If it is the size of the population that is fixed, then the extent to which the working day can be lengthened represents the limit.³ But this law holds only for the form of surplus-value we have dealt with up to now, as we will see in the following chapter.

From our earlier observations about how surplus-value is produced, we understand that not all sums of money or value can be turned into capital. In order for that transformation to occur, a money (or commodity) owner needs to have a certain minimum of money or exchange-value in his pocket. The minimum amount of variable capital is the price of consuming a single worker's labor-power throughout the year—day in, day out—to generate surplus-value. If a worker owned the means of production and were content to live as a worker, he would also content himself with performing only the labor required to reproduce his means of subsistence—let's say eight hours daily. He would thus need enough means of production for only eight hours of labor. In contrast, the capitalist has the worker perform four hours of surplus-labor beyond these eight hours, so the capitalist needs an additional sum of money to buy additional means of production. Now according to what we have assumed, the capitalist would have to employ not one but two workers in order to live like a worker from the surplus-value he gains—i.e., in order to satisfy his own basic wants and needs. In this case, his goal would be simply to maintain himself, not increase his wealth. But the aim of

2. More on this in volume 4.

3. "The labour, that is the economic time of society, is a given portion, say ten hours a day of a million of people or ten million hours. . . . Capital has its boundary of increase. The boundary may, at any given period, be attained in the actual extent of economic time employed" ("An Essay on the Political Economy of Nations. London 1821," pp. 47, 49).

increasing wealth is presupposed in capitalist production. In order to live just twice as well as an ordinary worker while turning half the surplus-value he gains back into capital, the capitalist would have to multiply the number of workers he employs, and thus the minimum amount of capital he advances, by eight. He could put himself to work as one of his own workers, but then he would be a thing between a capitalist and a worker, a “small master.” Once capitalist production advances to a certain point, the capitalist has to spend all the time in which he functions as a capitalist, or as personified capital, appropriating and therefore supervising the labor of others—and also selling the products of that labor.⁴ The guild system tried to block the medieval master craftsman’s transformation into a capitalist by imposing strict limits on the number of workers a single master could employ, and in fact money owners or commodity owners start to turn into capitalists only where the minimum sum advanced for production is much higher than the medieval maximum. Here, as in the natural sciences, the law Hegel discovered in his *Logic* still applies: at a certain point, purely quantitative changes become qualitative distinctions.^{5,iii}

The minimum amount of value that an individual money (or commodity) owner needs to have at his disposal to become a capitalist has varied according to capitalist production’s stage of development, and at each stage, it has been different in different spheres of production, determined as it is by the particular technological needs in each sphere. Even in the early stages of capitalist production, certain spheres required a minimum amount of capital not found in the pockets of private individuals. This helped induce governments to give subsidies to private persons, as in

4. “The farmer cannot rely on his own labour; and if he does, I will maintain that he is a loser by it. His employment should be, a general attention to the whole: his thrasher must be watched, or he will soon lose his wages in corn not thrashed out; his mowers, reapers etc. must be looked after; he must constantly go round his fences; he must see there is no neglect; which would be the case if he was confined to any one spot.” “An Inquiry into the Connection between the Price of Provisions, and the Size of Farms etc. By a Farmer. London 1773,” p. 12. This work is very interesting. In it, one can study the genesis of the “capitalist farmer” or the “merchant farmer,” as he is expressly called. And one can listen as he lionizes himself at the expense of the “small farmer,” who is focused on his means of subsistence. “The class of capitalists are from the first partially, and they become ultimately completely, discharged from the necessity of manual labour” (“Text-book of Lectures on the Polit. Economy of Nations. By Reverend Richard Jones. Hertford 1852.” Lecture III, p. 39).

5. Modern chemistry’s molecular theory, which was systematically developed by Laurent and Gerhardt, is based on this very law.

the France of Colbert's time and in some German states in the present day, and it has also helped bring about monopolistic companies. With their exclusive legal rights to do business in certain branches of industry and trade,⁶ such companies are the precursors of modern joint-stock companies.

We won't examine in detail how the relation between the capitalist and wage laborer has changed in the course of the production process, nor will we discuss further the characteristics of capital's development: here we will simply stress a few main points.

Capital developed within the production process to the point where it brought labor—i.e., self-activating labor-power or the worker himself—under its command. Personified capital, which is the capitalist, now made sure that the worker performed his work properly and with the appropriate degree of intensity.

Capital also developed into a coercive relation that forces workers to carry out more labor than the modest totality of their wants and needs calls for. It has displayed more energy, efficiency, and insatiability in producing industriousness in others, in extracting surplus-labor and exploiting labor-power, than all earlier systems of production based on directly coerced labor.

At first, capital subordinates labor to itself with technological circumstances remaining at the same level of historical development: it doesn't immediately alter the mode of production. Thus the way of producing surplus-value that we have considered, namely, extending the workday, appeared independently of any changes in the mode of production. This practice has worked as well in old-fashioned baking houses as it has in modern cotton spinning mills.

When we view the production process from the perspective of the labor process, the worker doesn't relate to the means of production in a way that has to do with their character as capital: they are just the means and material of his purposeful, productive activity. In the tannery, for example, he treats hides simply as the objects of his labor. It isn't for the capitalist that he tans them. This relationship changes the moment we begin to view the production process from the perspective of the valorization process. The means of production immediately turn into the means for exploiting the labor of others. No longer does the worker use the means

6. Luther called these institutions "the Company Monopolia." [Editor's note: The source for this quote is *Von Kaufshandlung und Wucher*, 1524 in: *Dr Martin Luthers Werke, Kritische Gesamtausgabe*, vol. 15, Weimar, 1899, p. 312.]

of production; they use him. Instead of being consumed by the worker as the material elements of his productive activity, they consume him as the agent of fermentation that their own life process needs, and capital's life process is nothing but its own movement as self-valorizing value. Furnaces and workshops that are idle at night (and thus don't absorb living labor) represent "mere loss" for the capitalist. For this reason, they constitute "a claim" to have the bearers of labor-power perform night work. Simply transforming money into the objective factors needed for the production process, into the means of production, also transforms them into a legal right to—and the right to coerce—the labor and surplus-labor of others. Finally, an example that illustrates how this unique and characteristic aspect of capitalist production, how this inversion—or really, perversion—of the relation between dead and living labor, between value and the power that creates it, is reflected in the consciousness of capitalists: a letter published in the *Glasgow Daily Mail* on April 25, 1849, i.e., during the English manufacturers' revolt of 1848–50, under the heading "the relay system."⁷ Its author was "a very intelligent gentleman," who was "the head of one of the oldest and most respectable houses in the West of Scotland, Messrs Carlile Sons & Co., of the linen and cotton thread factory at Paisley, a company which has now existed for about a century. It was in operation in 1752, and four generations of the same family have conducted it . . ." Among other grotesquely naïve passages, the letter contained this one: "Let us now, on the other hand, see what evils will attend the limiting to 10 hours the working of the factory. . . . They amount to the most serious damage to the mill-owner's prospects and property. If he [namely, his 'hands'] worked 12 hours before, and is limited to 10, then every 12 machines, or spindles, in his establishment shrink to 10, and should the works be disposed of, they will be valued only as 10, so that a sixth part would thus be deducted from the value of every factory in the country."⁸

The brain of this scion of capital in West Scotland has muddled the value of the means of production (spindles and so on), confusing it so badly with a characteristic of those means as capital—namely, that they valorize themselves or swallow a certain quantity of the unpaid labor of

7. "Reports of Insp. of Fact. for 30th April 1849," p. 59.

8. *Ibid.* p. 60. A Scot, and, unlike English factory inspectors, very much trapped in the capitalist way of thinking, factory inspector Stuart expressly notes that this letter, which he incorporates into his report, is "the most useful of the communications which any of the factory-owners working with the relays has produced, and which is the most calculated to remove the prejudices of such of them as have scruples respecting any change of the arrangement of the hours of work."

others each day—that he, the head of the House of Carlile and Co., imagines that if his factory were sold, he would be paid not only for the value of his spindles, but also for their valorization—not only for the labor that is embedded in them and required to produce spindles of this kind, but also for the surplus-labor that they help to extract daily from the upstanding West Scots of Paisley. He therefore believes that if the working day were shortened by two hours, the price of 12 spinning machines would fall to that of 10!

PART FOUR

**The Production of Relative
Surplus-Value**

The Concept of Relative Surplus-Value

PART OF THE working day is spent producing an equivalent of the value that capital pays for labor-power. Up to now, we have treated that part as a constant magnitude, which in fact it is under given conditions of production and at a given stage of a society's economic development. A worker could be put to work for two, four, six, or more hours beyond the day's necessary labor-time; both the rate of surplus-value and the total length of the working day were determined by how far his labor-time was extended past it. The necessary labor-time was constant, but the total working day was variable. Now let's imagine a working day where both the total length of the day and the division between the necessary labor-time and the surplus labor-time are given. Let's also say that the line AC, namely, A—B—C, represents a working day of twelve hours. The segment AB represents ten hours of necessary labor; the segment BC stands for two hours of surplus-labor. How can additional surplus-value be produced—in other words, how can the surplus-labor be prolonged—without extending AC any further, or irrespective of its extension?

The working day's limits may be fixed, but it still seems possible to lengthen the segment BC, if not by extending it past its endpoint (C), which is also the end of the workday AC, then by moving its starting point (B) in the opposite direction, or toward A. Suppose the segment B'-B in A—B'-B—C is equal to half the length of the segment BC, or one hour of labor. If B is moved back to B' in the workday AC, then the segment BC will become B'C, and the surplus-labor will increase by half (from two hours to three), even though the total length of the workday will still be twelve hours, just as before. Clearly, it is impossible to turn BC into B'C, or two hours of surplus-labor into three, without also compressing the necessary labor-time. Thus AB becomes AB', ten hours of necessary

labor becomes nine: the extension of the surplus-labor corresponds to a reduction of the necessary labor. Part of the labor-time the worker once expended for his own sake is turned into labor-time he expends for the capitalist's benefit. What changes isn't how long the workday is, but how it is divided into necessary labor and surplus-labor.

On the other hand, we can see that when both the length of the workday and the labor-power's value are given, the magnitude of the surplus-labor will also be given. The labor-power's value—or the labor-time needed to produce the labor-power—determines the labor-time needed to reproduce the labor-power's value. If an hour of labor is represented in half a shilling (or 6d.), and if the labor-power's daily value amounts to 5 shillings, then a worker must work ten hours daily to replace the value that capital pays for his labor-power. The worker must work ten hours daily to produce an equivalent of the means of subsistence he has to consume each day. If we know the value of his means of subsistence,¹ we also know the value of his labor-power; and if we know the value of his labor-power, we also know the magnitude of his necessary labor-time. We arrive at the magnitude of the surplus-labor, however, by subtracting the necessary labor-time from the total length of the working day. Here, this means that we subtract ten hours from twelve hours, which leaves two hours, and it is hard to see how the surplus-labor can be extended beyond these two hours under the conditions we are presupposing. The capitalist could of course pay the worker 4 shillings 6d., or even less, instead of paying him 5 shillings. Since nine hours would suffice to reproduce the value of 4 shillings 6d., surplus-labor would be performed during three hours of a twelve-hour workday (rather than two), and this change would cause the surplus-value to increase from 1 shilling to 1 shilling 6d. But this result would be achieved by driving the worker's wages below the value of his labor-power. With a wage of 4 shillings 6d., which he produces in nine hours, he attains 10 percent less of the means of subsistence he needs,

1. The value of the daily average wage is determined by what the worker needs "so as to live, labour, and generate" (William Petty, "Political Anatomy of Ireland" 1672, p. 64). "The Price of Labour is always constituted of the price of necessaries." The worker doesn't receive an appropriate wage "whenever . . . the laboring man's wages will not, suitably to his low rank and station, as a labouring man, support such a family as is often the lot of many of them to have" (J. Vanderlint *op. cit.* p. 15). "The simple laborer, who has but his arms and his industry, has nothing unless he succeeds in selling his labor to others . . . In any kind of work, it must and does indeed happen that the worker's salary is limited to what is necessary to procure him subsistence" (Turgot, "Réflexion, etc." in *Oeuvres*, ed. Daire, Vol. 1, p. 10). "The price of the necessaries of life is, in fact, the cost of producing labour" (Malthus, "Inquiry into etc. Rent." Lond. 1815, p. 48 note).

and so the reproduction of his labor-power would be compromised. The surplus-labor would be prolonged, but only by extending it beyond its normal limit—its territory would be expanded, but only by usurping territory from the necessary labor-time. This method does in fact play an important part in determining the real movement of wages. However, we will skip over it here, since we are assuming that all commodities, including labor-power, are bought and sold at their full value. Once we assume that this is so, the labor-time needed to produce the labor-power, or reproduce its value, can't decrease because the worker's wages have fallen below the value of his labor-power. It can decrease only when the actual value of his labor-power has fallen. When the workday's total length is fixed, the only way to prolong the surplus-labor is to reduce the necessary labor-time. The reverse—reducing the necessary labor-time by extending the surplus-labor—doesn't work. In our example, the labor-power's value would have to fall by 10 percent, thereby causing the necessary labor-time to drop by 10 percent, from ten hours to nine, in order for the surplus-labor to increase from two hours to three.

Now in order for labor-power's value to fall by 10 percent, it must take less time to produce the same quantity of the worker's means of subsistence—nine hours of labor instead of ten. The only way to bring about such a change is to increase labor's productive power. Suppose that with his given means of production, a shoemaker can produce one pair of boots in a single twelve-hour workday. He will be able to make two pairs of boots in the same amount of time only if the productive power of his labor doubles, and that will happen only if his means of labor or methods change, or both things change at the same time. The conditions of production have to be revolutionized: the shoemaker's mode of production and the labor process itself must be transformed. Here we understand an increase in labor's productive power to be what occurs when a change in the labor process reduces the social labor-time needed to make a commodity. A smaller amount of labor gains the power to produce a greater amount of use-value.² In analyzing one way of producing surplus-value, we assumed that the mode of production was fixed, but when surplus-value is produced by transforming necessary labor into surplus-labor, capital can't just take the labor process as it finds it—i.e., in its historical or traditional form—and merely extend its duration. Capital has to upend the technological

2. "When the arts are perfected, it is nothing other than the discovery of new ways to carry out manufacturing with fewer people or (which is the same) in less time than before" (Galvani *op. cit.* p. 159). "Economy in production costs is nothing other than economy in the amount of labor employed in production" (Sismondi, "Études etc." Vol. 1, p. 22).

and social conditions of the labor process, and thus the mode of production itself, in order to increase labor's productivity—in order to use greater productive power to reduce the value of labor-power and thereby shorten the part of the workday needed to reproduce that value.

“Absolute surplus-value” is my term for the surplus-value that is produced by extending the workday. “Relative surplus-value” is my term for the surplus-value that arises when the necessary labor-time is shortened, and the ratio between the two parts of the workday changes accordingly.

In order for labor-power's value to fall, labor's productive power has to increase in the branches of industry whose products determine the value of labor-power—the branches whose products either belong to or can replace labor-power's customary means of subsistence. But the value of a commodity isn't simply determined by the labor that gives the commodity its final form. The amount of labor contained in its means of production matters just as much. The value of a pair of boots is determined by not only the shoemaker's labor, but also the value of the leather, wax, thread, and so on. Or say that labor's productive power increases in the industries supplying the material elements of the constant capital needed to produce labor-power's means of subsistence—the means of labor and the materials they are used to work on—and, as a result, the value of these commodities falls. Here, too, labor-power's value would be lowered. But when productivity increases in branches of industry that produce neither labor-power's means of subsistence nor the means of production needed to make them, the value of labor-power doesn't change.

Of course, a cheaper product reduces labor-power's value only *pro tanto*, or in proportion to how much that product contributes to the reproduction of labor-power.¹ Shirts are a necessary means of subsistence, but they are just one such means among many. When shirts become less expensive, only the amount of money a worker spends on shirts is affected. The totality of his means of subsistence is made up of commodities of different types, which are the products of particular branches of industry; on its own, the value of any one of these commodities always constitutes a fractional part of labor-power's total value. The value of each part decreases as the labor-time needed to reproduce it does. The total reduction of necessary labor-time thus equals the sum of the reductions in all particular branches of industry. We are treating this general result as though it were the direct result and goal in each individual case, but when an individual capitalist lowers the price of shirts by increasing labor's productivity, it isn't necessarily his goal—not by any means, in fact—to lower the value of labor-power and thus reduce the necessary labor-time *pro*

tanto. And yet only insofar as the capitalist helps to bring about that result does he help raise the general rate of surplus-value.³ We have to distinguish between what capital generally does and must do and the forms through which these things appear.

For the moment, we won't be examining how the immanent laws of capitalist production appear in the external movement of individual masses of capital, or how they operate as the inviolable laws of competition, thereby coming to figure in the consciousness of the individual capitalist as his driving motivation. But this much is already clear: we can analyze competition systematically only once we understand capital's inner nature, just as only a person who is familiar with the real but imperceptible movement of the heavenly bodies can comprehend the movement we actually see. Nevertheless, to understand the production of surplus-value purely on the basis of the results we have achieved so far, we should note the following.

If an hour of labor is represented in a gold quantity of 6d., or half a shilling, then a twelve-hour workday will produce 6 shillings of value. Now let's say that the productive power of this labor is such that in twelve hours, 12 units of a commodity are made. If we also assume that the value of the means of production and raw material that go into each unit is 6d., then the cost per unit will be 1 shilling: 6d. is spent on the means of production while another 6d. is spent on the labor that adds new value to the product. But now a capitalist manages to double labor's productive power. Instead of producing 12 units of the commodity in a twelve-hour workday, the worker can produce 24. If the value of the means of production were to stay the same, the value of each individual commodity would fall to 9d.: 6d. for the means of production and 3d. for the new value added when the labor that finishes the commodity is performed. Even though labor's productive power has doubled, the workday still produces 6 shillings of new value, which is spread out among twice as many products as before. So each commodity now gets only $\frac{1}{24}$ of this total value rather than $\frac{1}{12}$ of it, that is, 3d. rather than 6d. Or (and this amounts to the same thing), whereas a whole hour of labor used to be added to the means of production that are made into an individual product, now only half an hour is. The individual value of this commodity has fallen below its social value in that it requires less labor-time than all those units of the same commodity

3. "Let us suppose the products of the manufacturer are doubled by improvements in machinery . . . he will be able to clothe his workmen by means of a smaller proportion of the entire return, and thus his profit will be raised" (Ramsay op. cit. pp. 168-69).

that are produced under socially average conditions. The commodity in question costs on average 1 shilling to produce and thus represents two hours of social labor. Under the new mode of production, each unit costs only 9d. to produce and contains just one and a half hours of labor. But the actual value of a commodity is determined by its social value, not its individual value—by the amount of socially necessary labor-time its production requires, rather than the labor-time needed in any particular case. Thus if a capitalist who uses the new method of production sells the commodity at its social value of 1 shilling, he will be selling it for 3d. more than its individual value, which means that he will realize 3d. of extra surplus-value. On the other hand, the twelve-hour workday is now represented in 24 units of the commodity instead 12, and so in order to sell the product of one workday, the capitalist must do twice as much business—i.e., double his sales. If all other conditions stay the same, the capitalist will conquer a greater share of the market only if he lowers the price of his products. He will therefore sell his commodity at a price that is above its individual value but below its social value: let's say 10d. per unit. He takes in 1d. of extra surplus-value every time a unit is sold, and his surplus-value will increase whether or not his commodity serves as a necessary means of subsistence that helps determine the general value of labor-power. Independently of that latter issue, then, every capitalist stands to gain by enhancing labor's productive power and thereby making his commodity less expensive.

But even in the case at hand, the surplus-value increases because the necessary labor-time decreases, creating room to prolong the surplus-labor.⁴ The necessary labor-time amounted to ten hours, the labor-power's daily value to 5 shillings, the surplus-labor to two hours, and, accordingly, the surplus-value produced daily to 1 shilling. Our capitalist now produces 24 units that he sells for 10d. each or 20 shillings in total. Since the value of the means of production that go into these units is 12 shillings, $14\frac{2}{5}$ units merely replace the constant capital that the capitalist advances. The twelve-hour workday is represented in the remaining $9\frac{3}{5}$ units. Since the labor-power's price is 5 shillings, the necessary labor-time is represented in 6 units of the product, and the surplus-labor is represented in $3\frac{3}{5}$ units. The necessary labor-time makes up less than

4. "A man's profit does not depend upon his command of the produce of other men's labour, but upon his command of labour itself. If he can sell his goods at a higher price, while his workmen's wages remain unaltered, he is clearly benefited. . . . A smaller proportion of what he produces is sufficient to put that labour into motion, and a larger proportion consequently remains for himself" ("Outlines of Polit. Econ." Lond. 1832, pp. 49, 50).

$\frac{2}{3}$ of the total labor, and the surplus-labor constitutes more than $\frac{1}{3}$ of it, whereas under socially average conditions, the necessary labor-time takes up $\frac{5}{6}$ of the workday, and the surplus-labor only $\frac{1}{6}$. One could take a different path to the same result. The value of the product of a twelve-hour workday is 20 shillings, with 12 of the 20 belonging to the value of the means of production and merely reappearing in the product. The remaining 8 shillings thus express in money terms the value in which the workday is represented. This money expression is greater than that of socially average labor of the same type: twelve hours of such labor is expressed as 6 shillings. Labor of extraordinary productive power functions as enhanced labor. In the same amount of time, it creates more value than its socially average counterpart does. Our capitalist pays only 5 shillings for a day of labor-power, just as before, yet now a worker doesn't need even eight hours to reproduce his labor-power's daily value, whereas it used to take him ten hours. The amount of surplus-labor the worker performs thus increases from two hours to more than four, and the amount of surplus-value he produces goes from 1 shilling to 3. Compared with other capitalists in the same branch of industry, the capitalist who employs the improved method of production uses a greater part of the workday for appropriating surplus-labor. He is simply doing as an individual what capital in general does when relative surplus-value is produced. But the extra surplus-value he gains will disappear the moment the new method catches on elsewhere, since this wipes away the difference between the individual value of his commodity and its social value. The law that value is determined by labor-time, which the individual capitalist using the new method came to feel when he had to sell his commodity under its social value, acts here as an irresistible law of competition, driving his rivals to adopt the new mode of production.⁵ Thus this whole process affects the general rate of surplus-value only when labor's productive power increases in the production of commodities that are included among the worker's necessary means of subsistence and constitute elements of labor-power's value.

The value of commodities is inversely proportional to labor's productive power. So is labor-power's value, since it is determined by commodity

5. "If my neighbour by doing much with little labour, can sell cheap, I must contrive to sell as cheap as he. So that every art, trade, or engine, doing work with labour of fewer hands, and consequently cheaper, begets in others a kind of necessity and emulation, either of using the same art, trade, or engine, or of inventing something like it, that every man may be upon the square, that no man may be able to undersell his neighbor" ("The Advantages of the East-India Trade to England. Lond. 1720," p. 67).

values. In contrast, relative surplus-value is directly proportional to the productive power of labor, rising and falling as it does. Suppose the value of money remains constant and a socially average workday of twelve hours always produces new value worth 6 shillings, irrespective of how that value is divided between an equivalent for the labor-power's value and surplus-value. Now imagine that labor's productive power increases. As a result, the value of the labor-power's daily means of subsistence decreases, causing the daily value of the labor-power to fall from 5 shillings to 3. The surplus-value produced would then increase from 1 shilling to 3. It used to take ten hours of labor to reproduce the labor-power's value; now it only takes six hours. Four hours have been freed up and can be made part of the domain of surplus-value. Hence capital always seeks to enhance labor's productive power—this is an immanent drive—in order to lower the value of commodities and thereby the value of the worker himself.⁶

A commodity's absolute value isn't in itself of any interest to the capitalist who produces the commodity. All that interests him is the surplus-value embedded in his commodity—the surplus-value he can realize upon selling it. When the surplus-value is realized, the value that was advanced is of course replaced. And because relative surplus-value increases in direct proportion to the growth of labor's productive power, while the value of commodities falls proportionally as that same growth occurs—or, in other words, because one and the same process simultaneously makes commodities less expensive and enlarges the amount of surplus-value they contain, we can now solve the following riddle. Given that the capitalist cares only about producing exchange-value, why is he constantly trying to lower the exchange-value of his commodities? One of the founders of political economy, Dr. Quesnay, used this contradiction to torment his rivals, who were never able to offer an answer. "You acknowledge," he says, "that the more one can reduce the expenses and costs of labour in the manufacture of industrial products, without injury to production, the more advantageous is

6. "In whatever proportion the expences of a labourer are diminished, in the same proportion will his wages be diminished, if the restraints upon industry are at the same time taken off" ("Considerations concerning taking off the Bounty on Corn exported etc. Lond. 1753," p. 7). "The interest of trade requires, that corn and all provisions should be as cheap as possible; for whatever makes them dear, must make labour dear also . . . in all countries, where industry is not restrained, the price of provisions must affect the Price of Labour. This will always be diminished when the necessaries of life grow cheaper" (ibid. p. 3). "Wages are decreased in the same proportion as the powers of production increase. Machinery, it is true, cheapens the necessaries of life, but it also cheapens the labourer too" ("A Prize Essay on the comparative merits of Competition and Cooperation. London 1834," p. 27).

that reduction, because it diminishes the price of the finished article. And yet you believe that the production of wealth, which arises from the labour of the craftsmen, consists in the augmentation of the exchange-value of their products.”⁷

Under capitalist production, then, the point of achieving greater economy of labor by increasing labor’s productive power⁸ isn’t to shorten the workday. Capitalist production wants only to shorten the labor-time required to produce a certain quantity of commodities. When enhanced productive power enables a worker to make a commodity ten times faster than he used to, a capitalist is hardly prevented from having him work twelve-hour days, just as before—from having him produce 1,200 units instead of 120. In fact, the worker’s workday might even be extended: he might now have to produce 1,400 units in fourteen hours. Hence in the writings of economists of MacCulloch’s ilk, such as Ure, Senior, and *tutti quanti*, we read that workers owe capital a debt of gratitude for developing their productive powers, since this reduces their necessary labor-time, but then we also read that to show how grateful they are, workers have to perform fifteen hours of labor rather than ten.ⁱⁱ Under capitalist production, the purpose of developing labor’s productive power is to compress the part of the workday when a worker has to work for himself and thereby enlarge the part when he can work for the capitalist for free. To what extent can this be done without also lowering the value of commodities? We will see when we examine the particular methods that are used to produce relative surplus-value. Let us turn to them now.

7. “They agree that the more one can, without harm, reduce expenses and the cost of labor in the manufacture of artisans’ work, the more profitable this reduction will be, as it lowers the price of said work. However, they believe that the production of wealth which results from the labor of artisans consists in the increase in the market value of their work” (Quesnay, “Dialogues sur le Commerce et sur les Travaux des Artisans,” pp. 188–89).

8. “These speculators who are so economical with the labor of the workers whom they should be paying” (J. N. Bidaut, “Du monopole qui s’établit dans les arts industriels et le commerce. Paris 1828,” p. 13). “The employer will be always on the stretch to economise time and labour” (Dugald Stewart: Works ed. By Sir W. Hamilton. Edinburgh, Vol. 8, 1855, “Lectures on Polit. Econ.,” p. 318). “Their [the capitalists’] interest is that the productive powers of the labourers they employ should be the greatest possible. On promoting that power their attention is fixed and almost exclusively fixed” (R. Jones op. cit. Lecture III).

CHAPTER ELEVEN

Cooperation

CAPITALIST PRODUCTION doesn't truly begin, as we have seen, until a single mass of capital puts many workers to work at the same time, thus increasing the size of the labor process, which now supplies products on a larger (quantitative) scale. Both historically and conceptually, the starting point of capitalist production is a large number of workers working together, at the same time and in the same space (or, we might say, in the same field of labor), under the command of a single capitalist—all in order to produce a single type of commodity. The mode of production in the manufacturing system's early stages differed from that of craft labor guilds mostly in that the manufacturing mode involved an individual outlay of capital putting a greater number of workers to work concurrently. All that happened was that the guild master's workshop was enlarged.

Thus the difference was at first purely quantitative. We have seen that the total amount of surplus-value produced by a given mass of capital is equal to the surplus-value produced by each individual worker multiplied by the number of workers employed at the same time. The number of workers doesn't affect the rate of surplus-value, or the extent to which labor-power is exploited, and, moreover, qualitative changes in the labor-process appear not to have any effect on the production of commodity value as such, a fact that follows from the nature of value. If a twelve-hour workday is objectified in 6 shillings, then 1,200 such workdays would be objectified in 6 shillings \times 1,200. In one scenario, $12 \times 1,200$ hours of labor would be incorporated into the products; in the other, twelve hours would be. When it comes to the sheer production of value, many workers always contribute to the process as many individuals, so it doesn't matter whether 1,200 workers work separately or together under the command of the same mass of capital.

And yet, within certain limits, a change does occur in the latter case. The labor objectified into value is labor of socially average quality, and the

value of labor-power is the value of average labor-power. But the average magnitude of something is only the average of a number of separate varying magnitudes. Workers in every branch of industry, every individual Peter and Paul, deviate from the average worker to a greater or lesser degree. These deviations, which are called “errors” in mathematics, offset one another and disappear when we look at a large number of workers working together. The famous sophist and sycophant Edmund Burke even thinks he knows from his own practical experience as a farmer that in “so small a platoon” as five workers, all individual differences vanish. According to him, a random group of five English workers, however worn out or inexperienced its members, and five English workers operating at the peak of their abilities would carry out exactly the same amount of work in a given amount of time.¹ Be that as it may, it’s clear that the combined workday of a large group of workers employed at the same time is a day of socially average labor. Suppose the workday of an individual worker is twelve hours. The total labor performed by 12 workers put to work simultaneously would amount to 144 hours. The labor performed by each worker will deviate from socially average labor to a greater or lesser degree, and the workers will therefore need more or less time to complete the same task. But as one-twelfth of the total workday of 144 hours, the workday of each worker is of socially average quality. For the capitalist who employs these 12 workers, the workday exists as their combined workday. Each worker’s workday exists as a fractional part of the total workday, regardless of whether the workers actually work with one another or if all that connects them is that they work for the same capitalist. On the other hand, if six different “small masters” each employed two workers, these masters would produce the same amount of value—and thereby realize the general rate of surplus-value—only by chance. Deviations would occur in individual cases. If a worker needed much more time to produce a commodity than is socially necessary, if his individually necessary labor-time differed considerably from the socially necessary or average labor-time, his labor wouldn’t count as average labor, and his labor-power

1. “Unquestionably, there is a great deal of difference between the value of one man’s labour and that of another, from strength, dexterity and honest application. But I am quite sure, from my best observation, that any given five men will in their total, afford a proportion of labour equal to any other five within the periods of life I have stated; that is, that among such five men there will be one possessing all the qualifications of a good workman, one bad, and the other three middling, and approximating to the first and the last. So that in so small a platoon as that of even five, you will find the full complement of all that five men can earn” (E. Burke op. cit. pp. 15, 16). See Quételet on the average individual. [Editor’s note: Adolphe Quételet, *A Treatise on Man* (Edinburgh, 1842).]

wouldn't count as average labor-power. Either he wouldn't be able to sell his labor-power at all, or he would only be able to sell it below labor-power's average value. A certain minimum level of competence on the worker's part is therefore assumed, and we will see that capitalist production has found ways to measure this minimum. But that does nothing to make the minimum coincide with the average, and, meanwhile, the capitalist has to pay for labor-power's average value. So of the six small masters, one would get more than the general rate of surplus-value, whereas another would get less. The disparities would offset one another for society as a whole, but not for the individual masters. The law of valorization truly comes into effect for the individual producer only when he becomes a capitalist—when he employs a large number of workers at the same time, i.e., sets socially average labor in motion from the very start.²

Employing a large number of workers at the same time revolutionizes the objective factors used in the labor process regardless of whether or not the actual methods of labor change. Part of the means of production is now consumed collectively during the labor process: buildings in which many workers perform their labor, storage for raw materials, containers, and also tools and apparatuses that many workers use simultaneously or in turns, and so on. On the one hand, the exchange-value of commodities, and thus of the means of production, doesn't increase at all when their use-value is exploited more fully. On the other hand, where the means of production are consumed collectively, they are enlarged. A room that houses 20 weavers and their 20 looms has to be larger than one where a single independent weaver and two apprentices perform their labor. But it takes less labor to build a single workshop for 20 people than it does to build 10 separate workshops for 10 groups of two workers, and so when the means of production are concentrated on a large scale and used collectively, their value doesn't increase in proportion to their size and useful effects. The means of production that are consumed collectively transfer a smaller value component to each individual product, partly because the total value they give is spread among a larger amount of product, and partly because even though they enter the production process with an absolute magnitude of value that exceeds that of isolated means of production, when considered from the standpoint of their sphere of action,

2. Professor Roscher thinks he has discovered that a single seamstress whom his wife employs for two days will perform more labor than two seamstresses whom his wife employs on the same day. The professor shouldn't try to understand how capitalist production works by studying what happens in the nursery, where, moreover, the protagonist is missing—namely, the capitalist.

their magnitude of value is smaller in relative terms. The share of value contributed by constant capital thus decreases, causing the total value of the commodities produced to decrease proportionally. The effect is identical to what would happen if it cost less to produce the means of production. We find such economy in the use of the means of production only where many workers consume them together during the labor process. Furthermore, these shared means of production take on this character of being necessary conditions of social labor, or necessary social conditions of labor, even when workers perform their labor in the same space but don't work directly with one another. The scattered and relatively more expensive means of production of isolated independent workers or small masters lack such a social character, which some means of labor take on even before the actual labor process does.

This economy in the use of the means of production can be considered from two perspectives at once. First, it lowers the value of commodities and thus also of labor-power. Second, it alters the ratio of surplus-value to the total capital advanced—to the sum of capital's constant and variable components. We won't address the latter effect until volume 3 of the present work. The same holds for quite a few other issues that are already of immediate relevance but need to be discussed in the right context: the particular course of our analysis demands that we chop up our object, a process very much in keeping with the spirit of capitalist production. Here, in fact, the worker encounters the things he needs to perform his labor as things that exist independently of him, and economy in their use therefore appears as a particular operation that is of no concern to him and unconnected to the methods by which he increases his own personal productivity.

The form of labor that involves many people working together systematically, either in the same production process or in different but connected processes of production, is called cooperation.³

Just as there is an essential difference between a cavalry squadron's power to attack or an infantry regiment's power to defend and the sum of the respective powers to attack and defend that individual cavalry and infantry soldiers develop operating on their own, so the sum of the respective mechanical powers of isolated workers differs from the social power that develops when many hands work together in a single unified operation, such as lifting something heavy, turning a crank, or clearing away an obsta-

3. "Combination of forces" (Destrutt de Tracy op. cit. p. 80).

cle.⁴ In such cases, isolated labor either can't produce the effects of combined labor at all, or it can produce them only by taking much more time or reducing those effects to a miniature scale. In cooperation, individual productive power increases, but that's not all: a new, inherently collective productive power is created.⁵

Aside from the new power that arises when many powers are melded into a collective one, mere social contact sparks competition among those engaged in most forms of productive labor and excites "the animal spirits" that make individual workers perform more effectively.¹ Hence a dozen people working together during a workday, one amounting to a combined 144 man-hours, will produce much more than either the combined output of 12 isolated workers during a twelve-hour day or the output of one isolated worker over 12 twelve-hour days.⁶ The root cause is that, if human beings aren't by nature political animals, as Aristotle thought, they are certainly social animals.⁷

Even when a number of workers are performing the same labor, or much the same labor, at the same time, the labor of each worker, being an individual part of a whole, doesn't necessarily belong to one and the same stage of the labor process, whose different stages the objects of labor move through faster as a result of cooperation. Take the case of masons who form a chain to transport stones from the base of a ladder to the top. They

4. "There are numerous operations of so simple a kind as not to admit a division into parts, which cannot be performed without the cooperation of many pairs of hands. For instance, the lifting of a large tree on a wain . . . every thing in short, which cannot be done unless a great many pairs of hands help each other in the same undivided employment, and at the same time" (E. G. Wakefield, "A View of the Art of Colonization. London, 1849," p. 168). [Editor's note: "On a wain" should be "on to a wain."]

5. "As one man cannot, and 10 men must strain, to lift a ton of weight, yet one hundred men can do it only by the strength of a finger of each of them" (John Bellers, "Proposals for raising a college of industry. Lond. 1696," p. 21).

6. "There is also [when the same number of workers are employed together on a single farm of 300 acres rather than distributed among 10 farms of 30 acres each] an advantage in the proportion of servants, which will not easily be understood but by practical men; for it is natural to say, as 1 is to 4, so are 3:12; but this will not hold good in practice; for in harvest-time and many other operations which require that kind of despatch, by throwing many hands together, the work is better, and more expeditiously done: f. i., in harvest, 2 drivers, 2 loaders, 2 pitchers, 2 rakers, and the rest at the rick, or in the barn, will despatch double the work, that the same number of hands would do if divided into different gangs, on different farms" ("An Inquiry into the Connection between the present price of provisions and the size of farms. By a Farmer. Lond. 1773," pp. 7, 8).

7. What Aristotle's definition really says is that human beings are by nature urban citizens. This is as characteristic of classical antiquity as Franklin's toolmaker definition of human beings is of Yankeeedom.

are all doing the same thing, yet their individual acts of labor represent connected parts of a total act of labor: they are particular stages that each stone has to move through during the labor process, and the 24 hands of the combined worker ferry stones faster than the two hands of individual workers going up and down the ladder on their own could.⁸ The object of labor covers the same distance in less time. Labor is also combined when different sides of a building are being worked on simultaneously, even if the workers cooperating with one another are once again performing exactly the same labor, or much the same labor. That is, because the combined worker (or total worker) has eyes in the back of his head and multiple sets of hands, as well as a certain degree of omnipresence, he can work on multiple sides of his object at the same time. The combined workday of one hundred and forty-four hours accomplishes much more than 12 twelve-hour days of a more or less isolated worker, who can't approach his object in the same way. Separated by space, different parts of the product of the combined workday come to fruition at the same time.

We have emphasized that the many workers complementing one another perform the same labor, or much the same labor, because this most basic form of collective labor also plays a major role in the most advanced form of cooperation. When the labor process is complex, the sheer number of cooperating workers makes it possible to divide up the various operations among many different hands and thus to have them carried out simultaneously. This shortens the labor-time needed to produce the total product.⁹

Many branches of production feature critical moments—spans of time, determined by the nature of the labor process itself, within which labor must achieve specific results. When a flock of sheep needs to be shorn, or a field of wheat has to be cut and harvested, the quantity and the quality of

8. "It should also be noted that this partial division of labor can occur even when workers are engaged in the same task. Masons, for example, busy passing bricks from hand to hand to an upper scaffold, are all doing the same job, and yet there exists among them a kind of division of labor, whereby each one passes along the brick through a given space, and together they convey it to the marked spot much more quickly than they would if each of them carried his brick separately to the upper scaffold" (F. Skarbek, "Théorie des richesses sociales, 2nd edn. Paris, 1839," Vol. 1, pp. 97–98).

9. "Is it a question of executing a complicated task? Several things must be done simultaneously. One does one while another does another, and all cooperate to achieve a result that one man could not produce alone. One man rows the boat while another steers, and a third casts the net or harpoons the fish, and the success of the catch is impossible without this cooperation" (Destutt de Tracy op. cit. p. 78).

the product depend on whether those operations are begun and also completed at particular times. The amount of time in which a labor process can take place is established in advance here, as it is, say, for herring fishermen. A worker can get only a single workday out of the twenty-four-hour day—for example, a twelve-hour one—but when 100 workers cooperate, a single twelve-hour workday becomes a workday of 1,200 hours. The short time frame is offset by the amount of labor set in motion at the decisive moment. The timeliness of labor's useful effects thus turns on the simultaneous application of many combined workdays, while the extent of its useful effects turns on the number of workers employed, which will always be smaller than the number of isolated workers needed to accomplish the same amount of work in the same amount of time.¹⁰ It is due to the lack of such cooperation that large quantities of grain go to waste in the western part of the United States and the same thing happens with large quantities of cotton in the parts of East India where English rule destroyed the old communal way of life.¹¹

On the one hand, cooperation makes it possible for labor to be performed over a larger area, and the size or spatial constitution of certain objects of labor thus calls as it were for cooperation: draining wetlands; building dykes, irrigation systems, railroad tracks; and so on. On the other hand, cooperation makes it possible for the space of production to become smaller relative to the scale of production. How does the capitalist manage to compress the space required by labor even as he extends labor's productive reach, thereby sparing himself a host of unnecessary costs (*faux frais*)?¹² He conglomerates workers, brings together different labor processes, and also concentrates the means of production.¹²

10. "The doing of it [the labor of agriculture] at the critical juncture, is of so much the greater consequence" ("An Inquiry into the Connection between the present price etc." p. 7). "In agriculture, no factor is more important than that of time" (Liebig, "Ueber Theorie und Praxis in der Landwirthschaft. 1856," p. 23).

11. "The next evil is one which one would scarcely expect to find in a country which exports more labour than any other in the world, with the exception perhaps of China and England—the impossibility of procuring a sufficient number of hands to clean the cotton. The consequence of this is that large quantities of the crop are left unpicked, while another portion is gathered from the ground, when it has fallen, and is of course discoloured and partially rotted, so that for want of labour at the proper season the cultivator is actually forced to submit to the loss of a large part of that crop for which England is so anxiously looking" (Bengal Hurkaru, Bi-Monthly Overland Summary of the News. 22nd July 1861). [Editor's note: Source text reads: "the next evil in India is one."]

12. "In the progress of culture all, and perhaps more than all the capital and labour which once loosely occupied 500 acres, are now concentrated for the more complete tillage of 100." Although "relatively to the amount of capital and labour employed, space is con-

A combined workday produces use-value more efficiently than the same number of isolated workdays added together: it shortens the amount of labor-time needed to produce a given useful effect. Whatever a combined workday does to enhance labor's productive power—whether it improves labor's mechanical capabilities; or enlarges the spatial sphere in which labor is active; or makes the spatial field of production smaller relative to the scale of production; or, at critical junctures, activates a great deal of labor in a small amount of time; or kindles the competitive fire of the individual worker and excites his animal spirits; or lends the similar labor being performed by many workers continuity while allowing it to work on multiple sides of an object at the same time; or allows different operations to be carried out simultaneously; or creates greater economy in the use of means of production through sharing; or gives individual labor the character of socially average labor—in any and all of these cases, the specific productive power of the combined workday is labor's social productive power, that is, the productive power of social labor. This power arises from cooperation itself. When a worker works together with others systematically, he breaks through his limitations as an individual and develops the productive capacities of his species.¹³

If workers can't directly work together without being together, if their cooperation requires that they be brought together in the same space, then wage laborers can't cooperate if the same mass of capital, or the same capitalist, doesn't use them simultaneously—in other words, buy the labor-power of each worker at the same time. Hence the total value of their labor-power—the sum of the workers' wages for a day, a week, etc.—has to come together in the capitalist's pocket before the bearers of labor-power can come together in the production process. It takes a greater outlay of capital to pay 300 workers all at once, even for just one workday, than it does to pay a few workers weekly over the course of an entire year. In the first place, then, the number of workers cooperating with one another, or the scale of cooperation, depends on the amount of capital that the individual capitalist can spend when he buys labor-power—i.e., the extent to which a capitalist has the means of subsistence of many workers at his disposal.

centrated, it is an enlarged sphere of production, as compared to the sphere of production formerly occupied or worked upon by one single, independent agent of production" (R. Jones, "On Rent, Lond. 1831," pp. 191, 199).

13. "The strength of each man is tiny, but the union of tiny forces forms a total force greater even than their sum, so that by means of their union the forces can reduce the time and increase the space of their action" (G. R. Carli, note on P. Verri op. cit. Vol. 15, p. 196).

What holds for variable capital holds also for constant capital. The individual capitalist who employs 300 workers has to spend thirty times as much on raw material as each of the 30 capitalists who employ 10 workers. And while it's true that the value and sheer mass of shared means of labor don't increase in proportion to the number of workers employed, they do increase substantially. The concentration of large quantities of the means of production in the hands of an individual capitalist is thus a material condition that has to be met before wage laborers can cooperate, and the dimensions of their cooperation—in other words, the scale of production—depends on the scale of that concentration.

Earlier, we saw that an individual mass of capital has to reach a certain minimum magnitude in order for the number of workers being exploited simultaneously, and thus the amount of surplus-value being produced, to suffice to free an employer from manual labor—only then can the small master become a capitalist and the capital relation be formally established. This minimum magnitude now appears as the material prerequisite for transforming many scattered labor processes operating independently of one another into a combined social labor process.

At first, similarly, capital's command over labor appeared merely as a formal consequence of the fact that the worker works for the capitalist rather than himself, i.e., he works under the capitalist. But as many wage laborers are brought together to cooperate, capital's control becomes necessary for carrying out the labor process—it becomes an actual precondition for production. A capitalist's orders on the field of production are now as indispensable as a general's on the field of battle.

All directly social or collective labor performed on a large scale needs leaders who both mediate things so that individual acts of labor complement one another, and carry out general functions that arise from the movement of the total productive organism, rather than the movement of its individual organs. A single violin player is his own conductor but an orchestra can't conduct itself. This function of leadership—supervising and mediation—counts among capital's functions the moment the labor under it becomes cooperative. The leadership role changes when it becomes a specific function of capital, taking on certain specific characteristics.

The driving motivation and defining goal of capitalist production is, first of all, the largest possible self-valorization of capital,¹⁴ or to produce as much surplus-value as possible and thus to exploit labor-power as much

14. "Profits . . . is the sole end of trade" (J. Vanderlint *op. cit.* p. 11).

as possible. As the number of workers used simultaneously increases, so does the resistance they bring forth, and the pressure that capital applies to overcome their resistance necessarily grows as well. The capitalist's leadership role isn't simply a particular function arising from and belonging to the nature of the social labor process: it is also a function stemming from the exploitation of a social labor process. It is thus conditioned by the unavoidable antagonism between the exploiter and the raw material he exploits. Similarly, as the means of production are enlarged, and wage laborers work with greater amounts of property owned by someone else, the need to supervise the use of this property, to make sure that it is being used correctly, becomes greater as well.¹⁵ Wage laborers cooperate, moreover, only because a mass of capital puts them to work simultaneously. The cohesiveness of their functions and their unity as a total productive organism reside outside them in the capital that brings them together and holds them together. On the level of ideas, then, the workers encounter the cohesiveness of their own individual acts of labor in the form of a plan for labor, and on the practical level, they encounter it in the form of the capitalist's authority—i.e., the power of a foreign will that subordinates their activity to its own ends. The capitalist's leadership is double-sided, owing to the double-sidedness of the production process he directs, which is both a social labor process whose purpose is to make a product and, at the same time, capital's valorization process. But in terms of its form, capitalist leadership is despotic. This despotism develops its own peculiar forms as cooperation starts to take place on a large scale. Just as the capitalist is freed from manual labor the moment his capital reaches the minimum magnitude that capitalist production needs in order to truly begin, so he now delegates the direct and continuous supervision of individual workers and groups of workers to a particular type of wage laborer. As an army needs

15. An English philistine paper, the *Spectator* of 26th May 1866, reports that when a kind of capitalist-worker partnership was introduced in the "wirework company of Manchester," "The first result was a sudden decrease of waste, the men not seeing why they should waste their own property any more than any other masters, and waste is perhaps, next to bad debts, the greatest source of manufacturing loss." The same paper identified the following as the fundamental cause of the Rochdale cooperative experiments: "They showed that associations of workmen could manage shops, mills, and almost all forms of industry with success, and they immensely improved the condition of the men, but then they did not leave a clear place for masters." *Quelle horreur!* [Editor's note: In 1844, the workers of Rochdale established the first cooperative society—The Society of Equitable Pioneers. It began as a society of consumers but evolved into one of producers as well, providing a model for the application of socialist ideas that workers emulated elsewhere in Great Britain.]

officers, a large group of workers cooperating under the command of a single mass of capital requires industrial high officers (directors, managers), and also lower officers (supervisors, foremen, overseers, *contre-maîtres*), all of whom issue orders during the labor process in the name of capital. This work of supervision becomes established as their specialized and exclusive function. When a political economist compares the organization of production among scattered peasants or independent artisans to the plantation economy based on slavery, he includes such supervisory work among the *faux frais* of production.¹⁶ But when he examines the capitalist mode of production, he does something very different. He equates the leadership function arising from the nature of the collective labor process with the one that arises from its capitalist and thus antagonistic nature.¹⁷ The capitalist isn't a capitalist because he is an industrial leader; rather, he becomes an industrial commander because he is a capitalist. A position of high command in industry is an attribute of capital in the same way that, during feudal times, a position of high command in the military and the courts was an attribute of landed property.¹⁸

A worker owns his labor-power as long as he still acts as its seller in the market and can negotiate its sale with a capitalist, and he can sell only what he owns: his individual, isolated labor-power. This relation won't be affected at all if the capitalist buys the labor-power of 100 workers instead of just one, or if he enters into contracts with 100 unconnected workers instead of with just one—he can still put the 100 workers to work without having them cooperate. The capitalist pays for the value of the labor-power of 100 independent workers, but not for their combined labor-power. As independent persons, the workers are isolated persons. They enter into a relation with the capitalist but not with one another. They begin to cooperate only in the labor process,

16. Having presented the “superintendence of labour” as a main characteristic of slave production in the southern states of North America, Prof. Cairnes continues, “The peasant proprietor [of the North] appropriating the whole produce for his toil, needs no other stimulus to exertion. Superintendence is here completely dispensed with” (Cairnes op. cit. pp. 48, 49).

17. Sir James Steuart, who had an uncommonly keen eye for the important social distinctions between different modes of production, once remarked, “Why do large undertakings in the manufacturing way ruin private industry, but by coming nearer to the simplicity of slaves?” (“Princ. of Polit. Econ.” Fr. Trans. Paris 1789, Vol. 1, pp. 308, 309). [Editor's note: Marx took this quote from a French translation. We present the English original, found in Sir James Steuart, *An Inquiry into the Principles of Political Economy* (London: Millar and Cadell, 1767) pp. 167–68.]

18. So, Auguste Comte and his school could have demonstrated the eternal necessity of feudal lords in the same way that they demonstrated the eternal necessity of the lords of capital.

but by then, they have already ceased to belong to themselves. The moment they enter that process, they are incorporated into capital. As cooperating people, as parts of a laboring organism, they are merely one of capital's particular modes of existence. The productive power that a worker develops when he performs social labor is therefore capital's productive power. Labor's social productive power develops without additional pay wherever workers are made to operate under the right conditions, and it is capital that has them operate under those conditions. Because labor's social productive power doesn't cost capital a thing, and also because the worker doesn't start to develop such productive power until capital owns his labor, this power presents itself as belonging to capital by nature, as inherent in capital.

The massive creations of the ancient Asians, Egyptians, and Etruscans show us the colossal effects of simple cooperation. "It has happened in times past that these Oriental States, after supplying the expenses of their civil and military establishments, have found themselves in possession of a surprise which they could apply to works of magnificence or utility, and in the construction of these their command over the hands and arms of almost the entire non-agricultural population has produced stupendous monuments which filled the land. . . . In moving the colossal statues and vast masses, of which the transport creates wonder, human labour almost done alone was prodigally used. The number of the labourers, and the concentration of their efforts sufficed. We see mighty coral reefs rising from the depths of the ocean into islands and firm land, yet each individual depositor is puny, weak, and contemptible. The non-agricultural labourers of an Asiatic monarchy have little but their individual bodily exertions to bring to the task, but their number is their strength, and the power of directing these masses gave rise to the palaces and temples, the pyramids, and the armies of gigantic statues. It is that confinement of the revenues which feed the workers, to one or a few hands, which makes such undertakings possible."¹⁹ In modern society, the power formerly enjoyed by Asian and Egyptian kings or the Etruscan theocrat goes to the capitalist, whether he operates on his own or as a combined capitalist, as he does in joint-stock companies.

Cooperation in the labor process of the kind that we see at beginning of human culture or in early hunting societies,²⁰ or that predominates in

19. R. Jones, *Textbook of Lectures*, etc. pp. 77–8. The ancient Assyrian and Egyptian collections, and similar collections in London and other European capitals, enable us to observe those cooperative labor processes for ourselves.

20. Linguet's "Théorie des Lois civiles" might not be wrong where it proclaims the hunt to be the first form of cooperation and the hunt for human beings (war) to be one of the first forms of the hunt.

the agricultural production of Indian communes today, is based partly on communal ownership of the conditions of production and partly on the fact that individuals haven't managed to tear the umbilical cord tying them to their clan any more than individual bees tear the bond to the hive. Capitalist cooperation is based on neither of these circumstances. The sporadic use of large-scale cooperation in the ancient world, the Middle Ages, and modern colonies rests on direct relations of servitude or, most often, slavery. The capitalist form, in contrast, presupposes the wage laborer who sells his labor-power to capital. And yet historically, this form develops in opposition to peasant economies and the industry of independent craftsmen, whether or not they belong to guilds.²¹ Emerging opposite those things, capitalist cooperation doesn't appear as a particular historical form of cooperation, but, instead, cooperation appears as a historical form that is peculiar to the capitalist process of production and distinguishes it from other production processes.

Just as the social productive power of labor developed through cooperation appears as capital's productive power, so, too, cooperation appears as a specific form of the capitalist production process—as something unlike the production process of isolated independent workers and small masters. Its emergence is the first change that takes place in the actual labor process after that process is subsumed under capital. This change happens spontaneously. Its precondition—a large number of wage laborers being employed concurrently in a single labor process—is the point where capitalist production begins, where capital itself begins to exist. So if, on the one hand, the capitalist production process appears as a historical necessity with regard to transforming the labor process into a social process, on the other hand, this social form of the labor process appears as a method capital uses to make the labor process more productive and thus to exploit it more profitably.

In its simple shape, the shape we have examined so far, cooperation goes with large-scale production but isn't a fixed form characteristic of a particular epoch in the development of capitalist production. At most it appears to be roughly such a form in the still-artisanal early stages of

21. Small-scale peasant agriculture and production by independent craftsmen constituted part of the foundation of the feudal mode of production, yet they also appeared alongside capitalist production after the feudal mode had dissolved. At the same time, they constituted the economic foundation of the classical commune at its highest moment—after the original Oriental form of communal property had disappeared but before slavery had truly taken control of production.

the manufacturing system²² and also in the large-scale agriculture of the manufacturing period, which differs from the peasant type mainly in the numbers of workers it employs simultaneously and the size of the means of production it concentrates. Simple cooperation has always been the predominant form of cooperation in branches of industry where capital operates on a large scale but machinery and the division of labor don't yet play an important role in production.

Cooperation remains the fundamental form of the capitalist mode of production, even if the simple shape of cooperation now appears as one particular form alongside more advanced forms.

22. "Whether the united skill, industry and emulation of many together on the same work be not the way to advance it? And whether it had been otherwise possible for England, to have carried on her Woollen Manufacture to so great a perfection?" (Berkeley, "The Querist." Lond. 1750, p. 56, § 521).

The Division of Labor and the Manufacturing System

1. The Double Origin of the Manufacturing System

Cooperation based on the division of labor found its classic form in the manufacturing system. As the characteristic form of the capitalist production process, such cooperation predominated during the era of manufacturing proper, which lasted from around 1550 to the last third of the eighteenth century.

The manufacturing system arose in two ways.

1. A single capitalist assembles under his command different types of independent craftsmen in one workshop, where a product has to pass through the hands of each type of worker in order to reach the point of completion. For example, a carriage was once the product of many different craftsmen working on their own: wheelwrights, harness-makers, tailors, locksmiths, upholsterers, turners, fringe-makers, glaziers, painters, polishers, gilders, and so on. But when carriages are made in the manufacturing workshop, these craftsmen are brought together in one building, where they all work on the product at the same time. It is true that a carriage can't be gilded until it is otherwise a finished product; however, when multiple carriages are being made at the same time, some can be gilded while others are at earlier stages of the production process. At this point, we haven't yet left the realm of simple cooperation, which relies on ready-made materials in the form of people and things. But very soon an essential change occurs. Soon all the tailor, the locksmith, and the other craftsmen do is produce carriages. As they grow unaccustomed to performing the full range of operations their crafts involve, they gradually lose the skills those operations require. Their newly specialized labor now takes on the form best suited for its more limited sphere of activity. When carriages were first produced in the manufacturing workshop, this appeared as the work of an assembly of vari-

ous independent trades. But the work is gradually divided into the different specialized tasks of carriage production, each of which crystallizes into the exclusive function of a single worker. The totality of functions comes to be carried out by a group of specialized workers.¹ Likewise, cloth manufacturing arose when different craftsmen were brought together under the command of a single capitalist. The same holds for a whole array of other manufacturing workshops.¹

2. But the manufacturing system of production can also take shape in the opposite way. A single mass of capital employs artisans of the same type in one workshop, where they simultaneously perform the same labor, or much the same labor, such as making paper, type, or needles. This is cooperation in its simplest form. Each craftsman, perhaps assisted by one or two apprentices, makes a finished commodity, carrying out the series of different operations that producing it entails. Each craftsman continues to work in his customary artisanal manner. Then, however, external circumstances cause a change, and the concentration of workers in the same space and the simultaneity of their labor are made use of differently. Perhaps a larger quantity of the commodity the workers have been producing has to be completed within a given time frame. As a result, the labor is divided up. A single craftsman no longer carries out all the necessary tasks in succession; instead the tasks are disconnected from one another, isolated, and carried out side by side. Each is assigned to a different craftsman, and the cooperating workers perform the different tasks at the same time. After this accidental division of labor has been employed repeatedly and has displayed its special advantages, it ossifies into a systematic division of labor. The commodity is transformed. No longer the individual product of an independent craftsman who does many different things, it is now the social product of a group of workers, and each worker continuously performs his own specialized operation. The same operations that blended into one another

1. The following quotation provides a more modern illustration of how the manufacturing system comes about in this way. Silk spinning and weaving in Lyons and Nimes "is entirely patriarchal; it employs many women and children, but without exhausting or corrupting them; it leaves them in their beautiful valleys of the Drôme, Var, Isère and Vaucluse, to raise worms and reel silk from their cocoons; it never approaches the structure of a veritable factory. To be so well observed . . . the principle of division of labor takes on a special character there. There are reelers, grinders, dyers, gluers and then weavers; but they are not all in the same establishment, nor do they depend on the same master; they are all independent" (A. Blanqui, "Cours d'Econ. Industrielle. Recueilli par A. Blaise. Paris 1838-9," p. 79). During the time between when Blanqui wrote this and now, the various independent workers have been brought together in factories, to some extent.

when a single German papermaker and guild member carried them out in succession gain a new independence in Holland's paper manufacturing workshops, becoming specialized operations performed side by side by multiple cooperating workers. The needle-maker belonging to a guild in Nuremburg constituted the basic element in England's needle manufacturing workshops, but whereas that one needle-maker in Nuremburg might have worked his way through 20 different operations, one after the other, in England it didn't take long before 20 needle-makers were each carrying out just one of the 20 different operations side by side. Further experience taught the manufacturer to divide each of those 20 operations, and each newly independent operation became the separate, exclusive function of an individual worker.ⁱⁱ

The manufacturing system thus originated—or arose out of artisanal labor—in two ways. On the one hand, it emerged where different independent occupations were concentrated in a single workshop and specialized to the point of losing their independence. Now they merely complemented one another as narrow operations in a single commodity's production process. On the other hand, the system also proceeded from the cooperation of artisans who shared the same trade. A single job was broken down into different individual operations, which were isolated and made independent to the point where each became the exclusive function of a particular worker. So the manufacturing workshop introduced the division of labor into the production process or advanced its role there, and it combined craft occupations that had been separate. But if manufacturing workshops had different starting points, their final shape was always the same: a mechanism of production whose organs were human beings.

To properly understand the division of labor in the manufacturing workshop, we must keep the following points in mind. First of all, the particular stages into which the production process was divided correspond exactly to the different specialized operations into which a craft trade was being decomposed. Whether those operations were complex or simple, they were carried out using artisanal labor, which depends on the power, skill, speed, and care that the individual worker applies when he handles his tools. In other words, production was still based on artisanal labor. Given this narrow technological foundation, it had to still be possible to use specialized artisanal labor to carry out each of the specialized processes the product passed through, which means that the production process couldn't yet be divided in a truly scientific way. And precisely because craftsmanship remained the foundation of the produc-

tion process, each worker was made to perform only a specialized function, with the result that his labor-power became that function's lifelong organ. Finally, this division of labor is a particular kind of cooperation, but some of its advantages stem from cooperation's general nature, and thus aren't peculiar to this form of it.

2. The Specialized Worker and His Tools

When we take a closer look, we see right away that a worker who spends his life performing one simple operation over and over again turns his whole body into an automatic, specialized organ of that operation, which he will carry out faster than a worker who performs a whole series of other tasks as well. The combined total worker, who constitutes the living mechanism of the manufacturing system, is made up of just such specialized workers. Thus compared with independent craft labor, more is produced in less time under this system—in other words, labor's productive power increases.² Once a form of specialized labor becomes a particular person's sole function, and he constantly focuses on and repeats the same narrow action, he perfects his method, learning from experience how to achieve an intended useful effect with the least amount of exertion. Moreover, since multiple generations of workers are always alive at the same time and also work together in the same manufacturing workshops, the tricks of the trade soon accumulate and are handed down, becoming established practices.³ We might even say that the manufacturing workshop produces the skill of the specialized worker, for it reproduces the spontaneously arising division of occupations it finds ready-made in society while systematically radicalizing it. Then again, the transformation of a specialized activity into a person's lifelong occupation goes with the drive in older societies to make occupations hereditary. Trades calcified into castes, or, where historical conditions caused individuals to vary in ways that weren't compatible with the caste system, into guilds. Castes and guilds result from the same natural law that regulates the division of plants and animals into species and subspecies, although once a certain stage of development has been reached, people enshrine as social laws the tenets that caste sta-

2. "The more any manufacture of much variety shall be distributed and assigned to different artists, the same must needs be better done and with greater expedition, with less loss of time and labour" ("The Advantages of the East India Trade. Lond. 1720," p. 71).

3. "Easy labour is transmitted skill" (Th. Hodgskin op. cit. p. 48). [Editor's note: The line reads "is only transmitted skill" in the source text.]

tus is inherited and guilds are exclusive.⁴ “The muslins of Dacca in fineness, the calicoes and other piece goods of Coromandel in brilliant and durable colours, have never been surpassed. Yet they are produced without capital, machinery, division of labour, or any of those means which give such facilities to the manufacturing interest of Europe. The weaver is merely a detached individual, working a web when ordered by a customer, and with a loom of the rudest construction, consisting sometimes of a few branches or bars of wood, put together roughly. There is even no expedient for rolling up the warp; the loom must therefore be kept stretched to its full length, and becomes so inconveniently large, that it cannot be contained within the hut of the manufacturer, who is therefore compelled to ply his trade in the open air, where it is interrupted by every vicissitude of the weather.”⁵ Hindus and spiders alike come by this kind of virtuosity only by the transmission of a particular skill from one generation to the next (or from fathers to sons). Nevertheless, these Indian weavers perform labor that is extremely complex compared with that of most workers in the manufacturing system.

When an artisan carries out the series of individual processes required to produce a given article, he can’t simply work in the same place with the same tools—he has to move and change equipment all the time. This interrupts the flow of his labor. To some extent, it creates holes in his workday, which close when he starts to spend the whole day focusing on a single operation—or, that is, they disappear in proportion to the reduction of his movement from task to task. Productivity increases, either because a greater quantity of labor-power is expended in a given period of time—i.e., labor becomes more intense—or because

4. “In Egypt, the arts have also . . . reached the requisite degree of perfection. For it is the only country where craftsmen may not in any way interfere in the affairs of other classes of citizen, but must follow that calling alone which by law is hereditary in their clan. . . . Among other peoples it is found that tradesmen divide their attention between too many objects. At one time they try agriculture, at another they take to commerce, at another they busy themselves with two or three occupations at once. In free countries they mostly frequent the popular assemblies. . . . In Egypt, on the contrary, a craftsman is severely punished if he meddles with affairs of State, or carries on several trades at once. Thus there is nothing to disturb their diligence toward their profession. . . . Moreover, they inherit from their forefathers numerous rules of their trade, and they are eager to discover still more advantageous ways of practicing it” (Diodorus Siculus, *Historische Bibliothek* Bk I, Ch. 74). [Editor’s note: Translated from the German translation Marx used, because he skipped and moved phrases around extensively.]

5. “Historical and descriptive Account of Brit. India etc. by Hugh Murray, James Wilson, etc.” Edinburgh 1832, Vol. 2, pp. 449, 450. The Indian loom stands upright—that is, the warp is stretched vertically.

less labor-power is consumed unproductively. When a worker expends energy restarting his labor, he has to make up for that by working longer at the normal speed he has to get back to again and again. On the other hand, when he performs the same labor continuously, his animal spirits, which are restored and excited precisely by changes of activity, slacken and lose their force.

Labor's productivity depends not only on how competent workers are, but also on the quality of their tools. Tools of the same kind, such as knives, drills, and hammers, are used in different labor processes, and a single tool can be used for different tasks in a single process. But the moment that different operations in a single labor process are separated from one another and take on their most efficient (and therefore distinctive) form in the hands of specialized workers, tools that once served multiple purposes have to be modified. What determines how people alter the form of a tool is the particular difficulty a worker encounters when he wields it in its unaltered form. The differentiation of tools, whereby particular forms of a given tool are established, each suited to a particular useful application, and the specialization of tools, as a result of which their useful effects can be fully realized only in the hands of specialized workers, are characteristic aspects of the manufacturing system. In Birmingham alone, around 300 different types of hammers are made. Each kind is fashioned to serve in one single production process, and many kinds are used only for specific operations within a single process. During the manufacturing period, people simplified, improved, and multiplied the instruments of labor, adapting them to the exclusive functions of specialized workers.⁶ When this happened, one of the material preconditions of modern machinery took shape. For such machinery is made up of a combination of simple instruments.

The specialized worker and his tools represent the simple elements of the manufacturing system. Let us now turn to the system as a whole.

6. In his epoch-making work on the origin of species, Darwin observes about the natural organs of plants and animals, "As long as the same part has to perform diversified work, we can perhaps see why it should remain variable, that is, why natural selection should have preserved or rejected each little deviation of form less carefully than when the part has to serve for one special purpose alone. In the same way that a knife which has to cut all sorts of things may be of almost any shape; whilst a tool for some particular object had better be of some particular shape." [Editor's note: Marx probably took his quote from the German translation of 1863. Here we quote the original English of 1859, *On the Origin of Species by Means of Natural Selection, or, The Preservation of Favoured Races in the Struggle for Life* (London: John Murray), p. 149.]

3. The Two Basic Forms of the Manufacturing System—Heterogenous and Organic

The manufacturing system has two basic forms of organization, which may sometimes overlap but are essentially different and play very different roles in the system's eventual transformation into machine-driven production on a large scale. This double character arises from the nature of the product itself, which is produced in two different ways: either through a mechanical process that involves assembling various components made independently of one another, or else the product owes its completed form to a series of interconnected processes and manipulations.ⁱⁱⁱ

More than 5,000 individual parts make up a locomotive, yet its production isn't an example of the first form of organization, because locomotives are built by large-scale industry. What definitely is an example of this form of the manufacturing system is the watch, which William Petty used to illustrate the division of labor in the manufacturing workshop. Watches were once the individual product of a Nuremburg craftsman. They became the social products of countless specialized workers: mainspring makers, dial makers, spiral-spring makers, jeweled hole makers, ruby lever makers, hand makers, case makers, screw makers, gilders, and so on. There are also numerous subcategories: wheel makers (further divided into those who work with brass and those who work with steel), pin makers, movement makers, *acheveurs de pignon* (who attach the wheels to the axles and polish the facets), *finisseurs de barillet* (who cut teeth in the wheels, make holes of the right size, etc.), escapement makers, cylinder makers for cylinder escapements, escapement wheel makers, balance-wheel makers, makers of the *raquette* (the apparatus for regulating the watch), *planteurs d'échappement* (escapement makers proper), as well as *repasseurs de barillet* (who make the box for the spring), steel polishers, wheel polishers, screw polishers, figure painters, dial enamelers (who melt the enamel on the copper), *frabricants de pendants* (who make the ring by which the case is hung), *finisseurs de charnière* (who install the brass hinges in the cover), *graveurs, ciseleurs, polisseurs de boîte*, etc., etc., and, lastly, the *repasseurs*, who assemble the watch and deliver it as a functioning unit. Only a few parts of the watch pass through multiple sets of hands, and all of these *membra disjecta* converge for the first time in the hands of the person who finally assembles them into a mechanical whole.^{iv} In such cases, where the finished product has an external relation to its diverse elements, it is a matter of chance whether the different specialized workers are actually sitting in the same workshop. They can pursue their

specialized labor as independent craftwork, as they do in the cantons of Vaud and Neuchâtel. Geneva, in contrast, has large watch manufacturing workshops—in other words, the specialized workers cooperate with one another under the direct control of a single mass of capital. But even then, the dial, springs, and housing are seldom made in that workshop. Here, the combined manufacturing workshop is profitable only under exceptional circumstances, because competition is at its greatest among those workers who want to work at home, and the means of labor can't readily be shared when production is split up into a series of heterogeneous processes. When production is scattered, moreover, the capitalist doesn't have to pay for the buildings in which the work is done and so on.⁷ The position of specialized workers who work at home but for a capitalist (manufacturer, *établisseur*) is of course quite different from that of independent craftsmen working for their own customers.⁸

In the second, mature organization of the manufacturing system, goods go through connected phases of development—processes that build on one another as a series of steps. For example, in the production of needles, the wire passes through the hands of 72 and sometimes even 92 different specialized workers.

Insofar as this version of the manufacturing system combines types of craft labor that were originally scattered, it reduces the spatial separation between an article's different stages of production, and so it takes less time for the article to go from one stage to another, along with less work to transport it.⁹ The productive power of the manufacturing system thus exceeds that of independent artisanal labor, an advantage arising pre-

7. In 1854, Geneva produced 80,000 watches, not even $\frac{1}{5}$ of the amount produced in Neuchâtel. Chaux-de-Fonds alone, which we can view as one large watch manufacturer, makes twice as many watches annually as Geneva. From 1850 to 1861, Geneva produced 720,000 watches. See "Reports from Geneva on the Watch Trade" in "Reports by H. M.'s Secretaries of Embassy and Legation on the Manufactures, Commerce, etc. No 6. 1863." In cases where the finished article is assembled from individual parts, the lack of connection among the various processes of production makes it difficult to turn the manufacturing system into machine-driven large-scale industry. With watches, there are two additional problems, namely, how intricate and small the parts are, and also that they are a luxury good, which entails a demand for variety: the best watchmakers in London produce no more than a dozen units of the same watch over the course of a year. The watch factory of Messrs. Vacheron and Constantin, which has had some success in using machinery, produces no more than three or four varieties with respect to size and shape.

8. Watchmaking is a classic example of the heterogeneous version of the manufacturing system, and here we can closely observe what happens with the instruments of labor when craft occupations are decomposed: as noted, they become differentiated and specialized.

9. "In so close a cohabitation of the People, the carriage must needs be less" ("The Advantages of East India Trade," p. 106).

cisely from the system's general cooperative character. At the same time, however, its characteristic principle of division requires that the different stages of production be isolated and made independent of one another. In order for the connections between the isolated functions to be established and maintained, the product of these specialized forms of craft labor has to keep moving from one hand to another—one process to another. From the perspective of large-scale industry, this stands out as a characteristic, costly limitedness that is inherent in the very principle of the manufacturing system.¹⁰

When we consider some specific quantity of raw material as it enters the manufacturing workshop, say of rags for making paper or wire for making needles, we see that it will successively pass through a series of production stages, moving from one specialized worker's hands to another's as it takes shape as the finished product. But when we consider the workshop as a single unified mechanism, we see the same kind of raw material being worked on in all the stages of its production simultaneously. Made up of a combination of many specialized workers, the collective worker is armed with many tools in his multiple pairs of hands: he uses one pair to pull the wire, another to straighten it, another to cut it, and so on. Stages of production that took place sequentially have been transformed into ones occurring at the same time, side by side, and thus more commodities are produced in the same amount of time.¹¹ This simultaneity results from the general cooperative form of the total process; but the manufacturing system not only finds the conditions for cooperation ready-made, it also helps to create them by subdividing craft trades. On the other hand, the system brings about this social organization of the labor process only by permanently fastening a particular worker to a single specialized activity.

Since the specialized product of each specialized worker represents just one stage in the production of a single larger article, we can also say that one worker, or group of workers, prepares the raw material for other

10. "The isolation of the different stages of manufacture consequent upon the employment of manual labour adds immensely to the cost of production, the loss mainly arising from the mere removals from one process to another" ("The Industry of Nations. Lond. 1855," Part II, p. 200).

11. "It (the division of labour) produces also an economy of time, by separating the work into its different branches, all of which may be carried on into execution at the same moment. . . . By carrying on all the different processes at once, which an individual must have executed separately, it becomes possible to produce a multitude of pins for instance completely finished in the same time as a single pin might have been either cut or pointed" (Dugald Stewart op. cit. p. 319).

workers. The result of one worker's labor represents the starting point of another's labor. One worker directly puts another to work. The amount of labor-time it takes to achieve the intended useful effect in each specialized subprocess is established by experience, and the total mechanism of the manufacturing workshop is based on the presupposition that a given result will be produced when a given amount of labor-time is consumed. Only when this is presupposed can the different complementary labor processes operate without interruption, simultaneously, and side by side. Clearly, the direct interdependence of the different processes—and thus workers—forces each worker to expend no more than the necessary amount of labor-time in performing his particular function, which, overall, leads to continuity, uniformity, regularity, order,¹² and especially intensity very different from what we find among independent artisans and even in simple cooperation. In commodity production in general, only the socially necessary amount of labor-time is used to produce a commodity, and this circumstance appears as the effect of the external pressure of competition—or, put too simply, as stemming from the fact that every single producer has to sell his commodity at its market price. In the manufacturing workshop, in contrast, producing a given amount of product in a given amount of labor-time becomes a technical law of the production process itself.¹³

But different operations require different amounts of time and therefore yield different quantities of a specialized product in the same amount of time. So if a worker performs the same specific operation day after day, workers will be needed in different ratios in different operations. Let's consider, for example, the production of type. Four founders and two breakers are needed for every rubber (the founder casts 2,000 type per hour, the breaker breaks up 4,000, and the rubber polishes 8,000). The principle of cooperation returns here in its simplest form—many workers of the same kind are employed at the same time, only now it is the expression of an organic ratio. Thus in the manufacturing system, the division of labor not only simplifies and multiplies the qualitatively different organs of the social collective worker, it also provides the quantitative dimensions of those organs with a fixed mathematical ratio—i.e., the relative number

12. "The more variety of artists to every manufacture . . . the greater the order and regularity of every work, the same must needs be done in less time, the labour must be less" ("The Advantages etc." p. 68).

13. Yet in many of its branches, the manufacturing system of production achieved this result only partially, because it didn't figure out how to reliably control the general chemical and physical conditions of the production process.

of workers, or relative size of the groups of workers, in each specialized function. As this division of labor organizes the social labor process qualitatively, it also establishes a quantitative rule and proportionality for that process.

Once experience has established for a given scale of production how big the different groups of specialized workers should be relative to one another, the only way to expand the scale is to use a multiple of each group.¹⁴ In addition, there are certain tasks an individual worker can carry out on a larger scale just as effectively as on a smaller one—supervising, transporting parts of the product from one stage of production to another, etc. It is therefore advantageous to make such functions independent, or to assign them to a particular worker, only when the number of workers employed increases; but the increase must affect all the groups of workers proportionally, and it must do so from the start.

The individual group, consisting of workers who perform the same specialized function, is made up of homogeneous elements and represents a particular organ of the total mechanism. But in some types of manufacturing workshops, a group is itself an organism of labor with its own divisions, and the total mechanism is formed by replicating—that is, multiplying—this productive elementary organism. Take the production of glass bottles. It breaks down into three essentially different stages. First, there is the preparatory stage, which involves treating the components of glass, or combining the sand and lime, then melting them into a quantity of liquid glass.¹⁵ Various specialized workers are employed in this first stage, as is also the case in the final stage, where workers remove the bottles from the furnaces, sort them, pack them, and so on. The actual glassmaking occurs between these two stages: this is where the liquid glass is worked on. A group that the English call a “hole” works at one of the mouths of the furnace; this group comprises a bottle maker, a finisher, a blower, a gatherer, a putter up or whetter off, and a taker in. These five specialized workers represent the individual organs of a working organism that can function only as a unit—only when all the workers are directly cooperating with one

14. “When [from the particular nature of the products of each manufacturing workshop] the number of processes into which it is most advantageous to divide it, and the number of individuals employed in it, are ascertained, then all factories which do not employ a direct multiple of this latter number, will produce the article at a greater cost. . . . Hence arises one cause of the great size of manufacturing establishments” (Ch. Babbage, “On the Economy of Machinery,” 2nd ed. Lond. 1832, ch. XXII).

15. In England, the melting furnace and the glass furnace, in which the glass is worked on, are two separate things. In Belgium, one and the same furnace performs both functions.

another. When one member is missing, the whole body is paralyzed. Glass furnaces have multiple openings; in England, for example, they have four to six. Each opening holds an earthenware melting pot containing liquid glass and puts to work its own group of five workers. The organization of each individual group is directly based on the division of labor, whereas what ties the different groups of the same kind together is simple cooperation, as a result of which one of the means of production (the furnace) is consumed collectively and therefore more economically. With its four to six groups, one such furnace constitutes a glass house, and a manufacturing workshop that produces glass is made up of many glass houses, along with the workers and equipment needed for both the preliminary and final phases of production.

Finally, the emergence of the manufacturing workshop is due in part to the combining of different kinds of craft labor; and in the same way, as the manufacturing workshop develops, different workshops are sometimes combined. The largest English glass workshops make their own earthenware melting pots because the success of the production process depends on the quality of those pots. Here connected production processes yield both a means of production and the product it helps make. On the other hand, the workshop where an article is produced can be united with workshops where that article serves as raw material, or with workshops making products the article is part of. Thus we find the production of flint glass combined with glass cutting and brass founding—brass is needed for the settings of various glass goods. Whether they are right next to one another or somewhat apart, the different manufacturing workshops combined in this way function as individual departments in a total enterprise, yet are at the same time independent production processes, each with its own division of labor. In spite of the various advantages this offers, the combined manufacturing workshop never achieves full technical unity on such a basis. Such unity doesn't occur until the manufacturing system is transformed into machine-driven production.

The principle of reducing the labor-time needed to make commodities was consciously formulated soon after the start of the manufacturing period,¹⁶ which, moreover, saw the sporadic use of machines develop, particularly in certain basic processes that could take place only on a massive scale and required great outlays of force. In the production of paper, paper mills were soon used to tear up the rags, while in metal works the so-called

16. This can be seen from reading W. Petty, John Bellers, Andrew Yarranton, "The Advantages of the East-India Trade," and J. Vanderlint, among others.

stamping mills were employed to pound the ores.^{17,v} The Roman Empire gifted posterity with the original form of all machinery: the waterwheel.¹⁸ The period of craft labor bequeathed more major inventions: the compass, gunpowder, movable type, and the automatic clock. But on the whole, machinery played the supporting role that Adam Smith assigned it below the division of labor.¹⁹ The sporadic use of machinery became crucially important in the seventeenth century: it gave the great mathematicians of the era the practical orientation they needed to create modern mechanics and also provided them with an incentive to do so.

The signature machinery of the manufacturing period remains the combined collective worker, who is made up of all the specialized workers in the workshop. The different operations that are required by turns to produce a commodity, and that interlock in the totality of a labor process, demand various things of its producer. He has to use more strength in one, more skill in another, greater concentration in a third, and so on. A single individual doesn't have all these capacities in equal measure. And so after the different operations are separated, made independent, and isolated, workers themselves are divided, classified, and grouped together according to their outstanding abilities. The workers' natural gifts constitute the foundation that supports the division of labor, but once the manufacturing system is in place, that system cultivates the bearers of labor-power in such a way that it is their nature to be of use only in narrow specialized functions. All the collective worker's productive qualities are now developed to the same high degree of virtuosity. He applies them, moreover, in the most economical way, using each of his organs, i.e., dif-

17. In late-sixteenth-century France, people still used mortars and sieves to pound and wash ores.

18. The whole history of machinery's development can be traced in the history of grain mills. In English, the word "mill" still signifies "factory." In German technological writings from the first decades of the nineteenth century, we still find the term "mill" (Mühle) used not only for all machinery driven by nature's power, but also for all manufacturing workshops that employ mechanical apparatuses.

19. As volume 4 of this work will show in greater detail, A. Smith didn't offer a single new idea about the division of labor. Rather, what characterizes him as the emblematic political economist of the manufacturing period is that he ascribed so much importance to the division of labor. His assigning of a subordinate role to machinery elicited a polemical response from Lauderdale in the early days of large-scale industry and one from Ure at a later and more advanced stage. Smith also confused the differentiation of the instruments of labor in the manufacturing period, a process in which the specialized workers of that period actively participated, with the invention of machinery, where rather than workers formed in the manufacturing system, men of learning, artisans, and even peasants, too (Brindley), played the main role.

ferent workers or groups of workers, only for its specific functions.²⁰ The specialized worker's one-sidedness and even the shortcomings that go along with it make him the perfect component of a collective worker.²¹ As the specialized worker grows accustomed to his specialized activity, he is transformed into an organ of that activity that functions with the sureness of nature, while his connection to the total mechanism forces him to work with the regularity of a cog in a machine.²² Since the collective worker's various functions can be simple or complex, lower or higher, his organs, the individual bearers of labor-power, require very different levels of training, and the value of their labor-power varies widely. The manufacturing system thus creates a hierarchy of bearers of labor-power and a corresponding wage scale. But to the same extent that individual workers are enlisted into and tethered for life to a specialized function, the different operations carried out by the just-mentioned hierarchy are adapted to workers' natural and acquired capacities.²³ Of course, every production process also involves doing certain simple things that require no special skill or talent. This labor, too, no longer flows into more substantial activities, but instead petrifies as a series of exclusive functions. Hence whenever the manufacturing system takes over a form of craft labor, it creates a class of so-called unskilled workers, whom craft industries had strictly excluded. If the workers in the manufacturing workshop perfect a

20. "The master manufacturer, by dividing the work to be executed into different processes, each requiring different degrees of skill or of force, can purchase exactly that precise quantity of both which is necessary for each process; whereas, if the whole work were executed by one workman, that person must possess sufficient skill to perform the most difficult, and sufficient strength to execute the most laborious, of the operations into which the art is divided" (C. Babbage *op. cit.* Ch. XIX).

21. One-sided muscular development, misshapen bones, etc.

22. How to sustain the industriousness of young male workers? When asked this question by one of the Inquiry Commissioners, Wm. Marshall, the general manager of a glass works, answered quite correctly, "They cannot well neglect their work; when they once begin, they must go on; they are just the same as parts of a machine" ("Child. Empl. Comm. Fourth Report" 1865, p. 247).

23. In apotheosizing large-scale industry, Dr. Ure draws out the peculiar characteristics of the manufacturing system more vividly than earlier political economists, who lacked his polemical engagement. Here he also outpaces contemporaries, such as Babbage, who is much better in mathematics and mechanics, but who studies large-scale industry only from the standpoint of the manufacturing system. Ure remarks, "To each a workman of appropriate value and cost was naturally assigned. This appropriation forms the very essence of the division of labour." On the other hand, he describes this division as "adaptation of labour to the different talents of men," and, finally, he portrays the whole manufacturing system as a "system for the division or gradation of labour," and also as "the division of labour into degrees of skill" (Ure *op. cit.* pp. 28–35 *passim*). [Editor's note: Original English, pp. 19–23.]

narrow specialty at the cost of their other capacities, it's also the case that the manufacturing system begins to make the lack of any training into a specialty. As the hierarchical ordering of workers takes shape, so, too, does a simple distinction: skilled versus unskilled. With the latter group, training costs don't apply. For the former, they are lower than they are for craftsmen because the labor performed in the manufacturing workshop is less diverse. Either way, labor-power's value falls²⁴—except where the decomposition of the labor process produces expansive new functions that didn't exist in craft trades or existed there on a smaller scale. The relative devaluation of labor-power that results when training costs disappear (or shrink) directly implies a greater valorization of capital, for everything that shortens the time it takes to reproduce labor-power enlarges the domain of surplus-value.

4. The Division of Labor in the Manufacturing System and the Division of Labor in Society

First we examined the origins of the manufacturing system, then we turned to its simple elements: the specialized worker and his tools. Finally, we considered the total mechanism. We will now touch briefly on the relation between the division of labor in the manufacturing system and the social division of labor, which is the foundation of all commodity production.

If we focus on labor alone, we can describe the breakdown of social production into major categories—agriculture, industry, and so on—as the division of labor in general and the breaking down of those large categories into types and subtypes as the division of labor in particular. We can describe the division of labor in the manufacturing workshop as the detailed division of labor.²⁵

24. "Each handicraftsman being . . . enabled to perfect himself by practice in one point, became . . . a cheaper workman" (Ure op. cit. p. 28). [Editor's note: English original, p. 19.]

25. "The division of labor begins with the separating of the most diverse professions, extending to the point where workers making one and the same product divide up the tasks that entails" (Storch, "Cours d'Écon. Pol." Paris edition, Vol. 1, p. 173). "Among peoples that have reached a certain degree of civilization, we find three types of industrial division: the first, which we call *general*, divides producers into farmers, manufacturers and merchants, and corresponds to the three main branches of national industry; the second, which we might call *special*, is the division of each type of industry into species . . . the third division of industry, the one that we should designate as the division of work or labor proper, is that which is established in the separate arts and crafts . . . which is established in most factories and workshops" (Skarbek op. cit. pp. 84–85).

That individuals are limited to particular occupations goes with the social division of labor, which, like the division of labor in the manufacturing system, proceeds from two diametrically opposed starting points. Within families and, eventually, tribes, differences in gender and age lead spontaneously to a division of labor that rests on a purely physiological foundation. The human material divided this way is enlarged as the community expands its territory, its population increases, and different tribes battle and subjugate one another. But as I remarked earlier, the exchange of products begins to occur where different families, tribes, and communities come into contact, for in the earliest stages of culture, families and tribes, rather than private individuals, encounter one another as independent agents. Different communities find different means of production and subsistence ready-made in their natural surroundings. Their modes of production, ways of living, and products are therefore different, too. This spontaneously arising variety leads communities to exchange their products when they meet, with the result that their products gradually become commodities. Exchange doesn't create the differences between the spheres of production; instead it connects the different spheres, transforming them into more or less mutually dependent branches in a total system of social production. In this case, exchange between spheres of production that were originally distinct and also independent creates the social division of labor. But in the other case, where the division of labor is originally based on physiological differences, the individual organs of an interconnected whole are separated. They are decomposed in a process that is largely set in motion when commodities are exchanged with foreign communities, and they become independent to the point where the connection between different forms of labor is mediated by the exchange of their products as commodities. In one scenario, what was independent is no longer independent; in the other, what wasn't independent becomes independent.

Wherever the division of labor has developed to an advanced state and is mediated by commodity exchange, it is based on the separation of town and country.²⁶ One might say that the entire economic history of society can be summed up as the movement of this opposition, which, however, we won't discuss any further here.

26. Sir James Steuart's discussion of this point is the best one available. His work appeared 10 years before the "Wealth of Nations," and we can see how obscure it has become from, among other things, the following circumstance: Malthus's followers do not realize that in the first edition of his book about "population," all he does is copy from Steuart, alongside the clerics Wallace and Townsend, except in the purely declamatory part.

The material precondition for the division of labor in the manufacturing workshop is, as we know, that a certain number of workers are put to work at the same time; the size and density of the population plays the same role for society's division of labor—that of an agglomeration of workers in a single workshop.²⁷ Yet “density” is something relative here. A country with a relatively sparse population and an advanced system of communication actually has higher population density than a more heavily populated country where the means of communication aren't advanced. In this sense, the northern states of the American Union are more thickly populated than India.²⁸

Since the production and circulation of commodities is the general precondition for the capitalist mode of production, the division of labor in the manufacturing system presupposes that the division of labor within society has already reached a certain level of development. But the inverse is also true: through a rebound effect, the manufacturing system's division of labor further develops and enlarges the social division of labor. As the instruments of labor become more differentiated, so do the occupations responsible for making those tools.²⁹ When the manufacturing system takes over a trade that one producer formerly practiced together with other trades in some way, whether as his main trade or an auxiliary one, these trades are immediately separated and made independent of one another. And when the manufacturing system takes over a particular stage of a commodity's production, the other stages are transformed into independent trades. Earlier, we observed that wherever the finished product is a mechanical whole assembled from component parts, the different kinds of specialized labor that go into the parts can reestablish themselves as independent artisanal trades. As a way of making the division of labor in the manufacturing system more complete, single branches of production are split

27. “There is a certain density of population which is convenient, both for social intercourse, and for that combination of powers by which the produce of labour is increased” (James Mill *op. cit.* p. 50). “As the number of labourers increases, the productive power of society augments in the compound ratio of that increase, multiplied by the effects of the division of labour” (Thomas Hodgskin *op. cit.* pp. 125–26).

28. After 1861, the production of cotton was extended at the expense of rice cultivation in some otherwise densely populated districts of eastern India. This development was engendered by the great demand for cotton, and it in turn led to partial famines, which also had to do with the fact that because the means of the communication were poor, and therefore physical connections were, too, lack of rice in one district couldn't be compensated for by bringing in rice from another district.

29. Thus as early as the seventeenth century, the manufacturing of shuttles was an individual branch of industry in Holland.

up into different, sometimes novel forms of the manufacturing workshop, according to how diverse their raw materials or the different forms of the same raw material are. Thus as early as in the first half of the eighteenth century, more than a hundred kinds of silk stuffs were woven in France alone, and in Avignon the law required that “every apprentice should devote himself to only one sort of fabrication, and should not learn the preparation of several kinds of material at once.” The territorial division of labor consigned particular branches of production to specific regions of a country, and it was fostered anew by the manufacturing system of production, which exploited all local and other peculiarities.³⁰ The world market had to expand and the colonial system had to emerge before the manufacturing period could begin, and these developments also provided that period with rich material for advancing the division of labor within society. But this isn’t the right place to show how the division of labor came to predominate in not only the economic sphere, but also all parts of society, ubiquitously laying the foundation for the disciplinary boundaries, specialization, and parceling up of human beings that prompted Andrew Ferguson, Adam Smith’s teacher, to exclaim, “We make a nation of Helots, and have no free citizens.”³¹

The division of labor within society and the division of labor in the manufacturing workshop may be analogous and linked in many ways, but they differ in degree and also in kind. Without question, they appear to be most strikingly analogous wherever an internal bond connects different branches of commerce. The cattle breeder produces hides; the tanner turns the hides into leather; the shoemaker turns the leather into boots. Each person produces the product of just one stage, and the finished form that emerges in the end is the combined product of each person’s specialized labor. Also involved are the diverse branches of labor that provide the cattle breeder, tanner, and shoemaker with their respective means of production. We might think, as Adam Smith did, that this social division of labor differs from the division of labor in the manufacturing system only subjectively—in other words, only for the observer, who can see right away that the manufacturing workshop brings together various forms of specialized labor, whereas in society, the different forms of labor are scat-

30. “Whether the Wollen Manufacture of England is not divided into several parts or branches appropriated to particular places, where they are only or principally manufactured; fine clothes in Somersetsshire, coarse in Yorkshire, long ells at Exeter, soies at Sudbury, crapes at Norwich, linseys at Kendal, blankets at Whitney, and so forth!” (Berkeley, “The Querist” 1750, p. 56, §520).

31. A. Ferguson, “History of Civil Society,” Part IV, Section II.

tered over large expanses of space, and many workers are employed in them, making it hard to tell how they're linked.³² But what is it that connects the cattle breeder's independent labor, the tanner's, and the shoemaker's? Their respective products exist as commodities. And what is it that characterizes the division of labor in the manufacturing system? The specialized worker doesn't produce an actual commodity.³³ Only the collective final product turns into one.³⁴ When the products of different branches of labor are bought and sold, this mediates the division of labor in society. In contrast, when a single capitalist buys labor-power from different types of workers, and then activates it as combined labor-power, he mediates the connection among the specialized forms of labor in a workshop. The division of labor in the manufacturing workshop presupposes that the means of production are concentrated in the hands of a

32. Within the manufacturing system proper, says Smith, the division of labor appears to be greater, because "those employed in every different branch of the work can often be collected into the same workhouse, and placed at once under the view of the spectator. In those great manufacturers [...], on the contrary, which are destined to supply the great wants of the great body of the people, every different branch of the work employs so great a number of workmen, that it is impossible to collect them into the same workhouse . . . the division is not near so obvious" (A. Smith, "Wealth of Nations," b. I. ch. 1). As for the famous passage in the same chapter that begins with the words, "Observe the accommodation of the most common artificer or day labourer in a civilized and thriving country," and goes on to portray how countless diverse occupations work together to satisfy the wants and needs of a common worker, that passage is copied very much verbatim from B. de Mandeville's Remarks on his "Fable of the Bees, or Private Vices, Publick Benefits" (First edition without Remarks, 1705, with Remarks, 1714).

33. "There is no longer anything which we can call the natural reward of individual labour. Each labourer produces only some part of a whole, and each part, having no value or utility of itself, there is nothing on which the labourer can seize, and say: it is my product, this I will keep for myself" ("Labour defended against the claims of Capital. Lond. 1825"). The author of this excellent work is Th. Hodgskin, whom I quoted earlier.

34. Note added to the second edition: The Yankees have received a practical illustration of how the division of labor in society is distinct from the division of labor in the manufacturing system. One of the new taxes devised in Washington during the Civil War was the 6% duty on "all industrial products." Question: What is an industrial product? The lawmakers answered, A thing is produced "when it is made," and it has been made when it is ready to be sold. Here is just one example among many. Manufacturing workshops in New York and Philadelphia used to produce umbrellas along with all the things that make up an umbrella in its finished form. But because an umbrella is a *mixtum compositum* of very heterogeneous components, these components gradually came to be produced by branches of industry run independently of one another and located in different places. Now it was as independent commodities that these components arrived at umbrella-producing workshops, which now merely assembled the final product. The Americans christened such articles "assembled articles," a name they deserve, given that they involve the assembling of taxes. An umbrella "assembles" a 6% tax on the price of each of its elements, and then another 6% on its total price.

single capitalist; the social division of labor presupposes that the means of production are divided among many independent commodity producers. In the manufacturing workshop, the iron law of ratio or proportionality determines how many workers are subsumed under each particular function. Chance and happenstance reign when it comes to the distribution of independent producers (and their means of production) among the different branches of labor in society. It is of course true that the different spheres of production always gravitate toward a state of equilibrium. For on the one hand, every commodity producer has to produce a use-value: he has to satisfy a particular social want or need, although the extent of these wants and needs varies, and an inner bond links the different amounts, thereby bringing about a spontaneously arising system. And on the other hand, the value-law of commodities determines how much of its total disposable labor-time a society can devote to the production of each kind of commodity. But there is a constant movement toward equilibrium on the part of the different spheres of production only because their equilibrium is always being unsettled. The *a priori* system according to which the division of labor is regulated in the manufacturing workshop functions differently in the division of labor within society, namely, *a posteriori*: as an internal, silent natural necessity that overcomes the lawless whims of individual commodity producers and can be perceived in the barometric movement of fluctuating market prices. The division of labor in the manufacturing workshop presupposes the capitalist's unconditional authority over human beings, who are merely parts of a total mechanism that belongs to him. The division of labor within society places opposite one another independent commodity producers who recognize no authority except that of competition, i.e., the coercive force exerted by the pressure of their competing interests, just as in the animal kingdom the *bellum omnium contra omnes* preserves every species' conditions of existence to a greater or lesser degree.^{vi} Thus the same bourgeois consciousness that eagerly lauds the division of labor in the manufacturing workshop, where the worker is permanently annexed to a specialized area and unconditionally subordinated to capital, that celebrates this as a form of organization that increases labor's productive power, is just as quick to criticize all conscious attempts by society to monitor and regulate the social production process, decrying them as attacks on the "inviolable" property rights, freedom, and even the self-determining "genius" of the individual capitalist. Tellingly, the harshest thing enthusiastic apologists of the factory system have to say about the prospect of generally organizing social labor is this: it would transform all of society into a factory.

In a society under the capitalist mode of production, the anarchy of the social division of labor and the despotism of the manufacturing system's division of labor condition each other. In contrast, the earlier forms of society where the separation of trades emerged spontaneously, then crystallized, and was at last codified in the law, gave us on the one hand an image of the systematic and authoritative organization of social labor, while on the other hand, they either completely excluded the division of labor in the workshop or developed it only on a miniature scale; or they developed it only sporadically and arbitrarily.³⁵

Take certain very old communities of limited size in India, some of which still exist today and are based on communal ownership of the land, i.e., a direct connection between agriculture and craft labor, and also on a rigid division of labor that functions as a fixed plan and model whenever new communities are created. The communities are self-sufficient wholes of production whose production zones range from a hundred acres up to several thousand. Most goods are produced to satisfy the community's own wants and needs, not as commodities. Production thus operates independently of the general division of labor in Indian society, which is mediated by commodity exchange. Only the surplus products are turned into commodities, and in some cases, this happens in the hands of the state, which long ago began to receive a certain quantity of products as rent in kind. There are different forms of communal living in different parts of India. In the simplest form, people farm land in common and divide up the products. Every family spins, weaves, and so on as domestic side occupations. In addition to the great mass of people who thus carry out the same tasks, there is the "chief member"—a judge, policeman, and tax collector combined in a single person. There is also the bookkeeper, who tracks agricultural production and everything to do with it. A third official prosecutes criminals and protects foreign travelers, accompanying them to the next village. The border guard defends the border against members of neighboring communities. There is the water supervisor, who distributes water for farming from communal tanks. There is the Brahmin, who performs religious functions, the schoolteacher, who draws in the sand to

35. "As a general rule, we can establish that the less authority presides over the division of labor within society, the more the division of labor develops within the workshop, and the more it is subject to the authority of a single individual. Thus, there is an inverse relationship between authority in the workshop and authority in society, in relation to the division of labor" (Karl Marx op. cit. pp. 130–31). [Editor's note: English translation, *The Poverty of Philosophy* in *Marx-Engels Collected Works*, vol. 6, London: Lawrence and Wishart, 1976, p. 185.]

show children how to read and write, and the calendar Brahmin, who acts as the astrologer for planting and harvesting and who prophesies good or bad days for every kind of agricultural labor. There are the smith and the carpenter, who make and repair all the tools needed for farming. There is the pot maker, who produces pottery for the whole community, as well as the barber, the person who washes clothes, and the silversmith. And in a few places, there is a poet, who also serves as the silversmith in some communities and as the schoolteacher in others. The whole community supports these twelve or so people—i.e., gives them their means of subsistence. If the population grows, a new community is started on unfarmed land and built up according to the model of the community whose offshoot it is. The community mechanism features a systematic division of labor, but a division such as we find in the manufacturing workshop is impossible, because the market for smiths, carpenters, and so on remains constant, and a community has, depending on its size, at most two or three pot makers and smiths rather than just one.³⁶ The law that regulates the division of labor in the community operates with the unquestioned authority of a natural law, while each individual craftsman—smith, carpenter, etc.—carries out all the different tasks of his trade in the traditional way, but also independently and without recognizing any authority in his workshop other than himself. These self-sufficient communities continuously reproduce themselves in the same form, and they rebuild themselves³⁷ in the same place under the same name whenever they are accidentally destroyed. It is their simple productive organism that provides the answer to the mystery of why Asiatic societies have been so immutable, whereas, in dramatic contrast, Asiatic states are forever dissolving and being reconstituted, their dynasties changing ceaselessly. The bad weather from political storm clouds doesn't touch the structure of society's foundational economic elements.

36. Lieut. Col. Mark Wilks, "Historical Sketches of the South of India. Lond., 1810–17," Vol. 1, pp. 118–20. A good overview of the various forms of the Indian community can be found in George Campbell's "Modern India. London 1852."

37. "Under this simple form . . . the inhabitants of the country have lived since time immemorial. The boundaries of the villages have been but seldom altered, and though the villages themselves have been sometimes injured, and even desolated by war, famine, and disease, the same name, the same limits, the same interests, and even the same families, have continued for ages. The inhabitants give themselves no trouble about the breaking up and division of kingdoms; while the village remains entire, they care not to what power it is transferred or to what sovereign it devolves; its internal economy remains unchanged" (Th. Stamford Raffles, late Lieut Gov. of Java: "The History of Java. Lond. 1817," Vol. 1, p. 285).

Guild laws, as we observed earlier, prevented the individual guild master from turning into a capitalist. In addition to strictly limiting the number of apprentices he was allowed to employ, they permitted him to employ only apprentices who would pursue the trade in which he was a master. The guild jealously guarded its status, defending it against every encroachment by merchant capital, the lone form of independent capital it had to deal with. A merchant could buy any sort of commodity; he just couldn't buy labor as a commodity. He was tolerated only as the distributor of craft labor's products. If external circumstances caused the division of labor to ripen further, existing guilds split into subtypes, or new guilds were started alongside older ones. But the new guilds didn't bring together different kinds of craft labor in a single workshop, and thus however much certain features of the guild organization—namely, the separation, isolation, and specialization of trades—count among the manufacturing period's material conditions of existence, the guild system precluded the sort of division of labor we find in the manufacturing system. Generally speaking, a guild worker was affixed to his means of production like a snail to its shell. The primary prerequisite for the manufacturing system—that functioning as capital, the means of production have become independent of the worker—was missing.

Whether or not the division of labor in society as a whole is mediated by commodity exchange, it can figure in the most diverse economic formations of society. But the manufacturing system's division of labor is very much the creation of the capitalist mode of production.

5. The Capitalist Character of the Manufacturing System

Cooperation in general and the manufacturing system in particular proceed from the same spontaneously arising starting point: an increased number of workers operating under the command of a single capitalist. But it is the manufacturing system's division of labor that makes this increase into a technical necessity. The preexisting division of labor determines the minimum number of workers that the individual capitalist must employ. At the same time, it is advantageous to further divide labor only if the capitalist employs additional workers, which means adding them in multiples. When the variable capital is enlarged, the constant capital has to be enlarged as well—not only the shared conditions of production, such as buildings and furnaces, but, above all, the raw material, since the demand for that grows much faster than the number of workers. The amount of raw material consumed in a given amount of time by a given amount of labor increases in

the same proportion as the productive power of that labor does when the labor is divided. So, the minimum amount of capital in the hands of a single capitalist has to keep increasing—in other words, the amount of the social means of subsistence and means of production that are turned into capital has to keep growing. This is a law that arises from the particular technical character of the manufacturing system.³⁸

In the manufacturing workshop, as in simple cooperation, the collective working organism represents a form in which capital exists. The social mechanism of production, made up of many individual specialized workers, belongs to the capitalist. Hence the productive power created when different forms of labor are combined appears as capital's productive power. The manufacturing workshop not only subjects formerly independent workers to capital's command and discipline, it also brings about hierarchical divisions among those workers. Whereas simple cooperation does little to change the way an individual worker works, the manufacturing system revolutionizes his mode of labor from the bottom up, seizing the individual bearer of labor-power by the roots. It stunts the worker, turning him into a freak. For it acts as a hothouse for developing a particular skill by forcing him to suppress a whole world of drives and proclivities, just as in the states of La Plata whole animals are slaughtered merely for their hides or their fat.^{vii} Not only are the particular forms of specialized labor divided up among different individuals, the individual himself is divided: he is transformed into the automatic engine of a specialized form of labor.³⁹ The absurd fable of Menenius Agrippa, which depicts a person as a fragment of his own body, becomes real.^{40,viii} If workers originally sold their labor-power to capital because they lacked the material means to

38. "Thus it is not enough that the capital [he should have said the necessary means of subsistence and production] necessary for the subdivision of trades should exist in society; it must also be accumulated in the hands of business owners, in portions considerable enough to enable them to form large firms. As the division of trades expands, it is necessary for the same number of workers to be constantly employed, with an ever more considerable capital in tools . . . and in construction and subsistence" (Storch, "Cours d'Écon. Polit." Paris edition, Vol. 1, pp. 250–51). "The concentration of the instruments of production and the division of labor are as inseparable from one another as the concentration of public powers and the division of private interests are in the political system" (Karl Marx op. cit. p. 134). [Editor's note: English translation, p. 187.]

39. Dugald Stewart calls manufacturing workers "living automatons . . . employed in the details of the work" (op. cit. p. 318).

40. Each individual coral functions as the stomach of the whole group, but whereas the Roman patrician extracted nourishment from the group, the individual coral supplies it with that.

produce a commodity, their own labor-power now can't perform its service when it isn't sold to capital. It functions only in a context that doesn't exist until it has been sold: the capitalist's workshop. The worker who operates in the manufacturing system loses the capacity to produce anything on his own. His natural constitution is altered in a way that renders him unable to do that, and he therefore cultivates his productive activity merely as something that belongs to the capitalist's workshop.⁴¹ Just as it was written on the faces of the chosen people that they were Jehovah's property, workers in the manufacturing system are branded as capital's property by the division of labor.

It is now only the workshop as a whole that requires the knowledge, discernment, and willpower that used to be exercised by the independent peasant or artisan, albeit on a small scale, much as the savage turned the entire art of war into the exercise of his personal cunning. The intellectual power applied in production can increase in one area because it disappears in many others, and what specialized workers lose is concentrated on the other side of the capital relation, in capital.⁴² The division of labor in the manufacturing system creates a situation in which workers encounter the intellectual powers at work in the material production process as foreign property and as a force ruling over them. This process of separation begins in simple cooperation, where the capitalist represents the unity and will of labor's social organism in his relation with his individual workers. It is developed further by the manufacturing system, which mutilates the worker by making him into a specialized worker. And it is completed in large-scale industry, which separates systematic knowledge from labor, turning the former into an independent productive force while pressing it into the service of capital.⁴³

41. "The laborer who carries an entire trade in his arms can go anywhere to exercise his industry and find the means to subsist: the other [the worker in the manufacturing system] is no more than an accessory who, separated from his fellows, no longer has any capacity or independence, and is forced to accept the law, which it is deemed appropriate to impose on him" (Storch *op. cit.* Petersb. edit. 1815, Vol. 1, p. 204).

42. A. Ferguson, *op. cit.*, Fr. trans. 1783, Vol. 2, pp. 135, 136. "The former may have gained what the latter has lost." [Editor's note: English original, p. 281.]

43. "The man of knowledge and the productive laborer come to be widely divided from each other: and knowledge, instead of remaining the handmaid of labor in the hand of the laborer to increase his productive powers, has almost every where arrayed itself against labor. . . . Knowledge being such an instrument, so capable of being detached from labor, and opposed to it" (W. Thompson, "An Inquiry into the Principles of the Distribution of Wealth. Lond. 1824," p. 274).

In the manufacturing system, the collective worker, or capital, becomes richer in social productive power only because the actual worker is made poorer in individual productive power. "Ignorance is the mother of industry as well as of superstition. Reflection and fancy are subject to err; but a habit of moving the hand or the foot is independent of either. Manufactures, accordingly, prosper most where the mind is least consulted, and where the workshop may [...] be considered as an engine, the parts of which are men."⁴⁴ In the mid-eighteenth century, in fact, some manufacturing workshops preferred to have half-idiots perform certain operations that, while simple, were also trade secrets.⁴⁵

"The understandings of the greater part of men," wrote Adam Smith, "are necessarily formed by their ordinary employments. The man whose whole life is spent in performing a few simple operations . . . has no occasion to exert his understanding. . . . He generally becomes as stupid and ignorant as it is possible for a human creature to become." Having described the specialized worker's stupidity, Smith continues, "The uniformity of his stationary life naturally corrupts the courage of his mind. . . . It corrupts even the activity of his body and renders him incapable of exerting his strength with vigour and perseverance in any other employments than that to which he has been bred. His dexterity at his own particular trade seems in this manner to be acquired at the expense of his intellectual, social, and martial virtues. But in every improved and civilized society, this is the state into which the laboring poor, that is, the great body of people, must necessarily fall."⁴⁶ How could a society prevent the division of labor from deforming the majority of its members? Smith recommended people's schools paid for by the state, although only in cautious, homeopathic doses. His French translator and commentator Germain Garnier,

44. A. Ferguson, op. cit. pp. 134, 135. [Editor's note: The English original is on p. 280 and runs more precisely ". . . where the workshop may, without any great effort of imagination, be considered as an engine. . . ."]

45. J. D. Tuckett, "A History of the Past and Present State of the Labouring Population. Lond. 1846," Vol. 1, p. 148.

46. A. Smith, "Wealth of Nations," Bk. V, Ch. 1, Art. 2. As a student of A. Ferguson, who explicated the harmful effects of the division of labor, Smith had no illusions about this point. In the introduction to his work, where he praises the division of labor *ex professo*, he notes only in passing that it leads to social inequality. It isn't until the fifth book, which deals with the "Revenue of the State," that he reiterates Ferguson's position. In my work *Misère de la Philosophie*, I gave a sufficient account of the historical relation among Ferguson's, Smith's, Lemontey's, and Say's respective criticisms of the division of labor. Furthermore, this account was the first one to portray the division of labor in the manufacturing system as a particular form of the capitalist mode of production (Marx op. cit. pp. 122ff.). [Editor's note: English edition, pp. 112-15.]

who, naturally, became a senator during the First Empire, was simply being consistent when he opposed that idea and inveighed against such schools. They would violate the first laws of the division of labor, according to Garnier. If they were established, “our whole social system would be proscribed.” “Like all other divisions of labour,” he wrote, “that between hand labour and head labour⁴⁷ is more pronounced and decided in proportion as society [he is right to use this word to denote capital, landed property, and the state that belongs to them] becomes richer. The division of labour, like every other, is an effect of past, and a cause of future progress . . . ought the government then to work in opposition to this division of labour, and to hinder its natural course? Ought it to expend a part of the public money in the attempt to confound and blend together two classes of labour which are striving after division and separation?”⁴⁸

Some degree of intellectual and physical deformation will inevitably result from the division of labor in society as a whole. But in the manufacturing period, this social fragmentation of the different branches of labor was pushed much further, and with its unique division of labor, the manufacturing system was the first to seize the individual by the very roots of his being. Thus, in another first, it also provided the material and impetus for the industrial pathology.⁴⁹

“To subdivide a man is to execute him, if he deserves the sentence, to assassinate him if he does not. The subdivision of labour is the assassination of a people.”⁵⁰

47. Ferguson had already said, “and thinking itself, in this age of separations, may become a peculiar craft.” [Editor’s note: English original, p. 281.]

48. G. Garnier, Vol. 5 of his translation of Adam Smith, pp. 2–5.

49. In 1713, Ramazzini, a professor of practical medicine at Padua, published “De morbis artificum,” which was translated into French in 1777; in 1841, it was reprinted in the “Encyclopédie des Sciences Médicales. 7me Div Auteurs Classiques.” Of course, this catalogue of workers’ diseases has greatly expanded in the period of large-scale industry. See, among other works, “Hygiène physique et morale de l’ouvrier dans les grandes villes en général et dans la ville de Lyon en particulier. By Dr. A. L. Fonteret. Paris 1858,” and “Die Krankheiten, welche verschiedenen Ständen, Altern, und Geschlechtern eigenthümlich sind. 6 Vols. Ulm 1840.” In 1854, the Society of Arts appointed a Commission of Inquiry to examine industrial pathology. The list of the documents it collected can be seen in the catalogue of the Twickenham Economic Museum. The official “Reports on Public Health” are especially important. See also Eduard Reich, M.D., “Über die Entartung des Menschen.” Erlangen 1868.

50. D. Urquhart, “Familiar Words. London 1855,” p. 119. Hegel developed some quite heretical ideas about the division of labor. In his philosophy of right, he states, “By educated people, we may initially understand those who. . . can do what others do.” [Editor’s note: English translation, G. W. F. Hegel, *Outlines of the Philosophy of Right*, trans. T. M. Knox (Oxford: Oxford University Press, 2008), p. 186.]

Cooperation based on the division of labor, i.e., cooperation in the form of the manufacturing system, emerged spontaneously. But once it had achieved a certain consistency and existed widely enough, it became the conscious, methodical, and systematic form of the capitalist mode of production. The history of the manufacturing system proper shows how that system's distinctive division of labor attained its most suitable forms through experience first—that is, behind the backs of the actors in this process. Then the system did what guild trades had once done: it tried to retain its form through tradition, succeeding for centuries in some cases. When its form did change in significant ways, the cause was invariably that the instruments of labor were revolutionized. The modern manufacturing workshop—I am not speaking here of large-scale industry, where production is driven by machines—either gets its *disjecta membra poetae* ready-made and waiting to be assembled, as in the production of clothes in large towns, or has an easy time applying the principle of division, simply assigning individual workers to a single operation in craft production (as in bookbinding, for example). In such cases, it can take less than a week to figure out the ratios of hands needed in the various functions.⁵¹

The division of labor in the manufacturing system splits up the different activities of craft labor: in so doing it multiplies the artisan's tools, forms specialized workers, groups and combines them to make up a total mechanism, and creates qualitative differentiation and quantitative proportionality in social processes of production, organizing social labor in such a way that it advances the new social productive power it gives to labor. As a specifically capitalist form of the social production process (and with its ready-made foundations, it couldn't have developed in any other kind of form), the manufacturing system's division of labor is simply a particular method for producing relative surplus-value or increasing capital's self-valorization—i.e., what is called social wealth, the “Wealth of Nations,” and so on—at the worker's expense. Not only does it develop labor's social productive power for the sake of the capitalist rather than the worker, but it develops that power by deforming individual workers. It remakes the conditions under which capital dominates labor. Hence even as this division of labor appears as an instance of historical progress and a necessary

51. The cozy belief that the individual capitalist activates an inventive genius *a priori* in the division of labor still exists only among German professors, such as Herr Roscher, who gratefully assigns “various wages” to the capitalist, from whose Jovian head the division of labor sprang fully formed. Whether the division of labor is more or less developed depends on the size of the purse behind it, not on whether genius is involved.

stage in society's economic development, it also appears as a means of civilized and sophisticated exploitation.

Political economy, which emerged as a branch of scholarship during the manufacturing period, is able to view the social division of labor only from the standpoint of the manufacturing system's division of labor,⁵² in other words, only as a means for producing a greater quantity of commodities with a given amount of labor in order to make commodities cheaper and accelerate the accumulation of capital. Political economists therefore stress the importance of quantity and exchange-value. The writers of classical antiquity do just the opposite, focusing exclusively on quality and use-value.⁵³ They hold that when the branches of social labor are separated, commodities are improved, since people choose occupations based on their individual drives and talents,⁵⁴ and something of significance can be accomplished only where limits are imposed.⁵⁵ The idea is

52. More effectively than A. Smith, earlier writers, such as Petty and the anonymous author of "The Advantages of the East India Trade," identified the capitalist character of the manufacturing system's division of labor.

53. Some eighteenth-century writers, such as Beccaria and James Harris, are exceptions among the moderns in that they nearly repeat what the ancients said about the division of labor. For example, Beccaria wrote, "Everyone learns through experience that if they repeatedly apply their hand and intelligence to the same kind of work and products, they find the results easier, more abundant, and better than if each individual did all necessary things for himself alone. . . . In this way men are divided into various classes and conditions for common and private benefit" (Cesare Beccaria, "Elementi di Econ. Publicca," ed. Custodi, Parte Moderna, Vol. II, p. 28). James Harris, later Earl of Malmesbury, and well known for the "Diaries" he wrote about his time as a diplomat in St. Petersburg, remarks in the notes to his *Dialogue Concerning Happiness*. London 1741, later reprinted in "Three Treatises etc., 3rd ed. London 1772": "The whole argument to prove society natural [that is, by the 'division of employments'] . . . is taken from the second book of Plato's republic."

54. For example, in the *Odyssey*, XIV, 228, we read, ἄλλος γάρ τ' ἄλλοισιν ἀνὴρ ἐπιτέρεται ἔργοις. "For different men take joy in different works." [Editor's note: Homer, *The Odyssey: Books 13-24*, trans. George E. Dimock and A. T. Murray (Cambridge: Harvard University Press, 1919), p. 53.] And there is also this statement by Archilochus, as quoted by Sextus Empiricus: ἄλλος ἄλλω ἐπ' ἔργω καρδίην ιαίνεται. "Men differ as to what things cheer their hearts." [Editor's note: Sextus Empiricus, *Against Physicists. Against Ethicists*, trans. R. G. Bury (Cambridge, MA: Harvard University Press, 1936), p. 407.]

55. πόλλ' ἠπίστατο ἔργα, κακῶς δ' ἠπίστατο πάντα. "He knew how to do a lot of things, but all of them badly." [Editor's note: A fragment from the apocryphal Homeric text *Margites*, in *Homeric Hymns, Homeric Apocrypha, and Lives of Homer*, ed. and trans. Martin L West, Loeb Classical Library 496 (Cambridge, MA: Harvard University Press, 2003), p. 246.] The Athenians believed themselves to be superior to the Spartans with regard to commodity production; the latter had men at their disposal in war, but not money, as Thucydides has Pericles say in the speech enjoining the Athenians to fight what would be known as the Peloponnesian War. σώμασι τε ἐτοιμότεροι οἱ ἀντουργοὶ τῶν ἀνθρώπων ἢ χρήμασι πολεμεῖν (Thuc. Bk. 1, para 141). [Editor's note: English translation "Men, too, who till their own lands are more ready to risk their lives in war than their property," in Thucydides, *History of the Peloponnesian War*, vol. 1, trans. C. F. Smith, Loeb Classical

that the division of labor makes for better products and better producers, too. Where growth in production is mentioned, what is at issue is always enlarging the supply of use-values. Not even a word is devoted to exchange-value and producing commodities less expensively. This standpoint, the standpoint of use-value,⁵⁶ governed Plato's outlook: he treated the division of labor as the foundation of the division of society into orders. It governed Xenophon's as well,⁵⁷ though with his characteristic bourgeois

Library 106 (Cambridge, MA: Harvard University Press, 1919), pp. 242–45.] Nevertheless, in material production, too, their ideal remained *αὐτάρκεια*, self-sufficiency, as opposed to the division of labor: *παρ' ὧν γὰρ τὸ εὖ, παρὰ τούτων καὶ τὸ αὐτάρκεις*. “For the latter group there is well-being, for the former there is self-sufficiency.” [Editor's note: Proclus's commentary on Plato's Alcibiades, first part, in Proclus, *Philosophi Platonici Opera Inedita*, ed. Victor Cousin (Frankfurt am Main: Minerva, 1962), p. 407.] Readers should note that when the thirty tyrants were deposed, fewer than 5,000 Athenians had no landed property.

56. In explicating the division of labor within a community, Plato proceeds from the diversity of wants and needs and the one-sidedness of individual capabilities. His chief view is that the worker must adapt himself to the work, not the other way around, and the latter scenario would be unavoidable if the worker were to practice many trades at once, thereby ensuring that some of them would be auxiliary activities. οὐ γὰρ οἶμαι ἐθέλει τὸ πραττόμενον τὴν τοῦ πράττοντος σχολὴν περιμένειν, ἀλλ' ἀνάγκη τὸν πράττοντα τῷ πραττομένῳ ἐπακολουθεῖν μὴ ἐν παρέργου μέρει. / ἀνάγκη. / ἐκ δὴ τούτων πλείω τε ἔκαστα γίνεται καὶ κάλλιον καὶ ῥᾶον, ὅταν εἷς ἐν κατὰ φύσιν καὶ ἐν καιρῷ, σχολὴν τῶν ἄλλων ἄγων, πράττη. “That, I take it, is because the business will not wait upon the leisure of the workman, but the workman must attend to it as his main affair, and not as a by-work.” “He must indeed.” “The result, then, is that more things are produced, and better and more easily when one man performs one task according to his nature, at the right moment, and at leisure from other occupations.” (Rep. Bk. 2, para. 2). [Editor's note: English and Greek in Plato's *Republic*, vol. 1, trans. Paul Shorey, Loeb Classical Library 237 (Cambridge, MA: Harvard University Press, 2013), p. 153, line 370b-c.] Thucydides says much the same thing, *op. cit.* para. 142. “Seamanship, like any other skill, is a matter of art, and practice in it may not be left to odd times, as a by-work on the contrary, no other pursuit may be carried on as a by-work to it.” [Editor's note: Thucydides, *History of the Peloponnesian War*. Greek not given in the original.] If the work has to wait for the worker, observes Plato, he will often miss the critical moment in the production process, thereby ruining the product. ἐργου καιρόν διόλλυται “[If someone misses] the right moment for the work, it is ruined.” [Editor's note: Plato, *Republic*, paraphrase of 370b.] We find this same Platonic idea in bleachers' protest against the clause in the Factory Act that established a fixed mealtime for all workers. Their industry cannot be set up according to what is convenient for the workers, the bleachers insist, because “in the various operations of singeing, washing, bleaching, mangling, calendering, and dyeing, none of them can be stopped at a given moment without risk of damage . . . to enforce the same dinner hour for all the workpeople might occasionally subject a valuable good to the risk of danger by incomplete operations.” *Le platonisme où va-t-il se nicher!* [Editor's note: The sentence in French means “where will Platonism be found next!”]

57. Xenophon says that not only is it an honor to be served dishes from the table of the King of Persia, but that his food is the most delicious one can find anywhere: “That this, however, should be so is no marvel. For just as all other arts are developed to superior excellence in large cities, in that same way the food at the king's palace is also elaborately prepared with superior excellence. For in small towns the same workman makes chairs and

instincts, he came closer to the division of labor in the workshop. Plato's *Republic*, insofar as it sees the division of labor as the shaping principle of the state, merely idealizes in Athenian fashion the Egyptian caste system. Other contemporaries, too (e.g., Isocrates⁵⁸), regarded Egypt as the model industrial nation, and it retained that status among the Greeks even during the Roman Empire.⁵⁹

During the manufacturing period proper, i.e., the period when the manufacturing system reigned as the dominant form of the capitalist mode of production, that system's distinctive tendencies ran up against obstacles on all sides, which prevented them from being expressed more fully. We have seen that when workers were organized hierarchically in the manufacturing workshop, they were also divided into the groups "skilled" and "unskilled." But due to the outsize influence of the first group, the number of workers in the second group remained very limited. Although the manufacturing system made its particular operations match the degree of experience, strength, and training of its living organs of labor, and thus sought to exploit women and children, the latter tendency failed on the whole to overcome the resistance and habits of adult male workers.

doors and plows and tables, and often this same artisan builds houses, and even so he is thankful if he can only find employment enough to support him. And it is, of course, impossible for a man of many trades to be proficient in all of them. In large cities, on the other hand, inasmuch as many people have demands to make upon each branch of industry, one trade alone, and very often even less than a whole trade, is enough to support a man: one man, for instance, makes shoes for men, and another for women; and there are places even where one man earns a living by only stitching shoes, another by cutting them out, another by sewing the uppers together, while there is another who performs none of these operations but only assembles the parts. It follows, therefore, as a matter of course, that he who devotes himself to a very highly specialized line of work is bound to do it in the best possible manner" (Xen. *Cyrop.* Bk. 1 VIII c. 2). [Editor's note: English translation, Xenophon of Athens, *Cyropaedia*, vol. II, trans. Walter Miller, Loeb Classical Library 52 (Cambridge, MA: Harvard University Press, 1914), p. 333.] Here Xenophon focuses exclusively on how quality is achieved in producing use-values; however, he already recognizes that the degree to which the division of labor advances depends on the dimensions of the market.

58. "He divided the people up . . . he directed that the same people should always practice the same occupations. He knew that those who change occupations do not master even one of the jobs in detail, but those who remain continuously in the same occupation do each one superbly. In consequence, we shall find that with regard to skills, the Egyptians excel over others with the same expertise more than other tradespeople excel over the unskilled. And as for the arrangement by which they preserve their kingship and the rest of their state, they do so well that the philosophers who attempt to discuss such things and are most highly regarded choose to praise the Egyptian state" (Isocr. *Busiris*, c. 7, 8). [Editor's note: English translation, *Isocrates I*, trans. David Mirhady and Yun Lee Too (Austin, TX: University of Texas Press, 2000), pp. 53-54.]

59. See Diod. Sic. [Editor's note: Marx is referring to Diodorus Siculus, *Library of History*, book 1.]

While the cost of training craft labor fell when labor was further divided, and thus the worker's value decreased as well, a long period of training was still required for the more difficult specialized occupations. Even where such training wasn't actually needed, workers ardently insisted on it. In England, for example, the laws of apprenticeship and the seven-year probationary period were still in full effect at the end of the manufacturing period: it wasn't until the era of large-scale industry that they were finally abolished. Because artisanal skill remained the foundational element in the manufacturing system, and the total mechanism functioning here had no objective framework independent of the workers, capital constantly had to push back against the workers' insubordination. "By the infirmity of human nature," explained our friend Ure, "it happens that the more skillful the workman, the more self-willed and intractable he is apt to become, and of course the less fit a component of a mechanical system in which . . . he may do great damage to the whole."⁶⁰ Thus the complaint that workers lacked discipline resounded through the whole manufacturing period.⁶¹ Even if we didn't have the testimony of contemporary writers, we would have a couple of simple facts that speak volumes: first, from the sixteenth century until the epoch of large-scale industry began, capital tried but failed to seize control of all the disposable labor-time of the workers in the manufacturing system, and, second, manufacturing enterprises were short lived. Capitalists often had to abandon a workshop in one country and rebuild it in another because workers had immigrated or emigrated. "Order must be established in one way or another," declared the much-cited author of the "Essay on Trade and Commerce." "Order," echoed Dr. Andrew Ure sixty-six years later, was sorely missing in the system of manufacturing, which was based on "the scholastic dogma of the division of labor," and "Arkwright created order."^{ix}

At the same time, the manufacturing system managed neither to encompass social production in its entirety nor to revolutionize it to its core. Relying on the broad foundation of urban craft labor and rural domestic industries, the manufacturing system rose up as a kind of economic work of art, but once it evolved to a certain point, a contradiction developed. The very production needs that it created became incompatible with its narrow technical foundation.

One of its most advanced creations was the workshop where the instruments of labor were produced, especially the complex mechanical

60. Ure op. cit. Vol. 1, pp. 30, 31. [Editor's note: English original, p. 20.]

61. What the body of the text says here holds more for England than for France, and more for France than for Holland.

apparatuses that were already being used at the time. “A machine-factory,” says Ure, “displayed the division of labor in manifold gradations—the file, the drill, the lathe, having each its different workmen in the order of skill.” This workshop, the product of the manufacturing system’s division of labor produced, in turn . . . *machines*. And they would supplant craft activity as the governing principle of social production, thereby sweeping aside the technological reason for permanently conscripting a worker into a specialized function, while also collapsing the barriers that the principle of craft labor had put in the way of capital’s domination.

Machinery and Large-Scale Industry

I. How Machinery Developed

In his *Principles of Political Economy*, John Stuart Mill writes, “It is questionable if all the mechanical inventions yet made have lightened the day’s toil of any human being.”^{1,i} That, however, is hardly the goal when machines are used in capitalist production.ⁱⁱ Like everything else that was created to increase the productive power of labor, machinery is supposed to make commodities less expensive, and thereby shorten the part of the workday the worker needs for himself, in order to extend the workday’s other part—the part the worker gives the capitalist for free. Machinery is a means of producing surplus-value.

When the mode of production is revolutionized in the manufacturing system, labor-power is the starting point; but when it is revolutionized in large-scale industry, its transformation begins with the means of labor. So first we will examine how a means of labor ceases to be a tool and becomes a machine, or how a machine differs from the tools a craftsman works with. Only broad and general characteristics matter here, for there aren’t strict, abstract boundaries separating historical epochs any more than there are for geological eras.

Mathematicians and engineers make the claim (which English political economists sometimes repeat) that a tool is just a simple machine, and a machine is just a complex tool. They see no essential difference between the two things: they even apply the label “machine” to such simple mechanical devices as levers, inclined planes, screws, wedges, and so on.² Every machine is in fact made up of simple devices, however disguised or

1. Mill should have said, “of any human being not fed by other people’s labour,” for machinery has without question greatly increased the number of elegant loafers.

2. See, for example, “Hutton’s Course on Mathematics.” [Editor’s note: This refers to Charles Hutton, *A Course in Mathematics in Two Volumes composed for the use of the Royal Military Academy* (London: Longman, Reese, 1836).]

combined. Yet from an economic standpoint, this explanation doesn't help us at all, since it lacks a historical component. According to another line of thought, the key difference is that tools get their motive force from human beings, whereas machines are powered by nonhuman natural forces: animals, water, wind, and so on.³ From this it would follow that the plow pulled by an ox, something common to diverse epochs of production, is a machine, but Claussen's circular loom is merely a tool, even though it can weave 96,000 picks per minute when powered only by the hands of a single worker. One and the same loom would be a tool when powered by human hands but a machine when powered by steam; and since harnessing the power of animals is one of humanity's oldest inventions, the use of machines in production would actually predate handicraft production. When John Wyatt introduced his spinning machine in 1735, launching the eighteenth century's industrial revolution, he didn't mention that a donkey rather than a person would supply the power, yet that role did fall to a donkey. A machine "to spin without fingers" is how he phrased it.⁴

All advanced machinery is made up of three fundamentally different parts: the motive mechanism, the transmitting mechanism, and, finally,

3. "From this point of view, it is also possible to strictly distinguish between tools and machines. Spades, hammers, chisels, etc., combinations of levers and screws—any case where no matter how complex a device is, human beings provide motive force . . . should be categorized as a tool. But the plow, relying as it does on animal power, as well as wind mills and so on, count as machines" (Wilhelm Schulz, "Die Bewegung der Produktion. Zürich, 1843," p. 38). In some respects, this is a praiseworthy work.

4. Even before Wyatt, machines, albeit rudimentary ones, were used for spinning, a practice that likely began in Italy. A critical history of technology would show how little any eighteenth-century invention should be attributed to a single individual. Currently, no such work exists. Darwin has drawn our attention to the natural history of technology—i.e., the development of plant and animal organs as the instruments for producing their respective lives. Shouldn't we devote just as much attention to how the productive organs of human beings in society developed historically—that is, how the material basis of every organization of society developed historically? And wouldn't this history be easier to write, since, as Vico says, what distinguishes human history from natural history is that we make the one but not the other? Technology reveals the active relation of human beings to nature, or the process whereby their lives are directly produced. In doing so, it also reveals the process through which the social relations of their lives—and the intellectual creations that arise from those relations—are brought about. Even a history of religion that abstracts from this material basis is . . . *uncritical*. In truth, it is much easier to discover the foggy creations of religion by analyzing the earthly kernel than it is to proceed the other way around: i.e., to begin with the actual, existing relations of life and, proceeding from them, explicate their heavenly forms. The latter approach is the only materialist and therefore truly systematic method. Just by looking at the abstract and ideological notions that its spokesmen express as soon as they stray from their expertise, we see the shortcomings of the abstract materialism of natural science, a method that excludes the historical process.

the tool machine or working part of the machine. The motive mechanism powers the entire machine. In some cases—for example, the steam engine, the calorie machine, and the electromagnetic machine—it produces its own motive force. In all other cases, the motor gets its power from an external natural force—a waterwheel is powered by the natural movement of water, a windmill is powered by the wind, and so on. The transmitting mechanism is an assemblage of flywheels, shafts, toothed wheels, pulleys, straps, ropes, bands, and all kinds of gears. It serves to control the machine's movement, changing the form of that movement whenever necessary—e.g., from linear to circular; it also distributes that movement, conveying it to the tool machinery. The first two parts of the mechanism exist only to move to the last part, which acts upon an object of labor and purposefully alters it. It was with this part, namely, the tool machinery, that the industrial revolution began in the eighteenth century. Its function as a starting point is still being renewed every day, or whenever craft labor and manufacturing workshops are transformed into machine-driven industry.

If we take a closer look at a working machine, we will see that here, as a rule, the tools and devices used by craftsmen and manufacturing workers reappear, although often in an extensively modified form. Furthermore, they are now not tools for a human being, but rather tools for a mechanism: mechanical tools. Either the whole machine is just a mechanical version of a traditional artisan's tool that has been altered to a greater or lesser degree—for example, the power loom⁵—or the working organs attached to the frame of the machine are our old friends, such as spindles in a spinning machine, needles in a stocking loom, saw blades in a power saw, or knives in a chopping machine. The difference between these tools and the main body of the working machine extends all the way to how they are born. In general, the tool parts are still produced by artisanal labor or in the manufacturing workshop, and only afterward are they attached to the bodies of working machines that are themselves produced by machines.⁶ A tool machine is thus a mechanism that, upon being set in

5. This is especially the case with original form of the power loom, in which we can immediately recognize the old loom. Only in its modern form does the power loom look fundamentally different.

6. In England, machines have been used to make an ever-increasing portion of these tools of the working machines only over the past 15 years or so, and the people who produce the actual working machines don't also make their tools. Some examples of the machines employed to make tools for other machines: the automatic bobbin-making engine, the card-setting engine, shuttle-making machines, and machines for forging mule and throstle spindles.

motion, uses tools to carry out the very same operations a worker once performed with similar tools. Whether its motive force comes from a human being or another machine makes no difference here. The moment that a tool is removed from a person's hands and mounted as part of a mechanism, a machine has taken the place of a mere instrument. The change jumps out at us right away, even when human beings are functioning as the machine's first motive mechanism. A person's natural instruments of production, i.e., his own physical organs, limit the number of instruments of labor he can wield at the same time. In Germany, spinners were initially made to work two spinning wheels simultaneously, which meant working with both hands and both feet; but that proved too strenuous. Later, the treadle spinning wheel with two spindles was invented, but virtuoso spinners who could spin two threads at once were about as common as two-headed people. The Jenny, however, spun with 12–18 spindles even in its earliest form; the stocking loom knitted with many thousands of needles operating at the same time; and so on. From the start, tool machines were freed from the organic constraints that limit the number of tools a worker can handle.

With many manual tools, the difference between a person's functions as the mere supplier of the motive force and as the worker who actually uses the instrument is marked by a physical separation. Take, for example, the spinning wheel. The worker's foot acts only as a motive force, pumping the footpedal, while his hand pulls and twists, carrying out the real operation of spinning. It was the latter part of the craftsman's tool that the industrial revolution took control of first, leaving the human worker to perform the new labor of using his eyes to oversee the machine and his hands to fix its mistakes while, above all, he still played the purely mechanical role of supplying the motive force. In contrast, where human workers had always done nothing but provide that force—say, by turning the crank of a mill,⁷ pumping, moving the arm of a bellows up and down, pounding with a mortar, and so on, animals, water, or wind⁸ were soon

7. Moses of Egypt said, "You shall not muzzle an ox while it is treading out the grain." [Editor's note: Deuteronomy 25:4.] But Christian German philanthropists put a wooden board around the necks of the serfs they employed for grinding, so that the latter wouldn't be able to put grain in their mouths using their hands.

8. What compelled the Dutch to use wind as a motive force was in part that they lacked streams with a sufficient fall, and in part that they had to struggle against excess bodies of water. They borrowed the model for their windmills from Germany, where this invention prompted quite a fight, in which the nobility, clergy, and the Emperor were pitted against one another. At issue was which of the three the wind "belonged to." The line "the air makes you a slave" resounded in Germany as the wind was making Holland free. What was made

employed to drive a device's movement. Partly within the manufacturing period, partly (if also sporadically) long before it, such devices rose to the level of machines, but they didn't revolutionize the mode of production. That they were machines even when they were still a craftsman's tools became apparent during the period of large-scale industry. For example, the pumps that the Dutch used to empty the Lake of Harlem (in 1836-37) were built according to the same principle as ordinary ones, the sole difference being that their pistons were powered by gigantic steam engines instead of human hands. In England, the blacksmith's ordinary and crude bellows has sometimes been turned into a blowing engine simply by connecting its arm to a steam engine. The steam engine was invented at the end of the seventeenth century, or during the manufacturing period, and early forms of it even existed until the 1780s without bringing about an industrial revolution.⁹ In fact, the reverse happened: the creation of tool-wielding machinery made it necessary to revolutionize the steam engine. The moment that a human being starts to function merely as a tool machine's motive force, instead of acting upon the object of labor with his own tool, it becomes accidental whether human muscle supplies the machine's force or water, wind, or steam does. But this hardly means that such a shift won't lead to major technological changes in a mechanism originally designed to run on human muscle alone. Nowadays, almost all genuinely new machines, such as the sewing machine and the bread-making machine, are made to run on both human and purely mechanical motive forces. The exceptions are machines with particular features that prevent them from being used on a small scale.

As the starting point of the industrial revolution, the machine took the place of the worker. A person who handled just one tool was replaced by a mechanism wielding many similar tools simultaneously and powered by a single motive force of whatever type.¹⁰ Here we have the machine, but only as a simple element in machine-driven production.

A machine that has been enlarged and wields more tools at the same time needs a larger mechanism to supply its movement. In addition, for

unfree in Holland wasn't the Dutchman himself, but rather the land, and it was for the Dutchman that it was subjected to bondage. As late as 1836, 12,000 windmills with 60,000 horsepower were used to prevent two-thirds of the country from being transformed back into a bog.

9. It was improved a great deal by Watt's first so-called single-acting engine, but even in this form it was still simply a machine for raising water and brine.

10. "The union of all these tools, actuated by one moving power, constitutes a machine" (Babbage op. cit. p. 136).

an enlarged motive mechanism to overcome its own inertia, the force that drives it has to be more powerful than human beings can be (to say nothing of the fact that when it comes to producing continuous, uniform movement, human beings leave much to be desired). Once a tool machine has replaced the worker's tool, and a human worker functions only to supply the motive force, natural powers can take his place there, too. Of all the great motive forces handed down from the manufacturing era, horsepower is the worst. For one thing, a horse has a mind of its own, and for another, horses are expensive and can be used in factories only to a limited extent.¹¹ Yet horses were often put to work during the infancy of large-scale industry. Both the jeremiads of the agronomists of that time and the term for mechanical power still current today, "horsepower," testify to this use. Wind, for its part, was too unsteady and hard to control, and, moreover, waterpower predominated in England, the birthplace of large-scale industry, even during the manufacturing period. As early as the seventeenth century, attempts were made to turn two pairs of millstones with a single waterwheel. But the enlarged transmitting mechanism proved to be too much for the waterpower—one of the factors that led people to analyze friction more precisely. Likewise, the uneven effects of motive forces on mills set in motion by pushing and pulling a lever led to the theory—and also the use—of the flywheel,¹² an invention that went on to play a very important role in large-scale industry. Thus it happened that the first scientific and technological elements of large-scale industry

11. In December of 1859, with the Society of Arts as his audience, John C. Morton read a paper titled "The Forces Employed in Agriculture." Here he states, "Purely mechanical force may be more extensively used with nearly every permanent improvement of the land which tends to give uniformity to its condition, and is supplied by the steam-engine. . . . Horsepower is required wherever crooked hedge-rows and other obstacles prevent uniform action. These obstacles are constantly diminishing. In operations requiring more exercise of will, but less actual power, the only competent force is directed from moment to moment by the human mind—manual labour." Mr. Morton then proceeds to reduce steam power, horsepower, and manpower to the unit generally used for steam engines: the force required to lift 33,000 pounds one foot in one minute, and he calculates the cost of one horsepower from a steam engine to be 3d. per hour and from a horse to be 5½d. In addition, a horse won't remain healthy if it works more than eight hours a day. With steam power, one can replace at least three out of every seven horses used on farmed lands during the year, at a cost no greater than that of the three horses during those three or four months when they can be worked to good effect. Finally, compared with horsepower, a better product is produced where steam power can be used in agriculture. Sixty-six workers would be needed to do the work of one steam engine, at a total cost of 15 shillings an hour, and thirty-two workers would be needed to do the work of a horse, at a total cost of 8 shillings an hour.

12. Faulhaber 1625, De Cous 1688.

were developed during the manufacturing period. Water always served as the motive force for Arkwright's throstle-spinning mill; yet relying on waterpower as the main motive force made for certain difficulties. The flow of water couldn't be increased as needed, and thus insufficient flow, which occurred during certain seasons, was hard to remedy. Above all, it was by nature local.¹³ Not until Watt invented the so-called dual-acting steam engine was there a motor that could produce its own motive force by consuming coal and water; that could give its users full control over the power output; that was mobile and could serve as a means of locomotion; that could be urban, unlike the rural waterwheel, making it possible to concentrate production in towns, whereas the rural waterwheel had meant production had to be scattered throughout the countryside;¹⁴ and that was of universal technological applicability. Finally, local circumstances played a relatively small role in determining where Watt's motor resided. Watt's great genius was displayed in the specification written into his patent of April 1784, which presented his steam engine not as an invention meant to achieve particular ends but as an agent that would generally advance large-scale industry. He pointed to various applications, some of which wouldn't be introduced for another fifty years—for example, the steam-hammer. However, Watt also doubted that his engine could be used to power ships and was of course wrong. At London's Industry Expo of 1851, his successors, Boulton and Watt, exhibited their colossal steam engine for ocean steamers.

Once the tools of a human organism were transformed into the tools of a mechanical apparatus, i.e., the tool machine, the motive mechanism also acquired its own independent form—a form not held back at all by the limits of human strength. As a result, the individual tool machine we have been examining sank in stature, becoming a mere element in machine-driven production. Now a single motive mechanism could power many working

13. The modern invention of turbines has allowed the industrial exploitation of water to overcome many of the things that formerly held it back.

14. "In the early days of textile manufacturers, the locality of the factory depended upon the existence of a stream having a sufficient fall to turn a water wheel; and, although the establishment of the water mills was the commencement of the breaking up of the domestic system of manufacture, yet the mills necessarily situated upon streams, and frequently at considerable distances the one from the other, formed part of a rural rather than an urban system; and it was not until the introduction of the steam-power as a substitute for the stream, that factories were congregated in towns and localities where the coal and water required for the production of steam were found in sufficient quantities. The steam-engine is the parent of manufacturing towns" (A. Redgrave in "Reports of the Insp. of Fact. 30th April 1860," p. 36).

machines at the same time. The motive mechanism grew in step with the number of working machines being powered simultaneously, and the transmitting mechanism became an extensive apparatus.

We now have to distinguish between cooperation involving many machines of the same kind and a system of machines.

In the one case, a single machine drives the entire process of production, executing all the different operations that a craftsman once performed with a single tool (say, a weaver with a loom), or that multiple craftsmen once performed one after the other using different tools, either independently or in a manufacturing workshop.¹⁵ Take the production of envelopes in the modern manufacturing system. One worker folded the paper with the folder, another applied the gum, a third turned over the flap on which the emblem was impressed, a fourth embossed the emblem, and so on. Before each specialized operation could be carried out, each individual envelope had to change hands. A single envelope machine now performs all the operations at once, and it can make more than 3,000 envelopes in an hour. On display at the London Industry Expo of 1862 was an American machine that produces paper cornets. It cuts the paper, pastes it, and folds it, turning out 300 units per minute. A total process that the manufacturing system divided into a series of operations is carried out here by a single working machine that combines different tools. Such a machine might be just a complex manual tool reborn as a mechanical mechanism, or it could be a combination of different simple instruments that the manufacturing workshop adapted to particular tasks. Either way, simple cooperation reappears in the factory—i.e., a workshop based on machine-driven production, and if we disregard the actual workers, it reappears above all as a conglomeration of similar working machines in use at the same time and in the same space. Thus a weaving factory is made up of many mechanical looms operating side by side, and a sewing factory is made up of many sewing machines placed next to one another in the same building. However, there is a technological unity because the many identical working machines are driven by the heartbeat of a shared

15. From the standpoint of the division in the manufacturing system, weaving isn't a simple form of craft labor, but rather a complex one, and thus the loom is a machine that does a wide variety of things. It is quite wrong to think that modern machinery first takes hold of operations that have been simplified by the division of labor in the manufacturing system. During the manufacturing period, spinning and weaving were split up into new types, and their tools were improved and diversified, but the labor process itself wasn't divided in any way and remained artisanal. Labor isn't the machine's starting point: the means of labor are.

prime mover, whose force is imparted to them simultaneously and in equal amounts by a transmitting mechanism that they also share, at least to some extent, since its means of conveying movement branch off to each working machine. Just as multiple tools constitute the organs of a working machine, so multiple working machines are now simply the identical organs of a single motive mechanism.

In this case, a true system of machines hasn't replaced the independent individual machine. For that to happen, an object of labor has to pass through a series of connected, graduated processes that are executed by a chain of diverse yet complementary tool machines. The manufacturing system's signature form of cooperation—cooperation based on the division of labor—reappears, but as a combination of machines that perform specialized tasks. The specific tools of different specialized workers—for example, beaters, combers, shearers, and spinners in the production of wool—now become the tools of specialized machines, each of which operates within a system of combined tool machines and serves as the particular organ of a particular function. In the branches of industry where the machine system is introduced first, the manufacturing system generally provides a natural foundation for dividing, and thus organizing, the production process.¹⁶ Yet an essential difference emerges right away. In the manufacturing system, a worker, whether on his own or with a group, has to carry out a particular specialized process using a manual tool. We can therefore say that the process appropriates the worker, but prior to this, it had to be adapted to him. This human principle in dividing labor has no place in machine-driven production. Here the whole process is oriented around things and

16. Prior to the epoch of large-scale industry, wool manufacturing was the dominant branch of the manufacturing system in England. Thus during the first half of the eighteenth century, it was there that most experiments took place. The cotton that required less effort to prepare because of mechanical preparation benefited from the experience gained with sheep's wool, just as, later, the reverse happened, and the mechanical wool industry developed on the foundation of mechanical cotton spinning and weaving. Certain individual elements of wool manufacturing weren't incorporated into the factory system until the past decades—for example, wool combing. "The application of power to the process of combing wool . . . extensively in operation since the introduction of the 'combing machine,' especially Lister's . . . undoubtedly had the effect of throwing a very large number of men out of work. Wool was formerly combed by hand, most frequently in the cottage of the comber. It is now very generally combed in the factory, and handlabour is superseded, except in some particular kinds of work, in which hand-combed wool is still preferred. Many of the handcombers found employment in the factories, but the produce of the handcomber bears so small a proportion to that of the machine, that the employment of a very large number of combers has passed away" ("Rep. of Insp. of Fact. for 31st Oct. 1856," p. 16).

considered in and for itself, and it is broken down into its constitutive stages, while the technological problems of how to execute each specialized process and link the different specialized processes together are solved by applying knowledge from mechanics, chemistry, and so on¹⁷—although, as elsewhere, theoretical concepts have to be complemented by practical experience accumulated on a large scale. Every specialized machine provides the next machine in the system with its raw material, and since the machines are all in use at the same time, the product is always being worked on at some stage of its production and always going from one stage to another. And just as the direct cooperation of specialized workers in the manufacturing workshop establishes definite ratios of the workers needed in different groups, so the specialized machines in an organized system, where one machine is constantly being put to work by another, establish a definite ratio of the machines needed, as well as what their sizes and speeds have to be. The combined working machine is now an organized system made up of different kinds of working machines, either individual machines or groups of them, and the system becomes all the more perfect the more continuous the total process is, or the less often the raw material is interrupted as it is passed from the first stage of its production to the last. In other words, the system is perfected the more that machines rather than human hands transport the raw material from one stage of production to another. If the principle of isolating different specialized processes goes with the division of labor in the manufacturing system, a key principle in the fully developed factory is, in contrast, the continuity of specialized processes.

Whether a system of machines is based on the cooperation of identical machines, as in weaving, or a combination of different kinds of machines, as in spinning, it becomes a giant automaton the moment it is driven by a self-acting prime mover. Of course, even where a whole system of machines is driven by, say, a steam engine, individual tool machines might need a worker's help for certain movements. Before the self-acting mule was invented, a worker had to help insert the mule carriage, and he still has to do that in fine-spinning mills. Or a worker might have to manipulate some parts of a machine as though they were hand tools in order for the machine to perform its work: this happened in machine-making work-

17. "The principle of the factory system, then, is to substitute . . . the partition of a process into its essential constituents for the division or graduation of labour among artisans" (Ure op. cit. Vol. 1, p. 30). [Editor's note: English original, p. 20.]

shops before the slide-rest was turned into a self-actor. But once a working machine no longer needs human help to complete all the movements that transform its raw material, once it requires only incidental assistance, we have an automatic system of machines whose individual components can always be improved. The apparatus that immediately shuts off a spinning machine whenever the silver breaks is thus a very modern invention, as is the self-acting stop that shuts off the improved steam loom whenever the shuttle bobbin runs out of weft. The modern paper factory exemplifies both the continuity of production and the way the automatic principle has been implemented. In fact, paper production supplies us with rich material for studying in detail both the differences between modes of production that are based on different means of production and the connection between those modes and the social relations of production. For the old German papermaking trade is a model of artisanal production, while paper production in seventeenth-century Holland and its counterpart in eighteenth-century France are models of the actual manufacturing system, and in modern England, papermaking is a model of automatic production. Moreover, in China and India two distinct ancient Asian forms of this industry still exist.

Machine-driven industry in its most advanced form operates as an organized system of working machines whose motive force is imparted from an automatic center solely by the transmitting mechanism. The individual machine has been replaced by a mechanical monster whose body fills an entire factory building and whose demonic power, obscured at first by the measured, almost solemn movements of its gigantic parts, is now on display in the wild, whirling, feverish dance of its countless working organs.

There were mules and steam engines before there were workers whose sole occupation was to produce mules, steam engines, and so on—just as people wore clothes before there were tailors. But the machines invented by figures such as Vaucanson, Arkwright, and Watt could be implemented only because the manufacturing period supplied each inventor with a large quantity of skilled mechanical workers. Some of those workers were independent artisans who had practiced different trades. Others had been grouped together in the manufacturing workshop, where, as mentioned, the division of labor was particularly strict. As new inventions proliferated, and the demand for newly invented machines grew, machine production split off more and more into diverse independent branches, while, at the same time, labor was increasingly divided in the manufacturing workshops

that built the machines. So it is here, in the manufacturing workshop, that we find the immediate technological foundation of large-scale industry. The manufacturing system produced the very machines that large-scale industry used to supplant the artisanal and manufacturing systems in the spheres of production it took over first. Machine-driven production thus arose spontaneously on a material foundation that was poorly suited to meet its needs. Once it became more advanced, it had to revolutionize that foundation and create one more compatible with its own mode of production, although its original, ready-made foundation did evolve somewhat in its old form during the early part of large-scale industry's rise. Just as the individual machine remained a dwarf as long as it was powered by human beings, and just as systems of machines couldn't evolve freely until natural motive forces—animals, wind, and water—were replaced by the steam engine, just so, the development of large-scale industry was held back in every way when its characteristic means of production, the machine itself, owed its existence to personal power and skill—i.e., when the production of machines took place outside large-scale industry and turned on how well trained human muscles were, how sharp a person's vision was, and how skillful artisans and specialized workers in the manufacturing system were in handling their dwarf's instruments. Aside from the fact that producing machines by hand is expensive (a consideration that has weighed decisively on capital), all that determined how much industries already driven by machines could expand, as well as the extent to which machines could take over new branches of industry, was how much a category of semiartistic workers could grow, and given the nature of the workers' occupations, that category could be added to only gradually—not by leaps and bounds. But once large-scale industry developed to a certain point, it also began to conflict with the technological foundation that it had taken from artisanal labor and the manufacturing workshop. Motive mechanisms, transmitting mechanisms, and working machines were enlarged. Their components became more numerous and complex, and more standardized, too, as working machines came to be built more and more according to new models, not the ones used in the artisanal system, and acquired an independent form determined only by their mechanical task.¹⁸ The automatic system developed further, while materials that are

18. The first power loom was primarily a device made of wood. The modern, improved form is fashioned mostly from iron. At first, the old form of a means of production shaped its new form; among other things, the most superficial comparison between the modern power loom and the old one, or between modern blowing tools in iron foundries and the

difficult to work with, such as iron instead of wood, couldn't be avoided in the same way as before. On all sides, attempts to solve these spontaneously arising problems ran up against the human limitations that even the combined worker in the manufacturing workshop could only partly overcome. Such machines as the modern hydraulic press, the modern power loom, and the carding machine could never have been made within the manufacturing system.

When the mode of production is revolutionized in one sphere of industry, it has to be revolutionized in others as well. This holds above all for branches of industry that interlock as stages of a total process, despite being so isolated by the social division of labor that each produces an independent commodity. Thus machine spinning necessitated machine weaving, and together they necessitated the mechanical-chemical revolution in bleaching, printing, and dyeing. Thus, too, massive change in the cotton industry called forth the invention of the gin, which separates the seeds from the fiber and has enabled cotton producers to operate on the large scale that the present day requires.¹⁹ In addition to this, when the mode of production was revolutionized in industry and agriculture, it became necessary to revolutionize the general conditions of the social process of production. The means of communication and transportation, for instance, were once created for a society where small-scale agriculture and its domestic subindustries and urban craft trades were the "pivot," to borrow Fourier's phrase. Those means couldn't begin to satisfy the production needs of the manufacturing period, with its expanded division of labor, concentration of the means of labor and workers, and colonial markets. Similarly, the means of transportation and communication handed down from the manufacturing

ponderous first mechanical reproduction of the ordinary bellows, illustrates the extent of this influence. But what illustrates it perhaps best of all is an attempt to produce a locomotive that played out before the current one was invented. The attempted version had two feet that it lifted up one at a time: it moved like a horse. Only after mechanics had developed much further and more practical experience had been accumulated did the forms of machines come to be fully determined by mechanical principle—and were thus fully emancipated from the traditional forms of tools that were now turned into machines.

19. Until recently, the original cotton gin invented by the Yankee Eli Whitney underwent fewer fundamental changes than any other machine invented in the eighteenth century. Only in the past few decades has it been rendered out of date by a simple and effective improvement, which is the work of another American—Mr. Emery of Albany, New York.

period quickly became an unacceptable drag on large-scale industry, which operates at a feverish pace and on a massive scale, constantly thrusts quantities of capital and workers from one sphere of production to another, and creates many new connections through the world market. The communications and transportation industries were therefore gradually adapted to large-scale industry's mode of production through a system of river steamships, railroads, ocean steamships, and telegraphs (to say nothing of how shipbuilding itself was completely revolutionized). However, the frightful quantities of iron that now had to be forged, welded, cut, bored, and molded required, for their part, gargantuan machines—machines the manufacturing system simply couldn't make.

Large-scale industry had to take over the production of its characteristic means of production, the machine, using machines to build machines. In this way, it created the first technological foundation that was equal to its needs and thus began to stand on its own two feet. As machine-driven industry expanded in the first decades of the nineteenth century, it gradually took over the production of the tool machines themselves. Yet only during the past few decades has the immense scale of construction in the railroad and shipping industries called forth the mechanical behemoths that now produce motive mechanisms.

The most essential condition for making machines with machines is a motive mechanism whose output of power is both limitless and easy to control. Such a mechanism already existed: the steam engine. But there was also a need for machines that could produce the precise geometrical shapes—lines, planes, circles, cones, and spheres—that the individual parts of machines require. Henry Maudslay solved this problem in the first decade of the nineteenth century when he invented the slide-rest. It soon became automatic and in a modified form was used to do things beyond its original purpose (namely, to make lathes), such as produce a variety of construction machines. This mechanical device didn't replace some particular tool, but rather the human hand, which creates a given form by holding, tracing, and guiding the blade of cutting instruments along or above the material being worked on, e.g., iron. The geometrical shapes of the individual parts of machines could now be produced "with a degree of ease, accuracy, and rapidity, that no amount of experience could have imparted to the hand of the most expert workman."²⁰

20. "The Industry of Nations Lond. 1855," Part II, p. 239. It says there on the very same page, "Simple and outwardly unimportant as this appendage to lathes may appear, it is not, we believe, averring too much to state, that its influence in improving and extending the

Let us turn to the actual tool machine of the machines used to produce machines. The artisan's tool reappears here, only now as a colossus. For example, the tool component in the drilling machine is a gigantic drill that is driven by a steam engine but that makes it possible in turn to produce the cylinders of large steam engines and hydraulic presses. The machine lathe is the ordinary foot lathe reborn with the strength of a Titan. The planing machine is an iron carpenter that works on iron with the same tools a carpenter uses on wood. The tool that cuts veneers on London's wharves is an enormous razor. The tool part of a shearing machine, which cuts iron just as easily as a tailor's scissors cut cloth, is a huge pair of scissors. And while the head of a steam hammer is just an ordinary hammer head, it is so heavy that Thor himself couldn't swing it.²¹ One type of these steam hammers, which were invented by Nasmyth, weighs more than six tons and strikes with a vertical fall of seven feet on an anvil weighing 36 tons. Pulverizing a granite block is child's play for it, but it is no less capable of driving a nail into soft wood with a series of light blows.²²

When means of labor become machines, they take on a material mode of being that makes it necessary to replace human strength with natural forces and to replace traditional practices with the conscious application of natural science. In the manufacturing system, the organization of the social labor process is purely a matter of organizing people: it amounts to combining specialized workers. In the machine system, in contrast, large-scale industry has an organism of production that is wholly made up of things, and that the worker encounters as an already finished material condition of production. In simple cooperation, and even where cooperation has become specialized through the division of labor, the associated worker's supplanting of the isolated worker still appears as more or less accidental. But apart from a few exceptions (to be mentioned later), machinery can function only in the hands of directly associated labor, or labor in common. The cooperative character of the labor process is now a technological necessity dictated by the nature of the means of labor.

use of machinery has been as great as that produced by Watt's improvements of the steam-engine itself. Its introduction went at once to perfect all machinery, to cheapen it, and to stimulate invention and improvement."

21. Used for forging paddle-wheel shafts in London, one of these machines has in fact been given the name "Thor." It forges a shaft weighing 16½ tons as easily as a blacksmith forges a horseshoe.

22. Of the woodworking machines that are capable of small-scale use, most were invented in America.

2. How Machinery Transfers Value to the Product

We have seen that the productive powers arising from cooperation and the division of labor don't cost capital a thing. They are natural forces of social labor. Other natural forces that can be appropriated for productive processes—steam, water, and so on—don't cost anything either. But just as a human being needs a lung in order to breathe, so he needs “something that has been formed by human hands” in order to consume natural forces productively. He needs a waterwheel to exploit the motive force of water; he needs a steam engine to exploit the elasticity of steam. What holds for natural forces holds for science as well. Once laws have been discovered, such as that a magnetic needle is deflected in the field of an electric current, or that iron is magnetized by electricity, they can be used free of charge.²³ But before someone can actually exploit these laws for telegraphy and so on, he needs to have a very expensive and elaborate apparatus. As we know, machines don't in fact supplant tools. What happens instead is that the latter increase in size and number: the dwarf instruments made for the human organism become the tools human beings make for machines. Capital now has the worker work with a machine that wields tools rather than with manual tools themselves. We can therefore see at a glance that large-scale industry dramatically increases labor's productivity by incorporating immense natural forces and natural science into the production process, but it is harder to recognize that this enhanced productive power doesn't come at the cost of greater expenditures of labor. Like all other elements of constant capital, machinery creates no new value: it transfers its value to the article it serves to produce. Insofar as machines have value, and thus transfer value to a product, they are a component of the product's value. Instead of rendering the product less expensive, machines make it more expensive in proportion to their own value. And it is obvious that machines and the machinery integrated into a system, i.e., large-scale industry's characteristic means of labor, contain vastly more value than the means of labor used by artisans or in the manufacturing workshop.

23. Science and systematic scholarship cost the capitalist “nothing,” which hardly stops him from exploiting them. He incorporates the knowledge of “others” into capital, just as he does with the labor of others. “Capitalist” appropriation and “personal” appropriation, whether of science or material wealth, are two very different things. Dr. Ure himself bemoans how crudely ignorant of mechanics his precious machine-exploiting manufacturers are, and Liebig relates that English chemical manufacturers are egregiously ignorant when it comes to chemistry.

Here we need to note the following: It is always as a whole that machinery enters the labor process, but it always enters the valorization process bit by bit. Machinery never adds more value to a product than it loses, on average, as it is worn down. Hence there is a great difference between a machine's value and the part of its value that is transferred to a product during a given period of production. There is also a great difference between a machine as an element that goes into a product's value and a machine as a thing that helps make a product. The longer the period in which the same machine repeatedly serves in the same labor process, the greater this difference will be. Of course, we've already seen how every actual means of labor or instrument of production enters the labor process—always as a whole, whereas it always enters the valorization process piecemeal, with each piece being proportional to its average daily wear and tear. But the difference between mere application and depreciation is much greater in the case of machinery than in the case of a tool, because machinery is built out of more durable material and lasts longer; because the use of machinery is governed by strict scientific laws, which makes it possible to consume a machine's components and the materials it runs on with greater economy; and, finally, because machinery's field of production is incomparably larger than a tool's. Once we subtract the average daily cost of both machines and tools—or the amount of value they add to a product through their average daily wear and tear and as they consume auxiliary materials such as oil, coal, and so on—we use them for free, just as with natural forces that are available without the aid of human labor. The more the productive effects of machines exceed those of tools, the greater their unpaid service will be compared with that of tools. Only with large-scale industry did people figure out how to use their past, already objectified labor on a large scale as though it were a natural force—that is, at no cost.²⁴

In examining cooperation and the manufacturing workshop, we saw that when certain things generally needed for production—e.g.,

24. Ricardo focuses so much on this effect of machines—an effect he explicates just as little as the difference between the labor process and the valorization process—that he sometimes forgets the value that machines transfer to the products they help make, and instead equates machines with natural forces, at least in this respect. Hence, for example: “Adam Smith nowhere undervalues the services which the natural agents and machinery perform for us, but he very justly distinguishes the nature of the value which they add to commodities . . . as they perform their work gratuitously, the assistance which they afford us, adds nothing to value in exchange” (Ric. op. cit. p. 336, 337). Ricardo's observation is of course correct as a response to J. B. Say, who maunders on about how machines provide the “service” of creating value that makes up part of the “profits.”

buildings—are consumed collectively, this makes them more economical than isolated workers' scattered things, and as a result, they don't add as much to the cost of a product. Machines drive this process further. Not only is the frame of a working machine used by its many tools at the same time, but it's also the case that a single motive mechanism and part of a transmitting mechanism are used collectively by a large number of working machines.

If there is a fixed difference between the total value of a machine and the value that is transferred to its daily product, how much more expensive the transferred value makes the product will depend, above all, on the size of the product—its surface area, so to speak. In a lecture published in 1857, Mr. Baynes from Blackburn estimates that “each real mechanical horse-power will drive 450 self-acting mule spindles, with preparation, or 200 throstle spindles, or 15 looms for 40-inch cloth, with winding, warping, and sizing.” The daily cost of one (steam) horsepower, and also the wear and tear on the machinery it sets in motion, is divided among 450 mule spindles in the first case, 200 throstle spindles in the second case, and 15 power looms in the third. As a result, only a minuscule amount of the machinery's value is transferred to an ounce of yarn or a yard of fabric. This also holds for the steam-hammer mentioned earlier. Since the cost of its daily wear and tear and the coal it consumes is spread over the enormous quantities of iron it hammers daily, it adds only a tiny amount of value to each 100 pounds of iron. But the situation would be very different if this outsize instrument were used on small nails.

Let's assume that a working machine's productive capacity is fixed—in other words, how many tools it wields, or, where force is needed, the size of its tools. The amount of product it produces will depend on how fast it operates—how fast it turns spindles or the number of blows per minute its hammer can deliver. Some colossal hammers deliver up to 70 blows per minute. Ryder's patent machine, which forges spindles with small hammers, strikes as many as 700 times per minute.

Now let's assume that the rate at which machinery transfers its value to a product is fixed. Here, the magnitude of the value transferred depends on the machinery's own magnitude of value.²⁵ The less labor a machine con-

25. A reader stuck in the capitalist way of thinking will naturally miss the “interest” that a machine adds to a product in proportion to its, the machine's, capital value. But it is easy to see that since a machine doesn't produce new value any more than other components of constant capital do, it can't add new value under the name “interest.” Furthermore, it is clear that here, where what is at issue is the production of surplus-value, no part of that value can be presupposed *a priori* under the name “interest.” The capitalist way of calculating,

tains, the less value it adds to a product. The less value it gives to a product, the more productive it is, and the more the service it provides approaches that of natural forces. When machinery is used to produce machines, their value decreases relative to their size and productive effects.

If we were to compare the prices of commodities produced by independent craft labor, or in the manufacturing workshop, with the prices of the machine-produced versions of the same commodities, we would find in general that with the machine-produced ones, the value that comes from the means of labor is larger in relative terms but smaller in absolute terms. In other words, the absolute magnitude of that part of the product's value shrinks, but relative to the total value of, say, a pound of yarn, it grows.²⁶

Clearly, when the amount of labor needed to produce a machine equals the amount saved by using it, what has happened is merely that labor has been moved around. The total amount of labor it takes to produce a commodity hasn't been reduced: thus labor's productive power hasn't increased. It is also clear that the difference between the labor

which seems *prima facie* absurd and to contradict the laws of how value is created, will be explained in the third volume of the present work.

26. The component of the product's value added by the machine contracts absolutely and relatively when machines supplant horses—and animals in general, which are used only as a motive force, not as metabolizing machines. We might note in passing that when Descartes defined animals as mere machines, he viewed them through the lens of the manufacturing period. The medieval view, in contrast, was that animals counted as assistants to human beings, a view later adopted by Haller in his “Restauration der Staatswissenschaften.” That Descartes, like Bacon, believed that an altered method of production and the practical domination of nature by human beings would result from the altered method of thought can be seen in his “Discours de la méthode,” where we read, among other things, “For they opened my eyes to the possibility of gaining knowledge which would be very useful in life, and of discovering a practical philosophy which might replace the speculative philosophy taught in the schools. Through this philosophy we could know the power and action of fire, water, air, the stars, the heavens and all the other bodies in our environment, as distinctly as we know the various crafts of our artisans; and we could use this knowledge—as the artisans use theirs—for all the purposes for which it is appropriate, and thus make ourselves, as it were, the lords and masters of nature” and thus contribute to “the foundation of all the other goods in this life.” [Editor's note: English translation, René Descartes, *Discourse and Essays*, in *The Philosophical Writings of Descartes*, vol. 1, trans. Robert Stoothoff (Cambridge: Cambridge University Press, 1985), pp. 142–43.] In the preface to Sir Dudley North's “Discourses upon Trade” (1691), we find the claim that Descartes's method, when it was applied to political economy, began to free political economy from the grip of old fables and superstitions about money, trade, and so on. In general, however, English political economists of the earlier period tended to treat Bacon and Hobbes as their philosophers of choice, while in England, France, and Italy, Locke eventually became “the philosopher” of political economy κατ' ἐξοχήν [Editor's note: The Greek means “preeminent”].

required to produce a machine and the labor the machine saves—in other words, the machine’s degree of productivity—doesn’t depend on the difference between the value of the machine and the value of the tool it replaces. It turns, rather, on whether the labor needed to make the machine, and thus the value the machine adds to its product, is smaller than the value a worker with a manual tool adds to the object of his labor. The productivity of a machine is therefore measured in terms of the degree to which it replaces human labor-power. According to Mr. Baynes, two and a half workers²⁷ are needed for the 450 mule spindles (and the preparatory machines) that are driven by one horsepower, and with two and a half workers minding the machines, each self-acting mule spindle spins 13 ounces of (ordinary) yarn in a ten-hour day, which means that $365\frac{5}{8}$ pounds of yarn are spun in a week. So while approximately 366 pounds of cotton are being turned into yarn, they absorb only about 150 hours of labor, or 15 ten-hour workdays. (For the sake of simplicity, we are disregarding the part of the cotton that becomes waste.) But if a hand spinner produces 13 ounces of yarn in 60 hours using a spinning wheel, then the same quantity of cotton would absorb 2,700 ten-hour workdays, or 27,000 hours of labor.²⁸ Where the old method of hand printing calico, i.e., block printing, has been superseded by machine printing, a single print machine minded by a man or boy can produce as much four-color calico in an hour as 200 men used to produce in the same amount of time.²⁹ Before Eli Whitney invented the cotton gin, it took an average workday to separate the seeds from a pound of cotton. Thanks to his invention in its original form, a Negro woman could clean 100 pounds of cotton daily, and the gin of today functions much more effectively still. A pound of raw cotton once cost 50 cents to produce; later, a pound could be sold for 10 cents at an even greater profit—that is, with more unpaid labor in it. In India, a device that is half machine and half tool—the churka—is used to separate the cotton from

27. According to the yearly report of the Chamber of Commerce in Essen (October 1863), the Krupp steel works produced 13 million pounds of cast steel in 1862, using 161 furnaces, 32 steam engines (or about as many as all of Manchester had in 1800), 14 steam-hammers (with a combined horsepower amounting to 1,236), 49 forges, 203 tool machines, and approximately 2,400 workers. The ratio of workers to horsepower is less than two to one.

28. Babbage estimated that in Java, the labor of spinning alone added 117% to cotton’s value. During the same period (1832), the total value that machines and labor added to cotton in the fine-spinning industry amounted to about 33% of the raw material’s original value (“On the Economy of Machinery,” pp. 165–6).

29. Machine printing also consumes color more economically.

the seeds, and together a man and woman can clean 28 pounds of cotton with it in a day. Using the new kind of churka that Dr. Forbes recently invented, two men and one boy can clean 250 pounds daily. Only a few boys and girls are needed as feeders (to feed material to the machines) if the motive force of oxen, steam, or water is powering the device. When driven by oxen, 16 of these machines accomplish in a day what was once the average daily labor of 750 people.³⁰

As noted above, a steam-driven plow does as much work in an hour at a cost of 3d. or $\frac{1}{4}$ shilling as 66 people could perform for 15 shillings per hour. I am returning to this example to dispel a misconception. The 15 shillings does not in fact express all the labor that the 66 workers expend in an hour. If the ratio of surplus-labor to necessary labor were 100%, then these 66 men would produce 30 shillings of value in an hour, even though only thirty-three hours of labor were represented in the equivalent they produce for themselves—in their 15 shillings of wages. If we assume that a machine costs exactly as much as the 150 workers whom it supplanted were paid in a year, say, £3,000, this will hardly be the money expression of all the labor the 150 workers perform and thus add to the object of their labor. Rather, it expresses only the part of their annual labor that they expend for themselves and is represented in their annual wages. In contrast, the £3,000 spent on the machine expresses all the labor expended to make it, whatever the ratio of surplus-labor performed for the capitalist to necessary labor might be. So if a machine costs exactly as much as the labor-power it supersedes, the labor objectified in that machine will be much smaller than the living labor it replaces.³¹

If one treats machines only as a means for reducing the cost of a product, then the use of machines has a limit: the amount of labor needed to produce them has to be smaller than the amount saved by putting them to work. For capital, however, an even stricter limit applies. Since capital pays for the value of the labor-power it employs, and not the labor employed, its use of machines is limited by the difference between their value and the value of the labor-power they replace. Now since the division of the workday into necessary labor and surplus-labor varies—from country to country, over time within a single country, and among different

30. See Paper read by Dr. Watson, Reporter on Products to the Government of India, before the Society of Arts, 17th April 1861.

31. "These mute agents [machines] are always the produce of much less labour than that which they displace, even when they are of the same money value" (Ricardo op. cit. p. 40).

branches of industry within a single time period—and, moreover, since a worker's real wages can be higher or lower than the value of his labor-power, the difference between the price of machinery and the price of the labor-power it replaces can vary a great deal even when the difference between the amount of labor it takes to produce the machinery and the total amount of labor the machinery replaces stays the same.³² It is only the former difference that determines how much a capitalist has to pay to produce a commodity, and that is what guides his actions, owing to the law of competition. Hence some of the machines invented nowadays in England are used only in North America, just as in the sixteenth and seventeenth centuries, some of the machines invented in Germany were employed only in Holland, and some French inventions in the eighteenth century were put to use only in England. When machinery is employed in some branches of labor in older developed countries, such a surfeit of labor results in other branches—"redundancy of labor," says Ricardo—that wages fall there far below labor-power's value, to the point where, from capital's standpoint, the use of machines becomes unnecessary, even impossible. For capital derives its profit not from reducing the total amount of labor that is expended, but by reducing the labor it has to pay for. The past few years have seen the use of child labor cut back dramatically in some branches of the wool industry in England. It has been more or less eliminated in a few places. Why? The Factory Acts made it necessary to employ two sets of children: one group that works six hours and another that works four hours, or two groups that work only five hours each. But parents didn't want to sell "the half-timers" for less than they had been paid for "the full-timers." "The half-timers" were therefore replaced by machinery.³³ Before it was forbidden to employ women and children (under 10) in mines, capital worked naked women and girls to the bone there, often together with men, doing so in a way it found to be so warmly

32. Note added to the second edition: In a communist society, then, machinery would have a field of application very different from the one it has in bourgeois society.

33. "Employers of labour would not necessarily retain two sets of children under thirteen. . . . In fact one class of manufacturers, the spinners of woollen yarn, now rarely employ children under thirteen years of age, i.e., half-times. They have introduced improved and new machinery of various kinds which altogether supersedes the employment of children [that is, under 13]; f. i.: I will mention one process as an illustration of this diminution in the number of children, wherein, by the addition of an apparatus, called a piercing machine, to existing machines, the work of six or four half-times, according to the peculiarity of each machine, can be performed by one young person [over 13] . . . the half-time system" prompted "the invention of the piercing machine" (Reports of Insp. of Fact. for 31st Oct. 1858).

sanctioned by its moral code, and especially its ledgers, that it didn't introduce machinery until after such practices were banned. The Yankees have invented a machine that breaks stones, but the English don't take advantage of it because "the wretch" who performs this labor is paid for such a tiny part of his work that in this case, machinery would actually increase the capitalist's production costs ("wretch" is one of English political economy's terms *d'art* for agricultural workers).³⁴ In England, women are still sometimes used instead of horses to pull barges,³⁵ because the labor needed to produce horses and machines is an amount that can be identified mathematically, whereas the labor it takes to maintain women from the surplus population is too low even to be calculated. Of all the countries in the world, England, the very land of machines, is the one where we find the most shameless examples of human strength being squandered by this sort of dirty practice.

3. The Immediate Effects of Machine-Driven Production on Workers

Large-scale industry begins where the means of labor are revolutionized, and the revolutionized means of labor take on their most advanced form where they start to function as a factory's organized system of machines. Before we examine how human material is incorporated into this organism made up of things, let's consider some of the general retroactive effects of the revolution in question—and what they mean for the worker.

a. Capital's Appropriation of the Labor-Power of Supplementary Workers: Women and Children

Insofar as machinery renders human strength superfluous, it facilitates the use of workers who aren't physically strong or mature but whose limbs are abundantly supple. When machines were introduced into capitalist production, women and children were therefore immediately put to work! Right away, this powerful means of replacing labor was employed to increase the number of wage laborers, with every member of the worker's family, regardless of age and sex, being conscripted and put directly under capital's rule. Forced labor for the capitalist usurped the place of

34. "Machinery . . . can frequently not be employed until labour [he means wages] rises" (Ricardo op. cit. p. 479).

35. See "Report of the Social Science Congress at Edinburgh. Oct. 1863."

not only children's play but also the independent domestic labor families performed for themselves within certain traditional limits.³⁶

The value of labor-power was determined by the labor-time needed to maintain both an individual adult worker and his family. When machinery thrust every member of a worker's family into the labor market, the value of the original worker's labor-power was divided among all those members. Machinery thus devalued his labor-power. Buying the labor-power borne by four individual family members might cost the capitalist more than he had to spend for the labor-power of just the head of the family, but in exchange for his outlay, the capitalist gets four working days instead of one, and the price he pays falls in proportion to the amount by which the surplus-labor of four days exceeds that of one day. Four people now have to work in order for one family to live. They have to supply the capitalist with not only labor but also surplus-labor. From the start, then, as machinery enlarges the human material that capital exploits—in other words, as machinery expands capital's most characteristic field of exploitation³⁷—it also increases the extent to which capital exploits that material.

36. During the cotton crisis caused by the American Civil War, the English government sent Dr. Edward Smith to Lancashire, Cheshire, and other places, with his assignment being to examine the health conditions of cotton workers. He reported that with regard to hygiene, the crisis had quite a few advantages, beyond the fact that workers were expelled from the factory atmosphere. Female workers now had enough time to breastfeed their children, instead of poisoning them with Godfrey's Cordial. They also gained enough time to learn how to cook. Unfortunately, though, they became skilled in the art of cooking at a moment when they had nothing to eat. But one can see here how, for the sake of its self-valorization, capital takes away the time a family needs for consumption. The crisis was also made use of to teach workers' daughters how to sew—this was done in sewing schools. It took an American revolution and a world crisis for girl workers, who spin for the whole world, to learn how to sew.

37. "The numerical increase of labourers has been great, through the growing substitution of female for male, and above all of childish for adult, labour. Three girls of 13, at wages from 6 sh. to 8 sh. a week, have replaced the one man of mature age, of wages varying from 18 sh. to 45 sh." (Th. de Quincey, "The Logic of Politic. Econ. Lond. 1844," note to page 147). Because certain functions of the family, e.g., nursing and suckling children, cannot be eliminated completely, mothers whom capital has snatched away need someone to fill in for them. The tasks that family consumption requires, such as sewing, mending, and so on, have to be replaced by purchasing finished products. Thus when less domestic labor is expended, more money has to be spent. And thus the production costs of a family of workers increase, offsetting its increased income. Furthermore, economy and planning in the use of the means of subsistence become impossible. Rich material on these facts, which the official political economy has tried to keep out of view, can be found in the "Reports" of factory inspectors of the "Children's Employment Commission," and also in the Reports on "Public Health," a particularly good source.

Likewise, machines completely revolutionize the formal means through which the capital relation is mediated: the contract between a worker and a capitalist. Based on commodity exchange, we assumed at the outset that the capitalist and worker encounter each other as free persons who are independent commodity owners. One owns money and the means of production; the other owns labor-power. But now capital buys nonadult and semiadult workers. The worker used to sell his own labor-power, which, as a person free in principle, he could dispose of however he saw fit. Now he sells his wife and child. He becomes a slave trader.³⁸ In fact, “wanted” advertisements for child workers often look just like the notices from prospective buyers of Negro slaves that were once a common sight in American newspapers. “My attention,” remarks an English factory inspector, “was called to an advertisement which appeared in the local paper of an important manufacturing town of my district, of which the following is a copy: ‘Wanted, from 12 to 20 boys, not younger than what will pass for 13 years of age. Wages, 4 shillings a week. Apply, etc.’”³⁹ The phrase “what will pass for 13 years of age” has to do with a consequence of the Factory Act. Since that law went into effect, children under 13 have been allowed to work only six hours a day. An officially appointed physician, or “certifying surgeon,” now has to confirm a child worker’s age. Factory inspectors testify that the number of working children under 13 has at times gone down by leaps and bounds—something shown quite strikingly by the past 20 years of English statistics—largely because of the certifying surgeons. According to the inspectors, the surgeons will pad a child’s age to accommodate the capitalist, with his appetite for exploitation, and the parents, with their need to act as traffickers. Hence manufacturers want to employ boys who merely look 13. In London’s infamous Bethnal Green district, there is an open market for child labor every Monday and

38. In contrast to the important fact that adult male workers extracted limits on female and child labor from capital, working parents, as described in the most recent reports of the “Children’s Employment Commission,” have engaged in outrageous forms of behavior with respect to the trafficking of children, forms worthy of actual slave-traders. As the same “Reports” show, the capitalist Pharisee denounces this bestial practice, which he himself created and has perpetuated and exploited, and which he has elsewhere christened “freedom of labor.” “Infant labor has been called into aid . . . even to work for their own daily bread. Without strength to endure such disproportionate toil, without instruction to guide their future life, they have been thrown into a situation physically and morally polluted. The Jewish historian has remarked upon the overthrow of Jerusalem by Titus, that it was no wonder it should have been destroyed, with such a signal destruction, when an inhuman mother sacrificed her own offspring to satisfy the cravings of absolute hunger” (“Public Economy Concentrated. Carlisle 1833,” p. 6).

39. A. Redgrave in “Reports of Insp. of Fact. for 31st October 1858, p. 41.

Tuesday morning. Boys and girls age nine and up hire themselves out to London's silk manufacturers: "The usual terms are 1s. 8d. a week [the parents get the money] and '2d. for myself,' and tea. At the end of the week they may be discharged or discharge themselves without any notice. The scene and language while this market is going on are quite disgraceful."⁴⁰ In England, it still happens that women "take boys from the workhouse and let anyone have them out for half a crown a week."⁴¹ Despite what the law says (and even though there are now machines that could replace these workers), at least 2,000 boys in Great Britain still function as flesh-and-blood chimney sweep machines and are sold by their own parents.⁴² Machines have brought about a revolution in the legal relation between the buyer and seller of labor-power: the whole transaction lost even the appearance of a contract between free people. This is what eventually gave England's Parliament the legal justification it needed to intervene into the affairs of the factory system. Whenever the Factory Laws limit child labor to six hours in previously unregulated branches of industry, manufacturers begin to wail again. They say that some parents have pulled their children out of those branches and put them into ones where "the freedom of labor" still reigns—into branches where children under 13 can be forced to work like adults and thus can be sold at a higher price. On the other hand, since capital is by nature a Leveler, believing that it has an innate human right to exploit labor under equal conditions, a restriction of child labor in one branch of industry causes it to be limited in other branches.

We have already touched on the physical damage suffered by the children, teenagers, and women whom machines subject to capital's exploitation, directly at first, or in the factories that sprout up as places of machine-driven production, and then indirectly in all the other branches of industry. So here we will focus on just one point: the horrific mortality rates among workers' children in their first years of life. In 16 of the registration districts into which England is divided, we find that for every 100,000 children under the age of one, 9,085 die each year on average. (The average is only 7,047 in one of these districts.) In 24 districts, the average is between 10,000 and 11,000 deaths per 100,000 children under the age of one. In 39 districts, it is between 11,000 and 12,000. In 48 districts, it is between 12,000 and 13,000. In 22 districts, it exceeds 20,000. In 25 districts, it exceeds 21,000. In 17 districts, it is greater than 22,000. In

40. "Children's Employment Commission. Fifth Report. London 1866," p. 81 n. 31.

41. "Child. Employ. Comm. Third Report. Lond. 1864," p. 53 n. 15.

42. *Ibid.* Fifth Report p. XXII n. 137.

11 districts, it is greater than 23,000. Such places as Hoo, Wolverhampton, Ashton-under-Lyne, and Preston see an average annual mortality rate of more than 24,000 deaths per 100,000 children under the age of one. In Nottingham, Stockport, and Bradford, the rate exceeds 25,000 deaths. In Wisbeach, it is 26,001, and in Manchester, 26,125.⁴³ Why are the mortality rates so high? Aside from certain local factors, the key circumstance is that mothers work outside the home, and this has a number of harmful consequences, as an official medical investigation showed in 1861. Children are neglected and mistreated. They eat the wrong things, often not enough, and they are given opiates. Furthermore, mothers become unnaturally distant from their children, and as a result, they intentionally starve and poison their own progeny.⁴⁴ In those agricultural districts “where there is a minimum of female labour, the death-rate is at its lowest.”⁴⁵ But against all expectation, the 1861 commission also determined that the infant mortality rates in several purely agricultural districts on the North Sea approached those of the most notorious factory districts. Dr. Julian Hunter was therefore dispatched to the region to research this phenomenon more extensively. His findings were incorporated into the *Sixth Report on Public Health*.⁴⁶ While people had assumed that malaria and other diseases peculiar to low-lying and swampy terrain were killing the children, Dr. Hunter’s investigation proved just the opposite: in fact, “the same cause which has banished malaria, and has substituted a fertile though unsightly garden for the winter marshes and bare summer pastures, created the exceptional death-rate of the infants.”⁴⁷ Dr. Hunter interviewed 70 medical practitioners in the area, and on this point, they were “wonderfully in accord.” When agriculture was transformed, the industrial system was introduced. “Married women, who work in gangs along with boys and girls, are, for a stated sum of money placed at the disposal of the farmer by a man called ‘the undertaker,’ who contracts for the whole gang. These gangs will sometimes travel many miles from their own village; they are to be met morning and evening on the roads, dressed in

43. “Sixth Report on Public Health. Lond. 1864,” p. 34.

44. “It [the inquiry of 1861] . . . showed, moreover, that while, with the described circumstances, infants perish under the neglect and mismanagement which their mothers’ occupations imply, the mothers become to a grievous extent denaturalized toward their offspring—commonly not troubling themselves much at the death, and even sometimes . . . taking direct measures to ensure it” (ibid.).

45. Ibid. p. 454.

46. Ibid. pp. 454–462. “Report by Dr. Henry Julian Hunter on the excessive mortality of infants in some rural districts of England.”

47. Ibid. p. 35 and pp. 455, 456.

short petticoats, with suitable coats and boots, and sometimes trousers, looking wonderfully strong and healthy, but tainted with a customary immorality and heedless of the fatal results which their love of this busy and independent life is bringing on their unfortunate offspring who are pining at home.”⁴⁸ All the phenomena associated with the factory districts can be seen here, too; clandestine infanticide and the practice of feeding children opiates occur on an even larger scale.⁴⁹ “My knowledge of such evils,” says Dr. Simon, the Privy Council’s medical officer and editor in chief of the *Reports on Public Health*, “may excuse the profound misgiving with which I regard any large industrial employment of adult women.”⁵⁰ In his official report, the factory inspector Mr. Baker exclaims, “Happy indeed will it be for the manufacturing districts of England when every married woman having a family is prohibited from working in any textile works at all.”⁵¹

In *The Condition of the Working Class in England*, Friedrich Engels gives an exhaustive account of the moral devastation that results when capital exploits female and child labor, and since other writers have done the same thing, I will merely remind readers of these moral effects.ⁱⁱⁱ But there is also the unnatural intellectual desolation that occurs when such young people are transformed into mere machines for producing surplus-value. (This is very different from a spontaneously arising state of ignorance in which the mind may be fallow but its capacity for development—its natural fertility—hasn’t been ruined.) It was in fact the intellectual harm inflicted on child workers that finally compelled even England’s Parliament to make elementary school attendance compulsory. In the branches of industry subject to the Factory Acts, elementary education became a legal requirement: only those children under 14 who attended school were eligible to be consumed “productively” in the factories. The spirit of capitalist production is vividly evoked by the loose way the so-called education clauses in the Factory Acts were formulated; the lack of administrative machinery that rendered compulsory educa-

48. *Ibid.* p. 456.

49. Just as in England’s factory districts, so in its agricultural districts the use of opium is becoming more pervasive among adult workers—male and female—by the day. “To push the sale of opiate . . . is the great aim of some enterprising wholesale merchants. By druggists it is considered the leading article” (*ibid.* p. 459). Infants who imbibed opiates “shrank up into little old men,” or “wizened like little monkeys” (*ibid.* p. 460). Here we see how India and China have exacted revenge on England.

50. *Ibid.* p. 37.

51. “Reports of Insp. of Fact. for 31st October 1862,” p. 59. This factory inspector had been a physician.

tion an illusion, at least for the most part; and the manufacturers' opposition to these education clauses and their tricks for getting around them. "For this the legislature alone is to blame, by having passed a delusive law, which, while it would seem to provide that the children employed in factories shall be educated, contains no enactment by which that professed end can be secured. It provides nothing more than that the children shall on certain days of the week, and for a certain number of hours in each day [three], be enclosed within the four walls of a place called a school, and that the employer of the child shall receive weekly a certificate to that effect signed by a person designated by the subscriber as a schoolmaster or schoolmistress."⁵² Before the amended Factory Act was passed in 1844, it often happened that schoolmasters and schoolmistresses signed school certificates with a cross because they couldn't write. "On one occasion, on visiting a place called school, from which certificates of school attendance had issued, I was so struck with the ignorance of the master that I said to him: 'Pray, sir, can you read?' His reply was 'Aye, *summat!*' and as a self-justification, he added: 'At any rate, I am before my scholars.'^{iv} As the Act of 1844 was being drafted, the factory inspectors denounced the shameful condition of the places called schools, whose certificates they had to accept as legally valid. All that they achieved was that starting in 1844, "the figure in the school certificate must be filled up in the handwriting of the schoolmaster, who must also sign his Christian and surname in full."⁵³ Sir John Kincaid, a factory inspector for Scotland, tells of having similar official experiences. "The first school we visited was kept by a Mrs. Ann Killin. On asking her to spell her name, she blundered by commencing with the letter C, but presently corrected herself, and said it began with K; however, on looking at her signature in the children's school certificate books, I noticed that she did not always spell her name the same, while the character of the writing showed that she was quite incapable of teaching, and she admitted that she was incapable of keeping the register. . . . In a second school I found the schoolroom was about 15 feet long and 10 feet wide, and within that space, I counted 75 children screaming something unintelligible."⁵⁴ "But it is not only in the miserable places above referred to that the children obtain certificates of school attendance without having received instruction of any value, for in many schools where there is a competent teacher, his efforts are of little avail from the distracting crowd

52. Leonard Horner in "Reports of Insp. of Fact. for 30th June 1857," p. 17.

53. Horner in "Reports of the Insp. of Fact. for 31st Oct. 1855," pp. 18, 19.

54. Sir John Kincaid in "Reports of Insp. of Fact. for 31st Oct. 1858," pp. 31, 32.

of children of all ages, from infants of 3 years old and upwards; his livelihood, miserable at the best, depending on the pence received from the greatest number of children whom it is possible to cram into the space. To this is to be added scanty school furniture, deficiency of books, and other materials for teaching, and the depressing effect upon the poor children themselves of a close, noisome atmosphere. I have been in many such schools, where I have seen rows of children doing absolutely nothing; and this is certified as school attendance, and, in statistical returns, such children are set down as being educated.”⁵⁵ In Scotland, manufacturers do their best to avoid employing the children who have to attend school. “It requires no further argument to prove that the mill-owners hold the educational clauses of the Factory Act in great disfavour.”⁵⁶ Especially grotesque and awful is how that has played out in calico printing and other branches of the printing industry, which is regulated by a special Act that set forth the following: “Every child before being employed in a printwork must have attended school for at least 30 days and not less than 150 hours during the six months immediately preceding such first day of employment, and during the continuance of its employment in the printwork it must attend for a like period of 30 days and 150 hours during every successive period of six months. . . . The attendance at school must be between 8 A.M. and 6 P.M. No attendance of less than 2½ hours nor more than 5 hours, on any one day, shall be reckoned as part of the 150 hours. Under ordinary circumstances the children attend school morning and afternoon for 30 days, for at least 5 hours each day, and upon the expiration of the 30 days, the statutory total of 150 hours having been attained, having in their language ‘made up their book,’ they return to the printwork, where they continue until the six months have expired, when another instalment of school attendance becomes due, and they again seek the school until the book is again made up. . . . Many boys having attended school for the required number of hours who, when they return to school after the expiration of their six months’ work in the printwork, are in the same condition as when they first attended school . . . they have lost all that they gained by

55. Leonard Horner in “Reports etc. for 30th Apr. 1857,” pp. 17, 18. [Editor’s note: At the beginning of this citation, Marx is paraphrasing as much as he is quoting/translating. He then shifts to translating more directly, though this yields a German text that is much more colorful than the English source text. Marx renders “screaming” as “herquiekten,” which can be translated into English as “squawking”; “distracting crowd” is rendered as “sinnverwirrenden Knäuel,” which might be translated as “dizzying scrum”; and “close atmosphere” is rendered as “ekelhaften Luft,” which one could translate as “disgusting air.”]

56. “Reports of Insp. of Fact. for 31st Oct. 1856,” p. 66.

their previous school attendance. In other printworks the children's attendance at school is made to depend altogether upon the exigencies of the work in the establishment; the requisite number of hours is made up each six months by instalments consisting of 3 to 5 hours at a time, spreading over perhaps the whole six months. For instance, the attendance on one day might be from 8 to 11 A.M., on another day from 1 P.M. to 4 P.M., and the child might not appear at school again for several days, when it would attend, perhaps from 3 P.M. to 6 P.M.; then it might attend for 3 or 4 days consecutively or for a week, then it would not appear in school for 3 weeks or a month, after that, upon some odd days at some odd hours when the operative who employed it chose to spare it; and thus the child was, as it were, buffeted from school to work, from work to school, until the tale of 150 hours was told."^{57,v}

Machinery has added children and women to the combined workforce in overwhelming numbers, and in this way it finally broke the resistance to capital's despotism mounted by male workers under the manufacturing system.⁵⁸

b. The Extension of the Workday

Machinery is the most powerful means of increasing labor's productivity—in other words, reducing the labor-time needed to make a commodity. However, when machinery, here a bearer of capital, begins to directly take control of different branches of industry, it is also the most powerful means of extending the workday beyond all natural limits. It creates new conditions that allow capital to give free rein to its permanent tendency to pursue

57. A. Redgrave in "Reports of Insp. of Fact. for 31st Oct. 1857," pp. 41-43. In the branches of English industry where the Factory Act proper has long reigned (not the Print Works' Act just mentioned), the obstacles standing in the way of the education clauses have been removed in recent years—to some extent. In the industries not subject to the Factory Act, the views of J. Geddes, a glass manufacturer, continue to be utterly dominant. He informed Mr. White, one of the Commissioners of Inquiry, as follows: "So far as I have seen, the greater amount of education which some of the working classes have had of late years, has not done much good, but on the contrary is dangerous, making them too independent" ("Children's Empl. Commission, Fourth Report, London 1865," p. 253).

58. "Mr. E., a manufacturer, informed me that he employs females exclusively at his power-loom; he gives a decided preference to married females, especially those who have families at home dependent on them for support; they are attentive, docile, more so than unmarried females, and are compelled to use their utmost exertions to procure the necessaries of life. Thus are the virtues, the peculiar virtues of the female character to be perverted to her injury—thus all that is most dutiful and tender in her nature is to be made the means of her bondage and suffering" ("Ten Hours' Factory Bill. The Speech of Lord Ashley. Lond. 1844," p. 20).

such lengthening, while new motivations whet capital's bottomless appetite for the labor of others.

In the first place, machinery makes the movement and productive activity of the means of labor independent of workers. These means become an industrial *perpetuum mobile*, and on their own they would go on producing continuously. But they run up against certain natural limits in their human assistants: namely, weak human bodies and the willfulness of people. When an automatic mechanism functions as capital, it is endowed with consciousness and a will in the figure of the capitalist; and so as capital it is animated by the drive to reduce the resistance offered by human beings, those stubborn yet elastic natural barriers, down to the lowest level possible.⁵⁹ This resistance is also weakened by the apparent ease of operating a machine and the presence of a more docile and pliable element in the labor force: women and children.⁶⁰

A machine's productivity is, as we have seen, inversely proportional to the magnitude of the value component it transfers from itself to the product it makes. The longer a machine is in operation, the more products its value will be distributed among, and the smaller the share of its value it will transfer to each individual product. The active lifespan of a machine is clearly determined by the length of the workday, or the duration of the daily labor process, multiplied by the number of days the machine works.

Yet the amount of deterioration a machine suffers doesn't have to correspond exactly to the time frame in which it is used. Even if it did, a machine employed sixteen hours a day over seven and a half years would

59. "Since the general introduction of expensive machinery, human nature has been forced far beyond its average strength (Robert Owen, "Observations on the effect of the manufacturing system, 2nd ed. London 1817").

60. The English, who like to treat a thing's first empirical form of appearance as its cause, often ascribe the long hours of work in factories to the large-scale, Herodian abductions committed in the early days of the factory system, when children were stolen from the workhouses and the orphanages, and capital thereby assimilated a mass of human material that was incapable of resisting. Thus, according to Fielden, who was himself an English manufacturer, "It is evident that the long hours of work were brought about by the circumstance of so great a number of destitute children being supplied from different parts of the country, that the masters were independent of the hands, and that, having once established the custom by means of the miserable materials they had procured in this way, they could impose it on their neighbours with the greater facility." (J. Fielden: "The Curse of the Factory System. Lond. 1836"). [Editor's note: "Procured in this way" is "produced in this way" in the source text.] On female labor, the factory inspector Saunders has this to say in his 1843 report: "There are among the female workers some who have been employed for some weeks, with an interval only of a few days, from six o'clock in the morning until twelve o'clock at night, less than two hours for meals, thus giving them for five nights in the week, six hours out of its twenty-four to go to and from their homes, and to obtain rest in bed."

have the same working period, and add the same amount of value to its total product, as it would if it served only eight hours a day over 15 years. In the first scenario, however, the machine's value would be reproduced twice as fast as in the second one, and the capitalist would use the machine to gobble up the same amount of surplus-labor in half the time.

Machines materially deteriorate in two ways: as they are used, or the same way pieces of money are worn down as they circulate, and when they aren't used, or the same way an unused sword rusts in its scabbard. In the latter case, machines are consumed by the elements. The first type of deterioration is more or less directly proportional to how much a machine is employed; the second type is to some degree inversely proportional to it.⁶¹

Alongside its material decline, a machine also suffers a kind of moral depreciation. A machine loses exchange-value when the same machine can be reproduced more economically, or when it has to compete against new, better machines.⁶² In both cases, the machine's value is no longer determined by the necessary labor-time that is actually objectified in it, but rather by the labor-time now needed to reproduce it or a better machine—and this holds however young and vital the machine might be. The machine has thus been devalued to a greater or lesser extent. The shorter the period needed to reproduce its total value, the smaller the danger of moral depreciation, and the longer the working day is, the shorter that period will be. When machinery is first introduced in any branch of industry, new methods for reproducing it at a lower cost arise in quick succession,⁶³ as do innovations that improve both its individual parts and apparatuses and its entire construction. Hence it is during the early part of a machine's life that this special motivation to extend the working day makes itself felt most acutely.⁶⁴

61. "[When they choose to strike, the operatives] occasion . . . injury to the delicate moving parts of metallic mechanisms by inaction" (Ure op. cit., vol. 2, p. 8.) [Editor's note: English original, p. 281.]

62. The "Manchester Spinner" already mentioned (Times, 26th Nov. 1862) lists among the costs of machinery: "It [namely, the 'allowance for deterioration of machinery'] is also intended to cover the loss which is constantly arising from the superseding of machines before they are worn out by others of a new and better construction."

63. "It has been estimated roughly, that the first individual of a newly-invented machine will cost about five times as much as the construction of the second" (Babbage op. cit., pp. 211–12). [Editor's note; Marx translated this from the French edition that he had at hand. In the English original, this line appears on p. 266.]

64. "The improvement which took place not long ago in frames for making patent-net was so great that a machine, in good repair, which had cost £1,200 sold a few years later for £60 . . . improvements succeeded each other so rapidly, that machines which had never been finished were abandoned in the hands of their makers, because new improvements had superseded their utility" (Babbage op. cit. p. 233). [Editor's note: English original,

If the length of the workday is given and other conditions remain constant, then in order to exploit double the number of workers, a capitalist has to double the amount of constant capital he spends on not only raw material and auxiliary materials, but machinery and buildings, too.⁶⁵ If he can extend the workday, however, he can enlarge the scale of production without increasing the amount of capital put into machinery and buildings. The amount of surplus-value goes up, and at the same time, the amount of capital needed to extract it falls. Of course, more or less the same thing happens whenever the workday is extended, but in this case it matters more than elsewhere, because the part of capital that has been turned into the means of labor figures more decisively here than it does elsewhere.⁶⁶ Machine-driven industry ties up an ever-growing proportion of capital in a form in which, on the one hand, it can be constantly valorized and, on the other hand, it loses use-value and exchange-value the moment its contact with living labor is broken. Mr. Ashworth, an English cotton magnate, taught Professor Nassau W. Senior the following: “When a labourer lays down his spade, he renders useless, for that period, a capital worth 18 d. When one of our people [i.e., the factory workers] leaves the mill, he renders useless a capital that has cost £100,000.”⁶⁷ Just think! An outlay of capital worth £100,000 is made “useless”—if only for a moment. What an egregious thing it is that one of our people ever leaves the factory! As Senior recognizes, thanks to his lesson from Ashworth, the growing importance of machinery makes it “desirable” to constantly extend the workday.⁶⁸

p. 286.] Thus during this storm and stress period of rapid progress, the tulle manufacturers soon extended the working day from 8 hours to 24 by using multiple shifts of workers.

65. “It is self-evident, that, amid the ebbings and flowings of the market, and the alternate expansions and contractions of demand, occasions will constantly recur, in which the manufacturer may employ additional floating capital without employing additional fixed capital . . . if additional quantities of raw material can be worked up without incurring an additional expence for buildings and machinery” (R. Torrens, “On Wages and Combination. Lond. 1834,” p. 64).

66. This circumstance is mentioned here only for the sake of completeness: I won’t examine the rate of profit, in other words, the ratio of surplus-value to the total capital advanced, until volume 3 of this work.

67. Senior, “Letters on the Factory Act. Lond., 1837,” p. 14. [Editor’s note: Senior is quoting Ashworth here.]

68. “The great proportion of fixed to circulating capital . . . makes long hours of work desirable.” With the growing importance of machinery and so on, “the motives to long hours will become greater, as the only means by which a large proportion of fixed capital can be made profitable” (ibid. pp. 11, 14). “There are certain expenses upon a mill which go on in the same proportion whether the mill be running short or full time, as, for instance, rent, rates, and taxes, insurance against fire, wages of several permanent servants, deterio-

Machines produce relative surplus-value not only by devaluing labor-power directly and indirectly, too—i.e., by lowering the value of the commodities needed to reproduce labor-power: when they are sporadically introduced in a branch of industry, machines also transform the labor employed by a machine owner into enhanced labor, raising the social value of the machine-made product above its individual value, and thereby enabling the capitalist to replace the value of a day's labor-power with a smaller share of the value of a day's product. During this transitional period, when machine-driven production remains a kind of monopoly, profits are thus extraordinarily large, and the capitalist does his best to thoroughly exploit "the sunny time of his first love" by extending the workday as much as possible.^{vi} The magnitude of his profit only whets his appetite for more profit.

When the use of machinery becomes widespread in a given branch of industry, the social value of the product falls to the point where it coincides with the product's individual value. A law now asserts itself: surplus-value comes not from the bearers of labor-power whom a capitalist has replaced with machinery, but rather from the bearers of labor-power whom he employs to operate the machines. Surplus-value comes only from the variable part of capital, and as we have seen, two factors determine how much surplus-value is produced: the rate of surplus-value and the number of workers employed at the same time. When the length of the workday is fixed, the rate of surplus-value is determined by the division of the workday, or by the ratio of necessary labor to surplus-labor. The number of workers who are employed simultaneously depends on the ratio of variable capital to constant capital. Now it should be clear that whenever machine-driven industry increases labor's productive power, and thereby enlarges surplus-labor at the expense of necessary labor, it achieves this result only by reducing the number of workers a given mass of capital employs. Such industry transforms part of the variable capital, part of the capital that was turned into living labor-power, into machinery—that is, constant capital that produces no surplus-value. It is impossible to squeeze as much surplus-value out of two workers as can be squeezed out of 24. If each of the 24 workers supplies just one hour of surplus-labor in 12 hours of labor, then together they supply 24 hours of surplus-value, while the total labor of the two workers amounts to only 24 hours. Thus

ration of machinery, with various other charges upon a manufacturing establishment, the proportion of which to profits increases as the production decreases" ("Reports of Insp. of Fact. for 31st Oct. 1862," p. 19).

to use machines to produce surplus-value is, in a way, inherently contradictory. Machines increase one of the two factors that determine how much surplus-value is created by a given amount of capital, namely, the rate of surplus-value, only by causing the other, the number of workers, to fall. This inherent contradiction is felt the moment machines become widespread in a branch of industry, since at that point the value of the machine-produced commodity regulates the social value of all commodities of its type. It is this contradiction that drives capital, without capital's being conscious of it,⁶⁹ to brutally lengthen the workday so as to offset the decrease in the relative number of exploited workers by increasing both the relative and the absolute surplus-labor.

If the capitalist use of machines creates powerful new incentives to heedlessly extend the workday while, at the same time, revolutionizing both how labor is performed and the character of the social organism of labor in such a way as to break the resistance to capital's tendency to do precisely that—extend the workday—this use of machines also produces an excess population of workers who have no choice but to let capital set all the terms, something due partly to the fact that capital gains access to members of the working class who had previously been off limits, and partly to the fact that other workers made superfluous by machines are let go.⁷⁰ Hence that remarkable phenomenon in the history of modern industry: machines clear away all traditional and natural limits to the workday. Hence, too, the economic paradox that the most powerful device for shortening labor-time turns into the surest means of transforming the whole lives of a worker and his family into disposable labor-time used to valorize capital. “If,” dreamed Aristotle, the greatest thinker of Antiquity, “each of the instruments were able to perform its function on command or by anticipation, as they assert those of Daedalus did, or the tripods of Hephaestus (which the poet says “of their own accord came to the gods’ gathering”), so that shuttles would weave themselves and picks play the lyre, master craftsmen would no longer have a need for subordinates, or masters for slaves.”⁷¹ Antipater, a Greek poet from Cicero's time, embraced the

69. In the first chapters of volume 3 of this work, readers will see why the individual capitalist, and thus also political economy, which is trapped in his way of thinking, doesn't become conscious of this contradiction.

70. One of Ricardo's greatest accomplishments is to have recognized that machinery is a means for producing not only commodities, but also a “redundant population.”

71. F. Biese, “Die Philosophie des Aristoteles.” Vol. 2. Berlin 1842, p. 408. [Editor's note: English translation: Aristotle, *Politics*, trans. Carnes Lord, 2nd Ed. (Chicago: Chicago University Press, 2013), p. 6.]

invention of the waterwheel that grinds wheat, that most basic form of productive machinery, hailing it as a freer of female slaves and creator of a new golden age!⁷² “Heathens, oh, heathens!” As clever Bastiat discovered, and as MacCulloch, who was even smarter, had figured out before him, these heathens understood nothing of political economy and Christianity. They failed to see, for example, that a machine is the best way to extend the workday. Moreover, while they may have justified enslaving one person in order to enable another to reach his full human potential, they lacked the right, specifically Christian organ needed to preach that the masses should be enslaved in order to allow a few vulgar or half-educated parvenus to become “eminent spinners,” “extensive sausage makers,” and “influential shoe black dealers.”^{vii}

c. The Intensification of Labor

In capital’s hands, machines bring about a heedless extension of the workday, and as we have seen, this eventually calls forth a reaction. Society, now threatened in its very existence, creates a normal workday regulated by law. Owing to this limited workday, the intensification of labor, a phenomenon we encountered earlier, develops to the point where it is of decisive importance. Our analysis of absolute surplus-value turned on labor’s “extensive” magnitude, while the degree of its intensity was treated as given. What we need to examine now is the inversion whereby extensive magnitude becomes intensive magnitude or magnitude of degree.

The speed of labor, and thus its intensity, spontaneously increases as the use of machinery gains traction in more and more places and the members of a special class of machine workers accumulate experience: all this is obvious. For half a century, the extension of the workday in England went hand in hand with the increasing intensity of factory labor. But readers will

72. I am citing Stolberg’s translation of this poem because, just like earlier quotations that speak to the division of labor, it evokes the contrast between the views of the ancients and those of the moderns.

On a Water-mill:

Cease from grinding, ye women who toil at the mill; sleep late, even if the crowing cocks announce the dawn. For Demeter has ordered the Nymphs to perform the work of your hands, and they, leaping down on the top of the wheel, turn its axle which, with its revolving spokes, turns the heavy concave Nisyrian mill-stones. We taste again the joys of the primitive life, learning to feast on the products of Demeter without labour.

[Editor’s note: Marx cites a German translation by Christian Graf zu Stolberg. Hamburg, 1782; the reference for the English translation is: *The Greek Anthology, Volume III: Book 9: The Declamatory Epigrams*, trans. W. R. Paton, Loeb Classical Library 84 (Cambridge, MA: Harvard University Press, 1917), p. 233.]

understand that when unvaryingly uniform labor is repeated day after day, as opposed to brief paroxysms of activity, a problem will necessarily arise. At a certain point, making the workday longer and making labor more intense become mutually exclusive, and the workday can be extended only if the degree of labor's intensity is decreased, while, inversely, labor's degree of intensity can be raised only if the workday is shortened. The moment the gradually rising tide of workers' outrage forced the state to impose shorter labor hours, beginning with a normal workday for true factories, something changed once and for all. It became impossible to produce more surplus-value by extending the workday, and so, with full awareness and all its might, capital threw itself into producing relative surplus-value by accelerating the development of the machine system. A profound change occurred in the character of surplus-value. Relative surplus-value tends to form when an increase in labor's productive power lets a worker produce more product while expending the same amount of labor in the same amount of time. The same amount of labor-time adds the same amount of value to the total product; only now the exchange-value, which has remained constant, is represented in a larger quantity of use-values, and this causes the value of each individual use-value to fall. But limiting the workday by law alters this situation the moment it creates enormous new motivation to increase labor's productive power and make the conditions of production more economical, for now workers are forced to expend more labor in the same amount of time. They are subjected to a more intense activation of their labor-power. They have to pack more labor into their labor-time, or, in other words, condense their labor to a degree that can be attained only during a shortened workday. This greater amount of labor that is compressed into a given period of time now counts as what it in fact is: a greater quantity of labor. Alongside "extensive magnitude" as the measure of labor-time, the degree of its condensation emerges as a measure.⁷³ Each hour of the ten-hour day is intensified, and it contains at least as much labor—that is, expended labor-power—as each of a twelve-hour day's more rarified hours. The product of an intensified hour thus has at least as much value as the product of one and one-fifth less dense hours of labor. Aside from the increase in relative surplus-value that stems from labor's increased productive power, three and a third hours of

73. Labor's intensity varies of course from one branch of industry to the next. As Adam Smith showed, these differences partly offset one another due to circumstances that attend, and are peculiar to, each type of labor. Here, however, labor-time as a measure of value isn't affected, except insofar as intensive magnitude and extensive magnitude represent two opposing and mutually exclusive expressions of one and the same quantity of labor.

surplus-labor and six and two-thirds hours of necessary labor now supply the capitalist with the same amount of value he used to get from four hours of surplus-labor and eight hours of necessary labor.

But how is labor intensified?

The first effect of shortening the workday results from the self-evident law that labor-power's efficiency is inversely proportional to its period of activation. What is lost when labor-power is expressed over a shorter period can therefore be won back by expressing that power at a higher rate—albeit within certain limits—and capital's method of payment ensures that a worker really does set more labor-power in motion.⁷⁴ When the Factory Acts were extended to manufacturing workshops where machinery plays no role or merely a small one, such as potteries, it became clear beyond all doubt that simply shortening the workday increases labor's regularity, uniformity, organization, continuity, and energy in the most wonderful way.⁷⁵ However, it seemed unlikely that doing that would have the same effect in factories proper because workers there had been forced to adapt themselves to the continuous and uniform movement of machines: strict discipline had already been imposed. Hence in 1844, when members of Parliament were debating whether to reduce the workday to less than twelve hours, manufacturers declared with near unanimity, "their overlookers in the different rooms saw to it that the hands lost no time," and "the extent of vigilance and attention on the part of workmen was hardly capable of being increased." Thus "to expect in a properly conducted mill any significant result from increased attention of the workmen would be an absurdity,"⁷⁶ assuming that the speed of machines and other all conditions remained constant. Experiments carried out by the capitalists themselves refuted that claim. Beginning on April 20, 1844, Mr. Robert Gardner had his workers work only eleven hours instead of twelve in his two large factories in Preston. At the end of the year, he found that "the same quantity of produce, and at the same cost, has been obtained by the master; and that all the workers earn the same amount of wages in the 11 hours as was done before by the labour of 12 hours."⁷⁷ I won't discuss the experiments in the spinning and carding rooms, because they had to do

74. Especially by using piece wages, a form that will be explicated in part six of this book.

75. See "Reports of Insp. of Fact. for 31st Oct. 1865."

76. "Reports of Insp. of Fact. for 1844 and the quarter ending 30th April 1845," pp. 20, 21.

77. *Ibid.* p. 19. Since the piece wage remained constant, weekly wages depended how much of the product a worker produced.

with a 2% increase in the speed of the machinery. On the other hand, in the weaving department, where many kinds of light yet fitted fancy articles were woven, the objective conditions of production stayed the same. The result was that “from the 6th of January to 20th April, 1844, working 12 hours, the average earnings of each were 10s. 1½d., from the 20th of April to the 29th of June, 1844, working 11 hours, the average earnings of each were 10s. 3½d.”⁷⁸ The workers were now producing more in eleven hours than they had done in twelve—all because they had become better at sustaining a uniform level of exertion and using their time more economically. They received the same wages and gained an hour of free time, while the capitalist got just as much product as before and spared himself the cost of consuming an hour of coal, gas, and so on. Similar experiments were carried out just as successfully in the factories of Mr. Horrocks and Mr. Jacson.⁷⁹

Shortening the workday creates, first of all, the subjective prerequisite for condensing labor: a worker is able to set more labor-power in motion in a given amount of time. The moment that shortening the workday is made compulsory, machines are transformed in capital’s hands, becoming objective means that are systematically employed to squeeze more labor out of the worker in the same period of labor. This happens in two ways: by increasing the speed of the machines and by having a single worker supervise more machinery—in other words, by enlarging his field of labor. Better machines are needed in order to put greater pressure on workers, but at the same time, such advances naturally go with the intensification of labor, since the limits imposed on the workday force the capitalist to economize as rigorously as he can. As the steam engine has been improved, the speed of the pistons has increased, and, owing to a greater economy of power, it has also become possible to drive a larger mechanism with the same engine while consuming either the same amount of coal or even less. As the transmitting mechanism has been improved, the friction has decreased, and the diameter and weight of the shafts have been reduced to a constantly falling minimum. This is one of the most striking differences between modern machinery and older machines. Finally, the improved tool machine is smaller but moves faster and accomplishes

78. *Ibid.* p. 20.

79. *Ibid.* p. 21. The moral element played an important role in the above-mentioned experiments. “We,” the workers told the factory inspector, “we work with more spirit, we have the reward ever before us of getting away sooner at night, and one active and cheerful spirit pervades the whole mill, from the youngest piercer to the oldest hand, and we can greatly help each other” (*ibid.*).

more in the same amount of time: witness the modern power loom. In still other cases, the machine's frame has been enlarged, and it wields bigger tools and more of them, as the improved spinning mules do. Or else small inconspicuous changes have increased the tools' speed, such as the ones that made the self-acting mule's spindles 20 percent faster 10 years ago.

In England, the practice of shortening the workday to twelve hours dates to 1832. As early as 1836, an English manufacturer declared, "The labour now undergone in the factories is much greater than it used to be, owing to the greater attention and activity required by the greatly increased speed which is given to machinery."⁸⁰ Speaking in the House of Commons eight years later, Lord Ashley, now Count Shaftesbury, made the following statements, which he underpinned with supporting documents:

"The labour performed by those engaged in the processes of manufacture, is three times as great as in the beginning of such operations. Machinery has executed, no doubt, the work that would demand the sinews of millions of men; but it has also prodigiously multiplied the labour of those who are governed by its fearful movements. . . . In 1815, the labour of following a pair of mules spinning cotton of No. 40—reckoning 12 hours to the working day—involved a necessity for walking 8 miles. In 1832, the distance travelled in following a pair of mules, spinning cotton yarn of the same number, was 20 miles, and frequently more. In 1825, the spinner put up daily on each of these mules 820 stretches; making a total of 1,640 stretches in the course of the day. In 1832, the spinner put up on each mule 2,200 stretches, making a total of 4,400. In 1844, he put up 2,400 stretches, making a total of 4,800; and in some cases, the labour required is even still greater. . . . I have another document sent to me in 1842, confirming that the labour is progressively increasing—increasing not only because the distance to be travelled is greater, but because the quantity of goods produced is multiplied, while the hands are, in proportion, fewer than before; and moreover, because an inferior species of cotton is now often spun, which is more difficult to work. . . . In the carding-room there has also been a great increase of labour. One person there does the work formerly divided between two. In the weaving room, where a vast number of persons are employed, and principally females, the labour has increased, within the last few years, fully 10 percent, owing to the increased speed of the machinery in spinning. In 1838, the number of hanks spun per week was 18,000; in 1843, it amounted to 21,000. In 1819, the number of picks

80. John Fielden op. cit. p. 32.

in powerloom weaving per minute was 60—in 1842 it was 140, showing a vast increase of labour.”⁸¹

Given this remarkable degree of intensity, which, under the Twelve Hours’ Act, labor achieved as early as 1844, English manufacturers seemed to have a point when they argued that workers had reached their outer limit, and that further reducing labor-time would therefore mean reducing production. Nothing illustrates the apparent correctness of their reasoning better than a statement made at the time by the manufacturers’ tireless censor, the factory inspector Leonard Horner:

“Now, as the quantity produced must, in the main, be regulated by the speed of the machinery, it must be the interest of the mill-owner to drive it at the utmost rate of speed consistent with these following conditions, viz., the preservation of the machinery from too rapid deterioration; the preservation of the quality of the article manufactured; and the capability of the workman to follow the motion without a greater exertion than he can sustain for a constancy. It frequently happens that the factory owner finds he has gone too fast, that breakages and bad work more than counterbalance the increased speed, and that he is obliged to slacken his pace. I therefore concluded, that as an active and intelligent mill-owner would find out the safe maximum, it would not be possible to produce as much in 11 hours as in 12. I further assumed that the operative paid by piece-work, would exert himself to the utmost, consistent with the power of continuing at the same rate.”⁸² Thus despite the experiments by Gardner and others, Horner came to believe that if the workday were reduced to fewer than twelve hours, a smaller amount of product would be made.⁸³ A decade later, he cited his reservations from 1845 to show how little he had appreciated the elasticity of both machines and human labor-power, which are stretched to the limit—one just as much as the other—when the workday is shortened by law.

Let us now turn to the period after 1847—in other words, the years since the Ten Hours’ Law went into effect in England’s cotton, wool, silk, and flax mills.

“The speed of the spindles has increased, upon throstles 500, and upon mules 1,000 revolutions a minute, i.e., the speed of the throstle spindle, which in 1839 was 4,500 a minute, is now [1862] 5,000; and of the mule spindle, that which was 5,000 is now 6,000 times a minute, amounting

81. Lord Ashley op. cit. pp. 6–9 *passim*.

82. “Reports of Insp. of Fact. for 31st Oct. 1845,” p. 20.

83. *Ibid.* p. 22.

in the former case to a tenth, and in the latter case to a sixth additional increase.”⁸⁴ In 1852, James Nasmyth, the renowned civil engineer from Patricroft (near Manchester), sent Horner a letter explaining how the steam engine had been improved during the previous four years. After noting that horsepower is now merely nominal and can serve only as an index of real power, since the official factory statistics still estimate the horsepower of steam engines in terms of the power such engines had in 1828,⁸⁵ he says, among other things, “I am confident that from the same weight of the steam-engine machinery, we are now obtaining at least 50 percent more duty or work performed on the average, and that, in many cases, the identical steam-engines which in the days of the restricted speed of 220 feet per minute, yielded 50 horse-power, are now yielding upwards of 100. . . . The modern steam-engine of 100 horse-power is capable of being driven at a much greater force than formerly, arising from improvements in its construction, the capacity and construction of the boilers, and so on. . . . Although the same number of hands are employed in proportion to the horse-power as at former periods, there are fewer hands employed in proportion to the machinery.”⁸⁶ In 1850, factories in the United Kingdom used 134,217 nominal horsepower to drive the movement of 25,638,716 spindles and 301,445 looms. The numbers for spindles and looms in 1856 were, respectively, 33,503,580 and 369,205. If the nominal horsepower had stayed the same, then 175,000 horsepower would have been needed to drive their movement. But according to the official tally, there were only 161,453 horsepower—more than 10,000 fewer than a calculation based on the force of horsepower in 1850 would have indicated.⁸⁷ “The facts thus brought out by the Return [of 1856] appear to be that the factory system is increasing rapidly; that there are fewer hands employed in proportion to the machinery; that the steam-engine is enabled to drive an increased weight of machinery by economy of force, and other methods, and that an increased quantity of work can be turned off by improvements in machinery, and in methods of manufacture, by increase of speed of the machinery,

84. “Reports of Insp. of Fact. for 31st Oct. 1862,” p. 62.

85. This changed with the “Parliamentary Return” of 1862. Here the real horsepower of modern steam machines and waterwheels have replaced the nominal horsepower. Furthermore, the doubling spindles are no longer jumbled together with the actual spinning spindles (as is the case in the “Returns” of 1839, 1850, and 1856). For wool mills, in addition, the number of “gigs” has been added. This Return also distinguishes between jute and hemp mills, on the one side, and flax mills on the other. And, finally, stock-weaving is included for the first time.

86. “Reports of Insp. of Fact. for 31st Oct. 1856,” pp. 14, 20.

87. *Ibid.* pp. 14, 15.

and by a variety of other causes.”⁸⁸ “The great improvements that have been made in machinery, of all kinds, have vastly increased their productive powers; improvements to which a stimulus was doubtless given . . . by the restrictions of the hours of work. These improvements, and the closer application which the operatives are able to give, have had the effect of as much work being turned off in the shortened workday [by two hours or $\frac{1}{6}$] as used to be in the longer hours.”⁸⁹

A single fact suffices to show how dramatically the manufacturers’ wealth increased as the more intense exploitation of labor-power took root: from 1838 to 1850, 32 new English factories were built per year on average, but from 1850 to 1856, 86 were.

And yet for all the progress English industry made between 1848 and 1856 (under the reign of the ten-hour day), this was far exceeded over the next six years—or between 1856 and 1862. Take the silk factories. In 1856, they contained 1,093,799 spindles; six years later, the number of spindles had increased to 1,388,544. In 1856, there were 9,260 looms; six years later, 10,709. On the other hand, the factories employed 56,137 workers in 1856 and 52,429 six years later. The number of spindles thus increased by 26.9%, and the number of looms by 15.6%, even as the number of workers decreased by 7%. In 1850, 875,830 spindles were being used in the worsted mills, while in 1856 there were 1,324,549 (an increase of 51.2%). In 1862, the number was 1,289,172 (a decrease of 2.7%). But if we leave out the doubling spindles, which figure in the tally for 1856 but not in the one for 1862, we will find that the number of spindles remained quite constant after 1856. In contrast, the speed of the spindles and looms was in many cases doubled after 1850. In that year, there were 32,617 power looms in the worsted mills. In 1856, the number was 38,956, and in 1862, it was 43,048. In 1850, the mills employed 79,737 people; in 1856, they employed 87,794 workers; and in 1862, 86,063—of whom 9,956 were under 14 in 1850, while 11,228 workers were under 14 in 1856, and 13,178 were in 1862. So, although the number of looms shot up between 1856 and 1862, the total number of workers fell. At the same time, the number of exploited children increased.⁹⁰

On April 27, 1863, Ferrand, a member of Parliament, declared in the House of Commons, “I have been informed by delegates from sixteen

88. *Ibid.* p. 20.

89. “Reports etc. for 31st of Oct. 1858,” p. 10. See also “Reports etc. for 30th April 1860,” p. 30ff.

90. “Reports of Insp. of Fact. for 31st Oct. 1862,” pp. 100, 103, 129, and 130.

districts of Lancashire and Cheshire, in whose behalf I speak, that the work in the factories is continually on the increase, owing to improvement in the machinery. When, for instance, the powerloom was first introduced one person attended two looms; now one attended three without a helper, while it was not at all an unusual thing for one person to attend to four looms. Twelve hours' work was compressed into less than 10. It is therefore self-evident that during the last 10 years, the labours of the factory operatives have increased to an enormous extent."^{91,viii}

If the factory inspectors kept stressing the positive effects of the Factory Acts of 1844 and 1850, and they were fully justified in this, they also conceded that after manufacturers had been forced to shorten the workday, they quickly intensified labor to the point where the worker's health—or labor-power itself—was being destroyed. "In most of the cotton, worsted, and silk mills, an exhausting state of excitement necessary to enable the workers satisfactorily to mind the machinery, the motion of which has been greatly accelerated within the last few years, seems to me not unlikely to be one of the causes of that excess of mortality from lung diseases which Dr. Greenhow has pointed out in his recent admirable report on this subject."⁹² The moment that legal reforms stopped capital from extending the workday once and for all, it began to compensate itself for that by systemically increasing labor's level of intensity and converting every advance in machinery into a way to absorb a greater amount of labor-power. We should have no doubts about where this tendency on capital's part is driving things: to a critical point where labor-time will have to be reduced even further.⁹³ On the other hand, the rapid march of English industry between 1848 and the present, i.e., during the period of the ten-hour day, far outpaces the advances it made from 1833 to 1847, i.e., the

91. Working with two modern power looms, a weaver can now make 26 items of a particular type and size (length and breadth) in a sixty-hour week, whereas with the old type he made four items. As early as the beginning of the 1850s, the weaving costs for such a piece of cloth fell from 2 shillings 9d. to 5½d. Addendum to the second edition: "Thirty years ago [in 1841] a spinner of cotton yarn was only expected to mind a pair of mules containing 300 or 324 spindles, having three assistants. Now [the end of 1871] he minds mules containing 2,200 spindles, with perhaps five assistants, producing at least seven times the quantity of yarns that he produced in 1841" (Alexander Redgrave, factory inspector, in *Journal of Arts*, 5th January 1872). [Editor's note: Marx is citing from the *Journal of the Society of the Arts*.]

92. "Reports of Insp. of Fact. for 31st Oct. 1861," pp. 25, 26.

93. Factory workers in Lancashire have now (1867) begun to agitate for an eight-hour workday.

period of the twelve-hour day. This difference is in fact much greater than the amount by which the advances made from 1833 to 1847 exceed those of the half century that followed the introduction of the factory system—i.e., the period of the unlimited workday.⁹⁴

4. The Factory

At the beginning of this chapter, we examined the factory's body, or how a system of machines is organized. We saw that machinery enlarges capital's human material by appropriating the labor of women and children. We also saw how machines seize a worker's whole lifetime by heedlessly extending the workday, and how their technological progress, which makes it possible to produce a rapidly growing amount of product in an ever-shrinking amount of time, comes to serve as a systematic means of setting more labor in motion at all times, of exploiting labor-power more and more intensely. Let us now turn to the factory as a whole in its most advanced form.

94. The following few statistics show the progress of "factories" proper in the United Kingdom since 1848.

Table 1

	Quantity exported 1848	Quantity Exported 1851	Quantity Exported 1860	Quantity Exported 1865
Cotton				
Cotton yarn (in lbs.)	135,831,162	143,966,106	197,343,655	103,751,455
Sewing thread (in lbs.)		4,392,176	6,297,554	4,648,611
Cotton cloth (in yds)	1,091,373,930	1,543,161,789	2,776,218,427	2,015,237,851
Flax and Hemp				
Yarn (in lbs.)	11,722,182	18,841,326	31,210,612	37,777,334
Cloth (yards)	88,901,519	129,106,753	143,996,773	247,021,529
Silk				
Yarn (in lbs.)	194,815	462,513	897,402	812,589
Cloth (in lbs.)		1,181,455	1,307,293	2,869,837
Wool				
Woollen and worsted yarn (in lbs.) Cloth (yds.)		14,670,880 151,231,153	27,533,968 190,371,537	31,669,267 278,837,418

Dr. Ure, the Pindar of the automatic factory, describes it, on the one hand, as the “combined cooperation of many orders of work-people, adult and young, in tending with assiduous skill a system of productive machines continuously impelled by a central power [the prime mover],” and, on the other hand, as “a vast automaton composed of various mechanical and intellectual organs, acting in uninterrupted concert for the production of a common object, all of them being subordinate to a self-regulated moving force.” These two statements hardly say the same thing. In one, the combined collective worker or social organism of labor is presented as the dominant subject and the mechanical automaton is presented as the object. In the other, the automaton itself is the subject, and the workers are merely conscious organs that are coordinated with its unconscious ones, while both sets of organs are subordinated to the same central motive force. The first state-

Table 2

	Value exported 1848 Pd. St.	Value exported 1851 Pd. St.	Value exported 1860 Pd. St.	Value exported 1865 Pd. St.
Cotton				
Yarn	5,927,831	6,634,026	9,870,875	10,351,049
Cloth	16,753,369	23,454,810	42,141,505	46,903,796
Flax and Hemp				
Yarn	493,449	951,426	1,801,272	2,505,497
Cloth	2,802,789	4,107,396	4,804,803	9,155,318
Silk				
Yarn	77,789	196,380	826,107	768,064
Cloth		1,130,398	1,587,303	1,409,221
Wool				
Yarn	776,975	1,484,544	3,843,450	5,424,017
Cloth	5,733,828	8,377,183	12,156,998	20,102,259

(See the two Blue Books, “Statistical Abstract for the U. Kingd.” No. 8 and No. 13. Lond. 1861, and 1866.) Between 1839 and 1850, the number of mills in Lancashire increased by just 4%. It increased by 19% between 1850 and 1856, while the period between 1856 and 1862 saw a 33% increase. The number of people working in the mills during the two eleven-year periods rose in absolute terms but fell in relative ones. See “Reports of the Insp. of Fact. for 31st Oct. 1862,” p. 63. In Lancashire, the cotton trade dominates the economic landscape. However, the crucial role cotton plays in the textile industry as a whole can be seen from the following comparative figures: cotton factories make up 45.2% of all textile factories in the United Kingdom. They account for 83.3% of the spindles, 81.4% of the power looms, 72.6% of the horsepower that drives their movement, and 58.2% of all the workers employed in these factories (*ibid.* pp. 62, 63).

ment holds for every possible application of machinery on a large scale; the second describes the capitalist application of it, thus also the modern factory system. It seems that Ure liked to portray the central motive machine as not just an automaton but an autocrat, too: “In these spacious halls the benignant power of steam summons around him his myriads of willing menials.”⁹⁵

As tools are transferred to machines, so are the skills needed to use them. A tool’s capacity for producing productive effects is now emancipated from the limitations of human labor-power. When this happens, the technical foundation of the division of labor in the manufacturing workshop is swept away. In the automatic factory, the hierarchy of specialized workers characteristic of the manufacturing workshop is replaced by a tendency to flatten the tasks performed by the workers who assist machines, and, for the most part, natural differences of age and sex take the place of artificially created distinctions between specialized workers.⁹⁶

The division of labor reappears in the automatic factory, to some extent, but now it entails mainly that workers are distributed among specialized machines and larger numbers of workers are distributed among the different departments of the factory, where, instead of forming organized groups, they work side by side at tool machines of the same type. Simple cooperation is thus the only kind that occurs. The manufacturing workshop’s organized groups of workers are replaced by the connection between the head worker and his few assistants. The essential division is the one between the workers who actually operate the different tool machines (plus some who look after or feed the motive mechanism) and the people (almost exclusively children) who merely attend the machine operators. As for the so-called “feeders,” who just hand the machines the material to be worked on, they more or less all count among the attendants. Alongside these chief classes, there is also a numerically insignificant category of worker whose job is to watch over all the machines and repair them constantly: engineers, mechanics, joiners, and so on belong to this higher class of workers. Some members of the higher class have a scientific education while others are trained as artisans. All stand outside the circle of ordinary factory workers and are added to them only in a larger aggregate.⁹⁷ This division of labor is purely a function of technology.

95. Ure op. cit. Vol. 1 pp. 19, 20, 26. [Editor’s note: English original, pp. 13, 14, 18.]

96. Ibid. pp. 31, 32. [Editor’s note: Ure, English original, pp. 21–22.] See Karl Marx op. cit. pp. 140, 141. [Editor’s note: Marx is referring to his book *The Poverty of Philosophy*, in *MECW*, vol. 6, p. 190.]

97. It is characteristic of attempts to use statistics to deceive—and this can be demonstrated in detail elsewhere, too—that English factory legislation is designed to exclude

All work at actual machines demands of workers that they start young so that they learn to adapt their own movements to the continuous and uniform movement of an automaton. Insofar as the total machinery constitutes a system of many different combined machines operating simultaneously, the cooperation based on it requires that different groups of workers be divided among different kinds of machines. But whereas the manufacturing system has to consolidate its division of labor by always assigning a worker to the same function, machine-driven industry has no such need.⁹⁸ The whole movement of the factory proceeds from a machine rather than a worker, and so labor personnel can be constantly moved around without disrupting the labor process. The most striking evidence of this is the relay system implemented during the manufacturers' revolt of 1848–50. Finally, since it takes young workers very little time to learn to work at machines, machine-driven industry also eliminates the need to train a special class of workers to be exclusively machine workers.⁹⁹ The services performed by mere attendants can be partially replaced by the use of machines,¹⁰⁰ while the simplicity of their work also makes

from its protections precisely the class of workers just mentioned, treating them as “not factory workers,” while the “Returns” published by Parliament just as expressly count as factory workers not only engineers, mechanics, and so on, but also managers, salesmen, messengers, warehousemen, packers, etc., that is, everyone except the actual factory owner.

98. Ure concedes this. He writes that “in case of need on any emergency,” the manager can at will move workers from one machine to another, and he declares triumphantly, “Such translations are utterly at variance with the old practice of the division of labour, which fixed one man to shaping the head of a pin, and another to sharpening its point.” Instead he should have asked himself why the automatic factory abandons this “old practice” only “on any emergency.” [Editor’s note: English original, p. 22.]

99. In times of great crisis, such as during the American Civil War, the bourgeoisie make an exception and use factory workers for the crudest tasks, such as building roads. The English “ateliers nationaux” for unemployed cotton workers (in 1862 and the years that followed) differed from the French versions (of 1848) in that in the latter the worker carried out unproductive labor at the state’s expense, whereas in the former, workers had to do productive municipal labor that benefitted the bourgeois—and they had to do it for less money than regular workers, with whom they were thrown into competition. “The physical appearance of the cotton operatives is unquestionably improved. This I attribute . . . as do the men, to outdoor labour on public works.” “Rep. of Insp. of Fact. 31st October 1863,” p. 59. (The workers in question here are the Preston Factory workers, who were employed on “Preston Moor.”)

100. An example would be the different mechanical apparatuses that have been introduced in the woolen mills since the Factory Act of 1844 to replace the labor of children. The moment that the children of the manufacturers themselves have to go through their own “training” as factory assistants, remarkable progress will be made in this almost entirely neglected area of mechanics.

it possible to quickly and constantly switch out the people who have to endure this drudgery.

If machinery throws the technology of the old division of labor onto the scrap pile, the old system manages initially to hang on in the factory as a tradition inherited from the manufacturing workshop—only for capital to then treat it as a systematic means of exploiting labor-power, with the result that it is reproduced and consolidated in an even more grotesque form. The lifelong specialty of working with a specialized tool is replaced by the lifelong specialty of serving a specialized machine. Machinery is misappropriated as a means of permanently transforming young workers into a part of specialized machines.¹⁰¹ Not only does it now cost significantly less to reproduce the worker, he is at the same time made more dependent—in fact, completely dependent—on the factory as a whole and thus the capitalist. Here, as always, one must distinguish between the increase in productivity due to the development of the social production process and the increase due to the capitalist exploitation of that process.

In the manufacturing workshop and in craft labor, tools serve the worker; in the factory, the worker serves the machine. In one case, he moves the means of labor; in the other, his job is to follow their movement. In the manufacturing workshop, workers are the limbs of a living mechanism; in the factory, a dead mechanism exists independently of them, and they are incorporated into it as living appendages. “The dull routine of a ceaseless drudgery, in which the same mechanical process is incessantly repeated, resembles the torment of Sisyphus—the toil, like the rock, recoils perpetually on the wearied operative.”¹⁰² As machine labor assaults the nervous system in the most extreme way, it also suppresses the many-sided play of a person’s muscles and in fact makes all free activity—physical and

101. Let us therefore honor Proudhon’s fabulous insight: he “construes” machinery not as a synthesis of different means of labor, but as a synthesis of different specialized operations that is brought about for the sake of the worker himself.

102. F. Engels op. cit. p. 217. [Editor’s note: English edition: Engels, *The Condition of the Working Class in England*, in *Marx-Engels Collected Works*, vol. 4 (Moscow: Progress Publishers, 1978), p. 467 note.] Even Mr. Molinari, a very ordinary, optimistic free-trader, has observed, “A man wears out more quickly by monitoring, fifteen hours a day, the uniform evolution of a mechanism, than by exercising, in the same period of time, his physical strength. This task of monitoring, which would perhaps serve as useful gymnastics for the intelligence, if it were not too prolonged, destroys in the long run, by its excess, both the intelligence and the body itself” (G. de Molinari, “Études Économiques, Paris. 1846”).

mental—impossible.¹⁰³ Labor becomes less strenuous, but even this functions as a means of torture. For instead of liberating a worker from his labor, machines liberate his labor from its substance. All capitalist production is both the process of labor and capital's valorization process, and insofar as it is the latter, the worker does not make use of the things needed for the production process: they make use of him. But only with the rise of machinery does this inversion become a palpable technological reality. The means of labor have been transformed into an automaton; as a result, the worker encounters them as capital during the labor process—as dead labor that rules over living labor-power, sucking it dry. In large-scale industry driven by machines, the intellectual faculties involved in the production process become completely separated from manual labor, as indicated earlier, and now these faculties are fully transformed into powers that capital uses to control labor. The special skill of the hollowed-out individual machine worker shrinks to the point of invisibility before the science, the immense natural forces, and the mass quantity of social labor embodied in the machine system. Along with the system itself, these things make up the power of “the master,” in whose mind machinery and his monopoly over it are inextricably intertwined. Thus whenever he clashes with his “hands,” he says to them contemptuously, “The factory operatives should keep in wholesome remembrance the fact that theirs is really a low species of skilled labour; and that there is none which is more easily acquired, or of its quality more amply remunerated, or which, by a short training of the least expert can be more quickly as well as abundantly acquired. The master's machinery really plays a far more important part in the business of production than the labour and the skill of the operative, which six months' education can teach, and a common labourer can learn.”¹⁰⁴

In the new technical hierarchy, the worker is subordinated to the unvarying movements of the means of labor, and this, along with the unique makeup of the working organism, constituted as it is by individuals of both sexes and different ages, brings about a barracks-like discipline, which develops into an entire disciplinary regime in the factory. The supervisory labor mentioned earlier reaches its fully developed state, where industrial workers are divided into manual workers and supervisors, or common soldiers and officers. “The main difficulty [in the automatic factory] lay in

103. F. Engels *op. cit.* p. 216. [Editor's note: English edition, p. 467.]

104. “The Master Spinners' and Manufacturers' Defence Fund. Report of the Committee. Manchester 1854,” pp. 17, 18. Later, we will see that the master starts singing a different tune as soon as he is threatened with the loss of his “living” automaton.

training human beings to renounce their desultory habits of work, and to identify themselves with the unvarying regularity of the complex automaton. To devise and administer a successful code of factory discipline, suited to the necessities of factory diligence, was the Herculean enterprise, the noble achievement of Arkwright! Even at the present day when the system is perfectly organized and its labour lightened to the utmost, it is found nearly impossible to convert persons past the age of puberty . . . into useful factory hands.¹⁰⁵ What is the factory code? According to which capital formulates its autocratic rule over the workers and in so doing acts as a private lawmaker, following only the dictates of its own will and dispensing with the separation of powers that bourgeois society otherwise loves so much, not to mention the system of representation that it loves even more? It is merely a capitalist caricature of society's regulation of the labor process, which becomes necessary when cooperation takes place on a large scale, and the means of labor, especially machines, are used collectively. The supervisor's list of penalties functions as once did the slave-owner's whip. But now, naturally, all punishments take the form of fines and wage deductions, and the legislative acumen of the factory Lycurgus is such that when workers violate his laws, his profits will become even greater, provided that is still possible.¹⁰⁶

105. Ure *op. cit.* pp. 22, 23. [Editor's note: English original, p. 15.] Whoever is familiar with Arkwright's biography won't be tempted to apply the term "noble" to this genius barber. Of all the great inventors of the eighteenth century, he stole the most from others and was also the cruelest person.

106. "The slavery in which the bourgeoisie holds the proletariat chained, is nowhere more conspicuous than in the factory system. Here ends all freedom in the law and in fact. The operative must be in the mill at half-past five in the morning; if he comes a couple of minutes too late, he is fined; if he comes ten minutes too late, he is not let in until breakfast is over, and a quarter of the day's wages is withheld. . . . He must eat, drink, and sleep at command. . . . The despotic bell calls him from his bed, his breakfast, his dinner. What a time of it he has of it, too, inside the factory! Here the employer is absolute law-giver; he makes regulations at will, changes and adds to his codex at pleasure; and even if he inserts the craziest stuff, the courts say to the working man: 'You were your own master, no one forced you to agree to such a contract if you did not wish to; but now, when you have freely entered into it, you must be bound by it.' . . . These operatives are condemned from their ninth year to their death to live under the sword, physically and mentally" (F. Engels *op. cit.* p. 217). [Editor's note: English translation, pp. 467-68.] I will use the following two events to illustrate "what the courts say." One took place in Sheffield at the end of 1866. A worker had signed a contract binding him to work in a metal factory for two years. A row with the owner prompted him to quit: under no circumstances, he insisted, would he continue to work for that manufacturer. Prosecuted for breaking the contract, the worker was sentenced to two months in prison. (If the manufacturer breaks the contract, only a civil action can be taken against him, and so all he risks is that he will have to pay damages.) After the worker had spent two months in prison, the manufacturer invited him

Here we will only touch on the material conditions of factory labor. All sensory organs suffer the same kind of damage from artificially high temperatures, fine bits of raw material filling the air, deafening noise, and so on, to say nothing of the mortal danger that comes with working in

back to factory so that he could honor the old contract. The worker said no, declaring that he had already been penalized for breach of contract. The manufacturer pressed charges him anew, and the worker was convicted anew, although one of the judges, Mr. Shee, did openly denounce the verdict as a juridical monstrosity whereby a man could be periodically punished for the same mistake (or crime) for his whole life. This judgment was handed down not by the "Great Unpaid," the provincial "Dogberries," but in London, by one of the highest courts. [Editor's note: The "Great Unpaid," as Marx tells us in chapter 8, was a term for nonremunerated, well-to-do county magistrates.] The second event occurred in Wiltshire at the end of November 1863. About 30 female power loom weavers, who were employed by a certain Harrup, a cloth manufacturer at Bower's Mill, Westbury Leigh, went on strike because this same Harrup had the lovely habit of fining them if they were late in the morning—and in fact he deducted 6d. from their wages if they were two minutes late, 1 shilling if they were three minutes late, and 1 shilling 6d. if they were ten minutes late. This amounted to 9 shillings per hour and £4 10 shillings per day when the average weekly wage for the year never edged above 10 to 12 shillings. Harrup also had a boy blow a whistle to signal the starting time, which he often did before 6 A.M., and when the boy stopped blowing, the doors were closed, and the "hands" who were shut out were fined.

Since there was no clock in the building, the timekeeper Harrup had thought to put in place had total control over the unfortunate "hands." The "hands" participating in the strike, mothers and girls, declared that they would go back to work if the timekeeper were replaced by a clock and a more reasonable system of fines was instituted. Harrup brought 19 women and girls before the magistrate on the charge of breach of contract. They were each sentenced to pay a fine of 6d. as well as 2 shillings 6d. for court costs. The spectators at the trial were outraged, and as Harrup was led away from the court, a large crowd hissed at him. One of the manufacturers' favorite practices is to punish workers with wage deductions for defects in the material they have been given to work on. In 1866, this practice led to a large strike in England's pottery districts. The reports of the "Ch. Empl. Commis." (1863–66) present cases where a worker not only received no wages, but through his labor and the penal code, wound up as the "debtor" of his honorable "master." The recent cotton crisis has also supplied revealing examples of the factory autocrats' cleverness in making wage deductions. The factory inspector Mr. R. Baker says, "I have myself had lately to direct prosecutions against one cotton mill occupier for having in these pinching and painful times deducted 10d. a piece from some of the young workers employed by him, for the surgeon's certificate (for which he himself had only paid 6d.), when only allowed by law to deduct 3d., and by custom nothing at all. . . . And, I have been informed of another, who, in order to keep without the law, but to attain the same object, charges the poor children who work for him a shilling each, as a fee for learning them the art and mystery of cotton spinning so soon they are declared by the surgeon fit and proper persons for that occupation. There may, therefore, be undercurrent causes for such extraordinary exhibitions as strikes, not only wherever they arise, but particularly at such times as the present, which, without explanation, render them inexplicable to the public understanding." Here he is referring to the power loom weavers' strike at Darwen in June 1863. "Reports of Insp. of Fact, for 30th April 1863." (The factory reports always cover a larger period than their official dates suggest.)

spaces crowded with machines: industrial lists of the fallen are produced with the regularity of the seasons. As it is carried out by capital, the practice of making the social means of production more economical, which ripens to full maturity only in the hothouse environment of the factory system, is also the practice of systematically stealing the things a worker needs to stay alive while he works: space, air, light, and the equipment that protects him from the deadly or unhealthy conditions of the production process—not to mention the things put in place for the sake of his comfort.¹⁰⁷ Was Fourier wrong to call factories “mitigated jails?”¹⁰⁸

5. The Struggle between Workers and Machines

The struggle between capitalists and wage laborers began when the capital relation took shape, and it raged on throughout the era of the manufacturing workshop.¹⁰⁹ But the worker started to battle the actual means of labor, or capital’s material mode of existence, only once machinery was introduced. He revolted against this particular form of the means of produc-

107. In the first chapter of volume 3, I will report on the campaign English manufacturers recently waged against the clauses of the Factory Act that protect the limbs of factory “hands” from mortally dangerous machinery. Here I will simply give a quotation from Leonard Horner’s official report: this will suffice for now. Horner, a factory inspector, writes, “I have heard some mill-owners speak with inexcusable levity of the accidents; such for instance, as the loss of a finger being a trifling matter. A working man’s living and prospects depend so much upon his fingers, that any loss of them is a very serious matter to him. When I have heard such inconsiderate remarks made, I have usually put this question: ‘Suppose you were in want of an additional workman, and two were to apply, both equally well qualified in other respects, but one had lost a thumb or forefinger, which would you engage?’ There was never a hesitation as to the answer.” The manufacturers “have mistaken prejudices against what they have heard represented as a pseudo-philanthropic legislation” (“Reports of Insp. of Fact. for 31st Oct. 1855”). These manufacturers were “clever folk,” and it was not for nothing that they gushed about the slave-holders’ rebellion!

108. In the factories where the Factory Act has been in effect longest, limiting labor-time and imposing other restrictions, some ills have disappeared. At a certain point, improving the machinery necessitates an “improved construction of the factory buildings,” which benefits workers. (See “Reports etc. for 31st Oct. 1863,” p. 109.)

109. See, for example, John Houghton, “Husbandry and Trade improved, Lond., 1727,” “The Adventures of the East India Trade 1720,” John Bellers, *op. cit.* “The masters and the men are unhappily in a perpetual war with each other. The invariable object of the former is to get their work done as cheap as possibly; and they do not fail to employ every artifice to this purpose, whilst the latter are equally attentive to every occasion of distressing their masters into a compliance with higher demands.” “An Inquiry into the causes of the Present High Prices of Provisions.” (By Rev. Mr. Nathaniel Foster, who was very much on the workers’ side.) [Editor’s note: “Possibly” is “possible” in the source text.]

tion because it constitutes the material foundation on which the capitalist mode of production rests.

All over seventeenth-century Europe, workers rose up against the so-called ribbon mill, a machine for weaving ribbons and lace that was also known as the string mill or mill chair.¹¹⁰ Toward the end of the 1630s, a rampaging mob destroyed a wind-driven sawmill built by a Dutchman near London. Even at the beginning of the next century, water-driven sawmills barely managed to overcome the popular resistance they elicited, which was encouraged by Parliament. When Everet made the first water-powered machine for shearing wool in 1758, a hundred thousand unemployed workers promptly set it ablaze. Fifty thousand workers who lost their livelihood (carding wool) to Arkwright's scribbling mills and carding machines petitioned Parliament in protest. During the first decade and a half of the nineteenth century, groups known as Luddites laid waste to countless machines in England's manufacturing districts. This was largely a response to the use of the power loom, and it gave the anti-Jacobin government, made up of such figures as Sidmouth and Castlereagh, a pretext for carrying out the most violent reactionary measures. Workers needed time and experience before they could distinguish between machinery and

110. The ribbon loom was invented in Germany. The Italian Abby Lancellotti says, in a work published in Venice in 1636 (but written in 1629), "Anthony Müller of Danzig about fifty years ago saw in a town a very ingenious machine, which weaves four to six pieces at once. But the mayor of the town worried that this invention might throw a large number of workmen into the streets, and therefore had the invention suppressed and the inventor secretly strangled or drowned." [Editor's note: Marx is citing from Johann Beckmann's *Beiträge zur Geschichte der Erfindungen* (Leipzig, 1786).] In Leyden, this machine was first employed in 1621. In response, lace-makers rioted, forcing the town council to make it illegal to work with it. Having restricted its use in various ways through the decrees of 1623, 1639, and so on, the States General of Holland finally allowed it, though not without limits, under the decree of December 5, 1661. "In this city," says Boxhorn ("Inst. Pol. 1663"), speaking of the moment when the ribbon loom was introduced in Leyden, "approximately two decades ago, certain people invented a new device for weaving; with it, one person could weave more cloth with less effort than many people could in the same amount of time. The weavers were thus aggrieved, and they rose up, until finally the magistrate banned the use of the device." The same machine was prohibited in Cologne just as it was being introduced in England, where it immediately led to workers' protests. An Imperial edict of February 19, 1685 made the use of it illegal in all of Germany. In Hamburg, such machines were burned on the public order of the magistrate. On February 9, 1719, Karl IV renewed the edict of 1685, and the use of the machine wasn't allowed in the Electorate of Saxony until 1765. This machine, which caused so much unrest in the world, was in fact the precursor to the mule and the power loom and, thus, heralded the industrial revolution of the eighteenth century. A boy who had no weaving experience could now set the whole loom—with all its shuttles—in motion merely by moving a rod back and forth. And once the ribbon loom had been improved, it produced 40 to 50 pieces at the same time.

the capitalist application of it—and thus also learn to shift their attacks from the material means of production themselves to the social form in which those means were being employed.¹¹¹

Workers who fought for higher wages in the manufacturing workshop generally accepted the manufacturing system: they were in no way trying to end it. Where opposition to new workshops arose, it came from guild masters and privileged towns, not wage laborers. Contemporary writers thus tended to treat the division of labor as a means of virtually replacing workers but not of dislodging actual workers from their jobs. The distinction is quite clear. If someone says that in England it would take 100 million people using the old spinning wheel to spin as much cotton as 500,000 people can now spin with a mule, this doesn't mean that the mule displaced all those millions of workers who never existed. It means only that many millions of workers would be needed to replace the spinning machinery. On the other hand, if someone says that the power loom put 800,000 weavers out of work in England, he is speaking not of real machinery that a certain number of workers would be needed to replace, but rather of real workers who were actually put out of a job by machines. During the era of the manufacturing workshop, the core principle of production remained artisanal trades, even if they were now split up. The demands of the new colonial markets couldn't be satisfied by the relatively small number of urban workers handed down from the Middle Ages, and at the same time, the manufacturing system proper made new areas of production available to the rural population that had been driven off the land when the feudal system collapsed. For the most part, then, it was the positive side of the division of labor and cooperation in the workshops that came into the foreground: namely, they made workers more productive.¹¹² Well before large-scale production emerged, cooperation

111. In old-fashioned manufacturing workshops, workers still occasionally revolt against machinery in this crude way—as they did in Sheffield's file grinding industry in 1865.

112. For Sir James Steuart, the impact of machinery was as follows: "Machines therefore I consider as a method of augmenting (virtually) the number of the industrious, without the expence of feeding an additional number. . . . How does the effect of a machine differ from that of new inhabitants?" (Fr. Tr., Vol. 1, Bk I, Ch. 19). [Editor's note: Marx takes the quote from a French translation. Steuart's formulation, which does not include the second sentence, can be found on p. 123 of the English original.] Petty, who says machinery replaces "polygamy," is much more naïve. This point of view applies at most to certain parts of the United States. On the other hand, "machinery can seldom be used with success to abridge the labour of an individual; more time would be lost in its construction than would be saved by its application. It is only really useful when it acts on great masses, when a single machine can assist the work of thousands. It is accordingly in the most populous coun-

and the concentration of the means of labor in the hands of a few were instituted in agriculture, and in many countries where this happened, the mode of production was suddenly and violently revolutionized, which had the effect of transforming the rural population's conditions of existence and means of employment. At first, however, the struggle pitted large landowners against small ones more than capital against wage labor. On the other hand, when workers were displaced by the means of labor—horses, sheep, and so on—direct acts of violence functioned chiefly to make the industrial revolution possible. Workers were forced off the land; then the sheep arrived. The large-scale theft of land seen in England (and elsewhere) supplied large-scale agriculture with the space it needed to operate. When this transformation of agriculture was in its early stages, it thus looked more like a political revolution than a revolution in production.

The moment a means of labor takes the form of a machine, it starts to compete against the worker.¹¹³ For the amount by which capital valorizes itself, when it does so using machines, is directly proportional to the number of workers whose conditions of existence the machinery has destroyed. The whole system of capitalist production rests on the circumstance that the worker sells his labor-power as a commodity; the division of labor narrows his labor-power to the point where it becomes a very particular competence in handling a specialized tool; then, when his tool falls prey to a machine, the exchange-value of his labor-power immediately vanishes along with its use-value. The worker becomes unsellable, just like paper money that has lost its status as legal tender. Some members of the working class are rendered superfluous by machinery: they are turned into a population that capital no longer needs to valorize itself. Either these people go under, winding up as casualties in the lopsided battle between machine-driven production and the old-fashioned kind driven by craft labor and the manufacturing system, or they stream into the branches of industry that require the least amount of skill, flooding the labor market and thereby causing the price of labor-power to fall below its value. The pauperized worker is supposed to find great solace in the fact that his suffering is merely a "temporary inconvenience," as well as in the other fact that because machines take over a whole field of production only gradually, the extent and intensity of their destructive effects are

tries, where there are most idle men, that it is most abundant. . . . It is not called into use by a scarcity of men, but by the facility with which they can be brought to work in masses" (Piercy Ravenstone, "Thoughts on the Funding System and its Effects, Lond. 1824," p. 45).

113. "Machinery and labour are in constant competition" (Ricardo op. cit. p. 479).

milder than they would have been if the process happened more rapidly. These forms of solace contradict each other. Where machines gradually come to dominate an area of industry, the workers competing against those machines are condemned to chronic destitution. Where the takeover occurs rapidly, the effects are widely felt and acute. The world has never witnessed a spectacle more horrifying than the slow demise of England's hand loom weavers, which dragged on for decades and finally came to an end in 1838. Many weavers starved to death. Together with their families, many languished for quite a while on 2¹/₂d. per day.¹¹⁴ England's cotton machinery, in contrast, had the acute type of impact on East India, whose general governor observed in 1834-35, "The misery hardly has an equal in the history of commerce. The bones of the cotton-weavers whited the plains of India."^{ix} Of course, the weavers who departed our temporal realm did in fact experience the machines as a "temporary inconvenience," but since machinery is always taking over new areas of production, its "temporary" effect amounts to a permanent one. In all capitalist production, a worker encounters the conditions and product of his labor as things that are independent of and alien to him; however, this independence and alienation develops into total antagonism only with the rise of machines.¹¹⁵

114. Before the Poor Law was enacted in England in 1834, the competition between hand weaving and power weaving was prolonged there by the practice of using parish relief to supplement wages, which had fallen far below the minimum. "The Rev. Mr. Turner was in 1827 rector of Wilmstowe, in Cheshire, a manufacturing district. The questions of the Committee of Emigration, and Mr. Turner's answers show how the competition of human labor is maintained against machinery. Question: 'Has not the use of the power-loom superseded the use of the hand-loom?' Answer: 'Undoubtedly; it would have superseded them much more than it has done, if the hand-loom weavers were not enabled to submit to a reduction of wages.' Question: 'But in submitting he has accepted wages which are insufficient to support him, and looks to parochial contribution as the remainder of his support?' Answer: 'Yes, and in fact the competition between the hand-loom and the power-loom is maintained out of the poor rates.' Thus degrading pauperism or expatriation, is the benefit which the industrious receive from the introduction of machinery, to be reduced from the respectable and in some degree independent mechanic, to the cringing wretch who lives on the debasing bread of charity. This they call a temporary inconvenience" ("A Prize Essay on the Comparative Merits of competition and co-operation. Lond. 1834," p. 29). [Editor's note: "Much more than it has done" is "much more rapidly than it has done" in the source text.]

115. "The same cause which may increase the revenue of the country [that is, as Ricardo explains in the same passage, the revenues of landlords and capitalists, whose wealth = Wealth of the Nation, economically speaking] may at the same time render the population redundant and deteriorate the condition of the labourer" (Ricardo op. cit. p. 469). "It is in fact, the constant aim and tendency of every improvement in machinery to supersede human labour altogether, or to diminish its cost, by substituting the industry

It is thus when machinery is introduced that the worker begins to violently revolt against the means of labor.

The means of labor now kill the worker. The direct antagonism between the two is at its most visible wherever newly introduced machines compete against industry driven by traditional craft labor or the old manufacturing workshop. But within large-scale industry, too, the unceasing improvement of machines and the further development of the automatic system do something analogous: "The object of improved machinery is to diminish manual labour, to provide for the completion of a link in a manufacture by the aid of an iron instead of the human apparatus."¹¹⁶ "The adaption of power to machinery heretofore moved by hand is almost of daily occurrence . . . the minor improvements in machinery having for their object the economy of power, the production of better work, the turning off more work in the same time, or in supplying the place of a child, a female, or a man, are constant, and though sometimes apparently of no great moment, have somewhat important results."¹¹⁷ "Whenever a process requires a particular dexterity and steadiness of hand, it is withdrawn, as soon as possible, from the cunning workman, who is prone to irregularities of many kinds, and it is placed in charge of a peculiar mechanism, so self-regulating that a child can superintend it."¹¹⁸ "On the automatic plan skilled labour gets progressively superseded."¹¹⁹ "The effect of improvements in machinery, not merely in superseding the necessity for the employment of the same quantity of adult labour as before, in order to produce a given result, but in substituting one description of human labour for another, the less skilled for the more skilled, juvenile for adult,

of women and children for that of men or that of ordinary labourers, for trained artisans" (Ure op. cit. pp. 34, 35). [Editor's note: English original, p. 23.]

116. "Reports of Insp. of Fact. 31st Oct. 1858," p. 43.

117. "Reports etc. Oct. 1856," p. 15.

118. Ure op. cit. Vol. 1, p. 29. [Editors note: English original, p. 19.] "The great advantage of the machinery employed in brick-making is that they enable you to be wholly independent of the skilled labourers" (Ch. Empl. Comm. Fifth Report, Lond. 1866," p. 130, n. 46). Mr. A. Sturrock, superintendent of the machine department of the Great Northern Railway, says with respect to the building of machines (locomotives, etc.), "The expensive English workmen are being less used every day. The production of the workshops in England is being increased by the use of improved tools and those tools are again worked by a low class of labour. . . . I was speaking of a time when their skilled labour necessarily produced all the parts of engines. Now the parts of the engines are produced by labour with less skill but good tools. . . . By tools you mean the engineers' machinery? Yes, lathes, planing machines, drills, and so on" (Royal Commission on Railway. Minutes of Evidence, n. 17,862 and n. 17,863, London, 1867).

119. Ure op. cit. p. 30.

female for male, causes a fresh disturbance in the rate of wages.”¹²⁰ “The effect of substituting the self-acting mule for the common mule, is to discharge the greater part of the men spinners, and to retain adolescents and children.”¹²¹ The rapid progress made by the machine system under the pressure of the shortened workday has shown us that the system has extraordinary elasticity, owing to accumulated practical experience, the extent of the mechanical means already available, and continuous technological innovation. But in 1860, when England’s cotton industry was reaching its zenith, who could have imagined that the American Civil War would spur the dramatic advances in machinery achieved over the next three years and, accordingly, cause so much manual labor to become superfluous? A few examples of the factory inspectors’ official evidence on this point will suffice. One Manchester manufacturer says, “We formerly had seventy-five carding engines now we have twelve doing the same quantity of work, which is fully equal if not superior to what we made before. We are doing with fewer hands by fourteen at a saving in wages of £10 per week. Our estimated saving in waste is about 10 percent in the quantity of cotton consumed.” In a fine-spinning mill in Manchester, the inspector was informed that “through increased speed and the adoption of some self-acting processes a reduction had been made in number of a fourth in one department and of above half in another, and that the introduction of the combing machine in place of the second carding had considerably reduced the number of hands formerly employed in the carding room.” Another spinning mill estimates that it reduced its “hands” by 10 %. Messrs. Gilmore, spinners in Manchester, remark, “In our blowing room department we consider our expense with new machinery is fully one third less in wages and hands . . . in the jack frame and drawing frame room, about one-third less in expense. But this is not all; when our yarn goes to the manufacturers, it is so much better by the application of our new machinery that they will produce a greater quantity of cloth, and cheaper than from the yarn produced by old machinery.”¹²² The factory inspector Alexander Redgrave observes about this, “The reduction of hands against increased production is in fact constantly taking place; in woollen mills the reduction commenced some time since, and is continuing; a few days since the master of a school in the neighbourhood of Rochdale said to me that ‘the great falling off in the girls school is not only

120. *Ibid.* Vol. 2, p. 67. [Editor’s note: English original, p. 321.]

121. *Ibid.*

122. “Reports of Insp. of Fact. 31st Oct. 1863,” p. 108ff.

caused by the distress, but by the changes of machinery in the woollen mills, of which a reduction of seventy short-timers had taken place.”¹²³

But machinery doesn't simply act as the unstoppable competition forever about to make the wage laborer “redundant.” For workers, it is a hostile force. Loudly and widely proclaiming it as such, capital uses it accordingly. Machinery is the most powerful weapon for putting down workers' periodic revolts against capital's autocratic rule—strikes and so on.¹²⁴ Gaskell maintains that the steam engine has always been an enemy of “human labor,” and when workers' aspirations became more ambitious, and were threatening to send the early factory system into crisis, it was the steam engine that enabled capitalists to crush those aspirations.¹²⁵ Much of what has been invented since 1830—certainly enough to fill a whole volume—was brought into the world expressly to serve capital as a weapon for combatting workers' mutinies. The self-acting mule is the first thing to mention here, since it launched the new epoch of the automatic system.¹²⁶ Ure remarks about the coloring machines made for calico printing, “At length capitalists sought deliverance from this intolerable bondage [namely, those so onerous conditions set forth in their contracts with workers] in the resources of science, and were speedily re-instated in their legitimate rule, that of the head over the inferior members.” On the topic of a machine for making dressing wraps, which was invented in response to a strike, he says, “The combined malcontents, who fancied themselves impregably intrenched behind the old lines of division of labour, found their flanks turned and their defenses rendered useless by the new mechanical tactics, and were obliged to surrender at discretion.”

123. *Ibid.* p. 109. During the cotton crisis, machinery improved rapidly, and this allowed English manufacturers to glut the world market once again—something it took them little time to do right after the American Civil War. It became nearly impossible to sell cloth during the last six months of 1866. The English then began sending goods to China and India on consignment, which of course made the “glut” even worse. Early in 1867, the manufacturers turned to their customary means of relief: they lowered wages by 5%. The workers protested and took the theoretically correct position that short time, or working four days a week, was the only cure. After resisting for a long time, the self-proclaimed captains of industry finally decided to implement short time, in some cases with a 5% wage reduction and in some cases without one.

124. “The relation of master and man in the blown flint and bottle trades amounts to chronic strike.” Hence the favorable conditions for manufacturing pressed glass where the main operations are performed by machines. One firm in Newcastle, which had produced 350,000 pounds of blown flint glass annually, now produces 3,000,350 pounds of pressed glass. (“Ch. Empl. Comm. Fourth Rep. 1865,” pp. 262–3.)

125. Gaskell, “The Manufacturing Population of England. Lond. 1833,” pp. 34, 35.

126. Owing to strikes in his own machine-building factory, Mr. Fairbairn discovered several very important ways to use machines to build machines.

He has this to say about the invention of the self-acting mule: “A creation destined to restore order among the industrious classes. . . . This invention confirms the great doctrine already propounded, that when capital enlists science into her service, the refractory hand of labour will always be taught docility.”¹²⁷ Although Ure’s book appeared 30 years ago, or at a time when the factory system was still in its early stages, it remains the classic expression of the factory spirit, with its frank cynicism but also owing to the naïveté with which the author parades the mindless contradictions in capital’s head. He articulates the “doctrine” that capital, having put science on its payroll, will always teach the “refractory hand of labour” to be “docile,” but then he waxes indignant because the “physico-mechanical science has been accused of lending itself to the rich capitalist as an instrument for harassing the poor.” And he sermonizes at length about the advantages workers derive from the rapid development of machinery, only to warn that if they go on strike, machinery will develop even faster. “Violent revulsions of this nature,” he says, “display short-sighted man in the contemptible character of a self-tormentor.” The opposite is the case just a few pages earlier: “Had it not been for the violent collisions and interruptions resulting from erroneous views among the factory operatives, the factory system would have been developed still more rapidly and beneficially for all concerned.” Ure proceeds to exclaim again, “Fortunately for the state of society in the cotton districts of Great Britain, the improvements in machinery are gradual.” “It [the introduction of such improvements] is said to lower the rate of earnings of adults by displacing a portion of them, and thus rendering their number superabundant as compared with the demand for their labour. It certainly augments the demand for the labour of children and increases the rate of *their* wages.” On the other hand, having offered such consolation, this same writer defends the paltriness of children’s wages, arguing that if they were higher, parents would send their children to the factory at too young an age. The whole point of Ure’s book is to justify the unrestricted workday. Legislation that prevents thirteen-year-old children from being worked to the bone twelve hours a day reminds his liberal soul of the darkest moments of the Middle Ages. This doesn’t stop him, however, from admonishing factory workers to say prayers of thanks to Providence, which uses machinery as a means of supplying workers with “the leisure to think of their immortal interests.”¹²⁸

127. Ure op. cit. Vol. 2 pp. 141, 142, 138, 140. [Editor’s note: English original, pp. 369, 370, 367, 368.]

128. Ibid. and pp. 10, 5, 143, 6, 68, 67, 143. [Editor’s note: English original, pp. 268, 7, 370, 280, 322, 321, 370.]

6. The Compensation Theory as It Applies to Workers Displaced by Machines

A whole series of bourgeois political economists, e.g., James Mill, MacColloch, Torrens, Senior, John Stuart Mill, and so on, have claimed that whenever machinery displaces workers, it immediately and necessarily frees up enough capital to employ the very same workers it put out of work.¹²⁹

Imagine a capitalist employs 100 workers in a factory that makes carpets, paying each worker an annual wage of £30. He thus spends £3,000 annually on variable capital. Now imagine that the capitalist dismisses 50 workers and has the 50 who stay on work at a machine he has bought for £1,500. For the sake of simplicity, we will disregard the cost of buildings, coal, etc., and say that the cost of the raw material remains what it has been: £3,000 per year.¹³⁰ Is any capital “set free” as a result of this change? Before it occurred, the £6,000 that the capitalist spends each year was evenly divided between constant and variable capital. That sum is now made up of £4,500 spent on constant capital (£3,000 for raw material and £1,500 for machinery) and the £1,500 put into variable capital. The variable part of the total capital—the part that becomes living labor-power—now amounts to just one-quarter rather than one-half of the total capital. Capital hasn’t been set free: it remains tied down, only in such a way that it isn’t exchanged for labor-power—in other words, variable capital has been turned into constant capital. If all other conditions stay the same, the £6,000 of capital can no longer employ more than 50 workers: it employs fewer people as machines are improved. If the newly introduced machinery had cost less than the labor-power and instruments of labor it supplanted, say, £1,000 rather than £1,500, £1,000 of variable capital would have been transformed into (or tied down in) constant capital, and £500 of capital would have been set free. Assuming that annual wages don’t change, this money could be used to employ about 16 workers when 50 were laid off. But in fact the £500 wouldn’t come close to sufficing even for that, since part of it has to be turned back into constant capital when new workers are brought on, and thus only part can be spent on labor-power.

129. Ricardo originally shared this view but later expressly renounced it; he was motivated here by his characteristic scholarly openness and love of truth. See *op. cit.* ch. XXXI., “On Machinery.”

130. N.B. I am illustrating this point in much the same way that the abovementioned political economists do.

This isn't the liberation of capital that those apologists mentioned earlier have in mind: they are thinking of what happens with the means of subsistence of the workers who have been "set free." There is no denying that in our example the machinery doesn't simply set 50 workers free, thus putting them at the "disposal" of other capitalists. Since it simultaneously breaks the workers' tie to £1,500 worth of their means of subsistence, it also sets those means "free." But here the simple and hardly novel fact that machines free the worker from his means of subsistence is formulated in economic language as follows: machinery sets a worker's means of subsistence free for him, turning them into capital that can be used to employ him. We can see that it always comes down to how things are said. *Nominibus mollire licet mala.*^x

The means of subsistence worth £1,500 never functioned as capital opposite the workers who were laid off. What did function as capital opposite those workers was the £1,500 that has now been turned into machinery. When we take a closer look, we see that the former £1,500 represented only part of the carpets produced annually by the 50 laid-off workers—the part the workers received as cash wages rather than payment in kind. The workers used the £1,500 in transformed carpets to buy their means of subsistence, which cost them the full amount. Thus from the workers' standpoint, those means of subsistence existed as commodities rather than capital, and from the commodities' standpoint, the workers existed as buyers rather than wage laborers. When the machinery "freed" the workers from their means of buying, they were transformed from buyers into nonbuyers, which reduced the demand for the commodities they had been buying. *Voilà tout.* If this reduction in demand isn't offset by an increase arising somewhere else, the market prices of the commodities will fall. And if this dynamic persists for a long time and becomes widespread, some of the workers who produce those commodities will be dismissed. Part of the capital that had produced the necessary means of subsistence is now reproduced in another form. As market prices are falling and capital is being displaced, the workers who make the necessary means of subsistence are, in turn, "freed" from a part of their wages. Mr. Apologist hasn't proven that when machinery frees workers from their means of subsistence, those means are simultaneously transformed into capital used to employ those workers. With his trusty law of supply and demand, he demonstrates the opposite. Machines turn workers out onto the street in the branches of industry where they have been introduced, and others as well.

What is the basis of this absurd compensation theory? Beyond an honest desire to conceal what is actually happening, there is also, first, the fact

that machinery frees up labor-power which was formerly tied down; and if there is extra capital seeking investment, machinery puts this labor-power, and also the means of subsistence that become available along with it, at the disposal of that capital. However, machinery doesn't displace only the workers who are the first to be made "superfluous." It also displaces the streams of people supplying every branch of industry with both replacement workers and the additional workers needed in the event of expansion: such reserve workers are pushed out as well. But while these replacement workers spread out and get absorbed by other branches of industry, the original victims mostly wilt and waste away during the transition period. The division of labor has made their labor-power so specialized that they now find work in only a few lower branches of industry, where there is thus a chronic glut of workers.¹³¹ Second, it is unquestionably a fact that machinery in itself doesn't cause workers to be "set free" from their means of subsistence. Machinery lowers the value of the product and increases production in the branches of industry it takes over, and at first it doesn't affect the amount of the means of subsistence produced in other branches. When machinery is introduced, the amount of the means of subsistence a society has for those put out of work therefore stays the same, or perhaps grows larger, to say nothing of the enormous part of the annual product that is wasted by nonworkers. And this is the key point in the economists' apologetics! What has happened to the contradictions and antagonisms that are inseparable from the capitalist use of machinery? They simply don't exist because they arise not from machinery itself, but rather from the way capitalists use it. So machinery in itself shortens labor-time, but it extends the workday when used by capitalists; machinery in itself makes labor less arduous, but it raises labor's intensity when used by capitalists; machinery in itself represents the victory of human beings over natural forces, but people become the slaves of those forces when it is used by capitalists; machinery in itself increases the wealth of the producers, but it impoverishes them when used by capitalists. According to bourgeois political economists, if we just consider machinery in itself, we will see quite clearly that all these palpable contradictions are mere semblances of

131. Regarding this point, a follower of Ricardo has this to say about J. B. Say's vapidities: "The habits of labourers, where division of labour has been carried very far, are applicable only to the particular line they have been used to; they are a sort of machines. It is therefore quite useless to repeat, like a parrot, that things have a tendency to find their level. We must look about us, and see that they cannot for a long time find a level; and that when they do, it will be a far lower level than they set out from" ("An Inquiry into those Principles respecting the Nature of the Demand, etc. Lond. 1821," p. 72).

everyday reality. They don't exist in themselves, and therefore they don't exist in the realm of theory either. Bourgeois political economists thus spare their own brains further effort as they accuse their opponents of stupidly targeting machinery itself, not the capitalist use of it.¹³²

Every machine-made product—for example, a yard of cloth—is less expensive than the handmade version it displaces. An absolute law follows from this: If the total quantity of a machine-made article is equal to that of the version formerly produced by craft labor or in the manufacturing workshop, then the total amount of labor expended will be reduced. Of course, the additional labor required to produce the means of labor—machinery, coal, and so on—has to be smaller than the amount of labor saved by using machinery. The machine-made product would otherwise cost as much labor as the handmade version, or even more. But even with fewer workers making an article with machines, the total amount produced isn't equal to the total quantity of the displaced handmade article; instead it far exceeds it. Let's suppose that 400,000 yards of machine-made cloth are produced by fewer workers than are needed to weave 100,000 yards of cloth by hand. In four times as much product, there is four times as much raw material, and the amount of raw material produced has to be quadrupled. But as for the means of labor that are consumed, such as buildings, coal, machines, and so on, the situation is different. The limit within which the additional labor needed to produce them can increase varies with the difference between the quantity of the machine-made version of the product and the quantity that the same number of workers could produce by hand.

So when machine-driven production is enlarged in a particular branch of industry, production initially increases in the branches that supply it with its means of production. How much the number of workers employed will increase as a result of this will depend on the composition of the capital that is spent (assuming that the length of the workday and labor's intensity are fixed)—in other words, it will depend on the ratio between the capital's constant and variable components. This ratio also varies widely, changing with the extent to which machinery has taken

132. MacCulloch is one of the writers who excelled at this kind of pompous cretinism. "If it be advantageous," he says with the affected naïveté of an eight-year-old, "that the skill of the labourer should be indefinitely extended—that he should be enabled to produce a vastly greater quantity of commodities with the same, or a less, quantity of labour, it must also be advantageous that he should avail himself of the assistance of such machines as may most effectually assist him in bringing about that result" (MacCulloch, "Princ. of Pol. Econ. Lond. 1830," p. 166).

over, or is taking over, the branches of industry in question. The number of workers condemned to labor in coal and metal mines has surged incredibly as the machine system has spread in England, although over the past few decades, the use of new machines in mining has slowed that growth.¹³³ With the birth of machines, a new kind of worker is born: their producer. We have already seen that machine-driven production is taking over this branch of industry, too, and on an ever-increasing scale.¹³⁴ As for the raw material,¹³⁵ there can be no doubt that rapid advances in cotton spinning not only had a hothouse effect on the expansion of cotton production in the United States and, in turn, on the African slave trade, they also made breeding Blacks into one of the leading businesses in the so-called border slave states. The total slave population numbered 697,000 in 1790, when the United States conducted its first census for slaves. In 1861, the figure was very different—about four million. Yet it is no less certain that the blossoming of machine-driven wool factories, together with the progressive transformation of agricultural territories into sheep pastures, prompted the mass expulsion of rural workers and rendered many such workers “superfluous.” Ireland is still going through the process of cutting its population, which has fallen almost by half over the past two decades, to an amount that corresponds exactly to the needs of its landlords and English wool manufacturers.

When machinery takes over the preliminary or intermediary stages that an object of labor has to pass through on its way to its final form, those stages produce a greater amount of material, and the demand for labor increases in the artisanal or manufacturing workshops that receive the machinery's output. Machine spinning supplied yarn at such a low cost and in such abundance that hand weavers were at first able to work

133. According to the census of 1861 (Vol. II. Lond. 1863), the number of workers employed in the coal mines of England and Wales was 246,613, of whom 73,546 were under 20 and 173,067 were older than 20. Belonging to the first group were 835 children between five and 10, 30,701 between 10 and 15 years of age, and 42,010 teens aged 15 to 19. The number of workers employed in iron, copper, and pewter mines, and all other metal mines, amounted to 319,222.

134. The number of people employed in the production of machines in England and Wales: 60,807 (in 1861). This includes the manufacturers and all their clerks, and also all the salespeople and merchants in this field. But it doesn't include the producers of small machines, such as sewing machines, as well as the producers of the tools for the working machines, e.g., spindles. The total number of civil engineers was 3,329.

135. Since iron is one of the most important raw materials, we should note that in England and in Wales in 1861, there were 125,771 iron casters, of whom 123,430 were male and 2,341 were female. Of those in the first group, 30,810 were under 20 and 92,620 older than that.

full time with no added expense. Their incomes rose as a result,¹³⁶ and people therefore flocked to cotton spinning. The Jenny, throstle, and mule in fact called forth 800,000 cotton weavers in England; then the power loom arrived and wiped them out. Likewise, as the abundance of machine-produced clothing materials grew larger, so did the number of tailors, dressmakers, and seamstresses—until the sewing machine was introduced.

As machine-driven production makes ever-greater amounts of raw materials, half-finished products, and the means of labor with a relatively small number of workers, the labor applied to these things becomes proportionally more differentiated, splitting into countless subtypes. The branches of social production thus become more numerous. Machinery drives the social division of labor forward incomparably more than the manufacturing system does, for it enhances the productive power of the areas it takes control of to an incomparably greater degree.

The immediate effect of machinery is that it increases both surplus-value and the quantity of products in which surplus-value is represented. Machinery enlarges the amount of the substances that members of the capitalist class and their dependents can consume, and thus it enlarges these social strata, whose growing wealth, together with the relatively smaller number of workers needed to produce the primary means of subsistence, creates both a new demand for luxury goods and the means for satisfying it. A greater part of all the goods society produces is turned into surplus product, while a greater part of the surplus product is reproduced and consumed in a variety of refined forms. In short, more luxury goods are produced.¹³⁷ The increased refinement and diversification of products also arises as a result of the new world-market connections that large-scale industry brings about. It doesn't only happen that more foreign luxury goods are exchanged for domestic products; larger quantities of foreign raw materials, ingredients, and half-finished products now flow into domestic industries, where they serve among the other means of production. These world-market connections lead to an increased demand

136. "A family of four adult persons [cotton weavers], with two children as winders, earned, at the end of the last and at the commencement of the present century, £4 per week, when working ten hours per day; when work was pressed they could of course earn more. . . . They had at all times been sufferers from the impossibility of supplying themselves with materials for their labour" (Gaskell *op. cit.* pp. 25-27).

137. F. Engels, in "Lage," etc., documents the terrible condition of many of just those luxury workers. See also many cases included in the reports of the "Child. Empl. Comm." [Editor's note: "Lage" refers to Engels's 1845 book, *Die Lage der arbeitenden Klasse in England*, translated as *The Condition of the Working Class in England*.]

for labor in the transportation industry, which itself splits into numerous subtypes.¹³⁸

When the amount of the means of production and subsistence increases as the number of workers decreases in relative terms, this enlarges the amount of labor performed in branches of industry whose products take years to build—canals, ports, tunnels, bridges, and so on. Furthermore, entirely new branches of production and fields of labor take shape, resulting from machinery directly in some cases and the general industrial transformation that goes with machinery in others. Yet even in the most advanced countries, these new industries produce an insignificant share of the total product. The number of workers they employ is directly proportional to the need they create for the most basic manual labor. At present, gas works, telegraphy, photography, the steamship industry, and the railroad can be seen as the main examples of this kind of industry. The 1861 census (for England and Wales) put the number of people working in the gas industry (gas works, the production of mechanical devices, agents working for the gas companies, etc.) at 15,211, the number of people employed in telegraphy at 2,399, the number of people working in the photography industry at 2,366, the number of people working in the steamship industry at 3,570, and the number of people employed in the railway industry at 70,599—about 28,000 of whom were either more or less permanently employed “unskilled” ditch diggers or the administrative and commercial personnel. Thus the total for these five new industries ran to 94,145 people.

Lastly, the extraordinary gains in large-scale industry’s productive power have caused the exploitation of labor-power in all other spheres of production to become more intense and extensive, thereby making it possible to employ an ever-larger part of the working class nonproductively and, more specifically, to reintroduce the ancient domestic slaves, in greater and greater numbers, under the heading “the servant class”—i.e., butlers, maids, lackeys, and so on. According to the 1861 census, the total population of England and Wales amounted to 20,066,224 people; 9,770,259 of them were male while 10,289,965 were female. If we subtract everyone too old or too young to work, all the “nonproductive” women, teenagers, and children, everyone in the “ideological” orders, such as members of the government, clerics, priests, soldiers, and so on, all those who live exclusively from the labor of others in the form of ground rent,

138. In 1861, there were 94,665 sailors employed in the merchant service in England and Wales.

interest, and so on, and, finally, paupers, vagabonds, criminals, and the like, we are left with roughly 8,000,000 male and female persons of different ages, including all the capitalists who play a part in production, trade, or finance. The vocational distribution of these 8,000,000 people is as follows:

Agricultural workers, including shepherds, farmhands, and female servants who live with a farmer	1,098,261 persons
Everyone employed in cotton, wool, worsted, flax, hemp, and jute factories, as well as in machine-driven stocking and lace production	642,607 ¹³⁹
Coal and metal miners	565,835
Employees in metal works: blast-furnaces, rolling-mills, etc. and every kind of metal manufacturing	396,998 ¹⁴⁰
The servant class	1,208,648 ¹⁴¹

If we combine all the textile factory workers with the coal and metal miners, we get 1,208,442 persons. If we combine all the textile workers with all those employed in metal works and metal manufacturing, the total is 1,039,605. Both figures are smaller than the number of modern domestic servants. Behold how the capitalist use of machinery lifts people up!

7. How Machine-Driven Industry Attracts and Repels Workers as It Develops. Crises in the Cotton Industry

All political economists who can think straight concede that when machinery is newly introduced, it has a devastating effect on workers in the areas of craft labor and manufacturing workshops it competes against first. Moreover, almost all of them decry the slavery that is factory labor. And yet what grand trump card do they all like to play? That after the horrors of the period when machinery is introduced and begins its ascent, machines ultimately increase—rather than lessen—the number of wage slaves! Political economy in fact enthuses over a hideous theory that would disgust every “philanthropist” who believes in the eternal natural necessity

139. Of them, only 177,596 are male workers older than 13.

140. Of them, 30,501 are women.

141. Of them, 137,447 are male. Not included among these 1,208,648 are all those persons who don’t serve in private houses. Addendum to the second edition: Between 1861 and 1870, the number of male servants nearly doubled, rising to 267,671. In 1847, there were 2,694 gamekeepers (on aristocrats’ estates), and in 1869, there were 4,921. In the argot of the people, the girls who work as servants in the homes of London’s lower middle class are “little slaveys.”

of the capitalist mode of production. It holds that after a certain period of growth and a longer or shorter "transition period," even factories founded on machine-driven production grind down more workers than they originally put onto the street!¹⁴²

It can of course happen, as the case of England's worsted and silk factories showed us, that at a certain point in the development of factories, an extraordinary expansion of the factory system entails an absolute (and not only relative) decline in the number of workers employed. In 1860, Parliament commissioned a special census of all the factories in the United Kingdom. Six hundred and fifty-two factories were counted in the factory districts in Lancashire, Cheshire, and Yorkshire that were assigned to the inspector Richard Baker. In 570 factories, there were 85,622 power looms, 6,819,146 spindles (not including double spindles), 27,439 horsepower in steam engines, and 1,390 horsepower in waterwheels; and the factories employed 94,119 workers. In 1865, those same factories contained 95,163 looms, 7,025,031 spindles, 28,925 horsepower in steam engines, and 1,445 horsepower in waterwheels, but the number of workers they employed had fallen to 88,913. From 1860 to 1865, then, the number of power looms in the 570 factories increased by 11 %, the number of spindles increased by 3 %, and the number of horsepower coming from steam rose by 5 %, while the number of people they put to work decreased by 5.5 %.¹⁴³ Wool production in England grew considerably between 1856 and 1862, but the number of workers employed there hardly changed. "This shows how greatly the intro-

142. In contrast, Ganilh thinks that the ultimate result of machine-driven industry is a reduction in the absolute number of the wage slaves at whose expense an increased number of "decent people" would live and cultivate their famous "perfectible perfectibility." Ganilh doesn't really understand the movement of production, but at least he feels that machinery must be a very fatal institution if, when introduced, it turns employed workers into paupers, while, as it becomes more advanced, it calls forth more wage slaves than it strikes down. Only his own words can evoke the cretinism of his standpoint: "The classes condemned to produce and consume diminish, and the classes that direct work, that relieve, console and enlighten the entire population, multiply . . . and claim for themselves all the benefits that result from reduced labor costs, abundant production and cheap consumption. In this way, the human race rises to the highest conceptions of genius, penetrates the mysterious depths of religion, establishes the salutary principles of morality (die darin besteht de 's'approprier tous les bienfaits etc.), the tutelary laws of liberty ('der liberté pourries classes condamnées à produire?') and power, obedience and justice, of duty and humanity." This nonsense comes from "Des Systèmes d'Économie Politique. By Mr. C. Ganilh." 2nd ed. Paris 1821, Vol. 1, p. 224, and also see p. 212.

143. "Reports of Insp. of Fact. 31st Oct. 1865," p. 58ff. At the same time, the material foundation for employing a growing number of workers had already been laid in 110 new factories containing 11,625 power looms, 628,576 spindles, and 2,695 horsepower in steam and water.

duction of new machines had superseded the labour of preceding periods.”¹⁴⁴ We find that the labor force merely appears to increase in some cases—i.e., it doesn’t grow due to the expansion of factories founded on machine-driven production, but rather because those factories have gradually annexed neighboring branches of production. “In the [British] cotton trade, the increase in power looms and the number of workers employed by them between 1838 and 1856 was simply a result of the extension of this branch of industry; but in the other trades, it was brought about by the application of steam-power to the carpet-loom, the ribbon-loom, and the linen-loom, which had been driven by human muscle power.”¹⁴⁵ Thus the increased number of these factory workers reflected a decline in the total number of workers employed. Lastly, we should note that in examining this question, we have said nothing about the following fact: everywhere except in metal factories, children, teens under 18, and women make up the overwhelming majority of the factory personnel.

Readers should be able to grasp how even though machine-driven production actually displaces and virtually replaces a great mass of workers, factory workers can ultimately become more numerous than the artisans and manufacturing workers they supplant as machine-driven production grows, the expression of its growth being that more factories of a given kind are built or existing factories are enlarged. Suppose, for example, an owner used to spend £500 of capital each week by putting $\frac{2}{5}$ into constant capital and the remaining $\frac{3}{5}$ into his variable capital. So, he spent £200 on the means of production and £300 on labor-power, or, say, he spent £1 per worker for 300 workers. When machine-driven production took over, the composition of the total capital was transformed. Four-fifths of the total capital is now put into the constant capital, whereas just $\frac{1}{5}$ goes into the variable capital—in other words, only £100 is spent on labor-power. Two-thirds of the workers who had been

144. “Reports etc. for 31st Oct. 1862,” p. 79. Addendum to the second edition: In a lecture held in Bradford, in the “New Mechanic’s Institute,” at the end of 1871, the factory inspector A. Redgrave said, “I was greatly struck with the altered appearance of woollen mills. Formerly they were filled with women and children; now machinery seems to do all the work. I asked a manufacturer to tell me the different proportions of hands he employed at different dates, and the following is the statement given to me: Under the old system he employed 63 persons; he then introduced improved machinery, and reduced his hands to 33, and, lastly, he again made great changes, and was able to reduce his hands to 13.”

145. “Reports etc. for 31st Oct. 1856,” p. 16. [Editor’s note: This passage is more a paraphrase than a direct translation: Marx adds some elements, such as the point about the number of workers increasing, and he makes explicit other points that he seems to see as implied.]

employed are thus laid off. If the factory is enlarged, and the total capital spent increases from £500 to £1,500 a week, while all the other conditions of production remain constant, 300 workers would be employed, or just as many as before this industrial revolution occurred. If the weekly outlay of capital were to increase to £2,000, then 400 workers would be employed, $\frac{1}{3}$ more than earlier. In absolute terms, the number of workers has gone up by 100; in relative terms—that is, in proportion to the total capital spent—it has dropped by 800, since £2,000 of capital would have employed 1,200 workers rather than 400 under the old system of production. The number of workers can therefore fall in relative terms and at the same time rise in absolute ones. We assumed above that as the total capital grew, its composition didn't change, since the conditions of production remained the same. But we know that every time the machine system is improved, the share of the total capital that goes into machines and raw material increases—in other words, into constant capital, while the variable capital's share falls: the share spent on labor-power. We also know that in no other system of production is the process of improvement so continuous or the composition of the total capital so variable. This constant variation is constantly interrupted, however, by moments of rest and purely quantitative expansion based on existing technology. The number of workers employed increases during such moments. Thus in 1835, there were only 354,684 workers employed in Great Britain's cotton, wool, worsted, flax, and silk factories, but in 1861 the power loom weavers alone (of both sexes and all ages down to age 8) numbered 230,564. This growth seems less extensive, of course, when we take into account that as recently as 1838, the number of hand loom weavers in Great Britain, together with the family members they employed, was 800,000,¹⁴⁶ not to mention those weavers who were put out of work in Asia and on the European Continent.

In the few remarks still to be made on this point, we will at times touch on certain purely empirical relations that our theoretical account hasn't yet arrived at.

When machine-driven production expands in a given branch of industry at the expense of traditional craft labor or manufacturing, its success is

146. "The sufferings of the hand-loom weavers were the subject of an inquiry by a Royal Commission, but although their distress was acknowledged and lamented, the amelioration of their condition was left, and probably necessarily so, to the chances and changes of time, which it may now be hoped [twenty years later!] have nearly obliterated those miseries, and not improbably by the present great extension of the power-loom" (ibid. 15).

guaranteed, just as if it were an army outfitted with breach-loading rifles taking on a force equipped with only bows and arrows. This initial period, when a machine first conquers its field of activity, is of decisive importance on account of the extraordinary profitmaking its special circumstances help bring about. The profits are not only in and for themselves a source of accelerated accumulation; they also draw a large part of the supplementary capital in society—capital that is continuously being created and pushing to be spent anew—into the favored sphere of production. The special advantages of this first period of storm and stress are always felt in a given branch of industry when machinery is introduced there. But once the factory system has grown to be a certain size and ripened to a certain level of maturity—once its signature technological foundation, machinery, is itself produced by machines, once coal and iron mining have been revolutionized and metal works and the transportation system have been, too, and the general conditions of production correspond to the needs of large-scale industry—this system of production immediately becomes more elastic: it gains an ability to expand suddenly and by leaps and bounds, limited only by the supply of raw material and the market for products. Machines directly enlarge the supply of raw material. The cotton gin, for example, increased the production of cotton.¹⁴⁷ At the same time, the low cost of machine-made products and the revolutionized transportation and communication systems function as weapons for conquering foreign markets. By wiping out their artisanal products, machine-driven production forcibly turns those foreign markets into the fields that produce raw material for machines. East India was thus compelled to produce cotton, wool, hemp, jute, and indigo for Great Britain.¹⁴⁸ In the countries where it has been established, large-scale industry constantly makes workers “superfluous,” spurring emigration to—and the colonization of—foreign countries, which are thereby transmuted into settlements where the motherland’s raw materials are produced. Australia, for example, became a wool-producing colony.¹⁴⁹ An international division of labor now

147. Volume 3 of this work will further discuss how machinery affects the production of raw materials.

148. Export of cotton from East India to Great Britain: 34,540,143 pounds in 1846; 204,141,168 pounds in 1860; 445,947,600 pounds in 1865. Export of wool from East India to Great Britain: 4,570,581 pounds in 1846; 20,214,173 pounds in 1860; 20,670,111 pounds in 1863.

149. Export of wool from the Cape of Good Hope to Great Britain: 2,958,457 pounds in 1846; 16,574,345 pounds in 1860; 29,220,623 pounds in 1865. Export of wool from Australia to Great Britain: 21,789,346 pounds in 1846; 59,166,616 pounds in 1860; 109,734,261 pounds in 1865.

takes shape, and it operates according to the needs of the main sites of machine-driven production. For it transforms one part of the globe into a field of mainly agricultural production that supplies the other part, where production remains primarily industrial, with raw material. This revolution is connected to transformations in agriculture that we don't need to discuss any further here.¹⁵⁰

So, the factory system has the capacity to greatly expand in sudden bursts and is also dependent on the world market. These circumstances necessarily lead to feverish production and, in turn, oversupply. As a result, the market contracts and paralysis sets in. The life of industry turns into a series of periods: moderate activity, prosperity, overproduction, crisis, and stagnation. As one period succeeds another in this industrial cycle, the uncertainty and instability that machine-driven production inflicts on workers' livelihoods—and thus lives—become normal. Capitalists fight

150. The economic development of the United States is a product of Europe's—or more precisely, England's—large-scale industry. In its current form, the United States should be still regarded as a European colony.

Export of Cotton from the United States to Great Britain

1846	401,949,393 pounds
1852	765,630,544 pounds
1859	961,707,264 pounds
1860	1,115,890,608 pounds

Export of Grain from the United States to Great Britain

	1850	1862
Wheat, cwt	16,202,312	41,033,503
Barley, cwt	3,669,653	6,624,800
Oats, cwt	3,174,801	4,426,994
Rye, cwt	388,749	7,108
Flour, cwt	3,819,440	7,207,113
Buckwheat, cwt	1,054	19,571
Maize, cwt	5,473,161	11,694,818
Bere or Bigg (types of Barley) cwt	2,039	7,675
Peas, cwt	811,620	1,024,722
Beans, cwt	1,822,972	2,037,137
Total in 1850 and in 1862, respectively	35,365,801	74,083,441

[Editor's note: "cwt" is the standard abbreviation for Hundredweight. The British cwt was equivalent to 112 pounds, and the U.S. American cwt was equivalent to 100 pounds.]

one another tooth and nail, each battling furiously for his individual share of the market (albeit not in times of prosperity). Each capitalist's share is directly proportional to how inexpensive his product is. Hence there is a race to use improved machinery—the kind that replaces labor-power—and new methods of production. But there also comes a time in every cycle when capitalists try to produce cheaper goods by forcibly driving wages below the value of labor-power.¹⁵¹

This means that in order for the number of factory workers to increase, the total capital spent on factories has to increase at a much faster rate. However, this process of growth takes place only within the ebb and flow of the industrial cycle, and it is interrupted all the time by technological advances, which by turns replace workers virtually and actually put them out of work. These qualitative changes in machine-driven production cause manufacturers to constantly let factory workers go or shut out streams of fresh recruits; but when factories expand quantitatively, workers who were dismissed elsewhere are snatched up, as are fresh ones. Workers are thus continuously repelled and attracted, pushed and pulled back and forth, and while this is happening, the makeup of those conscripted

151. In their appeal of July 1866 to the “Trade Societies of England,” the shoe workers of Leicester, who had been put out onto the street by a lockout, say this, among other things: “Over the past two decades or so, the Leicester shoe trade has been revolutionized as riveting has been introduced and replaced stitching. Before this happened, a worker had been able to earn good wages. Soon this new business was expanding by leaps and bounds. One saw great competition among the different firms as to which could produce the most tasteful article. Shortly afterwards, however, a worse kind of competition arose, namely, one that entailed firms trying to undersell one another in the market. The harmful consequences soon manifested themselves in wage reductions, and so drastic and fast was the fall in the price of labor, that many firms now pay only half the original wages. And yet, though wages have sunk lower and lower, profits appear, with each change in the scale of wages, to increase.” [Editor’s note: This source couldn’t be located. Hence the quotation given here is a backtranslation into English of the German translation that Marx provides.] Manufacturers are able to use even bad times to make extraordinary profits through wage reductions—that is, by directly stealing the worker’s means of subsistence. Here is one example, which has to do with the crisis of the ribbon trade in Coventry: “From information I have received from manufacturers as well as workmen, there seems to be no doubt that wages have been reduced to a greater extent than either the competition of the foreign producers or other circumstances have rendered necessary. The majority of weavers are working at a reduction of 30 or 40 percent in their wages. A piece of ribbon for making which the weaver got 6s. or 7s. five years back, now only brings them 3s. 3d. or 3s. 6d.; other work is now priced at 2s. and 2s. 3d. which was formerly priced at 4s. and 4s. 3d. The reduction in wage seems to have been carried to a greater extent than is necessary for increasing the demand. Indeed the reduction in the cost of weaving, in the case of many descriptions of ribbons, has not been accompanied by any corresponding reduction in the selling price of the manufactured article” (Report of Mr. F. D. Longe, in “Ch. Empl. Comm. Report. Rep. 1866,” p. 114, n. 1).

keeps changing—i.e., how the population of conscripted workers is constituted with respect to sex, age, and skills.

The best way to evoke a sense of the factory worker's fate is to briefly outline the story of England's cotton industry.

Between 1770 and 1815, the cotton industry goes through five years of depression or stagnation. English manufacturers enjoy a monopoly over machinery and the world market during the entire forty-five years. But from 1815 to 1821, depression; in 1822 and 1823, prosperity; in 1824, the Combination Laws are repealed, and new factories sprout up all over England; in 1825, crisis; in 1826, cotton workers experience great misery, they revolt; in 1827, things improve a little; in 1828, power looms and exports increase dramatically; in 1829, record highs for exported goods, especially goods exported to India; in 1830, markets are glutted, major distress; from 1831 to 1833, depression persists, the East India Company loses its monopoly over trade with China and India. In 1834, factories and machines proliferate spectacularly, and workers are in short supply. The new Poor Law causes more rural workers to migrate to factory districts. All children living in the county districts are forced to leave. White slave trade. In 1835, great prosperity, but hand-loom weavers are starving to death; in 1836, great prosperity; in 1837 and 1838, depression and crisis; in 1839, recovery; in 1840, great depression, rioting, military intervention; in 1841 and 1842, factory workers suffer enormously; in 1842, manufacturers lock out factory workers in an attempt to coerce Parliament into abolishing the Corn Laws; thousands of workers pour into Yorkshire but are driven back by the military, the workers' leaders are put on trial in Lancaster; in 1843, great misery; in 1844, recovery; in 1845, great prosperity; in 1846, continuous improvement at first, then symptoms of a setback. Corn Laws are repealed. In 1847, crisis returns. General reduction of wages by 10% and more as a way to honor the "big loaf."^{xi} In 1848, sustained depression, Manchester under military protection. In 1849, recovery, followed by prosperity in 1850. In 1851, commodity prices fall, low wages, frequent strikes. In 1852, a recovery begins, strikes continue, manufacturers threaten to bring in foreign workers. In 1853, exports increase, an eight-month strike and great misery in Preston. In 1854, prosperity, the markets are glutted again. In 1855, reports of bankruptcies come streaming in from the United States, Canada, and East Asian markets. Great prosperity in 1856 followed by a crisis in 1857. In 1858, things improve. In 1859, great prosperity, the number of factories increases. In 1860, England's cotton industry reaches its high point. Indian, Australian, and other markets are so oversupplied that even in 1863, they are still trying to sop up the excess

product. Trade agreement with France. The number of factories and machines increases dramatically. In 1861, a phase of improvement that lasts for a while, setback, American Civil War, cotton famine. From 1862 to 1863, everything collapses.

The history of the cotton famine is so characteristic of these circumstances that we need to spend a moment discussing it. From what has been said about the state of the world market in 1860 and 1861, we can see that the famine came at just the right time for the manufacturers, even benefitting them to some extent—a fact acknowledged in the reports of the Manchester Chamber of Commerce, proclaimed by Palmerston and Derby in Parliament, and confirmed by the course of events.¹⁵² In 1861, many of the United Kingdom's 2,887 cotton mills were small. According to a report by the factory inspector Alexander Redgrave, 392 of the 2,109 mills in the district for which he was responsible (or 19%) never used more than 10 steam horsepower. Three hundred and forty-five (or 16%) used between 10 and 20 horsepower, while 1,372 used 20 or more.¹⁵³ The majority of the small mills were weaving sheds built for the most part by speculators during the post-1858 period of prosperity: one person supplied the yarn, another supplied the machinery, a third the buildings. They were run either by former overseers or other people without means. Most of the small manufacturers lost their shirts and would have suffered the same fate in the first commercial crisis if that crisis hadn't been delayed by the cotton famine. Although these men made up a third of all cotton manufacturers, their factories absorbed much less than a third of the total capital spent in the cotton industry. As for the extent of the stoppage, 60.3% of spindles and 58% of looms were at a standstill in October of 1862, according to informed estimates. This held for the cotton trade as a whole, although of course the situation varied widely from district to district. Only a few factories were running full time (sixty hours a week); all the others operated with stoppages. But even in the few cases where workers worked full time at their normal piece rate, weekly wages necessarily fell as the quality of the cotton declined through substitution. Sea Island cotton was replaced with Egyptian cotton (in fine spinning mills), American and Egyptian cotton was replaced with Surat (East Indian) cotton, and pure cotton was replaced with a mixture of cotton waste and Surat cotton. The fiber of Surat cotton is comparatively short, the cotton arrived in a filthy state, various heavier ingredients were substituted for flour in

152. See "Reports of Insp. of Fact. for the 31st Oct. 1862," p. 30.

153. *Ibid.* pp. 18, 19.

sizing the warps—all this reduced the speed of the machinery and also the number of looms a weaver could work, while also increasing the amount of labor needed, since the machinery now malfunctioned more often. As a result, less product was produced, and the worker's piece wage shrank accordingly. The use of Surat cotton cut the earnings of full-time workers by 20% or 30%, or even more than that. In addition, most manufacturers reduced the piece wage by 5%, 7½%, and 10%. It isn't hard to imagine the condition of the workers who worked only three, three and a half, or four days a week, or only six hours a day. Things had improved somewhat by 1863, but weekly wages for weavers and spinners were still 3sh. 4., 3sh. 10d., 4sh. 6d., 5sh. 1d., and so on.¹⁵⁴ Even under such brutal circumstances, manufacturers remained boldly inventive when it came to withholding wages. One practice was to fine workers for defects in the product that stemmed from the manufacturers' own bad cotton and unsuitable machinery. Where a manufacturer owned the workers' cottages, he would deduct the rent from their nominal wages. Inspector Redgrave tells of self-acting minders (who supervise a pair of self-acting mules) "earning at the end of a fortnight's full work 8s. 11d., and from this sum was deducted the rent of the house, the manufacturer, however, returning half the rent as a gift. The minders took away the sum of 6s. 11d. In many places, the self-acting minders ranged from 5s. to 9s. per week, and the weavers from 2s. to 6s. per week during the latter part of 1862."¹⁵⁵ Rent was often deducted from workers' wages even when short time was in effect.¹⁵⁶ No wonder that some parts of Lancashire saw an epidemic of starvation! But even more characteristic than all this was how the production process was revolutionized at the workers' expense. *Experimenta in corpore vili* were carried out here—just like the ones anatomists conduct using frogs.^{xiii} "Although I have given the actual earnings of the operatives in the several mills," says inspector Redgrave, "it does not follow that they earn the same amount week by week. The operatives are subject to great fluctuation, from the constant experimentalizing of the manufacturers . . . the earnings of the operatives rise and fall with the quality of the cotton mixings; sometimes they have been within 15 percent of former earnings, and then in a week or two, they have fallen off from 50 to 60 percent."¹⁵⁷ These experiments didn't simply cost workers part of their means of subsistence: all five of their senses paid the price. "The people who are employed in making up Surat

154. "Reports of Insp. of Fact. for 31st Oct. 1863," pp. 41-45, 51, 52.

155. "Reports etc. 31st Oct. 1863," pp. 41, 42.

156. *Ibid.* p. 57.

157. *Ibid.* pp. 50, 51.

cotton complain very much. They inform me, on opening the bales of cotton there is an intolerable smell, which causes sickness. . . . In the mixing, scribbling, and carding rooms, the dust and dirt which are disengaged irritate the air passages, and give rise to cough and difficulty of breathing. . . . The fibre being so short, a great deal of stuff is added to it, namely, all kinds of substitutes for flour: hence the weavers' sickness and dyspepsia. Bronchitis is more prevalent owing to the dust. Inflammatory sore throat is common, from the same cause, and so is a disease of the skin, no doubt from the irritation of the dirt contained in the Surat cotton." Meanwhile, the use of substitutes instead of flour has put a Fortunatus's purse in the manufacturers' hands, since it increases the weight of yarn, "making 15 lb. of the raw material to weigh 20 lb. when woven into cloth."¹⁵⁸ In the *Reports of Factory Inspectors* dated April 30, 1864, we read that the "trade is availing itself of this resource at present to an extent which is even discreditable. I have heard on good authority of a cloth weighing 8 lb. which was made of 5¹/₄ lb. cotton and 2³/₄ lb. size; and of another cloth weighing 5¹/₄ lb., of which 2 lb. was size. These were ordinary export shirtings. In cloths of other descriptions as much as 50 percent size is sometimes added; so that a manufacturer may and does truly boast that he is getting rich by selling cloth for less money per pound than he paid for the mere yarn of which they are composed."¹⁵⁹ But the workers were suffering, and the causes of their suffering went beyond the experiments done by manufacturers inside the mills and by municipalities outside them—beyond reduced wages, unemployment, privation, charity, and the eulogies given in both houses of Parliament. "Unfortunate females who, in consequence of the cotton famine, were at its commencement thrown out of employment, and have thereby become outcasts of society. . . . There are also in the borough more youthful prostitutes than one has seen in it for the last twenty-five years."¹⁶⁰

When we consider how Britain's cotton industry fared during its first 45 years (1770–1815), we find that it experienced only five years of crisis and stagnation. That, however, was the time of its global monopoly. Its next 48 years witnessed only 20 years of recovery and prosperity compared with 28 years of depression and stagnation. During the years 1815 to 1833, Continental Europe and the United States emerged as compet-

158. *Ibid.* pp. 62, 63. [Editor's note: Fortunatus began to appear in Germanic folk tales around 1500; he carried a purse that remained full no matter how much he spent.]

159. "Reports etc. 30th April 1864," p. 27.

160. From a letter by Mr. Harris, Chief Constable of Bolton, in "Reports of Insp. of Fact. 31st Oct. 1865," p. 61.

itors; after 1833, the Asian markets were forcibly expanded, with the means for effecting this being “the destruction of the human race.”^{xiii} In the period that followed the repeal of the Corn Laws, i.e., 1846–63, there were eight years of moderate activity and prosperity and nine of depression and stagnation. The footnote appended below will allow readers to assess for themselves the conditions that adult male cotton workers labored under even during times of prosperity.¹⁶¹

8. How the Manufacturing System, Craft Labor, and Domestic Industry Are Revolutionized by Large-Scale Industry

a. Superseding Cooperation Based on Craft Labor and the Division of Labor

We have seen how machinery supersedes both cooperation based on craft labor and the manufacturing system, which is itself based on the artisanal division of labor. The reaping machine replaces cooperation among reapers; a machine that produces sewing needles replaces artisanal manufacturing and is a particularly vivid example of the second type of superseding. Adam

161. In the spring of 1863, a group of cotton workers seeking to form an emigration society announced their cause. In their statement, we find the following: “That a large emigration of factory workers is now absolutely essential to raise them from their present prostrate condition, few will deny; but to show that a continuous stream of emigration is at all times demanded, and without which it is impossible for them to maintain their position in ordinary times, we beg to call attention to the subjoined facts: In 1814, the official value of cotton goods exported was £17,665,378, whilst the real marketable value was £20,070,824. In 1858, the official value of cotton goods exported, was £182,221,681; but the real or marketable value was only £43,001,322, being a ten-fold quantity sold for little more than double the former price. To produce results so disadvantageous to the country generally, and to the factory workers in particular, several causes have cooperated, which, had circumstances permitted, we should have brought more prominently under your notice; suffice it for the present to say that the most obvious one is the constant redundancy of labour, without which a trade so ruinous in its effects could never have been carried on, and which requires a constantly extending market to save it from annihilation. Our cotton mills may be brought to a stand by the periodical stagnation of trade, which, under present arrangements, are as inevitable as death itself; but the human mind is constantly at work, and although we believe we are under the mark in stating that six millions of persons have left these shores during the last 25 years, yet, from the natural increase of population, and the displacement of labour to cheapen production, a large percentage of the male adults in the most prosperous times find it impossible to obtain work in factories on any conditions whatever” (“Reports of Insp. of Fact. 30th April 1863,” pp. 51–2). In a later chapter, we will see that when catastrophe struck in the cotton trade, the manufacturers availed themselves of every possible means to prevent workers from emigrating, even state intervention.

Smith claimed that in his day, the division of labor had enabled 10 men to make over 48,000 sewing needles daily, but now a single machine can produce 145,000 needles in an eleven-hour workday. One woman or girl works four such machines on average, and so she produces 600,000 sewing needles a day and more than 3,000,000 sewing needles in a week.¹⁶² When a single machine takes the place of cooperation or the manufacturing workshop, it can actually support the reintroduction of artisanal production. But when this happens, and artisanal production is reproduced with machinery as its foundation, things are merely in a transitional phase: they are on their way to the factory system, which, as a rule, emerges the moment a mechanical motive force, e.g., steam or water, replaces human muscles as the driver of machinery. An enterprise can remain small scale while operating with a mechanical motive force, but only sporadically and temporarily, as some of Birmingham's manufacturing workshops did by renting steam power, or as was the case in certain branches of weaving where small caloric machines were used.¹⁶³ In Coventry's ribbon industry, experiments with "cottage factories" arose spontaneously. Rows of cottages were built to form a square, a so-called engine house was constructed in the middle, and its steam engine was linked to the looms in the cottages by a system of shafts. The steam power was always rented—for 2½ sh. per loom, for example—and the rent had to be paid weekly even when the looms weren't working. Each cottage housed two to six looms, which the weavers owned or bought on credit, or rented. The struggle between cottage factories and regular factories went on for more than 12 years, ending when the 300 cottage factories were completely ruined.¹⁶⁴ In those new industries where the nature of production isn't such that it has to operate on a large scale from the beginning—envelope making, steel-pen making, and other industries that have sprung up in the past few decades—the normal course of development has been to adopt the factory system after passing through the artisanal system of production and then the manufacturing system as brief transitional phases. This metamorphosis has been most difficult where production in the manufacturing workshop encompasses many disparate processes and isn't made up of a series of processes where each builds directly on the previous one. In the case of

162. "Ch. Empl. Comm. Third Report. 1864," p. 108, n. 447.

163. This kind of machine-based reproduction of craft labor occurs frequently in the United States. So compared with Europe and even England, the process of concentration will stride forward there with giant seven-league boots: this will happen when the transition to the factory system takes place, as it inevitably will.

164. See "Reports of Insp. of Fact. 31st Oct. 1865," p. 64.

the steel-pen factory, for example, this circumstance posed a significant challenge. Now, however, pen-making automatons that execute six disparate processes at once have already been in operation for 15 years. In 1820, craft labor produced the first twelve dozen steel-pens, charging £7 4sh. for them. A decade later, the manufacturing system supplied twelve dozen for 8sh. And today factories offer the same number of steel-pens at a wholesale price of 2 to 6d.¹⁶⁵

b. The Rebound Effect of the Factory System on the Manufacturing System and Domestic Industry

As the factory system develops, with the transformation of agriculture accompanying this process, production in all other branches of industry is not only enlarged, its character is altered. The principle of machine-driven production becomes the governing principle in these other branches as well: namely, dividing the production process into its constituent phases and solving any problems that arise by applying mechanics, chemistry—in short, the natural sciences. Machinery thus pushes its way into the manufacturing system and takes over one specialized process after another. The rigid, crystallized hierarchy of processes, which stems from the old division of labor, now dissolves, making way for continuous change. Moreover, the collective worker—or combined working personnel—is now constituted very differently. Unlike what we find in the actual manufacturing era, the aim on which this new division of labor is based is to always try to use female labor, the labor of children of all ages, and unskilled labor—“cheap labor,” as the English characteristically say. This holds for not only all combined production that takes place on a large scale, whether driven by machines or not, but also so-called domestic industry, whether carried out in workers’ private dwellings or in small workshops. What does this so-called modern domestic industry have in common with the old-fashioned type, which presupposes independent urban craft labor, independent peasant farming, and, above all, a house where the worker and his family can live? Nothing but a name: it has been transformed into the external department of a factory, manufacturing workshop, or warehouse. Capital brings together and directly commands large numbers of factory workers,

165. In Birmingham, Mr. Gillot built the first large-scale steel pen factory. By 1851, it was producing more than 180 million pens annually, while consuming 120 tons of steel. Birmingham, which has a monopoly on this industry in the United Kingdom, currently produces billions of pens a year. According to the census of 1861, the industry employs 1,428 workers—1,268 of them are female, with some being as young as 5 years old.

manufacturing workers, and artisanal workers, but it also tugs on invisible threads to control the movements of another army, which is made up of domestic workers living in large towns and scattered throughout the countryside. An example: The shirt factory in Londonderry, Ireland, that belongs to the Messrs. Tillie. It employs 1,000 factory workers and 9,000 domestic workers who are scattered around the area.¹⁶⁶

Bearers of cheap and physically immature labor-power are exploited even more shamelessly in the modern manufacturing workshop than in actual factories, because the technological foundation in the latter setting—muscular strength is replaced by machines, and labor is thereby made less strenuous—is largely absent in the former one, which at the same time exposes female and young bodies to toxic substances without compunction. But workers are exploited even more shamelessly in so-called domestic industries than in the modern manufacturing workshop. There are a number of reasons for this. The more spread out workers are, the less capacity for resistance they have; an array of thieving parasites insert themselves between the employers and the people they employ; domestic labor of whatever kind always has to compete against machines, or at the very least, the manufacturing system; the workers' poverty robs them of the most basic conditions of labor, such as space, light, and ventilation; the periods of employment become increasingly irregular; and, finally, competition among workers necessarily intensifies as it does nowhere else in these last refuges of persons made "superfluous" by large-scale industry and agriculture. Machine-driven production was the first type of industry to systematically develop the practice of economizing in the use of the means of production, and from the beginning, it has entailed ruthlessly squandering labor-power and stealing from workers the normal requirements for labor functions. The less developed labor's social productive power, and also the technological foundation for combining labor processes in a branch of industry, the more conspicuous the antagonistic and murderous sides of such economizing will be.

c. The Modern Manufacturing System

Let me give some examples to illustrate the laws established above. (The earlier chapter on the working day has of course familiarized readers with a very large body of supporting evidence.) Thirty thousand children and teenagers and 10,000 women produce metal goods in and around Bir-

166. "Ch. Empl. Comm Second Rep. 1864," p. LXVIII, n. 415.

mingham, performing extremely strenuous labor for the most part. We find them working under unhealthy conditions in brass-foundries and button factories, as well as in enameling, galvanizing, and lacquering works.¹⁶⁷ Both adult and young workers are worked so excessively in some of the London firms where books and newspapers are printed that these places have the honor of being called “slaughter houses.”¹⁶⁸ We see the same excesses in bookbinding firms, whose main victims are women, teenage girls, and children. Teens and children perform the hard labor in rope works and do night work in salt mines, candle factories, and chemical works. The use of their labor is downright lethal in silk weaving when boys—rather than machines—turn the looms.¹⁶⁹ One of the filthiest, most disgraceful and poorest-paid jobs is rag sorting, where employers like to use women and girls. It is well known that Great Britain is the emporium of the world’s rag trade. Apart from its own vast supply of local rags, rags come streaming in from Japan, the most remote states in South America, and the Canary Islands. But the primary sources of rags are Germany, France, Russia, Italy, Egypt, Turkey, Belgium, and Holland. The rags are used to fertilize fields and make bed flocks; they go into shoddy and also serve as paper’s raw material. Female rag sorters act as mediums of contagion, spreading smallpox and other infectious diseases that they are the first to fall victim to.¹⁷⁰ Like coal mining and mining in general, brickmaking should be regarded as a classic site of overwork and hard, unsuitable labor that brutalizes workers, who are consumed there from childhood on: in England, the newly invented machinery for this is still employed only sporadically. From May to September, the workday begins at 5 A.M. and ends at 8 P.M., and where the work involves outdoor drying, it often goes from 4 A.M. until 9 P.M. In fact, a fourteen-hour workday that starts at 5 o’clock in the morning and lasts until 7 o’clock in the evening is considered “reduced” and “moderate.” Children of both sexes begin working at age 6 and sometimes even at age 4. They put in the same number of hours as adults, often even more. The labor is exhausting, and the summer heat makes it that much more so. In a brickfield at Moxley, a twenty-four-year-old woman managed to produce 2,000 bricks a day with the help of two young girls, who assisted her by carrying the clay and stacking the bricks.

167. Today children in Sheffield are employed even as file-grinding workers!

168. “Ch. Empl. Comm. Fifth. Rep. 1866,” p. 3, n. 24, p. 6, n. 55, 56, p. 7, n. 59, 60.

169. *Ibid.* pp. 114, 115, n. 6, 7. The commissioner correctly observes that although machines generally replace people, here boys literally replace machines.

170. See the report on the rag trade and the wealth of additional evidence in “Public Health. Eighth Rep. London 1866.” Appendix, pp. 19–208.

Every day, the two girls lugged 10 tons up the slippery sides of clay pits 30 feet deep, and then for a distance of 210 feet. “No child can pass through the ordeal of a brickfield without great moral degradation . . . the vulgar language, which they hear from their tenderest years, the filthy, indecent, shameless habits, amidst which, unknowing, and half wild, they grow up, make them in after-life lawless, depraved, dissolute. . . . A fruitful source of demoralization is the accommodation offered at the huts or cottages. Each moulder [who is always a skilled worker, and the head of the group] is supposed to lodge, board, and ‘do’ for his gang of seven; and if they are not all his own family, men, boys, and girls sleep in his hut. This consists usually of two, sometimes three rooms, and all on the ground, with very little ventilation. The bodies of all are greatly exhausted with the profuse perspiration of the day, so that neither health, cleanliness, nor decency can be much, if at all, regarded; and some of the huts are the perfection of untidiness, dirt, and dust. . . . The greatest evil of the system of employing young girls at this work consists in its binding them from their infancy, as a general rule, to the most degraded lot in after-life. They become rough, foul-mouthed boys before nature has taught them that they are women. Clad in a few dirty rags, their bare legs exposed far above the knees, their hair and faces covered with mud, they learn to treat with contempt all feelings of modesty and decency. During the dinner hour, they may be seen lying about the yards asleep, or watching the boys bathing in some adjoining canal. When their work is over, they dress themselves in better clothes, and accompany the men to the beer shops.”^{xiv} Naturally, heavy drinking is rampant among the members of this class and becomes a habit when they are still children. “The worst feature of all is that the brickmakers despair of themselves. ‘You might as well try to raise and improve the devil as a brickie, Sir,’ was the answer given by one of the better sort to the chaplain of the Southall fields.”¹⁷¹

The fourth and sixth *Public Health Reports* (1862 and 1864) offer a rich trove of official material on the modern manufacturing workshop’s capitalist economizing in its use of the conditions of labor (here “the modern manufacturing workshop” refers to all large-scale workshops, but not factories proper). The most gruesome fantasies issuing from the minds of our novelists pale in comparison to these reports and their descriptions of workshops, especially those of the printers and tailors in London. How the health of workers has been affected is obvious. Dr. Simon, the Privy Council’s highest-ranking medical officer and the official editor of the

171. “Child. Empl. Comm. Fifth Report. 1866,” pp. XVI–XVIII, n. 86–97 and pp. 130–33, n. 39–71. See also *ibid.* Third Rep. 1864, pp. 48, 56.

Public Health Reports, says, among other things, “In my fourth annual report [1861] I showed how practically impossible it is for workpeople to insist upon that which in theory is their first sanitary right—the right that whatever work their employer assembles them to do, shall, so far as depends upon him, be, at his cost, divested of all needlessly unwholesome circumstances; and I pointed out that, while workpeople are practically unable to exact that sanitary justice for themselves, they also cannot expect any effectual assistance from the appointed administrators of the Nuisances Removal Acts. . . . The lives of myriads of labouring men and women are now needlessly afflicted and shortened by the infinite physical suffering which their mere employment engenders.”¹⁷² Dr. Simon also provides the following table of mortality rates to illustrate what the workshops have done to the workers’ health.

Number of persons of all ages employed in the respective industries	Comparison of industries with respect to health	Death rate per 100,000 people in the respective industries between the stated ages		
		Age 25–35	Age 35–45	Age 45–55
958,264	Agriculture in England and Wales	743	805	1,145
22,301 men	London tailors	958	1,262	2,093
12,379 women	London printers	894	1,747	2,367 ¹⁷³

d. Modern Domestic Industry

Let us now turn to so-called domestic industry, whose emergence as one of capital’s spheres of exploitation was shaped by large-scale industry. We could get a clear picture of such domestic industry and its horrors by looking at how an apparently idyllic form of production is carried out in a

172. “Public Health.” Sixth Rep. Lond. 1864, pp. 29, 31.

173. *Ibid.* p. 30. Dr. Simon observes that the death rate among London’s tailors and printers between the ages of 25 and 35 is actually much higher, because their London employers hire large numbers of young people (up to age 30) from the country as “apprentices” and “improvers” (who want to develop their skills in this trade). These workers are counted in the census as Londoners, and thus they increase the head count in terms of which the death rate in London is calculated, without contributing proportionally to the total number of deaths. Furthermore, most of these workers return to the country—especially when they become seriously ill.

few remote English villages, namely, nail making.¹⁷⁴ But we will leave that aside. It will suffice to examine some examples from branches of industry where machines haven't taken over at all, or which don't have to compete with either machine-driven production or the manufacturing workshop: lace making and straw plaiting.

Of the 150,000 persons employed by England's lace-making industry, about 10,000 fall under the jurisdiction of the Factory Act of 1861. The vast majority of the remaining 140,000 are women, teenagers (up to 18), and children of both sexes, although male ones are poorly represented. We can gain a sense of the physical condition of this "cheap"-to-exploit material from statistics presented by Dr. Truman, a doctor at Nottingham's General Dispensary. In a group of 686 female patients who were lace makers, and mostly between 17 and 24 years old, the rates of consumption were as follows:

1852: 1 in 45
 1853: 1 in 28
 1854: 1 in 17
 1855: 1 in 18
 1856: 1 in 15
 1857: 1 in 13
 1858: 1 in 15
 1859: 1 in 9
 1860: 1 in 8
 1861: 1 in 8¹⁷⁵

This rise in the rate of consumption really ought to silence both the most optimistic champions of progress and the biggest liars among the German peddlers of free trade.

The lace making that is regulated by the Factory Act of 1861 is the machine-driven kind, which is how lace is generally produced in England. But the branches of the industry that we will briefly consider here don't concentrate workers in manufacturing workshops or warehouses. All the workers are "so-called" domestic workers, and the labor breaks down into two types: 1) Finishing—i.e., putting the finishing touches on machine-produced lace, which includes a number of different subactivities. 2) Mending.

¹⁷⁴ The nails referred to here are hammered rather than the kind cut and made by machines. See "Child. Empl. Comm. Third Report," p. XI, p. XIX, n. 125-30, p. 52, n. 11, p. 113, 114, n. 487, p. 137, n. 166.

¹⁷⁵ "Child. Empl. Comm. Second Report," p. XXII, n. 166.

Lace finishing is performed as domestic labor either in so-called “mistress houses” or by women working on their own (or with their children) in their private dwellings. The women who run the “mistress houses” are themselves poor: the workrooms are rooms in their own homes. These “mistresses” bring in orders from manufacturers, warehouse owners, and so on, and they employ up to as many women, teenage girls, and young children as their workrooms can hold, depending on the demand for labor, which is always fluctuating. The number of women and girls employed in the houses varies, ranging from 20 to 40 workers in some and from 10 to 20 in others. When workers take up this occupation, they are 6 years old on average, but some haven’t yet turned 5. A normal workday starts at 8 A.M. and goes until eight o’clock in the evening, with one and a half hours for meal breaks; these are often taken at irregular times and in the cramped workrooms, which stink. When business is good, the workday frequently begins at 8 A.M. (and sometimes at 6 A.M.) and lasts until 10, 11, or 12 at night. The prescribed space allotted each soldier in English barracks is 500–600 cubic feet, while a soldier is entitled to 1,200 cubic feet in military hospitals. But in the squalid little dens of domestic labor, there are just 67–100 cubic feet per person.

Not only that, the gas lighting eats up the oxygen in the air. To keep the lace clean, children often have to take off their shoes—during the winter, too—even though the floor is made of paving stones or bricks. “It is no uncommon thing in Nottingham to find from 15 to 20 children in a small low room (perhaps not more than 12 feet square) working for 15 hours out of the 24, at employment in itself exhausting from its tedium and monotony, and, in addition to this, exposed to every cause that can tend to injure permanently the health of those engaged in it. . . . Even the children work with a closeness of attention and a quickness which is astonishing, scarcely ever allowing their fingers to rest, or even move less quickly, or taking their eyes off from their work when questioned, for fear of losing a moment.”^{xv} The more the workday is extended, the more often “mistresses” reach for the “long cane” to motivate workers. “The children become fatigued by degrees, and as uneasy as birds toward the end of their long confinement to an employment monotonous, fatiguing to the eyes, and tiring from the uniformity of posture. Their work [is] like slavery.”¹⁷⁶ But conditions are even more awful, insofar as that is possible, when women work at home with their own children—and here the phrase “at home” is being used in the

176. “Child. Empl. Comm. Second Report 1864,” pp. XVIII, XIX, XX, XXI. [Editor’s note: The bracketed “is” added in the final sentence comes from the editors, not Marx.]

modern sense, i.e., it refers to a rented room, which is frequently an attic. This kind of work is given out within an eighty-mile radius of Nottingham. When a child worker in a warehouse leaves for the day at 9 or 10 P.M., he or she is often handed a bundle of work to finish at home. Speaking through one of their wage slaves, capitalist Pharisees naturally send the child off with the unctuous line, "This is for your mother," but they know full well that the poor child will have to stay up to help her.¹⁷⁷

Pillow-lace is made mainly in two of England's agricultural districts: the Honiton lace district, which spans 20 to 30 miles along the south coast of Devonshire, and includes a few places in North Devon, and another that encompasses much of the counties of Buckingham, Bedford, Northampton, and the neighboring parts of Oxfordshire and Huntingdonshire. The labor is generally performed in the cottages of agricultural day laborers. Some manufacturers employ more than 3,000 of these domestic workers, most of them children or in their teens, and all are female. Here, too, we find the conditions described above—that is, those in lace finishing. Only instead of "mistress houses," there are so-called "lace schools," which poor women run out of their cottages. Children start working in these "schools" at age 5, although sometimes they are even younger than that, and they keep working there until they are between 12 and 15 years old. During their first year, the youngest children work four to eight hours; later, their workday begins at six o'clock in the morning and lasts until 8 or 10 at night. "These rooms are generally the living rooms of small cottages, with the fireplace stopped up to prevent draught, and sometimes even in winter, the animal heat of the inmates being thought sufficient; in other cases they are small pantry-like rooms without any fireplaces. . . . The crowding in these rooms and the foulness of air produced by it are sometimes extreme. The inmates are also often exposed to the injurious effects of imperfect drains, sinks, decomposing substances, and other filth common at the outsides or the narrow approaches of small cottages." How much space do workers get? "In one lace-school there were eighteen girls and the mistress, in a room affording only 33 cubic feet for each person; and in another, where the smell was unbearable, eighteen persons and 24½ cubic feet per head. In this industry, one finds children of 2 and 2½ years being employed."^{178,xvi}

In the rural counties of Buckingham and Bedford, straw plaiting begins where pillow-lace making ends, and it extends over most of Hertfordshire

177. *Ibid.* pp. XXI, XXII.

178. *Ibid.* pp. XXIX, XXX.

and the western and northern parts of Essex. In 1861, 48,043 people of all ages were employed in straw plaiting and straw-hat making; 3,815 were male workers (of all different ages), while the rest were women and girls. Of these female workers, 14,931 were in fact under 20 years old and about 6,000 were children. Here we have “straw plait schools” rather than lace schools. Children generally begin to learn straw plaiting when they are 4 years old, although occasionally they start at the schools at age 3. As for actual education, the children get none, needless to say. They themselves call elementary schools “natural schools” to distinguish them from the blood-sucking institutions where they simply try to shoulder the workload prescribed by their half-starved mothers, which in most cases is to produce 30 yards per day. These mothers often have their children work again at home until 10, 11, or 12 o’clock at night. The straw cuts the children’s fingers and also their mouths, which they constantly use to wet it. According to Dr. Ballard, the consensus among medical officials in London is that there should be at least 300 cubic feet per person in bedrooms or workrooms. But in straw-plaiting schools, the space allotted to each person is even paltrier than in lace schools: “ $12\frac{2}{3}$, 17, $18\frac{1}{2}$, or under 22 cubic feet.” The smaller of these numbers, says Commissioner White, “represents less than half what a child would have if shut up in a box three feet each way.” Such is the life children enjoy until they are 12 or 14 years old. Haggard and destitute, the parents think only about squeezing as much as they can out of their offspring. Naturally enough, when the children are older, they don’t care at all about their mothers and fathers and abandon them. “It is not surprising, therefore, that ignorance and vice abound among a population so reared. . . . Their morals are at a very low ebb. . . . A large average of the women have illegitimate children, and some at such an early age as quite to startle even those who are at home in criminal statistics.”¹⁷⁹ And yet according to Count Montalembert, who is certainly competent to speak about Christianity, the country that such model families call home is Europe’s model Christian country!

Wages in the branches of industry we just discussed are pitiful to begin with, and they are driven down far below the nominal amount—the seldom-granted maximum wage of the children in lace plaiting schools is 3sh.—by the trucking system, which is predominant everywhere but is especially so in the lace districts.¹⁸⁰

179. *Ibid.* pp. XL, XLI. [Editor’s note: While Marx often removes lines from the source material he quotes without indicating that he has done so, here he does the opposite, adding an ellipsis (after “ebb”) that isn’t present in the passage he cites.]

180. “Child. Empl. Comm. First Rep. 1863,” p. 185.

e. The Transition from the Modern Manufacturing System and Domestic Industry to Large-Scale Industry. How This Revolution Has Been Accelerated by the Application of the Factory Acts to These Modes of Industry

Lowering labor-power's value through the outright abuse of female and young bearers of labor-power, the outright theft of all the normal conditions of life and labor, and the utter brutality of overwork and night work—in the end, all three methods run up against certain natural limits that can't be stretched any further. Since the practice of lowering the value of commodities and also capitalist exploitation in general rest on these foundations, they eventually reach a limit, too. Once they do—and it takes a long time to get there—the hour is at hand for introducing machinery and, in turn, rapidly transforming scattered domestic industries (and manufacturing workshops) into factory-centered industries.

The most colossal case of this movement comes from the production of “wearing apparel.” The Children's Employment Commission sees this industry as encompassing all of the following trades: straw-hat makers, makers of ladies' hats, cap makers, tailors, milliners and dressmakers,¹⁸¹ shirt makers, seamstresses, corset makers, glove makers, shoemakers—and also many smaller branches, such as necktie makers, collar makers, and so on. In 1861, 586,298 female workers were employed in all these branches in England and Wales; at least 115,242 of them were under 20 years old, and 16,560 were under 15. The total number of such (female) workers in the United Kingdom was 750,334. In England and Wales, the number of male workers employed at this time in hat making, shoemaking, glove making, and tailoring was 437,969, 14,964 of whom were under 15, while 89,285 were between 15 and 20. The remaining 333,117 were over 20 years old. Many smaller branches that could have been included here were left out. But let's take the figures as they stand in the census of 1861. When we add them up, we get a total of 1,024,267 people in England and Wales alone, that is, about the same number as were absorbed by agriculture and cattle breeding. We are beginning to understand why machinery is used to conjure up such immense quantities of products and “set free” such great masses of workers.

The production of “wearing apparel” is carried out in three ways. First, by manufacturing workshops that have merely reproduced a divi-

181. “Millinery” actually refers primarily to hat making, but also includes women's coats and “Mantillen,” while dressmakers are identical to our “Putzmacherinnen.”

sion of labor whose *membra disjecta* are found ready-made. Second, by small master craftsmen who now work for the manufacturing system and for warehouses instead of individual consumers—so much so that whole towns and stretches of countryside are employed by a single branch of industry, such as shoemaking, which becomes the regional specialty. Finally, and above all, by so-called domestic workers, who function as an external department of manufacturing workshops, warehouses, and even small masters' workshops.¹⁸² The mass quantities of the materials of labor—raw material, half-fabricated material, and so on—are supplied here by large-scale industry, while the mass quantities of cheap human material (*taillable à merci et miséricorde*) are made up of the workers who were “set free” by large-scale industry and agriculture.^{xvii} The manufacturing workshops in this sphere originated mainly as a result of the capitalist's need to head an army that is always ready to be deployed and is able to adapt every time demand rises or falls.¹⁸³ These manufacturing workshops nonetheless allowed scattered artisanal workshops and domestic industries to continue to exist as their broad foundation. A large amount of surplus-value is produced in these branches of labor as the goods produced become progressively less expensive: both those tendencies arose—and arise—primarily from the practice of combining minimal wages that barely suffice to keep workers alive with maximal labor-times that reach the outer limits of what human beings can endure. It is in fact because human sweat and blood became less and less expensive in the form of commodities, the form they are transformed into, that the market kept expanding and is still expanding daily, especially England's colonial market—where, moreover, English taste and customs set the tone. At last, the critical point is reached. The old method's foundation—i.e., the brutal exploitation of the material of labor, accompanied to a greater or lesser extent by the systematic division of labor—no longer suffices in the face of the growing market and the even more rapid growth of competition among capitalists. The hour of machinery is at hand. The machine that decisively revolutionizes the countless branches of industry in this sphere

182. English dressmaking and millinery are done mainly on the employers' premises; the workers are women and girls, some of whom live there, too, while others are day laborers who reside elsewhere.

183. Commissioner White visited a factory that makes military clothes and employs 1,000–1,200 people, almost all of them female; he also visited a shoe factory where 1,300 people work—nearly half are children and teenagers. (“Child. Empl. Comm. Second Rep.,” p. XLVII, n. 319.)

of production, taking over dressmaking as much as tailoring, shoemaking, sewing, hat making, and so on, is . . . *the sewing machine*.

Its immediate effect on workers is like that of every other machine that conquers new trades in the era of large-scale industry. Children who are too young are sent away. Workers who use machines see their wages increase compared with those of domestic workers, who often constitute part of the “poorest of the poor.” On the other hand, the better-off artisans see their wages fall, since they have to compete with machines. The new machine workers are exclusively girls and young women. Assisted by mechanical power, they destroy the male monopoly over heavy labor and at the same time put large numbers of old women and children out of jobs that require less strength. This overpowering competition kills the weakest artisans. The terrible increase in deaths by starvation that London has witnessed over the past decade is of course connected to the expansion of machine-driven sewing.¹⁸⁴ The new female workers expend a great amount of labor-power at the sewing machines, which they turn with their hands and feet, or just with their hands, sitting or standing, depending on the weight, size, and particular function of the machine. Their work is made hazardous by its long hours, although they generally aren’t as long as in the old system. Wherever the sewing machine is visited upon workshops that were already cramped and overcrowded, the number of unhealthy factors shoots up, as has been the case in shoemaking, corset making, hat making, and so on. “The effect,” says Commissioner Lord, “of entering a low-pitched workroom, where 30 or 40 machinists are working under such conditions is almost overpowering. . . . The heat, partly owing to gas stoves for heating irons, was dreadful. . . . Although the hours were moderate, from 8 A.M. to 6 P.M., it was usual for three or four persons to faint every day.”^{185,xviii}

The transformation of the social mode of production—something that necessarily follows when the means of production are transformed—occurs through a colorful mishmash of transitional forms. These vary according to how extensively and for how long the sewing machine has established itself in a given branch of industry, as well as what condition workers are in when the sewing machine arrives; whether manufacturing workshops, craft labor, or domestic labor predominates in a given branch

184. An example: On February 26, 1864, the Register General’s weekly report on mortality listed five cases of death by starvation. On the same day, the Times reported a new case. Six people starving to death in a single week!

185. Child. Empl. Comm. 2nd Rep. 1864, p. LXVII, n. 406–9, p. 84, n. 124, p. LXXIII, n. 441, p. 68, n. 6, p. 84, n. 126, p. 78, n. 85, p. 76, n. 69, p. LXXII, n. 438.

of industry; the cost of renting a work space; and so on.¹⁸⁶ Take dressmaking, for example: when the sewing machine is introduced there, most of the labor is already coordinated, generally according to the principle of simple cooperation, and thus the sewing machine does nothing but make up a new factor in the manufacturing system of production. But in tailoring, shirt making, and shoemaking, all the forms of production are intermingled. We have the factory system proper. Middlemen get raw material from a capitalist *en chef* and bring together 10 to 50 (or even more) wage laborers to work in “chambers” and “garrets.” And, as is the case wherever machinery isn’t organized into a system and can be used on a miniature scale, artisans and domestic laborers work with sewing machines that they themselves own, getting help either from their own families or a few workers they hire from outside.¹⁸⁷ In the system that currently predominates in England, the capitalist concentrates a large number of machines in his own buildings and sends out what the machines produce to be worked on further by a scattered army of domestic laborers.¹⁸⁸ The colorful diversity of these transitional forms doesn’t obscure the basic trend here, which is the transformation of production into the factory system proper. This trend is fostered, firstly, by the very nature of the sewing machine, whose wide range of applications serves to drive production toward the point where formerly separate branches of trade are concentrated in the same building under the command of a single mass of capital; secondly, by the fact that the best place to carry out preliminary needlework and other operations is wherever the machines are; and, finally, by the inevitable expropriation of the artisans and domestic laborers who work with their own machines. This fate has already overtaken those groups, at least in part. The capital invested in sewing machines keeps growing and growing,¹⁸⁹ which boosts production and thus leads to moments of standstill in the market that signal to domestic laborers: it’s time for them to sell their sewing machines. The overproduction of such machines forces their desperate producers to lease them on a weekly basis, creating competition that proves deadly

186. “The rental of premises required for work rooms seems the element which ultimately determines the point, and consequently it is in the metropolis, that the old system of giving work out to small employers and families has been longest retained, and earliest returned to” (ibid. p. 83 n. 123). The concluding phrase refers only to shoemaking.

187. This doesn’t occur in glove making and other trades where the worker’s circumstances hardly differ from those of a pauper.

188. Ibid. n. 122.

189. In the Leicester wholesale boot and shoe trade alone, there were 800 sewing machines in use by 1864.

for the small sewing machine owners.¹⁹⁰ How machines are designed and built changes all the time. This fact, along with their steadily falling cost, causes the older models to depreciate daily. Now they can be used profitably only in the hands of the big capitalists who buy large numbers of them at absurdly low prices. But it is when human workers are replaced by the steam engine that the decisive change occurs at last, as is the case in all such processes of transformation. The use of steam initially runs up against purely technological obstacles that are quickly overcome with experience—e.g., the machines shake, their speed is hard to control, the lighter ones wear out quickly, and so on.¹⁹¹ If the concentration of many working machines in large manufacturing workshops drives production toward the use of steam power, the competition between steam power and human muscles accelerates the concentration of workers and working machines in large factories. Hence England is currently seeing a transformation in the colossal production sphere of “wearing apparel,” as in most of the others. Manufacturing workshops, craft labor, and domestic industry are turning into factory-centered production—long after each of those forms of production, having been thoroughly twisted around and decomposed under the influence of large-scale industry, reproduced and even intensified all the factory system’s horrors but none of its positive developments.¹⁹²

This industrial revolution has proceeded spontaneously, but it was artificially accelerated when the jurisdiction of the Factory Acts was expanded to include all the branches of industry where women, teenagers, and children work. For the Acts had consequences that made it necessary to extend the use of machinery¹⁹³ and replace the motive force of muscles

190. *Ibid.* p. 84, n. 124.

191. Some examples: the Army Clothing Depot at Pimlico, London, the Tillie and Henderson’s shirt factory at Londonderry, and the clothes factory of Messrs. Tait in Limerick, where about 1,200 “hands” are worked to the bone.

192. “Tendency to factory system” (*ibid.* p. lxvii). “The whole employment is at this time in a state of transition, and is undergoing the same change as that effected in the lace trade, weaving, etc.” (*ibid.* n. 405). “A complete Revolution” (*ibid.* p. xlvi, n. 318). When the “Child. Empl. Comm.” report of 1840 was published, stockings were still produced by manual labor. Since 1846, many new types of machines have been introduced that are now driven by steam power. In 1862, the total number of people of both sexes, including children as young as 3, employed in the production of stockings in England amounted to about 129,000. Only 4,063 worked under the jurisdiction of the Factory Acts, according to the Parliamentary Return of 11 February 1862.

193. An example from earthenware production. Messrs. Cochrane of “Britain Pottery, Glasgow,” report, “To keep up our quantity, we have gone extensively into machines wrought by unskilled labour, and every day convinces us that we can produce a greater

with steam power: the compulsory regulation of the workday (e.g., how long it is, how much time is allotted for breaks, when the day begins and ends); the introduction of the shift system for children working in factories; and the exclusion of all children under a certain age.¹⁹⁴ On the other hand, the shared means of production—furnaces, buildings, and so on—are enlarged as a way of winning back in space what is lost in time. The means of production become more concentrated, in a word, and this leads to a corresponding increase in the number of workers brought together around them. In every manufacturing workshop that is threatened with the Factory Laws, we hear owners furiously object that a greater amount of capital will have to be spent just to keep the business running on its old scale. As for both domestic industry itself and the form of industry that combines it with elements of the manufacturing workshop, the bottom drops out from under them the moment the length of the workday and child labor are restricted. These forms of industry can compete with others only by limitlessly exploiting the bearers of cheap labor-power.

An essential condition of the factory system—especially when length of the workday is regulated—is that production has to yield fairly certain results. In other words, a given quantity of commodities or an intended useful effect has to be reliably produced in a given amount of time. The legally required breaks in the regulated workday presuppose, moreover, that sudden and periodic pauses can occur without harming the product as it moves through the production process. This certainty of outcome and the capacity to interrupt labor are of course easier to achieve in purely mechanical industries than in ones that involve chemical and other physical processes, such as earthenware production, bleaching, dyeing, baking, and most metal works. Wherever the workday goes on without restrictions, i.e., night work is allowed and human beings can be brutalized freely, all spontaneously arising obstacles are seen as eternal “natural barriers” to production. But there is no poison that can kill vermin more surely than the Factory Laws wipe out “natural barriers” of this kind. No one complained about such “impossibilities” as loudly as those gentlemen whose business was producing earthenware. Then the Factory Act was imposed on them in 1864. What happened? Within sixteen months, all the impossibilities had been swept away. “The improved method,” called

quantity than by the old method” (“Reports of Insp. of Fact. 31st Oct. 1865,” p. 13). “We think that the effect of the Act will be to push on further adoption of machinery” (*ibid.* pp. 13–14).

194. Thus, after potteries became subject to the Factory Act, the use of power jiggers greatly increased at the expense of hand-moved ones.

forth by the Act, “of making slip by pressure instead of by evaporation, the newly constructed stoves for drying the ware in its green state, etc., are each events of great importance in the pottery art, and mark an advance which the preceding century could not rival. . . . It has even considerably reduced the temperature of the stoves themselves, with a considerable saving of fuel, and with a readier effect on the ware.”¹⁹⁵ All the grim prophecies proved false. The cost of producing earthenware goods didn’t increase, while the quantity of goods produced definitely did—so much so that the value of the goods exported between December of 1864 and December of 1865 exceeded the average of the previous three years by £138,628. The match industry deemed it to be a natural law that even while boys gulped down their midday meal, they had to keep dipping matches into a warm solution of phosphorus, whose toxic fumes wafted up into their faces. This changed after the Factory Act (1864) made it necessary to use time more efficiently. For this necessity led to the invention of a “dipping machine” whose fumes don’t reach the workers.¹⁹⁶ In the branches of the lace industry not yet subject to the Act, manufacturers have claimed that meals must be eaten at irregular times, since the different types of lace material need different amounts of time to dry, ranging from three minutes to an hour and even longer. The Children’s Employment Commissioners replied to them as follows: “The circumstances of this case are precisely analogous to that of the paper stainers, dealt with in our first report. Some of the principal manufacturers in the trade urged that, in consequence of the nature of the materials used, and their various processes, they would be unable, without serious loss, to stop for mealtimes at any given moment. . . . By clause six of section six of the Factory Acts Extension Act passed during this Session of Parliament, an interval of 18 months is given to them from the passing of the Act, before they are required to conform to the meal hours specified by the Factory Acts.”¹⁹⁷ Parliament had only just approved the Factory Act when the manufacturers also discovered that the “inconveniences we expected to arise from the introduction of the Factory Acts into our branch of manufacture, I am happy to say, have not arisen. We do not find the production at all interfered with; in short, we produce more in the same time.”¹⁹⁸ Experience clearly led England’s Parliament, which

195. *Ibid.* pp. 96 and 127.

196. In one match factory, 32 boys and girls between 14 and 17 years old replaced 230 young people—in a single department—when this and other machines were introduced. In 1865, the use of steam power enlarged this process of replacement.

197. “Child. Empl. Comm. Second Rep. 1864,” p. IX, n. 50.

198. “Reports of Insp. of Fact. 31st Oct. 1865,” p. 22.

no one would ever accuse of possessing great genius, to conclude that with a simple law, it could legislate away all the so-called natural obstacles to limiting and regulating the workday. When the Factory Act is introduced in a branch of industry, manufacturers are thus given between six and 18 months to remove all the technological obstacles to regulation. Mirabeau's "Impossible! ne me dites jamais cet imbécile de mot!"^{xix} holds particularly true for modern technological knowledge. But if the Factory Act has a hot-house effect on material elements needed to transform the manufacturing system into the factory system, causing them to ripen at an accelerated rate, the Act also accelerates both the demise of the small masters and the concentration of capital, doing so by making it necessary to spend greater amounts of capital.¹⁹⁹

The regulation of the workday is obstructed not only by barriers that are purely technological and can be overcome through technology, but also by the irregular habits of the workers themselves. Such behavior tends to occur where piece wages predominate, and time that has been idled away during a day or week can be made up for later with overwork or night work, a method that wears out adult male workers and crushes every other kind.²⁰⁰ These erratic expenditures of labor-power arise spontaneously as a raw response to the boredom people experience when their work is monotonous drudgery, but they are caused to a much greater extent by an aspect of production itself: its anarchy, which, in turn, presupposes that capital exploits labor-power without restraint. Alongside the general and periodic ups and downs of the industrial cycle, and the particular undulations of the market in each branch of industry, there are the so-called "seasonal effects," whether they result from the seasonal nature of shipping (for which some times of the year are better than others), or from changing fashions and large orders that are submitted without warning

199. "But it must be borne in mind that, these improvements though carried out fully in some establishments, are by no means general, and are not capable of being brought into use in many of the old manufactories without an expenditure of capital beyond the means of many of the present occupiers. . . . Notwithstanding the temporary disorganization which inevitably follows the introduction of such a measure and is, indeed, directly indicative of the evils it was intended to remedy, etc." (ibid. pp. 96-97).

200. With blast furnaces, for example, "work towards the end of the week is generally much increased in duration, in consequence of the habit of the men of idling on Monday and occasionally during a part or the whole of Tuesday also" ("Child. Empl. Comm. Third Rep." p. VI). "The little masters generally have very irregular hours. They lose 2 or 3 days, and then work all night to make it up. . . . They always employ their own children if they have any" (ibid. p. VII). "The want of regularity in coming to work, encouraged by the possibility and practice of making up for this by working longer hours" (ibid. p. XVIII). "Enormous loss of time in Birmingham . . . idling part of the time, slaving the rest" (ibid. p. XI).

and have to be acted on right away. As trains and telegraphs have become more widespread, so have such orders. "The extension of the railway system throughout the country," notes a London manufacturer, "has tended very much to encourage giving short notice. Purchasers now come up from Glasgow, Manchester, and Edinburgh once every fortnight or so to the wholesale city warehouses which we supply, and give small orders requiring immediate execution, instead of buying from stock as they used to do. Years ago we were always able to work in the slack times so as to meet the demand of the next season, but now no one can say beforehand what will be in demand then."²⁰¹

In the factories and manufacturing workshops not yet subject to the Factory Acts, terrible overwork reigns periodically during the so-called season, owing to sudden orders. Production is at best thoroughly irregular in the external departments of factories, manufacturing workshops, and warehouses, i.e., in the sphere of domestic labor, where orders and the supply of raw material depend entirely on the whims of capitalists who operate without having to concern themselves with valorizing their buildings and machines—they are risking nothing but the workers' skin—and an industrial reserve army is thus systematically bred to be always available: wrecked by inhumane, harmful amounts of labor during one part of the year, these workers are reduced to rags by lack of work during the other part. According to the Children's Employment Commission, "Employers avail themselves of that habitual irregularity when any extra work is wanted at a push, so that work goes on till 11 and 12 P.M., or 2 A.M., or as the usual phrase is, 'all hours,'" and in places where "the stench is enough to knock you down; you go to the door, perhaps, and open it, but shudder to go further."²⁰² "They are curious men," said one of the witnesses interviewed, a shoemaker, "and think it does a boy no harm to work too hard for half the year, if he is nearly idle for the other half."²⁰³

These so-called "usages which have grown with the growth of trade," or "business customs," were treated by interested capitalists just as technological obstacles were: they were—and still are—called "natural barriers" to production, this term being the favorite cry of the Lords of Cotton when first threatened with the Factory Acts. More than any other industry, theirs depends on the world market—and thus also on shipping—yet

201. "Child. Empl. Comm. Fourth Rep.," p. XXXII. "The extension of the railway system is said to have contributed greatly to this custom of giving sudden orders, and the consequent hurry, neglect of mealtimes, and late hours of the workpeople" (*ibid.* p. XXXI).

202. *Ibid.* p. XXXV, n. 235 and 237.

203. *Ibid.* p. 127, n. 56.

experience clearly showed that they were lying. Since then, English factory inspectors have regarded all claims about “obstructions to business” as hollow nonsense.²⁰⁴ The laudably conscientious investigations carried out by Children’s Employment Commission have in fact demonstrated that when the workday was regulated, the labor already being employed in a number of industries came to be spread more evenly over the course of the year.²⁰⁵ The investigations brought to light that the limited workday was the first mechanism to rationally curb the deadly, vacuous caprice of fashion, which doesn’t mesh well with the system of large-scale industry.²⁰⁶ And the investigations have also shown that shipping across oceans and the means of communication in general have swept away the actual technological foundation of seasonal labor,²⁰⁷ while all the other supposedly uncontrollable circumstances are counteracted through the use of larger new buildings, additional machinery, a greater number of workers employed simultaneously,²⁰⁸ and, finally, the automatic effects all this has on the system of wholesale trade.²⁰⁹ Nevertheless, capital comes to terms with this kind of momentous change only “under the pressure of a

204. “With respect to the loss of trade by the non-completion of shipping orders in time, I remember that this was the pet argument of the factory masters in 1832 and 1833. Nothing that can be advanced now on this subject could have the force that it had then, before steam had halved all distances and established new regulations for transit. It quite failed at that time of proof when put to the test, and again it will certainly fail should it have to be tried” (“Reports of Insp. of Fact. 31st Oct. 1862,” pp. 54, 55). [Editor’s note: “Could have the force” is “could have half the force” in the source text.]

205. “Child. Empl. Comm. Third Rep.,” p. XVIII, n. 118.

206. As early as 1699, John Bellers remarked, “The uncertainty of fashions does increase necessitous Poor. It has two great mischiefs in it: 1st) The journeymen are miserable in winter for want of work, the mercers and master-weavers not daring to lay out their stocks to keep the journeymen employed before the spring comes and they know what the fashion will then be; 2ndly) In the spring the journeymen are not sufficient, but the master-weavers must draw in many prentices, that they may supply the trade of the kingdom in a quarter or half a year, which robs the plow of hands, drains the country of labourers, and in a great part stocks the city with beggars, and starves some in winter that are ashamed to beg” (“Essays about the Poor, Manufactures, etc.,” p. 9).

207. “Child. Empl. Comm. Fifth Rep.,” p. 171, n. 34.

208. Thus we read in witness statements about the Bradford export houses, “Under these circumstances it seems clear that no boys need be worked longer than from 8 A.M. to 7 or 7:30 P.M. in making up. It is merely a question of extra hands and extra outlay; if some masters were not so greedy, the boys would not work late; an extra machine costs only £16 or £18. . . . All the difficulties here stem from insufficiency of appliances and a want of space” (ibid. p. 171 n. 35, 36, and 38).

209. A London manufacturer, who, incidentally, sees the compulsory regulation of labor-time as a means of protecting workers from manufacturers and also of protecting manufacturers from wholesale trade, claims, “The pressure in our trade is caused by the desire of shipping houses to send either by a sailing vessel, in order to be in time for a

General Act of Parliament”²¹⁰ that regulates the workday. Its representatives keep making that clear.

9. Factory Legislation (Hygiene and Education Clauses). The Extension of Its Jurisdiction in England

With factory legislation, society brought forth its first conscious and systematic reaction against the spontaneously arising form of its own production process, and as we have seen, these laws are just as much the necessary product of large-scale industry as cotton yarn, self-actors, and the electric telegraph. Before turning to the imminent extension of their jurisdiction throughout England, we need to briefly examine several clauses in the English Factory Act that don't have to do with the number of hours in the workday.

The hygiene clauses are formulated in such a way as to make it easy for capitalists to get around them, but even aside from that, they are downright anemic. All they do is establish some rules about whitewashing walls, a few other cleaning regulations, ventilation requirements, and safety requirements for dangerous machines. In volume 3 of this work, we will return to the fanatical campaign the manufacturers waged against these clauses, which in the end merely forced them to spend a small amount of money to protect the limbs of their factory “hands.” We have here yet another case where a certain free-trade dogma has been borne out in spectacular fashion—namely, in a society of conflicting interests, each person promotes the common good by pursuing his own private gain! A single example will suffice. We know that during the past two decades, the flax industry in Ireland has grown considerably; so, in turn, has the number of scutching mills (where the flax is pounded and broken up). In 1864, it had about 1,800 of them. During fall and winter, groups of workers made up mostly of teenagers and women who have no experience with machinery—i.e., the sons and daughters of local small farmers—are periodically pulled away from their labor in the fields and put to work feeding flax to the rollers in these mills. The history of machinery has seen nothing quite like it: nowhere else have accidents been so severe or occurred so often. In a single scutching mill in Kildinan (near Cork), six workers

particular season, and to save the difference in freight between that and steam, or by the earlier of two steamers so as to be the first in foreign market” (ibid. p. 81, n. 32).

210. “This could be obviated,” a manufacturer says, “at the expense of an enlargement of the works under the Pressure of a General Act of Parliament” (ibid. p. X, n. 38).

were killed and 60 were mutilated between 1852 and 1856. All of these incidents might have been prevented if the mill had put in place safety measures that cost just a few shillings. Dr. White, the certifying surgeon for the mills in Downpatrick, writes in an official report dated December 16, 1865, "The serious accidents at the scutching mills are of the most fearful nature. In many cases a quarter of the body is torn from the trunk, and either involves death or a future of wretched incapacity and suffering. The increase of mills in the country will of course extend these dreadful results, and it will be a great boon if they are brought under the legislature. I am convinced that by proper supervision of scutching mills a vast sacrifice of life and limb would be averted."²¹¹ What could be more characteristic of the capitalist mode of production than the fact that the state had to pass a law forcing manufacturers to do the simplest things for the sake of hygiene and health? "In the potteries, the Factory Act of 1864 has whitewashed and cleansed upwards of 200 workshops after a period of abstinence from any such cleaning in many cases of 20 years, and in some entirely [this is capital's form of "abstinence"], in which were employed 27,878 artisans, hitherto breathing through protracted days and often nights of labour, a mephitic atmosphere, and which rendered an otherwise comparatively innocuous occupation, pregnant with disease and death. It has greatly multiplied the means of ventilation."²¹² At the same time, however, this part of the Factory Act strikingly illustrates that owing to its very essence, the capitalist mode of production excludes all further rational improvement after a certain point. We have noted (more than once) that on the question of how much air workers need in rooms where they perform sustained labor, the consensus among England's physicians is that 500 cubic feet per person barely suffice. So far, so good! But if all the Factory Act's regulations indirectly accelerate the transformation of small workshops into factories, and thus indirectly encroach upon the property rights of small capitalists, while helping to secure a monopoly for the large ones, a rule whereby every worker in a workshop must have the necessary amount of air space would directly expropriate thousands of small capitalists all at once! It would grab the capitalist mode of production by the roots—i.e., capital's self-valorization, which, whether large or small, is based on the "free" purchase and consumption of labor-power. These 500 cubic feet thus take the air out of factory legislation. Health officials, industrial committees of inquiry, and factory inspectors stress

211. *Ibid.* p. XV, n. 72ff.

212. "Reports of Insp. of Fact. 31st Oct. 1865," p. 127.

again and again how important the 500 cubic feet are—and how impossible it is to simply impose them on capital. This amounts to declaring that consumption and other respiratory diseases are one of capital's conditions of existence.²¹³

As meager as the education clauses in the Factory Acts generally seem, they did make elementary schooling into a condition of child labor.²¹⁴ Their success showed for the first time that it is possible to combine education and gymnastics with manual labor,²¹⁵ and thus that it is possible to combine manual labor with education and gymnastics. The factory inspectors soon learned (while interviewing schoolmasters) that even though the factory children spent half as much time in the classroom as the regular students, they were learning just as much—often even more. “This can be accounted for by the simple fact that, with only being at school for one half the day, they are always fresh, and nearly always ready and willing to receive instruction. The system on which they work, half manual labour and half school, renders each employment a rest and a relief to the other; and consequently, both are far more congenial to the child, than would be the case were he kept constantly at one. It is quite clear that, a boy who has been at school all morning cannot (in hot weather particularly), cope with one who comes fresh and bright from his work.”²¹⁶ We find

213. Studies have shown that when an average, healthy person takes a breath with an average level of intensity, he consumes about 25 cubic inches of air, and that on average people take about twenty breaths per minute. Thus during an average day, a person consumes about 720,000 cubic inches or 416 feet of air. Clearly, air that has been breathed in cannot serve the same purpose when breathed in again until it has been purified in the great workshop of nature. Experiments by Valentin and Brunner have demonstrated that a healthy man gives off about 1,300 cubic inches of carbonic acid per hour; this means his lungs throw off about 8 ounces of solid carbon each day. “Every man should have at least 800 cubic feet” (Huxley). [Editor's note: From Thomas Henry Huxley, *Lessons in Elementary Physiology* (London, 1866), p. 105.]

214. According to the English Factory Act, parents of children under 14 are not allowed to send their children to work in the factories “regulated” by the Act without also having them receive elementary education. It is the manufacturer's responsibility to see to it that the Act is followed. “Factory education is compulsory, and it is a condition of labor” (“Reports of Insp. of Fact. 31st Oct. 1865,” p. 111).

215. On the advantageous results achieved by combining gymnastics (and military exercises, in the case of boys) with compulsory schooling for factory children and destitute children, see N. W. Senior's speech at the seventh annual congress of the “National Association for the Promotion of Social Science,” in “Report of Proceedings etc. Lond. 1863,” pp. 63–4, and also the Report of the Inspectors of Factories for 31st Oct. 1865, pp. 118, 119, 120, 126ff.

216. “Reports of Insp. of Fact.” *ibid.* pp. 118, 119. A naïve silk manufacturer told the members of the “Child. Empl. Comm.,” “I am quite sure that the true secret of producing efficient workpeople is found in uniting education and labour from a period of childhood. Of course

further supporting evidence in Senior's 1863 speech at the Social Science Congress in Edinburgh. Among other things, he demonstrates here that the monotonous, unproductive, overlong school day of children in the middle and more advanced classes adds to the teacher's workload for no good reason: "We are employing labour on the part of our masters, and time, health, and energy on the part of our children, not only fruitlessly, but absolutely mischievously."²¹⁷ From the factory system, as Robert Owen shows in detail, sprouts the bud of the education of the future. Productive labor will be combined with education and gymnastics for all children over a certain age, not only because this is a way to increase social production, but also because it is the only way to produce fully developed human beings.

Readers have seen that owing to the technology large-scale industry entails, such production overcomes the division of labor in the manufacturing workshop, where the whole of a human being is tied for life to a specialized operation, and that at the same time, the capitalist form of large-scale industry reproduces the workshop's division of labor as something altogether more monstrous. This happens inside true factories because there the worker is transformed into the thinking and speaking appendage of a specialized machine. Everywhere else, it happens partly because machines and machine labor are used only sporadically,²¹⁸ and

the occupation must not be too severe, nor irksome or unhealthy. But of the advantage of the union I have no doubt. I wish my own children could have some work as well as play, to give variety to their schooling" ("Child. Empl. Comm." Fifth Rep., p. 82, n. 36).

217. Senior *op. cit.* p. 66. Once large-scale industry reaches a certain point, it transforms minds as well by transforming the material mode of production and the social relations of production. We see this very clearly when we compare N. W. Senior's 1863 speech with his philippic against the Factory Act of 1833, or when we compare the views of the aforementioned Congress with the fact that in some rural parts of England, poor parents are still forbidden from educating their children, the penalty for this being death by starvation. Thus Mr. Snell reports that when a poor person claims parish relief, he is forced to remove his children from school. Mr. Wollaston, the clergyman at Feltham, also speaks of cases where families were denied all relief "because they were keeping their boys at school[!]."

218. Wherever machines that are used in craft labor and driven by people compete—directly or indirectly—with more advanced machines that are moved by machines, a great change takes place with respect to the workers who supply the machines' motive force. First the steam engine replaces these workers; then they must replace the steam engine. The intensity with which labor-power is activated and the overall expenditure of it therefore become monstrous—especially for the children and teens who are condemned to this torture! For example, Commissioner Longe found that boys between 10 and 15 were being used to turn ribbon-loom in Coventry and the surrounding area, not to mention the even younger children who were made to drive smaller machines. It is extraordinarily arduous work. "The boy is a mere substitute for steam-power" ("Child. Empl. Comm. 5th Rep. 1866," p. 114, n. 6). On the murderous effects of this "system of slavery," as the report calls it, see *ibid.* pp. 114ff.

partly because women, children, and unskilled labor are introduced as a new foundation for the division of labor. The contradiction between the division of labor in the manufacturing workshop and the essence of large-scale industry forcefully makes its presence felt here. It appears in the terrible fact that so many of the children employed in the modern factory and manufacturing workshop are locked into performing the most basic activities from a tender age and exploited for years without learning how to do a job that would enable them to get work later, even in the very same factory or manufacturing workshop. English letterpress printers used to operate according to a system like those found in the old manufacturing workshops and craft labor system. Apprentices took up increasingly sophisticated tasks and worked their way through their apprenticeship until they were full-fledged printers. To be able to read and write was required of all such artisans. All this changed when the printing machine was introduced. It employs two types of workers: an adult who minds the machine, and machine boys, generally between 11 and 17 years old, who do nothing but spread sheets of paper under the machine or remove the printed pages. Several days a week, the boys slog away for fourteen, fifteen, or sixteen hours without a break. Often they work in thirty-six-hour shifts that include only two hours for rest, meals, and sleep!²¹⁹ (These practices are particularly widespread among London's printers.) Most of the boys can't read, and as a rule, they are feral, deviant creatures. "To qualify them for the work which they have to do they require no intellectual training; there is little room in it for skill, and less for judgment; their wages, though rather high for boys, do not increase proportionately as they grow up, and the majority of them cannot look for advancement to the better paid and more responsible post of machine minder, because, while each machine has but one minder, it has at least two, and often four, boys attached to it."²²⁰ The moment the boys are too old for their infantile tasks—and certainly before they turn 18—the printers let them go. They then become prospective criminals. A number of attempts have been made to employ them elsewhere, but all have failed because the boys are so ignorant and uncivilized, and so physically and mentally degraded.

What holds for the division of labor in the manufacturing workshop holds also for the division of labor within society. As long as craft labor and the manufacturing workshop constitute the universal foundation of

219. *Ibid.* p. 3, n. 24.

220. *Ibid.* p. 7, n. 59, 60.

social production, the consigning of producers to a single type of trade, which rips apart the original multifariousness of their work activities, has to occur in order for development to take place.²²¹ Here, experience guides each particular branch of production to its most appropriate technological form. A given branch perfects this form slowly, but once it reaches a certain level of maturity, the form rapidly crystallizes. Aside from new materials of labor supplied by trade, the only thing that now causes further change, here and there, is the gradual improvement of tools. But when the right form of a tool of labor has been achieved, with experience guiding the way, it, too, calcifies. In fact, these tools are often passed from the hands of one generation to another for thousands of years. It says a lot about this situation that the different trades were still called mysteries (*mystères*²²²) at the beginning of the eighteenth century, and only someone who had been initiated through practical experience and professional training could hope to penetrate into their darkness. Large-scale industry tore off the veil that had prevented people from seeing their own social process of production and had made enigmas of spontaneously divided branches of production—even for initiates of all branches—with each branch becoming an enigma for all the others. Large-scale industry's principle of treating every production process in and for itself—of breaking each process down into its constituent elements without first considering where human hands will fit in—is what brought about the very modern science of technology. The varied, apparently unconnected and petrified forms of the social process of production were now dissolved and reconstituted as consciously planned applications of natural science that were systematically divided according to an intended useful effect. The science of technology also discovered the few foundational forms of movement through which every productive action of the human

221. "In some parts of the Highlands of Scotland . . . every peasant, according to the Statistical Accounts, made his own shoes of leather tanned by himself. Many a shepherd and cottar too, with his wife and children, appeared at Church in clothes which had been touched by no hands but their own, since they were shorn from the sheep and sown in the flax field. In the preparation of these, it is added, scarcely a single article had been purchased, except the awl, needle, thimble, and a very few parts of the ironwork employed in the weaving. The dyes, too, were chiefly extracted by the women from trees, shrubs, and herbs" (Dugald Stewart, *op. cit.*, pp. 327–8).

222. In Étienne Boileau's well-known "*Livre des métiers*," one of the things prescribed is that when an apprentice is admitted among the masters, he has to pledge to "love his brothers in a brotherly way, to support each of them in his métier, to keep the secrets of the trade, and, for the sake of all, to refrain from making his own wares look attractive by drawing attention to flaws in the products made by others."

body necessarily occurs, despite the diversity of the instruments involved, just as modern mechanics isn't fooled by the great complexity of modern machinery and sees that machines continuously repeat the same simple mechanical processes. Modern industry never views or treats the existing form of a production process as definitive. Its technological foundation is therefore revolutionary, whereas that of all earlier modes of production was essentially conservative.²²³ Using machinery, chemical processes, and other methods, modern industry continuously transforms the functions of workers and the social combinations of the labor process as it improves the technology on which production is based. It thereby revolutionizes the division of labor within society just as continuously, while ceaselessly shifting great quantities of capital and workers from one branch of production to another. The nature of large-scale industry is thus such that it requires labor to be variable, labor's functions to be fluid, and workers to be generally mobile. On the other hand, the capitalist form of large-scale industry reproduces the old division of labor and the petrified specializations that go with it. Readers have seen how this absolute contradiction strips the worker's life circumstances of all calm, stability, and security, and how it constantly threatens to tear his means of labor—and with them his means of subsistence—from his hands,²²⁴ making his specialized function, and thus him, superfluous. They have also seen how the violent force of this contradiction is channeled into the nonstop festival of sacrificial slaughter inflicted on the working class, the heedless squandering of the bearers of labor-power, and the devastation caused by social anarchy. This is its negative side. The variability of labor now asserts itself as an irresistible natural law operating in the blindly destructive way of

223. "The bourgeois cannot exist without constantly revolutionizing the instruments of production, and thereby the relations of production, and with them the whole relations of society. Conservation of the old modes of production in unaltered form, was, on the contrary, the first condition of existence for all earlier industrial classes. Constant revolutionizing of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation distinguish the bourgeois epoch from all earlier ones. All fixed, fast-frozen relations, with their train of ancient and venerable prejudices and opinions, are swept away, all new-formed ones become antiquated before they can ossify. All that is solid melts into air, all that is holy is profaned, and man is at last compelled to face with his sober senses, his real conditions of life, and his relations with his kind" (F. Engels and Karl Marx, "Manifest der Kommunistischen Partei. Lond. 1848," p. 5). [Editor's note: English translation, *Manifesto of the Communist Party*, in *MECW*, vol. 6, p. 487.]

224. "You take my life

When you do take the means whereby I live."

(Shakespeare) [Editor's note: From *The Merchant of Venice*, act 4, scene 1.]

any natural law that runs up against obstacles on all sides.²²⁵ Yet large-scale industry or, in fact, its very catastrophes, make it a matter of life or death, firstly, to recognize that both labor's variability and the corresponding need for workers to have various capabilities must become general laws of social production and, secondly, to adapt existing conditions so that these laws can be realized effectively. It becomes a matter of life or death, too, to replace the horror of an impoverished reserve population of workers, a population kept always at the ready as capital's exploitation needs change, with a human being's absolute readiness to respond to labor's changing demands. In other words, the specialized individual who is merely the bearer of one narrow social function must be replaced with a fully developed individual who treats his different social functions, each of which is supplanted by the next, as the different modes of activity he engages in one after the other. The polytechnic and agronomical schools that arose spontaneously on the foundation of large-scale industry were one moment in this process of transformation. Another was the "*ecole d'enseignement professionnel*," where workers' children have received some instruction in technology and also learned how to use different instruments of production.^{xx} If the Factory Act, that minimal first concession extracted from capital, managed only to combine elementary education with factory labor, there can be no doubt that when the working class seizes political power, as it inevitably will, technological instruction of both the practical and theoretical kind will win a place in workers' schools. There can also be no doubt about the diametrical antagonism between such revolutionary ferment, whose goal is to sweep away the old division of labor, and the capitalist form of production and the economic conditions for workers that go along with that form. But it is only by way of the contradictions arising in a given historical form of production—or, more precisely, their historical development—that such a form can be dissolved and shaped anew. *Ne sutor ultra crepidam!*^{xxi} This *nec plus ultra* of artisanal wisdom became the height of foolishness the moment Watt the watchmaker invented the steam engine, Arkwright the barber

225. Upon returning from San Francisco, a French worker wrote, "I never thought I would be capable of all the professions I tried out in California. I deeply believed that outside the printing press, I was good for nothing at all. But that ceased to be so once I was in the middle of this world of adventurers who change professions more easily than shirts—my goodness! For I did as the others were doing. The miner's job did not pay me enough, so I went to the city, where I sometimes did typesetting, sometimes roofing, etc., etc. The profession of plumber and zinc worker did not pay too poorly. These experiences gave me the conviction that I am fit for any sort of work, and thus I feel less like a mollusk and more like a man" (A. Corbon, "De l'enseignement professionnel." 2nd ed., p. 50).

invented the throstle, and Fulton the jeweler brought the steamship into being.^{226,xxii}

Insofar as factory legislation regulates the labor in factories and manufacturing workshops, it merely looks like an attempt to interfere with capital's right to exploit labor. But any measure that regulates so-called domestic labor²²⁷ will immediately come across as a direct challenge to the *patria potestas*—or, in modern parlance, parental authority. Hence the warm-hearted men in England's Parliament long made a show of recoiling from that step. Finally, however, the power of the facts forced those men to acknowledge that when large-scale industry destroyed the economic foundation of the traditional family structure and the concomitant forms of family labor, it also destroyed the traditional family structure itself. The rights of children had to be proclaimed. Published in 1866, the final report of the Child. Empl. Comm. states, "It is, unhappily, to a painful degree apparent throughout the whole of the evidence, that against no persons do the children of both sexes so much require protection as against their parents." The system of heedlessly exploiting child labor in general and domestic labor in particular is "maintained only because the parents are able, without check or control, to exercise this arbitrary and mischievous power over their young and tender offspring. . . . Parents must not possess the absolute power of making their children mere machines to earn so much weekly wage. . . . The children and young persons, therefore, in all such cases may justifiably claim from the legislature, as a natural right, that an exemption should be secured to them, from what destroys prematurely their physical strength, and lowers them in the scale of intellectual and moral beings."²²⁸ The abuse of parental authority wasn't actu-

226. As early as the end of the seventeenth century, John Bellers, truly a phenomenon in the history of political economy, was keenly aware of the need to abolish the contemporary systems of education and the division of labor, which cause hypertrophy and atrophy at opposite ends of society, albeit in opposite directions. Among other things, he said this: "An idle learning being little better than the Learning of Idleness. . . . Bodily Labour, it's a primitive institution of God. . . . Labour being as proper for the bodies health, as eating is for its living, for what pains a man saves by Ease, he will find in Disease. . . . Labour adds oyl to the lamp of life when thinking inflames it. . . . A childish silly employ [a prescient warning against the Basedows and their modern epigones] leaves the children's minds silly" (Proposals for Raising a Colledge of Industry of all Useful Trades and Husbandry. Lond. 1696, pp. 12, 14, 16, 18).

227. This goes on for the most part in small workshops, as we saw when we examined the lace making and straw plaiting industries. The metal works in Sheffield and Birmingham would supply us with even better examples.

228. "Child. Empl. Comm. Fifth Rep.," p. XXV, n. 162 and Second Rep., p. XXXVIII, n. 285, 289, p. XXV, XXXVI, n. 191.

ally what brought into being capital's direct or indirect exploitation of child and teenage bearers of labor-power—rather, it was the other way around. When the capitalist mode of exploitation did away with the economic foundation on which parental authority rested, it made the exercise of parental authority into a form of abuse. But as terrible and grotesque as the dissolution of the old family structure within the capitalist system currently seems, large-scale industry nonetheless lays the foundation for better forms of the family and improved relations between the two sexes. And it does so precisely when it assigns women, young people, and children of both sexes a decisive role in socially organized processes of production beyond the domestic sphere. It is of course just as absurd to treat the Christian-Germanic form of familial relations as absolute as it would have been to regard the Roman or classical Greek or Oriental forms that way—those early forms constitute a historical progression, in fact. We can easily see, moreover, that if the combined labor force made up of male and female workers of all different ages is a deleterious driver of degradation and slavery in its brutal, spontaneously arising capitalist form (where the worker exists for the sake of the production process rather than the reverse), it will necessarily have the opposite effect under the right conditions, becoming a source of human development.²²⁹

The Factory Act began as a special law for spinning and weaving mills, those earliest creations of machine-driven industry, but as we have seen, the need to make the Act into a general law for all social production arose out of large-scale industry's historical development, for the traditional forms of the manufacturing workshop, craft labor, and domestic industry have been completely revolutionized within the context of large-scale industry's ascent. Manufacturing workshops are constantly turning into factories, craft labor is constantly turning into the manufacturing system, and, finally, the spheres of manual and domestic labor take an amazingly small amount of time, relatively speaking, to become dens of despair where the most extreme horrors of capitalist exploitation unfold without constraints. In the end, two things tipped the scales toward change: first, the always-recurring experience that the moment capital is brought under state supervision, even at a few points along society's periphery, it looks to make up its losses all the more heedlessly everywhere else.²³⁰ And, second, the circumstance that capitalists themselves clamor for com-

229. "Factory labour may be as pure and as excellent as domestic labour, and perhaps more so" ("Reports of Insp. of Fact. 31st Oct. 1865," p. 129).

230. *Ibid.* pp. 27, 32.

petition to take place under equal conditions, i.e., they want the exploitation of labor to be limited equally.²³¹ Let's hear two such *cris de coeur*. Messrs. W. Cooksley (needle and chain manufacturers in Bristol) voluntarily introduced the Factory Act's regulations in their business. "As the old irregular system prevails in neighbouring works, the Messrs. Cooksley are subject to the disadvantage of having their boys enticed to continue their labour elsewhere after 6 P.M. 'This,' they naturally say, 'is an injustice and a loss to us, as it exhausts a portion of the boys' strength of which we ought to have the full benefit.'"²³² Speaking to the Commissioners of the Children's Employment Commission, Mr. J. Simpson, a paper bag and box maker in London, said that "he would sign any petition for it [legislative intervention]. As it was, he always felt restless at night, when he had closed his place, lest others be working later than him and getting away his orders."²³³ In summing up its findings, the Commission maintained, "It would be unjust to the larger employers that their factories should be placed under regulation, while the hours of labour in the smaller places in their own branch of business were under no legislative restriction. And to the injustice arising from the unfair conditions of competition, in regard to hours, that would be created if the smaller places of work were exempt, would be added the disadvantage to the larger manufacturers of finding their supply of juvenile and female labour drawn off to the places of work exempt from legislation. Further, a stimulus would be given to the multiplication of the smaller places of work, which are almost invariably the least favourable to the health, comfort, education, and general improvement of the people."²³⁴

In its final report, the Children's Employment Commission recommends that more than 1,400,000 children, teenagers, and women be brought under the protections of the Factory Act (about half of them were being exploited by small businesses and domestic labor).²³⁵ The authors

231. There is a great deal of evidence to support this in the "Rep. of Insp. of Fact."

232. "Child. Empl. Comm. Fifth Rep.," p. X, n. 35.

233. *Ibid.* p. IX, n. 28.

234. *Ibid.* p. XXV, n. 165-167. On the advantages of large-scale industry over small-scale industry, see "Child. Empl. Comm. Third Rep.," p. 13, n. 144, p. 25, n. 121, p. 26, n. 125, p. 27, n. 140, and so on.

235. The proposed extension would bring the following branches of industry under the jurisdiction of the Factory Act: lace making, stocking weaving, straw plaiting, special apparel and its various subdivisions, artificial flower making, shoemaking, hat making, glove making, tailoring. All metal works, from blast works to needle factories, paper mills, glass works, tobacco factories, India rubber works, braid making (for weaving), hand carpet making, umbrella and parasol making, spindle and spool making, letterpress printing,

write, "But if it should seem fit to Parliament to accept our proposal in its entirety, it cannot be doubted that such legislation would have a most beneficent effect, not only upon the young and the feeble who are its more immediate objects, but upon the still larger body of adult workers who would, in all these employments, both directly [women] and indirectly [men], come immediately under its influence. It would enforce upon them regular and moderate hours; it would lead to their places of work being kept in a healthy and cleanly state; it would therefore husband and improve that store of physical strength on which their own well-being and that of the country so much depends; it would save the rising generation from that over-exertion at an early age which undermines their constitutions and leads prematurely to decay; finally, it would ensure them—at least up to the age of 13—the opportunity of receiving the elements of education, and would put an end to that utter ignorance which—as faithfully exhibited in the Reports of our Assistant Commissioners—cannot be regarded without the deepest pain, and a profound sense of national humiliation."²³⁶ In the Throne Speech given on February 5, 1867, the Tory Government announced that it had in fact incorporated the Commission's recommendations into a series of "Bills." It had taken another twenty years of *experimentum in corpore vili* for that to happen. As early as 1840, Parliament created a commission whose charge was to investigate child labor. Published two years later, its report painted, in the words of N. W. Senior, "the most frightful picture of avarice, selfishness, and cruelty on the part of masters, and of parents, and of juvenile and infantine misery, degradation, and destruction ever presented. . . . It may be supposed that it describes the horrors of a past age . . . those horrors continue as intense as they ever were. . . . The abuses complained of in 1842, are in full bloom in the present day [October 1863]. . . . This report lay unnoticed for twenty years, during which the children, whose minds, morals, and bodies were in a terrible state, were allowed to become the parents of the present generation."²³⁷ The current Committee of Inquiry has also recommended new regulations for the mining industry.²³⁸ Lastly, speaking in the House

bookbinding, stationery making (including paper bags, cards, colored paper), rope making, jet ornament making, brickmaking, the production of silk by hand, Coventry weaving, salt works, tallow chandlers, cement works, sugar refineries, biscuit making, various industries connected with timber, and other mixed trades.

²³⁶ Ibid. XXV, n. 169.

²³⁷ Senior *op. cit.* p. 55ff.

²³⁸ The recent Blue Book on mines, "Report from the Select Committee on Mines, together with etc. Evidence. 23rd July 1866," is a thick folio volume, but it contains only witness testimony. The report by a committee made up of members of the House of

Commons consists of only five lines. This committee had nothing to say except: Bring on the next witness! We should note that in the mining industry, the interests of landlords and industrial capitalists have gone hand in hand. The committee's manner of examining witnesses calls to mind the cross-examinations in English courts of justice, where an advocate asks rude, bewildering questions as he attempts to make the witness lose composure and twists the witness's words around as they come out of his mouth. Here the parliamentary examiners act like advocates, and among them are mine owners and mine exploiters. The witnesses are miners—mostly coal miners. The whole farce is so characteristic of the spirit of capital that we must give some excerpts. First, however, let us note that the Act of 1842 made it illegal to use the labor of the female sex, and that of all children under 10 years of age, in the mines. A new Act, "The Mines Inspecting Act" of 1860, prescribes, in addition to inspections and the like, that children between 10 and 12 years old not be employed if they don't have a school certificate or spend a certain number of hours in school. The whole Act is a nullity, and this is so due to the laughably small number of inspectors, the paucity of their power to enforce the law, and other circumstances that we will see as we proceed. To enable readers to form an overall picture of the situation more easily, I will present the results of the investigation under headings. Let me remind the reader that in the Blue Books, the questions and obligatory answers are numbered, and the witnesses whose testimony is cited here are coal miners.

1. "The Employment in the Mines of Boys 10 and up." Including the necessary travel to and from the mines, the work generally lasts fourteen and or fifteen hours, in rare cases even longer, beginning at 3 or 4 A.M. and going until 4 or 5 P.M. (n. 6. 452, 83.) The adults work in two shifts of eight hours. Owing to the cost, the boys don't alternate in this way. (n. 80, 203, 204.) The main job of the younger children is to open and shut the ventilation doors in different parts of the mine; the older boys perform heavier labor: they transport coal, etc. (n. 122, 739, 740, 1717.) Such long hours below ground are the rule until workers are in their 18th or 22nd year. (n. 161.) Then they begin to work as actual miners. Today, children and teens are treated worse and worked harder than at any previous time (n. 1663-67.) Nearly all the miners have called for an Act of Parliament that would prohibit employing children under 14 in mines. And now Mr. Bruce asks, "Would not the opinion of the workman depend upon the poverty of the workman's family? Do you not think it would be a very hard case where a parent had been injured, or where he was sickly, or where a father was dead, and there was only a mother, to prevent a child between 12 and 14 from earning 1s. 7d. a day for the good of his family? You must lay down a general rule. Are you prepared to recommend legislation which would prevent the employment of children underground between 12 and 14, whatever the state of their parents might be?" "Yes." (n. 107-10.) Hussey: "Supposing that an enactment were passed preventing the employment of children under the age of 14, would it not be probable that the parents of children would seek employment for their children in other directions, for instance, in manufactories? Not generally, I think." (n. 174.) Worker: "Some of the boys are keepers of doors. It sounds a very easy thing, but it is, in fact, rather a painful one. Aside from the draught, a boy is imprisoned there, just the same as if he was in a cell of a gaol." Bourgeois Hussey: "Whenever a boy is furnished with a lamp cannot he read?" "Yes, he can read if he finds candles for himself." "I suppose he would be found fault with if he was discovered reading; he is there to mind his business, he has a duty to perform, and he has to attend to it in the first place, and I do not think it would be allowed down the pit."

2. Education. The miners demand a law mandating that children receive schooling, just as the children who work factories do. As for the clauses in the Act of 1860 that require children 10 to 12 years old to have a school certificate before they can work in mines, the miners declare that they are completely illusory. Here the "painstaking" cross-examination

carried out by the capitalist investigating magistrates is downright droll. (n. 115.) "Is it [the Act] required more against the masters or against the parents? It is required against both, I think." (n. 116.) "You cannot say whether it is required against one more than against the other? No; I can hardly answer that question." (n. 137.) "Does there appear to be any desire on the part of the employers that the boys should have such hours as to enable them to go to school? No, the hours are never shortened for that purpose." (n. 211.) "Should you say that the collieries, generally, improve their education; have you any instances of men who have, since they began to work, greatly improved their education, or do they not rather go back, and lose any advantage which they may have gained? They generally become worse; they do not improve; they acquire bad habits; they get on to drinking and gambling and such like, and they go completely to wreck." (n. 454.) "Do they make any attempt of the kind by having schools at night? There are a few collieries where night schools are held, and perhaps at those collieries a few boys do go to those schools; but they are so physically exhausted that it is to no purpose that they go there. So you are against education," concludes the bourgeois. "Certainly not; but . . ." (n. 441-443.) "But are not the employers compelled to demand school certificates when they use children between 10 and 14 years of age? By law they are; but I am not aware that they are demanded by the employers." (n. 444.) "Then it is your opinion, that this provision of the Act, as to requiring certificates, is not generally carried out in the collieries? It is not carried out." (n. 717.) "Do the men take a great interest in the question of education? The majority of them do." (n. 718.) "Are they anxious to see the law enforced? The majority are." (n. 718.) "Do you think that in this country any law that you pass, however good, can really be effectual unless the population themselves assist in putting it into operation? Many a man might wish to object to employing a boy, but he would become, perhaps, marked by it." (n. 721.) "Marked by whom? By his employers." (n. 722.) "Do you think that the employers would find any fault with a man who obeyed the law? I believe they would." (n. 723.) "Have you ever heard of any workman objecting to employ a boy between 10 and 12? It is not left to men's option." (n. 1,634.) "Would you call for the interference of Parliament? I think that if anything effectual is to be done in the education of the colliers' children, it will have to be made compulsory by Act of Parliament." (n. 1,636.) "Would you lay that obligation upon the colliers only of all the workpeople of Great Britain? I came to speak for the colliers." (n. 1,638.) "Why should you distinguish them from other boys? Because I think they are an exception to the rule." (n. 1,639.) "In what respect? In a physical respect." (n. 1,640.) "Why should education be more valuable to them than to other classes of boys? I do not know that it is more valuable; but, through the over exertion in the mines, there is less chance for the boys that are employed there to get an education either at Sunday schools, or at day schools." (n. 1,644.) "It is impossible to look at a question of this sort absolutely by itself, is it not?" (n. 1,646.) "Is there a sufficiency of schools? No." (n. 1,647.) "If the State were to require that every child should be sent to school, would there be schools for the children to go to? No, but I think if the circumstances were to spring up the schools would be forthcoming. Some of them cannot read and write at all, I suppose? The majority cannot. The majority of the men themselves cannot." (n. 705, 706.)

3. Employment of Women. Female workers are no longer put to work underground—that stopped in 1842—but they do work above the mines, loading coal, bringing the tubs to the canals and train cars, sorting, and so on. Over the past three or four years, the number of female workers has risen dramatically. (n. 1,727.) Most of them are wives, daughters, or widows of the colliers, ranging in age from 12 to 50 or 60. (n. 647, 1,779, 1,781, n. 648.) "What is the feeling among the working miners as to the employment of women? I think that they generally condemn it." (n. 649) "What objection do you see to it? I think it is degrading to the sex. There is a peculiarity of dress, is there not? Yes. It is rather a man's dress, and I believe,

in some cases, it drowns all sense of decency. Do the women smoke? Some do. And I suppose it is dirty work, is it not, which they do? Very dirty. They get black and grimy? As black as those who are down the mines. I believe that a woman having children (and there are plenty on the banks that have), cannot do her duty to them" (n. 651ff., n. 701, n. 709.) "Do you think that those widows could get employment anywhere else, which would bring them in as much wages as from 8s. to 10s. a week? I cannot speak to that." (n. 710.) "You would still be prepared, would you [heart of stone!], to prevent their obtaining a livelihood by these means? I would" (n. 1,715, 1717.) "What is the general feeling in the district for which you are agent, as to the employment of women? The feeling is, that it is degrading; and we wish, as miners, to have more respect to the fair sex than to see them placed on the pit bank. . . . Some part of the work is hard. Some of those girls have raised as much as 10 tons of stuff a day." (n. 1,732.) "Do you think that the women employed about the collieries are less moral than the women employed in the factories? The percentage of bad ones in proportion to the number may be a little more than what the average would be with the girls in the factories." (n. 1,733.) "But you are not quite satisfied with the state of morality in the factories? No." (n. 1,734.) "Would you prohibit the employment of women in the factories also? No, I would not." (n. 1,735.) "Why not? I think it a more honourable occupation for them in the mills." (n. 1,736.) "Still it is injurious to their morality, you think? Not so much as working on the pit bank; but it is more on the social position that I take it; I do not take it on its moral ground alone. The degradation, in its social bearing on the girls, is deplorable in the extreme. When girls become colliers' wives, the men suffer greatly from this degradation, and it causes them to leave their homes, and drink." (n. 1,737.) "You would be obliged to stop the employment of women in the ironworks as well, would you not, if you stopped it in the collieries? I cannot speak for any other trade." (n. 1,740.) "Can you see any difference in the circumstances of women employed in the ironworks and women employed above ground in the collieries? I have not ascertained anything as to that." (n. 1,741.) "Can you see anything that makes a distinction between one class and the other? I have not ascertained that, but I know, from house to house visitation, that it is a deplorable state of things in our district." (n. 1,750.) "Would you interfere in every case with the employment of women where that employment was degrading? Yes . . . the best feelings of Englishmen have been gained from the instruction of a mother." (n. 1,751.) "That equally applies to agricultural employments, does it not? Yes, but that is only for two seasons, and we have work all the four seasons. They often work day and night, soaked to the skin, their constitution compromised, and their health ruined." (n. 1,753.) "You have not inquired into that subject perhaps? I have taken note of it as I have gone along, and certainly I have seen nothing parallel to the effects of women employed on the pit bank. Is not the colliery work of a woman what really ought to be the work of a man? Yes. And what you would call a strong man? Yes. Your feeling upon the whole subject is, that the better class of colliers who wish to raise themselves and humanize themselves, instead of deriving help from the women, are pulled down by them? Yes." Eventually, after some more of this convoluted questioning by these bourgeois interviewers, the secret of their "sympathy" for widows and poor families finally came out. "The coal proprietor appoints certain gentlemen to take the oversight of the workings, and it is their policy, in order to receive approbation, to place things on the most economical basis they can, and these girls are employed at from 1s. up to 1s. 6d. a day, where a man, at the rate of 2s. 6d. a day would have to be employed." (n. 1,816.)

4. Coroner's Juries (n. 360). "With regard to coroner's inquests in your district, have the workmen confidence in the proceedings at those inquests when accidents occur? No; they have not." (n. 361-75.) "Why not? Chiefly because the men who are generally chosen are men who know nothing whatever about mines, and such like. Are not workmen summoned upon the jury? Never, but as witnesses. Who are the people who are generally summoned upon

these juries? They are generally tradesmen in the neighbourhood who are liable to be influenced by their employers, the owners of the works. They are generally men who have no knowledge, and can scarcely understand the witnesses who are called before them, and the terms which are used, and such like. Would you have the jury composed of persons who had been employed in mining? Yes, partly. That is what they think; they think that the verdict is not in accordance with the evidence given generally." (n. 378.) "One great object in summoning a jury is, to have an impartial one, is it not? Yes, I should think so." (n. 379.) "Do you think that the juries would be impartial if they were composed to a considerable extent of workmen? I cannot see any motive which the workmen would have to act partially. They necessarily have a better knowledge of the operations in connection with the mine." (n. 380.) "You do not think there would be a tendency on the part of the workmen to return unfairly severe verdicts? No, I think not."

5. False Weights and Measures. The workers demand to be paid weekly instead of fortnightly—and by weight instead of the cubic content of the tubs; they also demand mechanisms of protection against the use of false weights. (n. 1,071.) "If the tubs were fraudulently increased a man could discontinue working by giving 14 days' notice? But if he goes to another place there is the same thing going on there." (n. 1,072.) "But he can leave that place where the wrong has been committed? It is general; wherever he goes he has to submit to it." (n. 380.) "Could a man leave the place where he was working by giving 14 days' notice? Yes." Case closed!

6. Mine Inspections. Gas explosions aren't all that causes the workers to suffer. (n. 234ff.) "Our men complained very much of the bad ventilation of the collieries. The ventilation is so bad in general that the men can scarcely breathe; they are quite unfit for employment of any kind after they have been for a length of time in connection with their work; indeed, just at the part of the mine where I am working, men have been obliged to leave their employment, and come home in consequence of the bad state of the ventilation. There is plenty of air generally in the main courses, yet pains are not taken to get air into the workings, where the men are working. Why do you not apply to the inspector? To tell the truth, there are many men who are timid on that point; there have been cases of men being sacrificed and losing their employment in consequence of applying to the inspector. Why; is he a marked man for having complained? Yes. Do you think that the mines in your neighbourhood are sufficiently inspected to insure a compliance with the provisions of the Act? No, they are not inspected at all. The inspector has just been once down the pit, and it has been going seven years. In the district to which I belong, we have one old man more than 70 years of age to inspect more than 130 collieries. You may wish to have a class of sub-inspectors appointed? Yes." (n. 280.) "But do you think it would be possible for Government to maintain such an army of inspectors as would be necessary to do all that you want them to do, without their receiving any information from the men? No, I should think it would be next to impossible." (n. 285.) "Do you not think that the effect of having these inspectors examining the collieries so frequently would be to shift the responsibility [!] of supplying proper ventilation from the owners of the collieries to the Government officials? No, I do not think that. I think that they should make it their business to enforce the Acts which are already in existence." (n. 294.) "When you speak of sub-inspectors, do you mean men at a less salary, and of an inferior stamp to the present inspectors? I would not have them inferior, if you could get them otherwise." (n. 295.) "Do you merely want more inspectors, or do you want a lower class of man as an inspector? A man who would knock about and see that things are kept right; a man who would not be afraid of himself." (n. 297.) "If you obtained your wish in getting an inferior class of inspectors appointed, do you think that there would be no danger of want of skill, etc.? I think not, I think that the Government would see after that, and have proper men in that position." At

of Commons (in 1867), Professor Fawcett called for agricultural workers to be given similar protections.

If extending the Factory Act proved to be an unavoidable means of protecting the physical and mental health of members of the working class, it had the additional effect, as has already been indicated, of extending and accelerating the transformation of scattered small-scale labor processes into combined ones that take place on a large social scale—in other words, of extending and accelerating the concentration of capital and the complete dominance of the factory regime. All the traditional and transitional forms that had partially concealed capital's rule are now swept away and replaced by direct, naked domination. But when the extension of the Factory Act causes that to happen, it also has the effect of broadening the direct struggle against capital's domination. It forces each individual workshop to bring forth greater uniformity, regularity, order, and

this point, this manner of examination became too much even for the head of the investigating committee, who interjected, "You want a class of men who would look into all the details of the mine, and would go into all the holes and corners of the mine. They would report to the chief inspector, who would then bring his scientific knowledge to bear on the facts they had stated? Would it not entail very great expense if all these old workings were kept ventilated? Yes, expense might be incurred, but life would be at the same time protected." Here a mining worker protested against Section 17 of the Act of 1860, saying, "At the present time, if the inspector of mines finds a part of the mine unfit to work in, he has to report it to the mine owner and the Home Secretary. After doing that, there is given to the owner 20 days to look over the matter; at the end of 20 days he has the power refuse making any alteration in the mine; but, when he refuses, the mine owner writes to the Home Secretary, at the same time nominating five mining engineers, and from those five engineers named by the mine owner himself, the Home Secretary appoints one, I think, as arbitrator, or appoints arbitrators from them; now we think that in that case the mine owner virtually appoints his own arbitrator." (n. 586.) The bourgeois examiner, himself a mine owner: "But is this a merely speculative objection? (n. 588.) Then you have a very poor opinion of the integrity of mining engineers?" (n. 589.) "It is, most certainly, unjust and inequitable. Do not mining engineers possess a sort of public character, and do not you think that they are above making such a partial decision as you apprehend? I do not wish to answer such a question as that with respect to the personal character of those men. I believe that in many cases they would act very partially indeed, and that it ought not to be in their hands to do so, where men's lives are at stake." The same bourgeois is shameless enough to ask, "Do you not think that the mine owner also suffers a loss when an explosion occurs?" Finally (n. 1,042), "Are not you workmen in Lancashire able to take care of your own interests without calling in the Government to help you? No." In 1865, there were 3,217 coal mines in Great Britain—and 12 mine inspectors. One Yorkshire mine owner (*Times*, 26th January 1867) has estimated that even if the bureaucratic activities that take up all the inspectors' time are left out of the equation, each mine could be inspected only once every 10 years. No wonder that over the past few years (especially 1866 and 1867), mining catastrophes have been increasing in size and severity (sometimes killing up to 200 or 300 miners). This is the beauty of "free" capitalist production. [Editor's note: Much paraphrase and reordering of the source material in these citations.]

economy. Furthermore, as the workday is limited and regulated, the development of technology is stimulated in the most extreme way. Capitalist production as a whole thus becomes more anarchic and prone to catastrophes, while the intensity of labor goes up, as does that of the competition between machines and workers. By eliminating the spheres of small-scale and domestic labor, the extension of the Act wipes out the last refuge of the “superfluous population”, which had in fact served as the safety valve for the whole social mechanism. And extending the Act hastens the development of the material conditions and the social combination of the production process, thereby ripening the contradictions and antagonisms arising from the capitalist form of that process and, at the same time, both the elements needed to create a new society and the factors that foster the transformation of the old one.²³⁹

10. Large-Scale Industry and Agriculture

We haven't yet come to the proper place for examining how large-scale industry revolutionizes agriculture and the social relations of its producers. Here it will suffice to give a brief account that anticipates our results. If the use of machinery in agriculture mostly doesn't involve the physical hardships that are inflicted on factory workers,²⁴⁰ machinery acts as an even more powerful force—and meets with no resistance—in making agricultural workers “superfluous,” as we will later see in detail. In the counties of Cambridge and Suffolk, the overall amount of cultivated land has greatly increased over the past 20 years, but during the same period, the rural population has shrunk in relative terms and absolute ones. Meanwhile, in the United States of North America, agricultural machines have replaced workers only virtually: they have allowed producers to cultivate larger expanses of land but haven't yet put workers who are actually

239. The father of cooperative factories and stores, Robert Owen, who, as noted earlier, hardly shared his followers' illusions about the significance of these isolated moments of transformation, didn't just make the factory system the practical basis of his experiments; operating on the level of theory, he declared it to be the point of departure for the social revolution. Mr. Vissering, a professor of political economy at the University of Leiden, seems to sense something of the latter point when he champions craft labor rather than large-scale industry in his “Handboek van Praktische Staathuishoudkunde. 1860–1862,” which presents all the clichés of vulgar political economy in their most appropriate form.

240. Readers will find a comprehensive account of the machinery used in England's agricultural industry in “Die Landwirthschaftlichen Geräthe und Maschinen Englands by Dr. W. Hamm. 2nd ed. 1856.” In sketching how agriculture developed in England, Hamm is overly uncritical in following Mr. Leonce de Lavergne.

employed out of work. The number of workers in England and Wales who produced agricultural machines was 1,034 in 1861; in the same year, the labor of only 1,205 agricultural workers involved operating steam engines and tool machines.

Insofar as large-scale industry destroys the “peasant,” the bulwark of traditional society, and puts wage laborers in his place, it is in the sphere of agriculture that it has its most revolutionary impact. The social transformation requirements in the countryside and the social antagonisms there come to equal their counterparts in towns and cities. Irrational ways of working and a lazy attachment to customary practices are supplanted by the conscious application of science to technology. The capitalist mode of production severs what remains of the original family bonds that linked agriculture and manufacturing together when both were in their early, prepubescent form. But at the same time, it creates the conditions for a new and higher synthesis—a union of agriculture and industry based on forms of these two things that were developed in opposing ways. Capitalist production draws people into the great urban centers whose inhabitants make up an ever-larger majority of the overall population, concentrating the historical motive force of society. On the other hand, it disrupts the metabolizing that goes on between human beings and the earth. The natural elements that people consume as food and clothing can no longer return to the land: hence capitalist production undermines the eternal natural condition of the earth’s lasting fertility, thereby ruining the physical health of the urban worker and the intellectual life of the rural one.²⁴¹ However, when capitalist production eliminates the merely spontaneously arising conditions that underlie the metabolizing between people and the earth, it also forces them to systematically reestablish it as a governing law of social production, and to do so in a form that allows for people to develop fully as human beings. In agriculture and the manufacturing workshop alike, the capitalist transformation of the production process also appears as a martyrology for the producers. The means of labor now appear as means for subjugating, exploiting, and impoverishing the worker, while the social combination of labor processes appears as nothing but the organized suppression of the worker’s individual vitality,

241. “You divide the people into two hostile camps of clownish boors and emasculated dwarfs. Good heavens! a nation divided into agricultural and commercial interests calling itself sane, nay styling itself enlightened and civilized, not only in spite of, but in consequence of this monstrous and unnatural division” (David Urquhart, *op. cit.*, p. 119). This passage exhibits both the strengths and the weaknesses of a mode of critique that is good at assessing and assailing the present, but doesn’t know how to understand it.

freedom, and independence. The fact that rural workers are scattered over large areas decisively weakens their power to resist, whereas the concentration of urban workers strengthens theirs. Yet in modern agriculture as much as in urban industry, heightened productive power and an increase in the amount of labor that is made fluid come at the cost of decimating and enfeebling labor-power itself. Moreover, every advance made by capitalist agriculture is an advance not only in the art of stealing from workers, but also in the art of stealing from the soil. Every time the earth's fertility is successfully increased for a given period, this ruins some part of the earth's sources of long-lasting fertility. The more a country—e.g., the United States—bases its development on large-scale industry, the faster this process of destruction runs its course.²⁴² Capitalist production thus advances the technological means of social production processes and combines those processes more and more only by damaging the very founts of all wealth: the earth and the worker.

242. See Liebig, "Die Chemie in ihrer Anwendung auf Agrikultur und Physiologie. 7th ed. 1862," and especially the "Einleitung in die Naturgesetze des Feldbaus." One of Liebig's immortal accomplishments is that, proceeding from the standpoint of natural science, he explicated the negative side of modern agriculture. His pithier statements about the history of agriculture, although they contain some crude mistakes, also feature flashes of insight. It is too bad, however, that he gratuitously wagers claims such as the following one: "The exchange of air in the inner part of porous soil is promoted by increased pulverizing and more frequent plowing, which also increases and renews the surface soil exposed to the workings of the air. Yet it is easy to comprehend that the land's greater yield cannot be proportional to the labor expended on the land, but must instead grow in a much smaller proportion. This law," Liebig adds, "was first articulated by John Stuart Mill, in his *Princ. of Pol. Econ.* Vol. I, p. 217, as follows: 'That the produce of the land increases, *caeteris paribus*, in a diminishing ratio to the increase of labour employed [here Mill repeats in a false form the law stated by the Ricardian school; given that the development of agriculture in English was accompanied by a "decrease of workers employed," this law could have no application in England, even though it was discovered there and invoked in reference to that country] is the universal law of agricultural industry.' This is all quite remarkable. After all, the basis of this law was unknown to Mill" (Liebig *op. cit.*, Vol. 1, p. 143 and note). Aside from the fact that Liebig interprets the word "labor" incorrectly and uses it in a way that differs from how it is used in political economy, it is, in any case, "very remarkable" that he makes John Stuart Mill out to be the original champion of a theory that James Anderson was the first to publish—he, Anderson, did that in Adam Smith's day. This theory was repeated again and again in various works, all the way into the nineteenth century. Malthus, that archplagiarist (he shamelessly plagiarized his entire theory of population), adopted the theory in 1815. West developed the same theory at the same time as Anderson, and independently of him. In 1817, Ricardo tied it to the general theory of value, whereupon it traveled the world as his theory. James Mill created a vulgar version of it in 1820. Finally, his son, John Stuart Mill (along with others), reproduced it as a familiar dogma—familiar, already, to every schoolboy. It is certainly undeniable that Mill owes his "remarkable" authority almost exclusively to such misattributions.

PART FIVE

**The Production of Absolute
and Relative Surplus-Value**

CHAPTER FOURTEEN

Absolute and Relative Surplus-Value

WE FIRST CONSIDERED the labor process in abstract terms, or apart from its historical forms—as a process that takes place between human beings and nature (see chapter 5). When this process is purely individual, one and the same worker performs all its functions, uniting them and operating as his own supervisor as he appropriates natural objects to achieve his basic life aims. Later, he works under others, and the various functions of the labor process are distributed among multiple workers. An individual person working on his own can't apply his labor to nature without activating his muscles, which he controls with his brain. Just as the head and the hand go together in nature's system, so the labor process unites menial labor and mental labor. Those two things are eventually separated, however, to the point where a hostile antagonism emerges. The product is no longer an article made by an individual producer directly: it has become the collective product of a combined work force, which consists of members working closer to or farther from the actual object of labor. And so as the cooperative character of the labor process becomes more expansive, the concept of productive labor necessarily expands, as does that of its bearer: the productive worker. But the latter concept narrows, too. Capitalist production is, at bottom, the production of surplus-value, not merely commodities. A worker produces for capital rather than himself, and thus it no longer suffices for a worker to generally produce: he must produce surplus-value. He must produce surplus-value for a capitalist—in other words, serve capital's process of self-valorization—in order to be productive. To use an example from outside the sphere of material production, a schoolmaster would be productive if, in addition to working on children's minds, he worked himself to the bone making an entrepreneur wealthy. Whether the entrepreneur has put his money

into a learning factory or a sausage factory, the relation between him and the worker will be the same. The concept of the productive worker thus implies not only a relation between an activity and its useful effects, or between the worker and the product of his labor, but also a specific social relation of production that turns the worker into capital's direct means of valorization. Being a productive worker isn't, then, something to celebrate; it is a misfortune. Volume 4 of this book, which deals with the theory's history, will show in greater detail that classical political economy has always made the production of surplus-value out to be the productive worker's distinguishing feature.¹ Accordingly, as political economy has altered its understanding of surplus-value, it has also changed its definition of the productive worker.

The production of absolute surplus-value and the production of relative surplus-value initially presented themselves to us as two different kinds of production arising at different points in capital's historical development. What needs to happen before absolute surplus-value can be produced? The things required to perform a given type of labor have to be transformed into capital, and the workers themselves have to be transformed into wage laborers; products have to be produced as commodities, or for the purpose of exchange; the production process has to be at the same time the process whereby capital consumes labor-power, which means that it has to be carried out under the direct control of a capitalist; and, finally, the labor process—that is, the workday—has to be extended past the point where the worker produces merely an equivalent of the value of his labor-power. If we presuppose that the general conditions of commodity production are in place, then all that the production of absolute surplus-value entails is this: the workday is extended beyond the labor-time necessary to maintain the worker, and capital appropriates the surplus-labor. This process can be based on traditional modes of industry that capital played no historical role in perpetuating. In such cases, what occurs is a purely formal metamorphosis. The capitalist mode of exploitation differs from the slave system, for example, only in that force was used to extract surplus-labor from workers, but now the “voluntary” sale of labor-power mediates its extraction. So, the production of absolute surplus-value presupposes only the formal subsumption of labor under capital.

The production of relative surplus-value presupposes the production of absolute surplus-value and thus also the general form of production that goes with it: namely, the capitalist form. In the production of relative

surplus-value, the goal is to increase surplus-value by shortening the necessary labor-time, and to do so independently of the limits of the workday. The capitalist achieves this goal by increasing labor's productive powers, which requires that the labor process be revolutionized. It no longer suffices to extend that process. It must be remade. The production of relative surplus-value therefore presupposes a specific capitalist mode of production whose methods, means, and other prerequisites spontaneously arise—and develop—only once the formal subsumption of labor under capital has occurred. Labor's real subsumption under capital then takes the place of its formal subsumption.ⁱⁱ

Here we only need to mention the hybrid forms in which direct force isn't used to extract surplus-value from the actual producers, and the producers still haven't become formally subordinate to capital—in other words, capital hasn't yet gained direct control over the labor process. Take, for example, the usurer or merchant who appeared on the scene alongside independent producers performing craft labor or farm work in traditional, ancestral ways. His usury capital or merchant capital fed on them like a leech. This form of exploitation couldn't predominate under the capitalist mode of production, but it could serve as a transitional form, as in fact it did toward the end of the medieval period. Finally, these hybrid forms were sometimes reproduced as by-products of large-scale industry, albeit with a completely new physiognomy, as the case of modern domestic industry showed.

Labor's merely formal subsumption under capital suffices for the production of absolute surplus capital. All that needs to happen here is that the artisan who previously worked for himself, or the apprentice who used to work for a guild master, has to work as a wage laborer under the direct control of a capitalist. As we have seen, however, the methods for producing relative surplus-value are at the same time ways to produce absolute surplus-value. In fact, the heedless extension of the workday appeared as large-scale industry's most characteristic product. The specific capitalist mode of production generally ceases to be a mere means of producing relative surplus-value the moment it takes control of a whole branch of industry, and this tendency becomes even more pronounced once it has come to dominate all the important branches. The capitalist mode is now the universal form of the production process, reigning supreme in a given society. It still functions as a particular method for producing relative surplus-value only in the following two ways. First, insofar as it continues to take over the industries that had been only formally subordinate to

capital—i.e., insofar as it continues to propagate itself. Second, insofar as changes in the methods of production keep revolutionizing the industries that have succumbed to it already.

From a certain standpoint, the difference between absolute and relative surplus-value seems illusory. Relative surplus-value is absolute, since it requires an absolute extension of the workday beyond the labor-time needed to maintain the worker, while absolute surplus-value is relative, since it requires an increase in labor's productivity that makes it possible to limit the necessary labor-time to one part of the workday. But when we look at the actual movement of surplus-value, this semblance of identity vanishes. If labor's productive power and its normal intensity are fixed, the only way to raise the rate of surplus-value is to extend the workday in absolute terms. However, when the length of the workday is fixed, the rate of surplus-value will increase only if a change occurs in the relative magnitudes of the workday's two parts, necessary labor and surplus-labor. If wages haven't been driven below the value of labor-power, this change presupposes that either labor's productivity or its intensity has changed.

Let's say a worker has to spend all his time producing the means of subsistence that he and his family need in order to maintain themselves. He wouldn't be able to perform uncompensated labor for a third person: labor has to reach a certain level of productivity before the worker has disposable time that can be used for that. Without such excess time, there can be no surplus-labor and thus no capitalist class. Capitalist production can't exist until labor achieves a certain degree of productive power, as was the case with all earlier modes of production that involved one part of society working not only for itself but also for the other part.¹

We can therefore say that surplus-value has a natural foundation, but it is natural only in the very general sense that no absolute natural barrier prevents a person from saddling someone else with the labor his own existence requires. It would be quite wrong to see a mystical something in this spontaneously arising productivity, as people occasionally have. Only once human beings have lifted themselves out of their earliest animal state, and their labor has become social to some extent, do relations emerge whereby the surplus-labor one person performs becomes the condition of another's existence. Labor's acquired productive power is still meager at the dawn of

1. "The very existence of the master-capitalists as a distinct class is dependent on the productiveness of industry" (Ramsay *op. cit.* p. 206). "If each man's labour were but enough to produce his own food, there could be no property" (Ravenstone *op. cit.* p. 14).

civilization, but so are the wants and needs that develop along with—and out of—the very means through which they are satisfied. Moreover, the part of society that lives from the work of others is at this point vanishingly small compared with the number of direct producers. The former population increases in both relative and absolute terms as labor's social productivity does.² In fact, the capital relation grows out of economic soil that is the product of a long process of development: the circumstance from which that relation proceeds, labor's existing productivity, is a gift from history, not nature.

If we set aside how far the form of social production has advanced, labor's productivity depends on natural conditions, which can all be traced back to the nature of human beings, such as their race, and to the natural world around them. Economically speaking, external natural conditions belong to one of two large classes: first, natural wealth in the means of subsistence—fertile soil, bodies of water teeming with fish, and so on; second, natural wealth in the means of labor, such as powerful waterfalls, navigable rivers, wood, metal, coal, and so on. When civilization is in its earliest stages, the first type of natural wealth matters most; in advanced societies, the second type does. Compare England with India, or, in the ancient world, Athens and Corinth with the nations along the coast of the Black Sea.

The smaller the number of natural needs that absolutely have to be satisfied, and the greater the natural fertility of the soil and kindness of the climate, the smaller the amount of labor-time needed to maintain and reproduce the producers. The greater, in turn, the amount of labor the producers can perform for others (beyond the labor they perform for themselves). This was known to be so as far back as Diodorus's day—he remarked about the Egyptians, "They feed their children in a sort of happy-go-luck fashion that in its inexpensiveness quite surpasses belief; for they serve them with stews made of any stuff that is ready to hand and cheap, and give them such stalks of the byblos plant as can be roasted in the coals, and the roots and stems of marsh plants, either raw or boiled or baked. And since most of the children are reared without shoes or clothing because of the mildness of the climate of the country, the entire expense incurred by the parents of a child until it comes to maturity is not more than twenty drachmas. These are the leading reasons why Egypt has such

2. "Among the wild Indians in America, almost every thing is the labourer's, 99 parts of an hundred are to be put upon the account of Labour: In England, perhaps the labourer has not $\frac{2}{3}$ " ("The Advantages of the East India Trade etc.," pp. 72, 73).

an extraordinarily large population, and it is because of this fact that she possesses a vast number of great monuments.”³ And yet, the great building projects of ancient Egypt owe less to the sheer size of the population than the fact that such a large part of it was available to work on them. An individual worker can supply more surplus-labor when his necessary labor-time is reduced, and, just so, the smaller the part of the general population needed to produce society’s means of subsistence, the larger the part available for other kinds of labor.

Let’s suppose we are dealing with the capitalist mode of production, the length of the workday is fixed, and all other circumstances remain constant: the magnitude of the surplus-labor produced will vary as labor’s natural conditions do, especially the fertility of the soil. The inverse, however, doesn’t follow: the place with the most fertile soil is by no means destined to be the one where the capitalist mode of production thrives most readily. That mode of production presupposes that human beings have come to rule over nature, and where nature lavishes its gifts upon a person too freely, “it guides him by the hand, like a child on leading strings.”ⁱⁱⁱ There, in other words, human development isn’t a natural necessity.⁴ Thus a temperate climate—not the tropics, with their lush vegetation—is capital’s motherland. The natural foundation for the social division of labor is the variety of the soil, or the diversity of its natural products, not its absolute fertility. For when people live in varying natural conditions, this motivates them to multiply their wants and needs, their skills, and the means and methods of their labor, while the need to collectively control a natural force and thereby work more efficiently, the need to appropriate or tame such a force by applying human labor on a large scale, has played a decisive role in the history of industry. Witness the water regulation proj-

3. Diodorus Siculus op. cit. Bk. I, 80. [Editor’s note: English translation, Diodorus Siculus, *Library of History*, vol. 1: *Books 1–2.34*, trans. C. H. Oldfather. Loeb Classical Library 279 (Cambridge, MA: Harvard University Press, 1933), pp. 275–77.]

4. “The first [natural wealth], as it is most noble and advantageous, so doth it make the people careless, proud, and given to all excesses; whereas the second enforceth vigilancy, literature, arts and policy” (“England’s Treasure by Foreign Trade. Or the Balance of our Foreign Trade is the Rule of our Treasure. Written by Thomas Mun, of London, Merchant, and now published for the common good by his son John Mun. Lond. 1669,” pp. 181, 182). “Nor can I conceive a greater curse upon a body of people, than to be thrown upon a spot of land, where the productions for subsistence and food were, in great measure, spontaneous, and the climate required or admitted little care for raiment and covering . . . there may be an extreme on the other side. A soil incapable of produce by labour is quite as bad as a soil that produces plentifully without any labour” (“An Inquiry into the Present High Price of Provisions. Lond. 1767,” p. 10).

ects in Egypt,⁵ Lombardy, and Holland. Or take India and Persia, where irrigation through artificial canals has supplied the soil with not only the water it needs but also fertilizing minerals from the mountains, which are carried along in sediment. The secret behind the economic success Spain and Sicily enjoyed under Arab rule was nothing other than irrigation.⁶

Favorable natural conditions bring about only the possibility—never the reality—of surplus-labor and thus also surplus-value or surplus product. Labor's different natural conditions are responsible for the fact that the same amount of labor goes farther toward satisfying wants and needs in some countries than in others⁷—they cause the necessary labor-time to vary from place to place when all other conditions are the same. But natural conditions affect surplus-labor only as a natural limit that determines the point where labor for others can begin, and this limit recedes in proportion to the advance of industry. In Western European societies, workers must pay a price in order to be allowed to work for their own existence, namely, they must supply surplus-labor, and someone living there might easily imagine that providing surplus product is an inborn quality of human labor.⁸ But let's look at an inhabitant of the East Indies, where sago grows wild in the forests. "When the inhabitant has satisfied himself, by

5. The Egyptians needed to be able to calculate the Nile's rise and fall, and this is what led to the invention of Egyptian astronomy and, along with it, the priestly caste's role as the highest authorities and policy makers in agriculture. "The solstice is the time of year when the Nile begins to rise, and the one the Egyptians had to observe with the utmost attention. . . . It was this tropical year that they needed to track in order to direct their agricultural operations. So they had to look to the sky for an apparent sign of its return" (Cuvier, "Discours sur les révolutions du globe éd. Hoefer. Paris 1863," p. 141).

6. One of the material foundations of state power over India's unconnected small organisms of production was the regulation of the water supply. The Mohammedan rulers in India understood this better than their English successors. We need only to think of the famine of 1866, which took the lives of more than a million Hindus in the Orissa district of the Bengal Presidency.

7. "There are no two countries, which furnish an equal number of the necessaries of life in equal plenty, and with the same quality of labour. Men's wants increase or diminish with the severity or temperateness of the climate they live in; consequently the proportion of trade which the inhabitants of different countries are obliged to carry on through necessity, cannot be the same, nor is it practicable to ascertain the degree of variation farther than by the Degrees of Heat and Cold; from whence one may make this general conclusion, that the quantity of labour required for a certain number of people is greatest in cold climates, and least in hot ones; for in the former, men not only want more clothes, but the earth more cultivating than in the latter" ("An Essay on the Governing Causes of the Natural Rate of Interest. Lond. 1750," p. 59). J. Massie wrote this epoch-making anonymous work. Hume took his theory of interest from it.

8. "All labor must [this is apparently part of the citizen's "rights and duties"] leave a surplus." (Proudhon.)

boring a hole in the trunk, that the pith is ripe, the trunk is cut down and divided into several pieces, the pith is scaped out, mixed with water, and strained, and there is sago-meal perfectly ready for use. A tree commonly yields 300lbs., and may afford 500lbs. or 600lbs. Thus a man goes into the woods and cuts his bread, as we hew our firewood.”⁹ Now suppose an East Indian bread cutter can satisfy all his wants and needs by performing twelve hours of labor a week. What nature has given him directly is a lot of leisure time. A whole series of historical circumstances have to come into being before he will use that time productively for himself. A source of external coercion has to be in place before he will spend it performing surplus-labor for someone else. If capitalist production were introduced, this good man might have to work six days a week to appropriate for himself the product of one workday.^{iv} Nature’s generosity doesn’t explain why he now works six days a week, supplying five days of surplus-labor: it explains only why his necessary labor-time would be limited to one day. But however much or little he works, his surplus product won’t arise from some inborn, occult quality of human labor.

Like the social productive powers of labor that are products of history, the powers determined by nature appear as productive powers of the capital that labor is incorporated into.

9. F. Schouw, “Die Erde, die Pflanze, und der Mensch.” Second ed. Leipzig 1854, p. 148. [Editor’s note: English translation, Joakim Frederik Schouw, *The Earth, Plants, and Man: Popular Pictures of Nature*, trans. Arthur Henfry (London: Henry G. Bohn, 1852), p. 137.]

The Price of Labor-Power and the Magnitude of Surplus-Value Increase and Decrease

IN PART 3 of this book (chapter 7), we analyzed the rate of surplus-value, but only from the standpoint of the production of absolute surplus-value. In part 4, we identified additional determining factors. Here we will briefly summarize the essential parts of those discussions.

The value of labor-power is determined by the means of subsistence that the average worker customarily requires. Although the worker doesn't always consume the same means of subsistence, the total amount he consumes is given at any particular moment in any given society, and we will therefore treat this amount as a constant magnitude. What changes is the value of his means of subsistence. Two other factors play a role in determining labor-power's value. One is how much it costs to develop labor-power: this varies as the mode of production does. The second has to do with the natural differences among the bearers of labor-power: whether they are male or female, children or adults. Which bearers of labor-power are used—something that is also conditioned by the mode of production—greatly affects both how much it costs to reproduce a worker's family and the value of an adult male worker. Nevertheless, we will disregard these two factors here.

We are assuming 1) that commodities are sold at their value, and 2) that the price of labor-power sometimes rises above its value but never falls below it.

With these assumptions in place, we found that three things determine the relative magnitudes of surplus-value and labor-power's price: the length of the workday or labor's extensive magnitude; labor's normal

intensity or intensive magnitude, i.e., how much labor is expended in a given amount of time; and, finally, labor's productive power, i.e., how much product a given amount of labor produces in a given amount of time (which in turn depends on how advanced the conditions of production are). It is obvious that we can have very different combinations of these circumstances. One of the three factors might vary; or two might vary while one remains constant; or all three might vary. The possible combinations are made even more numerous by the fact that when all three factors vary at the same time, they can change by different amounts and in different directions, rising or falling. In what follows, we will consider only the most important combinations.

A. The Magnitude of the Workday and the Intensity of Labor Remain Constant (fixed); Labor's Productive Power Varies

In this case, three laws determine labor-power's value and the magnitude of surplus-value.

First, a workday with a fixed magnitude will always be represented in the same amount of value produced, regardless of whether labor's productivity changes, causing the total amount of product produced and the price of each individual commodity to change.

Let's say the value produced during a twelve-hour workday amounts to 6 shillings. Although the number of use-values produced may vary as labor's productive power increases or decreases, this 6 shillings of value will remain constant. It will simply be distributed among more commodities or fewer.

Second, labor-power's value and the magnitude of surplus-value vary in inverse relation to each other. When the productive power of labor changes, rising or falling, this causes the magnitude of labor-power's value to change in the opposite direction but the magnitude of surplus-value to change in the same direction.

The value produced during a twelve-hour workday is once again a constant value of 6 shillings. This constant value equals the sum of the surplus-value and the value of the labor-power that the worker replaces with an equivalent. Clearly, one of the two parts of a constant magnitude can become larger only if the other part becomes smaller. The value of the labor-power can increase from 3 shillings to 4 only if the magnitude of the surplus-value produced falls from 3 shillings to 2, and vice versa. Under such conditions, the absolute magnitude of both the labor-power's

value and the surplus-value won't change if their relative magnitudes do not change simultaneously. These magnitudes cannot both rise or fall at the same time.

Labor-power's value will decrease, moreover, allowing the surplus-value to be enlarged, only if labor's productive power increases. To stay with the example given above, the labor-power's value will decrease from 3 shillings to 2 only if greater productive power makes it possible to produce in four hours an amount of the worker's means of subsistence that formerly took six hours of labor to produce. The reverse is also true. The labor-power's value won't increase from three hours to four unless the productive power of labor contracts, and eight hours are needed to produce an amount of the worker's means of subsistence that used to be produced in only six hours. When labor's productive power changes in a given direction, say, when it rises, labor-power's value and the amount of surplus-value are affected in opposite ways, decreasing and increasing, respectively.

Ricardo overlooked one thing in formulating this law: The magnitude of surplus-value or the surplus-labor can change only if the magnitude of labor-power's value, and thus the amount of necessary labor, change in the opposite direction, but it doesn't at all follow from this that the proportions in which the surplus-labor and necessary labor change will be the same. They will of course be enlarged or reduced by the same amount, but the relative magnitude of each side's increase or decrease, i.e., the magnitude of the change as a proportion of the original magnitude, depends on how the workday was divided before labor's productive power was altered. Let's say the labor-power's value was originally 4 shillings, and the necessary labor-time was eight hours, while the surplus-value amounted to 2 shillings and the surplus-labor to four hours. Now the productive power of labor increases, causing the labor-power's value to fall to 3 shillings and the necessary labor-time to contract to six hours. The surplus-value would increase to 3 shillings and the surplus-labor to six hours. The same amount added on one side, 1 shilling or two hours, falls away on the other side. But the same change represents a different proportion of the original value on each side. Whereas the labor-power's value decreases from 4 shillings to 3, and thus by $\frac{1}{4}$ or 25 %, the surplus-value increases from 2 shillings to 3, i.e., by $\frac{1}{2}$ or 50 %. So, the greater the part of the workday originally represented in surplus-value, the less surplus-value increases or decreases proportionally when labor's productive power changes, and vice versa.

Third, when the amount of surplus-value changes, this is always caused by—and never the cause of—a corresponding increase or decrease in the magnitude of labor-power's value.¹

Since the length of the workday is fixed, and the workday is represented in a constant amount of value, with every change in the amount of surplus-value produced corresponding to an equal change in the magnitude of labor-power's value, only in the opposite direction, and since the value of labor-power can vary only if labor's productive power does, it clearly follows that under these conditions every change in the amount of the surplus-value produced arises from a change in the magnitude of labor-power's value. If we saw earlier that the magnitude of labor-power's value and the amount of surplus-value can't change in absolute terms unless their relative magnitudes change, we see here that their relative magnitudes can't change unless labor-power's value changes in absolute terms.

Ricardo was the first to rigorously formulate these three laws. But his account is also flawed in the following ways: 1) he treats the particular conditions under which these laws are valid as the self-evident, universal, and exclusive conditions of capitalist production; 2) much more damaging to his analysis is that he doesn't give a pure account of surplus-value—i.e., consider it apart from its particular forms, such as profit, ground rent, and so on—and thus he jumbles together the laws governing the rate of surplus-value and the laws that govern the profit rate. In book 3 of this work, I will show that one and the same rate of surplus-value can be expressed as very different rates of profit, and under certain circumstances very different rates of surplus-value can be expressed as one and the same rate of profit.

According to the third law, the magnitude of surplus-value can change only if labor's productive power increases or decreases, thereby causing the value of labor-power to go up or down. How much the amount of surplus-value produced can change is determined by labor-power's new value limit. Yet even when circumstances allow this law to operate, certain

1. MacCulloch, among other people, attached the following silly addendum to this third law. He claimed that if the taxes a capitalist pays are abolished, this could increase his surplus-value without causing labor-power's value to decrease. But abolishing such taxes wouldn't change a thing with respect to the amount of surplus-value that the industrial capitalist directly squeezes out of the worker. It would only change how that amount is distributed, i.e., how much of it goes into his own pocket and how much he shares it with a third person. Thus it wouldn't affect the ratio between the value of the labor-power and the surplus-value. MacCulloch's exception shows only that he doesn't understand the rule. In vulgarizing Ricardo, he suffers this fate as often as J. B. Say had in vulgarizing Adam Smith.

subsidiary movements can occur. Suppose labor's productive power has increased, and as a result, the labor-power's value falls from 4 shillings to 3, or, that is, the necessary labor-time decreases from eight hours to six. The price of the labor-power can fall only to 3 shillings 8d., 3 shillings 6d., 3 shillings 2d., and so on, which means that the surplus-value can increase only to 3 shillings 4d., 3 shillings 6d., 3 shillings 10d., and so on. The new price must be at least 3 shillings. It can't fall beyond that point, and how far it falls depends on how much pressure the capitalists apply from one side compared with how much resistance the workers mount from the other.

The value of labor-power is determined by a certain quantity of the workers' means of subsistence. When the productive power of labor changes, it is the value of these means of subsistence that changes, not their volume. Their volume can in fact increase for both the worker and the capitalist (at the same time and in a proportionally equal way) because labor's productive power has increased, while neither the price of labor-power nor the amount of surplus-value that is produced changes. Imagine that the labor-power's original value is 3 shillings, and the necessary labor-time is six hours. Let's also imagine that the value of the surplus-labor performed is 3 shillings, too, and the amount performed is six hours. If labor's productive power doubled, but the division of the workday remained the same, neither the magnitude of the surplus-value nor the labor-power's price would change. They would simply be represented in twice as many commodities that are now half as expensive. Furthermore, since the labor-power's price hasn't changed, its price would exceed its new value. Now suppose the labor-power's price falls, not the all the way to its new minimum limit of 1½ shillings, which is set by its new value, but to 2 shillings 10d. or 2 shillings 6d. This falling price would still represent a growing quantity of the means of subsistence. Thus it can happen that when labor's productive power increases, the price of labor-power keeps dropping even as the amount of the worker's means of subsistence keeps getting larger. However, labor-power's value would keep decreasing in relative terms, i.e., compared with the amount of surplus-value produced, and so the gulf between the life circumstances of capitalists and workers would continue to widen.²

2. "When an alteration takes place in the productiveness of industry, and that either more or less is produced by a given quantity of labour and capital, the proportion of wages may obviously vary, whilst the quantity, which that proportion represents, remains the same, or the quantity may vary, whilst the proportion remains the same" ("Outlines of Political Economy etc.," p. 67).

B. The Magnitude of the Workday and Labor's Productive Power Are Constant, Labor's Intensity Varies

When labor is performed with increasing intensity, more labor is expended in a given amount of time. A more intense workday is thus embodied in more products than a less intense one of the same length. Of course, a workday can also yield more products than before because labor's productive power has increased. But when that happens, the value of each individual product decreases, since each product now requires less labor, whereas when labor becomes more intense, a product's value remains the same, since the amount of labor needed to produce it doesn't change. The number of products goes up, but the price of each product doesn't fall. Here, the price sum of the products increases as the number of them does, whereas in the other case, the same value-sum is merely represented in a greater number of products. So if the length of the workday remains constant, a more intense day will be embodied in a greater amount of newly produced value or, if the value of money doesn't change, in a greater amount of money. The amount of value produced by such a workday varies according to how much the day's intensity deviates from the social norm. A workday of fixed length is now represented in a variable amount of newly produced value rather than a constant one. For example, a more intense twelve-hour day might be represented in 7 or 8 shillings, instead of the 6 shillings in which a workday of normal intensity is represented. Clearly, if the amount of value produced by a workday increases from 6 shillings to 8, both components of that value product, the price of labor-power and the surplus-value, can grow at the same time, either by the same amount or to varying extents. They could both increase from 3 shillings to 4 if the value produced were to go from 6 shillings to 8. But in this case the labor-power's price, upon increasing, wouldn't necessarily exceed its value. Labor-power's price can in fact fall below the value of labor-power and rise at the same time, which is what always happens when the price of labor-power increases but not so much as to make up for its accelerated deterioration.

We know that notwithstanding some temporary exceptions, changes in labor's productivity cause the value of labor-power to change, and thereby alter the magnitude of surplus-value produced, only when the affected branches of industry help make the workers' customary means of subsistence. But this qualification falls away here: when labor's extent or intensity varies, the amount of value it produces always varies accordingly, regardless of whether the value is represented in this or that kind of product.

If the intensity of labor increased in all branches of industry at the same time and by an equal amount, the result would be society's new normal intensity, and it would no longer add to labor's extensive magnitude. Even then, however, labor's average intensity would differ from nation to nation, making for variety in the application of the law of value to different nations. One nation's more intense workday would be represented in a greater amount of money than another's less intense workday.³

C. Labor's Productive Power and Intensity Remain Constant, the Length of the Workday Varies

The workday can vary in two directions: it can be shortened or extended.

When labor's productive power and intensity remain the same, shortening the workday doesn't alter the value of labor-power and thus the necessary labor-time. But it does reduce the amount of surplus-labor performed and surplus-value created. As the latter magnitude decreases in absolute terms, it contracts in relative ones as well—in other words, the magnitude of the surplus-value decreases relative to that of labor-power's value, which doesn't change. The capitalist who finds himself in this situation can avoid adverse effects only by driving labor-power's price below its value.

All traditional arguments against shortening the workday assume that it is shortened under the conditions we have been presupposing. In reality, however, the opposite happens: the workday is compressed either right before labor's productivity and intensity change or just after that.⁴

Extending the workday: Suppose the necessary labor-time amounts to six hours and the labor-power's value to 3 shillings. Let's say the same holds for the surplus-labor and the surplus-value, respectively. The total workday thus lasts twelve hours and is represented in 6 shillings of newly produced value. If the workday were extended by two hours, with no change in the price of labor-power, the relative magnitude of the surplus-value would increase along with its absolute magnitude. Although the

3. "All things being equal, the English manufacturer can turn out a considerably larger amount of work in a given time frame than a foreign manufacturer, so much as to counterbalance the difference of the working days, between 60 hours a week here and 72 or 80 elsewhere" ("Reports of Insp. of Fact. for 31st Oct. 1855," p. 65). The surest way to reduce this difference between the Continental labor-hour and the English one would be to enact strong legislation limiting the workday in factories on the Continent.

4. "There are compensating circumstances . . . which the working of the Ten Hours' Act has brought to light" ("Reports of Insp. of Fact. for 1st December 1848," p. 7).

labor-power's magnitude of value wouldn't change in absolute terms, it would decrease in relative terms. Under the conditions we presupposed in section A, labor-power's relative magnitude of value can change only if its absolute value changes. Here, in contrast, the magnitude of the labor-power's value changes in relative terms because the magnitude of the surplus-value changes in absolute ones.

Since the workday produces—and is represented in—a greater quantity of value when it is extended, labor-power's price and the magnitude of surplus-value can increase at the same time, whether or not by the same amount. Such a simultaneous increase can occur in two scenarios: when the absolute length of the workday is extended, and when that doesn't happen but labor's intensity increases.

When the workday is extended, labor-power's price can fall below its value even as its price nominally remains the same, or in fact rises. Labor-power's daily value is estimated, as we will recall, based on two things: first, its normal average duration—i.e., the worker's normal life expectancy—and, second, the corresponding normal amount of the worker's living substance that is converted into motion (without exceeding what is consonant with the nature of human beings).⁵ Labor-power inevitably deteriorates faster when the workday is extended, but up to a certain point this accelerated wearing down can be compensated for with higher wages. Beyond that point, however, labor-power deteriorates faster and faster in a geometrical progression, which destroys all the normal conditions of its reproduction and activation. The price of labor-power and the extent to which it is exploited are no longer commensurable magnitudes.

D. Labor's Duration, Productive Power, and Intensity All Vary

As we can see, there are many possible combinations here. Two factors can vary while one doesn't, or all three can vary at the same time. They can vary by the same amount or different amounts, and also in the same direction or different ones, with the changes offsetting one another partially or fully. Yet it is easy to analyze all the possible scenarios using the cases worked out in sections A, B, and C. We will arrive at the result of every possible combination by treating one factor after another as the only

5. "The amount of labour which a man had undergone in the course of 24 hours might be approximatively arrived at by an examination of the chymical changes which had taken place in his body, changed forms in matter indicating the anterior exercise of dynamic force" (Grove, "On the Correlation of Physical Forces.").

factor that varies. Thus we will limit ourselves in this chapter to briefly considering two important scenarios.

Labor's productive power decreases as the workday is extended.

For the moment, we are interested in this decreased productive power only insofar as it affects branches of industry whose products determine the value of labor-power: for example, a loss of productive power that occurs because the soil has become less fertile, and thus makes agricultural products more expensive. Let's say the workday is twelve hours and produces value worth 6 shillings. Half the value replaces the labor-power's value; the other half is surplus-value. Here, then, the workday is divided into two equal parts: six hours of necessary labor and six hours of surplus-labor. But now the prices of agricultural products rise. As a result, the labor-power's value increases from 3 shillings to 4, causing the necessary labor-time to go from six hours to eight hours. If the length of the workday remains constant, the surplus-labor will decrease from six hours to four, and the amount of surplus-value will be reduced from 3 shillings to 2. If the workday is extended by two hours, or from twelve hours to fourteen, the surplus-labor will continue to amount to six hours, and 3 shillings of surplus-value will still be produced, but the relative magnitude of the surplus-value will decrease—the amount of surplus-value produced will become smaller relative to the magnitude of the labor-power's value (as measured by necessary labor-time). On the other hand, if the workday is extended by four hours, or from twelve hours to sixteen, the proportional magnitudes of the surplus-value and the labor-power's value won't change and neither will the ratio of surplus-labor to necessary labor. But the absolute magnitude of the surplus-value will increase from 3 shillings to 4, and that of the surplus-labor will increase from six hours to eight, or by $\frac{1}{3}$ or 33%. So when labor's productive power declines, and the workday is extended at the same time, the absolute magnitude of the surplus-value can remain constant while its proportional magnitude contracts. Furthermore, the proportional magnitude of the surplus-value can stay the same as its absolute magnitude is enlarged. And, depending on how much the workday is extended, both things can increase simultaneously. This is one of the reasons why England saw the amount of surplus-value increase both absolutely and relatively—and thus capital's growth accelerate while the workers were being immiserated—during the period between 1799 and 1815.⁶ At just this time, the freedom to heedlessly exploit labor became

6. "A principal cause of the increase of capital, during the war, proceeded from the greater exertions, and perhaps the greater privations of the laboring classes, the most

a civil right, and West, Ricardo, and others seized upon the idea that the rate of surplus-value had fallen because the cost of agricultural products had risen, using this notion as their point of departure in influential analyses. However, the price increase they made so much of had that effect only in their heads.⁷

Labor's intensity and productive power increase as the workday is shortened.

In one respect, the same thing happens when labor's productive power increases and when its intensity does: a greater amount of product is produced in a given amount of time. Thus both increases shorten the part of the workday the worker needs to produce his means of subsistence (or their equivalent). This necessary but contractible part of the workday represents an absolute limit. If the whole workday were to shrink down to its necessary part, surplus-value would disappear, something that doesn't occur under the regime of capital. Only if the capitalist mode of production were abolished would it be possible to limit the workday to the part when necessary labor is performed. But even then, that part would be enlarged, for the worker would enjoy better life circumstances, and so he would

numerous in every society. More women and children were compelled, by necessitous circumstances, to enter upon laborious occupations; and former workmen were, from the same cause, obliged to devote a greater portion of their time to increase production" (*Essays on Political Econ. in which are illustrated the Principal Causes of the Present National Distress*. London 1830, pp. 248, 249).

7. "Corn and Labour rarely march quite abreast; but there is an obvious limit, beyond which they cannot be separated. With regard to the unusual exertions made by the labouring classes in periods of dearth, which produce the fall of wages noticed in the evidence [namely, before the Parliamentary Committees of Inquiry 1814–15], they are most meritorious in the individuals, and certainly favour the growth of capital. But no man of humanity could wish to see them constant and unremitted. They are the most admirable as a temporary relief; but if they were constantly in action, effects of a similar kind would result from them, as from the population of a country being pushed to the very extreme limits of its food" (Malthus, "Inquiry into the Nature and Progress of Rent. Lond. 1815," pp. 48, 49 note). It is to Malthus's credit that he emphasizes the importance of extending of the workday, which he addresses directly elsewhere in his pamphlet, too, whereas in the face of conspicuous facts suggesting otherwise, Ricardo and others make the workday's constant magnitude the basis of all their investigations. And yet the conservative interests that Malthus was a slave to prevented him from seeing that the heedless extension of the workday, combined with extraordinary advances in machinery and the exploitation of female and child labor, would make a large part of the working class "superfluous," especially once the demand created by war had ceased, and England had lost its monopoly over the world market. It was naturally much more convenient, and much more in line with the interests of the ruling class, a group Malthus idolized in a downright sacerdotal manner, to explain "overpopulation" using the eternal laws of nature, than it was to do so using the laws of capitalist production that are merely part of natural history.

expect more from life than the minimum it takes to maintain him. Moreover, a portion of what is now surplus-labor would function as necessary labor, since some labor would be needed to bring about a social reserve and accumulation fund.

The more labor's productive power increases, the more the workday can be shortened, and the more the workday is shortened, the more labor's intensity can be increased. From society's perspective, labor's productivity also increases when people work with greater economy, which entails economizing in the use of the means of production and, in addition, avoiding all nonuseful labor. The capitalist mode of production does in fact force every branch of industry to economize; however, owing to its anarchic system of competition, social means of production and bearers of labor-power are squandered in the most egregious ways, and there are countless functions that are currently indispensable but in themselves unnecessary.

If labor's intensity and productive power are given, then the more evenly labor is divided among all the members of society capable of working, and the less one stratum of society can deflect labor, that natural necessity, onto other people, the shorter the part of the social workday that is needed for material production, and the larger the part that will be won for an individual's free intellectual and social activity. In this case, the absolute limit for shortening the workday is how universal labor can become. Capitalist society, in contrast, affords one class of people free time by turning the whole lives of most people into labor-time.

Different Formulas for the Rate of Surplus-Value

READERS HAVE SEEN that the rate of surplus-value can be expressed by the formulas:

$$I) \frac{\textit{Surplus-Value}}{\textit{Variable Capital}} \left(\frac{sv}{v} \right) = \frac{\textit{Surplus-Value}}{\textit{Labor-Power's Value}} = \frac{\textit{Surplus-Value}}{\textit{Necessary Labor}}$$

The first two formulas represent as a ratio of value what the third one represents as a ratio of the amounts of time it takes to produce that value. These formulas, which can stand in for one another, are conceptually rigorous. Hence while classical political economy worked them out in substance, we don't find them consciously developed there. We get the following derivative formulas instead:

$$II) \frac{\textit{Surplus-Labor}}{\textit{Workday}} = \frac{\textit{Surplus-Value}}{\textit{Product's Value}} = \frac{\textit{Surplus Product}}{\textit{Total Product}}$$

One and the same proportion is alternately expressed as labor-time, the value in which the labor-time is embodied, and the products in which this value exists. Here, of course, "the product's value" refers only to the value produced during the workday: the constant part of the product's value is left out.

In all these formulas, the real degree to which labor is exploited, or the rate of surplus-value, is expressed incorrectly. Suppose the length of the workday is twelve hours. If we hold to the assumptions from our earlier example, the real extent of labor's exploitation will be represented by the following proportions:

$$\frac{6 \textit{ Hours of Surplus-Value}}{6 \textit{ Hours of Necessary Labor}} = \frac{3 \textit{ Shillings of Surplus-Value}}{3 \textit{ Shillings of Variable Capital}} = 100\% .$$

But if we use the formulas given in II), we get:

$$\frac{6 \textit{ Hours of Surplus-Labor}}{\textit{A Workday of 12 Hours}} = \frac{3 \textit{ Shillings of Surplus-Value}}{6 \textit{ Shillings of Value Produced}} = 50\% .$$

What these derivative formulas actually express is the proportion in which the workday, or the value it produces, is divided between the capitalist and the worker. If one treats the formulas as direct expressions of capital's degree of self-valorization, the following false law will seem valid: surplus-labor or surplus-value can never reach 100%.¹ Since surplus-labor can never take up more than a fractional part of the workday, and surplus-value can never amount to more than a fractional part of the value produced during it, surplus-labor must always be smaller than the total workday, and the amount of surplus-value produced during a workday must always be smaller than the total value produced, while in order for the ratio of the surplus-value and total value produced to reach $\frac{100}{100}$, they have to be equal. Furthermore, surplus-labor could absorb the entire workday (that is, an average day of any week or year) only if the necessary labor were reduced to zero, and if the necessary labor disappeared, the surplus-labor would as well, since it is merely a function of the necessary labor. The ratio $\frac{\text{Surplus-Labor}}{\text{Workday}} = \frac{\text{Surplus-Value}}{\text{Value Produced}}$ can

never advance all the way to the limit of $\frac{100}{100}$, let alone ascend to $\frac{100 + x}{100}$.

And yet, the rate of surplus-value (or the actual extent of labor's exploitation) does in fact rise that high. Take, for example, Mr. L. de Lavergne's estimation, according to which English agricultural workers receive only $\frac{1}{4}$ of the product, or its value, whereas the capitalist farmer gets $\frac{3}{4}$,² however the spoils of production are later divided between the capitalist and the landowner. It follows that for English agricultural workers, the ratio of surplus-labor to necessary labor is 3:1, a rate of exploitation of 300%.

Political economy's preferred method, namely, to treat the workday as a constant magnitude, became an established approach thanks to the use of the formulas given under II, which always compare surplus-labor to a workday of a given length. The same thing happens when political economy focuses exclusively on the division of the value produced during the workday. A workday that has already been objectified in its value product is always a workday with given limits.

1. We find an example of this in "Dritter Brief an v. Kirchmann von Rodbertus. Widerlegung der Ricardo'schen Theorie von der Grundrente und Begründung einer neuen Rententheorie. Berlin 1851." I will come back to this work, which contains a false theory of ground rent but nevertheless penetrates into the essence of capitalist production.

2. The part of the product that merely replaces the constant capital is, of course, excluded in this calculation. A blind admirer of England, Mr. L. de Lavergne errs on the side of setting the ratio too low rather than too high.

When surplus-value and labor-power's value are represented as fractions of the value produced—a mode of representation that arises from the capitalist mode of production itself, and one whose significance will be revealed later, the specific character of the capital relation is obscured. We don't see that variable capital is exchanged for living labor, and, accordingly, the worker doesn't own any part of the product he produces. What comes into view instead is the false semblance of a relation of association, where the worker and the capitalist divide the product based on the different factors that went into it.³

In addition, the formulas given under II can always be transformed back into the formulas given under I. If we start with $\frac{6 \text{ Hours of Surplus-Labor}}{\text{A Workday of 12 Hours}}$, then the necessary labor-time equals a workday of twelve hours minus six hours of surplus-labor, and we get: $\frac{6 \text{ hours of Surplus-Labor}}{6 \text{ Hours of Necessary Labor}} = \frac{100}{100}$.

A third formula (which I have at times anticipated here) is:

$$\text{III) } \frac{\text{Surplus-Value}}{\text{Labor-Power's Value}} = \frac{\text{Surplus-Labor}}{\text{Necessary Labor}} = \frac{\text{Unpaid Labor}}{\text{Paid Labor}}.$$

Once a person has read the explication given above, he couldn't possibly misunderstand things in the way the formula $\frac{\text{Unpaid Labor}}{\text{Paid Labor}}$ invites him to, and wind up thinking that capital pays for labor rather than labor-power. The formula $\frac{\text{Unpaid Labor}}{\text{Paid Labor}}$ is merely a more casual way to express $\frac{\text{Surplus-Labor}}{\text{Necessary Labor}}$. The capitalist pays the value of labor-power—or rather, he pays whatever its price happens to be—and in exchange for that he has living labor-power itself at his disposal. He consumes this labor-power in two separate periods. During one, the worker produces the value of his labor-power, in other words, an equivalent. In exchange for advancing the price of labor-power, the capitalist receives a product that costs the same amount. It is as though he bought the product ready-made in the market. During the period of surplus-labor, in contrast, the use of labor-power cre-

3. Since all advanced forms of the capitalist production process are forms of cooperation, it is, naturally, quite easy to abstract from their particular antagonistic character and make them out to be forms of free association, which is what Count A. de Laborde does in "De l'Esprit de l'Association dans tous les intérêts de la Communauté. Paris 1818." The Yankee H. Carey sometimes performs this trick, with just as much success, in dealing with nothing less than the relations of the slave system.

ates value for the capitalist but doesn't cost him anything in replacement value.⁴ Labor-power is made fluid for free. It is in this sense that surplus-labor can be called unpaid labor.

We can therefore say that capital doesn't simply act as labor's commander, as Adam Smith claimed. Its essence is to rule over unpaid labor. However surplus-value is eventually crystallized, whether as profit, interest, rent, and so on, the materialization of unpaid labor is always its substance. This is what the secret of capital's self-valorization comes down to: capital has at its disposal a certain amount of other people's unpaid labor.

4. Although the Physiocrats didn't solve the mystery of surplus-value, they understood this much: "Independent and disposable wealth, which he [the one who possesses surplus-value] has not purchased and which he sells" (Turgot, "Réflexions sur la Formation et la Distribution des Richesses," p. 11).

PART SIX

Wages

How the Value and Price of Labor-Power Are Transformed into Wages

WORKERS' WAGES APPEAR on the surface of bourgeois society as labor's price: a certain amount of money that is paid for a certain amount of labor. People therefore speak of the value of labor and call that value, when it is expressed as money, labor's necessary or natural price. At the same time, people speak of labor's prices in the market, i.e., the prices that rise above and fall below its necessary one.

But what is a commodity's value? The objective form of the social labor expended to make the commodity. How do we measure the magnitude of its value? By the amount of labor that the commodity contains. How, then, would the value of a twelve-hour workday be determined? By the twelve hours of labor contained in a workday of twelve hours, which is of course an absurd tautology.¹

1. "Mr. Ricardo, ingeniously enough, avoids a difficulty which, on a first view, threatens to encumber his doctrine, that value depends on the quantity of labour employed in production. If this principle is rigidly adhered to, it follows that the value of labour depends on the quantity of labour employed in producing it—which is evidently absurd. By a dexterous turn, therefore, Mr. Ricardo makes the value of labour depend on the quantity of labour required to produce wages, or, to give him the benefit of his own language, he maintains, that the value of labour is to be estimated by the quantity of labour required to produce wages; by which he means the quantity of labour required to produce the money or commodities given to the labourer. This is similar to saying, that the value of cloth is estimated, not by the quantity of labour bestowed on its production, but by the quantity of labour bestowed on the silver, for which the cloth is exchanged" ("A Critical Dissertation on the Nature etc. of Value," pp. 50, 51). [Editor's note: Samuel Bailey is the author of this text.]

For labor to be sold in the market as a commodity, it has to exist: it has to exist before it can be sold. But if the worker could give his labor an independent existence, he would be selling a commodity and not labor.²

Setting aside these contradictions, we can say that if money, i.e., objectified labor, were directly exchanged for living labor, either this would negate the law of value, which begins to develop freely in the context of capitalist production, or it would put an end to capitalist production itself, which is based on nothing other than wage labor. Suppose a twelve-hour workday is represented in 6 shillings of money-value. *Either* equivalents are exchanged, in which case the worker would receive 6 shillings for his twelve hours of labor: In other words, the price of his labor would be equal to the price of his product, which means that he wouldn't produce any surplus-value for the person who buys his labor. The 6 shillings wouldn't be transformed into capital, and the circumstance on which capitalist production is based would vanish. But the sale of the worker's labor, and that it is wage labor, is based on precisely this circumstance. *Or* the worker could receive less than 6 shillings—less than the value of twelve hours of labor—for his twelve hours of labor. Twelve hours of labor would be exchanged for ten hours of labor, six hours, and so on. This equating of unequal magnitudes doesn't simply nullify the determination of value: we can't even begin to express such a self-negating contradiction as a law.³

Nor does it make sense to view the exchange of unequal amounts of labor as deriving from a difference of form: objectified labor versus living labor.⁴ Doing so would be all the more absurd because a commodity's value is determined by the amount of living labor its production requires

2. "If you call labour a commodity, it is not like a commodity which is first produced in order to exchange, and then brought to market where it must exchange with other commodities according to the respective quantities of each which there may be at the market in the time; labour is created at the moment it is brought to market; nay, it is brought to market before it is created" ("Observations on some verbal disputes etc.," pp. 75, 76). [Editor's note: An anonymous pamphlet published in London in 1821.]

3. "Treating labour as a commodity, and Capital, the produce of labour, as another, then, if the values of those two commodities were regulated by equal quantities of labour, a given amount of labour would . . . exchange for that quantity of capital which had been produced by the same amount of labour; antecedent labour would . . . exchange for the same amount as present labour. But the value of labour, in relation to other commodities . . . is determined not by equal quantities of labour" (E. G. Wakefield in his edit. of A. Smith's "Wealth of Nations," Vol. 1, Lond. 1835, pp. 230, 231, note). [Editor's note: "for the same amount as present labour" is "for the same amount of present labour" in the source text.]

4. "It had to be agreed [yet another edition of "The Social Contract"!] that whenever he exchanged work already done for work yet to be done, the latter (the capitalist) would receive a higher value than the former [the worker]" (Simonde [Sismondi], "De la Richesse commerciale, Vol. 1, Geneva 1803," p. 37). [Editor's note: In his parenthetical remark, Marx

rather than the amount of labor actually objectified in it. Let's say a commodity represents six hours of labor. If a new invention were to make it possible to produce the same commodity in three hours, the value of an already existing unit would fall by half. The existing commodity would now represent three hours of socially necessary labor rather than six hours. Hence it is the amount of labor needed to produce a commodity—not labor in its objective form—that determines the magnitude of a commodity's value.

What the money owner directly encounters in the market is the worker, not labor. What the worker sells is his labor-power. The moment he begins to work, his labor ceases to belong to him, and he can no longer sell it. Labor is value's substance and immanent measure, but labor itself has no value.⁵

The concept of value is not only completely effaced in the expression "the value of labor," it is also flipped on its head, or turned into the opposite of what it is. This is an imaginary expression, just as much as, say, "the value of the earth" is. Yet these imaginary expressions arise from the actual relations of production. They are categories for the forms of appearance that essential relations take. Things often appear in such a way that they present themselves as the opposite of what they are, as every branch of science and scholarship knows—every branch except political economy.⁶

refers to *On the Social Contract; or, Principles of Political Right*, an influential 1762 book by Jean-Jacques Rousseau.]

5. "Labour, the exclusive standard of value . . . the creator of all wealth, no commodity" (Th. Hodgskin op. cit. p. 186).

6. On the other hand, treating such expressions as *licentia poetica* merely reveals how impotent the analysis is. This is why, in opposition to Proudhon's phrase, "Labor is said to have value, not as a commodity in and of itself, but in regard to the values that are supposed potentially to be contained within it. The value of labor is a figurative expression," etc., I wrote, "In labour as a commodity, which is a grim reality, he [Proudhon] sees nothing but a grammatical ellipsis. Thus the whole of existing society, founded on labour as a commodity, is henceforth founded on a poetic license, a figurative expression. If society wants to 'eliminate all the drawbacks' that assail it, well, let it eliminate all the ill-sounding terms, change the language, and to this end it has only to apply to the *Académie* for a new edition of its dictionary" (K. Marx, "Misère de la Philosophie," pp. 34-35). [Editor's note: *MECW*, vol. 6, p. 129.] It of course even easier to say that value is nothing at all. One can then put whatever one wants into that category. For example, J. B. Say asks, "What is 'value?' Answer: "It is what a thing is worth." What is price? "The value of a thing expressed as money." And why does "labor on the land have . . . a value?" "Because we put a price on it." So, value is what a thing is worth, and the land has "value" because its value is "expressed as money." In any case, this is a very simple way of making sense of the why and wherefore of things. [Editor's note: From Jean-Baptiste Say, *Traité d'économie politique*, vol. 2 (Paris, 1817), p. 484.]

Classical political economy took the category “the price of labor” from everyday life without reflecting on it critically and then asked, How is this price determined? It soon saw that with regard to the price of labor (and all other commodities), changes in supply and demand explain nothing but price changes, or why market prices rise above and fall below a certain magnitude. If supply matches demand, prices won’t fluctuate, as long as all other conditions remain constant. But in this case the ratio of supply and demand doesn’t explain anything at all: when supply matches demand, labor’s price is its natural price, which is determined independently of the ratio of supply and demand. The natural price was therefore made into the actual object of analysis. Or, a longer period of fluctuating market prices, for example, a year, was taken as the object, and political economists found that the fluctuations offset one another, leaving a mean average quantity or constant magnitude. Naturally, this magnitude couldn’t be determined by its own offsetting deviations. This price, the “necessary price” (Physiocrats) or “natural price” (Adam Smith), which informs and regulates accidental market prices, can only be labor’s value expressed as money, as is so with all other commodities. In this way, political economists came to believe that moving through labor’s accidental prices, they could press forward and arrive at its value. The costs of production were then used to further determine its value, as is done with every other commodity. But what is the production cost of . . . *the worker*? What does it cost to produce or reproduce the worker himself? Political economy unconsciously swept this question aside and held instead to the original one because its attempt to understand the production costs of labor as such went around in circles, getting it nowhere. Thus what political economy calls “the value of labor” is in fact the value of labor-power, which exists in the worker’s personality and isn’t identical to its function, i.e., labor, just as much as a machine isn’t identical to the work it does. Because political economy focused on the difference between labor’s market prices and its so-called value, on the relation between this value and both the rate of profit and the commodity values that labor produces, it never discovered that the course of its analysis had led not only from labor’s market prices to its value, but also to the point where its value is resolved back into labor-power’s value. Oblivious to the result its own analysis yielded, and uncritical in adopting the categories “the value of labor” and “the natural price of labor” as the ultimate and adequate way to express the value relation at issue, political economy ended up in a tangle of unresolvable confusion and contradictions, as readers will see later on. It thereby created a secure base of opera-

tions for shallow vulgar economists, who honor only appearances and do so on principle.

Let's now see how labor-power's value and prices are represented in their transformed shape—in other words, as wages.

We know that the daily value of labor-power is calculated using a certain projection as to how long a worker will live, and that this projection assumes a workday of a certain length. Let's suppose a regular workday amounts to twelve hours. Furthermore, labor-power's daily value is 3 shillings, which is the money expression for the amount of value in which six hours of labor are represented. If the worker receives 3 shillings, then he gets the value of his labor-power, which is activated over twelve hours. If this value, the labor-power's daily value, is now expressed as labor's daily value, we wind up with the formula: The value of twelve hours of labor is 3 shillings. The labor-power's value thus determines the value of labor, or, in money terms, its necessary price. If the labor-power's price were to deviate from its value, the price of labor would do the same with respect to its so-called value.

The phrase “the value of labor” is merely an irrational way of saying “labor-power's value,” and, naturally, it follows from this that labor's value is always smaller than the value it produces. The capitalist always has labor-power function, after all, for more time than it takes to reproduce its value. In the example given above, the value of the labor-power activated over twelve hours is 3 shillings, which it can reproduce in six hours. But the total value produced by the labor-power is 6 shillings, because, as we know, it is used for twelve hours, and the amount of value it produces depends on how long its activation lasts, not its own value. Thus we get a result that seems preposterous at first glance: labor that creates 6 shillings of value is worth only 3 shillings.⁷

We also see that this 3 shillings of value, in which the paid part of the workday (or six hours of labor) is represented, appears as the value or price of the whole twelve-hour workday, which contains six hours of unpaid labor. The wage-form thus erases every trace of the division of the workday into parts when necessary labor and surplus-labor, paid and unpaid labor, are performed. All labor appears as paid labor. In *corvée* labor, time and

7. See “Zur Kritik der politischen Oekonomie,” where I say that as I examine capital, I will solve the following problem: “how does production on the basis of exchange-value solely determined by labour time lead to the result that the exchange-value of labour is less than the exchange-value of its product?” [Editor's note: Page 40 in the original German edition of 1859; English translation, *MECW*, vol. 29, p. 302.]

space separate the labor that the worker does for himself and the labor he is forced to do for the estate owner—these two things are visibly different. In the slave system, all the labor performed by the slave appears as unpaid labor he does for his master, even the labor a slave performs to replace the value of his own means of subsistence, or the labor he does for himself, in effect.⁸ But with wage labor, it's the other way around: even surplus-labor or unpaid labor appears as paid labor. There, the property relation conceals that the slave does some work for himself; here, the money relation conceals that the wage laborer does some work for free.

Readers should now be able to see that something of decisive importance occurs when labor-power's value or price is transformed into the form of wages—that is, into the value or price of labor itself. On this form of appearance, which renders the true relation invisible, presenting it as the opposite of what it is, rest all the worker's and capitalist's notions of what is fair and just, all the mystifications of the capitalist mode of production, all its illusions of freedom and all the apologetic humbug in vulgar political economy.

It may have taken world history a long time to reveal the secret of wages, yet nothing is easier to understand than the necessity—the *raison d'être*—of this form of appearance.

The exchange that takes place between capital and labor first presents itself to our perception as a normal purchase and sale in the commodity market. The buyer parts with a definite sum of money, while the seller disposes of an article that isn't money. A legal mind will recognize at most a material difference that is expressed by the legally equivalent formulas: *Do ut des, do ut facias, facio ut des, and facio ut facias*.ⁱ

Furthermore, since exchange-value and use-value are in and for themselves incommensurable magnitudes, the formulation “the value of labor,” “the price of labor” seems no more irrational than the formulation “the value of cotton,” “the price of cotton.” And the worker is paid only after he has supplied his labor: in its function as a means of payment, money realizes—but only retroactively—the value or price of the article supplied, which in this case is the value or price of the labor expended. Finally, the “use-value” the worker provides isn't in fact his labor-power; it's the function of that labor-power—a particular form of useful labor, such as tai-

8. The Morning Star, a London free-trade newspaper that is naïve to the point of being fatuous, insisted again and again during the American Civil War, displaying as much moral indignation as is humanly possible, that the Negroes in the “Confederate States” worked for free. What it should have done is compare the daily costs of one such Negro with those of a free worker in London's East End.

loring, shoemaking, spinning, and so on. The characteristic that makes such labor different from every other commodity, namely, that it also functions as the universal value-creating element, goes undetected by everyday consciousness.

Let's now look at things from the worker's point of view. He receives the value produced during six hours of labor—say, 3 shillings—for his twelve hours of labor. For him, those twelve hours are the means of purchasing the 3 shillings. The value of his labor-power could vary as the value of his usual means of subsistence does, rising from 3 shillings to 4 or falling from 3 shillings to 2. Its value could also remain constant while the changing ratio of supply and demand drives its price up to 4 shillings or down to 2 shillings. But the worker always supplies twelve hours of labor, and thus whenever the amount of the equivalent he gets increases or decreases, it necessarily seems to him that the value or price of his twelve hours of labor has changed. On the other hand, this circumstance misled Adam Smith, who treated the workday as having a constant magnitude, into thinking just the opposite: that the value of labor is constant, while the value of the worker's means of subsistence can vary, and the same workday can therefore be represented in different amounts of money—more or less—for the worker.⁹

Then there is the capitalist. He wants to get as much labor as he can for as little money as possible. In practice, then, all that interests him is the difference between labor-power's price and how much value labor-power creates when activated. But he tries to buy all commodities for the minimum amount of money and always explains his profit as the result of shrewd deals—buying commodities below their value and selling them for more than they are worth. He never comes to see that if such a thing as the value of labor really existed, and he actually bought labor at its value, capital wouldn't exist: his money wouldn't be transformed into capital.

In addition, phenomena we see in the actual movement of wages seem to prove that the capitalist pays the value of labor-power's function, or of labor itself, not that of labor-power. These phenomena all belong to one of two large classes. First: Changes in wages that occur when the length of the workday varies. One might just as well conclude that the capitalist pays the value not of a machine but of what a machine does, since it costs more to rent a machine for a week than a day. Second: Individual differences between the wages of workers who carry out the same function. We

9. When A. Smith discusses piece wages, he refers to the variation of the working day only incidentally.

find such variations in the system of slavery, but there they don't give rise to the same illusions because the sale of labor-power takes place undisguised and in the open. In the slave system, however, it is the slave owner who enjoys the benefits of above-average labor-power and suffers when it is below average, whereas in the wage labor system, the worker himself is the one who gains and loses, for in the one case the worker himself sells his labor-power, while in the other his labor-power is sold by a third person.

What holds for all forms of appearance and their hidden underpinnings holds also for the form of appearance "the value and price of labor" or "wages," but not for the essential relation that appears through that form, namely, the value and price of labor-power. As accepted modes of thought, forms of appearance are reproduced spontaneously and without mediation, while their hidden underpinnings have to be discovered by science and scholarship. Classical political economy has come close to stumbling onto the true state of affairs, but it hasn't consciously formulated what it has found—and won't, as long as it remains in its bourgeois skin.

CHAPTER EIGHTEEN

Time Wages

WAGES TAKE VERY different forms, although the standard economic treatises don't tell us that. Brutal in their disregard for everything that isn't a question of content, these works neglect formal variations. While the present volume isn't the right place to give an account of all the forms of wages, which should be examined in a specialized study of wage labor, we need to briefly explicate the two basic forms that predominate.¹

Readers will recall that labor-power is always sold for a certain period of time. "Time wages"—for example, daily wages—are thus the transformed form in which the daily or weekly value of labor-power is represented directly.

The next thing we need to note is that the laws about changes in the magnitude of labor-power's price and the amount of surplus-value—laws laid out in chapter 15—turn into laws of wages as a result of a simple change of form. Similarly, the difference between labor-power's exchange-value and the amount of the workers' means of subsistence into which that value is converted now appears as the difference between nominal and real wages. Here, in discussing a form of appearance, it wouldn't make sense to go over again what was explicated in our discussion of the essential form. We will therefore address only a few points that are characteristic of time wages.

The sum of money¹ a worker receives for his daily or weekly labor is the amount of his nominal wages—in other words, his wages estimated in terms of value. But it is clear that depending on the length of the workday, or the amount of labor the worker actually supplies, the same daily or weekly wage can represent very different prices for labor, or very different sums

1. Here, we always assume that the value of money remains constant.

of money exchanged for one and the same amount of labor.² Thus when we are dealing with time wages, we have to again distinguish between the total amount of the daily or weekly wages and the price of labor. But how do we calculate this price—i.e., the value of a given amount of labor in money? We can arrive at labor's average price by dividing labor-power's average daily value by the number of hours in the average workday. If labor-power's daily value is 3 shillings, which is the value produced in six hours, and if the workday is twelve hours, then the price of an hour of labor = $\frac{3 sh.}{12} = 3d$. Calculated in this way, the price of an hour of labor serves as the unit measure for labor's price.

It follows that daily and weekly wages can remain constant even when the price of labor keeps falling. For example, if the length of a regular workday is ten hours, and labor-power's daily value amounts to 3 shillings, then the price of an hour of labor is $3\frac{3}{5}d$: it falls to 3d. the moment the workday is extended to twelve hours and to $2\frac{2}{5}d$. the moment the workday is stretched to fifteen hours. Daily and weekly wages nevertheless remain unchanged. On the other hand, daily and weekly wages can rise when the price of labor stays the same, and even when it drops. Let's say the length of the workday is ten hours, and labor-power's daily value is 3 shillings. The price of an hour of labor would again be $3\frac{3}{5}d$. If demand picked up, and the worker worked twelve hours instead of ten, while the price of labor didn't change, his daily wage would rise to 3 shillings $7\frac{1}{5}d$., even though the price of labor hasn't varied. We might see the same result if labor's intensity increased rather than its extensive magnitude.³ So when nominal daily or weekly wages increase, the price of labor can stay the same or decrease, and this also holds for the income of the worker's family as soon as labor performed by other members begins to supplement his own labor. There are thus ways to lower the price of labor that don't involve reducing nominal

2. "The price of labour is the sum paid for a given quantity of labour" (Sir Edward West: "Price of Corn and Wages of Labour. Lond. 1826," p. 67.). West is also the author of a work of epochal importance in the history of political economy, the anonymously published "Essay on the Application of Capital to Land. By a Fellow of Univ. College of Oxford, Lond. 1815."

3. "The wages of labour depend upon the price of labour and the quantity of labour performed. . . . An increase in the wages of labour does not necessarily imply an enhancement of the price of labour. From fuller employment, and greater exertions, the wages of labour may be considerably increased, while the price of labour may continue the same" (West op. cit. pp. 67, 68, and 112). How is the price of labor determined? West tackles this, the main question, with some banal phrases.

daily or weekly wages.⁴ As a general rule, however, if the amount of daily or weekly labor is fixed, the daily or weekly wage depends on the price of labor, which itself varies—either as the value of labor-power does, or as its price deviates from its value. But if the price of labor is fixed, the daily or weekly wage will depend on how much labor is expended daily or weekly.

The unit of measurement for time wages, namely, the price of an hour of labor, is labor-power's daily value divided by the number of hours in a regular workday. Let's suppose the length of such a workday is twelve hours, and labor-power's daily value is 3 shillings, which is the amount of value produced in six hours of labor. Under these conditions, an hour of labor costs 3d. and produces 6d. of value. What happens if the price of labor remains constant, but the worker works less than twelve hours a day (or less than six days a week)? Suppose he works only six or eight hours. He will receive only 1½ or 2 shillings per day, respectively.⁵ According to what we have assumed, the worker has to work an average of six hours a day to produce wages that merely correspond to the value of his labor-power, and, moreover, he spends only half of each hour working for himself and the other half working for the capitalist. Clearly, then, he won't get the value produced in six hours if he works less than twelve hours. Earlier, we saw the destructive consequences of overwork; here we have learned how underemployment can cause the worker to suffer.

If the hourly wage is set up in such a way that the capitalist doesn't commit to pay a daily or weekly wage, but only to pay for the individual hours he

4. That most fanatical representative of the eighteenth-century industrial bourgeoisie, the author of the "Essay on Trade and Commerce" [whom I have repeatedly cited] correctly intuits this, although he presents his point in a confused way: "It is the quantity of labour and not the price of it [i.e., nominal daily or weekly wages], that is determined by the price of provisions and other necessaries: reduce the price of necessaries very low, and of course you reduce the quantity of labour in proportion. . . . Master-manufacturers know, that there are various ways of raising and felling the price of labour, besides that of altering its nominal amount" (op. cit. pp. 48 and 61). [Editor's note: "Nominal amount" is "nominal value" in the source text.] In his "Three Lectures on the Rate of Wages. Lond. 1830," which uses West's work without citing it, N. W. Senior says, among other things, "The labourer is principally interested in the amount of wages" (p. 15). In other words, the worker is mainly interested in how much he receives, the nominal amount of his wages, and not in how much he gives—the quantity of labor!

5. The effect of such abnormal underemployment is very different from that of a general reduction of the workday by law. The former has nothing to do with the absolute length of the workday and can occur whether the workday lasts fifteen hours or six hours. In the first case, labor's normal price would be calculated based on a fifteen-hour average workday and, in the second case, on a six-hour average workday. Thus the result remains the same whether the worker is employed for seven and a half hours in the one case or only three hours in the other.

has the worker work, he can employ the worker for less than the amount of time that originally served as the basis for calculating the hourly wage—i.e., the unit of measurement for labor’s price. Since this unit of measurement is determined by the ratio $\frac{\text{Labor-Power's Daily Value}}{\text{A Workday of a Given Number of Hours}}$, it loses all meaning the moment the workday ceases to have a certain number of hours. The connection between paid and unpaid labor falls away. The capitalist can now get a certain quantity of surplus-labor out of a worker without allowing him the labor-time he needs to maintain himself. He can also eliminate all regularity in employing workers. Going only by what is convenient for him, his own interests at any particular moment, and the dictates of his will, he can subject workers to the most extreme overwork and then to relative or total unemployment. Moreover, the capitalist can use the pretext of paying “the normal price of labor” to extend the workday beyond its normal limit without compensating the worker accordingly. London’s building workers were therefore doing the rational thing when (in 1860) they revolted in response to the capitalists’ attempt to impose such a wage by the hour. The legal regulation of the workday puts an end to tricks of this kind, but not, of course, to underemployment stemming from competition from machines, variations in the quality of the workers employed, and partial and general crises.

When the daily or weekly wage goes up, the price of labor can remain constant nominally and yet still fall below its normal level. This happens whenever the workday is extended beyond its usual duration but the price of labor—that is, an hour of labor—stays the same. When the denominator in the fraction $\frac{\text{Labor - Power's Daily Value}}{\text{The Workday}}$ increases, the numerator will increase even faster. The wear and tear the labor-power suffers, and thus its value, increase as the length of its activation does, only at a more rapid rate. Hence the following practice spontaneously emerges in many of the branches of industry where labor-time isn’t regulated by law, and time wages predominate: the workday is seen as normal (“normal working day,” “the day’s work,” “the regular hours of work”) only up to a certain point—for example, until the end of the tenth hour. Beyond this limit, labor-time is overtime, and the per-hour pay is better (“extra pay”), although the proportional increase is often laughably small.⁶ The normal workday exists

6. “The rate of payment for overtime [in lace-making] is so small, from $\frac{1}{2}$ d. and $\frac{3}{4}$ d. to 2d. per hour, that it stands in painful contrast to the amount of injury produced to the health and stamina of the workpeople. . . . The small amount thus earned is also obliged to be spent in extra nourishment” (“Child. Empl. Comm.” Second Rep., p. XVI, n. 117).

here only as a fraction of the actual workday, with the longer-lasting days often outnumbering the normal ones over the course of the year.⁷ When the workday is extended beyond a certain normal limit in various branches of British industry, the price of labor increases in such a way that the low price of labor during the so-called normal time forces the worker to work during the better-paying overtime if he wants to receive a sufficient wage.⁸ The legal regulation of the workday puts an end to this fun.⁹

It is a well-known fact that the longer the workday in a given branch of industry, the lower the wages.¹⁰ The factory inspector Alexander Redgrave illustrated this in a comparative overview of the twenty-year period from 1839 to 1859. He showed that in factories under the Ten Hours' Law, wages rose, whereas they fell in the factories where workers performed fourteen to fifteen hours of labor a day.¹¹

7. As, for instance, in the paper-staining trade before the Factory Act was introduced there, which happened quite recently. "We work on, with no stoppage for meals, so that the day's work of 10½ hours is finished by 4:30 P.M., and all after that is overtime, and we seldom leave off working before 6 P.M., so that we are really working overtime the whole year round" (Mr. Smith's evidence in "Child. Empl. Comm." First Rep., p. 125).

8. For example, in Scotland's bleaching works, "In some parts of Scotland this trade was carried on [before the Factory Act was introduced in 1862] by a system of overtime, i.e., ten hours a day were the regular hours of work, for which a nominal wage of 1s. 2d. per day was paid to a man, there being every day overtime for 3 or 4 hours, paid at the rate of 3d. per hour. The effect of this system was that a man could not earn more than 8s. per week when working the ordinary hours. Without overtime he could not earn a fair day's wages" ("Rep. of Insp. of Fact. 30th April 1863," p. 10). "The higher wages for getting adult males to work longer hours are a temptation too strong to be resisted" ("Rep. of Insp. of Fact. 30th April 1848," p. 5). The bookbinding trade in the city of London employs many young girls between 14 and 15 years old, using indentures that prescribe certain work hours. And yet during the last week of each month, the girls work alongside older workers in very mixed company until 10, 11, and 12 at night and even 1 in the morning. "The masters tempt them by extra pay and supper," which they eat in neighboring locals—hence the very dissolute ways of these "young immortals." Fittingly, then, these workers bind many bibles and edifying works, among other books.

9. See "Reports of Insp. of Fact. 30th April 1863," *ibid.* During the great strike and lockout of 1860, London's building workers displayed a keen understanding of how things really stood, for they agreed to accept hourly wages only if two conditions were met: 1) that along with the price of an hour of labor, a normal workday of nine and ten hours, respectively, had to be established, and the price of an hour of labor would be higher for ten-hour day than the nine-hour one, and 2) that every hour of labor beyond the normal day had to be compensated as overtime and paid at a higher rate.

10. "It is a very notable thing too, that where long hours are the rule, small wages are also so" ("Rep. of Insp. of Fact. 31st Oct. 1863," p. 9). "The work which obtains the scanty pittance of food is for the most part excessively prolonged" (Public Health. Sixth Rep. 1864," p. 15).

11. "Rep. of Insp. of Fact. 30th April 1860," pp. 31, 32.

“When the price of labor is given, daily or weekly wages depend on the amount of labor performed.” From this law it follows, first of all, that the lower the price of labor, the more labor the worker has to supply, or the longer his workday has to be, in order for him to secure even a paltry average wage. The low price of labor functions here as an impetus for extending the workers’ labor-time.¹²

But when their labor-time is extended, the price of labor falls, and thus the daily or weekly wage falls as well.

The formula for determining the price of labor, $\frac{\text{Labor - Power's Daily Value}}{\text{A Workday of a Given Number of Hours}}$, shows that when the workday is extended but workers receive no additional compensation, the price of labor will decrease. However, the same circumstances that enable the capitalist to extend the workday in the long run allow him, then compel him, to also lower labor’s price nominally, and to do so to the point where the total price of the increased number of hours begins to fall—i.e., daily or weekly wages are depressed. Here it will suffice to mention only two of these circumstances. If one man does the work of one and a half or two men, the supply of labor will increase, even as the supply of bearers of labor-power in the market remains constant. The resulting competition among workers will allow the capitalist to force down the price of labor. Meanwhile, the fact that the price of labor has dropped allows him to push the number of labor-hours even higher.¹³ The capitalist now has at his disposal abnormal quantities of unpaid labor: quantities that exceed the average social level. But this situation soon becomes a source of competition among the capitalists themselves. The price of labor makes up part of a commodity’s price. The unpaid part of the price of labor doesn’t have to factor into what the buyer pays—it can be given to him as a gift. This is the first step that competition drives capitalists to take. The second step

12. Owing to the low price of their labor, hand nail makers in England have to work fifteen hours daily just to take home the most miserable weekly wage. “It’s a great many hours in a day (6 A.M. to 8 P.M.), and he has to work hard all that time to get 11d. or 1s., and there is the wear of the tools, the cost of firing, and something for waste iron to go out of this, which takes off altogether 2½d. or 3d.” (“Child. Empl. Comm Third Rep.,” p. 136, n. 671). Although the women work just as many hours, they receive a weekly wage of only 5s. (ibid. p. 137 n. 674).

13. If a factory worker refused to work the customary long hours, “he would very shortly be replaced by somebody who would work any length of time and thus be thrown out of employment” (“Reports of Insp. of Fact. 31st Oct. 1848. Evidence, p. 39, n. 58). “If one man performs the work of two . . . the rate of profits will generally be raised . . . in consequence of the additional supply of labour having diminished its price” (Senior op. cit. p. 15).

is that they also don't include in the commodity's price at least one part of the abnormal surplus-value created by extending the workday. In this way, the commodity gets its abnormally low price. The commodity has this price sporadically at first, but it becomes established over time. From then on, the commodity's low price serves as the permanent foundation for the very circumstance that produced it in the first place: a meager wage for an excessive amount of labor. We are only touching on this point because an analysis of competition belongs elsewhere. Nevertheless, let's give the capitalist a moment to speak for himself. "In Birmingham there is so much competition of masters one against another, that many are obliged to do things as employers that they would otherwise be ashamed of; and yet no more money is made, but only the public gets the benefit."¹⁴ Readers will recall that there are two types of bakers in London. The one, "fullpriced" bakers, sells bread at its full price, while the other sells it under its normal price ("the underpriced," "the undersellers"). The "full-priced" bakers denounced their rivals before the Parliamentary Committee of Inquiry: "They only exist now by first defrauding the public, and next getting 18 hours' work out of their men for 12 hours' wages. . . . The unpaid labour of the men was made . . . the source whereby the competition was carried on, and continues so to this day. . . . The competition among the master bakers is the cause of the difficulty in getting rid of night work. An underseller, who sells his bread below the cost price, according to the price of flour, must make it up, by getting more out of the labour of his men. If I got only 12 hours' work out of my men, and my neighbor got 18 or 20, he must beat me in the selling price. If the men could insist on payment for over work, this would be set right. . . . A large number of those who are employed by the undersellers are foreigners, and youths, and others, who are obliged to accept almost any wages they can obtain."¹⁵

This jeremiad should interest us for another reason as well: it shows that what is reflected in the capitalist's brain is only a semblance of the relations of production. The capitalist doesn't know that even labor's normal price contains a certain quantity of unpaid labor, which is the regular source of his profits. The category of surplus labor-time doesn't exist for him, since surplus labor-time is included in the normal workday, and he

14. "Child. Empl. Comm." Third Rep. Evidence, p. 66, n. 22.

15. "Report etc. relative to the Grievances complained of by the journeymen bakers. Lond. 1862," p. LII and *ibid.* Evidence n. 479, 359, 27. As mentioned above, however, and as their mouthpiece Bennett himself concedes, the "fullpriced" have their people "generally begin work at 11 P.M. or earlier, and they are then often engaged all day long, as late as 7 o'clock in the evening" (*ibid.* p. 22).

thinks he pays for that with daily wages. What certainly does exist for the capitalist is overtime—the extension of the workday beyond the limit that corresponds to labor’s normal price. In fact, he insists on extra-pay for overtime when faced with under-selling competitors. But he doesn’t know that this extra-pay, too, includes unpaid labor, just as the price of a regular hour of labor does. Suppose an hour’s labor in a twelve-hour day costs 3d., which is the amount of value produced in half an hour, while the price of an overtime hour is 4d., which is the amount of value produced in forty minutes. In the first case, the capitalist gets to appropriate half of each hour of labor without having to pay for it. In the second case, he gets to appropriate one-third of each hour for free.

CHAPTER NINETEEN

Piece Wages

PIECE WAGES ARE nothing but a transformed form of time wages, just as time wages are a transformed form of the price or value of labor-power.

When we consider piece wages, it seems at first that the use-value the worker sells isn't his labor-power in action, in other words, living labor, but labor already objectified in a product. It also seems that the price of this labor isn't determined by the fraction $\frac{\text{Labor - Power's Daily Value}}{\text{A Workday of a Given Number of Hours}}$, as with time wages, but by how much the producer can produce.¹

Anyone who has been taken in by these appearances will be shocked to learn that the two forms of wages exist alongside each other in the same branches of industry. "The compositors of London, as a general rule, work by the piece, time-work being the exception; while those in the country work by the day, the exception being the work by the piece. The shipwrights of the Port of London work by the job or piece, while those of all other ports work by the day."² In London saddle workshops, it often happens that a Frenchman is paid a piece wage for the same labor that the Englishman working next to him does for a time wage. In the factories

1. "The system of piece-work illustrates an epoch in the history of the working man; it is half-way between the position of the mere day-labourer, depending upon the will of the capitalist, and the cooperative artizan, who in the not distant future promises to combine the artizan and the capitalist in his own person. Piece-workers are in fact their own masters, even whilst working upon the capital of the employer" (John Watts, "Trade Societies and Strikes, Machinery and Cooperative Societies. Manchester 1865," pp. 52, 53). I am citing from this little work because it is truly a gutter full of rotten, apologetic clichés. The same Mr. Watts earlier flirted with Owenism and, in 1842, published another little work, "Facts and Fictions of Political Economy," in which he declares property to be theft. But that is already far back in the past.

2. T. J. Dunning, "Trade's Unions and Strikes. Lond. 1860," p. 22.

proper, where the piece wage predominates, the piece measurement isn't used for certain operations on technical grounds, and the labor expended on them is paid in time wages.³ Clearly, however, variations in the forms in which wages are paid do nothing to alter the essence of wages, even if one form might do more than another to facilitate the development of capitalist production.

Let's say that a regular workday amounts to twelve hours of labor, six of which are paid. The quantity of value the day produces is 6 shillings; the quantity produced during an hour of labor is therefore 6d. Experience has shown that a seasoned worker who applies his labor with the normal level of intensity and skill, expending only the socially necessary labor-time, produces 24 units of product in a day, whether discrete commodities or measurable parts of a larger one. So, after we have subtracted the constant capital that is transferred to these 24 units, they will contain 6 shillings of value in total, while each individual unit will have a value of 3d. The worker receives 1½d. per unit, which means that he earns 3 shillings in twelve hours. It makes no difference whether we say that half of each unit is paid for and half isn't, or that the price of 12 units merely replaces the labor-power's value while the surplus-value is embodied in the other 12, as is the case with time wages, where it makes no difference whether we assume that the worker spends six hours working for himself and six hours working for the capitalist, or that he spends half of each hour doing the former and the other half doing the latter.

Moreover, the form of piece wages is just as irrational as that of time wages. As the product of an hour of labor, two units of our commodity are worth 6d. after we have subtracted the value of the means of production consumed as they are being made, but the worker gets a price of 3d. for them. Piece wages don't in fact express a value relation directly: with piece wages, the value of a unit isn't measured by the labor-time embodied in it. It's the other way around. The amount of labor a worker expends

3. This is how using both wage forms at once helps manufacturers cheat: "A factory employs 400 people, the half of which work by the piece, and have a direct interest in working longer hours. The other 200 are paid by the day, work equally long with the others, and get no more money for their overtime. . . . The work of these 200 people for half an hour a day is equal to one person's work for 50 hours, or 5/6 of one person's labour in a week, and is a positive gain to the employer" ("Reports of Insp. of Fact. 31st October 1860," p. 9). "Overworking, to a very considerable extent, still prevails; and, in most instances, with that security against detection and punishment which the law itself affords. I have in many former reports shown . . . the injury to all the workpeople who are not employed on piece-work, but receive weekly wages." Leonard Horner in "Reports of Insp. of Fact. 30th April 1859," pp. 8, 9.

is measured by the number of units that worker produces. With time wages, labor is measured by its immediate duration; with piece wages, it is measured by the amount of products in which it has condensed during a given amount of time.⁴ But the price of the labor-time itself is ultimately determined by the equation: The value of a day's labor equals the daily value of labor-power. Piece wages are thus nothing but a modified form of time wages.

Now let's take a somewhat closer look at the characteristic peculiarities of piece wages.

In this case, it is the product itself that acts as a supervising agency, since if the product isn't of average quality, the piece price won't be paid in full. Hence piece wages have become the most fruitful source of wage deductions and capitalist shortchanging.

Piece wages provide the capitalist with an exact measure of labor's intensity. Only the labor-time embodied in a quantity of commodities that is established in advance and by experience counts as socially necessary labor-time and is paid as such. In London's large tailoring workshops, a certain piece of work—a waistcoat, for example—is therefore called a half an hour, an hour, and so on, an hour of labor being worth 6d. The actual production of things shows how much product an hour of labor yields on average. When it comes to new fashions, mending, and so on, employers and workers disagree about whether a certain piece of work equals an hour or something else, until here, too, experience settles the matter. We find the same situation in London's furniture workshops. If a worker doesn't have the average level of productive capacity, he won't be able to supply a certain minimum of work each day, and he will be let go.⁵

The very form of the wage, then, makes workers mindful of the quality and intensity of their labor, rendering unnecessary much of the work of supervision. Piece wages thus constitute the foundation of not only the modern domestic labor depicted earlier but also a hierarchically ordered system of exploitation and oppression. The latter system has two basic forms. On the one hand, piece wages make it easier for parasites to insert

4. "Wages can be measured in two ways: either by the duration of the labor or by the product of the labor" (*Abrégé élémentaire des principes de l'Écon. Pol.*, Paris 1796," p. 32). G. Garnier is the author of this anonymous work.

5. "So much weight of prepared cotton is delivered to him [the spinner] and he has to return by a certain time in lieu of it a given weight of twist or yarn of a certain degree of fineness, and he is paid so much per pound for all that he so returns. If his work is defective in quality, the penalty falls on him, if less in quantity than the minimum fixed for a given time, he is dismissed and an abler operative procured" (*Ure op. cit.* p. 61). [Editor's note: English original, pp. 316-17.]

themselves between capitalists and workers and, in effect, sublet labor. The profits these intermediary figures reap come exclusively from the difference between what a capitalist pays for labor and the actual amount he lets workers receive.⁶ In England, this system is called, characteristically, “the sweating system.” At the same time, however, piece wages allow the capitalist to enter into a contract for so much per unit with the main worker—he is the leader of a group in the manufacturing workshop, the person who extracts coal in mining, the actual machine operator in factories, where the price this main worker gets is such that he takes over the responsibility for hiring and paying his helpers. Here, capital realizes the exploitation of workers by having one worker exploit another.⁷

Where the piece wage is used, it is of course in the worker’s personal interest to activate his labor-power as intensely as he can, and thus the capitalist encounters less resistance when he attempts to increase the normal degree of intensity.⁸ Extending the workday is also in the worker’s personal interest, since this now causes his daily or weekly wages to rise.⁹ We begin to see the same reaction we described in discussing time wages, to

6. “It is when work passes through several hands, each of which is to take its share of profits, while only the last does the work, that the pay which reaches the workwoman is miserably disproportioned” (“Child. Empl. Comm.” Second Rep., LXX, n. 424).

7. Even the apologist Watt observes, “It would be a great improvement to the system of piece-work, if all the men employed on a job were partners in the contract, each according to his abilities, instead of one man being interested in overworking his fellows for his own benefit” (op. cit. p. 53). On the cruelties of this system, see “Child. Empl. Comm.” Third Rep., p. 66, n. 22, p. 11, n. 124, p. XI, n. 13, 53, 59, and so on.

8. This spontaneous result is often helped along artificially. For example, in London’s engineering trade a common trick is “the selecting of a man who possesses superior physical strength and quickness as the principal of several workmen, and paying him an additional rate, by the quarter or otherwise, with the understanding that he is to exert himself to the utmost to induce the others, who are only paid the ordinary wages, to keep up to him. . . . Without any comment, this will go far to explain many of the complaints of ‘stinting the action, superior skill, and working power,’ made by the employers against Trade’s Unions” (Dunning op. cit. pp. 22–23). [Editor’s note: In the source text, the last line of the quoted passage reads, “made by employers against their men.”] Given that the author of the passage is himself a worker and the secretary of a trade union, one might suspect that he has exaggerated in his account. But see, for example, the article “Labourer” in the “highly respectable” *Cyclopaedia of Agriculture*, ed. by J. C. Morton, where this method is recommended to the farmers as a trusted one.

9. “All those who are paid by piece-work . . . profit by the transgression of the legal limits of work. This observation as to the willingness to work overtime, is especially applicable to the women employed as weavers and reelers” (“Rep. of Insp. of Fact. 30th April 1858,” p. 9). “This system [piece work] so advantageous to the employer . . . tends directly to encourage the young potter greatly to overwork himself during the four or five years during which he is employed on the piecework system, but at low wages. This is another great cause to which the bad constitutions of the potters is to be attributed” (“Child. Empl. Comm.” First Rep., p. XIII). [Editor’s note: Some amplifying translation here by Marx, who

say nothing of the fact that an extension of the workday implies a decrease in the price of labor, even when the piece wage remains constant.

Where workers are paid in time wages, they almost always get the same wage for performing the same functions, whereas with piece wages, the price of labor-time may be measured by a given quantity of the product, but daily and weekly wages vary according to the differences among the individual workers: one worker supplies only the minimum amount of the product in a given time frame, another supplies the average amount, and a third supplies an amount greater than the average. So with regard to the workers' actual income, we find significant variations having to do with workers' different levels of skill, strength, energy, and endurance.¹⁰ This of course does nothing to alter the general relation between capital and wage labor. In the first place, individual differences offset one another in the workshop as a whole. The workshop thus produces an average quantity of product during a given period of labor, and the total amount of wages its owner pays in any given period will equal the average in its branch of industry. Second, the ratio of wages to surplus-value remains unchanged, because the wage the individual worker receives corresponds to the individual amount of surplus-value he supplies. This increased space for asserting individuality leads to a greater sense of freedom on the part of workers, which, in turn, helps them develop greater independence and self-control. But at the same time, it intensifies the competition among workers. Piece wages thus tend to lower the average level of wages even as they help push the wages of some individuals above that level. Where a certain piece wage is long established and lowering it will be especially difficult, the masters have on occasion resorted to forcibly converting piece wages into time wages. In 1860, for example, they did that in Coventry, prompting the ribbon weavers' great strike.¹¹ Lastly, the piece

drops the term "probably" from the last line—the source text reads, "is probably another great cause."]

10. "Where the work in any trade is paid for by the piece at so much per job . . . wages may very materially differ in amount. . . . But in work by the day there is generally an uniform rate . . . recognized by both employer and employed as the standard of wages for the general run of workmen in the trade" (Dunning op. cit. p. 17).

11. "the Labour of the Mechanicks [Journeyman Mechanicks] will be settled by the day or by the piece'. . . These Masters know pretty well how much work a journeyman Artisan can do in a day in each Craft, and often pay them in proportion to the work they do, so that the Journeymen work for their own interest as hard as they can without further inspection" (Cantillon, "Essai sur la Nature du Commerce en Général." Amst. Ed. 1756, pp. 185, 202. The first edition appeared in 1755). [Editor's note: Richard Cantillon, *Essay on the Nature of Commerce in General*, trans. Henry Higgs (New York: Routledge, 2011—a reprint of a 1931 translation), pp. 28, 20. The bracketed terms in the quotation are from the translator, not Marx.] As early as in this text, Cantillon, from whom Quesnay, Sir James Steuart, and Adam Smith borrowed heavily, presents piece wages as a mere modified form of time

wage is one of the main pillars of the hour system described in the preceding chapter.¹²

From the account just given, we can see how the piece wage is the particular wage-form that is most compatible with the capitalist mode of production. This form is hardly a recent development: in fact, we find it alongside time wages in the official labor statutes of fourteenth-century France and England. But the piece wage rose to prominence only in the manufacturing period proper, going on to serve throughout large-scale industry's storm and stress period, and especially from 1797 to 1815, as a mechanism for extending the workday and lowering wages. There is crucial material on the movement of wages during this time in the Blue Books—for example, *Report and Evidence from the select Committee on Petitions respecting the Corn Laws* (1813–14 session of Parliament) and *Reports from the Lords' Committee, on the state of the Growth, Commerce, and Consumption of Grain, and all Laws relating thereto* (1814–15 session). More specifically, these reports contain evidence documenting that the price of labor was driven down continuously after the Anti-Jacobin War began.¹ Piece wages fell so much in weaving that the daily wage decreased even as the workday grew to be much longer: “The real earnings of the cotton weaver are now far less than they were; his superiority over the common labourer, which at first was very great, has now almost entirely ceased. Indeed . . . the difference in the wages of skilful and common labour is far less now than at any former period.”¹³ The following passage, taken from a pamphlet advancing the cause of landlords and farmers, shows how little the rural proletariat benefited when, as a result of piece wages, labor's duration and

wages. The French edition of Cantillon announces in its title that it is a translation from the English, but not only does the English edition, “The Analysis of Trade Commerce etc. by Philip Cantillon, late of the City of London, Merchant,” carry a later date (1759), it also marks itself through its content as a later and revised edition. [Editor's note: Philip Cantillon, a relative of Richard's, did the revising.] For example, Hume isn't yet mentioned in the French edition, while, on the other hand, Petty hardly figures any longer in the English one. The English edition is less significant with respect to theory, but features a lot of information pertaining specifically to English commerce, bullion trade, and so on, that isn't in the French text. Thus the words on the title page of the English edition, according to which the book is “Taken chiefly from the Manuscript of a very ingenious Gentleman deceased, and adapted etc.,” appear to be more than a mere fiction, one that was common at the time.

12. “How many times have we seen workshops hire far more workers than the work in hand required? Often, in anticipation of random, sometimes even imaginary, work, workers are hired: since they are paid on a piece-rate basis, there is no risk involved, given that all wasted time will be charged to the unoccupied workers” (H. Gregoir, “Les Typographes devant le tribunal correctionnel de Bruxelles.” Brussels 1865, p. 9).

13. “Remarks on the Commercial Policy of Great Britain. London 1815,” p. 48.

intensity increased: "The far greater part of the operations of husbandry are performed by men employed by the day, or by the piece. The wages of these have been taken only at 12s. per week, and though at piece-work a man may properly be supposed, under the increased stimulus to industry, to obtain one shilling, or perhaps two shillings, a week more than he would earn by weekly wages, yet in estimating his general earnings, the loss of time in the course of the year may be held equivalent to this addition. . . . The wages of these men will also, it is presumed, be generally found to bear some reference to the necessary charges of subsistence; so as that a man with two children may be able to maintain his family without parochial relief."¹⁴ Remarking on the facts made public by Parliament, Malthus observed at the time, "I own I do not see, with pleasure, the great extension of the practice of task work. To work really hard during 12 or 14 hours in the day, for any length of time, is too much for a human being."^{15,ii}

The piece wage came to predominate in workshops subject to the Factory Act because capital can enlarge the workday there only by increasing labor's intensity.¹⁶

When labor's productivity varies, the amount of labor-time a given quantity of product represents varies, too—as does the piece wage, since it expresses the price of a certain amount of labor-time. In our example, 24 units of the product and 6 shillings of value are produced in twelve hours. Labor-power's daily value is 3 shillings, while the price of an hour of labor is 3d. The wage per unit is $1\frac{1}{2}$ d., and each unit absorbs half an hour of labor. Let's now imagine that labor's productivity doubles. As a result, the same twelve-hour workday yields 48 units instead of 24. Assuming all other conditions remain fixed, the $1\frac{1}{2}$ d. piece wage would fall to $\frac{3}{4}$ d., or 3 farthings, since each unit would represent fifteen minutes of labor rather than half an hour: $24 \times 1\frac{1}{2} = 3$ shillings, and, likewise, $48 \times \frac{3}{4} = 3$ shillings. In other words, the piece wage falls in the same proportion as the number of units produced during a given amount of time rises,¹⁷ and

14. "Considerations upon the Corn Bill . . ." London 1815, p. 34.

15. Malthus op. cit.

16. "Those who are paid by piece-work constitute, probably, four-fifths of the workers in the factories" ("Reports of Insp. of Fact. for 30th April 1858," p. 9).

17. "The productive power of his spinning-machine is accurately measured, and the rate of pay for work done with it decreases *with* (though not *as*) the increase of its productive power" (Ure op. cit. p. 61). [Editor's note: English original, p. 317.] Ure himself goes on to contradict this final apologetic phrase, admitting, for example, that when the mule is extended, "some additional work comes from the lengthening" (ibid. p. 134). [Editor's note: This quote cannot be found in the French translation or the English original.] So the amount of labor doesn't decrease in the same ratio as its productivity increases. Fur-

therefore in the same proportion as the amount of labor-time expended on each unit decreases. When the piece wage changes in this way, which has been purely nominal so far, constant struggles between capitalists and workers ensue—either because the capitalist uses the change as a pretext for actually lowering the price of labor, or because labor’s intensity increases along with its productive power. Or, the worker is taken in by the outward appearance of the piece wage, which makes it seem that he is being paid for his product rather than his labor-power, and he protests because his wages are lowered but the price of the product he makes hasn’t fallen accordingly. “The operatives . . . carefully watch the price of the raw material and the price of manufactured goods, and are thus enabled to form an accurate estimate of their masters’ profits.”¹⁸ Capital rightly dismisses such pretensions on the grounds that they get the nature of wage labor all wrong.¹⁹ It rails against anyone presumptuous enough to try to tax the progress of industry, flatly declaring that labor’s productivity is none of the worker’s business.²⁰

ther, “By this increase the productive power of the machine will be augmented one-fifth. When this event happens the spinner will not be paid at the same rate for work done as he was before, but as that rate will not be diminished in the ratio of one-fifth, the improvement will augment his money earnings for any given number of hours of work,” but . . . “the foregoing statement requires a certain modification. . . . The spinner has to pay something additional for juvenile aid out of his additional sixpence” (ibid. pp. 66, 67). Furthermore, improvements in machinery “displace a portion of adults” (ibid.) [Editors note: English original, pp. 320–21.], something that certainly tends not to cause wages to rise.

18. H. Fawcett, “The Economic Position of the British Labourer.” Cambridge and London 1865, pp. 178, 179.

19. In the issue of the *London Standard* dated 26th October 1861, we find a report on a case brought before the Rochdale magistrates by the firm John Bright & Co. “to prosecute for intimidation the agents of the Carpet Weavers Trades’ Union. Bright’s partners had introduced new machinery which would turn out 240 yards of carpet in the time and with the labour [!] previously required to produce 160 yards. The workmen had no claim whatever to share the profits made by the investment of their employer’s capital in mechanical improvements. Accordingly, Messrs. Bright proposed to lower the rate of pay from 1½d. per yard to 1d., leaving the earnings of the men exactly the same as before for the same labour. But there was a nominal reduction, of which the operatives, it is asserted, had not fair warning before hand.”

20. “Trades’ Unions, in their desire to maintain wages, endeavour to share in the benefits of improved machinery! [Quelle horreur!] The demanding higher of wages, because labour is abbreviated, is, in other words, the endeavor to establish a duty on mechanical improvements” (“On Combinations of Trades. New Edit. Lond. 1834,” p. 42).

CHAPTER TWENTY

Variations in Wages from Nation to Nation

IN CHAPTER 15, WE considered the diverse combinations that a change in the absolute or relative magnitude of labor-power's value can call forth, with relative magnitude referring to its magnitude as compared with that of surplus-value. We also saw, however, that the amount of the means of subsistence in which labor-power's price is realized can move independently of or out of step with changes in that price, growing or shrinking.¹ As we noted earlier, the simple translation of the value or price of labor-power into the exoteric form of wages turns all these laws into laws of the movement of wages. What appears within this movement as varying combinations can simultaneously present itself to different nations as wages varying along national lines. When we compare the wages of different nations, we therefore need to consider all the factors that determine whether and how much labor-power's value changes—namely, the price and extent of both basic natural wants and needs and the basic wants and needs shaped by history; the cost of training workers; the role of women and children in the labor force; labor's productivity; and its extensive and intensive magnitude. Even the most superficial comparison requires that the average daily wage for a given trade in different countries be reduced to workdays of uniform length. Once daily wages have been reduced to the same terms, the time wage has to be translated again into the piece wage, since only the latter can serve as a measure of both labor's productivity and its intensity. We will then find more often than not that one nation's lower daily wage expresses a higher price of labor, and another nation's higher

1. "It is not accurate to say that wages [at issue here is their price] are increased, because they purchase more of a cheaper article" (David Buchanan in his edition of A. Smith's "Wealth etc." 1814, Vol. 1, p. 417 note).

daily wage expresses a lower price of labor, the possibility of just that combination having been revealed by the movement of daily wages itself.²

Compared with its less intense counterpart of the same length, a more intense national workday is treated on the world market as having more hours—as being more extensive, that is; and, furthermore, compared with its less productive counterpart, a more productive national workday counts as a more intense one, as long as competition hasn't forced the more productive nation to lower the prices of its commodities to their value. Generally speaking, then, a more intense or productive national workday is represented on the world market in a greater money expression than a less intense or productive national workday is. What holds for the workday holds also for each of its fractional segments. Labor's absolute price in money can thus be higher in one nation than another, even though with respect to relative wages, the situation is reversed. (Here "relative wages" means wages relative to the surplus-value workers produce, or the total value they produce, or the price of their means of subsistence.)³

In his *Essay on the Rate of Wages*,⁴ one of his earliest economic writings, Henry Carey attempted to show that the differences among national wages are directly proportional to the differences among national levels of productivity, his aim here being to deduce from this international ratio that wages everywhere rise and fall as labor's productive power does. Even

2. In polemicizing against Adam Smith, James Anderson says, "It deserves likewise to be remarked that although the apparent price of labour is usually lower in poor countries, where the produce of the soil, and grain in general, is cheap; yet it is in fact for the most part really higher than in other countries. For it is not the wages that is given to the labourer per day that constitutes the real price of labour, although it is its apparent price. The real price is that which a certain quantity of work performed actually costs the employer; and considered in this light, labour is in almost all cases cheaper in rich countries than in those that are poorer, although the price of grain, and other provisions, is usually much lower in the last than in the first. . . . Labour estimated by the day, is much lower in Scotland than in England. . . . Labour by the piece is generally cheaper in England" (James Anderson, "Observations on the means of exciting a spirit of National Industry etc. Edinb. 1777," pp. 350, 351). Addendum to the second edition: Conversely, a low level of wages results in higher labor prices. "Labour being dearer in Ireland than it is in England . . . because the wages are so much lower" (N. 2,074 in Royal Commission on Railways, Minutes. 1867).

3. "Mr. Cowell, however, by a most elaborate analysis of cotton-spinning, endeavours to prove in his supplementary report ('supplement to the Report on Manufactures'), that the wages in England are virtually lower to the capitalist, though higher to the operative, than on the continent of Europe" (Ure op. cit. Vol. 2, p. 58). [Editor's note: English original, Andrew Ure, *The Philosophy of Manufacture or, and exposition of the scientific, moral, and commercial economy of the factory system of Great Britain* (London: Charles Knight, 1835), p. 314.]

4. "Essay on the Rate of Wages; with an Examination of the Causes of the Differences in the Conditions of the Labouring Population throughout the World. Philadelphia 1835."

if Carey had supported his premises instead of employing his standard practice, which was to treat statistical material uncritically and superficially, piling it into a jumbled heap, this conclusion would be absurd, as can be seen from every part of our analysis of how surplus-value is produced. Best of all, Carey doesn't argue that things are as they should be, according to his own theory. State intervention has distorted a natural economic relation, and national wages must therefore be calculated as though the workers themselves received the part that goes to the state in the form of taxes. Shouldn't Mr. Carey think again about whether these "state expenses" are "natural" fruits resulting from the development of the capitalist system? His logic is befitting of a man who declared capitalist relations of production to be eternal laws of nature and reason—laws whose harmonious free play could only be disturbed by state intervention, but then discovered that state intervention, i.e., the protection of these laws by the state (or the system of protectionism), was made into a necessity by England's diabolical influence on the world market, which England apparently didn't owe to the natural laws of capitalist production. Carey also discovered that the theories by Ricardo and others that formulate existing social antagonisms and contradictions should hardly be seen as the ideal product of real economic movement. Rather, the reverse is true. The real antagonisms of capitalist production in England and elsewhere resulted from those theories! Lastly, Carey discovered that in the end, trade destroys the inborn beauty and harmony of the capitalist mode of production. If he had gone just a step further, he might have realized that the only thing wrong with capitalist production is capital itself. Never mind Carey's protectionist heresies. Only such a man, one of such frightful ingenuousness and erudition *de faux aloi*,¹ deserved to become the secret source that supplied the likes of Bastiat and today's other free-trade optimists with their harmonious wisdom.⁵

5. In volume 4 of this work, I will give a more precise account of the superficiality of his scholarship.

PART SEVEN

Capital's Process of Accumulation

WE HAVE SEEN how when capital takes the form of a commodity, it produces surplus-value. The surplus-value embedded in a commodity is realized only when the commodity is sold, as is the capital value that was advanced to produce the commodity. Capital's process of accumulation thus presupposes its process of circulation. But the latter process won't be discussed until the next volume of this work. In part, the real conditions of reproduction—in other words, of continuous production—first appear within circulation, while, to some extent, they can be examined only after circulation has been analyzed.

And that is not all. The capitalist who produces surplus-value, squeezing unpaid labor directly out of workers and fixing it in commodities, may be the first to appropriate that surplus-value, but he isn't the last person to own it. He must share it with capitalists who carry out other functions in the process of social production as a whole: landowners, etc. Surplus-value is thus split up into different parts: its pieces accrue to different categories of people and take on various forms that are independent of one another, such as profit, interest, trade surplus, ground rent, and so on. We won't arrive at the right place to discuss these transformed forms of surplus-value until Volume 3.

On the one hand, then, we are presupposing that the capitalist who produces a commodity sells it at its value. How that value returns to the commodity market won't concern us—neither the new forms that capital takes on in the circulation sphere nor the concrete conditions of reproduction that are veiled within them. On the other hand, we are treating the capitalist producer as the owner of all the surplus-value, or, if one will, as the representative of all the people who get a share of his spoils. We will therefore begin by considering accumulation in abstract terms—as merely one part of the immediate process of production.

Insofar as accumulation takes place, the capitalist has succeeded in selling the commodity he produced and transforming back into capital the money thereby freed up. Furthermore, when surplus-value is split up into different pieces, this doesn't change it in any essential way or alter the conditions required for it to become an element of accumulation. Whatever the ratio of the surplus-value that the capitalist keeps and the part he gives to others, he always appropriates the surplus-value himself—first-hand, so to speak. So in our account of accumulation, we are presupposing no more than is presupposed by the actual process of accumulation. At the same time, however, the fracturing of surplus-value and the mediating movement of circulation obscure the simple, fundamental form of this process. To analyze the process in a pure way, we need to temporarily set aside all the phenomena that conceal the inner workings of its mechanism.

Simple Reproduction

THE PRODUCTION PROCESS has to be continuous—whatever social form it takes, it must periodically repeat the same phases anew. A society can stop producing no more than it can stop consuming. Thus when viewed both as an integrated whole and as always being in the flux of renewal, every social production process is also a process of reproduction.

The conditions required for production are at the same time those required for reproduction. No society can keep producing, that is, reproducing, unless it continuously reverse-transforms some part of its products into means of production or the elements of fresh production. If all other circumstances stay as they are, a society can reproduce or maintain its wealth on the same scale only by replacing the means of production consumed during the year—the means of labor, raw materials, and auxiliary materials—with an equal quantity of new articles that are taken out of the mass of products produced each year and reincorporated into the production process. In other words, a certain amount of the annual product has to go back into production. The products that constitute this part are made for productive consumption and tend to exist in natural forms not suited for consumption by individuals.

If the form of production is the capitalist one, then the form of reproduction will be, too. Just as the labor process appears in the capitalist mode of production only as something that mediates the valorization process, so, too, the reproduction process appears only as a means to reproduce the value advanced as capital—i.e., value that valorizes itself. The economic actor's mask "capitalist" will stay on a person only if his money keeps functioning as capital. Suppose a sum of £100 is advanced this year. If it is transformed into capital and produces £20 of surplus-value, it has to repeat the same operation next year, the year after that,

and so on. Periodically adding to capital's value, or as the regular fruit of capital in motion, surplus-value takes on the form of revenue arising from capital.¹

If this revenue serves the capitalist only as a fund for consumption, if it is spent as regularly as it is acquired, then, assuming all other conditions remain unchanged, simple reproduction takes place. Such simple reproduction merely repeats the production process on the same scale, but this mere repetition (or continuation) also gives the process new characteristics; or rather, it clears away characteristics the process appears to have when seen in isolation.

The purchase of labor-power for a certain amount of time initiates the production process. This initial moment recurs when the time is up, and a production period of a certain length has come to an end, whether a week, a month, or longer. But the worker isn't paid until after his labor-power has produced its effect, realizing in commodities both its own value and surplus-value. The worker thus produces not only surplus-value, which for now we are viewing only as the fund the capitalist uses for consumption, but also the fund used for his own payment, or the variable capital, before it flows back to him in the form of actual wages. In fact, the worker will be employed only for as long as he keeps reproducing that fund. Hence the political economists' formula mentioned earlier (in chapter 16) that represents salary as a share of the product itself.² What keeps flowing back to the worker in the form of wages is a part of the product that he constantly reproduces. While the capitalist pays the worker commodity value in money, this money is simply the transformed form of the labor product, or rather, part of the labor product. As the worker turns part of the means of production into the product, part of a product he has already produced is turned back into money. The labor that the worker performs next week or next month will thus be paid for with the labor he performed the previous week or the previous month. The illusion brought about by the

1. "The rich, who consume the products of others' labor, can only obtain them through exchange . . . so they are continually liable to exhaust their funds. . . . But in the social order, wealth has acquired the property of reproducing itself through the work of others. . . . Wealth, like work, and through work, gives an annual fruit that can be destroyed annually without the rich becoming poorer. This fruit is the revenue that arises from capital" (Sismondi, "Nouv. Princ. d'Écon. Pol." Vol. 1, pp. 81, 82).

2. "Wages as well as profits are to be considered each of them as really a portion of the finished product" (Ramsay op. cit. p. 142). "The share of the commodity which belongs to the labourer has been all received in the shape of wages" (J. Mill, "Elements etc. Trans by Parisot, Paris 1823," p. 34). [Editor's note: Marx uses a French translation. The English original can be found in: James Mill, *Elements of Political Economy*, (London: Baldwin, Cradock and Joy, 1821), p. 25.]

money-form disappears the moment we look at the whole capitalist class and the whole working class rather than the individual capitalist and the individual worker, because the capitalist class constantly gives the working class drafts—drafts in the form of money—on a portion of the product produced by members of the latter class and appropriated by members of the former one. The worker gives these drafts back to members of the capitalist class just as constantly, thereby obtaining from the capitalists his allotted share of his own product. This transaction is disguised by the product's commodity-form and the commodity's money-form.

Variable capital is thus nothing but a particular historical form of appearance of the fund for the means of subsistence, or the labor fund, that the worker needs in order to maintain and reproduce himself, and that he has to keep producing and reproducing in every system of social production. The labor fund constantly flows to the worker in the form of the means of payment for his labor only because his own product constantly moves away from him in the form of capital. But the labor fund's form of appearance here does nothing to alter the circumstance that the capitalist advances the worker the latter's own objectified labor.³ Take a peasant who has to perform compulsory labor. Let's say he works with his own means of production in his own fields three days a week. He spends the other three workdays doing compulsory labor on the lord's estate. The peasant constantly reproduces his own labor fund, which under these terms won't take on the form of a means payment (for his labor) that is advanced by another person. Accordingly, his unpaid forced labor won't take on the form of voluntary and paid labor. If the estate owner began one day to appropriate the peasant's fields, cattle, and seed for himself, or, in short, the peasant's means of production, the peasant would have to start selling his labor-power to the estate owner. Assuming all other conditions remained the same, the peasant would work six days a week, just as before. And he would still spend three days performing labor for himself and the other three days working for the estate owner, who has now been transformed into a wage-paying capitalist. The peasant would continue to use up the means of production as means of production, transferring their value to the product. As before, a certain amount of the product would be put toward reproduction. But just as forced labor would take on the form of wage labor, so the labor fund—and here, too, the worker would have to produce and reproduce it himself—would take on the form of capital the

3. "When capital is employed in advancing to the workman his wages, it adds nothing to the funds for the maintenance of labour" (Cazenove in a note in his ed. of Malthus's "Definitions in Polit. Econ. London 1853," p. 22).

worker is advanced by his former master. The bourgeois economist, whose unimposing brain can't distinguish between a form of appearance and the thing appearing through that form, averts his eyes from the fact that even today, when the labor fund enters the scene somewhere in the world, it rarely does so in the form of capital.⁴

Of course, variable capital stops playing the part of value advanced from the capitalist's own fund only when we view the capitalist production process in the context of the constant flux of its renewal. But that production process had to begin sometime, somewhere, and so from our present standpoint, it seems likely that at some moment the capitalist became a money owner as the result of an instance of original accumulation not tied to the unpaid labor of others. This, it seems, is what enabled him to appear in the market as a buyer of labor-power. At the same time, the mere continuity of the capitalist production process, i.e., simple reproduction, brings about other extraordinary changes that decisively affect both the variable part of capital and the total capital.

Suppose the surplus-value produced annually with £1,000 of capital amounts to £200, and this £200 is also consumed annually. If the same process is repeated every year for five years, the sum of the surplus-value consumed will be 5×200 , an amount equal to the £1,000 of original capital. Now suppose the annual surplus-value is only partially consumed—let's say half of it is. If the production process were repeated every year for ten years, the result would be the same as before, since $10 \times 100 = 1,000$. As a general rule, when we divide the value of the capital advanced by the surplus-value consumed annually, we get the number of years, or the number of reproduction periods, over which the capitalist consumes the capital originally advanced, and thus at the end of which the original capital disappears. The capitalist thinks he consumes the product of someone else's unpaid labor, or the surplus-value, and retains the original value spent as capital. But his wrongheaded idea does nothing to change the facts here. After a certain number of years have passed, the capital value he possesses will be equal to the sum of the surplus-value he has appropriated without an equivalent during the same period, and the total value he has consumed will be equal to the original capital value. Not even an atom of his old capital still exists. So, the mere continuity of the labor process, i.e., simple reproduction, necessarily transforms every mass of capital into accumulated capital or capitalized surplus-value, whether this process

4. "The wages of labour are advanced by capitalists in the case of less than one-fourth of the labourers of the earth" (Richard Jones, "Textbook of Lectures on the Polit. Economy of Nations." Hertford 1852, p. 36).

takes more or less time and irrespective of all accumulation. Even where capital starts out as property its owner earned with his own labor, sooner or later, and whether or not it takes the form of money, it becomes value that is appropriated without an equivalent—in other words, the materialization of someone else's unpaid labor.

The production and circulation of commodities isn't the only original precondition that had to be in place before money could be transformed into capital. A money or value owner and the owner of value-creating substance—i.e., a person who has acquired some means of production and subsistence and someone who owns labor-power—had to encounter each other in the commodity market as a buyer and a seller. The separation of the labor product and labor itself, of the objective factors needed for the labor process and human labor-power, was thus the preexisting foundation of the capitalist process of production. The sheer continuity of that process—in other words, simple reproduction—reproduces and perpetuates the starting point of the process, making it into its characteristic result. The production process continuously transforms money into capital and means of production into means of valorization. On the other hand, the worker keeps emerging from the process as he was upon entering it. Even before he begins to work, his own labor has already been alienated from him, appropriated by the capitalist, and incorporated into capital; thus his labor is constantly objectified during the production process in a product that belongs to someone else. And since this process is simultaneously the process in which the capitalist consumes labor-power, the worker's product is continuously transformed into not only commodities, but also capital—value that drinks value-creating power, means of subsistence that in fact buy people, and means of production that in fact employ producers.⁵ It is the worker himself, then, who constantly produces objective wealth as capital, an alien power that exploits and rules over him, while the capitalist just as constantly produces labor-power as a subjective, abstract source of wealth that has been separated from its own means of objectification and realization and exists only in the worker's body—in short, the capitalist just as constantly keeps producing the worker as a wage laborer.⁶ This constant reproduction or perpetuation of the worker is the *sine qua non* of capitalist production.

5. "That which is productively consumed is always capital. This is a property of productive consumption which deserves to be particularly remarked" (James Mill op. cit. p. 242). [Editor's note: English original, p. 181.] James Mill was never able to locate this "particularly remarked property."

6. "It is true indeed that the first introducing a manufacture employs many poor, but they cease not to be so, and the continuance of it makes many" ("Reasons for a limited

As we know, the transaction that takes place between the capitalist and the worker is as follows: The capitalist exchanges one part of his capital, the variable part, for labor-power, namely, the living power to valorize that he incorporates into his dead means of production. In this way, the labor process also becomes the capitalist process of valorization. The worker, for his part, uses the money he gets for his labor-power to buy the means of subsistence with which he maintains and reproduces himself. This is the worker's individual consumption; but the labor process, where he consumes the means of production by transforming them into products, represents the worker's productive consumption and also the consumption of his labor-power by the capitalist. The worker's individual and productive consumption differ fundamentally. In the one case, as labor-power, he belongs to capital: here he is incorporated into the production process. In the other case, the worker belongs to himself and carries out individual life actions that take place outside the process of production.

When we examined "the workday," we saw, now and again, that the worker tends to be forced to make his individual consumption into a mere moment in the production process. He takes in his means of subsistence so that his labor-power can stay activated, just as a steam engine is fed coal and water, or a gear gets oil. His means of consumption have become nothing but the means of consumption of a means of production. His individual consumption is directly productive consumption. This is seen, however, as an abuse of labor that isn't essential to capitalist production.⁷

But what happens when we turn away from a commodity's isolated production process and instead consider the interconnected movement of the capitalist production process on its full social scale? The worker's individual consumption remains an aspect of the production and reproduction of capital, whether his consuming occurs inside or outside the workshop or factory (or inside or outside the labor process), just as the cleaning of a machine remains an aspect of capital's production and reproduction, whether it occurs during the labor process itself or during a pause. It makes no difference here that a worker consumes for himself and not the capitalist. The fact that beasts of burden enjoy what they eat doesn't mean their eating is any less necessary for the production process. The continuous maintenance and reproduction of the working class is a permanent condition of capital's

Exportation of Wool. Lond. 1677," p. 19). "The farmer now absurdly asserts, that he keeps the poor. They are indeed kept in misery" ("Reasons for the late Increase of the Poor Rates: or a comparative view of the prices of labour and provisions. London, 1777," p. 31).

7. Rossi wouldn't have declaimed on this point so emphatically if he had actually solved the mystery of "productive consumption."

reproduction, which workers are motivated to satisfy by their own drive to live and reproduce—the capitalist can count on that. He merely sees to it that the workers' individual consumption is limited to the bare necessities. In this the capitalist is worlds away from the primitive South American practice of forcing workers to eat hearty foods rather than light ones.⁸

When one part of capital becomes labor-power, the capitalist kills two birds with one stone. He transforms part of his capital into variable capital, thereby valorizing his total capital: he incorporates labor-power into his means of production—or, in other words, consumes labor-power productively by having the worker productively consume the means of production with his labor. At the same time, the means of subsistence, which represent the part of capital that goes to the worker, are transformed into the worker's muscles, nerves, bones, brain, and so on. When members of the working class carry out absolutely necessary acts of individual consumption, the means of subsistence that capital disposes of in exchange for labor-power are reverse-transformed into newly exploitable labor-power. Within its necessary limits, such consumption is the production and reproduction of capital's most essential means of production—the workers themselves. It therefore constitutes an aspect of capital's overall process of reproduction.

Hence the capitalist and his theoretician, the political economist, treat only one part of the worker's individual consumption as productive: the part whereby members of the working class consume what they need to in order to perpetuate themselves, which has to happen for capital to be able to consume labor-power. Whatever the worker consumes for other purposes, such as pleasure, is nonproductive consumption.⁹ If the accumulation of capital were to cause wages and thus the worker's means of consumption to increase, but with capital consuming the same amount of labor-power as before, the additional capital would be consumed nonproductively.¹⁰ The worker's individual consumption is in fact nonproductive

8. "The workers of South America's mines have the daily task [possibly the most difficult in the world] of carrying on their shoulders a load of metal weighing from 180 to 200 pounds, which they have to haul up to the surface from a depth of 450 feet. Their diet consists only of bread and beans. If it were up to them, they would eat only bread, but their masters, who have discovered that the men can't work so hard on bread alone, treat them like horses, forcing them to eat beans, too. Compared to bread, beans are much richer in bone-ash" (Liebig op. cit. Vol. 1, p. 194, note).

9. James Mill op. cit. pp. 238ff. [Editor's note: English original, p. 178ff.]

10. "If the price of labour should rise so high, that notwithstanding the increase of capital, no more could be employed, I should say that such increase of capital would be still unproductively consumed" (Ricardo op. cit. p. 163).

from his own standpoint, because it merely reproduces a needy and desiring individual. His individual consumption is productive for the capitalist and the state, however, because it produces the power that produces wealth for other people.^{11,i}

So from society's standpoint, the members of the working class—including when they aren't participating in the immediate labor process—belong to capital just as much as the dead instruments of labor do. Even their individual consumption is simply an aspect of capital's reproduction process, at least within certain limits. This process makes it hard for the worker, that instrument of production endowed with consciousness, to simply run away, since it constantly sends his product from his pole to the opposite pole—i.e., capital's. Individual consumption is the means through which workers maintain and reproduce themselves, but as it occurs, it constantly destroys their means of subsistence, ensuring that they will keep reappearing in the labor market. The Roman slave was fettered with chains. Invisible ties bind the wage laborer to his owner: he merely seems to be independent. The constant turnover among the worker's individual wage masters and the *fictio juris* of his contract keep this semblance in place.ⁱⁱ

In the past, capital enacted compulsory laws whenever it felt that it had to assert its proprietary rights over free workers. Until 1815, for example, it was illegal for England's machine workers to emigrate, and people committed this crime at their peril, since the penalties it carried were severe.

Reproducing the working class also implies the accumulation of skills and their transmission from one generation to the next.¹² The capitalist treats the existence of such a skilled working class as one of the conditions of production that belong to him, viewing it in fact as the real existence of his variable capital. How far he goes in this is revealed the moment a crisis threatens to take that class away. The American Civil War and the accompanying cotton famine put the majority of cotton workers in Lancashire out of work, as is well known. From deep within members of the working class and other social strata, too, there came a cry for state support,

11. "The only productive consumption, properly so called, is the consumption or destruction of wealth [he means consuming the means of production] by capitalists with a view to reproduction. . . . The workman is a productive consumer to the person who employs him, and to the state, but not, strictly speaking, to himself" (Malthus, "Definitions etc.," p. 30).

12. "The only thing which can be said to be stored up or previously prepared, is the skill of the labourer . . . the accumulation and storing up of skilled labour . . . this most important operation is performed, as far as the great mass of labourers is concerned without any circulating capital whatever" (Hodgskin, "Labour Defended etc.," pp. 12, 13).

or voluntary national subscriptions, that would allow the workers made “superfluous” to emigrate to English colonies or the United States. Edmund Potter, a former president of the Manchester Chamber of Commerce, responded with an open letter in the *Times*; published on March 24, 1863, it was rightly described in the House of Commons as “the manifesto of the manufacturers.”¹³ Below readers will find a few characteristic passages, where capital’s proprietary rights over labor-power are frankly asserted.

“The idle man may be told the supply of cotton workers is too large . . . it must follow the natural rules of supply and demand, and, in fact, be reduced by a third, perhaps, and then there will be a healthy demand for the remaining two-thirds. . . . Public opinion urges emigration. . . . The master [cotton manufacturer] cannot willingly see his labour supply being removed; he may think, and perhaps justly, that it is both wrong and unsound. . . . But if the public funds are to be devoted to assist emigration he has a right to be heard, and perhaps to protest.” This same Potter goes on to discuss how useful the cotton industry is, how “it has undoubtedly drawn the surplus population from Ireland and from many agricultural districts,” how enormous it is, how it accounted for $\frac{5}{13}$ of all English exports in 1860, how in a few years it will expand again by enlarging the market, especially in India, and by coercing a sufficient “supply of cotton at 6d. per pound.” He then says, “It is not denied that time—one, two, or three years it may be—will produce the quantity. . . . The question I would put, then, is this—is the trade worth retaining, is it worth while to keep the machinery [he means the living-labor machines] in order, and is it not the greatest folly to think of parting with that? I think it is. I allow that the workers are not a property, not the property of Lancashire or the masters; but they are the strength of both; they are the mental and trained power which cannot be replaced for a generation; the mere machinery which they work might much of it be beneficially replaced, nay, improved, in a twelvemonth.¹⁴ Encourage or allow [!] the working power to emi-

13. “That letter might be looked upon as the manifesto of the manufacturers” (Ferrand, Motion on the cotton famine, meeting of the H. o. C. of 27th April 1863).

14. Readers will recall that when it comes to reducing wages under normal circumstances, this same capital sings a very different tune. With one voice, “the masters” declare (see the note on “The Master Spinners” in Part 4), “The factory operatives should keep in wholesome remembrance the fact that theirs is really a low species of skilled labour; and that there is none which is more easily acquired or of its quality more amply remunerated, or which, by a short training of the least expert can be more quickly as well as more abundantly acquired. . . . The master’s machinery [which, we now hear, he does well to replace annually with improved models] really plays a far more important part in the business of production than the labour and skill of the operative, which six months’ education can

grate, and what of the capitalist?" This *cri de coeur* reminds one of Lord Chamberlain Kalbⁱⁱⁱ: "Take away the cream of the workers, the fixed capital will depreciate in a great degree, and the floating will not subject itself to a struggle with the short supply of inferior labour. . . . We are told the workers wish it [emigration]. Very natural it is that they should do so. . . . Reduce, compress the cotton trade, by taking away its working power and reducing their wages' expenditure, say one-third, or five millions, and what then would happen to the class above, the small shopkeepers; and what of the rents, the cottage rents? . . . Trace such effects upward to the small farmer, the better householder, and the landowner, and say if there could be any suggestion more suicidal to all classes of the country than by enfeebling a nation by exporting the best of its manufacturing population, and destroying the value of some of its most productive capital and enrichment." "I suggest, then, a loan [of five or six millions sterling], extending, it may be, over two or three years, administered by Special Commissioners added to the Boards of Guardians in the Cotton districts, under special legislative regulations, enforcing some occupation or labour, as a means of keeping up, at least, the moral standard of the recipients of the loan. . . . But can anything be worse for landowners or masters than parting with the best of the workers and demoralizing and disappointing the rest by an extended depletive emigration, a depletion of capital and value in an entire province?"

Potter, the cotton manufacturers' chosen mouthpiece, distinguishes between two types of "machinery." Both belong to the capitalist, but one is always housed in his factory while the other spends its nights and Sundays in cottages. One kind is dead; the other is alive. Not only does the dead machinery wear down and lose value each day but at any given moment, much of it is being rendered out of date by technological progress, which occurs constantly—in fact, the most efficient course of action is often to bring in new machines after just a few months. The living machinery, conversely, improves with experience and as it accumulates the skills passed down from generation to generation. The *Times* replied to the factory magnate by saying, among other things:

"Mr. Edmund Potter is so impressed with the exceptional and supreme importance of the Cotton Masters that, in order to preserve this class and perpetuate their profession, he would keep half a million of the labouring class confined in a great moral workhouse against their will. 'Is the

teach, and a common labourer can learn [while now the worker himself can't be replaced in less than years]." [Editor's note: Marx cites the same passage in English on page 391; here he gives it in his German translation.]

trade worth retaining?’ asks Mr. Potter. ‘Certainly, by all honest means, it is,’ we answer. ‘Is it worth while keeping the machinery in order?’ again asks Mr. Potter. Here we hesitate. By the ‘machinery,’ Mr. Potter means the human machinery, for he goes on to protest that he does not mean to use them as an absolute property. We must confess that we do not think it ‘worth while,’ or even possible, to keep the human machinery in order—that is, to shut it up and keep it oiled till it is wanted. Human machinery will rust under inaction, oil and rub it as you may. Moreover, the human machinery will, as we have just seen, get the steam up of its own accord, and burst or run a muck in our great towns. It might, as Mr. Potter says, require some time to reproduce the workers, but, having machinists and capitalists at hand, we could always find thrifty, hard, industrious men wherewith to improvise more master manufacturers than we can ever want. . . . Mr. Potter talks of the trade reviving ‘in one, two, or three years,’ and he asks us not to ‘encourage or allow [!] the working power to emigrate.’ He says that it is very natural that the workers should wish to emigrate; but he thinks that, in spite of their desire, the nation ought to keep this half million of workers, with their 700,000 dependents, shut up in the Cotton districts; and, as a necessary consequence, he must of course think that the nation ought to keep down their discontent by force, and sustain them by alms—and this upon the chance that the Cotton Masters may some day want them. . . . The time is come when the great public opinion of these Islands must operate to save this ‘working power’ from those who would deal with it as they would deal with iron, and coal, and cotton.”^{15,iv}

The article in the *Times* was only a *jeu d’esprit*. The “great public opinion” was Potter’s view that factory workers are mobile accessories of the factory. Workers were prevented from emigrating¹⁶ and locked up in the “moral workhouse” of the factory districts, where they represented “the strength of the cotton masters of Lancashire,” just as they had before.

When the capitalist production process takes its course, it reproduces the separation between labor-power and the things the worker needs to perform his labor. In doing so, it reproduces and perpetuates the conditions

15. *Times*, 24th March 1863.

16. Parliament didn’t appropriate a single farthing for emigration. Rather, it passed laws that enabled municipalities to keep workers suspended between life and death, or to exploit them without paying normal wages. In contrast, when the cattle plague began three years later, Parliament couldn’t jettison its own customs fast enough and appropriated millions to protect millionaire landlords against any economic damage—this even though the landlords’ farmers didn’t actually suffer damage, thanks to the increase in the price of meat. When the Parliament of 1866 opened, the landed proprietors emitted a bestial cry, which showed that one doesn’t have to practice Hinduism to worship the cow Sabala, and one doesn’t have to be a Jupiter to transform oneself into an ox.

of the worker's exploitation. It keeps forcing the worker to sell his labor-power in order to live, and it keeps enabling the capitalist to buy labor-power as a way of acquiring wealth.¹⁷ No longer is it a matter of chance when a capitalist and worker encounter each other in the commodity market as a buyer and seller. The production process itself makes that happen. It acts as a self-perpetuating trap, continuously thrusting the one person back into the commodity market as the seller of his labor-power while continuously transforming his product into the other person's means of purchasing. The worker in fact belongs to capital before he sells himself to the capitalist, but when he sells himself again and again at regular intervals, changing wage masters as the market prices of his labor fluctuate,¹⁸ this at once mediates and conceals his economic bondage.¹⁹

Viewed as the process of reproduction, or as an integrated whole, the capitalist production process doesn't simply produce commodities and surplus-value: it also produces and reproduces the capital relation, with the capitalist on one side and the wage laborer on the other.²⁰

17. "The worker demanded sustenance to live, the boss demanded work to make a profit" (Sismondi op. cit. p. 91).

18. We will recall that when it comes to child labor, the formality of selling oneself vanishes.

19. There is a clumsy peasant form of this bondage in the county of Durham. This is one of the few counties where the conditions are such that the farmer doesn't have undisputed proprietary rights over the agricultural wage laborers. Because of the mining industry, the latter have some choice. So unlike what is the rule elsewhere, here the farmer only rents farms with workers' cottages whose rent makes up part of the wage. These cottages are called "hinds" houses, and they are rented out to workers in the context of certain feudal obligations, using a contract that is called "bondage" and that binds the worker to leave someone to fill his place—say, a daughter—when he is employed elsewhere. The worker himself is called a bondsman. This relationship shows—from a completely new side—that the worker's individual consumption is also his consumption for capital, or productive consumption. "It is curious to observe that the very dung of the hind and bondsman is the prerequisite of the calculating lord . . . the lord will allow no privy but his own to exist in the neighborhood, and will rather give a bit of manure here and there for a garden, than bate any part of his seigniorial right" ("Public Health. Seventh Report. 1865," p. 188).

20. "Thus capital presupposes wage labour; wage labour presupposes capital. They reciprocally condition the existence of each other; they reciprocally bring forth each other. Does a worker in a cotton factory produce merely cotton textiles? No, he produces capital. He produces values which serve afresh to command his labour and by means of it to create new values" (Karl Marx, "Lohnarbeit und Kapital" in *Neue Rheinische Zeitung*, No. 266, 7th April 1849). [Editor's note: English translation, "Wage Labor and Capital," in *MECW*, vol. 9, p.214.] The articles published under the above heading are lectures I gave on that topic in 1847 in the *Deutscher Arbeiterverein*. The February Revolution halted their publication.

How Surplus-Value Is Transformed into Capital

1. The Capitalist Production Process on an Ever-Larger Scale. The Conversion of the Proprietary Laws of Commodity Production into the Laws of Capitalist Appropriation

Earlier, we had to consider how surplus-value arises from capital. Our task now is to examine how capital arises from surplus-value. When surplus-value is used as capital, or transformed back into capital, the accumulation of capital occurs.¹

Let's say a mass of capital amounts to £10,000, and its variable component is £2,000. If the rate of surplus-value is 100%, the capital will produce £2,000 of surplus-value in a certain period of time—a year, for example. And if this £2,000 is then advanced as capital, the original capital will increase from £10,000 to £12,000: in other words, capital will accumulate. At first, however, it doesn't matter whether the additional capital is combined with the original capital or valorized independently of it.

A sum of value of £2,000 is a sum of value of £2,000. Money doesn't look or smell any different because it is surplus-value. When value has the character of surplus-value, we know how its owner came by it, but the fact that it is surplus-value does nothing to alter the nature of value or money. The additional £2,000 is transformed into capital in the same way as the original £10,000: the conditions of this metamorphosis don't change. One

1. "Accumulation of Capital; the employment of a portion of revenue as capital" (Malthus, "Definitions etc." ed. Cazenove, p. 11). "Conversion of revenue into Capital" (Malthus, "Princ. of Pol. Econ. 2nd ed. Lond. 1836," p. 320).

part of the £2,000 must be turned into constant capital; the other part has to become variable capital. One part has to be turned into the objective factors of the labor process, namely, the materials and the means of labor; the other part has to be turned into the subjective factor, namely, labor-power. The capitalist must therefore find these elements available in the labor market. This is how the process looks from the standpoint of the individual capitalist who turns a money sum of £10,000 into commodities worth £12,000, reverse-transforms the commodity value into £12,000 in money, and then employs the original £10,000, along with the additional £2,000, as his capital. But let's now view the original £10,000 as social capital, or as capital belonging to all the members of the capitalist class, and the £2,000 produced during the year as their surplus-value! The surplus-value is embodied in additional product or surplus product. Part of the surplus product is either reserved for the capitalists' consumption fund or consumed by them as revenue. Aside from this part, and also international trade, which replaces domestic types of commodities with foreign ones, the natural form of the surplus product is made up exclusively of means of production—raw materials, auxiliary materials, means of labor—and necessary means of subsistence: in short, the material elements of constant and variable capital. So these elements don't wind up in the market as a matter of chance; rather, they are pre-existing ways in which the newly produced surplus-value exists. As for the additional labor needed, the bearers of labor-power already employed can be put to work more extensively or intensely (that is, more fully), at least up to a certain point. On the other hand, by supplying the thingly elements of the additional capital, the capitalist production process has already supplied additional bearers of labor-power. Members of the working class come out of this process as they went into it, and thus at all different ages their children, whose lives are secured by the average wage, have to constantly appear in the labor market alongside them. Viewed in concrete terms, accumulation is the capitalist process of reproduction on an ever-expanding scale.

Surplus capital "Number 1" will be our name for the £2,000 that is transformed into additional capital. For the sake of simplicity, we will assume that the ratio of its constant and variable components remains the same, as does the rate of surplus-value (100%). We know how the £2,000 of capital produces a surplus-value of £400. This surplus-value is then transformed back into capital. Thus we get a surplus capital "Number 2" of £400, and so on.

What has changed? The £10,000 that was originally transformed into capital belonged to an owner who put the money into the commodity and labor market. How did he come by it? We don't know. According to the law of commodity circulation, in an average transaction, equivalents are exchanged, and each commodity is exchanged only for another commodity. This encourages us to assume that the £10,000 is the money-form of the owner's own products, and therefore his own labor, or it is the money-form of labor performed by people for whom he functions as a legal representative.

In contrast, we know exactly what process brought surplus capital Number 1 into being. This capital is the transformed form of surplus-value and thus surplus-labor—in other words, another person's unpaid labor. Its owner doesn't pay an equivalent for even an atom of its value. Just as he did earlier with part of the original capital, the capitalist spends part of this surplus capital on labor-power, from which he extracts surplus-labor anew, thereby producing surplus-value anew. Only now, having taken away the worker's own product—or the value he has produced—without giving him an equivalent, the capitalist uses that product or value to buy the worker, just as he puts the worker to work with means of production that are a product the worker is stripped of, whether *in natura* or in terms of their value, without getting an equivalent. It makes no difference at all whether the same individual workers who produce the surplus capital are also employed with it, or the unpaid labor of Worker A, now transformed into money, is used to employ Worker B. Such movement would affect only the appearance of things, without making it any prettier. Because the relation of the individual capitalist and the individual worker is that of independent commodity owners, where one person buys labor-power and the other sells it, the connection between them is accidental. The capitalist might turn the surplus capital into a machine that allows two children to replace the worker who produced that surplus capital and, thus, puts him out of work.

All the components of surplus capital Number 1 are produced by someone else's unpaid labor, that is, capitalized surplus-value. The production process running its course for the first time, or the first act in capital's formation, disappears from view: It is as though the capitalist put some amount of value from his own fund into circulation. First, the invisible magic of the production process takes away the worker's surplus product, moving it from his side of the capital relation to the capitalist on the opposite side. Then the capitalist turns this wealth—for him, something created

from nothing—into capital, into a means to employ, rule over, and exploit additional labor-power.²

The capitalist production process originally transforms only a money owner's sum of value into capital and thus a source of surplus-value. A change takes place in this sum of value, but the sum itself doesn't result from the capitalist production process; instead it is a precondition of that process and exists independently of it. In fact, we don't know how the capitalist came by the value in question and what his claim to it is. In the simple reproduction process, or the continuous production process, it is part of his own product that the worker keeps encountering anew as variable capital, but his product keeps taking on this form anew because he originally sold his labor-power in exchange for the capitalist's money. Lastly, in the course of reproduction, all the capital value advanced becomes capitalized surplus-value. This transformation presupposes, however, that the fund originally stemmed from the capitalist's own means. Not so in the accumulation process, or the reproduction process on an ever-larger scale. Whether the new capital takes the form of money or the things that make up the means of production and subsistence, its substance is the product of a process that extracts someone else's unpaid labor. Capital has produced capital.

A sum of value that amounts to £10,000 and belongs to the capitalist is needed to create surplus capital Number 1 (£2,000). What is required to create surplus capital Number 2 (£400) is nothing but the existence of surplus capital Number 1. Owning yesterday's unpaid labor now appears as the sole precondition for appropriating today's unpaid living labor on an ever-larger scale.

Insofar as the surplus-value that makes up surplus capital Number 1 arose when labor-power was bought with part of the original capital, a transaction that conformed to the laws of commodity exchange and, legally speaking, presupposed nothing but that on the one side of the capital relation, the worker could do what he wanted with his skills, while on the other side, the money or commodity owner could do what he wanted with the value he owned; furthermore, insofar as surplus capital Number 2 is merely the result of surplus capital Number 1 and therefore a consequence of the relation described above; and, finally, insofar as all transactions continue to conform to the laws of commodity exchange, which

2. "Labour creates capital, before capital employs labour" (E. G. Wakefield, "England and America. Lond. 1833," Vol. 2, p. 110).

means the capitalist continues to buy labor-power, and the worker continues to sell it (at its actual value, we will assume), the law of appropriation or private property based on commodity production and circulation is obviously inverted into its direct opposite by its inexorable inner dialectic.³ The exchange of equivalents, which appeared here as the original operation, has been turned around in such a way that there is now only the semblance of exchange. How so? First, the part of capital exchanged for labor-power is merely part of the product of labor that, having been performed by other people, is then appropriated by the capitalist without an equivalent. And, second, this part not only has to be replaced by the person who produced it, the worker, it has to be replaced with a new surplus. The relation of exchange between the capitalist and the worker becomes a mere semblance belonging to the circulation process, or merely a form that is alien to the content here and only mystifies it. The incessant buying and selling of labor-power is the form; the content is that the capitalist keeps exchanging part of another person's already objectified labor, which he always appropriates without an equivalent, thereby converting it into a greater quantity of someone else's living labor. Originally, the right to property presented itself to us as grounded in a person's own labor—or at least this assumption had to be made because commodity owners encounter each other only as equals before the law, and the only way to appropriate another person's commodity is to part with one's own, which can't be produced without labor. Ownership now appears on the capitalist's side of the capital relation as the right to appropriate another person's unpaid labor, or the product of that labor, whereas on the worker's side it appears as the impossibility of appropriating one's own product. The separation of property and labor becomes the necessary consequence of a law that seemed to proceed from the identity of those things.⁴ We saw that

3. Just as at a certain stage in its development, commodity production necessarily becomes capitalist commodity production (in fact, it is solely on the basis of capitalist production that the commodity becomes the predominant form of products), the laws of property based on commodity production are necessarily inverted and become the laws of capitalist appropriation. We might therefore marvel at Proudhon's cleverness, given that he proposed to abolish capitalist property by enforcing the eternal property laws based on commodity production!

4. That the capitalist owns other people's labor is "a strict consequence of the law of appropriation, the fundamental principle of which was the reverse, the exclusive entitlement of the worker to the product of his own labour" Antoine-Elisée (Cherbuliez, "Richesse ou Pauvre. Paris 1841," p. 58, where, however, this dialectical inversion isn't properly represented). [Editor's note: Marx seems to be thinking of this line on p. 104: "This is one of

even in simple reproduction all the capital advanced—however come by originally—is transformed into accumulated capital—in other words, capitalized surplus-value. But in the flow of production, all the capital originally advanced becomes a vanishing magnitude—*magnitudo evanescentes* in a mathematical sense—compared with the directly accumulated capital, or the surplus-value or surplus product that is reverse-transformed into capital. Moreover, this happens whether the capital originally advanced is functioning in the hands of the person who accumulated it or someone else's. Political economy thus portrays capital in general as “accumulated wealth [transformed surplus-value or revenue] employed with a view to profit,”⁵ and it represents the capitalists themselves as “the possessors of surplusproduce or capital.”⁶ The same approach is merely expressed another way in the claim that all existing capital is accumulated or capitalized interest, since interest is nothing but a piece of surplus-value.⁷

2. Political Economy's Misunderstanding of Reproduction on an Ever-Larger Scale

Before we attempt to develop a more precise account of accumulation, which arises when surplus-value is reverse-transformed into capital, we need to clear away some unclarity sown by political economists.

When a capitalist uses his surplus-value to buy commodities for his own consumption, they don't serve as his means of production or valorization any more than the labor he buys to satisfy his own natural or social wants and needs serves as productive labor. Here, the capitalist doesn't turn surplus-value into capital by selling those commodities and that labor. He does the reverse, consuming or spending surplus-value as revenue. Since the old aristocratic sensibility “consists,” as Hegel rightly says, “in consuming what is available,” and is particularly evi-

the most striking results of the law of appropriation. The absolute increase in wealth, that is to say, in the products of labor, does not lead to a proportional increase and can lead to a decrease in provisions for workers, in the share of all the species of products that falls to them.”]

5. Malthus op. cit. “Capital . . . consists of wealth saved from revenue, and used with a view to profit” (R. Jones, “Text-book etc., Hertford, 1852,” p. 16).

6. “The Source and Remedy of the National Difficulties: A Letter to Lord John Russell. 1821.”

7. “Capital, with compound interest on every portion of capital saved, is so all engrossing, that all the wealth in the world from which income is derived, has long ago become the interest on capital” (London Economist, 19th July 1851).

dent in the opulence of personal retainers, bourgeois political economy found it crucially important to stress that the gospel of the new society, i.e., the accumulation of capital, preaches the use of surplus-value to buy productive workers as its *conditio sine qua non*.¹ On the other hand, bourgeois political economy had to counter a popular stereotype that confuses capitalist production with amassing stores of wealth⁸ and therefore wrongly imagines that accumulated wealth is wealth that has been saved from destruction in its natural form—in other words, withdrawn from consumption—or spared circulation. To hold money out of circulation would be the opposite of valorizing it as capital, and the accumulation of commodities as it is carried out by the wealth amasser would be pure foolishness. Commodities accumulate in great masses either when circulation stagnates or overproduction occurs.⁹ But, of course, the sight of goods stored up and meant for gradual consumption by the rich impresses the popular imagination, as does the formation of a reserve, a phenomenon common to all modes of production and one we will take a moment to consider in analyzing the circulation process. Classical political economy was thus right to frame the consumption of surplus product by productive workers, rather than their nonproductive counterparts, as a characteristic feature of the accumulation process. Yet this point is also precisely where political economy's misconception begins. Adam Smith made it fashionable to see accumulation as nothing more than what happens when productive workers consume surplus product, or to see the capitalization of surplus-value as nothing more than what happens when surplus-value is turned into labor-power. Let's listen to Ricardo: "It must be understood that all the productions of a country are consumed; but it makes the greatest difference imaginable whether they are consumed by those who reproduce, or by those who do not reproduce another value. When we say that revenue is saved, and added to capital, what we mean is, that the portion of revenue, so said to be added to capital, is consumed by productive instead of unproductive labourers. There can be no greater error than in supposing that capital

8. "No political economist of the present day can by saving mean mere hoarding; and beyond this contracted and insufficient proceeding, no use of the term in reference to the national wealth can well be imagined, but that which must arise from a different application of what is saved, founded upon a real distinction between the different kinds of labour maintained by it" (Malthus op. cit. pp. 38, 39). [Editor's note: The wording in the source text is "inefficient proceeding" rather than "insufficient proceeding."]

9. "Accumulation of stocks . . . non-exchange . . . overproduction" (Th. Corbet op. cit. p. 104).

is increased by non-consumption.”¹⁰ There can be no greater error than the one committed by Smith and mindlessly repeated by Ricardo and the whole lot that came after him, which is to believe that “the portion of revenue, so said to be added to capital, is consumed by productive labourers.” According to this view, all surplus-value that is transformed into capital turns into variable capital. But like the capital originally advanced, surplus-value is divided: it becomes both constant and variable capital, means of production and labor-power. Labor-power is the form in which variable capital exists during the production process. Here, a capitalist consumes labor-power, and labor-power—or rather, its function, labor—consumes the means of production. At the same time, the “productive worker,” not “productive labor,” consumes the means of subsistence that the money advanced for labor-power is turned into. By way of a fundamentally wrongheaded analysis, Adam Smith arrived at the absurd position that even though every individual mass of capital is divided into constant and variable components, society’s capital only goes into variable capital: in other words, society’s capital is spent only to pay workers’ wages. Let’s say that a cloth manufacturer turns £2,000 into capital. He spends one part of the money to buy weavers and the other to purchase woolen yarn, machinery, and so on. The people from whom he buys the yarn and machinery then buy labor with part of the money they have gotten from him, and so on, until the whole £2,000 has been spent on wages—or, that is, until productive workers have consumed all the products represented by the £2,000. We can see that the nub of this argument is contained in the phrase “and so on,” which sends us from pillar to post. In fact, Smith breaks off the analysis just where the difficult part begins.¹¹ In the second volume of the present book (or chapter 3 of that volume), I will analyze how this connection actually works and, in doing so, show how the dogma inherited by all of Smith’s

10. Ricardo op. cit. p. 163 note.

11. Despite his “logic,” Mr. J. St. Mill never managed to identify even such a faulty analysis in the work of his predecessors. It cries out to be fixed even from a purely technical standpoint, or even in terms of what the bourgeois can see. No matter. At every turn, Mill displays the intellectual confusion of his masters, registering it with the dogmatism of a schoolboy. For example: “The capital itself in the long run becomes entirely wages, and when replaced by the sale of produce becomes wages again.” [Editor’s note: The quoted sentence, which Marx gives in English, couldn’t be found in Mill’s works. What comes closest are these lines from his *Essays on Some Unsettled Questions of Political Economy* (London: John W. Parker, 1844), p. 94: “To replace capital is to replace nothing but the wages of the labour employed. Consequently, the whole of the surplus, after replacing wages, is profits.”]

successors prevented political economy from understanding even the elementary mechanism of the social reproduction process.¹²

3. The Division of Surplus-Value into Capital and Revenue. The Abstinence Theory

In the previous chapter, we considered surplus-value (or surplus product) only as a capitalist's individual consumption fund. In this chapter, we have been considering it only as his accumulation fund. But it isn't simply the one thing or the other; rather, it is both at the same time. The capitalist consumes one part of the surplus-value as revenue¹³ and uses another part as capital—i.e., for accumulation.

If the amount of surplus-value is given, the magnitude of accumulation clearly depends on how surplus-value is divided into the fund for consumption and the fund for accumulation, into revenue and capital. The larger the one part, the smaller the other. The amount of surplus-value or surplus product—and, thus, of a country's available wealth—that can be turned into capital is therefore always larger than the part of the surplus-value that is in fact turned into capital. This difference increases in proportion to how far capitalist production has advanced in a given country, the speed and scale of accumulation there, how wealthy the country is, and, finally, its consumption of and spending on luxury goods, which become more and more enormous as a country's wealth grows. If we set aside the wealth in the capitalist's consumption fund that comes from annual growth, part of the wealth there, which can be consumed only gradually, exists in natural forms that can function directly as capital. All bearers of labor-power

12. In his account of the reproduction process, and thus of accumulation, A. Smith not only made no progress in certain respects, he went decisively backwards compared to his predecessors, especially the Physiocrats. The illusion of his mentioned in the body of this text goes together with a truly fantastic dogma, also inherited by political economy: the price of commodities is made up of wages, profit (interest), and ground rent—that is, merely of wages and surplus-value. Proceeding from this basis, Storch at least naively confesses, "It is impossible to resolve the necessary price into its simplest elements" (Storch op. cit. St. Petersburg. ed. 1815, Vol. 2, p. 141, note). What a wonderful economic science this is! It declares that the prices of commodities cannot be resolved into their simplest elements. The point will be discussed in detail in chapter 7 of volume 3.

13. Readers will note that the word "revenue" is being used in two senses: first, to signify surplus-value as the fruit that arises periodically from capital, and, second, to signify the part of that fruit that is periodically consumed by the capitalist or put into his fund of consumption. I have retained this double meaning because it aligns with the usage of English and French political economists.

who aren't employed at all, or are being used only for conventional, often disreputable services of a purely personal kind, count as available elements of wealth that can function in the production process. The ratio in which surplus-value is divided into capital and revenue varies constantly (and is determined by circumstances that we don't need to explicate any further here). This means that the capital used in a given country isn't a fixed magnitude. Rather, it fluctuates: it is an always variable and elastic piece of the available wealth that can function as capital.

The surplus-value or surplus product produced by the worker and constantly appropriated by the capitalist presents itself to the latter as the regular fructifying of his capital—or, the product of another person's labor, which he gets without paying any kind of equivalent, constitutes a regular supplement to his personal wealth. So, naturally, the division of this surplus-value (or surplus product) into additional capital and a fund for consumption is mediated by an act of will on his part.

Only insofar as the capitalist is personified capital does he have historical value and the historical right to exist that, as the clever Lichnowsky once put it, "has not no date."ⁱⁱ Only to the extent that this is so is the capitalist's own transitory necessity implied by the transitory necessity of the capitalist mode of production. But at the same time, insofar as the capitalist is personified capital, his driving motivation is to have more and more exchange-value, not to acquire use-value and experience pleasure. A fanatic when it comes to the valorization of value, he ruthlessly forces human beings to produce for production's sake. He thereby forces people to develop social productive powers—and also to create material conditions of production—that represent the only real foundation for a higher form of society whose basic principle is the full and free development of each individual. The capitalist is respectable only as the personification of capital. As such, he has an absolute drive to enrich himself, just as the wealth amasser does. In addition, every individual capitalist is forced to continuously expand his capital just to keep it, owing to the immanent laws of the capitalist mode of production that competition imposes on capitalists as compulsory external laws. Thus, insofar as the capitalist's behavior is merely a function of the capital that has taken on consciousness and a will in him, he sees his own private consumption as an act of theft committed against the accumulation of his capital, which is in fact how it is treated in Italian double-entry bookkeeping: the capitalist's private expenses are put down as counting against his capital. To accumulate capital is to conquer the world of social wealth. As accumulation enlarges

the quantity of exploited human material, it expands the capitalist's direct and indirect domination.¹⁴

But the original sin is at work everywhere. As the capitalist modes of production, accumulation, and wealth all develop further, the capitalist ceases to be merely capital incarnate. He feels "human compassion" for his own Adam and is educated in a way that lets him smile at his former mania for asceticism, which he sees as a prejudice harbored by the old-fashioned wealth amasser. A capitalist in the classical mold decries individual consumption, labeling it a sin against his own function as well as "abstinence" from accumulation. In contrast, the modernized capitalist is able to see accumulation as the "renunciation" of his pleasure drive. "Two souls, alas, do dwell within his breast; The one is ever parting from the other."ⁱⁱⁱ

14. Using the figure of the usurer, that old-fashioned form of capitalist that is always being renewed, Martin Luther ably shows how lust for power is an element in the drive for wealth: "The heathens drew on their reason to determine that a usurer is a thief and murderer in more ways than one. Yet we Christians esteem them so much because of their money that we in fact worship them. . . . Whoever sucks away, robs, and steals another's sustenance, that man commits as great a murder (so far as he is responsible) as someone who starves a man or ruins him entirely. That is what a usurer does, but he sits in his chair, safe and secure, when he ought rather to be hanging on the gallows—when he ought to be eaten by a flock of ravens equal to the number of guilders he has stolen. If only there were so much flesh on him that boring their beaks into it, such a large flock could share it! For now, we hang the small thieves. . . . Small thieves are put in the stocks, while big thieves flaunt themselves in gold and silk. . . . Thus on this earth there is no greater enemy of man (after the devil) than a money-hoarder and a usurer, for he wants to be God over all men. Turks, soldiers, and tyrants—they, too, are bad men, yet must they let the people live, and confess that they are bad, and enemies, and occasionally they do, indeed, show pity to some. But a usurer and money vermin would have the whole world die of hunger and thirst, misery and want, however much he has, so that he might have all to himself, and so that all would receive from him as from a God, and be his serf eternally. Wearing fine cloaks, golden chains, and rings, wiping his mouth, being seen as a worthy, pious man. . . . Usury is a great monster, like a werewolf who decimates everything, more than any Cacus, Gerion or Antaeus. And yet this monster decks himself out and wants to appear pious, so that people might not see he has brought the oxen to his hole, making them walk backwards. But Hercules will hear the cry of the oxen and of his prisoners, and he will search for Cacus even in cliffs and among rocks: he will free the oxen from the villain. For Cacus means the villain who is a pious usurer, who steals, robs, and eats everything and will not acknowledge that he has done it, thinking no one will find him out, because the hoofprints of the oxen, led backwards into his den, make it seem, that they have been let out. Thus the usurer wants to deceive the world, as though he were useful and gave the world oxen, which, however, he slaughters and eats all alone. . . . And since highwaymen, murderers, and housebreakers are broken on the wheel and beheaded, how much more ought we to break on the wheel and kill . . . hunt down, curse, and behead all usurers" (Martin Luther op. cit.).

When the capitalist mode of production was in its infancy—a historical stage that every capitalist parvenu still has to go through—the drive to attain wealth and thrift reigned as absolute passions. But as capitalist production advanced further, its progress brought into being not only a world of delights but also speculation and credit that introduced a thousand ways to get rich fast. At a certain stage in this development, a conventional amount of private spending becomes a business necessity for the “unhappy” capitalist, and it functions as a way to display wealth and thus also establish credit. Luxury articles are now part of capital’s self-representation costs. In any case, unlike the wealth amasser, the capitalist doesn’t get rich in proportion to how much labor he performs and how much he refrains from personal consumption, but rather according to the extent to which he sucks up the labor-power of other people and can force workers to renounce all of life’s pleasures. The capitalist’s private spending is thus never authentic in the way that the dissolute feudal lord’s was. Ugly miserliness and anxious calculation lurk in the background at all times. The capitalist’s private spending nevertheless grows as his accumulation increases, without the one thing necessarily impeding the other. As this happens, a Faustian conflict takes shape in the capital individual’s breast, where the drive for accumulation clashes with his pleasure drive.

“The trade of Manchester,” writes Dr. Aiken in a work published in 1795, “may be divided into four periods. The first is that the manufacturers worked hard merely for a livelihood.” They acquired wealth mainly by robbing parents who sent their boys to apprentice with them—the parents had to pay high fees for this while their sons were made to go without food. But average profits were low, and under these circumstances extreme thrift had to be brought forth in order for accumulation to occur. The manufacturers lived like wealth amassers, not even consuming the interest on their capital. “The second period is that, when they had begun to acquire little fortunes, but worked hard as before,” for it costs labor to directly exploit labor, as every slave driver knows, “and they lived in as plain a manner as before. . . . The third is that, when luxury began to appear, and trade was pushed by sending out riders for orders to every market town in the kingdom. It is probable that few or no capitals of £3,000 to £4,000 acquired by trade, existed here before 1690. However, about that time, or a little later, the traders had certainly got money beforehand, and began to build modern brick houses, in place of those of wood and plaster. . . . As late as the early part of the eighteenth century, a Manchester manufacturer who, having a valuable customer to sup with him, sent to the tavern for a pint of foreign wine, furnished a subject for the sarcastic remarks of all his neigh-

bours.” Prior to the rise of machines, how much did manufacturers spend in the pubs where they all gathered? On an average evening, they didn’t spend more than 6d. for a glass of punch and 1d. for a roll of tobacco. It wasn’t until 1758—and this was epoch making—that a manufacturer could be seen with a carriage of his own! “The fourth period,” the last third of the eighteenth century, “is that in which expense and luxury had made a great progress, and was supported by a trade extended by means of riders and factors through every part of Europe.”¹⁵ What would the good Dr. Aikin say if he were resurrected in today’s Manchester!

Accumulate, accumulate! This is Moses and the prophets!^{iv} “Industry provides the subject which parsimony accumulates.”¹⁶ So, save, save! Reverse-transform as much surplus-value, or surplus product, as you can! Accumulation for the sake of accumulation, production for the sake of production! These were the phrases classical political economy used to articulate the historical calling of the bourgeois period. Not even for a second did it deceive itself about the birth pains of wealth,¹⁷ but what’s the use of complaining about a historical necessity? If classical political economy treats the proletariat merely as a machine for producing surplus-value, it treats the capitalist as nothing but a machine for transforming that surplus-value into surplus capital. Classical political economy is grimly serious in its approach to the capitalist’s historical function. In the early 1820s, Malthus tried to rid his breast of the unhealthy conflict between the pleasure drive and the drive for wealth, defending a division of labor that assigned the business of accumulation to capitalists actually engaged in production and the business of spending to the other people who claimed a share of surplus-value: landed aristocracy, holders of state and church sinecures, and so on. It is of the utmost importance, he said, “to keep separate the passion for expenditure and the passion for accumulation.”¹⁸ The Messrs. Capitalists, who had long since become pleasure-seekers and men of the world, howled in protest. One of their spokesmen, a student

15. Dr. Aikin: “Description of the Country from 30 to 40 miles round Manchester. Lond. 1795,” p. 181ff.

16. A. Smith op. cit. Bk. II, ch. III.

17. Even J. B. Say says, “The savings of the rich are made at the expense of the poor.” [Editor’s note: The source for this quote from Say seems to be: Jean-Guillaume-César-Alexandre-Hippolyte Colins, *L’Economie politique: Source des revolutions*, vol. 3 (Paris, 1857), p. 341.] “The Roman proletariat . . . lived almost entirely at the expense of society. . . . We could almost say that modern society lives at the expense of the proletariat, from the share it takes from him of the recompense for his own work” (Sismondi, “Études etc.” Vol. 1, p. 24).

18. Malthus op. cit. pp. 325, 326.

of Ricardo, exclaimed, What? Is Mr. Malthus preaching high rents, high taxes, etc. as a way of seeing to it that nonproductive consumers will constantly spur on industrious manufacturers? Yes, production, production on an ever-increasing scale—so runs the shibboleth. But “production is surely checked much more than it is promoted, by this process. Nor is it quite fair to keep a number of persons idle, in this manner, merely in order to pinch those who are likely, from their characters, if you can force them to work, to work to some purpose.”¹⁹ While this author found it terribly unfair to motivate industrial capitalists by taking the meat from their soup, he was just as adamant in claiming that the worker’s wages must be held to the lowest possible level in order “to keep him industrious.” Nor did he make any attempt to conceal that the appropriation of unpaid labor is the secret to turning a profit. “Increased demand by the workers is, a disposition to take less themselves, and leave a greater share for their employers; and if it be said that this, by diminishing consumption [on the workers’ part], increased glut, I can only answer, that glut then is synonymous with high profits.”²⁰

So, of the spoils squeezed out of workers, what part should go to industrious capitalists and how much should indolent landowners get? What sort of division would do the most to foster accumulation? When the July Revolution broke out, the learned squabbling over these questions ceased. Shortly thereafter, the urban proletariat sounded the cry of revolution at Lyons,^v and its rural counterpart began to set barns and hayricks ablaze in England. Owenism spread rapidly on this side of the Channel; St. Simonism and Fourierism spread as fast on the other side. The hour of vulgar political economy had arrived. Exactly one year before Nassau W. Senior determined that capital’s profit (including interest) is produced by the unpaid “last of the twelve hours of labour,” he announced to the world a different discovery. “I,” he said solemnly, “I substitute for the word capital, considered as an instrument of production, the word abstinence.”²¹ Truly

19. “An Inquiry into those principles respecting the Nature of Demand, etc.,” p. 67.

20. *Ibid.* p. 59.

21. Senior, “Principes fondamentaux de l’Écon. Pol.” Trans. Arrivabene. Paris 1836, p. 309. [Editor’s note: These lines don’t seem to correspond directly to a text by Senior. They come from a French digest of Senior’s economic thought, which Marx cites above.] This was too much for those who belonged to the old classical school. “Mr. Senior has substituted for the expression ‘labor and profit’ the expression ‘Labour and Abstinence,’ . . . Abstinence is merely a negation. It is not the abstinence, but the use of capital productively, which is the cause of profits” (John Cazenove *op. cit.* p. 130). In contrast, Mr. John Stuart Mill copies Ricardo’s theory of profit but also Senior’s “remuneration of abstinence.” Mill is

an unsurpassed example of the “discoveries” we find in vulgar political economy! It replaces economic categories with sycophantic phrases. *Voilà tout*. “When the savage makes bows,” Senior informs us, “he exercises an industry, but he does not practise abstinence.” This is supposed to explain how and why the means of labor were made in earlier stages of society “without the abstinence” of the capitalist. “The more society progresses, the more abstinence is demanded,”²² namely, from those people in the business of appropriating the industry and products of others. All the things required for the labor process now become acts of capitalist abstinence. If some grain isn’t eaten but is sown instead, abstinence of the capitalist! If wine is given time to mature, abstinence of the capitalist!²³ The capitalist steals from his own Adam whenever he “lends the instruments of production to the worker” (!), i.e., valorizes those instruments as capital by incorporating into them labor-power, instead of eating up steam engines, cotton, railways, manure, horses, and so on—or, as the vulgar economist childishly imagines, burning through “their value” in luxury goods and other articles for consumption.²⁴ How the capitalist class is supposed to accomplish such a feat is a secret that vulgar political economy has stubbornly refused to disclose. It is enough to know that now only one thing sustains the world: the self-flagellation of that modern-day Penitent of Vishnu, the capitalist.^{vi} Not only accumulation but also “the conservation of capital requires . . . a constant effort to resist the temptation

just as much at home with silly contradictions as he is at sea with the Hegelian “contradiction,” the source of all dialectics. Addendum to the second edition: The vulgar political economist has never bothered to reflect on the simple fact that every human action can be understood as “abstinence” from its opposite. Eating is abstaining from fasting, moving is abstaining from standing still, working is abstaining from lazing about, lazing about is abstaining from working, and so on. These gentlemen would do well to spend a moment thinking about Spinoza’s *Determino est negatio*.

22. Senior op. cit. pp. 342, 343.

23. “No one . . . will sow his wheat, f. i., and allow it to remain a twelvemonth in the ground, or leave his wine in a cellar for years, instead of consuming these things or their equivalent at once—unless he expects to acquire additional value etc.” (Scrope, “Polit. Econ.” Edit. by A. Potter, New York 1841, p. 133). [Editor’s note: “Expects to” is “expects them to” in the source text.]

24. “The deprivation that the capitalist imposes on himself, by lending [this euphemism is used to equate, in the tried and true vulgar economic manner, the wage worker exploited by the industrial capitalist with the industrial capitalist himself, who borrows from the money-lending capitalist!] his instruments of production to the worker, instead of devoting their value to his own use by transforming them into objects of utility or pleasure” (G. de Molinari op. cit. p. 36).

to consume it.”²⁵ Clearly, the only humane course of action would be to deliver the capitalist from his temptation and martyrdom, just as slave-owners in Georgia were delivered from the following painful dilemma not long ago, when slavery was abolished: Should they opt for high spirits and put the whole surplus product whipped out of slaves into champagne? Or should they drink less, and reverse-transform some of their surplus product into more Negroes and land?

It isn't only simple reproduction that occurs in the most diverse economic formations of society; reproduction on an ever-larger scale does as well, although its dimensions have varied from place to place. More and more product is produced and consumed, and so more product is transformed into means of production. But this process will not appear as the accumulation of capital—hence as a function of the capitalist—as long as the worker hasn't begun to encounter his means of production in the form of capital and therefore his product and means of subsistence, too.²⁶ Richard Jones focuses on two important facts in a useful discussion of this point. (Jones, who died a few years ago, took over Malthus's chair in political economy at Haileybury.) Because self-supporting peasants make up the largest part of India's population, their products, means of labor, and means subsistence never exist “in the shape” of a fund that is “saved from revenue and has therefore gone through a previous process of accumulation.”²⁷ At the same time, in the provinces where the old system has changed comparatively little under English rule, nonagricultural workers work directly for magnates who receive a portion of the rural surplus product as tribute or ground rent. The magnates consume one part of this product in its natural form, while workers make them luxury goods and other articles of consumption out of another part. The rest goes into the wages of the workers, who own their instruments of labor. Production and reproduction on an ever-larger scale take place without any help from that strange saint, that knight of the sorrowful countenance, the “abstaining” capitalist.^{vii}

25. Courcelle-Seneuil op. cit. p. 20.

26. “The particular classes of income which yield the most abundantly to the progress of national capital, change at different stages of their progress, and are therefore entirely different in nations occupying different positions in that progress. . . . Profit . . . unimportant source of accumulation, compared with wages and rents, in the earlier stages of society. . . . When a considerable advance in the powers of national industry has actually taken place, profits rise into comparative importance as a source of accumulation” (Richard Jones, “Textbook etc.,” p. 16).

27. Ibid. p. 36ff.

**4. The Circumstances that Determine the Extent of Accumulation
Independently of the Division of Surplus-Value into Capital
and Revenue: The Degree to which Labor-Power Is Exploited;
Labor's Productive Power; the Magnitude of the Capital
Advanced; the Increasing Difference between the Magnitude
of the Capital Employed and the Capital Consumed**

We have been treating the amount of surplus-value as a given magnitude. When we do that, how surplus-value is divided between revenue and surplus capital determines how much accumulation occurs. But the amount of accumulation also varies independently of this division, varying as the magnitude of the surplus-value does. In the chapters that deal with how surplus-value is produced, we explicated at length the circumstances that regulate its magnitude. If all other conditions remain the same, these circumstances regulate the movement of accumulation as well. We will come back to them here only insofar as they give us new perspectives on accumulation.

Recall the role that the degree of labor's exploitation plays in the production of surplus-value. Political economy ascribes so much importance to this role that it sometimes wrongly identifies accelerating accumulation caused by labor's increased productive power as the accelerating accumulation that results when the exploitation of labor intensifies.²⁸ In the abovementioned sections on the production of surplus-value, we always assumed that wages were at least equal to the value of labor-power. Moreover, we showed that wages, whether in terms of their value or the amount of means of subsistence they represent, can rise even as the degree of labor's exploitation increases. But in the practical movement of capital, surplus-value is also produced by forcibly driving wages below the value of labor-power. What happens, in effect, is that part of the worker's necessary fund for consumption is turned into capital's accumulation fund.

28. Ricardo says, "In different stages of society, the accumulation of capital, or of the means of employing [i.e., exploiting] labour, is more or less rapid, and must in all cases depend on the productive powers of labour. The productive powers of labour are generally greatest where there is an abundance of fertile land.' If, in the first sentence, the productive powers of labour mean the smallness of that aliquot part of any produce that goes to those whose manual labour produced it, the sentence is nearly identical [i.e., tautological], because the remaining aliquot part is the fund whence capital can, if the owner pleases, be accumulated. But then this does not generally happen where there is most fertile land" ("Observations on certain verbal disputes, etc.," p. 74).

“Wages,” says John Stuart Mill, “have no productive power; they are the price of a productive power. Wages do not contribute, along with labour, to the production of commodities, no more than the price of tools contributes along with the tools themselves. If labour could be had without purchase, wages might be dispensed with.”²⁹ Of course, if workers could live on a diet of air, they wouldn’t sell themselves at any price. The point at which they cost nothing is thus a limit in the mathematical sense: one can always get closer to it without ever being able to reach it. Capital has a permanent tendency to reduce wages toward this zero point. An eighteenth-century writer whom I have cited quite a few times, the author of the *Essay on Trade and Commerce*, betrays the innermost secret of English capital when he declares that England’s historical mission is to lower its workers’ wages to the level of their French and Dutch counterparts.³⁰ He naively states, “But if our poor [a technical term for workers] will live luxuriously . . . their labour must of course be dear. . . . One has only to consider what egregious luxuries the manufacturing populace consume, such as brandy, gin, tea, sugar, foreign fruit, strong beer, printed linens, snuff, tobacco, etc.”³¹ He quotes a work by a Northamptonshire manufacturer, who, looking up at the heavens with a sour expression, proceeds to whine, “Labour is one-third cheaper in France than in England; for their poor work hard, and fare hard, and, as to their food and clothing: their chief diet is bread, fruit, herbs, roots, and dried fish; for they very seldom eat flesh; and when wheat is dear, they eat very little bread.”³² “To which may be added,” our essayist continues, “that their drink is either water or other small liquors, so that they may spend very little money. . . . These things are very difficult to be brought about; but they are not impracticable, since

29. J. St. Mill, “Essays on some unsettled Questions of Polit. Economy. Lond. 1844,” pp. 90, 91.

30. “An Essay on Trade and Commerce. Lond. 1770,” pp. 43, 44. In December 1866 and January 1867, the *Times* published similar heartfelt testimonials by English mine owners portraying the happy circumstances of Belgian miners, who didn’t demand, or receive, more than was absolutely necessary to keep them alive for “their masters.” The Belgian workers had put up with a great deal, but to figure in the *Times* as model workers! This they replied to by striking in Marchienne, in February 1867. The strike was suppressed with gunpowder and lead.

31. *Ibid.* pp. 44, 46. [Editor’s note: Marx’s translation of the quoted material features some amplifying translation moves; for example, he adds the word “egregious” (“haarsträubend”) before “luxuries” to point up the author’s scorn for the workers’ lifestyle.]

32. The manufacturer from Northamptonshire commits an act of *pia fraus*, which, given that his heart is so full, is pardonable in his case. He makes readers think that he is comparing English and French manufacturing workers, when in fact the lines just cited depict French agricultural workers, as he eventually allows, in his confused way.

they have been effected both in France and in Holland.”³³ Twenty years later, an American humbug, the ennobled Yankee Benjamin Thompson (*alias* Count Rumford), took up the same line of philanthropy, pleasing both God and man. His *Essays* are a cookbook full of recipes for using surrogates to get around the high normal price of the workers’ means of subsistence. One of the more successful recipes this philosophical marvel offers is as follows: “5 lb. of barley-meal, 7¹/₂d.; 5 lb. of Indian corn, 6¹/₄d.; 3d. worth of red herring, 1d. salt, 1d. vinegar, 2d. pepper and sweet herbs, in all 20³/₄d.; make a soup for 64 men, and at the medium price of barley and of Indian corn, the cost per portion can be kept as low as ¹/₄d. per portion.”^{34,viii} But as capitalist production advanced further, the adulteration of commodities rendered Thompson’s strategy superfluous.³⁵ At the end of the eighteenth century, and during the first decade of the nineteenth century, English farmers and landowners managed to force wages down to the absolute minimum by paying agricultural wage laborers less than the minimum in the form of actual wages and the rest as parish relief. What sort of buffoonery did these English Dogberries engage in as they “legally” established a wage tariff?^{ix} Here is one example: “The squires of Norfolk had dined, says Mr. Burke, when they fixed the rate of wages; the squires of Berks evidently thought the labourers ought not to do so, when they fixed the rate of wages at Speenhamland, 1795. . . . There they decided that ‘[weekly] income should be 3s., for a man,’ when the gallon or half peck loaf of 8 lb. 11 oz. is at 1s., and increase regularly till bread is 1s. 5d., when it is above that sum, decrease regularly till it be at 2s., and

33. *Ibid.* pp. 70, 71.

34. Benjamin Thompson, “Essays, political, economical, and philosophical etc. 3 Vol. Lond. 1796–1802.” In his “The State of the Poor, or an History of the Labouring Classes in England etc.,” Sir F. M. Eden warmly recommends the Rumfordian beggar’s soup to workhouse overseers, and, striking a reproachful tone, warns English workers that “many poor people, particularly in Scotland, live very comfortably, for months together, upon oat-meal, and barley-meal, mixed with only water and salt” (*ibid.* Vol. 1, Bk I, Ch. II., p. 503). Similar “hinting” has been done in the nineteenth century. “Various instances will offer themselves to the recollection of every person connected with the labouring classes, of the most wholesome mixtures of flour having been, during scarcity, refused. In Scotland, where education is better, this prejudice is, probably, unknown” (Charles H. Parry, M.D., “The Question of the Necessity of the Existing Corn Laws Considered, London, 1816,” p. 69). Yet this same Parry complains that the English worker is now (1815) in much worse shape than in Eden’s time (1797).

35. From the reports of the most recent Parliamentary Commission on the adulteration of the means of subsistence, we can see that even the adulteration of medicine is the rule rather than the exception. For example, a test of 34 samples of opium bought in as many London pharmacies revealed that 31 were adulterated with poppy heads, wheat flour, gum, clay, sand, and so on. Quite a few specimens didn’t contain even an atom of morphine.

then his food should be $\frac{1}{5}$ less.”³⁶ Before the House of Lords’ Committee of Inquiry, a certain Mr. Bennett, a big farmer, magistrate, Poor Law guardian, and wage regulator, was asked (in 1814), “Has any proportion of the value of daily labour been made up to the labourers out of the poor’s rate?” Answer: “Yes, it has; the weekly income of every family is made up to the gallon loaf (8 lb. 11 oz.) and three pence per head! . . . The gallon loaf per week is what we suppose sufficient for the maintenance of every person in the family for the week; and the 3d. is for clothes, and if the parish think it proper to find clothes, the 3d. is deducted. This practice goes through all the western part of Wiltshire, and I believe throughout the country.”³⁷ “For years,” exclaimed a contemporary bourgeois writer, “the farmers have degraded a respectable class of their countrymen, by forcing them to have recourse to the workhouse . . . the farmer, while increasing his own gains, has prevented any accumulation on the part of his labouring dependants.”³⁸ The example of so-called domestic industry shows us what role directly stealing from the worker’s necessary consumption fund now plays in the formation of surplus-value and thus also capital’s accumulation fund. Further facts will be provided below.

Within certain limits, labor-power’s elasticity, i.e., its capacity to be activated more intensely or extensively, serves as an independent source for creating additional wealth and therefore increasing the accumulation fund, as a source not dependent on the size of the means of production that have already been produced and are actually functioning—in other words, constant capital’s material elements. In extractive industries such as mining, the object of labor exists ready-made in nature. Thus if the necessary means of labor are given, and for the most part, the extractive industries themselves supply the raw materials for the instruments of labor—e.g., metal, wood, and auxiliary materials such as coal—the amount of product produced is hardly limited by the size of those means. They are merely used up faster when more labor-power is expended: their reproduction period is shortened. In contrast, the amount of the actual product—coal, iron, etc.—increases in proportion to the amount of labor being applied to the natural object, provided all other conditions

36. G. L. Newman (barrister at law), “A Review of the Evidence before the Committee of the two Houses of Parliament on the Cornlaws. Lond. 1815,” p. 20 note.

37. *Ibid.*

38. Ch. H. Parry *op. cit.* pp. 77, 69. The landlords, for their part, not only “indemnified” themselves for the Anti-Jacobin war, which they waged in England’s name, they also profited from it enormously. “Their rents doubled, trebled, quadrupled, and in one instance increased six times, in eighteen years” (*ibid.* pp. 100–101).

remain constant. The original agents that came together to create products, human beings and nature, go together here, just as on the first day of production, and thus so do the agents that create the material elements of capital. In agriculture proper, of course, seed and fertilizer play the same role as raw material in industrial production. Additional soil can't be planted if there is no additional seed. But when this raw material and the instruments of labor are given, the application of purely mechanical labor, the intensity of which depends on how labor-power is activated, has a wonderful effect on the amount of product produced, as is well known. Once again, human activity applied directly to a natural object becomes an immediate source of wealth. On the other hand, the extractive industries and agriculture supply industrial production with raw materials and auxiliary materials—or with the material elements that large-scale expenditures of labor require, while in this sphere, too, when labor-power is activated more intensely or extensively, the reproduction period of the actual means of labor is merely shortened. So when capital incorporates into itself the original cocreators of wealth, labor-power and the earth, it acquires elastic factors of reproduction on an ever-larger scale, and thus also of accumulation, that don't depend on its material dimensions.

Aside from the degree to which labor is exploited, it is labor's productive power that fundamentally determines how much surplus-value is produced and, since surplus-value is the basic element of accumulation, how much capital is accumulated.

When labor's productive power increases, so does the amount of product in which a certain amount of value, and thus also a given magnitude of surplus-value, is represented. The amount of surplus product will increase as the rate of surplus-value remains constant, or even if that rate falls, as long as it falls more slowly than labor's productive power increases. Thus when the division of the surplus product into revenue and surplus capital remains the same, the capitalist can increase his consumption without causing the fund for accumulation to decrease. The relative magnitude of the accumulation fund can in fact increase at the expense of the consumption fund, even as the capitalist gets to have at least as many objects of enjoyment as before, because commodities have become cheaper. But as we have seen, labor's increased productivity goes hand in hand with a cheaper worker, and thus a higher rate of surplus-value, even when real wages rise. Wages never rise in proportion to the increases in labor's productive power. The same amount of value advanced as variable capital sets more labor-power and therefore more labor in motion. The same amount of value advanced as constant capital is represented in a greater quantity of

the means of production—i.e., more means of labor, material of labor, and auxiliary material—so it supplies more of the agents that create products and value: more of the things that absorb labor. Hence even if the value of the surplus capital remains constant, or in fact decreases, accumulation still accelerates. The material scale of reproduction expands, and, in addition, the production of surplus-value increases faster than the value of the surplus capital.

When labor's productive power increases, this affects the original capital—capital that has already been put into the production process. One part of the functioning constant capital is made up of means of labor—for example, machines—that take longer periods to wear out and are therefore reproduced or replaced over longer periods. But every year some of these means of labor die or reach the end of their productive service. Every year, then, some will be in the stage where their regular reproduction occurs: in other words, they will need to be replaced by new units of the same type. If labor's productive power increases in the birthplaces of these means of labor, which in fact happens continuously because science and technology advance nonstop, then the old machines, tools, and apparatuses will be replaced by ones that do more but cost less in terms of what they accomplish. The old capital is reproduced in a more productive form, aside from the fact that the already functioning means of labor are always being improved in small ways. The other part of the constant capital, namely, raw material and auxiliary material, is reproduced continuously during the year, with the part that comes from agriculture tending to be reproduced annually. Whenever better methods are introduced here, the additional capital and the capital in operation are thus affected at more or less the same time. Every advance in chemistry not only multiplies the useful applications of a single material, thereby enlarging capital's spheres of investment while increasing its growth, it also shows how to take the waste excreted by the production and consumption processes and hurl that waste back into the cycle of the reproduction process—i.e., how to create new material for capital without a new outlay of capital. Science functions as a power that enlarges capital but doesn't depend on how much of it has been advanced, just as simply activating labor-power more intensely increases the exploitation of natural resources. Science also reacts on the part of the original capital that has entered the renewal stage. Free of charge, this capital incorporates into its new form the social progress that was achieved behind the back of its old form. Of course, a partial depreciation of the functioning capital goes along with such gain in productive power. But insofar as the depreciation is acutely felt in competition, the

worker bears the brunt of it, for the capitalist seeks to make up for his loss by intensifying the exploitation of labor.

When we analyzed relative surplus-value, we saw that advances in labor's social productive power necessitate that the amount of constant capital set in motion by the same labor-power keep increasing. The value of the old capital is preserved—and in this sense, reproduced—simply through the addition of new labor, or when new value is produced. And the amount of this capital increases along with the wealth—i.e., the extent and effectiveness—of the labor objectified in machines and so on, which is the already produced condition required for the production process, or where the worker's labor begins. Compare, for example, an English spinner and his Indian counterpart. For the sake of simplicity, let's assume that the English and Indian workdays are equally long and intense. In the course of a day, the English spinner transforms into yarn hundreds of times as much cotton, spinning instruments, and so on. He thus preserves hundreds of times as much capital value in his product. Even if the amount of new value he produces daily, or adds to the means of production, is equal to the amount the Indian spinner produces, his daily labor is represented in not only a larger quantity of product, but also the product's infinitely greater amount of value, which comes from the old capital that the English spinner transfers to the new product and can function anew as capital. As Friedrich Engels informs us, "In 1782, the whole wool crop of the preceding three years [in England] lay unused for want of workers, and would have continued so to lie if the newly invented machinery had not come to its assistance and spun it."³⁹ The labor objectified in the form of machines didn't bring forth human beings from the earth, at least not directly, but it did allow a smaller number of workers supplying relatively little living labor to both consume the wool productively, and thus add new value to it, and preserve its old value in the form of yarn, etc. This labor thereby provided both the means and the impetus for increasing the reproduction of wool. Living labor's natural gift is its ability to preserve old value as it creates new value. Labor therefore preserves and perpetuates a constantly growing amount of capital value in a form that is always new, doing so as its extent and effectiveness, and also the value of its means of production, increase—hence as accumulation occurs, the accumulation

39. F. Engels, "Lage der Arbeitenden Klasse in England," p. 20. [Editor's note: English translation, *The Condition of the Working Class in England*, MECW, vol. 4, pp. 295–583. This passage is on p. 314.]

that accompanies advances in labor's productive power.⁴⁰ This natural power on labor's part appears as the power to self-preserve on the part of

40. Owing to the deficiencies in its analysis of the labor and valorization processes, classical political economy has never managed to properly grasp this important aspect of reproduction, as the case of Ricardo shows. He says that however much productive power changes, "The labour of a million men in manufactures, will always produce the same value." That is correct, assuming that the duration and intensity of their labor do not vary. But in some of his conclusions, Ricardo fails to see that this doesn't prevent a million men whose labor varies in its productive power from turning very different amounts of the means of production into products and, thus, from preserving different amounts of value in their products. And so the amount of value in the products they produce can vary a great deal. We might note in passing that Ricardo tried without success to use precisely this example to explain to J. B. Say how use-value (here he calls it wealth or material wealth) differs from exchange-value. Say responded as follows: "As for the difficulty raised by Mr. Ricardo in saying that, by better understood processes, a million people can produce twice, three times as much wealth, without producing more value, this difficulty is not a difficulty when we consider, as we must, production as an exchange in which we give the productive services of our labor, our land, and our capital, to obtain products. It is through these productive services that we acquire all the products in the world. Now . . . we are all the richer, our productive services have all the more value, as they obtain in the exchange called production, a greater quantity of useful things" (J. B. Say, "Lettres à M. Malthus. Paris, 1820," pp. 168, 169). The "difficulty" that Say wants to resolve—a difficulty that exists for him and not for Ricardo—is this: Why doesn't the value of use-values increase when, as a result of labor's enhanced productive power, they increase in number? Answer: The problem is solved if one calls use-value "exchange-value." Exchange-value is a thing that is somehow connected to trade. One therefore calls it production when labor, along with the means of production, is "exchanged" for the product, and it is crystal clear that the more use-values production supplies a person with, the more exchange-value he acquires. In other words, the more use-values—for example, stockings—a workday produces for a manufacturer, the richer he is in stockings. It suddenly occurs to Say that "with a greater quantity" of stockings, their "price" (which of course has nothing to do with their exchange-value!) falls, "because competition obliges them [the producers] to sell their products for what they cost to make." But if the capitalist sells commodities for what it costs to make them, where does his profit come from? Never mind! Say explains that because of increased productivity, everyone now receives two pairs of stockings in exchange for a given equivalent, instead of the one pair they had formerly received. In this way, Say arrives at Ricardo's proposition, which is the very one he set out to disprove. Having brought forth this mighty intellectual effort, he is triumphant in addressing Malthus: "Such, sir, is the well-founded doctrine without which it is impossible, I declare, to explain the greatest difficulties of political economy, and in particular, how it can be that a nation is richer when its products decrease in value, even though wealth is value" (ibid. 170). An English political economist observes about similar tricks in Say's letters, "Those affected ways of talking constitute, in great part, that which Mr. Say calls his doctrine, which he is so anxious to have taught under the auspices of Mr. Malthus, at Hertford, as, he says, it is already 'in numerous parts of Europe.' 'If you find a paradoxical aspect to all these propositions, look at the things they express, and I dare believe that they will seem very simple and very reasonable to you'; doubtless, and, at the same time, they will very probably appear, by the same process, not at all original or important" ("An Inquiry into those Principles respecting the Nature of Demand etc.," pp. 116, 110).

the capital into which labor is incorporated, just as the social productive powers of labor appear as characteristics of capital, and just as the capitalist's constant appropriation of surplus-labor appears as capital's constant self-valorization. All the powers of labor appear as powers belonging to capital, just as all the commodity's value-forms appear as forms of money.

Lastly, if all other conditions remain constant, how much surplus-value is produced, and thus the accumulation that occurs, is determined by how much capital is advanced. When the total capital increases, the variable capital does as well, although not in the same proportion. The larger the scale on which the individual capitalist produces, the greater the number of workers he exploits at the same time, or the greater the amount of unpaid labor he appropriates.⁴¹ So, the more an individual mass of capital is enlarged, the greater the fund that is divided between a fund for consumption and one for accumulation. The capitalist can therefore live more extravagantly even as his "renouncing" increases.

As the amount of capital grows, so, too, does the difference between the capital employed and the capital consumed. In other words, the value and physical size of the means of labor increase: e.g., buildings, machines, drainpipes, working cattle, and all kinds of apparatuses that function in their entirety for a shorter or longer amount of time in constantly repeated production processes, or that gradually wear down as they serve to produce certain useful effects, thus losing their value only piecemeal and transferring it to the product in the same way. In the same proportion as these means of labor serve to build products but don't add value to the products they help build, or operate as a whole but are consumed only piecemeal, they perform, as we saw earlier, a free service just like the one provided by such natural forces as water, steam, air, electricity, and so on. Once this free service supplied by past labor has been seized upon and animated by living labor, it accumulates as the scale of accumulation keeps increasing.

The bourgeois and the political economist are always full of praise for the services performed by past labor because it always disguises itself as capital: the *passivum* of A's, B's, and C's labor is disguised as the *activum* of the nonworker X. MacCulloch, that Scottish genius, even thought that such labor should draw a salary of its own.⁴² Hence the ever-growing

41. In volume 3, readers will see that the average rate of profit in different spheres of production isn't affected by each sphere's unique division of capital into constant and variable components, and also that this phenomenon only appears to contradict the laws (explicated above) having to do with the nature and production of surplus-value.

42. MacCulloch patented "wages of past labour" long before Senior patented "wages of abstinence."

importance of the past labor that participates in the living labor process in the form of the means of production is attributed to the form this past labor takes when it is alienated from the worker, whose past and unpaid labor it in fact is—namely, the capital form. The practical agents of capitalist production and their garrulous ideologues can't conceive of the means of production without the antagonistic social actor's mask these means wear today, any more than the slave-owner can conceive of a worker apart from his character as a slave.

5. The So-Called Labor Fund

Our investigation has shown that capital isn't a fixed magnitude: instead it's an elastic part of social wealth that fluctuates constantly as surplus-value is divided between revenue and surplus capital. We have also seen that even when the magnitude of the functioning capital is given, it has elastic powers, thanks to the labor-power, science, and land incorporated into it (economically speaking, land means all the objects of labor that are available in nature ready-made, i.e., prior to human activity). Within certain limits, these things afford capital latitude that is independent of its size. When we made this point, we disregarded all the relations in the circulation process that cause the same amount of capital to have different degrees of effectiveness. And since we presupposed the limits set by capitalist production, or a purely spontaneous form of the social production process, we also disregarded all the more rational and systematic combinations that might be directly brought about using the available means of production and bearers of labor-power. Classical political economy has always loved to treat society's capital as a fixed magnitude whose degree of effectiveness doesn't vary. But this prejudice didn't harden into an actual dogma until the archphilistine Jeremy Bentham got ahold of it—Bentham, that sober, pedantic, lumbering oracle of bourgeois common sense in the nineteenth century.⁴³ His place among philosophers is like Martin Tupper's among poets. Both could only have been produced in England.⁴⁴ Ben-

43. See, among other texts, J. Bentham, "Théorie des Peines et de Récompenses, trad. Et. Dumont. 3^{ème} éd." Paris 1826, Vol. 2, Book IV, Ch. 2.

44. Jeremy Bentham is a purely English phenomenon. Even if we take into account our philosopher Christian Wolff, we can still say that nowhere else, and at no other time, has the homespun cliché swaggered about with so much self-satisfaction. He didn't invent the principle of utility. In his mindless way, he simply reproduced what Helvetius and other eighteenth-century Frenchmen had said with actual wit and ingenuity. If someone wants to know what is useful for a dog, he has to examine the nature of dogs. Their nature can't be deduced from the "principle of utility." Now let's apply this to human beings. A person

tham's dogma rendered the most ordinary phenomena of the production process—its sudden expansion and contraction, and even accumulation—completely incomprehensible.⁴⁵ It was put to apologetic use by Bentham himself, Malthus, James Mill, MacCulloch, and so on; in particular, it has served as a means of portraying one part of capital, the variable part that is turned into labor-power, as a fixed magnitude. According to the fable put forth here, variable capital in its material existence—in other words, as the amount of means of subsistence that it represents for the worker, or as the so-called labor fund—is a separate part of society's wealth, which is kept away from all others by natural chains. A certain amount of living labor is required to set in motion the part of society's wealth that is supposed to function as constant capital—or, expressed in the form of things—as the means of production. This amount is fixed by technology. But the number of workers needed to make this quantity of labor fluid isn't fixed; rather, it varies with the degree to which individual bearers of labor-power are exploited. Nor is the price of labor-power fixed. Only its minimal limit is, and here we have a price limit with quite a bit of elasticity. The facts

who would judge all human acts, movements, relations, and so on according to the principle of utility would have to begin by dealing with human nature in general and then take up human nature as it is modified by each historical epoch. Bentham doesn't bother with this. With the most tedious naïveté, he presupposes that the modern petty bourgeois, and, in particular, the English version, is the normal human being. If something is of use to this odd normal person and his world, then it is useful in and for itself. Bentham applies this yardstick to the past, present, and future. For example, the Christian religion is "useful," "because in the name of religion it disapproves of the same misdeeds that the penal code condemns in the name of the law." Art criticism is "harmful" because it disturbs upstanding people who want to enjoy Martin Tupper. This is the kind of nonsense with which the good man, whose motto is "*nulla dies sine linea*," has filled mountains of books. If I had the courage of my friend H. Heine, I would say that Mr. Jeremy is a genius of bourgeois stupidity. [Editor's note: Christian Wolff (1679–1754) was a rationalist philosopher and a central figure in German intellectual culture during the first half of the eighteenth century. Martin Tupper was a nineteenth-century English author who tended to operate in homiletic key. The Latin phrase "*nulla dies sine linea*" means "no day without its line" and is supposed to have been said by the painter Apelles, who believed that an artist had to work at his craft every single day—no exceptions.]

45. "Political economists are too apt to consider a certain quantity of capital and a certain number of labourers as productive instruments of uniform power, or operating with a certain uniform intensity. . . . Those who maintain that commodities are the sole agents of production . . . prove that production could never be enlarged, for it requires as an indispensable condition to such an enlargement that food, raw materials, and tools should be previously augmented; which is in fact maintaining that no increase of production can take place without a previous increase, or, in other words, that an increase is impossible" (S. Bailey, "Money and Its Vicissitudes," pp. 58, 70). Bailey criticizes this dogma mainly from the standpoint of the circulation process.

on which Bentham's dogma is based are as follows. On the one hand, the worker has no say in how society's wealth is divided between objects of enjoyment for nonworkers and means of production. Only in exceptionally favorable cases, on the other hand, can the worker enlarge the so-called "labor fund" at the expense of the "revenue" of the rich.⁴⁶ Using the example of Professor Fawcett, we can see what kind of absurd tautology results when the capitalist limits of the labor fund are fancifully recast as its natural social limits: "The circulating capital of a country,"⁴⁷ Fawcett says, "is its wage-fund. Hence if we desire to calculate the average money wages received by each labourer, we have simply to divide the amount of this capital by the number of the labouring population."⁴⁸ In other words, first we add up the individual wages that are actually paid, and then we assert that the total we get represents the value sum of the "labor fund" guaranteed by God and Nature. Finally, we divide this sum by the number of workers in order to discover the average wage an individual worker can receive. What an uncommonly clever procedure this is! Which doesn't stop Mr. Fawcett from saying in the same breath, "The aggregate wealth which is annually saved in England is divided into two portions; one portion is employed as capital to maintain our industry, and the other portion is exported to foreign countries. . . . Only a portion, and perhaps, not a large portion of the wealth which is annually saved in this country, is invested in our own

46. In his "Principles of Polit. Economy," John Stuart Mill says, "Today, the product of labour is allotted in inverse proportion to the labor itself—the largest portion goes to those who never work, the next largest to those whose work is close to being merely nominal, and so on downward, with the remuneration contracting more and more as the work grows harder and more unpleasant—until the most wearying and strenuous physical labor, which cannot count with certainty on earning enough to afford even life's basic necessities." [Editor's note: Marx appears to have compiled this passage out of statements Mill makes over a couple of pages in *Principles*. It is more a collage and paraphrase than a direct quotation. Marx gives the quotation in German, and the parts that couldn't be matched with the source text have been translated from his German version into English.] To prevent misunderstandings, I will say that while men like John Stuart Mill deserve to be censured for the contradiction between their traditional economic dogmas and their modern thinking, it would be quite unjust to simply lump them together with the pack of vulgar economic apologists.

47. H. Fawcett, *Prof. of Polit. Econ. at Cambridge: "The Economic Position of the British Labourer*. Lond. 1865," p. 120.

48. I want to remind readers that I was the first to use the categories "variable capital" and "constant capital." Since Adam Smith, political economy has jumbled together the defining characteristics contained in these categories with purely formal differences that arise from the process of circulation: namely, those between fixed capital and circulating capital. For more detailed remarks on this point, see volume 2, part 2.

industry.”⁴⁹ Most of the annually accruing surplus product, which is taken from the English worker without an equivalent, is thus used as capital in foreign countries, not in England. When surplus capital is exported in this way, part of the “labor fund” invented by God and Bentham leaves with it.⁵⁰

49. Fawcett op. cit. pp. 123, 122.

50. One could say that it isn't only capital that is exported each year from England. Workers are, too, in the form of emigration. But in the text, nothing is said about the *peculium* of the emigrants, who for the most part aren't workers. The sons of farmers make up a large percentage of them. The additional capital annually transported abroad so as to be put out at interest constitutes an incomparably greater proportion of the total annual accumulation than the annual emigration does with respect to the annual population growth. [Editor's note: The term *peculium* in Roman law signifies the small share of property a father allowed his son, or a master allowed a slave, to hold as their own.]

The General Law of Capitalist Accumulation

I. The Demand for Labor-Power Increases When Accumulation Occurs, if the Composition of Capital Stays the Same

When capital increases, this implies that its variable component, the part that becomes labor-power, increases as well. Part of the surplus-value that has been turned into surplus capital has to be reverse-transformed into variable capital—that is, an addition to the labor fund. Let's assume that all conditions remain the same, including the composition of capital: it always takes the same amount of labor-power to set a given amount of the means of production (or constant capital) in motion. If this is so, then both the demand for labor and the workers' subsistence fund will clearly increase in the same proportion as the capital, and the faster the capital grows, the faster they will grow.

The capital produces surplus-value each year, part of which is added each year to the original capital. This addition itself becomes larger each year as the amount of the capital already functioning increases. And, moreover, the scale of accumulation can expand suddenly due to a simple change in how the surplus-value or surplus product is divided between capital and revenue, something that tends to occur when the drive for wealth is stimulated in special ways, such as when new markets or new spheres of investment open up as a result of newly developed social wants and needs. For all these reasons, capital's accumulation requirements can exceed the amount by which labor-power increases (or by which the number of workers does), and the demand for workers can exceed the labor supply, causing wages to rise. Complaints about higher wages resounded in England during the entire first half of the eighteenth century. But the

more or less favorable circumstances in which wage laborers maintain themselves and multiply do nothing to alter how, at bottom, capitalist production works. Just as simple reproduction continuously reproduces the capital relation itself, with capitalists on one side facing wage laborers on the other, so, too, reproduction on an ever-larger scale—in other words, accumulation—reproduces the capital relation on an ever-larger scale, with more or bigger capitalists on one side facing more wage laborers on the other. Labor-power, which has to be continuously incorporated into capital as a means of valorization, can't twist free of capital—its bondage under capital is merely concealed because workers sell their labor-power to a succession of different capitalists; and we have already seen that in fact the reproduction of labor-power constitutes a core aspect of capital's accumulation. The accumulation of capital is therefore the propagation of the proletariat.¹

We have mentioned how well classical political economy understood this principle: so well that Adam Smith, Ricardo, and others mistakenly treated accumulation as what occurs when productive workers consume the entire capitalized part of the surplus product—i.e., when the surplus product is transformed into additional wage laborers. As early as 1696, John Bellers wrote, “If one had a hundred thousand acres of land, and as many pounds in money, and as many cattle, without a labourer, what would the rich man be, but a labourer? As the labourers make men rich, so the more labourers, there will be the more rich men . . . the labour of the poor being the mines of the rich.”² And here is Bernard de Mandeville at the beginning of the eighteenth century: “It would be easier, where property was well

1. Karl Marx op. cit. [Editor's note: Marx is referring readers to his 1849 lecture “Wage Labor and Capital (Lohnarbeit und Kapital),” which can be found in English translation in *MECW*, vol. 9, pp. 197–228.] “With equal oppression of the masses, the more proletarians a country has, the richer it is” (Colins, “L'économie politique. Source des Révolutions et des utopies prétendues Socialistes. Paris, 1857.” Vol. 3, p. 331). The economic meaning of “proletarian” must be seen as nothing other than “wage laborer,” the person who valorizes capital and is put out onto the street the moment that “Monsieur Capital,” to speak with Pecqueur, no longer needs him for this. “The sickly proletarian of the primeval forest” is a neat Roscherian phantom. The primeval forest dweller owns the primeval forest. He uses it as his property, encountering as few obstacles here as an orangutan. Thus he isn't a proletarian. He would be one only if the primeval forest were to exploit him instead of being exploited by him. As for the state of his health, such a person would stack up well against not only the modern proletarian, but also the syphilitic and scrofulous “quality.” But Mr. Roscher is no doubt thinking of his native heath of Luneberg when he speaks of a “primeval forest.”

2. John Bellers op. cit. p. 2.

secured, to live without money than without poor; for who would do the work? . . . As they [the workers] ought to be kept from starving, so they should receive nothing worth saving. If here and there one of the lowest class, by uncommon industry, and pinching his belly, lifts himself above the condition he was brought up in, no body ought to hinder him; nay it is undeniably the wisest course for every person in the society, and for every private family to be frugal; but it is the interest of all rich nations, that the greatest part of the poor should almost never be idle, and yet continually spend what they get. . . . Those that get their living by their daily labour have nothing to stir them up to be serviceable but their wants, which it is prudence to relieve, but folly to cure. The only thing then that can render the labouring man industrious, is a moderate quantity of money, for as too little will, according as his temper is, either dispirit or make him desperate, so too much will make him insolent and lazy. . . . From what has been said it is manifest, that in a free nation where slaves are not allowed of, the surest wealth consists in a multitude of laborious poor; for besides that they are the never-failing nursery of fleets and armies, without them there could be no enjoyment, and no product of any country could be valuable. To make the society [which of course consists of nonworkers] happy and people easy under the meanest circumstances, it is requisite that great numbers of them should be ignorant as well as poor. Knowledge both enlarges and multiplies our desires, and the fewer things a man wishes for, the more easily his necessities may be supplied.”³ What Mandeville, an honest and intelligent man, hadn’t yet grasped is that the very mechanism of the accumulation process increases not only the amount of capital but along with it the number of the “labouring poor”—i.e., the wage laborers who transform their labor-power into the increasing capital’s growing power to valorize itself and are thereby forced to perpetuate their relationship of dependence with their own product, which is personified in the figure of the capitalist. In his *The State of the Poor, or an History of the Labouring Classes in England*, Sir Frederic Morton Eden remarks about this relationship, “The natural produce of our soil is certainly not fully adequate to our subsistence; we can neither be clothed, lodged, nor fed, but

3. Bernard de Mandeville, “The Fable of the Bees. 5th ed. London, 1728,” Remarks pp. 212, 213, 328. “Temperate living and constant employment is the direct road, for the poor, to rational happiness [which the author takes to mean the longest possible workdays and the smallest possible amount of the worker’s means of subsistence]; and to riches and strength for the state [that is, for the landowners, capitalists, and their political dignitaries, and agents]” (“An Essay on Trade and Commerce. Lond. 1770,” p. 54).

in consequence of some previous labour. A portion, at least, of the society must be indefatigably employed. . . . There are others who, though they ‘neither toil nor spin,’ can yet command the produce of industry, but who owe their exemption from labour solely to civilization and order. They are peculiarly the creatures of civil institutions,⁴ which have recognized that individuals may acquire property by various other means beside the exertion of labour. Persons of independent fortune owe their superior advantages by no means to any superior abilities of their own, but almost entirely to the industry of others. It is not the possession of land, or of money, but the command of labour which distinguishes the opulent from the labouring part of the community. . . . What speaks to labourers is not an abject or servile condition, but a state of easy and liberal dependence, which gives the people of property sufficient influence and authority over those who are here supposed to be employed to work for them. . . . As all who know human nature, and its history, will allow, such a state is necessary for the labourers’ own comfort.”⁵ Let us note in passing that Sir F. M. Eden was the only one of Smith’s students who had achieved something of significance by the end of the eighteenth century.^{6,i}

4. Eden should have asked, Who created these “civil institutions”? From the standpoint he adopts, which is that of juridical illusion, he doesn’t see the law as the product of the material relations of production; instead he sees the relations of production as the product of the law. Linguet discredited Montesquieu’s benighted “Esprit des lois” with one word: “L’esprit des lois, c’est la propriété.”

5. Eden op. cit. Vol. 1, Bk I, Ch. 1, pp. 1–2 and Preface.

6. If this reminds readers of Malthus, whose “Essay on Population” appeared in 1798, let me remind them that in its original form, that work does nothing more than plagiarize Sir James Steuart, Townsend, Franklin, Wallace, and so on in the most juvenile, superficial, sermonizing manner. Not a single one of its propositions comes from Malthus himself. Furthermore, let me remark in passing that although Malthus was a parson in the Church of England, he took the monastic vow of celibacy, which is one of the requirements for holding a fellowship at Protestant Cambridge University. “*Socios collegiorum maritos esse non permittimus, sed statim postquam quis uxorem duxerit, socius collegii desinat esse*” (“Reports of Cambridge University Commission,” p. 172). [Editor’s note: The Latin sentence here means: “Marriage for fellows is not permitted, but when they take a wife they will immediately no longer be a member of the University.” Translation is from Bridget Duckenfield, *College Cloisters—Married Bachelors* (Newcastle: Cambridge Scholars Publishing, 2014), p. 37.] This circumstance distinguishes Malthus from the Protestant clerics who sloughed off the Catholic stricture of the priest’s celibacy vow and made the injunction “Be fruitful and multiply” into their special Biblical mission, so much so that their contributions to population growth were indecently large, even as they preached “the principle of population” to workers. And thus Malthus makes the better impression here. It is telling that the economically travestied Original Sin, the apple of Adam, the “urgent appetite,” the “checks which tend to blunt the shafts of Cupid,” as Parson Townsend jauntily put it—it is telling that this sensitive question was and is monopolized by the representatives of

Protestant theology, or rather, the Protestant Church. With the exception of the Venetian monk Ortes, an original and intelligent writer, most population theorists have been Protestant clergymen. Take, for example, Bruckner's "Theorie du Système animal" (Leyden, 1767), which deals with modern population theory in its entirety, drawing, in doing so, on ideas supplied by the short-lived debate between Quesnay and his student the elder Mirabeau, then by Parson Wallace, Parson Townsend, Parson Malthus and his student the arch-Parson Chalmers, to say nothing of the lesser clergymen scribblers in this line. Political economy was originally driven by philosophers such as Hobbes, Locke, and Hume and businessmen and statesmen such as Thomas More, Temple, Sully, De Witt, North, Law, Vanderlint, Cantillon, and Franklin, while the theoretical aspects were studied with the greatest success by medical men such as Petty, Barbon, Mandeville, and Quesnay. As late as the middle of the eighteenth century, the Rev. Mr. Tucker apologized for occupying himself with mammon. Later on, and in fact when the "population principle" was introduced, the hour of the Protestant parsons arrived. Petty, who treated population as a source of wealth and, like Adam Smith, was a vocal critic of the parsons, once spoke as if he could foresee their inept interference: "that Religion best flourisheth when the Priests are most mortified, as was before said of the Law, which best flourisheth when lawyers have least to do." And so he tells the Protestant priests that if they won't truly follow the Apostle Paul and "mortify" themselves by celibacy, "not to breed more Churchmen than the Benefices as they now stand shared out, will receive; that is to say, if there be places for about twelve thousand in England and Wales, it will not be safe to breed up 24,000 Ministers, for then the twelve thousand which are unprovided for, will seek ways how to get themselves a livelihood; which they cannot do more easily than by persuading the people, that the twelve thousand incumbents do poison or starve their souls, and misguide them in their way to Heaven" (Petty, "A Treatise of Taxes and Contributions. Lond. 1667," p. 57). The following statement evokes Adam Smith's position among the Protestant priesthood of his time. In "A Letter to A. Smith, L.L.D. On the Life, Death, and Philosophy of His Friend, David Hume. By One of the People Called Christians, 4th ed. Oxford, 1784," Dr. Horne, Bishop of Norwich, censures Smith for what he did in an open letter written to Mr. Strahan: he "embalmed his friend David" (i.e., Hume) because he told the world how "in his last hours" Hume "read Lucian" and played "at Whist." Furthermore, Smith even had the impudence to write, "I have always considered Mr Hume, both in his life-time, and since his death, as approaching as nearly to the idea of a perfectly wise and virtuous man, as perhaps the nature of human frailty will permit." The bishop exclaims indignantly, "Is it right in you, Sir, to hold up to our view, as 'perfectly wise and virtuous,' the character and conduct of one, who seems to have been possessed with an incurable antipathy to all that is called Religion; and who strained every nerve to explode, suppress and extirpate the spirit of it among men, that its very name, if he could effect it, might no more be had in remembrance?" (ibid. p. 8). "But let not the lovers of truth be discouraged, Atheism cannot be of long continuance" (p. 17). Adam Smith had "the atrocious wickedness of diffusing atheism through the land [namely, through his "Theory of moral sentiments"]. . . Upon the whole, Doctor, your meaning is good; but I think you will not succeed, this time. You would persuade us, by the example of David Hume, Esq; that atheism is the only cordial for low spirits, and the proper antidote against the fear of death. . . Smile over Babylon in ruins and congratulate the hardened Pharoah on his overthrow in the Red Sea!" (ibid. pp. 21-22). One orthodox thinker among Smith's college friends wrote after he died, "Smith's well placed affection for Hume, as a man, hindered him from being a Christian. . . He would believe almost anything Hume said. If he had said that the moon is made of green cheese, Smith would have believed him. Thus Smith believed him when

The conditions of accumulation we have been presupposing are comparatively good for workers. In fact, under these conditions the workers' relation with capital—their relationship of dependence—is dressed in bearable forms, or, as Eden says, “easy and liberal” ones. Instead of becoming more intense as capital increases, this relation merely becomes more extensive—capital's sphere of exploitation and domination merely expands when capital itself is enlarged, and the number of its wage laborers increases. In the form of the means of payment, a bigger part of the worker's own constantly increasing surplus product comes back to him from the surplus capital into which that product is continuously being transformed. This enables workers to extend the range of their enjoyments, add to their fund for the consumption of clothes, furniture, etc., and build up a modest reserve fund of cash. But such things don't wipe away the wage laborer's relationship of dependence and his exploitation any more than better clothes, food, and treatment, and a larger *peculium*, do that for the slave.ⁱⁱ When the price of labor rises as a result of the accumulation of capital, this says only that the weight and length of the golden chain the worker has already forged for himself allow him to loosen it just a bit. The essential point here, namely, the *differentia specifica* of capitalist production, has been mostly overlooked in the debates about this question. The capitalist doesn't buy labor-power to satisfy one of his personal wants or needs with a service or product that the labor-power brings about. His aim is to valorize his capital, to produce commodities containing more labor than he has to pay for, so that a component of their value costs him nothing yet is realized when the commodities are sold. The production of surplus-value—that is, profitmaking—is the absolute law of this mode of production. Labor-power can be sold only insofar as it preserves the means of production as capital, reproduces its own value as capital, and in unpaid labor provides a source of surplus capital.⁷ Whether the worker

he said that there is no good and no miracles. . . . He approached to republicanism in his political principles” (“The Bee.” By James Anderson. Eighteen Vols., Edinb. 1791–93). [Editor's note: More a paraphrase than a direct translation or quotation—the source text claims that Smith was generally impressionable, not simply so with regard to Hume. Had Smith, it claims, “been a friend of the worthy ingenious Horrox, he would have believed that the moon sometimes disappeared in a clear sky without the interposition of a cloud.” Jeremiah Horrox (1618–1641) was an English astronomer known for his bold theories about the moon's orbit.] Parson Thomas Chalmers suspected that Smith created the category “unproductive laborers” out of pure ill-will, or so that he could put the Protestant parsons in it, despite their blessed work in the Lord's vineyard.

7. Note added to the second edition: “The limit, however, to the employment of both the operative and the labourer is the same; namely, the possibility of the employer

sells his labor-power more or less advantageously, the conditions of its sale imply that it has to be resold continuously and that wealth is reproduced as capital on an ever-larger scale. As we have seen, the nature of wage labor is such that the worker must always supply a certain quantity of unpaid labor. Even if we disregard the scenario where wages rise while the price of labor falls, a rise in wages indicates at best a merely quantitative decrease in the amount of unpaid labor the worker has to perform. The decrease can never reach the point where it seriously threatens the capitalist character of the production process and the reproduction of its basic conditions, namely, the means of production and subsistence existing as capital on one side and labor-power as a commodity on the other side—or, the capitalist existing on one side of the capital relation and the wage laborer on the other. Apart from violent conflicts over the rate of wages, and Adam Smith has shown that the master generally remains the master when these occur, an increase in labor's price caused by the accumulation of capital implies the following alternatives. Either: as prices rise, or after they have risen, the absolute growth of accumulation increases by an equal or even greater amount. We know that even when all other circumstances (e.g., how productive labor is) remain the same, the magnitude of the advanced capital can grow, and its absolute growth can stay constant, or even accelerate, while the rate of accumulation falls—we saw this in section 3 of chapter 9. We also know that the amount of surplus-value can remain the same and in fact increase even as the rate of surplus-value falls, as long as the number of workers being exploited at the same time increases. Here it would be tautological to say that labor-power's reduced exploitation doesn't prevent capital from extending its domination. Or: we have the other alternative, and accumulation slackens because the price of labor rises, dulling the spur of profit. Accumulation decreases, but when this happens, the very circumstance that caused it to decrease disappears, namely, the disproportion between capital and exploitable labor-power. As a result, the price of labor decreases, returning to a level where it aligns with capital's valorization requirements. It hardly follows, then, that wages have to fall to their minimum level, or to the level where they were before the price of labor rose. The mechanism of the capitalist production process thus clears away the obstacles it temporarily creates for itself. One can see that in the first case, excess capital doesn't arise

realizing a profit on the produce of their industry. If the rate of wages is such as to reduce the master's gains below the average profit of capital, he will cease to employ them, or he will only employ them on condition of submission to a reduction of wages" (John Wade op. cit. p. 241).

because of a decrease in the rate at which labor-power, or the number of workers, increases, either absolutely or in relative terms. Rather, the reverse happens: the amount of exploitable labor-power becomes insufficient because capital increases. In the second case, the amount of capital doesn't become insufficient because the amount of labor-power or the size of the working population increases, whether in absolute or relative terms, at a faster rate. Rather, the reverse happens: the amount of exploitable labor-power, or rather, its price, becomes excessive because the amount of capital decreases. These absolute movements in the accumulation of capital are reflected as relative movements in the amount of exploitable labor-power, and thus they appear to be produced by the latter's movements. When commodity prices generally fall during the crisis phase of the industrial cycle, this decrease is thus expressed as an increase in the relative value of money, and when commodity prices generally increase during the prosperity phase, the rise is expressed as a decrease in money's relative value. The so-called Currency School took from this that when prices are high, too much money is circulating, and when prices are low, too little money is. Their ignorance and complete misunderstanding of the facts⁸ find worthy analogues in the political economists who interpret the aspects of accumulation discussed above in such a way that in the one case, there aren't enough wage laborers, and in the other, there are too many of them. Mystified to the point of becoming a natural law, the law of capitalist accumulation in fact expresses that the nature of capitalist accumulation precludes all decreases in the exploitation of labor and increases in labor's price large enough to seriously jeopardize the constant reproduction of the capital relation and its reproduction on an ever-larger scale. It can't be otherwise in a mode of production where the worker is there to satisfy the valorization requirements of existing value instead of the reverse, where objective wealth would be there to provide the worker with what he needs for his human development. In the realm of religion, people are ruled by a product of their own heads, and it is just so in capitalist production, except that here people are ruled by the products of their own hands.⁹

8. See Karl Marx, "Zur Kritik der politischen Oekonomie," p. 165ff. [Editor's note: English translation, *A Contribution to the Critique of Political Economy*, in *MECW*, vol. 29, pp. 412ff.]

9. Note added to the second edition: "If we now return to our first investigation, where we demonstrated . . . that capital itself is merely a product of human labor. . . . it seems utterly incomprehensible that a person can have come to be dominated by his own product, capital, and can be subordinated to it; and since in reality this is inarguably the case, we are

2. Variable Capital Decreases in Relative Terms during the Course of Accumulation and the Concentration that Accompanies It

What we have explicated so far holds if we presuppose that in the course of accumulation, no change occurs in the ratio between the amount of the means of production and the amount of labor-power moving them—i.e., the demand for labor and capital's growth increase proportionally. In his analysis of accumulation, Adam Smith treats this presupposition as a self-evident axiom. What he overlooks is that as accumulation takes place, a revolution occurs in the ratio between the means of production and the labor-power that moves them. This revolution is reflected in the changing composition of capital's value, that is, in the varying ratio between the capital's constant and variable components, or between the value components that are turned into the means of production and labor-power. I call this composition capital's "organic composition."

If we set aside natural conditions such as the fertility of the soil, and also the skill of the producers working independently of and apart from one another, something that, in any case, manifests itself more in the quality of the product produced than its quantity, the degree of labor's social productivity is expressed as the relative amount of the means of production that a worker turns into products when he activates his labor-power for a given amount of time at a given level of intensity. When the productivity of his labor increases, he works with a greater amount of the means of production. These means play a double role here: that of the result and the condition of labor's growing productivity. The amount of some means of production increases because labor's productivity does, while the amount of others has to increase before labor's productivity can. When the division of labor emerged in the manufacturing workshop, and machines were introduced, a greater quantity of raw material was worked on in the same amount of time: a greater quantity of raw material and auxiliary materials entered the labor process as a consequence of labor's enhanced productivity. On the other hand, a certain amount of machines, beasts of burden, mineral manures, drainpipes, and such things has to be in place in order for labor's productivity to increase, as does a certain amount of the means of production concentrated in buildings, giant fur-

forced to ask: How could the worker go from being the master of capital—as its creator—to being its slave?" (Von Thünen, "Der isolirte Staat. Part II, Section 2, Rostock 1863," pp. 5, 6). Thünen deserves credit for posing this question. But his answer is downright childish.

nances, the means of transport, etc. But labor's increased productivity is expressed as a greater amount of the means of production relative to the labor-power incorporated into them, whether the new amount arises as a condition or consequence of that increased productivity, which thus also appears as a decrease in the amount of labor relative to the amount of the means of production moved by labor, or as a reduction in the subjective factor of the labor process as compared with its objective factors

The increase in the amount of the means of production relative to the amount of labor-power that moves them is reflected in the fact that the constant capital's share of the total capital value increases at the expense of the variable capital's share. Suppose a mass of capital was at first divided equally: 50% went into the means of production, and 50% went into labor-power. But then labor's productivity increased, causing the capital to be redistributed. Now 80% of the capital goes into the means of production, and 20% goes into labor-power. This reduction of the variable part relative to the constant part, or the altered constitution of the capital value, is only an approximate expression of how the constitution of its material components has changed. Take, for example, the spinning industry. If $\frac{7}{8}$ of the value currently spent here is constant capital, and $\frac{1}{8}$ is variable capital, whereas at the beginning of the eighteenth century, $\frac{1}{2}$ of the capital was constant and $\frac{1}{2}$ variable, the amount of raw materials and means of labor now consumed productively by a given amount of spinning labor is many hundreds of times as much it was back then. The reason for this is simple. The amount of the means of production consumed increases when labor's productivity does, but the value of those means decreases relative to how much of them there are: their value increases in absolute terms but not in proportion to their mass. So the difference between the constant capital's share of the total capital and the variable capital's share increases much less than the difference between the amount of the means of production that the constant capital is turned into and the amount of labor-power the variable capital is spent on. The former difference increases as the latter does, but to a much smaller degree.

In part 4 of this work, we showed that labor's social productive power requires cooperation on a large scale in order to develop—that it is only when this precondition is met that the division and combination of labor can be organized; the means of production can be used more economically as a result of their massive concentration; means of labor physically suited only for collective use—for example, systems of machines—can be brought into being; enormous natural forces can be pressed into the service of production; and the production process can be successfully transformed into

the technological application of scientific knowledge. There is only one way this precondition can be realized in the context of commodity production, where the means of production belong to private persons, and artisans either make commodities as isolated and independent producers or, lacking the means needed for independent production, sell their labor-power as a commodity. Namely, it can arise only when individual masses of capital are enlarged, or only in proportion to the extent to which the social means of production and subsistence are transformed into the private property of capitalists. Functioning as a foundation, commodity production can support just one form of production on a large scale: the capitalist form. A certain accumulation of capital in the hands of individual commodity producers therefore constitutes the necessary precondition for the specific capitalist mode of production. Hence when we examined the transition from craft labor to capitalist industry, we had to presuppose such accumulation. We can call this “original accumulation,” since it is the historical foundation, not the historical result, of specifically capitalist production. For the moment, we don’t need to examine how such accumulation emerged: it’s enough to establish that this original accumulation represents the starting point. But since all the methods for increasing labor’s social productive power that develop on this basis are simultaneously methods for increasing the production of surplus-value or surplus product, the constitutive element of accumulation, these methods are also ways of using capital to produce capital, or of accelerating its accumulation. The continuous reverse-transformation of surplus-value into capital is now expressed as the increasing magnitude of the capital that goes into the production process. This in turn becomes the foundation for production on an expanded scale, the attendant methods for increasing labor’s productive power, and the accelerated production of surplus-value. If a certain level of capital’s accumulation therefore appears as a precondition for the specifically capitalist mode of production, that mode of production reacts back on the accumulation of capital, causing it to accelerate. Thus when the accumulation of capital develops, so does the specifically capitalist form of production, and when the specifically capitalist form of production develops, so does the accumulation of capital.

Individual masses of capital are larger or smaller concentrations of the means of production, and, accordingly, command larger or smaller armies of workers. Every instance of accumulation becomes the means by which accumulation occurs anew. As it enlarges the amount of wealth functioning as capital, accumulation increases the concentration of that wealth in the hands of individual capitalists. It thereby extends the

foundation of production on a larger scale and also specifically capitalist methods of production. The growth of society's capital takes place through the growth of many individual masses of capital. If all other conditions remain the same, individual masses of capital increase, and the concentration of the means of production increases along with them, in proportion to their size as fractional parts of society's total capital. At the same time, offshoots become detached from the original capital and begin to function as new and independent masses of capital. Among other factors, the division of wealth within capitalist families plays an important role here. As capital accumulates, the number of capitalists thus increases to a greater or lesser extent. Two points are central to this kind of concentration, which is directly based on accumulation—or better, is the same thing as accumulation. First, the growing concentration of society's means of production in the hands of individual capitalists will be limited by the rate at which society's wealth grows, as long as all other conditions stay the same. Second, the share of society's capital located in each individual sphere of production is divided among many capitalists, whose relation to one another is that of competing independent commodity producers. What happens, then, isn't simply that accumulation and the concentration that goes with it are scattered over many points; new masses of capital form and old ones are split up, which halts the growth of functioning masses. If, on the one hand, accumulation presents itself as the increasing concentration of both the means of production and the command over labor, it also presents itself as many individual masses of capital being repelled from one another.

This fragmentation of society's total capital into many individual masses of capital, or the repulsion of its fractional parts from one another, is counteracted by their attraction. We are no longer dealing with the simple concentration of the means of production and the command over labor that is identical to accumulation. Rather, we have here the concentration of masses of capital that have already been formed, which means that these masses lose their independence. Capitalists expropriate other capitalists, and many smaller masses of capital are transformed into fewer larger ones. This process differs from simple concentration in that it presupposes only changes in how the already available and functioning masses of capital are distributed. Thus its field of activity isn't limited by the absolute growth of society's wealth, or, that is, the absolute limits of accumulation. Capital burgeons into large quantities in a single set of hands in one place because many sets have lost it elsewhere. This is concentration proper as opposed to accumulation.

We aren't yet in position to explicate the laws of such concentration—i.e., the laws of how capital attracts capital. For now, a few brief factual points will suffice. The battle of competition plays out as the production of cheaper commodities. Cheaper commodities depend, *caeteris paribus*, on labor's productivity, which in turn depends on the scale of production.ⁱⁱⁱ Hence the larger masses of capital defeat the smaller ones. Moreover, we will recall that as the capitalist mode of production becomes more advanced, the minimum amount of individual capital needed to run a business (under its normal conditions) increases. The smaller masses of capital therefore throng to spheres of production that large-scale industry has taken control of only partially or controls only sporadically. Here competition rages in direct proportion to the number of rival masses of capital, while its intensity is inversely proportional to their size. The battles always end with the demise of many small capitalists and with their masses of capital winding up in the pockets of the winner. Aside from this, a new force emerges as capitalist production takes shape: the credit system. Not only does it become a powerful weapon in the fight that is competition, but using invisible threads, it reels in money resources that are strewn over the surface of society in larger or smaller amounts, putting them into the hands of individual or associated capitalists. It functions as special machinery for bringing about the concentration of capital.

The concentration of individual masses of capital, or the process whereby they are brought together, becomes more intense in proportion to how much the specific capitalist mode of production develops as accumulation does. Concentration, for its part, becomes one of the powerful mechanisms of their development, at once shortening and accelerating the transformation of scattered production processes into socially combined ones that are carried out on a large scale.

The increasing size of individual masses of capital becomes the material basis for permanently revolutionizing the mode of production. The capitalist mode of production continuously conquers branches of labor that hadn't yet been brought under its rule at all, or that had been brought under it only sporadically, or formally. Meanwhile, new branches of labor grow from the soil of such production, thus belonging to it from the start. And, finally, in the branches of labor already being run in the capitalist way, labor's productivity ripens as though in a hothouse. In all these cases, the number of workers falls relative to the amount of the means of production the workers work with and on. The share of capital transformed into means of production keeps increasing; the share transformed into labor-power keeps decreasing. As the means of production become larger

and more concentrated, and their technological efficiency increases, they function less and less as means of employing workers. A steam plow is a vastly more efficient means of production than a regular plow, but, compared with what it would be if it were realized in regular plows, the capital value that goes into the steam version is a vastly smaller means for putting people to work. At first, it is precisely adding new capital to old capital that makes it possible to enlarge the objective factors required by a production process and bring about their technological transformation. But soon the changed composition and new technology take control, to a greater or lesser extent, of all the old capital that has reached the point where it is due to be reproduced and thus replaced. Like concentration, this metamorphosis of the old capital is to some degree independent of how much society's capital grows in absolute terms. But concentration, which merely redistributes the social capital that already exists, fusing many masses of capital into one large mass, also functions here as a powerful agent in transforming old capital.

The additional capital that forms in the course of accumulation attracts fewer and fewer workers relative to its magnitude, while, at the same time, the old capital reproduced in a new composition repels more and more of the workers it formerly employed.

3. The Progressive Production of a Relative Surplus Population or an Industrial Reserve Army

The accumulation of capital, which earlier appeared merely as a quantitative enlargement, occurs, as we have seen, when capital's composition keeps changing qualitatively—i.e., when its constant part keeps increasing at the expense of its variable part.^{iv}

The specifically capitalist mode of production, the development of labor's productive power that goes with it, and the change in capital's organic composition caused by increased productive power don't simply match strides with the progress of accumulation, or the growth of society's wealth. They advance at a much faster rate because as simple accumulation occurs and the total capital thus increases in absolute terms, that capital's individual elements become increasingly concentrated, and because the technological transformation of the surplus capital is accompanied by the technological transformation of the original capital. As accumulation advances, then, the ratio between constant and variable capital is transformed. If it was originally 1:1, it becomes 2:1, 3:1, 4:1, 5:1, 7:1, etc. So as a mass of capital increases, less than $\frac{1}{2}$ of its total value will be turned into

variable capital, and the share spent on labor-power will become progressively smaller, going from $\frac{1}{3}$ to $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{6}$, $\frac{1}{8}$, and so on, while, in contrast, $\frac{2}{3}$, $\frac{3}{4}$, $\frac{4}{5}$, $\frac{5}{6}$, $\frac{7}{8}$ of the capital is transformed into the means of production. Because the demand for labor is determined by the magnitude of capital's variable part, not the total capital, this demand becomes progressively smaller as the total capital increases, instead of increasing in proportion to it, which is what we presupposed earlier. The demand for labor falls relative to the magnitude of the total capital as that magnitude increases, and it falls at an accelerated rate. Of course, when the total capital is enlarged, its variable component, the labor-power incorporated into it, is as well, but in a proportion that keeps getting smaller. One result is the contraction of intermediate pauses, where accumulation simply expands production based on existing technology. An accumulation of the total capital that accelerates more and more is needed in order for additional workers to be absorbed and also in order just to retain the ones already employed, owing to the constant metamorphosis of old capital. Not only that, increasing accumulation and concentration cause further changes in the composition of capital—or capital's variable part to be further reduced, as compared with the constant part, at an accelerated rate. This accelerated relative decrease in the variable part goes with the accelerated increase of the total capital, moving, however, even more rapidly. At the other pole, it takes the inverse form, in which the working population seems to increase in absolute terms and to always do so more rapidly than the variable capital or the means of employment. Yet it is capitalist accumulation itself that continuously produces a population that is too large relative to capital's average valorization needs and thus superfluous—or, in other words, a surplus population of workers, with the size of that population varying according to the extent and energy of accumulation.

As for society's total capital, the movement of its accumulation sometimes brings about periodic changes, and sometimes it distributes various phases among the different spheres of production simultaneously. In some spheres, simple concentration causes the composition of capital to change without any growth occurring in capital's absolute magnitude. In others, capital wouldn't grow in absolute terms if its variable part, or the labor-power it absorbs, didn't decrease in absolute terms. In still other spheres, capital at times continues to increase based on existing technology, attracting additional labor-power in proportion to its growth, while, at other times, an organic change occurs, and capital's variable part contracts. In all spheres, the growth of capital's variable part, and thus of the number of workers employed, is always bound up with violent fluctuations and

the temporary production of a surplus population, whether this takes its more conspicuous form—i.e., employed workers are pushed out of jobs—or its less visible, but no less consequential form—i.e., it becomes harder to absorb additional workers through their usual runoff canals.¹⁰

Capital's greater attraction of workers goes with their greater repulsion: the scale on which this happens expands according to the amount of society's capital already functioning and the extent of its growth—and also as the scale of production expands, the number of workers set in motion increases, the productive power of their labor develops further, and the stream that is the source of all wealth becomes wider and stronger. Moreover, capital's organic constitution and technological form change at a faster rate as those things happen, and the number of spheres affected by the change increases, sometimes simultaneously, sometimes not. Thus the population of workers that produces the accumulation of capital thereby also produces, in progressively larger amounts, the means by which the their own relative superfluity is brought about.¹¹ This is a population law

10. The Census for England and Wales shows, among other things: all the persons employed in agriculture (landlords, farmers, gardeners, shepherds, etc. included): 1851: 2,011,447; 1861: 1,924,110, a reduction of 87,337. Worsted manufactures, 1851: 102,714 persons; 1861: 79,242. Silk weaving, 1851: 111,940; 1861: 101,678. Calico-printing, 1851: 12,098; 1861: 12,556, a small increase, despite the enormous expansion of this industry, which implies a large proportional decrease in the number of workers employed. Hat-making, 1851: 15,957; 1861: 13,814. Straw-hat and bonnet-making, 1851: 20,393; 1861: 18,176. Malt-ing, 1851: 10,566; 1861: 10,677. Chandlery, 1851: 4,949; 1861: 4,686: this contraction was caused by, among other things, the increasingly widespread use of gas lighting. Comb-making, 1851: 2,038; 1861: 1,478. Sawyers, 1851: 30,552; 1861: 31,647, an increase that was so small due to the use of sawing-machines. Nail-making, 1851: 26,940; 1861: 26,130, a decrease caused by competition from machines. Tin- and copper-mining, 1851: 31,360; 1861: 32,041. In contrast, cotton spinning and weaving, 1851: 371,777; 1861: 456,646. Coal mining, 1851: 183,389; 1861: 246,613. "Generally the greatest increase of artisans since 1851 is in trades to which machinery has not yet been successfully applied" ("Census of England and Wales for 1861," Vol. 3, Lond. 1863, p. 36).

11. "The demand for labour depends on the increase of circulating and not of fixed capital. Were it true that the proportion between these two sorts of capital is the same at all times, and in all circumstances, then, indeed, it follows that the number of labourers employed is in proportion to the wealth of the state. But such a proposition has not the semblance of probability. As arts are cultivated, and civilization is extended, fixed capital bears a larger and larger proportion to circulating capital. The amount of fixed capital employed in the production of a piece of British muslin is at least a hundred, probably a thousand times greater than that employed in a similar piece of Indian muslin. And the proportion of circulating capital is a hundred or thousand times less . . . the whole of the annual savings, added to the fixed capital, would have no effect in increasing the demand for labour" (John Barton, "Observations on the circumstances which influence the Condition of the Labouring Classes of Society." Lond. 1817, pp. 16, 17). [Editor's note: "Circumstances" is "countries" in the source text, and "proposition" is "position."] "The same cause which may

peculiar to the capitalist mode of production, and in fact every particular historical mode of production has its own laws of population, which hold only for individual historical moments. An abstract law of population exists only for plants and animals, albeit only if human beings refrain from historical interventions into their lives.

If a surplus population of workers necessarily results when accumulation occurs, or when wealth develops based on capitalist production, such a population also becomes, on the other hand, a mechanism of capitalist accumulation and even one of the conditions that allow the capitalist mode of production to exist. This surplus population of workers forms a disposable industrial reserve army that belongs to capital absolutely—just as much as it would if capital had bred it at its own expense. With capital's valorization requirements constantly in flux, the surplus population supplies human material that is always ready to be exploited, doing so independently of the limits of general population growth. As capital accumulates, and as its accumulation is accompanied by increases in labor's productive power, the power of capital to expand by leaps and bounds increases as well. It increases not only because the functioning capital's elasticity does, too; not only because absolute wealth, of which capital is merely an elastic part, grows; and not only because credit, when moved by special stimuli, hastens to put an unusual amount of that wealth at production's disposal in the form of surplus capital. This power of capital's also increases because the technological conditions of the production process—machinery, the means of transportation, etc.—now make it possible to rapidly and expansively transform surplus product into additional means of production. The mass of social wealth that burgeons as accumulation advances, and that can be turned into additional capital, frantically pushes its way into old branches of production, whose markets suddenly expand, or into newly opened branches, such as railroads, which meet needs arising from the development of the old branches. In all such cases,

increase the net revenue of the country may at the same time render the population redundant, and deteriorate the condition of the labourer" (Ricardo *op. cit.* p. 469). When capital increases, "the demand [for labor] will be in a diminishing ratio" (*ibid.* p. 480, note). "The amount of capital devoted to the maintenance of labour may vary, independently of any changes in the whole amount of capital. . . . Great fluctuations in the amount of employment, and great suffering may become more frequent as capital itself becomes more plentiful" (Richard Jones, "An Introductory Lecture on Pol. Econ. Lond. 1833," p. 52). "Demand [for labor] will rise . . . not in proportion to the accumulation of the general capital. . . . Every augmentation, therefore, in the national stock destined for reproduction, comes, in the progress of society, to have less and less influence upon the condition of the labourer" (Ramsey *op. cit.* pp. 90, 91).

it must be possible to suddenly move great masses of people to key points without shrinking the scale of production elsewhere. The surplus population supplies these people. Modern industry's characteristic path, a ten-year cycle of periods of average activity, high-intensity production, crises, and stagnation (all of which are interrupted by smaller oscillations), turns on the constant formation, the more or less extensive absorption, and the replenishment of an industrial reserve army or surplus population. Meanwhile, the different phases of the industrial cycle help pull workers into this surplus population: they become one of its most energetic agents of reproduction. We don't find this, modern industry's peculiar path, in any previous age, and it couldn't have occurred during the childhood of capitalist production. Capital's composition changed only quite gradually back then. So, on the whole, proportional growth in the demand for labor has corresponded to the accumulation of capital. Its accumulation advanced slowly, measured against the pace of progress in the modern epoch, and in the exploitable working population it ran up against a natural obstacle that could be overcome only with violent measures, as we will later see. The scale of production has to expand in fits and starts before it can contract as suddenly, which leads to expansion again, expansion that can't happen without disposable human material, or if the number of workers doesn't increase independently of absolute population growth. This increase results from the simple process that continuously sets one part of the workers "free," or, in other words, the methods that lower the number of employed workers in proportion to increased production. Modern industry's whole form of movement thus proceeds from the constant transformation of one part of the working population into unemployed or semiemployed "hands." Political economy's lack of depth comes to light precisely where it makes the expansion and contraction of credit, a mere symptom of the industrial cycle's alternating periods, into their cause. Just like the heavenly bodies, which always repeat the same movement once they have been flung into it, social production maintains the movement it is flung into, alternately expanding and contracting. Effects become causes, and the various ups and downs of the entire process, which continuously reproduces the conditions it requires, take on the form of periodicity. Once this form has become established, even political economy is able to grasp that the production of a relative superfluous population exceeding capital's average valorization needs constitutes one of the conditions that allow modern industry to exist.

"Suppose," says Herman Merivale, once a professor of political economy at Oxford and later an official in England's Colonial Ministry, "suppose

that, on the occasion of some one of these crises, the nation were to rouse itself to the effort of getting rid by emigration of some hundreds of thousands of superfluous arms, what would be the consequence? That, at the first returning demand for labour, there would be a deficiency. However rapid reproduction may be, it takes at all events, the space of a generation to replace the loss of adult labour. Now the profits of our manufacturers depend mainly on the power of making use of the prosperous moment when demand is brisk, and thus compensating themselves for the interval during which it is slack. This power is secured to them only by the command of machinery and of manual labour. They must have hands ready by them; they must be able to increase the activity of their operations when required, and to slacken it again according to the state of the market; or they cannot possibly maintain that pre-eminence in the race of competition on which the wealth of the country is founded.”¹² Even Malthus could see that modern industry relies on a surplus population, which he treated, in his limited way, as an absolute surfeit stemming from the growth of the working population, and not as workers who have been made relatively superfluous. He wrote, “Prudential habits with regard to marriage carried to a considerable extent among the labouring class of a country mainly depending on manufactures and commerce might injure it. . . . From the nature of a population, an increase of labourers cannot be brought into market, in consequence of a particular demand, till after the lapse of 16 or 18 years, and the conversion of revenue into capital by saving, may take place much more rapidly; a country is always liable to an increase in the quantity of the funds for the maintenance of labour faster than the increase of the population.”¹³ In this way, political economy declared that in order for capitalist accumulation to keep taking place, a relative surplus population of workers has to keep forming, and having done that, it assumed the apt shape of an old spinster and put into the mouth of its ideal capitalist these words, which were meant for workers who had been made “redundant,” i.e., jobless, by the surplus capital they themselves created: “We manufacturers do what we can for you in increasing the capital

12. H. Merivale, “Lectures on Colonization and Colonies.” Lond. 1841 and 1842. Vol. 1, p. 146.

13. Malthus, “Princ. of Pol. Econ.,” pp. 215, 319, 320. In this work, Malthus finally discovers, by way of Sismondi, the beautiful trinity of capitalist production: overproduction—overpopulation—overconsumption, three very delicate monsters, indeed! See F. Engels, “Umrisse zu einer Kritik der Nationalökonomie,” op. cit. p. 107ff. [Editor’s note: Marx refers to the article by Engels published in the *Deutsch-Französische Jahrbücher*, first issue, 1844. English translation, “Outlines of a Critique of Political Economy,” in *MECW*, vol. 3, pp. 418–43. His specific reference is to the section on pp. 437ff.]

on which you are to subsist; and you must do the rest by proportioning your numbers to the means of subsistence.”¹⁴

Capitalist production cannot be satisfied with the amount of disposable labor-power that natural population growth provides. Rather, its free play requires an industrial reserve army that isn't held back by that natural limit.

We have been presupposing that when variable capital increases or decreases, these movements correspond exactly to how much the number of workers employed grows or shrinks.

But the number of workers whom a mass of variable capital commands can stay the same, or in fact fall, as that capital is enlarged. This will happen if individual workers supply a greater amount of labor and thus receive a larger wage, while the price of labor remains constant or even decreases, as long as it decreases more slowly than the amount of labor increases. The growth of variable capital would then indicate that a greater amount of labor is being performed, but not necessarily that a greater number of workers are being employed. Every capitalist has an absolute interest in squeezing a given amount of labor out of a smaller number of workers as inexpensively as, or even more inexpensively than, a larger number of them. With more workers, the outlay of constant capital increases in proportion to how much labor is set in motion, whereas with fewer workers, the increase is much slower. The larger the scale of production, the greater the role this motive plays: it bulks ever larger as the accumulation of capital advances.

As we have seen, when the capitalist mode of production and also labor's productive power develop further, processes that are at once a cause and effect of accumulation, the capitalist can set more labor in motion with the same outlay of variable capital by exploiting individual bearers of labor-power more extensively or intensely. We have also seen how he purchases a greater amount of labor-power with the same amount of capital value: more and more, the capitalist hires unskilled workers instead of skilled ones, inexperienced workers instead of mature ones, female workers instead of male workers, and the labor-power of children or teens instead of that of adults.

On the one hand, then, a greater amount of variable capital sets more labor in motion in the course of accumulation, but without employing a greater number of workers; while, on the other hand, the same amount of variable capital sets more labor in motion with no increase in the amount

14. Harriet Martineau, "The Manchester Strike. 1832," p. 101.

of labor-power, and, finally, a greater number of unskilled bearers of labor-power are set in motion by casting aside skilled bearers of labor-power.

A relative surplus population is therefore produced, or workers are set free, faster than the technological transformation of the production process occurs, even though this transformation is accelerated by accumulation, and also faster than the corresponding contraction of the variable capital relative to the constant part. If the means of production serve less and less as means of employment as they become larger and more powerful, this relation is in turn modified because capital increases its supply of labor faster than its demand for workers, doing so in proportion to the increase in labor's productive power. The overwork performed by the employed members of the working class swells the ranks of the reserve army, while competition from the latter group exerts pressure on the former one, forcing it to do overwork and comply with all of capital's demands. This process, whereby the overwork of some members of the working class condemns the other members to forced idleness, and *vice versa*, functions as a way for the individual capitalist to increase his wealth,¹⁵ and it also accelerates the production of an industrial reserve

15. Even during the cotton famine of 1863, the cotton spinners of Blackburn produced a pamphlet that vehemently denounced overwork, which of course affected only adult male workers (because of the Factory Act). "The adult operatives at this mill have been asked to work from 12 to 13 hours per day, while there are hundreds who are compelled to be idle who would willingly work partial time, in order to maintain their families and save their brethren from a premature grave through being over-worked." "We," the author proceeds to say, "would ask if the practice of working overtime by a number of hands, is likely to create a good feeling and establish confidence between masters and servants. Those who are working overtime feel the injustice equally with those who are condemned to forced idleness. There is in the district almost sufficient work to give to all partial employment, if fairly distributed. We feel that we are only asking what is right in requesting the masters generally to pursue a system of short hours, particularly until a better state of things begins to dawn upon us, rather than to work a portion of the hands overtime, while others, for want of work, are compelled to exist upon charity" ("Reports of Insp. of Fact. 31st October 1863," p. 8). [Editor's note: Some amplifying translation here. Marx translates "those who are working overtime" as "die Opfer der Überarbeit," which matches the English expression "the victims of overwork." Of course, if he thought that he had failed to preserve a similar instance of accentuation elsewhere in the passage, he might have simply wanted to make up for that here. Marx might have been translating in a holistic way, in other words.] The author of the "Essay on Trade and Commerce" grasped how a relative surplus population affects employed workers, doing so with his usual unerring bourgeois instinct: "Another cause of idleness, in this kingdom, is the want of a sufficient number of labouring hands. Whenever, from an extraordinary demand for manufactures, labour grows scarce, the labourers feel their own consequence, and will make their masters feel it likewise; it is amazing; but so depraved are the dispositions of these people, that, in such cases, a set of workmen have combined to distress their employer by, idling a whole day together" ("Essay etc.," pp. 27, 28). That is, these men demanded a wage increase.

army on a scale commensurate with the advance of social accumulation. The case of England illustrates how much this factor does to form a relative surplus population. England's technological means for "saving" labor are enormous. But if tomorrow labor were universally limited to a rational amount, and then assigned to different sections of the working class according to age and sex, the available population of workers would be absolutely insufficient to carry out national production on its current scale. The great majority of workers who are "nonproductive" at present would have to be transformed into "productive" ones.

For the most part, the general movement of wages is regulated solely by the expansion and contraction of the industrial reserve army, which in turn corresponds to the periodic alternations of the industrial cycle. It isn't, then, the varying absolute number of workers that determines the movement of wages; rather, it's the varying ratios in which members of the working class make up the active and reserve industrial armies—in other words, what determines their movement is how much the relative size of the surplus population grows or shrinks, or the extent to which it is absorbed and then set free once again. Since modern industry has a ten-year cycle with periodic phases, which, moreover, are interfered with by irregular oscillations that keep occurring more and more frequently in the course of accumulation, it would be nice to have a law that makes capital's movement depend on how much the population increases or declines in absolute terms, instead of doing the inverse—namely, regulating the supply and demand of labor according to how much capital expands or contracts, or according to what capital's valorization needs happen to be, with the result that the labor market now appears as relatively undersupplied because capital is expanding, now again as oversupplied because it is contracting. Yet this is the economists' dogma, according to which wages rise as a result of capital's accumulation. Increased wages, for their part, spur accelerated population growth among workers, which goes on until the labor market is saturated, i.e., the supply of workers exceeds that of capital. Then wages sink, and now we see the other side of the coin. Falling wages gradually thin out the working population, thereby causing the supply of capital to again exceed that of labor; or, as others explain it, falling wages and the increased exploitation of workers that goes with them accelerate accumulation, while at the same time the lower wages curb population growth among members of the working class. Thus we see the return of a ratio where the demand for labor is greater than the supply, wages rise, and so on. What a beautiful system of movement this would be for advanced capitalist production! The time for the industrial campaign, for fighting

the battle to its conclusion, would be over long before higher wages could produce a positive increase of the population truly fit for work.

A wage increase that was in practice purely nominal occurred in England's agricultural districts between 1849 and 1859, as the price of grain was falling. In Wiltshire, for example, the weekly wage rose from 7 shillings to 8. In Dorsetshire, it went from 7 or 8 shillings to 9, and so on. This was a consequence of a larger-than-normal exodus on the part of the agricultural surplus population, which was brought about by wartime demand and also the massive expansion of railroad construction, factories, mines, etc. The lower wages are, the higher the percentage change resulting from every insignificant wage increase. If the weekly wage is 20 shillings and it increases to 22 shillings, then the wage has risen by 10%. But if the weekly wage is only 7 shillings and it rises to 9 shillings, there is a $28\frac{4}{7}\%$ increase, which sounds like a lot. Farmers howled in protest, and in discussing this starvation wage, even the *London Economist* maundered on earnestly about "a general and substantial advance."¹⁶ What did the farmers do? Did they wait until the population of farm laborers had increased so much, due to this amazing remuneration, that wages had to fall (this is how the situation played out in the political economists' dogmatic heads)? They did not. Instead they introduced more machinery, and in no time there was such a "surfeit" of workers that even the farmers were satisfied. "More capital" than before was put into agriculture, and in a more productive form. And when this happened, the demand for labor fell in both relative and absolute terms.

The political economists' fiction we have been discussing confuses two sets of laws: the ones that regulate the general movement of wages—or the ratio of the working class and society's total capital—with the laws that distribute the working population among the different spheres of production. If business is good in a particular sphere, and, as a result, accumulation becomes especially robust, this drives profits there above the average level, prompting additional capital to stream in. Needless to say, both the demand for labor and wages will rise. The higher wages will attract a greater share of the working population to the happy sphere until the demand for labor-power is satisfied, which will cause wages to gradually recede to their previous average level, or, if too much labor-power has pressed its way in, they will drop to a level even lower than that. What the political economist thinks he sees here is "how and why" the number of workers increases in absolute terms when wages rise, and then wages

16. *Economist*, 21st Jan. 1860.

fall when the number of workers increases in absolute terms. But what he really sees are only the local oscillations of the labor market in a particular sphere of production—only phenomena arising from the redistribution of the working population among the different spheres that capital flows into according to its changing needs.

During periods of stagnation and average prosperity, the industrial reserve army or relative surplus population has the effect of putting pressure on the active army, and during periods of overproduction and paroxysm, the former army causes the latter one to keep its hopes in check. The relative surplus population thus conditions how the law of labor's supply and demand operates. It imposes limits on the law's field of action that absolutely accommodate capital's greedy appetite for exploiting workers and its compulsion to dominate them. This is the right place to come back to one of the greatest feats of economic apologetics. We will recall that when new machines are introduced or old machines are enlarged, part of the variable capital is transformed into constant capital. The apologists take this operation, which "fixes" capital, thereby setting workers "free," and turn it around. According to them, it sets capital free for the worker. Only now are we in a position to fully appreciate the apologists' shamelessness. For the workers directly cast aside by machines aren't the only ones set free: so are their future replacements and also the additional contingent regularly absorbed when, supported by its old foundation, industry expanded as usual. Old capital isn't set free for workers, but workers are set free for "additional" capital. So, in other words, the mechanism of capitalist production sees to it that when capital grows in absolute terms, no corresponding increase occurs in the general demand for labor. And the apologists call this the compensation that displaced workers get for the misery, pain, and possibility of death they have to deal with during the transitional period when they are banished into the reserve army! The demand for labor isn't identical to capital's growth, nor is the supply of labor identical to the growth of the working class. What we have here isn't a case of two independent forces acting upon each other. *Les dés sont pipés.*^v Capital acts on both sides at once. If, on the one hand, capital's accumulation increases the demand for labor, on the other hand, it increases the supply of workers by setting them "free." At the same time, the pressure that the existence of unemployed workers puts on the employed ones forces the latter group to set more labor in motion, which makes the supply of labor independent of the supply of workers, at least to a certain extent. When the law of supply and demand operates on this basis, its movement seals capital's despotic control. Hence the moment workers solve the mystery of how it is that the

more they work, the more wealth they produce for others, and the more the productive power of their labor increases, the more precarious even their function as capital's means of valorization becomes; the moment they discover that the intensity of the competition between them depends entirely on the pressure arising from the relative surplus population; the moment they attempt to organize trade unions and thus systematic collaboration between employed and unemployed workers, so as to stop or at least mitigate the ruinous effects that this natural law of capitalist production has on the working class—the moment these things happen, capital and its sycophant, political economy, start crying bloody murder over how the “eternal” and, so to speak, “sacred” law of supply and demand has been violated. All alliances between the employed and the unemployed disturb the “pure” functioning of the law, yet the moment unfavorable conditions—say, in the colonies—make it hard to create an industrial reserve army and thus render the working class absolutely dependent on the capitalist class, capital rebels against this same “sacred” law of supply and demand. Together with its platitude-loving Sancho Panza, it tries to forcibly bend the law to its interests.

4. The Relative Surplus Population in Its Various Forms of Existence. The General Law of Capitalist Accumulation

The relative surplus population exists in many different gradations, with workers belonging to it whenever they are semiemployed or not employed at all. It isn't necessary to go into great detail here: some general remarks will suffice. The form of the surplus population varies periodically during the alternating phases of the industrial cycle—it takes on its acute form in crisis moments and its chronic form when there is stagnation. However, it always has the following three forms: fluid, latent, and stagnant.

We have seen how factory workers are alternately repelled and attracted again in greater numbers, with the result that on the whole the number of them employed increases in absolute terms, even as it continuously decreases relative to the scale of production. In this case, the surplus population exists in its fluid form. Readers should note two circumstances. In both factories proper and large workshops, where machinery functions as one factor, or the production process hasn't advanced beyond the modern division of labor, many male workers are used only until they reach adulthood. At this point, just a few stay on, continuing to be employed in the same branches of industry. Many

of these workers are therefore always being pushed out of their jobs. They make up part of the fluid surplus population—a part that grows as industry does. Some emigrate or, in fact, merely follow capital that has emigrated. A further consequence is that the female working population increases faster than its male counterpart, as it has in England. The contradiction that the natural growth of the surplus population doesn't suffice for capital's accumulation needs, yet at the same time exceeds what can be absorbed, arises from the very movement of capital, which requires large numbers of young workers and not nearly as many adults. But this contradiction is no more pronounced than another one: that while many thousands of workers are put out on the street because the division of labor chained them to a particular branch of industry, capitalists lament the lack of available hands.¹⁷ Furthermore, capital consumes labor-power so fast that it has drained the worker's vitality by the time he reaches the halfway point of his life. He thus winds up in the ranks of the surplus population, or he tumbles from a higher station to a lower one. Meanwhile, capital replaces him with a fresher bearer of labor-power. The absolute growth of the working class requires a form that drives up the number of its members even as they are rapidly worn out. A generation of workers enters the workforce and is in this way quickly succeeded by the next one. (This law doesn't hold for the other classes.) Early marriages, a necessary consequence of the living conditions of industrial workers, help bring about their replenishment, as does the incentive to reproduce that workers have wherever children are exploited, too.

The moment capitalist production takes control of agriculture, or insofar as it does that, the demand for a population of agricultural workers drops in absolute terms as the capital functioning here accumulates. Workers are repelled, but in contrast to what happens in nonagricultural industries, they aren't subsequently attracted in even greater numbers. So, one part of the rural population is always on the way to being transformed into part of the urban or manufacturing population—in the present context, “manufacturing” refers to all nonagricultural industries—and the relative surplus population issues from this source continuously.¹⁸ But such a

17. During the last six months of 1866, 80–90,000 people in London were put out of work. The Factory Report for that half year says, “It does not appear absolutely true to say that demand will always produce supply just at the moment when it is needed. It has not done it with labour, for much machinery has been idle last year for want of hands” (“Report of Insp. of Fact. for 31st Oct. 1866,” Lond. 1867, p. 81).

18. “781 towns are listed in the 1861 census of England and Wales, containing 10,960,998 inhabitants, while the villages and country parishes contained 9,105,226. 580 towns were

constant stream itself presupposes that in rural areas there always exists a latent surplus population, whose full extent we can see only in those rare moments when its outlet channels are wide open. As a result, the rural worker's wages are depressed to the minimum level, and he always stands with one foot already submerged in the mire of pauperism.

The stagnant surplus population makes up part of the army of active workers but without having regular employment, or rather, anything close to that. Here, then, capital has at its disposal a huge amount of latent labor-power. In its life circumstances, this surplus population languishes below the normal level for members of the working class, and for just this reason it serves as a broad foundation for capital's special branches of exploitation. What characterizes it is that it spends the maximum amount of time working for a minimum of wages. Earlier, we discussed the chief form of this population under the heading "domestic industry." Its members are continuously recruited from the ranks of the workers in large-scale industry and agriculture who have been made "redundant," and especially from the dying branches of industry where craft labor has succumbed to the manufacturing workshop and the manufacturing workshop has succumbed to machine-driven production. When more workers are "made redundant" as the extent and energy of accumulation increase, the stagnant surplus population grows. But it is also a self-reproducing and self-perpetuating element of the working class that contributes a proportionally greater part to that class's total growth than the other elements do. In fact, not only is the combined number of births and deaths inversely proportional to wages and thus the amount of the means of subsistence that various kinds of workers have at their disposal, the absolute size of their families is as well. This law of capitalist society would seem absurd to savages and even civilized colonists. It brings to mind the mass reproduction of animals that are weak on their own and often wind up as prey.¹⁹

distinguished in 1851, and the population in them and in the surrounding country was nearly equal. But in the subsequent ten years, while the population in the villages and the country around increased by half a million, the population in the 580 towns increased by a million and a half (1,554,067). The increase of population of the county parishes is 6.5 per cent, and of the towns 17.3 per cent. The difference in the rates of increase is due to migration from country to town. Three-fourths of the total increase of population has taken place in the towns" ("Census etc.," Vol. 3, pp. 11, 12).

19. "Poverty seems favourable to generation" (A. Smith). In fact, according to the gallant and witty Abbé Galiani, this is a particularly wise arrangement made by God. "God insures that the men who exercise the most useful crafts are born in abundant numbers" (Galiani op. cit. p. 78). "Misery, up to the extreme point of famine and pestilence, instead of checking, tends to increase population" (S. Laing, "National Distress. 1844," p. 69). After

Lastly, the most downtrodden members of the relative surplus population reside in the sphere of pauperism. Aside from vagabonds, criminals, prostitutes, or, in short, the *lumpenproletariat* proper, this sphere is inhabited by three categories of people. First: those who are fit to work. One has only to skim through the statistics on English poverty to see that membership in this category swells whenever a crisis takes place and recedes whenever business picks up again. Second: orphans and the children of paupers, who are candidates for the industrial reserve army. In times of great prosperity (in 1860, for example), they are quickly and widely called up into the army of active workers. Third: people who are beaten down, worn out, or unfit to work. Often they are workers undone by the hardening and inflexibility that result from the division of labor; workers who have lived past a worker's normal life expectancy; and the victims of industry, a group that has grown larger as dangerous machinery, mines, and chemical factories have become bigger and proliferated: mutilated workers, chronically ill ones, widows, and so on. Pauperism represents the sickhouse of the active army of workers and the dead weight of the industrial reserve army. It is produced along with the members of the surplus population, and its necessity is implied by their necessity: capitalist production requires both pauperism and the surplus population. Nor will capitalist wealth develop without them. Pauperism counts among the *faux frais* of capitalist production that capital manages to largely maneuver onto the backs of members of the working class and the petty bourgeoisie.

The greater society's wealth, the greater the functioning capital, the extent and energy of that capital's growth, and thus also the absolute size of the working population and labor's productive power, the larger the surplus population or industrial reserve army will be. The same things that increase capital's power to expand also cause the disposable labor-power to increase. Thus the proportional magnitude of the industrial reserve army grows as the potency of wealth does. But the greater this reserve army is in proportion to the army of active workers, the more massive the consolidated surplus population whose misery stands in inverse relation to the amount of labor its members have to suffer through. Finally, the greater the immiserated sections of the working class, and the greater the industrial reserve army, the greater the amount of official pauperism will be. This is the absolute, general law of capitalist accumulation. As with all

Laing illustrates this using statistics, he continues, "If the people were all in easy circumstances, the world would soon be depopulated."

other laws, various circumstances modify it as it is realized, but we don't need to analyze that process here.

Readers will recognize the folly of the economic "wisdom" behind preaching to workers that they should adapt their numbers to fit capital's valorization needs. The mechanism of capitalist production and accumulation constantly sees to it that the one thing accords with the other. The alpha of this process of adapting is that a relative surplus population or industrial reserve army is created. Its omega is the misery brought forth when the strata of the active army of workers keep increasing—and also the dead weight of pauperism.

As for the law that when labor's social productive power increases, the amount of labor-power to be expended is progressively reduced relative to the amount and effectiveness of the means of production, when this law operates in a capitalist context, where the worker doesn't employ the means of labor but is instead employed by them, it is expressed as follows. The greater labor's productive power, the more pressure workers put on their means of employment, and in turn the more precarious the condition of the wage laborer's existence becomes—namely, he has to sell his labor-power to increase someone else's wealth, or bring about capital's self-valorization. That the means of production and labor's productive power increase faster than the productive population is thus expressed the other way around under capitalist production—in other words, as the fact that the working population always increases faster than capital's valorization needs.

In part 4 of this book, where we analyzed how relative surplus-value is produced, we saw that all methods for increasing labor's social productive power in its capitalist form are implemented only at the individual worker's expense; all the means for developing production turn into different ways to dominate and exploit the producer; these means deform the worker, making him into a partial human being, leaving him degraded, a mere appendage of the machine; they also destroy the substance of labor as they recast his work as torture; they alienate the worker from the intellectual powers needed for the labor process, doing so in proportion to the extent to which science is incorporated into that process as an independent power; and they make the circumstances in which the worker works more and more abnormal, subject him to a hateful, supremely petty despotism during the labor process, turn his lifetime into labor-time, and thrust his wife and children under the wheels of the juggernaut that is capital. But all the methods for producing surplus-value are also methods for bringing about accumulation, and every time accumulation increases, this is,

at the same time, a means of further developing those very methods. It follows that however well or poorly a worker is paid, his situation becomes worse in proportion to capital's accumulation. Finally, the law that always maintains the equilibrium between the relative surplus population (or industrial reserve army) and the extent and energy of accumulation welds the worker to capital more tightly than Hephaestus's wedges bound Prometheus to the rock. This law requires an accumulation of misery that corresponds to the accumulation of capital. So the accumulation of wealth on one side of the capital relation is simultaneously the accumulation of misery, torturous labor, slavery, ignorance, brutality, and moral degradation on the opposite side, where we find the class whose own product is produced as capital.

Political economists have formulated this, i.e., the adversarial character of capitalist accumulation,²⁰ in a variety of ways, but they have also lumped it together with other phenomena that, while somewhat analogous, differ from it fundamentally, since they belong to precapitalist modes of production.

The Venetian monk Ortes, one of the greatest economic writers of the eighteenth century, took the adversarial character of capitalist production to be a universal natural law of social wealth. "The economic good and bad in a nation always equal out [*il bene e il male economico in una nazione sempre all'istessa misura*], the abundance of goods for some is always equal to the lack of goods for others [*la copia dei beni in alcuni sempre eguale alla mancanza di essi in altri*]. The great wealth of a few is always accompanied by an absolute robbery committed against many more people, who thus go without life's necessities."²¹ A nation's wealth corresponds to its population, and its misery corresponds to its wealth. The industry of some forces idleness upon others. The rich and the active bring about as a necessary product the poor and the idle, etc. About a decade after Ortes, Joseph Townsend, a

20. "From day to day it thus becomes clearer that the production relations in which the bourgeoisie moves have not a simple, uniform character, but a dual character; that in the selfsame relations in which wealth is produced, poverty is produced also; that in the selfsame relations in which there is a development of the productive forces, there is also a force producing repression; that these relations produce bourgeois wealth, i.e., the wealth of the bourgeois class, only by continually annihilating the wealth of the individual members of this class and by producing an ever-growing proletariat" (Karl Marx, "Misère de la Philosophie," p. 116). [Editor's note: English edition, *The Poverty of Philosophy*, MECW, vol. 6, p. 176.]

21. G. Ortes, "Della Economia Nazionale. libri sei, 1774," in Custodi, Parte Moderna. Vol. 21, pp. 8, 9, 24, 25. Ortes says, op. cit. p. 32, "Instead of designing useless systems for the happiness of peoples, I will limit myself to investigating the reason for their unhappiness."

High Church Protestant parson, crudely glorified poverty as a necessary condition of wealth: “Legal constraint [to perform labor] is attended with too much trouble, violence, and noise, whereas hunger is not only a peaceable, silent, unremitted pressure, but, as the most natural motive to industry and labour, it calls forth the most powerful exertions.” The crucial thing, then, is to make hunger permanent for members of the working class, and what sees to that, according to Townsend, is the population principle, which operates with particular force among the poor. “It seems to be a law of nature, that the poor should be to a certain degree improvident [i.e., so improvident as to be born without silver spoons in their mouths], that there may always be some to fulfil the most servile, the most sordid, and the most ignoble offices in the community. The stock of human happiness is thereby much increased, whilst the more delicate are not only relieved from drudgery, but are left at liberty, without interruption, to pursue those callings which are suited to their various dispositions. . . . The Poor Law tends to destroy the harmony and beauty, the symmetry and order of that system, which God and Nature have established in the world.”²² “The progress of social wealth,” wrote Storch, “gives rise to this useful class of society . . . which takes charge of the most tedious, the most vile and the most disgusting occupations, in a word, which takes on itself all that is unpleasant and servile in life, and provides other classes time, serenity of mind and conventional [*c’est bon!*] dignity of character.”²³ Storch then asked himself what makes capitalist civilization, which has brought so much misery and degraded the masses, preferable to barbarism. He could think of only one thing: security! “Because of the advances in industry and the sciences,” says Sismondi, “every worker can produce every day more and

22. “A Dissertation on the Poor Laws. By a Well-Wisher of Mankind. (The Rev. Mr. J. Townsend.) 1786,” republished Lond. 1817, pp. 15, 39, 41. Malthus plagiarized the work of this “delicate” parson, often copying whole pages from the text just cited and also his *Journey through Spain*. Yet the parson himself borrowed the bulk of his doctrine from James Steuart, whose ideas he distorted. Steuart, for example, says, “Here, then was a violent method of making mankind laborious in raising food [for the sake of nonworkers]. . . . Men were then forced to labour [i.e., to work for others for free] because they were slaves to others; men are now forced to labour [i.e., to work for nonworkers for free] because they are the slaves to their own wants.” But in contrast to our fat benefice-holder, he doesn’t take from this that the wage laborer has to go on starving. Rather, Steuart wants to multiply their wants and needs, and to make the increasing number of their wants and needs into a stimulus for the labor they perform for “more delicate” persons.

23. Storch op. cit. Vol. 3, p. 223.

ever more than he has need to consume. But at the same time that his labor produces wealth, that wealth, if he were to enjoy it, would make him less fit to work.”²⁴ “Poor nations,” observes Destutt de Tracy, “are where the people are comfortable, and rich ones are where they are generally poor.”²⁵

5. Illustrations of the General Law of Capitalist Accumulation

a. England from 1846 to 1866

For the purpose of studying capitalist accumulation, no time in modern society is as propitious as the last 20 years. It is as if we had discovered a Fortunatus’s purse. But among all countries, England again stands out as our classic example. Not only is it the leader in the world market, capitalist production is fully developed here and nowhere else. Moreover, when the millennium of free trade was launched in 1846, vulgar political economy was left without a place to hide. The account given in part 4 of this book should suffice to evoke the enormous advances in production that were made between 1846 and 1866: they were such that the productivity of the second decade far outpaced that of the first.

Although England’s population has grown a great deal in absolute terms over the past 50 years, relative population growth, or the rate of growth, has fallen continuously. We can see this by looking at the following table, which comes from the official census:

The Annual Rate of Population Growth in
England and Wales over Ten-Year Periods

	Percent
1811–21	1.533
1821–31	1.446
1831–41	1.326
1841–51	1.216
1851–61	1.141

24. Sismondi op. cit. pp. 79–80, 85. [Editor’s note: English translation, Jean-Charles-Léonard Simonde de Sismondi, *New Principles of Political Economy: Of Wealth and Its Relation to Population*, trans. Richard Hyse (New Brunswick, 1991), p. 80.]

25. Destutt de Tracy op. cit. p. 231.

Let's now consider how much wealth has increased. The most reliable index is the movement of ground rent and other profits subject to being taxed as income. In Great Britain, the growth of taxable profits between 1853 and 1864—not including the ones made in farming and a few other areas—amounted to 50.47% (or an annual average of 4.58%),²⁶ while the population grew by about 12% during the same period. The growth of taxable rents on land (including houses, railways, mines, fisheries, and so on) amounted to 38%, or 3⁵/₁₂% annually. The largest increases occurred in the following categories:

	Percentage by which the annual income of 1864 exceeds the annual income of 1853	Percentage increase per year
Houses	38.60	3.50
Quarries	84.76	7.70
Mines	68.85	6.26
Ironworks	39.92	3.63
Fisheries	57.37	5.21
Gasworks	126.02	11.45
Railways	83.29	7.57 ²⁷

When we divide the years from 1853 to 1864 into three segments of four consecutive years, we see that the rate at which incomes grew accelerated continuously. Incomes stemming from profits increased at 1.73% a year between 1853 and 1857, 2.74% between 1857 and 1861, and 9.3% between 1861 and 1864. In 1856, the total amount of taxable income in the United Kingdom came out to £307,068,898. In 1859, it was £328,127,416; in 1862, £351,745,241; in 1863, £359,142,897; in 1864, £362,462,279; and in 1865, it was £385,530,020.²⁸

As capital accumulated, it also became more concentrated. Although there were no official statistics recorded for English agriculture (there were for agriculture in Ireland, however), 10 counties provided them vol-

26. "Tenth Report of the Commissioners of H. M.'s Inland Revenue. Lond. 1866," p. 38.

27. *Ibid.*

28. These figures suffice for a comparison, but they shouldn't be taken in absolute terms, because about £100,000,000 in incomes goes "undeclared" each year. In their reports, the Inland Revenue Commissioners keep expressing the same complaint about systemic fraud, especially in commerce and industry. For example, "A joint stock company returns £6,000 as assessable profits, the surveyor raises the amount to £88,000, and upon that sum duty is ultimately paid. Another company which returns £190,000 is finally compelled to admit that the true return should be £250,000" (*ibid.* p. 42).

untarily. What they show is that between 1851 and 1861, the number of farms with fewer than 100 acres fell from 31,583 to 26,567, which means that 5,016 of them were taken over by larger farms.²⁹ Between 1815 and 1825, not a single personal estate of more than £1,000,000 was taxed under the estate tax; but between 1825 and 1855, eight such estates were, and from 1855 to June 1859, or in just four and a half years, four additional estates were.³⁰ This process of concentration will become even clearer, however, if we briefly analyze the Income Tax Schedule D (profits, excluding farms, etc.) for the years 1864 and 1865. Let me note in advance that only income beyond £60 was subject to this tax. In 1864, the taxable income amounted to £95,844,222 in England, Scotland, and Wales, while the number of people who paid income tax was 308,416 out of a total population of 23,891,009. The sums for 1865 were £105,435,787 and 332,431 people out of 24,127,003.³¹ The following tables show how these incomes were distributed in both years.

Total income of persons in this category	Year ending April 5, 1864		Year ending April 5, 1865	
	Income from profits £	Persons	Income from profits £	Persons
" "	95,844,222	308,416	105,435,787	332,431
" "	57,028,290	23,334	64,554,197	24,075
" "	36,415,225	3,619	42,535,576	4,021
" "	22,809,781	822	27,555,313	973
" "	8,744,762	91	11,077,238	107

In 1855, the United Kingdom produced 61,435,079 tons of coal worth £16,113,267. In 1864, it produced 92,787,873 tons worth £23,197,968. In 1855, its production of raw iron amounted to 3,218,154 tons worth £8,045,385. In 1864, 4,767,951 tons worth £11,919,877 were produced. In 1854, the total length of railway tracks in use in the United Kingdom amounted to 8,054 miles; the capital invested in them totaled £286,068,794. In 1864, 12,789 miles of tracks were in use, while the amount of capital that went into them was £425,719,613. In 1854, the United Kingdom's total exports and imports amounted to £268,210,145.

29. Census etc. op. cit. p. 29. John Bright's assertion that 150 landowners own half the land in England, and 12 own half the land in Scotland, has not been refuted.

30. "Fourth Report etc. of Inland Revenue. Lond. 1860," p. 17.

31. These are the net incomes after certain legally valid abatements have been made.

In 1865, the total was £489,993,285. The following table shows the movement of exports:

1847	£58,842,377
1849	£63,596,025
1856	£115,826,948
1860	£135,842,817
1865	£165,862,402
1866 (approximately)	£190,000,000 ³²

After seeing these few examples, readers should be able to make sense of the victory cry emitted by England's Registrar General: "Rapidly as the population has increased, it has not kept pace with the progress of industry and wealth."³³ Let us now turn to the direct agents in this industry—the actual producers of this wealth: the members of the working class. "It is one of the most melancholy features in the social state of the country," said Gladstone, "that while there was a decrease in the consuming powers of the people, and an increase in the privations and distress of the laboring and operative classes, there was at the same time a constant accumulation of wealth in the upper classes, and a constant increase of capital."^{34,vi} These were the words spoken by that unctuous minister when he addressed the House of Commons on February 13, 1843. Introducing his budget twenty years later, or on April 16, 1863, he said, "From 1842 to 1852 the taxable income of the country increased by 6%. . . . In eight years, from 1853 to 1861, it had increased from the basis taken in 1853 by 20%. The fact is so astonishing as to be almost incredible . . . this intoxicating augmentation of wealth and power is . . . entirely confined to classes of property . . . but that augmentation must be of indirect benefit to the labouring population, because it cheapens the commodities of general consumption—while the rich have been growing richer the poor have been growing less poor. At any rate, whether the extremes of poverty are less, I do not presume to say."³⁵ What a sorry anticlimax! If the members of the working class have remained "poor," only "less poor" in proportion

32. At present—namely, in March of 1867—the Indian and Chinese markets are once again overstocked due to the consignments of British cotton manufacturers. In 1866, the wages of cotton workers were cut by 5%. The following year, similar measures prompted a strike of 20,000 workers in Preston.

33. Census etc. op. cit. p. 11.

34. Gladstone, speaking in the House of Commons, 13th Febr. 1843.

35. Gladstone in the H. of C., 16th April 1863.

to the “intoxicating augmentation of wealth and power” they produce for members of the wealthy class, then they have remained just as poor in relative terms. If the extremes of poverty haven’t decreased, then they have increased, because the extremes of wealth have. As for the idea that the means of subsistence have become less expensive, the official statistics, such as the figures from the London Orphan Asylum, show that those means became more expensive by 20% between 1853 and 1862, a figure we arrive at by comparing the average of the years 1851–53 with the average of the last three years (1860–62). The next three years, 1863 through 1865, saw prices for a number of staples rise progressively: meat, butter, milk, salt, coal, and so on.³⁶ The budget speech Gladstone gave on April 7, 1864, was a Pindaric dithyramb to the progress achieved in profitmaking and a popular happiness tempered by “poverty.” He spoke of masses of people being “on the border of pauperism” and of branches of industry where “wages have not increased,” and, finally, he summed up the happiness of the working class with the phrase “Human life is but, in nine cases out of ten, a struggle for existence.”³⁷ Not constrained by his office in the way Gladstone was, Professor Fawcett flatly declared, “I do not of course deny that money wages have been augmented by this increase of capital [over the past decades], but this apparent advantage is to a great extent lost, because many of the necessaries of life are becoming dearer [which he believes is the case because the value of precious metals has fallen]. . . .

36. See the official accounts in the Blue Book entitled “Miscellaneous Statistics of the Un. Kingdom, Part IV, Lond. 1866,” pp. 260–73, *passim*. Addendum to the second edition: Instead of statistics from orphan asylums, one might use as evidence the declamations of the ministerial journals recommending dowries for royal children. The rising cost of the means of subsistence is never forgotten there.

37. “Think of those who are on the border of that region [pauperism],” “wages . . . in others not increased . . . human life is but, in nine cases out of ten, a struggle for existence” (Gladstone, H. o. C. 7th April 1864). With the following quotation from Boileau, an English author evoked the unremitting, egregious contradictions in Gladstone’s Budget speeches of 1863 and 1864:

*Voilà l’homme en effet. Il va du blanc au noir,
Il condamne au matin ses sentiments du soir,
Importun à tout autre, à soi même incommode
Il change à tout moment d’esprit comme de mode.*

(“The Theory of Exchanges etc. Lond. 1864,” p. 135). [Editor’s note: “This is the man indeed. He goes from white to black, / He condemns in the morning his feelings from the evening, / Importunate to all others, inconvenient to himself, / He changes his mind all the time like he changes clothes.” The poem is by seventeenth-century French poet and critic, Nicolas Boileau-Despréaux, from his Eighth Satire, *Sur l’homme*, added in the 1668 edition of the satires.]

The rich grow rapidly richer, whilst there is no perceptible advance in the comfort enjoyed by the industrial classes. . . . They [the workers] become almost the slaves of the tradesmen to whom they owe money.”³⁸

The “working day” and “machinery” sections of this book have familiarized readers with the conditions that members of the British working class have had to contend with over the past ten years, during which they produced an “intoxicating augmentation of wealth and power” for the propertied classes. However, our chief concern in those sections was to show the worker’s plight during the actual production process, and if we want to gain a thorough understanding of the law of capitalist accumulation, we have to spend some time considering how the worker lives outside that process—what he eats and the state of his home. Because space is of course limited here, we will have to focus on the worst-paid industrial and agricultural workers, who together make up the majority of the working class.³⁹

First, a word about official paupers. They are the members of the working class who have forfeited selling their labor-power, which is how workers exist, and waste away on public alms. In 1855, there were 851,369 people on England’s official pauper list.⁴⁰ In 1856, the list contained 877,767 names, and in 1865, 971,433. The cotton famine caused the ranks of the paupers to swell in 1863 and 1864, and the list grew to have, respectively, 1,079,382 and 1,014,978 people. The crisis of 1866 was at its most devastating in London, the capital of the world market, a city with more people than there are in the entire Kingdom of Scotland, and the number of paupers rose there by 19.5% as compared with the total in 1865, and by 24.4% as compared with the total in 1864. The first months of 1867 saw an even greater increase over the total during the corresponding period in 1866. As we analyze these statistics, we should pay special attention to two points. On the one hand, the fluctuating size of the pauper list does in fact reflect the periodic alternations of the industrial cycle. On the other hand, the official pauper statistics become more and more misleading as an index of actual pauperism in proportion

38. H. Fawcett *op. cit.* pp. 67–82. As for workers’ growing dependence on the retail shopkeepers, this has resulted from the increasing oscillations and interruptions in the workers’ employment.

39. Let us hope that in the near future F. Engels expands his book about the condition of the working class: that he adds a section on how its members have fared since 1844, or publishes a separate second volume on that topic.

40. Wales is always included as part of England. Great Britain includes England, Wales, and Scotland. The United Kingdom comprises those three countries and also Ireland.

to the extent to which class conflict—and, thus, the workers' sense of self—develops when the accumulation of capital advances. The barbaric treatment of paupers that has moved the English press to loudly protest over the past two years—e.g., the *Times*, *Pall Mall*, and the *Gazette*—is old news. In 1844, Friedrich Engels documented the very same horrors and the very same outrage fleetingly voiced by “sensational literature.” Yet over the past ten years, “deaths by starvation” in London have risen frightfully, and this should eliminate all doubts as to the increasing disgust that the slavery of the workhouse, that penal institution for the poor, elicits in workers.

b. The Poorly Paid Strata of Britain's Industrial Working Class

Let us now turn to the poorly paid strata of the industrial working class. During the cotton famine, or in 1862, the Privy Council tasked Dr. Smith with investigating the diet of impoverished cotton workers in Lancashire and Cheshire. Years of observation had led him to conclude that “to avert starvation diseases” the food an average woman eats each day must contain at least 3,900 grains of carbon and 180 grains of nitrogen, while a man has to consume food containing at least 4,300 grains of carbon and 200 grains of nitrogen.^{vii} For a woman, this amounts to the nutrients in two pounds of good wheat bread and for a man, to $\frac{1}{9}$ more than that. So during an average week, adult men and women must consume at least 28,600 grains of carbon and 1,330 grains of nitrogen. Dr. Smith could not have expected that in December 1862, the cotton famine would reduce the weekly intake of cotton workers to the following paltry amount, 29,211 grains of carbon and 1,295 grains of nitrogen, thereby supplying practical confirmation of his earlier calculations.

In 1863, the Privy Council decided to investigate the dire state of the worst-nourished members of England's working class, and Dr. Simon, the Council's medical officer, chose the abovementioned Dr. Smith to conduct a study. The scope of his inquiry encompassed agricultural workers, silk weavers, needlewomen, kid-glove makers, stocking makers, glove weavers, and shoemakers. With the exception of stocking making and of course agricultural work, all these jobs are practiced exclusively in towns. As a matter of policy, Dr. Smith examined the healthiest families in each category and the ones that enjoyed comparatively good circumstances.

The general finding was that “in only one of the examined classes of indoor operatives, did the average nitrogen supply just exceed, while in another it nearly reached, the estimated standard of bare sufficiency [i.e., to prevent starvation diseases], and that in two classes there was a

defect—in one a very large defect—of both nitrogen and carbon. Moreover, as regards the examined families of the agricultural population, it appeared that more than a fifth were with less than the estimated sufficiency of carbonaceous food, that more than one-third were with less than the estimated sufficiency of nitrogenous food, and that in three counties (Berkshire, Oxfordshire, and Somersetshire), insufficiency of nitrogenous food was the average local diet.”⁴¹ Of the agricultural workers, the ones in England, the wealthiest part of the United Kingdom, were the worst fed.⁴² Women and children tended to bear the brunt of the lack of food in agricultural settings because “the man has to eat to do his work.” But even greater food scarcity afflicted the different kinds of workers examined in towns: “They, taken as a whole, are so ill fed that assuredly among them there must be many instances of severe and injurious privation.” (All this is the capitalist’s “abstinence!” He abstains from paying his hands enough to buy what they need to barely survive.)⁴³

The following table shows the diet of the abovementioned types of workers who work exclusively in towns, as compared with both the minimum amount set by Dr. Smith and the amount consumed by cotton workers when their crisis moment was at its most extreme.

(Both Sexes)	Average weekly carbon (in grains)	Average weekly nitrogen (in grains)
Five indoor occupations	28,876	1,192
Unemployed Lancashire operatives	28,211	1,295
Minimum quantity proposed for Lancashire operatives, equal number of males and females	28,600	1,330 ⁴⁴

Of the different categories of industrial workers investigated, $\frac{60}{125}$ or about half, had no beer at all, and 28% went without milk. The weekly per-family averages for liquid forms of nourishment ranged from seven ounces, which is what needlewomen got, to $24\frac{3}{4}$ ounces for the stocking makers. Most of the workers who had no milk were needlewomen in London. The amount of bread consumed each week varied from seven and three-quarters pounds (needlewomen) to $11\frac{1}{4}$ pounds (shoemakers),

41. “Public Health Sixth Report etc. for 1863.” Lond. 1864, p. 13.

42. *Ibid.* p. 17.

43. *Ibid.* p. 13.

44. *Ibid.* Appendix, p. 232.

with the overall average per adult being 9.9 pounds. Sugar (treacle, etc.) amounts ranged from the four ounces a week that kid-glove makers got to the 11 ounces per week that stocking makers consumed. The overall weekly average for adults was eight ounces. As for butter (fat, etc.), the overall weekly average was five ounces per adult. The weekly average of meat (bacon, etc.) per adult varied from seven and a quarter ounces (silk weavers) to $18\frac{1}{4}$ ounces (kid-glove makers), while the overall average was 13.6 ounces. The average amount spent weekly to feed an adult worker was as follows: Silk weavers, 2 shillings $2\frac{1}{2}$ d.; needlewomen, 2 shillings 7d.; kid-glove makers, 2 shillings $9\frac{1}{2}$ d.; shoemakers, 2 shillings $7\frac{3}{4}$ d.; stocking makers, 2 shillings $6\frac{1}{4}$ d. The average weekly total for the silk weavers of Macclesfield amounted to only 1 shilling $8\frac{1}{2}$ d. Of all the different kinds of workers examined, the worst fed were the needlewomen, the silk weavers, and the kid-glove makers.⁴⁵

In his General Health Report, Dr. Simon has this to say about the workers' food situation: "That cases are innumerable in which defective diet is the cause or the aggravator of disease, can be affirmed by any one who is conversant with poor-law medical practice, or with the wards and out-patient rooms of hospitals. . . . Yet in this point of view there is, in my opinion, a very important sanitary context to be added. It must be remembered that privation of food is very reluctantly borne, and that, as a rule, great poorness of diet will only come when other privations have preceded it. Long before insufficiency of diet is a matter of hygienic concern, long before the physiologist would think of counting the grains of nitrogen and carbon which intervene between life and starvation, the household will have been utterly destitute of material comfort—clothing and fuel will have been even scantier than food—against inclemencies of weather there will have been no adequate protection—dwelling space will have been stinted to the degree in which over-crowding produces or increases disease—of household utensils and furniture there will be scarcely any—even cleanliness will have been found costly or difficult, and if there still be self-respectful endeavours to maintain it, every such endeavour will represent additional pangs of hunger. The home, too, will be where shelter can be cheapest bought—in quarters where commonly there is the least fruit of sanitary supervision—least drainage—least scavenging—least suppression of public nuisances—least, or worst, water supply—and, if in town, least light and air. Such are the sanitary dangers to which poverty is almost certainly exposed, when it is poverty enough to imply scantiness of food.

45. *Ibid.* pp. 232, 233.

And while the sum of them is of terrible magnitude against life, the mere scantiness of food is in itself of very serious moment. . . . These are painful reflections, especially when it is remembered that the poverty to which they advert is not the deserved poverty of idleness. In all cases it is the poverty of working populations. Indeed, as regards the indoor operatives, the work which obtains the scanty pittance of food, is for the most part excessively prolonged. Yet evidently it is only in a qualified sense that the work can be deemed self-supporting. . . . On a very large scale, the nominal self-support can be only a circuit, longer or shorter, to pauperism.”⁴⁶

The pangs of hunger suffered by the most industrious strata of workers are intimately linked to capitalist accumulation as well as the overconsumption, whether crude or refined, by the rich that goes with it, but only someone who understands economic laws will be able to recognize this. Not so with living conditions. Any unbiased observer can see that the greater the concentration of the means of production, the greater the corresponding agglomeration of workers in a small amount of space, and thus the more rapid the pace of capitalist accumulation, the more miserable the workers’ living conditions. Furthermore, anyone can see what happens when increased wealth leads to urban “improvements.” Poorly built neighborhoods are razed and palaces are constructed for banks and warehouses, while streets are widened to make room for commercial traffic, luxury carriages, and tramlines, all of which drives the poor into ever more squalid and oppressive holes. On the other hand, everyone knows that the price of housing is inversely proportional to its quality, and that speculators have exploited the mines of misery for more profit than has ever been extracted from the mines of Potosí.^{viii} The antagonistic character of capitalist accumulation, and therefore capitalist property relations in general,⁴⁷ have become so palpable here that even the official English reports on this topic abound with heretical invectives against “property and its rights.” This evil has matched strides with the development of industry, the accumulation of capital, and the growth and “improvement” of towns and cities—so much so that between 1847 and 1864, fear of infectious diseases, which don’t spare even “respectable people,” led to no less than 10 Parliamentary Acts having to do with public health, and the terrified citizenry in some

46. *Ibid.* pp. 14, 15.

47. “In no particular have the rights of persons been so avowedly and shamefully sacrificed to the rights of property, as in regard to the lodging of the labouring class. Every large town may be looked upon as a place of human sacrifice, a shrine where thousands pass yearly through the fire as offerings to the Moloch of avarice” (S. Laing *op. cit.* p. 150).

cities, e.g., Liverpool and Glasgow, pushed the municipal government into taking action. Yet Dr. Simon writes in his report of 1865, "Generally speaking, in England these terrible conditions are uncontrolled." The previous year, the Privy Council ordered that an inquiry be made into the living conditions of agricultural workers. Another one was conducted in 1865, this time into how members of the poorer classes of the cities and towns were living. Readers will find Dr. Julian Hunter's masterful studies in the seventh (1865) and eighth *Reports on Public Health*. I will discuss agricultural workers below. As for the living conditions in cities and towns, let me preface my account with a general remark by Dr. Simon. "Though my official point of view," he says, "is one exclusively physical, common humanity requires that the other aspects of this evil should not be ignored. In its higher degrees it almost necessarily involves such negation of all delicacy, such unclean confusion of bodies and bodily functions, such mutual exposure of animal and sexual nakedness, as is rather bestial than human. To be subject to these influences is a degradation which must become deeper and deeper for those on whom it continues to work. To children who are born under its curse it must often be a very baptism into infamy. And beyond all measure hopeless is the wish that persons thus circumstanced should ever in other respects aspire to that atmosphere of civilization which has its essence in physical and moral cleanliness."⁴⁸

If cities got a prize for having the most tenements that are overcrowded or otherwise completely unfit for human habitation, London would win it. "Two points," says Dr. Hunter, "are absolutely clear; first, that there are about twenty large colonies in London, of about 10,000 persons each, whose miserable condition exceeds almost anything seen elsewhere in England, and is almost entirely the result of their bad house accommodation; and, second, that the crowded and dilapidated condition of the houses of these colonies is much worse than was the case twenty years ago."⁴⁹ "It is not too much to say that life in parts of London and Newcastle is infernal."

48. "Public Health. Eight Report. Lond. 1866," p. 14, note.

49. *Ibid.* p. 89. With regard to the children in these colonies, Dr. Hunter writes, "People are not now alive to tell us how children were brought up before this age of dense agglomerations of poor began, and he would be a rash prophet who should tell us what future behaviour is to be expected from the present growth of children, who, under circumstances probably never before paralleled in this country, are now completing their education for future practice, as 'dangerous classes,' by sitting up half the night with persons of every age, half naked, drunken, obscene, and quarrelsome" (*ibid.* p. 56).

In addition, the better-off strata of London's working class, small shopkeepers, and other members of the lower middle class languish more and more in such terrible housing conditions: they suffer in proportion to the advance of urban "improvements" and the resulting demolition (of old streets and houses), the rapid growth of urban factories and populations, and, finally, the rise in house rents that goes with rising urban ground rents. "Rents have become so heavy that few labouring men can afford more than one room."⁵⁰ London has very few house properties that aren't weighed down by a crowd of "middlemen," because the price of land there is very high relative to the revenue it brings in annually, and every buyer speculates on getting rid of it, sooner or later, at a jury price (the expropriation valuation set by a jury). Or, he speculates on the trick of making off with an amount value that has increased dramatically because of some large-scale undertaking nearby. Thus the "fag-ends of leases" are regularly bought and sold. "Gentlemen in this business may be fairly expected to do as they do—get all they can from the tenants while they have them, and leave as little as they can for their successors."⁵¹ The rents are weekly, and these gentlemen take no risk upon themselves.

When railway lines were built in the city, the consequences for workers' living conditions were dire: "The spectacle has lately been seen in the East of London of a number of families wandering about some Saturday night, with their scanty worldly goods on their backs, without any resting place but the workhouse."⁵² The workhouses are already overcrowded, and the process of making the "improvements" sanctioned by Parliament has only just begun. When workers are displaced by the demolition of their homes, some stay in their old parish, while others move to the next one, settling as close as they can to where they used to live. "They try, naturally, to stay as near as possible to the places where they work. As a result, they part their two-room tenements into single rooms. Even at an advanced rent the people who are displaced will hardly be able to get an accommodation so good as the meager one they have left. Half the workmen in the Strand walked two miles to their work." The same Strand, a main thoroughfare, leaves strangers to London awed by the city's wealth, yet the area can also give them a sense of how human beings are packed together there. The Public Health Officer calculated the population density in one parish to

50. "Report of the Officer of Health of St. Martin's in the Fields. 1865."

51. "Public Health. Eight Report. Lond. 1866," p. 91.

52. *Ibid.* p. 88.

be 581 persons per acre, even though half the width of the Thames was counted as part of it. Like earlier public health measures in London that involved condemning and leveling unsafe homes, these ones have served only to drive workers from their old districts into new ones where they are crammed together even more than before. "Either," says Dr. Hunter, "the whole proceeding will of necessity stop as an absurdity, or the public compassion [!] be effectually aroused to the obligation, which may now be without exaggeration called national, of supplying cover to those who by reason of their having no capital, cannot provide it for themselves, though they can by periodical payments reward those who provide it for them."⁵³ One has to admire capitalist justice! Landowners, homeowners, and businessmen don't just receive the full value of their lost property when they are expropriated because of urban "improvements," such as railways and new streets. Having been forced into "renouncing," they must also be compensated, according to divine and human law, with a handsome profit. The worker, for his part, is thrown out onto the street with his wife, child, and possessions, and if too many workers crowd into a district where the local officials insist on decency, they will be prosecuted in the name of public health!

At the beginning of the nineteenth century, London was the only city in England where more than 100,000 people lived. Only five cities had a population greater than 50,000. Today, England has 28 cities with over 50,000 inhabitants. "The result of this change is not only that the class of town people is enormously increased, but that the old close packed little towns are now centres built round on every side, open nowhere to air, and, being no longer agreeable to the rich are abandoned by them for the pleasanter outskirts. The successors of these rich are occupying the larger houses at the rate of a family to each room, and a population, for which the houses were not intended and quite unfit, has been created whose surroundings are truly degrading to the adults and ruinous to the children."⁵⁴ The faster capital accumulates in a commercial or industrial town, the faster the influx of exploitable human material, which in turn makes the workers' improvised dwellings all the more terrible. As the center of a coal and mining district whose output keeps increasing, Newcastle-upon-Tyne takes second place (behind London) in the housing inferno. No less than 34,000 people reside there in single rooms. The

53. *Ibid.* p. 89.

54. *Ibid.* p. 56.

authorities recently demolished a large number of houses in Newcastle and Gateshead, having deemed them a clear danger to the community. The construction of new houses has proceeded slowly, while business has moved very fast. Thus by 1865 overcrowding blighted the city more than ever: it was nearly impossible to find a room for rent. Dr. Embleton, who works at the Newcastle Fever Hospital, writes, "There can be little doubt that the great cause of the continuance and spread of the typhus has been the overcrowding of human beings, and the uncleanness of their dwellings. The rooms in which labourers in many cases live are situated in confined and unwholesome yards or courts, and for space, light, air, and cleanliness, are models of insufficiency and insalubrity, and a disgrace to any civilized community; in them, men, women, and children lie at night huddled together; and as regards the men, the night-shift succeed the day-shift, and the day-shift, the night-shift, in unbroken series for some time together, the beds having scarcely time to cool; the whole house badly supplied with water and worse with privies; dirty, unventilated, and pestiferous."⁵⁵ The weekly price for such squalid holes ranges from 8d. to 3d. "The town of Newcastle-on-Tyne," remarks Dr. Hunter, "contains a sample of the finest tribe of our countrymen, often sunk by external circumstances of house and street into an almost savage degradation."⁵⁶

The living conditions in an industrial town might be bearable today but awful tomorrow because of how capital and labor ebb and flow. It can also happen that the town's magistrates finally resolve to deal with the worst situations, and then the next day bedraggled Irishmen or worn-out English agricultural workers come swarming in like locusts. They are stowed away in cellars or lofts, or a formerly respectable workers' house is turned into a hostel that people move into and out of as fast as soldiers quartered during the Thirty Years' War. Consider, for example, the town of Bradford. The municipal philistines there had just tried to improve their town, which in 1861 still had 1,751 unoccupied homes. Then business picked up, prompting Mr. Forster, a gentle liberal and friend of the Negro, to crow so artfully. And, of course, with the revival of business came waves of the "reserve army" or "relative surplus population," which keeps surging and receding, and the town was flooded with people. It was mostly well-paid workers who wound up living in the frightful cellar apartments and rooms that an insurance agent compiled a list of for

55. *Ibid.* p. 149.

56. *Ibid.* p. 50.

Dr. Hunter.⁵⁷ These workers declared that they would have gladly paid for better lodgings if any had been available. Instead they wilted, becoming sickly and haggard. Meanwhile, Forster, that gentle liberal and also an MP, shed tears of joy over the blessings of free trade and the profits that the eminences of Bradford made in the worsted industry. In his report of September 5, 1865, Dr. Bell, one of the local Poor Law doctors, blamed the housing conditions for the appalling mortality rates among the fever patients in his district. "In one small cellar, measuring 1,500 cubic feet there are ten persons . . . Vincent Street, Green Aire Place, and the Leys, include 223 houses having 1,450 inhabitants, 453 beds, and 36 privies. . . .

57. Here is the agent's list (taken from *ibid.* p. 111):

1) Houses

Vulcan Street, No. 122	1 room	16 persons
Lumley Street, No. 13	1 room	11 persons
Brower Street, No. 41	1 room	11 persons
Portland Street, No. 112	1 room	10 persons
Hardy Street, No. 17	1 room	10 persons
North Street, No. 18	1 room	16 persons
North Street, No. 17	1 room	13 persons
Wymer Street, No. 19	1 room	8 adults
Jowett Street, No. 56	1 room	12 persons
George Street, No. 150	1 room	3 families
Rifle Court, Marygate, No. 11	1 room	11 persons
Marshall Street, No. 28	1 room	10 persons
Marshall Street, No. 49	3 rooms	3 families
George Street, No. 128	1 room	18 persons
George Street, No. 130	1 room	16 persons
Edward Street, No. 4	1 room	17 persons
York Street, 34	1 room	2 families
Salt Pie Street (bottom)	2 rooms	26 persons

2) Cellars

Regent Street	1 cellar	8 persons
Acre Street	1 cellar	7 persons
33 Roberts Court	1 cellar	7 persons
Back Pratt Street, used as a brazier's shop	1 cellar	7 persons
27 Ebenezer Street	1 cellar	6 persons

The beds—and in that term I include any roll of dirty old rags, or an armful of shavings—have an average of 3.3 persons to each, some have 4 to 6 persons each, and many people are absolutely without beds; they sleep, in their ordinary clothes, on the bare boards—young men and women, married and unmarried, all together. I need scarcely add that many of these dwellings are dark, damp, dirty, stinking holes, utterly unfit for human habitations; they are the centres from which disease and death are distributed amongst those in better circumstances who have allowed them thus to fester in our midst.”⁵⁸

The housing misery in Bristol is bad enough to rank third (behind London). “Bristol, where the blankest poverty and domestic misery abound in the wealthiest town of Europe.”⁵⁹

c. The Nomadic Population

Let us now turn to a stratum of people who come from rural areas but for the most part perform industrial labor. They are capital’s light infantry, dispatched from one place to another according to its needs. When not on the march, they set up “camp.” This nomadic labor is used for different types of construction and drainage projects, brickmaking, lime burning, laying railroad tracks, and so on. A mobile column of contagion, they spread various diseases wherever they set up camp: smallpox, typhus, cholera, scarlet fever, etc.⁶⁰ When it comes to projects that require a significant outlay of capital, e.g., railroad construction, the capitalist himself generally provides his army with wooden huts or some such accommodations: improvised villages where hygienic and sanitary measures are omitted, and people live outside the supervision of the local authorities. This turns out to be very profitable for the contractor, who exploits the workers twice—once as his industrial soldiers and again as his tenants. Depending on whether a hut has one, two, or three holes, the person renting it—say, someone who digs trenches for railroad lines—has to pay 2, 3, or 4 shillings a week. One example will suffice.⁶¹ Dr. Simon reports that in September of 1864, the Chairman of the Nuisance Removal Committee for Sevenoaks parish sent the following complaint to Sir George Grey, the Home Secretary: “Smallpox cases were rarely heard of in this parish until about twelve months ago. Shortly before that time the works for a railway from Lewisham to Tunbridge were commenced here, and in addition to the principal works being in the immediate neighborhood

58. *Ibid.* p. 114.

59. *Ibid.* p. 50.

60. “Public Health. Seventh Report. Lond. 1865,” p. 18.

61. *Ibid.* p. 165.

of this town, here was also established the depot for the whole of the works, so that a large number of persons was of necessity employed here. As cottage accommodation could not be obtained for them all, huts were built in several places along the line of the works by the contractor, Mr. Jay, for their especial occupation. These huts possessed no ventilation nor drainage, and, besides, were necessarily over-crowded, because each occupant had to accommodate lodgers, whatever the number in his own family might be, although there were only two rooms to each tenement. The consequences were, according to the medical report we received, that in the night-time these poor people were compelled to endure all the horror of suffocation to avoid the pestiferous smells arising from the filthy stagnant water, and the privies close under their windows. Complaints were at length made to the Nuisances Removal Committee by a medical gentleman who had occasion to frequent these huts, and he spoke of their condition as dwellings in the most severe terms, and he expressed his fears that some very serious consequences might ensue unless some sanitary measures were adopted. About a year ago Mr. Jay promised to appropriate a hut to which persons in his employ, who were suffering from a contagious disease, might at once be removed. He repeated that promise on July 23rd last, but although since the date of the last promise there have been several cases of smallpox in his huts, and two deaths from the same disease, yet he has taken no steps whatever to carry out his promise. On the 9th September instant, Mr. Kelson, surgeon, reported to me further cases of smallpox in the same huts, and he described their condition as most disgraceful. I should add for your [the minister's] information that an isolated house called the Pest-house, which is set apart for parishioners who might be suffering from infectious diseases, has been continually occupied by such patients for many months past, and is also now occupied; that in one family five children died from smallpox and fever; that from April 1st to September 1st this year, a period of five months, there have been no fewer than ten deaths from smallpox in the parish, four of them being in the huts already referred to; that it is impossible to ascertain the exact number of persons who have already suffered from that disease, although they are known to be many, from the fact of the families keeping it as private as possible.⁶²

62. Ibid. p. 18, note. The Relieving Officer of the Chapel-en-le-Frith Union gave the following report to the Registrar General: "At Doveholes, a number of small excavations have been made into a large hillock of lime ashes, which are used as dwellings, and occupied by labourers and others employed in the construction of a railway. The excavations are small, and damp, and have no drains or privies about them, and not the slightest means of ventilation except a hole pulled through the top, and used for a chimney. In

Coal miners and other miners rank among the highest-paid members of Britain's working class. Earlier, we saw what price they pay for their wages.⁶³ Here I will touch on their living conditions. As a rule, the person who exploits the mine, whether as its owner or by renting it, builds cottages for his workers, who live in them, and get coal to heat them with, for "free." "Free" means that the cottages and coal constitute part of workers' wages—a payout in kind. Workers who can't be housed in this way receive an extra £4 per year. Mining districts can quickly attract large populations made up of the miners themselves and the artisans, shopkeepers, etc, who collect around them. When population density is high in these situations, so are ground rents, just as is the case elsewhere. The mining entrepreneur therefore tries to slap together the minimum number of cottages his workers and their families can be packed into on as small a piece of land (at the mouth of the mine) as possible. If new mines are opened nearby, or old ones are reopened, the crowding worsens. When the cottages are built, a single point of view reigns: the capitalist's "abstinence" with regard to every outlay of cash that isn't absolutely impossible to avoid. "The lodging which is obtained by the pitmen and other labourers connected with the collieries of Northumberland and Durham," says Dr. Julian Hunter, "is perhaps on the whole the worst and the dearest of which any large specimens can be found in England, the similar parishes of Monmouthshire excepted. The extreme badness is in the high number of men found in one room, in the smallness of the ground-plot on which a great number of houses are thrust, the want of water, the absence of privies, and the frequent placing of one house on the top of another, or distributions into flats [so that they become stories lying horizontally on top of one another]. . . . The lessee acts as if the whole colony were encamped, not resident."⁶⁴ "In pursuance of my instructions," says Dr. Stevens, "I visited most of the large colliery villages in the Durham Union. . . . With very few exceptions, the general statement that no means are taken to secure the health of the inhabitants would be true of all of them. . . . All colliers are 'bound' ['bond' dates to the age of serfdom, as does the term 'bondage'] to the colliery lessee or owner for twelve months. If the colliers express discontent, or in any way annoy the 'viewer,' a mark or memorandum is made against their names, and, at the annual 'binding' such men are turned off. . . . It appears to me that no part of the 'truck

consequence of this defect, smallpox has been raging for some time, and some deaths [among the troglodytes] have been caused by them" (ibid. note 2).

63. The note given at the end of section 4 deals mostly with workers in coal mines. On the even worse conditions in metal mines, see the conscientious report of the "Royal Commission" (1864).

64. Ibid. pp. 180, 182.

system' could be worse than what obtains in these densely populated districts. The collier is bound to take as part of his hiring a house surrounded with pestiferous influences; he cannot help himself, and it appears doubtful whether anyone else can help him except his proprietor (he is to all intents and purposes a serf), and his proprietor first consults his balance sheet and the result is tolerably certain. The collier is also often supplied with water by the proprietor which, whether it be good or bad, delivered or held back, he has to pay for, or rather he suffers a deduction for, from his wages."⁶⁵

When capital clashes with "public opinion," and even when it comes into conflict with health officials, it isn't shy about "justifying" the partly dangerous, partly demeaning conditions it inflicts on the workers, both at work and at home, with the claim that it does this because it has to be done in order to exploit them more profitably. Capital says the same thing when it "abstains" from taking steps that might protect the workers who operate dangerous machines in factories, and also when it doesn't use ventilation equipment in mines or implement safety measures there. It says the same thing again with respect to miners' housing. Dr. Simon, the medical officer for the Privy Council, writes in his official report, "In apology for the wretched household accommodation, it is alleged that mines are commonly worked on lease; that the duration of the lessee's interest (which in collieries is commonly for twenty-one years) is not so long that he should deem it worth his while to create good accommodation for his laborers, and for the tradespeople and others whom the work attracts; that, even if he were disposed to proceed liberally in the matter, this disposition would commonly be defeated by his landlord's tendency to fix on him, as ground-rent, an exorbitant additional charge for the privilege of having on the surface of the ground the decent and comfortable village which the laborers of the subterranean property ought to inhabit; and that this prohibitory price (if not actual prohibition) equally excludes others who might desire to build. . . . It would be foreign to the purpose of this report to enter upon any discussion of the merits of the above apology. Nor here is it even needful to consider where it would be that, if decent accommodations were provided, the cost would . . . eventually fall—whether on landlord, or lessee, or laborer, or public. . . . But in the presence of such shameful facts as are vouched for in the annexed reports [those of Dr. Hunter, Dr. Stevens, and so on], a remedy may well be claimed. . . . Claims of landlordship are being so used as to do great public wrong. The landlord in his capacity as mine-owner invites an industrial colony to labor on his estate, and then in his capacity of surface-owner makes it impossible that the laborers whom

65. *Ibid.* pp. 515, 517.

he collects should find proper lodging where they must live. The lessee [the capitalist exploiter of the mine] meanwhile has no pecuniary motive for resisting that division of the bargain—well knowing that if its latter conditions be exorbitant, the consequences fall not on him, that his laborers on whom they fall have not education enough to know the value of their sanitary rights, that neither obscenest lodging nor foulest drinking water will be appreciable inducements towards a ‘strike.’”⁶⁶

d. How Crises Affect the Highest-Paid Members of the Working Class

Before turning to agricultural workers, I will show how crises have affected even the highest-paid members of the working class—its aristocracy, so to speak. A single example should suffice for this. Readers will recall that 1857 saw the kind of major crisis that always completes the industrial cycle. The next one was due to occur in 1866, and it would be mostly financial in nature. As a result of the cotton famine, which caused a great deal of capital to be moved from traditional sites of investment to the main centers of the money market, this crisis was discounted from the start in the actual factory districts. In May 1866, a giant London bank went under, signaling that the downturn had begun: the bank’s fall was followed by the collapse of countless swindling companies. Iron shipbuilding was one of the major branches of industry in London damaged by the catastrophe. Not only had its magnates heedlessly overproduced during the “swindling years,” they had also taken on enormous contracts, speculating that credit would continue to flow freely. A terrible reaction set in, which has continued through the present day—namely, late March 1867—in shipbuilding and other London industries.⁶⁷ After visiting the sites where workers suffered the most, a correspondent for

66. *Ibid.* p. 16.

67. “Wholesale starvation of the London Poor. . . . Within the last few days the walls of London have been placarded with large posters, bearing the following remarkable announcement: ‘Fat oxen! starving men! The fat oxen, from their palace of glass, have gone to feed the rich in their luxurious abodes, while the starving men are left to rot and die in their wretched dens.’ The posters bearing these ominous words are put up at certain intervals. No sooner have one set been defaced or covered over, than a fresh set is placarded in the former, or some equally public space. . . . This recalls the secret revolutionary associations which prepared the French people for the events of 1789. . . . At this moment, while English workmen with their wives and children are dying of cold and hunger, there are millions of English gold—the produce of English labour—being invested in Russian, Spanish, Italian, and other foreign enterprises” (“Reynolds’ Newspaper,” 20th Jan. 1867).

the *Morning Star* produced an extensive report; the following passages should give readers a sense of the workers' situation: "In the East End districts of Poplar, Millwall, Greenwich, Deptford, Limehouse, and Canning Town, at least 15,000 workmen and their families were in a state of utter destitution, and 3,000 skilled mechanics were breaking stones in the workhouse yard. They had exhausted their savings in battling with a six or eight months' dire distress. . . . I had great difficulty in reaching the workhouse door [in Poplar], for a hungry crowd besieged it. They were waiting for their tickets, but the time had not yet arrived for the distribution. The yard was a great square place, with an open shed running all round it, and several large heaps of snow covered the paving-stones in the middle. In the middle, also, were certain little wicker-fenced spaces, like sheep pens, where in finer weather the men worked; but on the day of my visit the pens were so snowed up that nobody could sit in them. Men were busy, however, in the open shed breaking paving-stones into macadam. Each man had a big paving-stone for a seat, and he chipped away at the rime-covered granite until he had broken up, I think, five bushels of it, and then he had done his day's work, and got his day's pay—threepence and an allowance of food. In another part of the yard was a rickety little wooden house, and when we opened the door of it, we found it filled with men who were huddled together shoulder to shoulder for the warmth of one another's bodies and breath. They were picking oakum, and disputing the while as to which of them could work the longest on a given quantity of food—for endurance was the point of honour. Seven thousand in this one workhouse were recipients of relief. Hundreds, it appeared, were six or eight months ago, earning the highest wages paid to artisans. Their number would be more than doubled, by the count of those who, having exhausted all their savings, still refuse to apply to the parish, because they have a little left to pawn. . . . Leaving the workhouse, I took a walk through the streets, mostly of little one-storey houses, that abound in the neighborhood of Poplar. My guide was a member of the Committee of the Unemployed. My first call was on an ironworker who had been for seven and twenty weeks out of employment. I found the man with his family sitting in a little back room. The room was not bare of furniture, and there was a little fire in it. This was necessary to keep the naked feet of the young children from getting frost bitten, for it was a bitterly cold day. On a tray in front of the fire lay a quantity of oakum, which the wife and children were picking in return for their allowance from the parish. The man worked in the stone-yard of the workhouse for a certain ration of food and threepence per day.

He had now come home to dinner quite hungry, as he told us with a melancholy smile, and his dinner consisted of a couple of slices of bread and dripping and a cup of milkless tea. . . . The next door at which we knocked was opened by a middle-aged woman, who, without saying a word, led us into a little back parlour, in which sat all her family, silent and fixedly staring at a rapidly dying fire. Such desolation, such hopelessness was about these people and their little room as I should not care to witness again. ‘Nothing have they done, sir,’ said the woman, pointing to her boys, ‘for six and twenty weeks; and all our money gone—all the twenty pounds that me and the father saved when times was better, thinking it would yield a little to keep us when we got past work. Look at it,’ she said, almost fiercely, bringing out a bank-book with all its well-kept entries of money paid in and money taken out, so that we could see how the little fortune had begun with the first five shilling deposit, and had grown by little and little to be twenty pounds, and how it had melted down again till the sum in hand got from pounds to shillings, and the last entry made the book as worthless as a blank sheet. This family received relief from the workhouse, and it furnished them with just one scanty meal per day. . . . Our next visit was to an Irish labourer’s wife, whose husband had worked in the yards. We found her ill from want of food, lying on a mattress in her clothes, and just covered with a strip of carpet, for all the bedding had been pawned. Two wretched children were tending her, themselves looking as much in need of nursing as their mother. Nineteen weeks of enforced idleness had brought them to this pass, and while the woman told the history of that bitter past, she moaned as if all her faith in a future that should atone for it were dead. . . . On getting outside, a young fellow came running after us, and asked us to step inside his house and see if anything could be done for him. A young wife, two pretty children, a cluster of pawn-tickets, and a bare room were all he had to show.”⁶⁸

68. Among England’s capitalists it is now fashionable to portray Belgium as a workers’ paradise. This is because “freedom of labor” isn’t compromised there by the despotism of trade unions or the Factory Acts, so let me say a few words about the “good fortune” of the “free” Belgian worker, who is mistreated only by the clerisy, the landed aristocracy, the liberal bourgeoisie, and the bureaucracy, and not by trade unions or the Factory Acts! In his work “Budgets économiques des classes ouvrières en Belgique,” M. Ducpetiaux, a real authority, who might still be the General Inspector of Belgium’s prisons, says, “we assume that the worker’s family consists of a father, a mother and four children.” Of these six persons, “four can be usefully occupied for the whole year; so long as none are sick or infirm. . . .”

e. Britain's Agricultural Proletariat

Nowhere has the antagonistic character of capitalist production asserted itself with as much brutality as in the progress English agriculture⁶⁹ has enjoyed and the regress inflicted on English agricultural workers. Below I will examine how these workers fare in the present day. First, however, I want to take a brief look at the past. In England, modern agriculture dates to the middle of the eighteenth century, although the revolution in property relations that the new mode of production is based on occurred much earlier.

Under these circumstances, the family's maximum income is as follows:

The father 300 working days at fr. 1.56	fr. 468
The mother 300 working days at fr. 0.89	fr. 267
The oldest boy 300 working days at fr. 0.56	fr. 168
The oldest girl 300 working days at fr. 0.55	fr. 165
Total	fr. 1,068

The family's annual expenses and deficit would rise, if the worker consumes the same amount of food as these figures:

The sailor in the fleet fr. 1,828	Deficit fr. 760
The soldier fr. 1,473	Deficit fr. 405
The prisoner fr. 1,112	Deficit fr. 44

"In the household that we have taken as our model, we have brought together every possible resource. But by giving the mother a salary, we take away the household's direction: How will the interior be cared for? Who will look after the young children? Who will prepare the meals, do the washing and mending? How is it, however, that a large number—we might say the vast majority of workers—live on more economical terms? It is, as we have already said, by resorting to expedients of which only the worker has the secret; by reducing his daily ration . . . by eating less meat, or even eliminating it altogether, as well as butter and seasonings; by making do with one or two rooms where the family is crammed together, where boys and girls sleep next to each other, often on the same bed; by economizing on clothing, laundry and cleanliness; by giving up Sunday entertainment. . . . Once this extreme limit has been reached, the slightest rise in [their means of subsistence] and, finally, the family asks to be put on the destitute list." When the price of grain varies, even slightly, in this "paradise of capitalists," the death rate and crime rate vary, too! (See "Manifest der Maatshappij: Die Vlamingen Vooruit! Brüssel 1860," pp. 13, 14). Nine hundred and thirty thousand families live in Belgium. According to official statistics, 90,000 of them count as wealthy (voters), which amounts to about 450,000 people. The lower middle class in towns and villages is made up of 390,000 families, most of them always sinking into the proletariat: they amount to 1,950,000 people. Lastly, there are 450,000 working-class families to which 2,250,000 people belong. The model ones benefit from the good fortune described by Ducpetiaux. Many of these families—200,000—are on the pauper list!

69. The category "agriculture" includes cattle breeding here.

Arthur Young may have been a superficial thinker, but he was a careful observer; and according to the account of agricultural workers he gave in 1771, those workers languished in a very bleak situation compared with that of their predecessors at the end of the fourteenth century, when “the labourer could live in plenty, and accumulate wealth,”⁷⁰ to say nothing of the fifteenth century, that “golden age of the English labourer in town and country.” But we don’t need to go back that far. In a very informative work of 1777, we read, “The great farmer, is nearly mounted to a level with the gentleman; while the poor labourer is depressed almost to the earth. . . . His unfortunate situation will fully appear, by taking a comparative view of it, only forty years ago, and at present. . . . Landlord and tenant have both gone hand in hand in keeping the labourer down.”⁷¹ The author then shows with precision that real agricultural wages fell by nearly $\frac{1}{4}$, or 25%, between 1737 and 1777. As Dr. Richard Price said at the time, “Modern policy is, indeed, more favourable to the higher classes of people; and the consequence of it may in time prove, that the whole kingdom will consist of only gentry and beggars, or of grandees and slaves.”⁷²

And yet, English agricultural workers were comparatively well off from 1770 to 1780. With respect to how much they consumed, their housing, and their sense of self and sources of amusement, their circumstances represent an ideal that hasn’t been attained since then. Expressed as pints of wheat, their average wage amounted to 90 in 1770–71 but to only 65 in Eden’s day (1797), and to just 60 pints in 1808.⁷³

We have already noted how agricultural workers were faring at the end of the Anti-Jacobin War, during which the landed aristocracy, farmers, industrial manufacturers, merchants, bankers, stockbrokers, and military suppliers increased their wealth dramatically. The nominal wage rose,

70. James E. Th. Rogers (Prof. of Polit. Econ. at the University of Oxford): “A History of Agriculture and Prices in England. Oxford 1866,” Vol. 1, p. 690. In the two volumes that have appeared so far, this work, the result of assiduous labor, covers only the period 1259 to 1400. The second volume contains exclusively statistical material. It is the first true “history of prices” for that time.

71. “Reasons for the late Increase of the Poor-Rates; or, a comparative view of the price of labour and provisions. Lond. 1777,” pp. 5. 11.

72. Dr. Richard Price, “Observations on the Reversionary Payments,” 6th edn. By W. Morgan, Lond. 1803, Vol. 2, p. 158. On page 159, Price remarks, “The nominal price of day labour is at present no more than about four times, or at most five times higher than it was in the year 1514. But the price of corn is seven times, and of flesh-meat and raiment about fifteen times higher. So far, therefore, has the price of labour been even from advancing in proportion to the increase in the expences of living, that it does not appear that it bears now half the proportion to those expences that it did bear.”

73. Barton op. cit. p. 26. For the end of the eighteenth century, see Eden op. cit.

partly because banknotes depreciated, and partly because the cost of the most essential means of subsistence rose independently of that. However, the real movement of wages is easy to track without having recourse to details that aren't actually relevant. The Poor Law was the same in 1814 as in 1795, and how it was administered didn't change either. As readers will recall, the law was implemented in agricultural districts in such a manner that the nominal wage came out to less than a worker needed just to waste away, with the parish making up the difference in the form of alms. The ratio between the wage paid by the farmer and the wage-deficit covered by the parish shows us two things. First, that wages had fallen below their minimum level, and, second, the extent to which the agricultural worker was a combination of wage laborer and pauper—i.e., how much he had been transformed into a serf who belonged to his parish. Let's take a county whose conditions represent the average of what one would find in all the other counties. In 1795, the average weekly wage in Northampton amounted to 7 shillings 6d., and the annual total expenses for a family of six came out to £36 12 shillings 5d. The average total income was £29 18 shillings, while the deficit made up by the parish came out to £6 14 shillings 5d. In 1814, the average weekly wage in the same county was 12 shillings 2d., and the average total expenses for a family of five came out to £54 18 shillings 4d. per year. The average total income for such a family amounted to £36 2 shillings; the deficit made up by the parish to £18 6 shillings 4d.⁷⁴ In 1795, the deficit came out to less than 1/4 of the total income but, in 1814, to more than half of it. By then, needless to say, the small comforts Eden had found in the workers' cottages were gone.⁷⁵ Of all the animals kept by farmers, the worker, the *instrumentum vocale*, was from then on the most oppressed, worst fed, and most brutalized.^{ix}

This state of affairs persisted without incident until "the Swing riots in 1830 revealed to us [i.e., the ruling classes], by the light of blazing corn-stacks, that misery and black mutinous discontent smouldered quite as fiercely under the surface of agricultural as of manufacturing England."^{76,x} Speaking before the House of Commons, Michael Thomas Sadler christened the agricultural worker a "white slave." A bishop promptly echoed his epithet in the House of Lords. According to Edward Gibbon Wakefield, the most important political economist of the period, "The peasant of the South of England is not a freeman, nor is he a slave; he is a pauper."^{77,xi}

74. Parry op. cit. p. 80.

75. Ibid. p. 213.

76. S. Laing op. cit. p. 62.

77. "England and America. Lond. 1833," Vol. I, p. 47.

The time just before the Corn Laws were repealed shed new light on the agricultural workers' situation. On the one hand, the bourgeois agitators had an interest in showing how little those protectionist laws protected the actual grain producers. On the other hand, the industrial bourgeoisie was seething with anger because the landed aristocracy had condemned the working conditions in factories—in other words, utterly corrupt, heartless, upper-crust idlers had expressed fake sympathy for the factory workers and exhibited “diplomatic zeal” for factory legislation. An old English proverb says that when two thieves have a falling-out, something useful always results. And, in fact, when these two factions of the ruling class set upon each other, loudly and fervently arguing about which of them exploited the workers more shamelessly, this served as a midwife of truth on both sides. The Earl of Shaftesbury, then Lord Ashley, led the aristocratic-philanthropic antifactory charge.^{xiii} Hence throughout 1844 and 1845, the *Morning Chronicle* made him the primary target of its revelations about the circumstances in which agricultural workers toiled and lived. This paper, at the time the most important liberal organ, sent special commissioners into the agricultural districts, and they didn't content themselves with providing general depictions and statistics. Instead they published the names both of the workers they interviewed and their landlords. The following list shows the wages paid in three villages near Blanford, Wimbourne, and Poole. The villages belonged to Mr. G. Bankes and the Earl of Shaftesbury. Let us note that like Mr. Bankes, Shaftesbury, that Pope of the “Low Church,” that head of England's pietists, pocketed as rent a large part of the workers' paltry wages.

First Village

Children (a)	Number of Family Members (b)	Weekly Wage Earned by the Men (c)	Weekly Wage Earned by the Children (d)	Weekly Income of the Whole Family (e)	Weekly Rent (f)	Total Weekly Wage after Rent Deduction (g)	Weekly Income per Head (h)
2	4	8 s. 0d.	NA	8 s. 0d.	2 s. 0d.	6 s. 0d.	1 s. 6d.
3	5	8 s. 0d.	NA	8 s. 0d.	1 s. 6d.	6 s. 6d.	1 s. 3½d.
2	4	8 s. 0d.	NA	8 s. 0d.	1 s. 0d.	7 s. 0d.	1 s. 9d.
2	4	8 s. 0d.	NA	8 s. 0d.	1 s. 0d.	7 s. 0d.	1 s. 9d.
6	8	7 s. 0d.	1 s. 6d., 2 s. 0d.	10 s. 6d.	2 s. 0d.	8 s. 6d.	1 s. 0½d.
3	5	7 s. 0d.	NA	7 s. 0d.	1 s. 4d.	5 s. 8d.	1 s. 1½d.

Second Village

Children (a)	Number of Family Members (b)	Weekly Wage Earned by the Men (c)	Weekly Wage Earned by the Children (d)	Weekly Income of the Whole Family (e)	Weekly Rent (f)	Total Weekly Wage after Rent Deduction (g)	Weekly Income per Head (h)
6	8	7 s. 0d.	1 s. 6d.	10 s. 0d.	1 s. 6d.	8 s. 6d.	1 s. 0 $\frac{1}{4}$ d.
6	8	7 s. 0d.	1 s. 6d.	7 s. 0d.	1 s. 3 $\frac{1}{2}$ d.	5 s. 8 $\frac{1}{2}$ d.	0 s. 8 $\frac{1}{2}$ d.
8	10	7 s. 0d.	NA	7 s. 0d.	1 s. 3 $\frac{1}{2}$ d.	5 s. 8 $\frac{1}{2}$ d.	0 s. 7d.
4	6	7 s. 0d.	NA	7 s. 0d.	1 s. 6 $\frac{1}{2}$ d.	5 s. 5 $\frac{1}{2}$ d.	0 s. 11d.
3	5	7 s. 0d.	NA	7 s. 0d.	1 s. 6 $\frac{1}{2}$ d.	5 s. 5 $\frac{1}{2}$ d.	1 s. 1d.

Third Village

Children (a)	Number of Family Members (b)	Weekly Wage Earned by the Men (c)	Weekly Wage Earned by the Children (d)	Weekly Income of the Whole Family (e)	Weekly Rent (f)	Total Weekly Wage after Rent Deduction (g)	Weekly Income per Head (h)
4	6	7 s. 0d.	NA	7 s. 0d.	1 s. 0d.	6 s. 0d.	1 s. 0d.
3	5	7 s. 0d.	1 s. 2d.	11 s. 6d.	0 s. 10d.	10 s. 8d.	2 s. 1 $\frac{1}{2}$ d.
0	2	5 s. 0d.	1 s. 6d.	5 s. 0d.	1 s. 0d.	4 s. 0d.	2 s. 0d. ⁷⁸

English agriculture received an enormous boost when the Corn Laws were abolished. In fact, the epoch that followed was characterized by such things as drainage on a massive scale,⁷⁹ novel ways of stall-feeding, the artificial cultivation of green crops, the introduction of a mechanical apparatus for spreading manure, new methods of treating clay soil, the use of the steam engine and many new devices, and, generally speaking, more intense cultivation of the land. Mr. Pusey, the president of the Royal Society for Agriculture, maintains that the newly introduced machinery lowered the (relative) cost of farming by nearly 50%. Moreover, the positive yield from the land increased rapidly. A greater outlay of capital per acre, and thus also the accelerated concentration of farms, were essential

78. London "Economist." 1845, p. 290.

79. In order to accomplish this, the landed aristocracy advanced themselves Treasury funds at a very low rate of interest, going through Parliament, of course. The farmers have to pay them back at double the rate.

prerequisites for the new method.⁸⁰ At the same time, or between 1846 and 1856, the amount of cultivated land grew by 464,119 acres, to say nothing of the large expanses of the eastern counties that were transformed as if by magic from rabbit warrens and scraggly pastures into lush wheatfields. Readers already know that the total number of workers (of both sexes and all ages) engaged in agricultural production fell as all this was happening, going from 1,241,269 people in 1851 to 1,163,227 in 1861.⁸¹

The English Registrar General was therefore right to say, “The increase of farmers and farm labourers since 1801 bears no kind of proportion to the increase of agricultural produce.”⁸² This disproportion has become much more pronounced in the most recent period, when a positive decrease in the rural working population has gone hand in hand with all of the following: an increase in both the amount of cultivated land and the intensity with which it is cultivated, an unheard-of accumulation of the capital incorporated into the land and spent on its cultivation, growth in agricultural production not seen before in the history of English agronomy, prodigious amounts of rent going to the landlords, and burgeoning wealth on the part of the capitalist farmers. Now put this together with certain other conditions, namely, that the market for products in towns expanded rapidly and without interruption, while free trade reigned. The result? At last, agricultural workers, *post tot discrimina rerum*, wound up in circumstances that should have made them, *secundum artem*, giddy with happiness.^{xiii}

But Professor Rogers has concluded that since the decade 1770–80, the situation of English agricultural workers has become vastly worse, to say nothing of how their working and living conditions compare with those of their counterparts in the fifteenth century and the second half of the fourteenth century. He writes, “The peasant has again become a serf,”⁸³

80. The numerical decline of medium-sized farmers can be seen especially clearly in the census category “Farmer’s son, grandson, brother, nephew, daughter, grand-daughter, sister, niece,” in other words, in the declining number of family members employed by such farmers. In 1851, there were 216,851 such people; there were only 176,151 in 1861.

81. The number of shepherds increased from 12,517 to 25,559.

82. Census etc. op. cit. p. 36.

83. Rogers op. cit. pp. 693, 10. Mr. Rogers subscribes to the liberal school of thought. He is a personal friend of Cobden and Bright, and thus no *laudator temporis acti*. [Editor’s note: The Latin here, a phrase from Horatius’s *Ars Poetica*, means “eulogists of past times.”]

that is, a serf who doesn't get enough nourishment and whose housing is miserable. In his epoch-making report on the living conditions of agricultural workers, Dr. Julian Hunter says, "The cost of the hind [a name for the agricultural worker, handed down from the time of serfdom] is fixed at the lowest possible amount on which he can live . . . the supplies of wages and shelter are not calculated on the profit to be derived from him. He is a zero in farming calculations."⁸⁴ "The means [of subsistence] of the labourers—the means being always supposed to be a fixed quality."⁸⁵ "As to any further reduction of his income, he may say, *nihil habeo, nihil curo*.^{xiv} He has no fears for the future, because he has now only the spare supply necessary to keep him. He has reached the zero from which are dated the calculations of the farmer. Come what will, he has no share either in prosperity or adversity."⁸⁶

The year 1863 saw an official investigation into the general treatment and working conditions of criminals sentenced to incarceration and penal servitude. The results were recorded in two thick Blue Book volumes, where, among other things, we read that from "an elaborate comparison between the diet of convicts in the convict prisons in England, and that of paupers in workhouses, and of free labourers, in the same country, it certainly appears that the former are much better fed than either of the two other classes,"⁸⁷ while "the amount of labour required from a convict under penal servitude is about one-half of what would be done by an ordinary day-labourer."⁸⁸ Here are a few representative examples of the witnesses' statements, which were given in interviews with John Smith, the director of the prison in Edinburg: No. 5056: "The diet of the English prisons is superior to that of ordinary labourers in England." No. 5057: "It is a fact that ordinary agricultural labourers in Scotland very seldom get any meat at all." No 3047: "Is there anything you are aware of to account for the necessity of feeding them very much better than ordinary labourers—Certainly not." No. 3048: "Do you think that further experiments ought to

84. "Public Health. Seventh Report. Lond. 1865," p. 242. Thus it is hardly unusual for a landlord to raise a worker's rent upon hearing that the worker now earns a little more, and the same holds for the farmer's practice of lowering a worker's wage "because his wife has found a trade" (*ibid.*).

85. *Ibid.* p. 135.

86. *Ibid.* p. 134.

87. "Report of the Commissioners . . . relating to Transportation and Penal Servitude. Lond. 1863," Vol. I, n. 50.

88. *Ibid.* p. 77. "Memorandum by the Lord Chief Justice."

be made in order to ascertain whether a dietary might not be hit upon for prisoners employed on public works nearly approaching to the dietary of free labourers?”⁸⁹ “He [the agricultural worker] might say: ‘I work hard, and have not enough to eat, and therefore it is better for me to be in prison again than here.’”⁹⁰ Using the tables appended to the first volume of the Report, I have put together the following comparative overview.

Weekly Amount of Nourishment

	Amount of nitrogenous ingredients (ounces)	Amount of non-nitrogenous ingredients (ounces)	Amount of mineral matter (ounces)	Total (ounces)
Portland (convict)	28.95	150.06	4.68	183.69
Sailor in the Navy	29.63	152.91	4.52	187.06
Soldier	25.55	114.49	3.94	143.98
Working coach-maker	24.53	162.06	4.23	190.82
Compositor	21.24	100.83	3.12	125.19
Agricultural worker	17.73	118.06	3.29	139.08

Readers already know what the medical commission of inquiry found for the worst-nourished classes of people: many agricultural workers and their families eat less than is needed to “avert starvation diseases.” This is particularly so in all the purely agricultural districts of Cornwall, Devon, Somerset, Dorset, Wilts, Staffordshire, Oxfordshire, Berks, and Herts. “The nourishment obtained by the agricultural labourer himself,” Dr. Simon observed, “is larger than the average quantity indicates, since he is able to work only when he eats a larger share of food than the other members of the family, including in the poorer districts nearly all the meat and bacon. The quantity of food obtained by the wife, and also by the children at the period of rapid growth, is in many cases, in almost every country, deficient, and particularly in nitrogen.”⁹¹ The servants—both male and female—who live with the farmers are amply nourished, but the number of them fell from 288,272 in 1851 to 204,962 in 1861. “The labour of women in the fields,” said Dr. Smith, “whatever may be its disadvantages, is under present circumstances of great advantage to the family,

89. *Ibid.* v. II. Evidence.

90. *Ibid.* v. I. Appendix, p. 280.

91. “Public Health. Sixth Report. 1863,” Lond., 1864, pp. 238, 249, 261, 262.

since it adds that amount of income to the family which provides shoes and clothing, and pays the rent, and thus enables the whole family to be better fed.”⁹² One of the investigation’s most remarkable findings was that of all the agricultural workers in the United Kingdom, those in England are “considerably the worst fed,” as the following table shows:

Weekly amounts of carbon and nitrogen consumed by the average adult agricultural worker:

	Carbon, grains	Nitrogen, grains
England	40,673	1,594
Wales	48,354	2,031
Scotland	48,980	2,348
Ireland	43,366	2,434 ⁹³

92. Ibid. p. 262.

93. Ibid. p. 17. English agricultural workers get only $\frac{1}{4}$ as much milk and only $\frac{1}{2}$ as much bread as their Irish counterparts. A. Young remarked on the better nourishment of the latter workers as early as the beginning of this century, in his “Tour through Ireland.” The factor that has brought about this difference is simply that the poor Irish farmer is incomparably more humane than the rich English one. As for Wales, what is said in the text doesn’t hold for the southwest region of that country: “All the doctors there agree that the increase of the death-rate through tuberculosis, scrofula, etc., becomes more intense as the physical condition of the population deteriorates, and all ascribe this deterioration to poverty. The farm worker’s keep is reckoned at about 5d. a day, but in many districts it was said to be of much less cost to the farmer [himself very poor]. A morsel of the salt meat or bacon, salted and dried to the texture of mahogany, and hardly worth the difficult process of assimilation, is used to flavor a large quantity of broth or gruel, of meal and leeks, and day after day this is the labourer’s dinner. . . . The advance of industry in this harsh and damp climate resulted in the abandonment of homespun clothing in favour of the cheap and showy cotton goods and of stronger drinks for ‘nominal’ tea. . . . The agriculturist, after several hours exposure to wind and rain, gains his cottage to sit by a fire of peat or of balls of clay and small coal kneaded together, from which volumes of carbonic and sulphurous acids are poured out. His walls are of mud and stones, his floor the bare earth which was there before the hut was built, his roof a mass of loose and sodden thatch. Every crevice is stopped to maintain warmth, and in an atmosphere of diabolic odour, with a mud floor, with his only clothes drying on his back, he often sups and sleeps with his wife and children. Obstetricians who have passed parts of the night in such cabins have described how they found their feet sinking in the mud of the floor, and they were forced (easy task) to drill a hole through the wall to effect a little private respiration. It was attested by numerous witnesses in various grades of life that to these insanitary influences and many more the underfed peasant was nightly exposed, and of the result, a debilitated and scrofulous people, there was no want of evidence. . . . The evidence of the union officers of Carmarthenshire and Cardiganshire proved conclusively the same state of things. There is besides a plague more horrible still, the great number of idiots. Now, a few words about the climate: A strong south-west wind blows over the whole country for 8 or 9 months in the year, bringing with it torrents of rain which discharge principally upon the western slopes

Dr. Simon writes in his official *Health Report*, “To the insufficient quantity and miserable quality of the house accommodation generally had by our agricultural laborers, almost every page of Dr. Hunter’s report bears testimony. And gradually for many years past, the state of the laborer in these respects has been deteriorating, house-room being now greatly more difficult for him to find, and, when found, greatly less suitable to his needs, than perhaps for centuries has been the case. Especially within the last twenty or thirty years the evil has been in very rapid increase, and the household circumstances of the laborer are now in the highest degree deplorable. Except in so far as they whom his labor enriches see fit to treat him with a kind of pitiful indulgence, he is quite peculiarly helpless in the matter. Whether he shall find house-room on the land which he contributes to till, whether the house-room which he gets shall be human or swinish, whether he shall have the little space of the garden that so vastly lessens the pressure of his poverty—all this does not depend on his willingness and ability to pay reasonable rent for the decent accommodation he requires, but depends on the use which others may see fit to make of their ‘right to do as they will with their own.’ However large may be a farm, there is no law that a certain proportion of laborers’ dwellings, much less of decent dwellings, shall be upon it; nor does any law reserve for the laborer ever so little right in that soil to which his industry is as needful as sun and rain. . . . An extraneous element weights the balance heavily against him. . . . The influence of the Poor Law in its provisions concerning settlement and chargeability.⁹⁴ Under this influence, each parish has a pecuniary interest in reducing to a minimum

of the hills. Trees are rare except in sheltered places, and where not protected are blown out of all shape. The cottages generally crouch under some bank, or often in a ravine or quarry, and none but the smallest sheep and native cattle can live on the pastures. . . . The young people migrate to the eastern mining districts of Glamorgan and Monmouth. . . . Carmarthenshire is the breeding ground of the mining population and their hospital. The population can therefore barely maintain its numbers. Hence in Cardiganshire:

	1851	1861
Males	45,155	44,446
Females	52,459	52,955
Total	97,614	97,401”

(Dr. Hunter’s Report, in “Public Health. Seventh Report. 1864,” Lond. 1865, pp. 498–502, *passim*.) [Editor’s note: Quite a bit of paraphrase mixed in with the direct quotation here.]

94. In 1865, this law was improved somewhat. Soon experience will show that such tinkering doesn’t help.

the number of its resident laborers—for, unhappily, agricultural labor, instead of implying a safe and permanent independence for the hard-working laborer and his family, implies for the most part only a longer or shorter circuit to eventual pauperism—a pauperism which during the whole circuit is so near, that any illness or temporary failure of occupation necessitates immediate recourse to parochial relief—and thus all residence of agricultural population in a parish is glaringly an addition to its poor-rates. . . . Large proprietors⁹⁵ have but to resolve that there shall be no laborers' dwellings on their estates, and their estates will thenceforth be virtually free from half their responsibility for the poor. How far it has been intended in the English constitution and law that this kind of unconditional property in land should be acquirable, and that a landlord, 'doing as he wills with his own,' should be able to treat the cultivators of the soil as aliens whom he may expel from his territory, is a question which I do not pretend to discuss. . . . For that power of eviction does not exist only in theory. On a very large scale it prevails in practice—prevails as a main governing condition in the household circumstances of agricultural labor. . . . As regards the extent of the evil, it may suffice to advert to the evidence which Dr. Hunter has compiled from the last census, that destruction of houses, notwithstanding increased local demands for them, had, during the last ten years been in progress in 821 separate parishes or townships of England—so that, irrespectively of persons who had been forced to become non-resident [namely, in the parishes in which they work], these parishes and townships were receiving in 1861, as compared with 1851, a population $5\frac{1}{3}$ per cent greater into house-room $4\frac{1}{2}$ percent less. . . . When the process of depopulation has completed itself, the result, says Dr. Hunter, is a show-village, where the cottages have been reduced to a few, and where none but persons who are needed as shepherds, gardeners, or game-keepers, are allowed to live; regular servants, who receive the good treatment usual to their class.⁹⁶ But the land requires cultivation, and it will be found that the laborers employed

95. In order to understand what follows, we need to keep in mind that one or two big landlords own "close villages," while the land in "open villages" belongs to many small proprietors. It is in the latter kind that building speculators can build cottages and lodging houses.

96. This type of show-village looks quite nice, but it is as unreal as the villages that Catherine II saw on her way to Crimea. Nowadays, even the shepherd is often banished from these show-villages. Near Market Harborough, for example, there is a sheep farm of around 500 acres that requires the labor of only one man. As a way of reducing the long treks over these wide plains, or the beautiful pastures of Leicestershire and Northamptonshire, the shepherd used to be given a cottage on the farm. Now he gets a thirteenth of a shilling each week to spend on housing, which he has to find quite far away, in the nearest "open village."

upon it are not the tenants of the owner, but that they come from a neighbouring open village, perhaps three miles off, where a numerous small proprietary had received them when their cottages were destroyed in the close villages around. Where things are tending to the above result, often the cottages which stand testify, in their unrepaired and wretched condition, to the extinction to which they are doomed. They are seen standing in the various stages of natural decay. While the shelter holds together, the laborer is permitted to rent it; and glad enough he will often be to do so, even at the price of decent lodging. But no repair, no improvement shall it receive, except such as its penniless occupants can supply. And when at last it becomes quite uninhabitable—uninhabitable even according to the humblest standard of serfdom, it will be but one more destroyed cottage, and future poor-rates will be somewhat lightened. While great owners are thus escaping from poor-rates through the depopulation of the lands over which they have control, the nearest town or open village receives the evicted laborers; the nearest, I say; but this ‘nearest’ may be three or four miles distant from the farm where the laborer has his daily toil. To that daily toil there will then have to be added, as though it were nothing, the daily need of walking six or eight miles for power of earning his bread. And whatever farm-work is done by his wife and children is done at the same disadvantage. Nor is this nearly all the evil which the distance occasions him. In the open village, cottage speculators buy scraps of land which they throng as densely as they can with the cheapest of all possible hovels. And into those wretched habitations, which, even if they adjoin the open country, have some of the worst features of the worst town residences, crowd the agricultural laborers of England.⁹⁷ . . . Nor on the other hand must it be supposed

97. “The labourers’ houses [in the open villages, which are, naturally, always overcrowded] are usually in rows, built with their backs against the extreme edge of the plot of land which the builder could call his, and on this account are not allowed light or air, except from the front” (Dr. Hunter’s Report *op. cit.* p. 135). Very often a village’s beerseller or grocer has tenants as well as customers. In such cases, he is the agricultural worker’s second master, next to the farmer. The worker has no choice but to be his customer. “The hind with his 10s. a week, minus rent of £4 a year is obliged to buy, at the seller’s own terms, his modicum of tea, sugar, flour, soap, candles, and beer” (*ibid.* p. 132). These open villages are in fact the “penal settlements” of the English agricultural proletariat. Many of the cottages are actually lodging-houses, and the entirety of the wandering rabble in the region pass through them. Even under the most wretched conditions, the agricultural worker and his family often managed to exhibit an admirable industriousness and purity of character; but they become utterly degraded in these lodging-houses. Of course, it is fashionable for the elegant Shylocks to shrug their shoulders pharisaically at the building speculators, the small landlords, and the “open villages.” They know well enough that their “close villages” and “show villages” are where the “open villages” come into being, and that they could not exist without them. “Were it not for the small owners, the workers would for by far the most part have to sleep under

that, even when the laborer is housed upon the lands which he cultivates, his household circumstances are generally such as his life of productive industry would seem to deserve. Even on such princely estates his cottage may be of the meanest description. There are landlords who deem any styè good enough for their laborer and his family, and who yet do not disdain to drive him with the hardest possible bargain for rent.⁹⁸ It may be but a ruinous one-bedroomed hut, having no fire grate, no privy, no opening window, no water supply but the ditch, no garden—but the laborer is helpless against the wrong. And the Nuisances Removal Acts are a mere dead letter, dependent for their working on such cottage-owners as the one from whom his hovel is rented. . . . From brighter but exceptional scenes, it is requisite in the interests of justice that attention should again be drawn to the overwhelming preponderance of facts which are a reproach to the civilisation of England. Lamentable indeed must be the case, when, notwithstanding all that is evident with regard to the quality of the present accommodation, it is the common conclusion of competent observers, that even the general badness of dwellings is an evil infinitely less urgent than their mere numerical insufficiency. For years, the overcrowding of rural laborers' dwellings has been a matter of deep concern, not only to persons who care for sanitary good, but to persons who care for decent and moral life. For, again and again, in phrases so uniform that they seem stereotyped, reporters on the spread of epidemic disease in rural districts have insisted on the extreme importance of that overcrowding, as an influence which renders it a quite hopeless task to attempt the limiting of any infection which is introduced. And again and again it has been pointed out that, notwithstanding the many salubrious influences which there are in country life, the crowding which so favours the extension of contagious disease, also fosters the emergence of the non-contagious type. And those who have denounced the over-crowded state of our rural population have not been silent as to a further mischief. Even where their primary concern has been only with the

the trees of the farms on which they work" (ibid. p. 135). The system of "open" and "closed" villages reigns in all the Midland counties and throughout the eastern part of England.

98. "The employer [the farmer or the landlord] is at present, indirectly or directly, securing to himself the profit on a man employed at 10s. a week, and receiving from this poor hind perhaps £4 or £5 annual rent for houses not worth £20 in a really free market, but maintained at their artificial value by the power of the owner to say 'Use my house, or go seek a living elsewhere, without a character from me.' . . . Does a man wish to better himself, to go as a plate-layer on the railway, or to begin quarry work, the same power is ready, with, 'Work for me at this low rate of wages, or begone at a week's notice; take your pig with you, and get what you can for the potatoes growing in your garden.' Should his interest appear to be better served by it, an enhanced rent is sometimes preferred in these cases by the owner [or, as the case may be, the farmer] as the penalty for leaving his service" (Dr. Hunter op. cit. p. 132).

injury to health, often almost perforce they have been referred to other relations of the subject. In showing how frequently it happens that adult persons of both sexes, married and unmarried, are huddled together in single small sleeping rooms, their reports have carried the conviction that, under the circumstances they describe, decency must always be outraged, and morality almost of necessity suffer.⁹⁹ . . . Thus, for instance, in the Appendix of my last annual report, Dr. Ord., reporting on an outbreak of fever at Wing in Buckinghamshire, mentions how a young man who had come thither from Wingrave with fever, 'in the first days of his illness slept in a room with nine other persons. Within a fortnight several of these persons were attacked, and in the course of a few weeks five out of the nine had fever, and one died.' From Dr Harvey of St. George's Hospital who on private professional business visited Wing during the time of the epidemic, I received information exactly in the sense of the above report. 'A young woman of 19 having fever, lay in a room occupied at night by her father and mother, her bastard child, two young men (her brothers) and her two sisters, each with a bastard child, 10 persons in all. A few weeks ago 13 persons slept in it.'¹⁰⁰

Dr. Hunter inspected 5,375 workers' cottages located in counties all over England, and not only in the purely agricultural districts. Of these cottages, 2,195 had just one bedroom (which often served as the living room, too), 2,930 had just two bedrooms, and 250 had more than two bedrooms. What follows is a small selection of examples taken from a dozen counties.

1. Bedfordshire^{xv}

Wrestlingworth. Bedrooms are approximately 12 feet long and 10 feet wide, although many are smaller. The little one-story cottages are often divided by partitions into two bedrooms, often with a bed in a kitchen

99. "New married couples are no edifying study for grown up brothers and sisters; and though instances must not be recorded, sufficient data are recorded, sufficient data are remembered to warrant the remark, that great depression and sometimes death are the lot of the female participator in the offence of incest" (Dr. Hunter op. cit. p. 137). A rural policeman, who worked for many years as a detective in London's worst quarters, says about the boys and girls in his village, "Their boldness and shamelessness I never saw equaled during some years of police life and detective duty in the worst parts of London. . . . They live like pigs, great boys and girls, mothers and fathers, all sleeping in one room, in many instances" ("Child. Empl. Comm. Sixth Report, Lond. 1867," Appendix, p. 77, n. 155).

100. "Public Health. Seventh Report. Lond. 1865," pp. 9-14 *passim*. [Editor's note: Marx dropped a number of qualifying terms in translating these passages: "almost," "perhaps," and "probably," etc. Did he do that in order to amplify some statements? Or was he merely trying to convey in German what he thought was being conveyed through understatement in the original English text? Even where Marx translates the term "lamentable" as "schauerhaft," which is often rendered into English as "horrifying," it isn't easy to say.]

5 feet 6 inches high. Rent is £3 per year. The tenants have to build their own privies; all the landlord supplies is a hole. The moment someone builds a privy, the whole neighborhood makes use of it. One house, the Richardsons', was impossibly beautiful. Its plaster walls bulged like a lady's dress in a curtsy. One gable end was convex, the other concave, and on the latter was, unfortunately, the chimney, a curved tube of clay and wood that looked just like an elephant's trunk. A long stick served as a support to keep the chimney from falling. The doorway and window were rhomboidal. Of seventeen houses visited, only four had more than one bedroom, and those four were overcrowded. The cottages with one bedroom housed three adults and three children, a married couple with six children, etc.

Dunton. High rents, £4 to £5, while men earn 10s. a week. They hope the money brought in by the family's straw-plaiting will allow them to pay the rent. The more the rent costs, the greater the number of people chipping in to pay has to be. Six adults living in a single bedroom with four children pay £3 10s. The cheapest house in Dunton, 15 feet long externally, 10 feet wide, rents for £3. Only one of the 14 houses investigated had two bedrooms. On the outskirts of the village, a house on whose sides the tenants smeared waste; the lower nine inches of the door completely rotted away; closing up at night entailed moving a few bricks cleverly covered with some mattering. Half a window, with glass and frame, was very much going the way of all flesh. Here, three adults and five children huddled together without any furniture. Dunton is no worse than the rest of the Biggleswade Union.

2. Berkshire

Beenham. In June 1864, a man, woman, and four children lived in a cot (one-story cottage). A daughter came home from work with scarlet fever—she died. A child fell ill and died. The mother and one child were sick with typhus when Dr. Hunter was called in. The father and another child slept outside, but one could see the difficulty of maintaining isolation, since linen that belonged to the fever-stricken household was lying in the crowded market of this wretched village, waiting to be washed. The rent for H's house costs 1s. per week: that is what a couple with four children pay for one of the bedrooms. Another house rents for 8d. (weekly)—14 feet, 6 inches long, 7 feet wide, and 7 feet high in the kitchen, it has one bedroom and no fireplace, windows, or other opening beyond the front door. Nor does it have a garden. A man lived here recently with two grown daughters and one grown son; father and son slept on the bed, the young

women slept in the hall. Each of the latter had a baby while the family was living here; however, one of the two went to the workhouse for her confinement, then returned home.

3. Buckinghamshire

Thirty cottages—on 1,000 acres of land—housed about 130–140 people. The parish of Bradenham encompasses 1,000 acres. In 1851, it had thirty-six houses and a population of 84 males and 54 females. This inequality of the sexes was remedied by 1861, when there were 98 males and 87 females: in ten years, an increase of 14 men and 33 women. Meanwhile, the number of houses fell by 1.

Winslow: Majority of them newly built in a fine style. The demand for houses appears to be very considerable, since the shabbiest little cottages are rented for 1s. to 1s. 3d. per week.

Water Eaton: In response to a growing population, the landlords destroyed about 20 percent of the existing houses. A poor worker, who had to walk about four miles to his work, answered as follows, when asked whether he could find a cottage closer to his work: “No; they know better than to take in a man with my large family.”

Tinker’s End, near Winslow: A bedroom in which there were four adults and five children, 11 feet long, 9 feet wide, 6 feet 5 inches high at its highest point; another room, 11 feet 7 inches long, 9 feet wide, 5 feet 10 inches high, housed six persons. Each of these families had less space than a convict gets. None of the houses had more than one bedroom. None had a back door; water was a rarity; weekly rent cost from 1s. 4d. to 2s. In sixteen of the houses visited, there was only one man who earned 10s. per week. The quantity of air for each person under the circumstances just described corresponds to what he would have if at night he were locked up in a box measuring 4 feet each way. The old huts at least afforded a certain amount of spontaneously arising ventilation.

4. Cambridgeshire

Gamlingay belongs to various landlords. It contains the worst cottages one will find anywhere. Much straw-plaiting. A lethal exhaustion, a hopeless surrendering up to squalor, reigns in Gamlingay. The lack of maintenance at its center becomes a kind of torture at its extremities, north and south, where the houses are falling apart from rot. The absentee landlords freely bleed this miserable hole. Rents are very high; eight or nine persons

packed in one bedroom; in two cases, there were six adults, each with one or two children, in a single small bedroom.

5. Essex

In many of the parishes of this county, the number of people has fallen, as has the number of cottages, with these decreases going hand in hand. In no less than twenty-two parishes, however, the destruction of houses has not prevented population increases, or led to the expulsion of people that is occurring everywhere under the name of "migration to the towns." Fingringhoe, a parish of 3,443 acres, contained 145 houses in 1851 but had only 110 in 1861. Yet people didn't want to leave, and the population even managed to grow under these circumstances. In Ramsden Crays, 252 people inhabited 61 houses in 1851; but in 1861, 262 persons were squeezed into 49 houses. One hundred and fifty-seven people lived in Basildon in 1851—on 1,827 acres and in 35 houses. At the end of the decade, 180 persons were living there, in 27 houses. In the parishes of Fingringhoe, South Fambridge, Widford, Basildon, and Ramsden Crays, in 1851, 1,392 people lived on 8,449 acres and in 316 houses. In 1861, in the same area, 1,473 people lived in 249 houses.

6. Herefordshire

This little county has suffered more from the "eviction spirit" than any other in England. In Madley, the overcrowded cottages generally have only two bedrooms. For the most part, they belong to the farmers, who can easily rent them for £3 or £4 a year and pay a weekly wage of 9s.!

7. Huntingdonshire

Hartford had 87 houses in 1851. Nineteen cottages were then destroyed in this small parish of 1,720 acres; the population in 1831 numbered 452; in 1851, 382; and in 1861, 341. Fourteen cottages, all with one bedroom, were investigated. In one, there were 10 people in total: a married couple, three grown sons, a grown daughter, and four children. In another, there were three adults and six children. One of these rooms, where eight people slept, was 12 feet 10 inches long, 12 feet 2 inches wide, and 6 feet 9 inches high: the average, without making any deductions for projections into the room, was about 130 cubic feet per head. Thirty-four adults and 33 children lived in the 14 bedrooms. The cottages rarely have a garden, but many of

the inhabitants are able to farm small allotments at 10s. or 12s. per rood ($\frac{1}{4}$ acre). These allotments are some distance from the houses, which lack privies. The family must either go to the parcel of land to deposit their excrement or, to put it politely, what happens here is that people fill the drawers of a chest with their waste, and as soon as the drawers are full, they are brought to the allotment to be emptied where their contents are needed. In Japan the cycle of life's conditions proceeds more hygienically than this.

8. *Lincolnshire*

Langtoft: Here a man lives in Wright's house with his wife, her mother, and five children. The house has a front kitchen, scullery, and bedroom. Together the front kitchen and bedroom are 12 feet 2 inches by 9 feet 5 inches. The whole ground floor is 21 feet 3 inches by 9 feet 5 inches. The bedroom is an attic; the walls run together into the roof like a sugarloaf, with a dormer-window opening in front. Why does the man live here? Because of the garden? No. It is tiny. Rent? It is high—1s. 3d. per week. Is it close to his work? No, it is 6 miles away: every day he has to march 12 miles. He lives here because it is a cottage for rent, and because he wants to have a cottage just for himself alone, anywhere, at any price and in any condition. What follows are the statistics for 12 houses in Langtoft, with 12 bedrooms, 38 adults, and 36 children.

Twelve Houses in Langtoft

Houses	Bedrooms	Adults	Children	Number of persons
No. 1	1	3	5	8
No. 2	1	4	3	7
No. 3	1	4	4	8
No. 4	1	5	4	9
No. 5	1	2	2	4
No. 6	1	5	3	8
No. 7	1	3	3	6
No. 8	1	3	2	5
No. 9	1	2	0	2
No. 10	1	2	3	5
No. 11	1	3	3	6
No. 12	1	2	4	6

9. Kent

Kennington: Very badly overpopulated in 1859, when an outbreak of diphtheria occurred, and the parish doctor arranged for a medical inquiry into the conditions of the poor classes to be conducted. He found that in this locality, where much labor is needed, various cottages had been destroyed and no new ones built. In one district, four houses had been named bird-cages. Each had four rooms with the following dimensions in feet and inches:

- Kitchen: 9 ft. 5 by 8 ft. 11 by 6 ft. 6.
- Scullery: 8 ft. 6 by 4 ft. 6 by 6 ft. 6.
- Bedroom: 8 ft. 5 by 5 ft. 10 by 6 ft. 3.
- Bedroom: 8 ft. 3 by 8 ft. 4 by 6 ft. 3.

10. Northamptonshire

Brixworth, Pickford, and Floore: In these villages 20–30 men idle about on the streets from lack of work. The farmers do not always till the wheat and turnip lands sufficiently, and the landlord has found it best to combine all his farms into two or three—hence the dearth of employment. While on one side of the wall the land cries out to be worked, on the other side the swindled workers stare at it longingly. Overworked in a feverish way in the summer, and half-starved in the winter, no wonder they say in their own patois, “The parson and gentlefolks seem frit to death at them [the cleric and the nobleman seem to be conspiring to work them to death].”

In Floore, there are couples who live in a tiny bedroom with four, five, six children; the same goes for three adults with five children and a couple with a grandfather and six children ill with scarlet fever, and so on. In two houses with two bedrooms, there are two families, with eight and nine adults, respectively.

11. Wiltshire

Stratton: 31 houses visited, eight with only one bedroom. Penhill is in the same parish. A cottage with four adults and four children, rented for 1s. 3d. per week, had nothing good about it except the walls—from the floor of rough-hewn pieces of stones to its rotten straw roof.

12. *Worcestershire*

The destruction of houses is not quite so bad here; yet from 1851 to 1861, the average number of inhabitants per house rose from 4.2 to 4.6.

Badsey: Many cottages and little gardens. Some farmers have protested that the cottages are “a great nuisance here, because they bring the poor.” One such gentleman said, “The poor are none the better for them, if you build 500 they will all let fast enough, in fact the more you build the more they want”—according to him, the houses bring forth inhabitants, who then by a law of nature strain “the means of housing.” Dr. Hunter observed in response, “Now these poor must come from somewhere, and as there is no particular attraction such as doles at Badsey, it must be repulsion from some other more unfit place which will send them here. If each could find an allotment and cot near his work he would not prefer Badsey where he pays for his scrap of ground twice as much as the farmer pays for his.”

People are constantly migrating to cities; a rural “surplus population” is constantly forming due to concentration, the transformation of arable land into pastures, and the introduction of machinery; and the rural population is constantly being evicted as their cottages are destroyed—these developments go hand in hand with one another. The more sparsely populated a district is, the greater its “relative surplus population”; the greater the pressure that population exerts on the means of employment, the greater the absolute amount by which the rural population exceeds the available housing, and, thus, the greater the local surplus population in the villages and the hazardous overcrowding there. People are violently swept off the surface of the land; accordingly, dense knots of humanity form in scattered little villages and small towns. What is the cradle of pauperism? It occurs where agricultural workers are continuously rendered superfluous as the amount of product they produce keeps increasing, even though there are fewer and fewer of them. Their eventual pauperism serves as a motive for their eviction. It also does more than anything else to bring about the miserable state of their housing, which causes the workers to lose what remains of their power to resist and become slaves of the landlords¹⁰¹ and farmers. Hence for the workers

101. “The heaven-born employment of the hind gives dignity even to his position. He is not a slave, but a soldier of peace and deserves his place in married man’s quarters, to be provided by the landlord, who has claimed a power of enforced labour similar to that the country demands of a military soldier. He no more receives market-price for his work than does a soldier. Like the soldier he is caught young, ignorant, knowing only his own

themselves, the fact of their minimal wages hardens into a natural law. At the same time, the countryside is underpopulated, despite the fact that a “relative surplus population” is constantly forming. We see this not only where the flow of people to cities, mines, railway projects, and so on proceeds very rapidly, but also all over, or during the many moments in the spring, summer, and fall when English agriculture, with its careful and intense labor practices, needs extra hands. There are always too many agricultural workers when the demand for agricultural labor is at its average level and too few during times of exceptionally or temporarily high demand.¹⁰² We therefore find in some official documents a single locality complaining about both a surfeit and a shortage of agricultural labor. A temporary or local labor shortage doesn’t result in higher wages but instead drives women and ever-younger children into the fields. The moment the exploitation of women and children begins to occur on a larger scale, it becomes a new way to render male agricultural workers superfluous and keep their wages low. A lovely fruit of this vicious cycle

trade and his own locality. Early marriage and the operation of the various laws of settlement affect the one as enlistment and the Mutiny Act affect the other” (Dr. Hunter op. cit. p. 132). Occasionally, the rare tenderhearted landlord will feel bad about the desolation he has created: “It is a melancholy thing to stand alone in one’s country,” said Lord Leicester, when complimented on the completion of Holkham; ‘I look around, and not a house is to be seen but mine. I am the Giant of Giant Castle, and have eat up all my neighbors.’” [Editor’s note: The source for this quotation is the seventh public health report (1865), p. 135.]

102. France has seen similar movement occur during the past few decades. To the same extent that capitalist production has taken hold of agriculture, it has driven the “surplus” agricultural population into towns. Here, moreover, we find worsening conditions in housing and elsewhere at the source of the “surplus” population. On the particular “*Prolétariat foncier*,” which has arisen as holdings have splintered, see the work by Colins already cited and also Karl Marx, “Der Achtzehnte Brumaire des Louis Bonaparte. New-York 1852,” pp. 88ff. [Editor’s note: English translation, in *MECW*, vol. 11, pp. 99–197.] In 1846, France’s urban population made up 24.42 percent of the total, with the rural population making up 75.58 percent. In 1861, the urban population accounted for 28.86 percent of the total population and the rural population for 71.14 percent. Over the past five years, the rural population’s share has shrunk even more markedly. As early as 1846, Pierre Dupont sang in his “Ouvriers,”

Mal vêtus, logés dans des trous
Sous les combles, dans les décombres.
Nous vivons avec les hiboux
Et les larrons, amis des ombres.

[Editor’s note: Badly dressed, housed in holes under the eaves, in the rubble. We go with the owls and the thieves, friends of the shadows.]

has thrived in eastern England: the so-called gang or band system, which I will briefly come back to now.¹⁰³

The gang system operates almost exclusively in Lincolnshire, Huntingdonshire, Cambridgeshire, Norfolk, Suffolk, and Nottinghamshire, but sometimes also in the neighboring counties of Northampton, Bedford, and Rutland. Lincolnshire will serve as our example. A large part of this county is new land—former marshes, or even land that was recently under the sea, as is so in the other eastern counties just mentioned. The steam engine has worked wonders of drainage here: expanses of land that used to be swampy or sandbanks are now lush wheatfields that command high ground rents. The same holds for man-made alluvial lands, such as those on the island of Axholme and in other parishes on the banks of the Trent. Not only were no additional cottages built in proportion to the new farms being established, the old ones were torn down. Thus the labor needed had to come from “open villages” located miles away, along roads winding up the sides of hills. Earlier, this was the only safe place during the long winter floods. The workers who live on the farms that range from 400 to 1,000 acres—they are called “confined laborers”—perform only labor that is permanent and difficult enough to necessitate the use of horses. There is, on average, scarcely one cottage per 100 acres. A Fenland farmer made this statement before the Commission of Inquiry: “I farm 320 acres, all arable land. I have not one cottage on my farm. I have only one labourer on my farm now. I have four horsemen lodging about. We can get light work done by gangs.”¹⁰⁴ The local land requires a great deal of such light labor—e.g., weeding, hoeing, spreading manure, clearing away rocks, and so on. It is gangs—organized bands living in the open villages—that perform this labor.

Gangs vary in size, consisting of 10 to 40 or 50 people: women, teenagers of both sexes (13–18)—although most boys leave the gang when they turn 13—and, finally, children of both sexes (6–13). The leader is called the gang master. Always an ordinary agricultural worker, he tends to be what is known as a lout—dissolute, unreliable, and often drunk, but with something of an entrepreneurial spirit and a bit of *savoir faire*. He brings the gang together, and it works for him, not the farmer. He therefore negotiates with the farmer, generally over the price of piecework. The gang master’s

103. The “Sixth” and final “Report” of the “Child. Empl. Comm.,” published in late March 1867, deals exclusively with the agricultural gang system.

104. “Child. Empl. Comm. Sixth Report.” Evidence, p. 37, n. 173.

income, which barely exceeds that of a regular agricultural worker, depends to a large extent on his skill at getting the maximum amount of labor from his gang in the minimum amount of time.¹⁰⁵ The farmers have learned that women won't work properly unless they are operating under a male dictatorship, but also that once women and children have achieved a certain flow in their work, they will be downright reckless in expending all their vital powers, as Fourier discovered early on, whereas adult male workers shrewdly conserve as much of their energy as they can. The gang master goes from one farm to another, and in this way he keeps his gang employed six to eight months a year. Since the individual farmer hires children only now and then, the work the gang master finds for them is much more lucrative and certain. This bolsters his position among workers' families in open villages, so much so that in many places children can't be hired without his involvement. As a side business, in fact, he rents children out to farmers on an individual basis, independently of the gang.

The "drawbacks" of the gang system are that teenagers and children are overworked; they have to march daily to farms that are far away—five, six, and sometimes even seven miles; and, finally, workers in the "gangs" undergo a process of moral degradation. The gang master, known as "the driver" in some places, is often armed with a long stick. But he swings it sparingly, and those who work under him seldom complain about brutal treatment. He is a democratic emperor, or a kind of Pied Piper of Hamelin. So, he needs to be loved by his subjects, whom he wins over with the gypsy life that blooms under his auspices. Free in the coarsest of ways, wild and obscene in their impudence, the members of the gang enjoy an untamed existence. Typically, the gang master pays the bar tab then wobbles home, propped up on both sides by a sturdy woman, with the rest of the gang trailing behind. The children and teenagers bring up the rear in these processions, belting out lewd and scabrous songs as they go. "*Phanerogamie*," to use Fourier's term,^{xvi} is a preferred activity during these walks home: It often happens that boys of 13 and 14 impregnate girls the same age. The open villages from which gang members are called up devolve into Sodoms and Gomorrahs¹⁰⁶ where children are born out of wedlock at twice the rate in the rest of the United Kingdom. We have already pointed to what girls who are brought up in this way accomplish in the moral realm as married

105. But some gang masters have worked their way up, becoming farmers with 500 acres, or the owners of a row of houses.

106. "Half the girls of Ludford have been ruined by gangs" (ibid. p. 6 n. 32).

women: for example, they often use opium to get rid of their children. The children who survive are the gangs' natural recruits.

The classic form of the gang just described is called the public, common, or tramping gang. But there are also private gangs, which are made up of the same kind of people who are in public gangs. What distinguishes the private ones from their public counterparts is that they are smaller, and rather than being led by a gang master, the members work under an old farm servant for whom the farmer can find no better use. The gypsy hijinks drop out of the picture here, and by all accounts children are paid less and generally treated worse.

Of course, the gang system, which has been steadily expanding in recent years,¹⁰⁷ doesn't exist for the sake of the gang master. It exists to make big farmers¹⁰⁸ richer and thus to make landlords richer, too.¹⁰⁹ From the farmer's perspective, it is the most sensible way to keep his working personnel far smaller than the normal size, yet always have extra hands available—the most sensible way to extract the maximum amount of labor with the minimum amount of money¹¹⁰ and render adult male workers “superfluous.” From the foregoing discussion, readers should understand why people would concede that agricultural workers lack employment, to a greater or lesser degree, but at the same time claim that with so many workers migrating to cities and towns, the gang system is “necessary” due to a dearth of male labor.¹¹¹ The neatly weeded fields of Lincolnshire and

107. “The gangs have greatly increased of late years. In some places they are said to have been introduced at comparatively late dates: in others, where gangs of some kind have been known for many years, it is said that more and younger children are employed in them than formerly” (ibid. p. 79 n. 174).

108. “Small farmers don't want gangs.” “It is not on poor land, but on land which affords a rent of from 40 to 50 shillings, that they are employed in the greatest numbers” (ibid. pp. 17 and 14). [Editor's note: “They” in the second sentence of this quotation is “woman and children” in the source text.]

109. One of these gentlemen enjoyed the taste of his rents so much that in a tone of high dudgeon, he told the Commission of Inquiry the whole ruckus was caused entirely by the system's name. If, instead of “gang,” it were christened an “Agricultural Juvenile Industrial Cooperative Self-Supporting Association,” it would all be “all right.”

110. “Gang work is cheaper than other work; that is the reason why they are employed,” says a former gang-master. (ibid. p. 17, n. 14) “The gang-system is decidedly the cheapest for the farmer, and decidedly the worst for the children,” says a farmer. (ibid. p. 16 n. 3)

111. “Undoubtedly much of the work now done by children in gangs used to be done by men and women. More men are out of work now where children and women are employed than formerly” (ibid. p. 43, n. 202). On the other hand, “the labour question in some agricultural districts, particularly the arable, is becoming so serious in consequence of emigration, and the facility afforded by railways for getting to large towns,

its bedraggled human weeds represent the pole and counterpole of capitalist production.¹¹²

f. Ireland

Before we conclude this section, we need to take a quick trip to Ireland. Let's begin with the key facts.

Ireland's population had grown by 1841 to number 8,222,664 people; by 1851, however, it had fallen to 6,623,985, and it fell to 5,850,309 a decade after that. In 1866, 5¹/₂ million people lived in Ireland, about as many as at the beginning of the century. This contraction began in the famine year

that I [the "I" here is the land agent of a great lord] think the services of children are most indispensable" (ibid. p. 80, n. 180). In contrast to the rest of the world, the "labour question" in England's agricultural districts is really the "landlords' and the farmers' question," that is, how, despite an ever-increasing exodus of agricultural people, can a sufficient "relative surplus population" be maintained in the country—how can the wages of agricultural workers thereby be kept at a minimum?

112. The English press and thus the public have remained unaware of the "Public Health Report" I cited earlier, in which the gang system is dealt with only in passing and with reference to the topic of child mortality. But the final Report of the "Child. Empl. Comm." supplied the press with "sensational" and welcome material. The liberal press wanted to know how the fine gentlemen and ladies, along with the sinecurists of the state church who so abound in Lincolnshire, people who send out missions to the antipodes expressly "for the improvement of the morals of South Sea Islanders," could look on as such a system took shape on their estates. Meanwhile, the fancier newspapers limited themselves to reflecting on the rough moral decline of an agricultural population that could sell its own children into such slavery! These "delicate" people condemn agricultural workers to such terrible conditions that it wouldn't be surprising if the workers ate their own children. What is truly miraculous is how much probity most of the workers have retained. The official reports prove that even in the gang districts, the parents despise the gang system. "There is much in the evidence that shows that the parents of children would in many instances be glad to be aided by the requirements of a legal obligation to resist the pressure and the temptations to which they are often subject. They are liable to be urged at times by the parish officers, at times by employers, under threats of being themselves discharged, to allow their children to be taken to work at an age when it would manifestly be to their greater advantage that the school attendance should not be broken in upon. . . . All that time and strength wasted; all the suffering from extra and unprofitable fatigue produced to the labourer and to his children; every instance in which the parent may have traced the moral ruin of his child to the undermining of delicacy by the overcrowding of cottages, or to the contaminating influences of the public gang, must have been so many incentives to feelings in the minds of the laboring poor which can be well understood, and which it would be needless to particularize. They must be conscious that much bodily and mental pain has thus been inflicted upon them from causes for which they were in no way answerable; to which, had it been in their power, they would have in no way consented; and against which they were powerless to struggle" (ibid. pp. XX, n. 82, and XXIII, n. 96).

(1846), and thus in less than 20 years Ireland lost more than $5/16$ of its population.¹¹³ Between May 1851 and July 1865, 1,591,487 people emigrated: more than half a million people left the country during the last five of those years (1861–65). The number of occupied homes decreased by 52,990 between 1851 and 1861. During the same period, the number of farms between 15 and 30 acres increased by 61,000, and the number of farms with more than 30 acres increased by 109,000, while the total number of farms fell by 120,000. So it was exclusively the destruction of farms smaller than 15 acres—in other words, the concentration of farms—that brought about this decrease.

The amount of product produced tended to contract, naturally, as the population did. For our purposes, it will suffice to look at the (five-year) period from 1861 through 1865, when over $1/2$ million people emigrated, and the absolute size of Ireland's population fell by more than $1/3$ million.

Table A

Livestock

Year	Horses		Cattle		
	Total number	Decrease	Total number	Decrease	Increase
1860	619,811		3,606,374		
1861	614,232	5,579	3,471,688	134,686	
1862	602,894	11,338	3,254,890	216,798	
1863	579,978	22,916	3,144,231	110,659	
1864	562,158	17,820	3,262,294		118,063
1865	547,867	14,291	3,493,414		231,120

Year	Sheep		Pigs		
	Total number	Decrease	Total number	Decrease	Increase
1860	3,542,080		1,271,072		
1861	3,556,050	13,970 (increase)	1,102,042	169,030	
1862	3,456,132	99,918	1,154,324		52,282
1863	3,308,204	147,928	1,067,458	86,866	
1864	3,366,941	58,737 (increase)	1,058,480	8,978	
1865	3,688,742	321,801 (increase)	1,299,893		241,413

113. Population of Ireland in 1801: 5,319,867; in 1811: 6,084,996; in 1821: 6,869,544; in 1831: 7,828,347; in 1841: 8,222,664.

Using the table above, we can arrive at the following results:

Horses	Cattle	Sheep	Pigs
Absolute decrease	Absolute decrease	Absolute increase	Absolute increase
71,944	112,960	146,662	28,821 ¹¹⁴

Let's turn to the agricultural production that supplies human beings and cattle with their means of subsistence. The table below shows how much production increased or decreased each year (as compared with the previous year). Wheat, oats, barley, rye, beans, and peas are counted among the cereal crops. The green crops include potatoes, turnips, mangolds, beetroot, cabbages, carrots, carrots, parsnips, vetches, and so on.

Table B

Increase or Decrease in the Area Under Crops and Grass (in Acres)

Year	Cereal crops		Green crops		Grass and clover		Flax		Total cultivated land	
	Decrease	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	
1861	15,701	36,974		47,969			19,271		81,373	
1862	72,734	74,785			6,623		2,055		138,841	
1863	144,719	19,358			7,724		63,922		92,431	
1864	122,437	2,317			47,486		87,761			10,493
1865	72,450		25,421		68,970	50,159			28,218	
1861-5	428,041	108,013			82,834		122,850		330,370	

In 1865, another 127,470 acres became "grass land," having formerly been, for the most part, "unoccupied bog and waste," a category that shrank by 101,543 acres. Between 1864 and 1865, the production of cereal crops decreased by 246,667 bushels. There were 48,999 fewer bushels of wheat, 166,605 fewer bushels of oats, 29,892 fewer bushels of barley, and so on. Potato production fell by 446,398 tons, even though potatoes were cultivated over a larger area in 1865 as compared with the previous year.

114. The result would be even more unfavorable if we went back even farther. Sheep numbered 3,688,742 in 1865, but 3,694,294 in 1856. There were 1,299,893 pigs in 1865, but 1,409,883 of them in 1858.

Table C

Increase or Decrease in the Amount of Land Cultivated, Product per Acre, and Total Product of 1865

Product	Acres of Cultivated Land	Acres of Cultivated Land	Increase or Decrease, 1865	Product	Per Acre	Increase or Decrease	Total Product (Qrs.)	Total Product (Qrs.)	Total Product (Qrs.)
	1864	1865	1865	1864	1865	1865	1864	1865	Increase or Decrease, 1865
Wheat	276,483	266,989	9,494	(Cwt.) 13.3	13.0	-0.3	875,782	826,783	-48,999
Oats	1,814,886	1,745,228	69,658	(Cwt.) 12.1	12.3	+0.2	7,826,332	7,659,727	-166,605
Barley	172,700	177,102	4,402	(Cwt.) 15.9	14.9	-1.0	761,909	732,017	-29,892
BereRye	8,894	10,091	1,197	(Cwt.) 16.4	14.8	-1.6	15,160	13,989	-1,171
Potatoes	1,039,724	1,066,260	26,536	8.5	10.4	+1.9	12,680	18,364	+5,684
Turnips	337,355	334,212	3,143	(Tons) 4.1	3.6	-0.5	4,312,388	3,865,990	-446,398
Mangel-wurzels	14,073	14,389	316	(Tons) 10.3	9.9	-0.4	3,467,659	3,301,683	-165,976
Cabbages	31,821	33,622	1,801	(Tons) 9.3	10.4	+1.1	297,375	350,252	+52,877
Flax	301,693	251,433	50,260	(St.) 34.2	25.2	-9.0	64,506	39,561	-24,945 ¹¹⁵
Hay	1,609,569	1,678,493	68,924	(Tons) 1.6	1.8	+2.0	2,607,153	3,068,707	+461,554

¹¹⁵ The figures for this table have been compiled from the material given in the "Agricultural Statistics, Ireland. General Abstracts Dublin" for the years 1866ff., and the "Agricultural Statistics, Ireland. Tables showing the Estimated Average Produce etc. Dublin 1866." These official statistics are presented to Parliament annually. The official statistics for 1872 show that compared with the previous year, the amount of land cultivated decreased by 134,915 acres. The production of green crops, turnips, mangel-wurzels, and so on increased. But the land where wheat was cultivated decreased by 16,000 acres; the land where oats were cultivated decreased by 14,000 acres; barley and rye: 4,000 acres; potatoes: 66,692 acres; flax: 34,667 acres; grass, clover, vetches, and rapeseed: 30,000 acres. The land on which wheat is cultivated has decreased continuously over the past five years, as we can see from the following figures: area of wheat cultivation in 1868: 285,000 acres; in 1869: 280,000; in 1870: 259,000; in 1871: 244,000; and in 1872: 228,000. We can see that in 1872, horses increased by 2,600 (in round numbers), horned cattle by 80,000, and sheep by 68,609, while the number of sheep fell by 236,000.

Now let's turn from the movement of Ireland's population and agricultural production to that of the incomes of its landlords, big farmers, and industrial capitalists. The latter movement is reflected in the increases and decreases in income tax revenues. We should note that Schedule D (profits but not farmers' profits) also includes so-called "professional" profits—in other words, the incomes of lawyers, doctors, and so on, while Schedules C and E, which don't provide much in the way of details, include the incomes of bureaucrats, officers, state sinecurists, creditors of the state, etc.

Table D

Taxable Incomes in Pounds Sterling

	1860	1861	1862	1863	1864	1865
1. Schedule A, Rent of Land	12,893,829	13,003,554	13,398,938	13,494,091	13,470,700	13,801,616
2. Schedule B, Farmers' Profits	2,765,387	2,773,644	2,937,899	2,938,823	2,930,874	2,946,072
3. Schedule D, Industrial, etc., Profits	4,891,652	4,836,203	4,858,800	4,846,497	4,546,147	4,850,199
4. Total Schedules A to E	22,962,885	22,998,394	23,597,574	23,658,631	23,236,298	23,930,340 ¹¹⁶

From 1853 through 1864, the incomes in Schedule D increased, on average, by only 0.93 percent annually, whereas in Great Britain as a whole, incomes increased during the same period by an average of 4.58 percent per year. The following table shows how profits (with the exception of farmers' profits) were distributed in 1864 and 1865.

Table E

Schedule D: Income from Profits (over £60) in Ireland

	1864	1864	1865	1865
	Pounds Sterling	Divided among these Persons	Pounds Sterling	Divided among these Persons
Total yearly income	4,368,610	17,467	4,669,979	18,081
Yearly income over £60 and under £100	238,726	5,015	222,575	4,703
Of the total yearly income	1,979,066	11,321	2,028,571	12,184
Remainder of the total yearly income	2,150,818	1,131	2,418,833	1,194
Of these	1,073,906	1,010	1,097,927	1,044
	1,076,912	121	1,320,906	150
	430,535	95	584,458	122
	646,377	26	736,448	28
	262,819	3	274,528	3 ¹¹⁷

116. "Tenth Report of the Commissioners of Inland Revenue. Lond. 1866."

117. The total yearly income under Schedule D differs in this table from the total given in previous tables as a result of certain legally permissible deductions.

A model industrial nation with an advanced form of capitalist production, England would have died from a population bloodletting like the one in Ireland. Today, however, Ireland is merely an English agricultural district that happens to be separated by a wide expanse of water from the country it supplies with grain, wool, and cattle, and also military and industrial recruits.

Ireland's depopulation has greatly reduced the amount of cultivated land, greatly diminished the overall agricultural product,¹¹⁸ and made for outright contraction in some branches of the cattle industry and scant progress constantly interrupted by setbacks in others, even though the amount of land devoted to cattle breeding has in fact increased. Yet even as the population declined, rents for land and farmers' profits kept rising, although the latter didn't rise quite as continuously as the former. It is easy to understand how the two things could happen at the same time. On the one hand, when smaller farms were consolidated and cultivated fields were turned into cattle pasture, a greater share of the total product was transformed into surplus product. The surplus product grew, even though the total product, of which it was a part, decreased. On the other hand, the monetary value of the surplus product increased faster than the sheer amount of that product, owing to how much meat and wool prices have risen in the English market over the previous 20 years, and especially the last 10.

The scattered means of production that function as the producers' own means of employment and subsistence, and do so without valorizing themselves by incorporating the labor of other people, don't constitute capital any more than a product that is consumed by its own producer constitutes a commodity. If the amount of the means of production used in agriculture decreased along with the size of the population, the amount of capital employed there increased, because some of the formerly scattered means of production were turned into capital.

The part of Ireland's total capital invested outside agriculture, or in industry and trade, has accumulated slowly over the past two decades, with dramatic fluctuations occurring the whole time. This has caused the concentration of that capital's individual components to proceed all the more rapidly. And however little the capital may have grown in absolute terms, it has been greatly enlarged in relative ones—i.e., relative to a contracting population.

118. If the agricultural production per acre has also contracted in relative terms, we should keep in mind that for a century and a half, England has exported the soil of Ireland without giving those who cultivate that soil the means for replacing its components.

So here, unfolding right before our eyes and on a large scale, we have a process that is exactly the kind of thing orthodox political economy might dream up to support its dogma, according to which misery stems from absolute overpopulation and depopulation restores the equilibrium. This is an important experiment very different from the mid-fourteenth-century plague that the Malthusians glorified so extensively. Let us note in passing: if it took a schoolmaster's naïveté to apply a fourteenth-century standard to nineteenth-century relations of production and the demographic relations that have gone with them, this same naïveté led economists to overlook the following fact. While the agricultural population on this side of the channel (or in England) may have been liberated and better off in the wake of the plague and the destruction it brought about, France's rural population suffered. Its subjugation and misery intensified.

The Irish famine took more than a million lives in 1846, but it killed only poor devils. The country's wealth came away completely unscathed. In contrast to, say, the Thirty Years' War, the twenty-year, still ever-increasing exodus that followed the famine didn't decimate the means of production when it decimated the human population. The Irish genius invented a totally novel way to spirit poor people thousands of miles from the site of their misery. Those who settled in the United States sent sums of money back home each year—that is, money to pay for further emigration. Every troop who leaves one year thus attracts another one the following year. Instead of hurting Ireland financially, emigration has become one of the most lucrative branches of its export industry. It is a systematic process that doesn't bore a kind of temporary hole in the population; rather, it extracts more people annually than are replaced by new births, thereby causing the absolute size of the population to shrink each year.

What were the consequences for the Irish workers who stayed behind, now freed from the "surplus population"? Relative overpopulation is as great today as it was before 1846. Wages are just as low, and worker oppression has worsened. Furthermore, misery in the countryside is driving the nation toward another crisis. The causes are simple. The revolution in agriculture has kept pace with emigration, while the production of a relative overpopulation has more than kept pace with absolute depopulation. All we need to do is glance at Table B to see that the effects of transforming cultivated land into cow pastures have to be more severe in Ireland than England. The more cattle breeding increases in England, the more green crops are produced, whereas the reverse happens in Ireland. While much formerly cultivated land is now unused or has been permanently transformed into pastures, a large part of the previously unused land, and land that was peat bogs, serves

to help cattle breeding expand. The smaller and medium farmers—I am including all those who cultivate less than 100 acres—still make up about $\frac{8}{10}$ of the whole.¹¹⁹ But they are being ruined as never before by competition from capitalist agricultural production, and thus they provide the wage laborer class with a steady supply of new recruits. The one area of Irish industry that operates on a large scale, namely, linen production, requires a relatively small number of adult male workers, and even though it has grown a great deal since the price of cotton went up, it still employs an insignificant share of the total population. Like every other large-scale industry, it is always fluctuating, and its fluctuations continuously bring about a relative surplus population in its own sphere, even when the amount of people it absorbs increases in absolute terms. The misery of the rural population serves as a foundation for giant shirt factories, whose armies of workers are for the most part scattered throughout the countryside. Here we find the system of domestic industry depicted earlier, which methodically makes workers “superfluous” by at once overworking and underpaying them. And, finally, although its consequences aren’t as destructive as in a country with advanced capitalist production, depopulation in Ireland does react constantly on the domestic situation. When people emigrate, they leave behind ruined landlords, not just empty houses. When their local consumption simply vanishes, this creates a permanent hole in the home market, which shopkeepers, artisans, and small craftsmen feel most acutely. Each new exodus thrusts members of the lower middle class down into the ranks of the proletariat. See, for example, the part of Table E that shows the decline in incomes under £100.

The agricultural worker’s weekly wage in the area around Dublin, or the maximum wage of the Irish agricultural worker, is currently 7 shillings—this at a moment when their primary means of subsistence are quite expensive. One can infer from this figure where wages stand in remote, purely agricultural districts. As for what even skilled industrial workers have to contend with in Ireland, a single example should suffice to illustrate that.

“On my recent visit to the north of Ireland,” writes the English factory inspector Robert Baker, “I met with the following evidence of effort in an Irish skilled workman to afford education to his children; and I give his evidence verbatim as I took it from his mouth. That he was a skilled factory hand may be understood when I say that he was employed for the Manches-

119. Note added to the second edition: According to a table in Murphy’s “Ireland, Industrial, Political, and Social. 1870,” 94.6 percent of all farms have fewer than 100 acres, while 5.4 percent are greater than 100 acres.

ter market. Johnson: I am a beetler, and work from 6 in the morning till 11 at night, from Monday to Friday. Saturday we leave off at 6 P.M., and get three hours of it (for meals and rest). I have five children in all. For this work I get 10s. 6d. a week; my wife works here also, and gets 5s. a week. The oldest girl, who is 12, minds the house. She is also cook, and all the servant we have. She gets the young ones ready for school. A girl going past the house wakes me at half past five in the morning. We get nothing (to eat) before we come to work. The child of 12 takes care of the little children all the day, and we get nothing till breakfast at 8. At 8 we go home. We get tea once a week; at other times we get stirabout, sometimes of oatmeal, sometimes of Indian meal, as we are able to get it. In the winter we get a little sugar and water to our Indian meal. In the summer we get a few potatoes, planting a small patch ourselves; and when they are done we go back to stirabout. So we go on from day to day. Sunday and week day, always the same year round. I am always very much tired when I have done at night. We may see a bit of flesh meat sometimes, but very seldom. Three of our children attend school for whom we pay 1d. a week a head. Our rent is 9d. a week. Peat for firing costs 1s. 6d. a fortnight at the very lowest."¹²⁰ These are Irish wages! This is life in Ireland!¹²¹

Ireland's misery has again become a daily topic of conversation in England. In fact, Lord Dufferin, one of the Irish magnates, tried to devise a solution in the pages of the *Times* in late 1866 and early 1867. "What humanity from such a great lord!"^{xvii}

Table E has shown us that in 1864 three profiteers pocketed just £262,819 out of profits totaling £4,368,610, but in 1865, the same three masters of "abstinence" made off with £274,528 out of £4,669,979. In 1864, 26 profiteers took home £646,377, while in 1865, 28 took home £736,448. In 1864, 121 profiteers raked in £1,076,912; in 1865, 150 took in £1,320,906. In 1864, 1,131 pocketed £2,150,818, or nearly half of all annual profits; the following year, 1,194 profiteers made off with £2,418,333, or more than half of the total annual profits. However, we don't know as much about how annual national rents are distributed. Such a monstrously outsized lion's share is swallowed up by such a vanishingly small number of land magnates in England, Scotland, and Ireland that the English government thinks it best not to supply the same statistics for the distribution of land rents as for that of profits. Lord Dufferin is one of these land magnates. The idea that rent rolls and profits

120. "Reports of Insp. of Fact. for 31st Oct. 1866." Lond. 1867, p. 96.

121. Note added to the second edition: On the movement of the wages of Irish agricultural workers, see "Agricultural Labourers [Ireland] Return to an Order of the Honourable The House of Commons dated 8th March 1861, Lond. 1862," and especially "Reports from the Poor Law Inspectors on the Wages of Agricultural Labourers in Ireland." Dublin 1870.

could ever be “excessive,” or that the large amount of them has anything to do with the large amount of popular misery, is for him as “disreputable” as it is “unsound.” He sticks to the facts. They are that as the population in Ireland has shrunk, the rent rolls have grown fatter, and that depopulation is “good” for landowners and thus also the land, and so it benefits the people, too, since they are nothing more than the land’s accessories. Lord Dufferin has therefore asserted that Ireland remains overpopulated and the stream of emigration still doesn’t flow from there with enough force. In order to truly flourish, Ireland needs to draw off another $\frac{1}{3}$ million working people. But one shouldn’t think that this lord—by nature a poetic person, in addition to everything else—is a doctor of the school of Sangrado, who always prescribed another bloodletting when a patient didn’t recover, until all the disease was drained out of the patient along with all his blood. Lord Dufferin has demanded a new bloodletting of only $\frac{1}{3}$ million people, rather than of about two million, which is what has to happen for the millennium to come to pass in Erin.^{xviii} This is easy to prove.

Number and Size of Farms in Ireland in 1864

Farms not more than 1 acre	Farms not more than 1 acre	Farms over 1 acre, but not over 5 acres	Farms over 1 acre, but not over 5 acres	Farms over 5 acres, but not over 15 acres	Farms over 5 acres, but not over 15 acres	Farms over 15 acres, but not over 30 acres	Farms over 15 acres, but not over 30 acres
No.	Acres	No.	Acres	No.	Acres	No.	Acres
48,653	25,394	82,037	288,916	176,368	1,836,310	136,578	3,051,343

Farms over 30 acres, but not over 50 acres	Farms over 30 acres, but not over 50 acres	Farms over 50 acres, but not over 100 acres	Farms over 50 acres, but not over 100 acres	Farms over 100 acres	Farms over 100 acres	Total area
No.	Acres	No.	Acres	No.	Acres	Acres
71,961	2,906,274	54,247	3,983,880	31,927	8,227,807	20,319,924 ¹²²

The concentration that took place between 1851 and 1861 destroyed mostly farms in the first three categories—farms smaller than one acre and not larger than 15 acres. It is above all these farms that are forced

122. The total area also includes “peat bogs and waste land.”

to disappear. This means that there are 307,058 “superfluous” farmers, and, assuming a low average of four persons per family, 1,228,232 such family members. Even if we accept the generous assumption that it will be possible to absorb $\frac{1}{4}$ of them after the revolution in agriculture has been completed, 921,174 people would still have to emigrate. The farms in categories 4, 5, and 6—i.e., those larger than 15 acres but smaller than 100 acres—are too small for capitalist grain production, as has long been known in England, and they are practically nonexistent by the standards of sheep breeding. Thus if we hold to these same assumptions, another 788,358 persons would have to emigrate, bringing the total to 1,709,532. And, *comme l'appétit vient en mangeant*, Rent Roll's eyes will soon discover that with its three and a half million people, Ireland remains immiserated as a result of being overpopulated.^{xix} It must be depopulated much further before it can achieve its true calling: to be a sheep walk and cattle pasture for England.¹²³

Like all good things in the world, this profitable method has its downside. The accumulation of Irish people in America has kept pace with the accumulation of land rents in Ireland. The Irishman who has been pushed out by sheep and oxen is reborn as a Fenian on the other side of the ocean, where, facing the old queen of the sea, the giant young republic rises up as an ever-greater threat.^{xx}

Acerba fata Romanos agunt

Scelusque

Fraternae necis.^{xxi}

123. Note added to the second edition: In volume 2 of this work, and more specifically, in its section on landed property, I will give a more extensive account of how both individual landowners and English legislation systematically exploited the famine and the conditions it caused as a way to forcibly bring about the agricultural revolution and reduce Ireland's population to an amount desired by the landlords. I will also come back to the relations between the small farmers and agricultural workers. For the moment, however, a quotation: among other things, Nassau W. Senior says in his posthumously published work, “Journals, Conversations and Essays relating to Ireland.” 2 Vols. London 1868, Vol. 2, p. 282, “‘Well,’” said Dr. G., ‘we have got our Poor Law, and it is a great instrument for giving the victory to the landlords. Another instrument is emigration. No friend to Ireland can wish the war [between the English landlords and the small Celtic farmers] to be prolonged—still less, that it should end by the victory of the tenants. . . . The sooner it [this war] is over, the sooner Ireland becomes a grazing country, with the comparatively thin population which a grazing country requires, the better for all classes.’”

The So-Called Original Accumulation

I. The Secret of Original Accumulation

We have seen how money is transformed into capital, how capital makes surplus-value, and how surplus-value makes more capital. The accumulation of capital presupposes surplus-value, and surplus-value presupposes capitalist production, while capitalist production presupposes that individual commodity producers have large amounts of capital in their hands. The whole process thus seems to imply that capitalist accumulation must be preceded by an “original” accumulation, or what Adam Smith calls “previous accumulation”—an accumulation that doesn’t stem from capitalist production, but instead serves as its starting point.ⁱ

This original accumulation plays more or less the same role in political economy as original sin in theology. Adam bit into the apple, and the whole human race fell into a state of sin. Similarly, the origin of original accumulation is presented as an anecdote about the past that supposedly explains everything. Long, long ago, there were two kinds of people: elites who showed great industry and ragamuffins who lazed about. The first type of person accumulated wealth, while the second type ultimately came to have nothing to sell but his own skin. Both the poverty of the masses—who still have only themselves to sell, in spite of all their labor—and the wealth of the few, which keeps growing even though these few haven’t worked in ages, date to this original sin. As a way of defending *propriété*, Mr. Thiers, for example, feeds this rapid children’s fable to the French, who used to have such active and nimble minds, and he does so with the solemnity of a statesman.ⁱⁱ The moment the question of property is raised, it becomes a sacred duty to insist that the standpoint of nursery tales is the only one appropriate for all ages and levels. It is well known that conquest, subjugation, pillaging,

murder—in short, acts of violence—have dominated the history of the real world. But the gentle world of political economy has always been an idyll. There, law and “labor” have been the only means of acquiring wealth, although, of course, an exception is made every year for “this year.” The methods of original accumulation may be many things; what they are not is idyllic.

Money and commodities no more start out as capital than do the means of production or the means of subsistence. They have to be transformed into capital. But this can happen only under certain conditions—namely, two very different commodity owners must come into contact with each other. On the one side is a person who owns money and the means of production and subsistence, and he wants to valorize a sum of value he owns by purchasing someone else’s labor-power. He encounters the free worker, who sells his own labor-power and thus sells labor. This worker is free in two senses. He isn’t considered a means of production, as slaves and serfs are. Nor do the means of production belong to him, as is the case with independent farmers. He is, rather, free of such things—legally free and property-free. Once the commodity market has been polarized in this way, the basic conditions of capitalist production are in place. The capital relation presupposes that workers are separated from the things they need to realize their labor, in the sense that they no longer own those things. As soon as capitalist production has begun to stand on its own two feet, it not only maintains this separation, it continuously reproduces it on an ever-larger scale. So the process that creates the capital relation must also be the process whereby the worker is split away from owning the prerequisites of his labor, a process that transforms the social means of subsistence and production into capital, while also transforming the actual producers into wage laborers. So-called original accumulation is thus nothing other than the historical process of separating the producers from the means of production. It appears as “original” because it constitutes the prehistory of both capital and the mode of production that goes with capital.

We can see right away that this process of separation implies a whole series of historical processes, which is, in fact, a double-sided series in which two different relations of ownership dissolve. On the one hand, there is the dissolution of the relations that make workers into another person’s property—into the means of production that another person appropriates. But what also dissolves is the actual producers’ ownership of their means of production. This process of separation encompasses the entire history of the development of modern bourgeois society, and it would be

quite easy to understand if bourgeois historians had shown that as the feudal mode of production dissolved, its mode of exploitation was transformed into the capitalist one, instead of representing feudalism's dissolution exclusively under the *clair obscur* of the worker's emancipation.ⁱⁱⁱ The worker's enslavement was the starting point of this historical development, which moved forward as the form of his enslavement changed. Yet for our purposes, it isn't necessary to analyze that medieval movement. Although capitalist production sporadically took shape in Mediterranean countries as early as the fourteenth and fifteenth centuries, the capitalist era dates only to the sixteenth century. Wherever it blossomed, serfdom had long since been abolished, and, moreover, the sun had already begun to set on the medieval city-state.

The epoch-making moments in the history of this separation process occurred when large numbers of people were violently torn from their means of production and subsistence, and thrust, now free as birds and just as rightless, into the labor market as proletarians. The whole process was based on land being expropriated from the workers, which is thus where our analysis will begin. The coloration of this history has varied from country to country, and it has passed through its different stages in various sequences. Only in England has it assumed its classic form. Hence England will serve as our example here.¹

2. The Expropriation of the Rural Population's Land

Serfdom had in effect disappeared in England by the end of the fourteenth century: at the time, and even more so in the fifteenth century, the vast majority of the population² was made up of free peasant proprietors, however much the trappings of feudalism may have obscured their status as owners. On the larger feudal estates, free farmers displaced the old bailiffs (themselves former serfs). Some agricultural wage laborers were peasants who wanted to valorize their leisure time by working on those

1. In Italy, where capitalist production developed first, it also happened that serfdom dissolved earlier than elsewhere. The Italian serf was emancipated before he had secured any prescriptive right to the land. When he was emancipated, which instantly turned him into an uprooted proletarian without any legal rights, he found a new master ready and waiting for him in Italy's towns, many of which had existed since Roman times.

2. Even at the end of the seventeenth century, more than $\frac{4}{5}$ of England's total population was still agricultural (Macaulay, "The History of England." Lond. 1854, Vol. I, p. 413). I mention Macaulay because as a systematic falsifier of history, he generally "circumcises" such facts as much as possible.

estates, while others belonged to a small independent class of actual wage laborers—small in both relative and absolute terms. The members of this class were also free peasant proprietors, practically speaking, since they got wages and were given four or more acres of arable land with their cottages. Along with actual peasants, moreover, they enjoyed the use of the common land, where their cattle grazed and they could gather their firewood, timber, turf, and so on.³ Throughout Europe, feudal production was characterized by the fact that the land was divided among as many subfeudatories as possible. The feudal lord's power, like that of every sovereign, rested on not the length of his rent roll but the number of subjects he had, which in turn depended on the number of free peasant proprietors.⁴ While England's land was thus divided into giant baronages after the Norman Conquest, with a single baronage often including 900 old Anglo-Saxon lordships, it was also strewn with peasant properties among which only a few large feudal domains were scattered. These conditions, coupled with the urban efflorescence so characteristic of the fifteenth century, made for the popular wealth that Chancellor Fortescue depicted with such eloquence in his *Laubidus Legum Angliae*. At the same time, however, they precluded wealth as capital.

The final three decades of the fifteenth century, along with the first decades of the sixteenth century, witnessed the prelude to the momentous change that brought about the foundation for the capitalist mode of production. A large number of uprooted proletarians with no rights were thrown into the labor market when the bands of feudal retainers dissolved—as Sir James Steuart correctly said, these retainers had “everywhere uselessly filled house and castle.” Although royal power, itself the product of an emerging bourgeois society, violently accelerated the dissolution of the bands as it strove for absolute sovereignty, it was far from the only important factor here. In their stubborn resistance to the king and Parliament, the feudal lords created incomparably more proletarians

3. One must never forget that even the serf not only owned the piece of land attached to his house, although he was of course a tribute-paying owner, but he was also a coproprietor of the common land. “The peasant [in Silesia] is a serf.” Nevertheless, such serfs owned common lands. “It has not yet been possible to commit the Silesians to the division of communes, while in the *Neumark* there is hardly a village where this division is not being carried out with the greatest success” (Mirabeau, “De la Monarchie Prussienne. Londres 1788,” Vol. 2, pp. 125, 126).

4. With its purely feudal organization of landed property, and its advanced small-scale agriculture, Japan offers us a much truer picture of the European Middle Ages than all our history books, which bourgeois prejudices have shaped so decisively. It is far too easy to be “liberal” at the expense of the Middle Ages.

by driving the peasantry from the land, which the peasants had just as much right to as the lords themselves, according to feudal law, and also by usurping the common lands. The immediate impetus for this expropriation (in England) was that Holland's wool industry had begun to flourish, causing the price of wool to rise. The old feudal nobility had been decimated in the great feudal wars, and the new nobility, a child of its time, regarded money as the highest power of all. Its watchword was therefore that arable land should be turned into sheep pastures.^{iv}

In his *Description of England*, prefixed to *Holingshed's Chronicles*, Harrison describes how the country was being ruined by the expropriation of small farmers. "What care our great incroachers!" The peasants' homes and the workers' cottages were demolished or left to rot. "If," says Harrison, "the old records of everie manour be sought, it will soone appear that in some one manour seventeene, or eighteene, or twentie houses are shrunke, that the number of people supported by the land is much reduced. . . . Of cities and townes either utterlie decayed, or more than a quarter or halfe diminished, though some one be a little increased here or there, of townes pulled downe for sheepe-walks, and no more but the lordships now standing in them, I could say somewhat." These old chroniclers always exaggerate when they complain, but they still give us a true sense of what contemporaries made of the revolution in the relations of production. Comparing the works of Chancellor Fortescue with Thomas More's allows us to see the gap separating the fifteenth and sixteenth centuries. Without going through any transitional stages at all, members of the English working class tumbled from their golden age, as Thornton observed, into an iron age.

Legislation recoiled in this face of this upheaval, having not yet reached that advanced stage of culture where the *ultima thule* of all statecraft is the "wealth of nations," i.e., the formation of capital and the ruthless exploitation and immiseration of most people. In his history of Henry VII, Bacon says, "At that time [1489], complaints about the conversion of arable land into pasture [sheep walks, etc.], maintained by a few herdsmen, began to be more frequent; and tenancies for years, lives, and at will (whereupon much of the yeomanry lived) were turned into demesnes. This bred a decay of people, and, by consequence, a decay of towns, churches, tithes, and the like. . . . In remedying of this inconvenience, the king's wisdom was admirable, and the parliament's at that time. . . . They took a course to take away depopulating inclosures, and depopulating pasturage."

An Act of Henry VII (1488, c. 19) made it illegal to destroy all peasant homes to which more than 20 acres of land were attached. This law was renewed by an Act (25) of Henry VIII, which says, among other things, "Many farms, and great plenty of cattle, particularly sheep, had been gathered into few hands, whereby the rents of the lands had been increased, and tillage very much decayed; churches and houses pulled down, and a marvelous numbers of people rendered incapable of maintaining themselves and their families." Hence the Act prescribed that dilapidated farmhouses be rebuilt, and also established limits for the ratio of land devoted to sheep pastures and land devoted to wheatfields. An Act promulgated in 1533 lamented that some men owned as many as 24,000 sheep and set the maximum limit at 2,000.⁵ But the people's expressions of discontent and the long legislative campaign against the expropriation of small farmers and peasants—begun in the day of Henry VII and waged continuously for 150 years—proved equally ineffectual. Without realizing it, Bacon divulged the secret of this failure. "The device of King Henry VII," he says in section 20 of his *Essays, Civil and Moral*, "was profound and admirable, in making farms and houses of husbandry of a standard; that is, maintained with such a proportion of land to them, as may breed a subject in convenient plenty and no servile condition, and to keep the plough in the hands of the owners and not hirelings."⁶ What capitalist production required was just the opposite: that the majority of the people exist in a servile state, that these people be transformed into mercenaries, and that

5. Note added to the second edition: In his "Utopia," Thomas More writes of the strange land where "sheep devour men."

6. Note added to the second edition: Bacon discusses the connection between a free, prosperous peasantry and a good infantry. "This did wonderfully concern the might and mannerhood of the kingdom, to have the farms, as it were of a standard sufficient to maintain an able body out of penury, and did in effect amortize a great part of the lands of the kingdom unto the hold and occupation of the yeomanry or middle people, of a condition between gentlemen, and cottagers and peasants. For it hath been held by the general opinion of men of best judgment in the wars . . . that the principal strength of an army consisteth in the infantry or foot. And to make good infantry, it requireth men bred, not in a servile or indigent fashion, but in some free and plentiful manner. Therefore if a state run most to noblemen and gentlemen, and that the husbandmen and ploughmen be but as their workfolks and labourers, or else mere cottagers (which are but hous'd beggars) you may have a good cavalry, but never good stable bands of foot. . . . And this is to be seen in France, and Italy, and some other parts abroad, where in effect all is noblesse, or peasantry . . . insomuch, as they are inforced to employ mercenary bands of Switzers and the like, for their battalions of foot; whereby also it comes to pass, that those nations have much people, and few soldiers" ("The Reign of Henry VII" etc. Verbatim Reprint from Kenet's England, ed. 1710, Lond. 1870, p. 308).

their means of labor be transformed into capital. The older legislation also tried to keep four acres of land attached to the rural wage laborer's cottage, and it forbade him from taking in lodgers. As late as 1627 (under Charles I), Roger Crocker of Frontmill was punished because he built a cottage on Frontmill Manor but didn't include four acres of land as a permanent annex. And as late as 1638 (again under Charles I), a royal commission was appointed to enforce the old laws, especially the one about the four acres. This effort persisted into Cromwell's day: he made it illegal to build a house inside a 10-mile radius of London without attaching four acres of land to it. Even during the first half of the eighteenth century, people protested when a rural worker's cottage didn't come with 1–2 acres. Nowadays, such a worker wouldn't dare to dream of having that much. If his cottage has a little garden, or he can rent a few roods of land some distance from it, he considers himself lucky. "Landlords and farmers," says Dr. Hunter, "work hand in hand here. A few acres to the cottage would make the labourers too independent."⁷

In the sixteenth century, a frightful new impetus to violently appropriate the people arose as a result of the Reformation and the colossal theft of church property it set in motion. When the Reformation began, the Catholic Church was the feudal owner of much of England's land. The shuttering of monasteries sent their former inhabitants hurtling into the ranks of the proletariat. Church estates were for the most part either given away to rapacious royal favorites or sold—at laughable prices—to speculating farmers and townspeople, who drove off large numbers of hereditary subtenants, then consolidated their holdings. By law, the rural poor had been guaranteed ownership of a part of the church's tithes; this was now taken from them without another word.⁸ "*Pauper ubique jacet*," exclaimed Queen Elizabeth after traveling around England.⁹ In the forty-third year of her reign, the government was finally forced to acknowledge pauperism, which it did when it introduced the poor rate. "The authors of this law seem to be ashamed to state the grounds of it, for, contrary to all tradition, it has no preamble whatever."⁹ Charles I (16 c. 4) later made the poor rate permanent, and in fact it didn't change—or become even harsher—until

7. Dr. Hunter op. cit. p. 134. "The quantity of land assigned [under the old laws] would now be judged too great for labourers, and rather as likely to convert them into small farmers" (George Roberts, "The Social History of the People of the Southern Counties of England in past centuries. Lond. 1856," p. 184).

8. "The right of the poor to share in the tithe, is established by the tenure of ancient statutes" (Tuckett op. cit. Vol. II, pp. 804, 805).

9. William Cobbett, "A History of the Protestant Reformation," §471.

1834.¹⁰ But these immediate effects of the Reformation weren't the most lasting ones. Church property had functioned as the religious bulwark of the old relations of landed property. Its demise rendered them untenable.¹¹

During the last decades of the seventeenth century, the yeomen, a class of independent peasants, still outnumbered farmers. The yeomen had been Cromwell's greatest strength, and as Macaulay allowed, it spoke well of them that they were nothing like the dissolute drunken squires and their lackeys, the county clergy, who had to marry their masters' discarded mistresses. Even the rural wage laborers were still part owners of the com-

10. We can see the "spirit" of Protestantism in the following situation, among other ones. In the south of England certain landed proprietors and well-to-do farmers put their heads together and composed ten questions having to do with the correct interpretation of the Elizabethan Poor Law. They proceeded to present these questions to a famous jurist of the time, Sergeant Snigge (later a judge under James I), and asked for his expert opinion. "Question 9—Some of the more wealthy farmers in the parish have devised a skillful mode by which all the trouble of executing this act (the 43rd of Elizabeth) might be avoided. They have proposed that we shall erect a prison in the parish, and then give notice to the neighbourhood, that if any persons are disposed to farm the poor of this parish, they do give in sealed proposals, on a certain day, of the lowest price at which they will take them off our hands; and that they will be authorised to refuse to any one unless he be shut up in the aforesaid prison. The proposers of this plan conceive that there will be found in the adjoining counties, persons, who, being unwilling to labour and not possessing substance or credit to take a farm or ship, so as to live without labour, may be induced to make a very advantageous offer to the parish. If any of the poor perish under the contractor's care, the sin will lie at his door, as the parish will have done its duty by them. We are, however, apprehensive that the present act (43rd of Elizabeth), will not warrant a prudential measure of this kind; but you are to learn that the rest of the freeholders of the county, and of the adjoining county of B., will very readily join in instructing their members to propose an act to enable the parish to contract with a person to lock up and work the poor; and to declare that if any person shall refuse to be so locked up and worked, he shall be entitled to no relief. This, it is hoped, will prevent persons in distress from wanting relief, and be the means of keeping down the parishes" (R. Blakey, "The History of Political Literature from the earliest times. Lond. 1855," Vol. 2, pp. 84–5). Serfdom was abolished in Scotland centuries later than in England. As late as 1698, Fletcher of Saltoun declared in the Scottish Parliament, "The number of beggars in Scotland is estimated at no fewer than 200,000. The only remedy that I, a Republican on principle, can suggest, is to restore the ancient state of villanage, and to make slaves of all those who are unable to provide for their own subsistence." Eden (op. cit. Bk I, Ch. 1, pp. 60–61) says, "The decrease of villenage seems necessarily to have been the era of the origin of the poor. . . . Manufacturers and commerce are the true parents of our national poor." Like our Scot, that republican out of principle, Eden errs only on this point: it wasn't the abolition of serfdom, but rather the abolition of the agricultural worker's ownership of the land that turned him into a proletarian and, eventually, a pauper. This expropriation was carried out differently in France, whose Ordinance of Moulina (1571) and Edict of 1656 correspond to the English Poor Laws.

11. When Mr. Rogers wrote his "History of Agriculture," he was a professor of political economy at the University of Oxford, the very center of Protestant orthodoxy. Yet in the book's preface, he stresses that the Reformation pauperized the majority of the people.

munal property. But by about 1750, the yeomen had disappeared,¹² and in the final decades of the eighteenth century, the last traces of communal agricultural property vanished, too. Here we will set aside the purely economic factors that helped bring about the agricultural revolution and focus on the violent measures involved.

During the time of the Stuarts' restoration, English landed proprietors used the law to push through a usurpation campaign that was carried out all over the Continent, too, but without the same legal formality. They abolished the feudal tenure of land, that is, did away with all its obligations to the state. They "indemnified" the state by imposing taxes on the peasants and the rest of the people. They also established the rights of modern private ownership for estates to which they had only a feudal title. And, finally, they enacted those laws of settlement that affected the English agricultural worker in the same way, *mutatis mutandis*, as the edict of the Tartar Boris Godunov affected the Russian peasants.^{vi}

The "Glorious Revolution" resulted in the reign of not only William III¹³ but also landed and capitalist profiteers, who inaugurated the new era by stealing state lands on a massive scale: such theft had been carried out with a certain restraint up to then. These lands were sold at ridiculous prices, simply given away, or directly usurped and annexed by private estates.¹⁴ As all this occurred, legal etiquette was completely ignored. The state lands fraudulently appropriated in this way, along with those plundered church estates that weren't lost during the republican revolution,

12. "A Letter to Sir T. C. Bunbury, Bt.: On the High Price of Provisions. By a Suffolk Gentleman." Ipswich 1795, p. 4. Even that fanatical advocate of the system of large farms, the author of the "Inquiry into the Connection of large farms etc. Lond. 1773," says on page 139, "I most lament the loss of our yeomanry, that set of men, who really kept up the independence of this nation; and sorry I am to see their lands now in the hands of monopolizing lords, tenanted out to small farmers, who hold their leases on such conditions as to be little better than vassals ready to attend a summons on every mischievous occasion."

13. On, among other things, the private morality of this bourgeois hero: "The large grant of lands in Ireland to Lady Orkney, in 1695, is a public instance of the king's affection, and the lady's influence. . . . Lady Orkney's endearing offices, are supposed to have been—*foeda laborum ministeria*. (In the Sloane Manuscript Collection of the British Museum. Number 4224. The manuscript is titled, "The character and behaviour of King William, Sunderland, etc., as represented in Original Letters to the Duke of Shrewsbury from Somers, Halifax, Oxford, Secretary Vernon etc." It abounds with *curiosa*.) [Editor's note: The *foeda laborum ministra* is the Edict of 1597 whereby peasants who deserted their lords could be returned by force if they were caught within five years.]

14. "The illegal alienation of the Crown Estates, partly by sale and partly by gift, is a scandalous chapter in English history . . . a gigantic fraud on the nation" (F. W. Newman, "Lectures on Political Econ. Lond. 1851," pp. 129, 130).

eventually became the princely domains of today's English oligarchy.^{15,vii} Bourgeois capitalists tried to facilitate this operation, their aims being to transform the land into a purely commercial article, to increase their supply of uprooted proletarians from the countryside who had no rights, and so on. They furthered their own interests just as sensibly as the Swedish urban burghers did when they teamed up with the peasantry, their economic bulwark, to help the king forcibly take back royal lands from the oligarchy (after 1604, and also later, or under Charles X and Charles XI).

Communal property was an old Germanic institution that had lived on under the cover of feudalism. We have seen that this land began to be violently usurped at the end of the fifteenth century, continuing into the sixteenth century, most of the time involving the transformation of cultivated lands into cattle pastures. But back then expropriation meant individual acts of violence, which a legislative campaign that went on for 150 years tried in vain to stop. The fact that the law itself now functioned as the way to steal the people's land showed the advances made in the eighteenth century, although big farmers also employed their own little private methods on the side.¹⁶ The Parliamentary form of theft was the "Bill of Inclosures of Commons," or, in other words, decrees the landlords used to turn the people's property into their own private property—to expropriate the people. When Sir Frederic Morton Eden demanded a "general Act of Parliament for the enclosure of Commons," thereby conceding that a parliamentary *coup d'état* would be required to transform them into private property, and, at the same time, called for the legislature to "indemnify" the expropriated poor, he was in effect refuting his own clever lawyerly claim that communal property was the private property of the large landlords who supplanted the feudal lords.¹⁷

As tenants at will—small farmers on yearly leases, or a servile rabble dependent on the arbitrary will of the landlords—took the place of the independent yeomen, not only the theft of the state domains but also (and especially) the systematic theft of communal property did a great deal to

15. Read, for instance, Edmund Burke's pamphlet on the ducal house of Bedford, whose offshoot, Lord John Russell, was "the tomtit of liberalism."

16. "The farmers forbid the cottagers to keep any living creatures besides themselves and children, under the pretence, that if they keep any beasts or poultry, they will steal from the farmers' barns for their support; they also say, keep the cottagers poor and you will keep them industrious, etc.—but the real fact, I believe, is that the farmers may have the whole right of common to themselves" ("A Political Enquiry into the Consequences of enclosing Waste Lands. Lond. 1785," p. 75).

17. Eden op. cit. Preface.

help enlarge the big farms that were called capital farms¹⁸ or merchant farms¹⁹ in the eighteenth century and, moreover, set the agricultural population “free” for industry, i.e., turn it into a proletariat.

However, people didn’t understand the identity of a nation’s wealth and its citizens’ poverty in the eighteenth century as well as they would in the nineteenth century. Hence the heated polemics in the economic literature of the time having to do with the “inclosure of the commons.” I will quote just a few passages from the mass of material in front of me, since they will give readers a keen sense of the circumstances in question.^{viii}

“In many parishes of Hertfordshire,” wrote one outraged person, “twenty-four farms, with an average area of 50 to 150 acres, have been combined into three farms.”²⁰ “In Northamptonshire and Leicestershire, inclosing has greatly prevailed; and most of the new inclosed lordships are turned into pasturage, in consequence of which, many lordships have not now 50 acres ploughed yearly, in which 1,500 were ploughed formerly. . . . The ruin of former dwelling-houses, barns, stables, and so on shew every one who passes through that there were once better inhabitants. A hundred houses and families have in some places, been reduced to eight or ten. The landholders, in most parishes that have been enclosed only 15 or 20 years, are very few in comparison of the numbers who occupied them in their open field state. It is no uncommon thing to see four of five wealthy graziers engrossing a large enclosed lordship, which was before in the hands of 20 or 30 farmers, and as many smaller tenants and proprietors. All these are hereby thrown out of their livings with their families, and many other families which were employed and supported by them.”²¹ But it wasn’t only uncultivated land that was annexed by neighboring landowners under the pretext of “enclosure.” The same thing happened with land that was still being cultivated, either communally or by someone who paid the community rent. “I have here in view of inclosures of open fields and lands already improved. It is acknowledged by even the writers in defence of inclosures, that these diminish tillage, increase the monopolies of farms, raise the prices of provisions, and produce depopulation . . .

18. “Capital-Farms.” (“Two Letters on the Flour Trade, and the Dearthness of Corn. By a Person in Business. Lond. 1767,” pp. 19, 20.)

19. “Merchant-farms.” “An Inquiry into the Present High Prices of Provisions. Lond. 1767,” p. 111, note. Published anonymously, this fine book was written by the Rev. Nathaniel Forster.

20. Thomas Wright, “A short address to the Public on the Monopoly of small farms. 1795,” pp. 2, 3.

21. Rev. Addington: “Enquiry into the Reasons for or against enclosing open fields. Lond. 1772,” pp. 37-43 *passim*.

and even the inclosures of waste lands as currently practised bear hard on the poor by depriving them of a part of their subsistence, and only go toward increasing farms already too large.”²² “If,” says Dr. Price, “this land gets into the hands of a few great farmers, the consequence must be, that the little farmers [whom he earlier described as “a multitude of little proprietors and tenants, who maintain themselves and their families by the produce of the ground they occupy, by sheep kept on a common, by poultry, hogs, etc., and who, therefore, have little occasion to purchase any of the means of subsistence”] will be converted into a body of men who earn their subsistence by working for others, and who will be under a necessity of going to market for all they want. . . . There will, perhaps, be more labour, because there will be more compulsion to it. . . . Towns and manufactures will increase, because more will be driven to them in quest of places and employment. This is the way in which the engrossing of farms naturally operates. And this is the way in which, for many years, it has actually been operating in this kingdom.”²³ Price sums up the overall impact of the enclosures as follows: “Upon the whole. The circumstances of the lower ranks of men are altered in almost every respect for the worse. From little occupiers of land, they are reduced to the state of day-labourers and hirelings; and at the same time their subsistence in that state is become more difficult.”²⁴ In fact the usurping of common lands, together

22. Dr. R. Price op. cit. Vol. 2, pp. 155, 156. One would do well to read Forster, Addington, Kent, Price, and James Anderson and compare their works with the pathetic sycophant’s maundering that MacCulloch offers in his catalogue, “The Literature of Political Economy. Lond. 1845.”

23. Price op. cit. p. 147.

24. Price op. cit. p. 159. One thinks of ancient Rome here: “The rich gained possession of most of the undistributed land and after a while were confident that no one would take it back from them. They used persuasion or force to buy or seize property which adjoined their own, or any other smallholdings belonging to poor men, and came to operate great ranches instead of single farms. They employed slave hands and shepherds on these estates to avoid having free men dragged off the land to serve in the army, and they derived great profit from this form of ownership too, as the slaves had many children and no liability to military service and their numbers increased freely. For these reasons the powerful were becoming extremely rich, and the number of slaves in the country was reaching large proportions, while the Italian people were suffering from depopulation and a shortage of men, worn down as they were by poverty and taxes and military service. And if they had any respite from these tribulations, they had no employment, because the land was owned by the rich who used slave farm workers instead of free men” (Appian, “Römische Bürgerkriege” I, 7). [Editor’s note: English translation, Appian, *The Civil Wars*, trans. John Carter (Penguin, 1996), p. 5.] This passage deals with the time before the Licinian Law. Military service, which dramatically accelerated the demise of the Roman plebeians, was also the main means Charlemagne used to transform free German peasants into serfs and bondsmen so rapidly, as if in a hothouse.

with the agricultural revolution that went along with that, affected agricultural workers so drastically that between 1765 and 1780, their wages began to drop below the minimum level even in Eden's account, and they had to be supplemented with official Poor Law relief. Their wages, he says, "no longer sufficed for the absolute necessities of life."^{ix}

Let's take a moment to listen to someone who defended the enclosures and opposed Dr. Price's position. "It would be wrong to conclude that because men are not seen wasting their labour in the open field, depopulation is occurring. If there are fewer people in the countryside, there are all the more people in the towns. . . . If more labor is set in motion when the small farmers are converted into a body of men who must work for others, it is an advantage which the nation [to which, naturally, the people who have been transformed don't belong] should wish for. . . . The product is greater when their combined labor is applied on one farm. In this way, surplus product is formed for manufactures, and, in turn, the manufactures, one of the mines of this nation, will increase, in proportion to the quantity of the corn produced."²⁵

The most brazen transgressions against the "sacred rights of property" and the basest acts of violence against human beings were required to lay the foundation for the capitalist mode of production, and insofar as they were committed in the service of that end, the political economist accepted them with a stoic peace of mind. Witness Sir Eden, who, moreover, was Tory and "philanthropic" in his political leanings. What did he conclude about all the acts of theft, all the atrocities and cruelty that attended the violent expropriation of the people, a process that began around 1470 and lasted until the final decades of the eighteenth century? He merely offered the "comfortable" parting reflection: "The due proportion between arable land and pasture had to be established. During all of the fourteenth and most of the fifteenth century, there was one acre of pasture to two, three, and even four acres of arable land. Around the middle of the sixteenth century, the proportion was changed to two acres of pasture for every two of arable land, then to two acres to one, until, finally, the just correct proportion of three acres of pasture to one of arable land was attained."^x

By the nineteenth century, of course, people no longer even remembered the agricultural workers' ties to communal property, to say nothing

25. "An Inquiry into the Connection between the present Prices of Provision etc.," pp. 124, 125, 128, 129. Here is a similar argument that nevertheless goes in the opposite direction: "Working men are driven from their cottages and forced into the towns to seek for employment; but then a larger surplus is obtained, and thus Capital is augmented" (*The Perils of the Nation*. 2nd ed. Lond. 1843, p. XIV).

of more recent times. Has the agricultural population been compensated with so much as a farthing for the 3,511,770 acres stolen from it between 1801 and 1831 and, thanks to Parliament's maneuvering, gifted to landlords by landlords?

Finally, the last great process whereby the land was expropriated from the agricultural population was the so-called "clearing of estates"—i.e., human beings were swept off them. All the English methods we have examined so far culminated in "clearing." As we saw in the account of modern conditions given in an earlier section, this "clearing" was extended to the cottages once there were no more independent peasants to be pushed out. Thus it happened that on the very soil they cultivated, workers couldn't even find the space they needed for their own housing. But what really distinguished the actual "clearing of estates" was its more systematic character, the massive scale on which single operations took place (in Scotland they were executed in areas as large as some German principalities), and also the peculiar form of property that was so violently made into modern private property. This property belonged to the clan. But the chief or "great man" was, as the clan's representative, only the titular owner, just as the Queen of England is merely the titular owner of her country's land.²⁶ This revolution began in Scotland after the Pretender's followers rose up for the last time,^{xi} and we can trace its first phases in the works of James Steuart²⁷ and James Anderson.²⁸ In the eighteenth century, the Scots were driven off the land but not allowed to emigrate, which forced them to resettle in Glasgow and other factory towns.²⁹ The "clearings" ordered by the Duchess of Sutherland should suffice to evoke the main method for expropriating

26. "A king of England might as well claim to drive his subjects into the sea" (F. W. Newman op. cit. p. 132).

27. Steuart says, "If you compare the rent of these lands [here he mistakenly includes in this economic category the tribute the taksmen pay the chief of the clan] with the extent, it appears very small; if you compare it with the numbers fed upon the farm, you will find that an estate in the Highlands maintains, perhaps, ten times as many people as another of the same value in a good and fertile province" (op. cit. Vol. 1, Ch. 16, p. 104). [Editor's note: In the traditional clan system, the taksmen paid tribute directly to the chief or laird and were actual holders of the land ("taks"). Marx had written about them in his article "Elections—Financial Clouds—the Duchess of Sutherland and Slavery," which appeared in the *New-York Tribune* in February 1853.]

28. James Anderson, "Observations on the means of exciting a spirit of National Industry etc." Edinburgh, 1777.

29. In 1860, some of the people who had been violently expropriated were sent to Canada under false pretenses. A few fled into the mountains and to neighboring islands. They were pursued by the police, fought with them, and escaped.

people here.³⁰ She was well versed in political economy, and upon assuming power, she resolved to try a radical economic cure. Her plan was to transform the whole county of Sutherland into sheep pastures. Because similar measures had already been employed, its population was down to 15,000 people. Then, from 1811 to 1820, these 15,000 inhabitants, or about 3,000 families, were methodically uprooted and driven out. Their villages were razed and torched, their fields turned into pastures. It fell to British soldiers to carry out the operation, and in doing so they fought with the locals. One old woman burned to death in the hut she had refused to leave. In this way, Madame Sutherland came to appropriate 794,000 acres of land that had belonged to a clan since time immemorial. She allotted the people who had lived there about 6,000 acres on the seashore, or two acres per family, and this was land that hadn't ever been cultivated or produced any income. So high minded was the Duchess that she leased the land to the members of the clan at an average price of 2 shillings and 6d. per acre, these being people who for centuries had shed their blood for her family. She divided the entire mass of the land she had stolen into 29 large sheep farms, each inhabited by a single family, most often the family of an English farm servant. By 1825, all 15,000 Scots had been replaced by 131,000 sheep. The aboriginal Scots who wound up on the seashore turned to fishing to support themselves. They became amphibians and lived, as an English writer has said, half on land and half in the water, and yet they could live only halfway from both livelihoods.³¹

30. "In the Highlands of Scotland," said Buchanan, the Adam Smith commentator, in 1814, "the ancient state of property is daily subverted. . . . The landlord, without regard to the hereditary tenant [this category is also wrongly applied here] now offers his lands to the highest bidder, who, if he is an improver, instantly adopts a new system of cultivation. The land, formerly overspread with small tenants or labourers, was peopled in proportion to its produce, but under the new system of improved cultivation and increased rents, the largest possible produce is obtained at the least possible expence; and the useless hands being, with this view, removed, the population is reduced, not to what the land will maintain, but to what it will employ. The dispossessed tenants seek a subsistence in the manufacturing towns, etc." (David Buchanan, "Observations on etc. A. Smith's Wealth of Nations. Edinb. 1814"). "The Scotch grandees dispossessed families as they would grub up coppice-wood, and they treated villages and their people, as Indians harassed with wild beasts do, in their vengeance, a jungle with tigers. . . . Man shall be bartered for a fleece or a carcass of mutton, nay, held cheaper. . . . Why, how much worse is it than the intention of the Moguls, who, when they had broken into the northern provinces of China, proposed in council to exterminate the inhabitants, and convert the land into pasture. This proposal many Highland proprietors have effected in their own country against their own countrymen" (George Ensor, "An Inquiry concerning the Population of Nations. Lond. 1818," pp. 215, 216).

31. To express her sympathy for the Negro slaves of the American republic, the current Duchess of Sutherland hosted Harriet Beecher Stowe, the author of "Uncle Tom's Cabin,"

But the loyal Scots had to pay even more dearly for their highlander's romantic tendency to idolize the "great men" in their clan. For when those men smelled the scent of fish, they detected something profitable. They leased the land on the shore to large fishmongers from London, and the Scots were driven away from this place, too.³²

In the end, part of their former land was transformed again, this time into a hunting preserve. Everyone knows that England has no real forests. In the parks of the rich, the "wild beasts" are tame domesticated cattle and as fat as a London alderman. Scotland is thus the last refuge of the "noble passion." "In the Highland," reported Somers in 1848, "new forests are rising up like mushrooms. Here, on one side of Gaick, you have the new forest of Glenfeshie; and there, on the other side you have the new forest of Ardverikie. In the same line you have the Black Mount—an immense waste also recently erected. From east to west—from the neighborhood of Aberdeen to the crags of Oban—you have now a continuous line of forests; while in other parts of the Highlands there are the new forests of Loch Archaig, Glengarry, Glenmoriston, etc. . . . Sheep were introduced into glens which had been the seats of communities of small farmers; and the latter were driven to seek subsistence on coarser and more sterile tracts of soil. Now, again, deer are supplanting sheep; and these are once more dispossessing the small tenants, who will necessarily be driven down upon still coarser land, and to more grinding penury. . . . Deer-forests³³ and the people cannot co-exist. One or other of the two must yield. Let the forests be increased in number and extent during the next quarter of a century, as they have been in the last, and the Gael will perish from their native soil. This movement among the Highland proprietors is partly driven by ambition: a deer-forest is beginning to be considered as a necessary appendage of an estate. Others, of a more practical

in a grand style—of course, the Duchess and her fellow aristocrats shrewdly forgot this sympathy during the Civil War, when every "noble" English heart beat for the slave owners. As the visit was taking place, I published an article in the *New-York Tribune* depicting the conditions in which the Sutherland slaves lived and worked. (Some excerpts were reprinted by Carey in "The Slave Trade. Philadelphia 1853," pp. 202, 203.) My article was reprinted in a Scottish newspaper, and it prompted a lively polemic between that newspaper and the Sutherlands' sycophants.

32. Readers will find interesting material on this fish trade in Mr. David Urquhart's "Portfolio, New Series." Addendum to the second edition: In the posthumous work cited above, Nassau W. Senior calls the "the proceedings in Sutherlandshire" one of the "most beneficial clearings on record" (op. cit. p. 282).

33. Note added to the second edition: The "deer forests" in Scotland don't contain even a single tree. The sheep are driven from bare hills, and the deer are driven onto them. And this is called a deer forest. No forest culture here!

cast, follow the deer trade with an eye solely to profit. For it is a fact, that a mountain range laid out in a forest is, in many cases, more profitable to the proprietor than when let as sheep-walk. . . . The huntsman who wants a deer-forest limits his offers by no other calculation than the extent of his purse. . . . Sufferings have been inflicted in the Highlands scarcely less severe than those occasioned by the policy of the Norman kings. Deer have received extended ranges, while men have been hunted within a narrower and still narrower circle. . . . One after one, the liberties of the people have been cloven down. . . . These oppressions are daily on the increase. The clearance and dispersion of the people is pursued by the proprietors as a settled principle, as an agricultural necessity, just as trees and brushwood are cleared from the wastes of America or Australia; and the operation goes on in a quiet, business-like way, etc.”³⁴

34. Robert Somers, “Letters from the Highlands; or the Famine of 1847. Lond. 1848,” pp. 12–28 *passim*. These letters first appeared in the Times. Naturally, English political economists cited overpopulation to explain the Gaels’ famine. In any case, they were “pressing” on their means of nourishment. The “clearing of estates,” or, as it is called in German, “Bauernlegen,” became an important phenomenon in Germany, too, particularly after the Thirty Years’ War, and as late as 1790, it led to peasant revolts in Electoral Saxony. “Bauernlegen” was particularly widespread in the eastern part of Germany. In most of the Prussian provinces, it was Frederick II who first secured property rights for the peasants. After conquering Silesia, he forced the landowners to rebuild huts, barns, and so on, and to supply the peasants with cattle and equipment. He needed soldiers for his army and taxpayers for his treasury. The following lines by Mirabeau, who admired Frederick, convey what a nice life peasants led under Frederick’s financial system and his governmental mishmash of despotism, bureaucracy, and feudalism: “Flax is therefore one of the great sources of wealth for the farmer in northern Germany. Unfortunately for the human race, it is only a resource against misery, and not a means of well-being. Direct taxes, drudgery, servitude of every kind, crush the German farmer, who still pays indirect taxes on everything he buys . . . and to make matters worse, he dares not sell his produce where and how he wants; he dares not buy what he needs from merchants who could sell it to him at a better price. All these causes gradually ruin him, and he would find himself unable to pay direct taxes when due without spinning. It provides him with a resource, while keeping his wife, children, servants, valets and himself busy: but what a hard life it is, even with this support. In the summer, he works like a convict, plowing and harvesting; he goes to bed at 9 o’clock and gets up at two, just to keep up with the work; in winter, he should repair his strength with more rest; but he’ll run out of grain for bread and next year’s sowing, if he gets rid of the goods he needs to sell to pay taxes. Spinning is therefore necessary to make up for this loss . . . it must be done with the utmost assiduity. So in winter, the peasant goes to bed at midnight, at one o’clock, and gets up at five or six; or he goes to bed at nine, and gets up at two, every day of his life except Sunday. This excess of wakefulness and work wears down human nature, and this is why men and women grow old much earlier in the countryside than in the cities” (Mirabeau *op. cit.* Vol. 3, pp. 212ff.). Addendum to the second edition: In March of 1866, or 18 years after the work (by Somers) cited above was published, Leone Levi lectured before the Society of Arts on the transformation of sheep pastures into deer forests. Here he depicted the

Stealing church estates, fraudulently claiming and snatching up state lands, seizing communal property, using the most ruthless terror tactics to usurp feudal and clan property and transform it into modern private property—these are some of the idyllic methods of original accumulation. This is how fields were conquered for capitalist agriculture, the land was incorporated into capital, and urban industry got its necessary supply of uprooted proletarians without rights.

3. Bloody Legislation against the Expropriated since the End of the Fifteenth Century. Legislation Enacted to Lower Wages

The proletariat that formed when the bands of feudal retainers were dissolved, and the land was violently expropriated from the people in concentrated bursts, couldn't be absorbed by the early manufacturing system as rapidly as its members were brought into the world. Free as birds and just

continuing desolation of Scotland's Highlands. Among other things, he said, "The landed proprietors found out that land left wild and uncultivated, land dedicated to deer and rabbit pays better than land used as sheep-walks or dedicated to cultivation. And the landowners have acted on this new discovery by at once turning out the sheep as they once turned out the men from their estates and welcoming the new tenants—the wild beasts and the feathered birds. . . . One can walk from the Earl of Dalhousie's estates in Forfarshire to John o'Groats, without ever leaving forest land. . . . In many of these [woods] the fox, the wild cat, the marten, the polecat, the weasel, and the Alpine hare are common; whilst the rabbit, the squirrel and the rat have lately made their way into the country. Immense tracts of lands, much of which is described in the statistical account of Scotland as having a pasturage in richness and extent of very superior description, are thus shut out from all cultivation and improvement, and are solely devoted to the sport of a few persons for a very brief period of the year." The London "Economist" of 2nd June 1866 says, "Amongst the items of news in a Scotch paper of last week: 'One of the finest sheep farms in Sutherlandshire, for which a rent of £1,200 was recently offered, on the expiry of the existing lease this year, is to be converted into a deer forest.' Here we see the modern instincts of feudalism . . . operating pretty much as they did when the Norman Conqueror destroyed thirty-six villages to create the New Forest. . . . Two millions of acres had been laid totally waste, embracing within their area some of the most fertile lands of Scotland. The grass of Glen Tilt were among the most nutritive in the country of Perth. The deer forest of Ben Aulder was by far the best grazing ground in the wide district of Badenoch; a part of the Black Mount forest was the best pasture for black-faced sheep in Scotland. Some idea may be formed of the ground laid waste for purely sporting purposes in Scotland from the fact that it embraced an area larger than the whole county of Perth. The resources of the forest of Ben Aulder might give some idea of the loss sustained from these forced desolations. The ground would pasture 15,000 sheep, and as it was not more than one-thirtieth part of the whole forest ground in Scotland. . . . All that forest land was totally unproductive. . . . It might thus as well have been submerged under the waters of the German Ocean. Such extemporized wildernesses or deserts ought to be put down by the decided interferences of the Legislature."

as rightless, these proletarians also couldn't suddenly learn the kind of discipline their new situation demanded, having been brutally thrown from the work path to which they were accustomed. Large numbers of them became beggars, thieves, and vagabonds. Personal inclinations sometimes played a role here, but most often it was external conditions that forced them to live this way. Hence bloody legislation against vagabonds was enforced throughout Western Europe at the end of the fifteenth century and during the entire sixteenth century. The fathers of today's working class were punished because others turned them into vagabonds and paupers. In fact, the law treated them as "voluntary" criminals, assuming that whether or not they continued to work under old circumstances that no longer existed was a matter of preference.

In England, this legislation began under Henry VII.

Henry VIII, 1530: Old beggars and those unfit to work will receive a beggar's license. Healthy vagabonds, on the other hand, are to be whipped and locked up. They are to be tied to the cart tail and flogged until they are covered in blood. Then they must promise to return to their birthplace—or wherever they have spent the past three years—and "put themselves to labour." What a gruesome irony! With 27 Henry VIII, this statute is repeated, except that new clauses make it even harsher.^{xii} If someone is again caught living as a vagabond, he is to be whipped a second time, and half an ear will be cut off. If that person relapses once more, he is to be executed as a hardened criminal and enemy of the community.

Edward VI: According to a statute enacted in 1547, the first year of his reign, anyone who refuses to work is condemned to become the slave of the person who denounced him as an idler. The master must give the slave bread and water, weak broth, and whatever amount of meat scraps he deems appropriate. He has the right to use a whip or chains to force the slave to perform any task, no matter how repulsive. If the slave remains absent for a fortnight, he is condemned to lifelong slavery, and the letter "S" is branded on his cheek or forehead. The third time he runs away, he is to be executed as a felon. The master can sell, bequeath, or rent out his slave, just like any piece of portable property or cattle. If the slave tries to undermine his master in any way, here, too, he is to be executed. Justices of the peace are to use informants to track down the culprit. If it happens that a vagabond has been idling about for three days, he is to be brought to his place of birth, the mark "V" is to be branded on his chest with a red-hot iron, and he is to be made to work on the roads or perform some other service wearing chains. If he gives a false birthplace, he becomes the lifelong slave of that place, its inhabitants, or its corporation, and the letter

“S” is to be branded on him. All people have the right to take away vagabonds’ children and keep them as apprentices—boys can be kept until they turn 24, girls until they turn 20. If these children run away, they become the masters’ slaves until they reach those ages, and the masters are free to whip them and put them in chains as they see fit. Every master may clamp an iron ring around a slave’s neck, arm, or leg in order to recognize him better.³⁵ The last part of this statute provides that certain poor persons may be employed by a place or individuals willing to feed them and find them work. This kind of parish slave—he was called a “roundsman”—existed in England well into the nineteenth century.

Elizabeth 1572: Beggars older than 14 without a license are to be flogged hard and branded on their right earlobe, unless someone wants to put them to work for a year. If they are caught again when they are older than 18, they are to be executed unless someone wants to put them to work for two years. If there is another relapse, they are to be shown no mercy and executed as felons. Similar statutes: 18 Elizabeth (c. 3) and 1597.³⁶

35. The author of the “Essay on Trade etc. 1770” remarks, “In the reign of Edward VI indeed the English seem to have set, in good earnest, about encouraging manufactures and employing the poor. This we learn from a remarkable statute which runs thus: “That all vagrants shall be branded, etc.” (p. 5).

36. Note added to the second edition: In his “Utopia,” Thomas More says, “Thus, so that one greedy, insatiable glutton, a frightful plague to his native country, may enclose thousands of acres within a single fence, the tenants are ejected; and some are stripped of their belongings by trickery or brute force, or, wearied by constant harassment, are driven to sell them. One way or another, these wretched people—men, women, husbands, wives, orphans, widows, parents with little children and entire families (poor but numerous, since farming requires many hands)—are forced to move out. They leave the only homes familiar to them, and can find no place to go. Since they must leave at once without waiting for a proper buyer, they sell for a pittance all their household goods, which would not bring much in any case. When that little money is gone (and it’s soon spent in wandering from place to place), what finally remains for them but to steal, and so be hanged—justly, no doubt—or to wander and beg? And yet if they go tramping, they are jailed as idle vagrants. They would be glad to work, but they can find no one who will hire them.” [Editor’s note: Originally published in 1516 in Latin. English translation, Thomas More, *Utopia*, trans. Robert M. Adams (Cambridge: Cambridge University Press, 2002), p. 19.] Of these poor wanderers, about whom More says that they were forced to steal, “72,000 great and petty thieves were put to death during the reign of Henry VIII” (Holinshed, *Description of England*, Vol. 1, p. 186). In Elizabeth’s day, “rogues were trussed up apace, and there was not one year, commonly, wherein three or four hundred of them were not devoured and eaten up by the gallows” (Styrye, *Annals*, Vol. 2). According to this same Styrye, 40 persons were executed over the course of one year in Somersetshire, 35 robbers were branded on the hand, 37 were whipped, and 183 were discharged as “most wicked and desperate persons.” And yet, he believes that not even the “fifth part of the felonies committed in the county were brought to trial, either from the remissness of the magistrates or the foolish lenity of the people.” He

James I: A person who wanders about and begs is declared a rogue and vagabond. Justices of the peace in petty sessions are authorized to have such persons publicly whipped and locked up for six months. If they are caught in the act a second time, they can be sentenced to spend two years in prison. During this time, they are to be whipped at the discretion of the justices of the peace. . . . Dangerous and incorrigible rogues are to be branded with the letter “R” on their left shoulder and given hard labor. If they are caught begging again, they are to be shown no mercy: they are to be executed without clergy present. These statutes remained in effect until the beginning of the eighteenth century and were not abolished until 12 Anne 23 was enacted.

France had similar laws. By the middle of the eighteenth century, a vagabond (*truands*) kingdom had been established in Paris, and at the beginning of Louis XVI’s reign (Ordinance of July 13, 1777), healthy persons between 16 and 60 years of age were still to be sent to the galleys if they practiced no profession or had no means of supporting themselves. Elsewhere, too, we find the same kind of laws—e.g., Charles V’s Statute of October 1531 in the Netherlands; the First Edict of States and Town in Holland, enacted on March 19, 1614; and the *Plakkaat* of the United Provinces (June 25, 1649).

The people in the countryside were thus violently expropriated and driven from the land, turned into vagabonds, and then whipped, branded, and tortured in accordance with grotesquely cruel laws until they acquired the discipline that the system of wage labor demands.

It wasn’t enough that the things workers needed in order to work, and the things they worked with, were gathered as capital on one side of the capital relation, while people who had only their own labor-power to sell appeared on the other side. It also wasn’t enough to force those people to voluntarily sell themselves. What developed as capitalist production advanced was a working class whose members saw the demands of that mode of production as self-evident natural laws, having been brought up to do so and also owing to tradition and habituation. Once the capitalist production process had become highly organized, it broke all the resistance it encountered. The continuous generation of a relative surplus population kept the law of labor’s supply and demand, and thus wages, on a track that fit with capital’s valorization requirements. And the silent force of economic relations sealed the capitalist’s domination over his workers. Direct extraeconomic violence is still used, of course, but only in

adds, “the other counties of England were in no better condition than Somersetshire, and many of them were even in a worse one.”

exceptional cases. For the most part, the capitalist can entrust the worker to the “natural laws of production,” i.e., count on the fact that the worker is dependent on capital, something that arises from the conditions of production themselves and is guaranteed and perpetuated by them. Not so during the historical genesis of capitalist production. The ascendant bourgeoisie had to employ state power in order to “regulate” wages, or impose limits on wages consonant with profitmaking, extend the workday, and keep workers at their normal level of dependence. This represents an essential moment in so-called original accumulation.

The class of wage laborers, which emerged in the last half of the fourteenth century, amounted early on to only a very small group within the overall population, remaining so throughout the next century. It enjoyed strong protection with respect to the position it occupied. Independent peasant proprietors gave it that in the countryside, and guild organizations did the same in towns. In both places, masters and workers existed in close proximity, in a social sense. Labor was subordinated to capital, but only formally: the mode of production didn’t yet have a specifically capitalist character. Capital’s variable component far exceeded its constant part, and thus the demand for wage labor grew rapidly every time capital accumulated, while the supply lagged behind. The large part of the national product that would be turned into capital’s accumulation fund still went into the workers’ consumption fund.

From the start, the laws regulating wage labor were written to exploit the worker, and as new ones were created, they never became any less hostile to him.³⁷ The first to be enacted was Edward III’s Statute of Labourers, 1349. It had its French counterpart in the Ordinance of 1350, which was promulgated in the name of King John. English and French legislation developed along parallel paths and featured the same basic content. I won’t address the statutes’ attempts to extend the workday, since I have already examined that point (see chapter 8).

The Statute of Labourers was passed in response to an urgent plea from the House of Commons. “Formerly,” as one Tory naïvely put it, “the poor demanded such high wages, as to threaten industry and wealth. Now their wages are so low as to threaten industry and wealth equally and perhaps more, but in another way.”³⁸ The law established a wage tariff for the city

37. “Whenever the legislature attempts to regulate the differences between masters and their workmen, its counsellors are always the masters,” says Adam Smith. “The spirit of the laws is property,” says Linguet.

38. “Sophisms of Free Trade. By a Barrister. Lond, 1850,” p. 206. He adds maliciously, “We were ready enough to interfere for the employer? Can nothing now be done for the employed?” [Editor’s note: The “Tory” here is John Barnard Byles, (1801–84).]

and the countryside, and for both piecework and day labor. Rural workers were to hire themselves out by the year; in the towns, workers were to hire themselves out on “the open market.” Paying a wage higher than the one set by the statute was punishable by prison. Accepting such a wage carried even stiffer penalties. According to sections 18 and 19 of Elizabeth’s Statute of Apprentices, a person who paid too much was to spend 10 days in prison, while someone who received too much in wages was to spend 21 days there. A statute of 1360 made the penalties more severe, even authorizing masters to employ corporal punishment to compel workers to work for the legal wage. All the contracts, oaths, and organizations used by masons and carpenters to codify their loyalty to one another were declared null and void. To form a workers’ coalition was now a serious crime, and this held from the fourteenth century until 1825, the year when the anticonditional laws were repealed. The true spirit of the Statute of Labourers of 1349 (and later versions) shone forth where the law took care to set a maximum for wages but didn’t bother at all about a minimum.

As readers know, the workers’ situation worsened dramatically in the sixteenth century. Monetary wages rose, but not in proportion to money’s depreciation and the corresponding rise in commodity prices. Thus real wages fell. Yet the laws enacted to lower wages remained in place, as did the practices of branding—and clipping the ears of—those “whom no one was willing to take into service.” The Statute of Apprentices (5 Elizabeth 4) authorized justices of the peace to fix certain wages and modify them according to the seasons and commodity prices. James I extended these labor regulations to weavers, spinners, and every other category of worker.³⁹ George II extended the laws against workers’ coalitions to all manufacturing workshops. In the manufacturing period proper, the capitalist

39. A clause in the statute 2 James I, c. 6 tells us that certain clothiers who also worked as justices of the peace used the authority they had in the latter capacity to dictate the official tariff of wages in their own workshops. In Germany, we find many statutes for keeping wages low, especially after the Thirty Years’ War. “The dearth of servants and workers in the depopulated areas caused the landed proprietors much consternation. Villagers were prohibited from renting rooms to single men and women; all the latter were to be reported to the authorities and put into prison if they wouldn’t become servants, even if they were employed at some other work—say, planting seeds for the peasants for a daily wage, or even buying and selling grain. [Kaiserliche Privilegien und Sanctiones für Schlesien I, 125.] For a century, the decrees of German princes complained bitterly about the evil and impudent rabble, who refused to accept painful conditions and content themselves with the wage established by law. Individual landowners aren’t allowed to pay more than the amount set by the state. And yet after the war, labor conditions were frequently better than they would be a century later. The farm servants of Silesia got to consume meat twice a week in 1652, but in the nineteenth century, there are districts where they eat it only three times a year.

mode of production became so powerful that the laws regulating wages were rendered unenforceable and unnecessary in equal measure. There remained, however, a desire to keep the old legislative arsenal around, just in case. Hence a statute enacted as late as 7 George III prohibited journeymen tailors in and around London from receiving a daily wage higher than 2s. 7½d., except in times of general mourning. Hence, too, a statute enacted as late as 13 George III c. 68 entrusted justices of the peace with regulating silk workers' wages. And as late as 1796, two judgments from the high court were needed to determine whether the orders of justices of the peace regarding wages were also valid for nonagricultural workers. In 1799, Parliament confirmed that miners' wages in Scotland were still regulated by an Elizabethan statute and two seventeenth-century Scottish acts—one dated to 1661 and the other to 1617! An unheard-of event in England's House of Commons showed how dramatically circumstances had changed in the meantime. For more than four hundred years, this institution had produced only wage laws that set strict maximum limits. But in 1796, Whitbread proposed to establish a legal minimum wage for agricultural workers. . . . Although Pitt argued against this, he allowed that the "condition of the poor was cruel." It wasn't until 1813 that the laws regulating wages were finally repealed. They became laughably irrelevant as soon as capitalists began using private legislation to regulate their factories, while letting the poor rate supplement the wages of agricultural workers to the point where workers received the indispensable minimum. Still in effect today are the provisions in the workers' statutes about giving notice and the like, whereby a master who breaks his contract faces only civil penalties, while a worker who does that faces criminal charges. In 1825, however, the horrific laws against workers' coalitions were abolished in the face of the proletariat's menacing attitude. Parliament didn't want to see them go, of course⁴⁰—this being the same Parliament that for

In addition, wages were higher after the war than they would be in the centuries that followed" (G. Freytag).

40. Some remaining bits of the anticoalition legislation were abolished in 1859. Addendum to the second edition: A law enacted on 29th June 1871, abolished all anticoalition laws and officially recognized trade unions. But in a supplementary act promulgated on the same day—"An Act to amend the Criminal Law relating to violence, threats and molestation"—the anticoalition laws were restored in a new form. More specifically, these acts have had the following effects: workers who use certain means of battle against their masters are to be prosecuted according to special criminal legislation, and the masters themselves are to apply this legislation in their capacity as justices of the peace. Two years earlier, the same House of Commons and the same Gladstone who invented new crimes for the working class with the Law of 1871 approved a second reading of a bill that abolished

centuries had displayed the most cynical shamelessness in functioning as a permanent coalition of capitalists allied against workers.

Just after the storm of revolution had broken out, the French bourgeoisie dared to take away the workers' freshly won right of association. A decree of June 14, 1791, pronounced workers' coalitions "an assault on liberty and on the Declaration of the Rights of Man." A person who helped form one was to be fined 500 livres and stripped of the rights of an active citizen for a year.⁴¹ This law leveraged the power of the state to force the struggle between labor and capital within limits that made it much more comfortable for the latter of the two, and the law would survive revolutions and dynastic change. In fact, it was removed from the French Penal Code only quite recently. Even the Reign of Terror let it stand. Nothing said or done here was more characteristic than the pretext for this bourgeois *coup d'état*. "Admitting," wrote Le Chapelier (the recorder), "only that they should be a little higher than they are at present . . . wages must be high enough for the person receiving them to be free from that state of absolute dependence produced by deprivation of the necessities of life, and which is almost that of slavery," workers still must not be allowed to communicate about their interests, act collectively, and thereby reduce their "absolute dependence," "which is almost that of slavery." For if they did so, they would compromise "the liberty of their former masters, who are the present *entrepreneurs*." In other words, the former masters' freedom to keep enslaving their workers would be compromised! And forming a coalition against the despotism of people who had been the masters in corporate society would mean—try to guess!—recreating the old corporations that the French constitution had just abolished.⁴²

embarrassing special legislation against the workers, doing so in a most honest way. The second reading was clever. The matter was dragged out over two years, until the "great liberal party" formed a coalition with its rivals that made it strong enough to act as a front against their common enemy—the working class.

41. Article I of this law reads: "Since the abolition of all kinds of associations of citizens of the same estate and profession is one of the foundations of the French constitution, it is forbidden to re-establish them under any pretext and in any form whatsoever."

Article IV declares that if "citizens belonging to the same professions, arts and crafts hold deliberations and make joint agreements tending to refuse by mutual consent or to grant only at a determined price the assistance of their industry or their labor, the aforementioned deliberations and agreements . . . shall be declared unconstitutional, prejudicial to liberty and to the Declaration of the Rights of Man etc." Thus this is treated as a felony, just as in the old statutes of labourers ("Révolutions de Paris. Paris 1791," Vol. 3, p. 523).

42. Buchez et Roux, "Histoire Parlementaire," Vol. 10, p. 195.

4. The Genesis of Capitalist Farmers

So far, we have examined the violent process that uprooted rural workers, creating proletarians who were free as birds and just as much without rights. We have also discussed the bloody discipline that turned these people into wage laborers and the scurrilous state interventions that entailed using legal measures to increase the degree of labor's exploitation and, thus, the accumulation of capital. This brings us to the question, Where did the original capitalists come from? The expropriation of the rural population directly called forth just large landowners, after all. As for the genesis of capitalist farmers, we can trace it with our finger, so to speak, because it proceeded slowly, developing over many centuries. Serfs themselves, along with small proprietors, held land under a wide variety of arrangements, and so the economic conditions in which they were emancipated also varied widely. England's first farmer was the bailiff, who was in fact a serf. His position resembled that of the *villicus* in ancient Rome, only his sphere of activity was smaller. But in the second part of the fourteenth century, the free farmer replaced him. Supplied by the landlord with seed, cattle, and the equipment he needed, this free farmer operated much like the peasant, the main difference being that the free farmer exploited wage labor on a larger scale. He soon became a *métayer*, or sharecropper. As such, he laid out part of the agricultural capital, while the landlord provided the other part. They then divided the total product according to the terms of their contract. This type of farmer disappeared before long in England, making space for the farmer proper, who valorized his own capital by using wage labor and paid the landlord part of his surplus product as ground rent, whether in money or in kind. During the fifteenth century, the farmer's circumstances, including his field of production, remained middling, hardly changing at all as long as the independent peasant, as well as the farm servant who both worked on his own and did wage work, could use their labor to generate wealth for themselves. Then came the agricultural revolution that began during the last third of the fifteenth century and continued until about 1580. It increased the farmer's wealth as fast as it immiserated the people in the countryside.⁴³ When the communal pastures were usurped, this enabled the farmer to greatly expand his stock of cattle at almost no cost, while

43. Harrison says in his "Description of England," "although peradventure 4 pounds of old rent be improved to 40, 50, or even 100 pounds, yet will the farmer think his gains very small, toward the end of his term, if he have not six or seven years' rent lying by him."

the additional cattle gave him a larger amount of manure with which to cultivate the soil. The sixteenth century saw another factor of decisive importance emerge. Farm contracts were written for long periods back then, often 99 years. Since the value of precious metals, and thus money, kept falling, the farmers reaped golden fruit. Aside from everything discussed above, this lowered wages. Part of what had gone toward paying them now went into the farmer's profits. The price of grain, wool, and meat, or, in short, all agricultural products, rose continuously, enlarging the farmer's monetary capital without any action on his part. Meanwhile, the ground rent he had to pay was contractually set according to money's former value.⁴⁴ These circumstances allowed him to increase his wealth at the expense of both his wage laborer and his landlord. No wonder, then, that late-sixteenth-century England featured a class of "capitalist farmers" who were rich by the standards of the time.⁴⁵

44. Note added to the second edition: On the question of how money's depreciation in the sixteenth century affected different social classes, see "A Compendious or Briefe Examination of Certain Ordinary Complaints of Diverse of Our Country Men in These our Days. By W. S. Gentleman" (London, 1581). Because this work is written in the form of a dialogue, it was long thought to have come from Shakespeare's pen, and it was republished under his name as late as 1751. Its author is in fact William Stafford. In one part, the Knight reasons as follows:

Knight: "You, my neighbour, the husbandman, you Maister Mercer, and you Goodman Copper, with other artificers, may save yourself metely well. For as much as all things are dearer than they were, so much do you arise in the pryce of your wares and occupations that ye sell agayne. But we have nothing to sell where by we might advance ye price there of, to countervaille those things that we must buy agayne." In another place the Knight asks the Doctor, "I pray you, what be those sorts that ye meane. And, first, of those that yee thinke should have no losse hereby?" Doctor: "I mean all these that live by buying and selling, for, as they buy deare, they sell thereafter." Knight: "What is the next sorte that yee say would win by it?" Doctor: "Marry, all such as have takings of fearmes in their owne manurance [i.e., cultivation] at the old rent, for where they pay after the olde rate, they sell after the newe—that is they paye for their lande good cheape, and sell all things growing thereof deare." Knight: "What sorte is that which, ye sayde should have greater losse hereby, than these men had profit?" Doctor: "It is all noblemen, gentlemen, and all other that live either by a stinted rent or stypend, or do not manure [cultivate] the ground, or doe occupy no buying and selling."

45. In France, the *régisseur*, or steward, who collected the dues for the feudal lords during the early part of the Middle Ages, soon became an *homme d'affaires*—that is, a man of business, who used extortion, cheating, and so on to swindle his way to the position of capitalist. Sometimes these *régisseurs* were refined gentlemen. For instance, "This is the account which Monsieur Jacques de Thoraisse, knight and châtelain near Besançon delivered to the lord who administers the accounts at Dijon for Monseigneur the Duke and Count of Burgundy, of the rents belonging to the aforementioned castle, since the 25th day of December 1359 until the 28th day of December 1360" (Alexis Monteil, "Histoire de Matériaux manuscrits etc." pp. 234, 235). In France, as in England, the great feudal territories were divided into countless small homesteads, but under conditions incomparably

5. How the Agricultural Revolution Reacted on Industry. The Creation of a Domestic Market for Industrial Capital

As we have seen, the expropriation and expulsion of agricultural workers, which kept recurring in waves, supplied urban industry with large numbers of proletarians not bound by guild rules, a happy circumstance that made old Anderson believe in direct interventions of Providence in his *History of Commerce* (this author, Adam Anderson, shouldn't be confused with James Anderson). We must devote a bit more time to examining this aspect of original accumulation. As the rural population of independent self-supporting peasants grew sparser, the ranks of the industrial proletariat grew more crowded, just as, according to Geoffrey Saint-Hilaire, cosmic matter becomes denser in one place when it becomes more rarefied elsewhere.⁴⁶ Even though the number of people cultivating the soil fell, agricultural production stayed the same or increased because the revolution in rural property relations was accompanied by better cultivation, increased cooperation, and a greater concentration of the means of production—and, moreover, because agricultural wage laborers had to work with greater intensity,⁴⁷ while also needing to give up more and more of the land they had cultivated for themselves. When part of the rural population was set free, their former food supply was set thus free as well. It was transformed into a material element of variable capital. With the ground pulled out from under him, the peasant now had to get the value of his means of subsistence from his new lord, the industrial capitalist, in the form of wages. This also happened with the raw materials with which local agricultural production supplied industry: they became a component of constant capital. Suppose some Westphalian peasants are violently expropriated and driven from the land, while the rest stay behind and are turned into day laborers working for large-scale farmers (during the time of Frederick II, all Westphalian peasants were flax spinners, whether or not they were silk spinners as well).

more unfavorable for the people. "Farms" (*femes* or *terriers*) emerged during the fourteenth century. They grew in number continuously, far exceeding 100,000. They paid rents varying from one-twelfth to one-fifth of their product in money or *in natura*. These farms were fiefs, subfields, and so on (*fiefs*, *arrière-fiefs*), depending on the value and extent of the domains, many of which contained only a few acres (*arpents*). But all these *terriens* (farmers) had rights of jurisdiction to some degree over those who lived on the land; there were four degrees. One can imagine how these small tyrants oppressed the agricultural folk. Monteil says that there used to be 160,000 courts in France, whereas today 4,000 of them (including local courts) suffice.

46. In his "Notions de Philosophie Naturelle." Paris 1838.

47. A point that Sir James Steuart emphasizes.

Large flax-spinning and weaving enterprises spring up: they are where everyone “set free” now performs wage labor. The flax looks the same. Not even a fiber has changed, but a new social soul has entered its body, and it now makes up part of the master manufacturer’s constant capital. The flax used to be divided among a great many small producers, who cultivated it themselves, also spinning it with their families; it is now concentrated in the hands of one capitalist, who has others spin and weave it for him. The extra labor expended in spinning was realized in extra income earned by countless peasant families, and also in taxes *pour le roi de Prusse*, when Frederick II occupied the throne. It is now realized in the profits of a few capitalists. The spindles and looms, which were scattered all over the countryside, are now crammed together in a few large labor-barracks, just as the workers and the raw materials are. The spindles and looms and raw materials are thereby transformed. Once they were means that allowed spinners and weavers to live independently; they have become the means for commanding those workers⁴⁸ and squeezing out of them labor that goes unpaid. When we look at large manufacturing workshops or large farms, nothing tells us how they were created—namely, by the consolidation of many small sites of production and the expropriation of many small independent producers. But unprejudiced observers won’t be fooled. During the time of Mirabeau, that lion of the revolution, people still spoke of large manufacturing workshops as *manufactures réunies*, or consolidated workshops, just as we speak of consolidated fields. “We only pay attention,” says Mirabeau, “to large factories, where hundreds of men work under one director, and which are commonly called *manufactures réunies*. Those where a very large number of workers each work separately, and each on his own account, are scarcely considered; they are put at an infinite distance from the others. This is a very big mistake, for the latter alone represent a truly important component of national prosperity. . . . The combined workshop (*fabrique réunie*) will make one or two entrepreneurs prodigiously rich, but the workers will be only more or less paid day laborers and will have no part in the good of the enterprise. In the discrete workshop/isolated workshop (*fabrique séparée*), on the other hand, no one will become rich, but many workers will be comfortable; the thrifty and industrious will be able to amass a small capital, to save some resources for the birth of a child, for an illness, for themselves or for one of their own. The number of thrifty and industri-

48. “I will allow you,” says the capitalist, “the honor of serving me, on the condition that you give me the little you have left for the pains I shall take to command you” (J. J. Rousseau, “Discourse sur l’économie politique, Geneva, 1760).

ous workers will increase, because they will see in good conduct, in activity, a means of essentially improving their situation, and not of obtaining a small increase in wages which can never be an important object for the future, and whose only product is to put men in a position to live a little better, but only from day to day . . . *manufactures séparées*, mostly combined with small-scale farming, are the only *free* ones.⁴⁹ Expropriating and evicting part of the agricultural population not only set workers free for industrial capital, along with their means of subsistence and the materials of their labor; it also created the domestic market.⁵⁰ The farmer now sells as a large number of commodities the means of sustenance and raw materials that for the most part the rural workers who produced them, or worked with them, used to consume directly as their means of subsistence. The manufacturing workshops themselves supply him with a market. At the same time, where many scattered customers once bought the various local things they needed from many small producers, those customers are now concentrated into a large market for industrial capital. And, moreover, many of the articles formerly produced in the countryside are now transformed into articles produced in the manufacturing workshop, while the countryside becomes a market for them. So, when formerly self-supporting peasants are expropriated and separated from their means of production, we find that the rural subsidiary trades are destroyed as well, and manufacturing and agriculture are decoupled—the two processes of separation go hand in hand. Yet the manufacturing period proper didn't actually witness a radical transformation. Readers will recall that the manufacturing system managed to take control of a nation's production only quite partially, and that it always needed urban craft labor and domestic side industries in rural districts, relying on them as a broad foundation. If the manufacturing system killed off forms of these industries in certain places and areas of production, it resurrected them elsewhere, because it still to some extent depended on them to prepare the raw materials it worked with. That system thus brought about a

49. Mirabeau op. cit. Vol. 3, pp. 20–109, *passim*. The fact that Mirabeau regarded separate workshops as more economical and more productive than the “combined” ones, and saw the latter as artificial hot-house plants cultivated by the government, can be explained by the condition of many Continental manufacturing workshops back then.

50. “Twenty pounds of wool converted unobtrusively into the yearly clothing of a labourer's family by its own industry in the intervals of other work—this makes no show; but bring it to market, send it to the factory, thence to the broker, thence to the dealer, and you will have great commercial operations, and nominal capital engaged to the amount of twenty times its value. . . . The working class is thus amerced to support a wretched factory population, a parasitical shop-keeping class, and a fictitious commercial, monetary and financial system” (David Urquhart op. cit. p. 120).

new class of small villagers who cultivated the land as a side occupation but who mainly supported themselves by performing industrial labor: they made products to sell to manufacturing workshops, either directly or through a merchant. This is one cause, if not the chief cause, of something that initially confuses students of English history. From the last third of the fifteenth century onward, we find relentless complaining, only rarely interrupted, about the encroachments of capitalist farming on the countryside and the gradual annihilation of the peasantry. On the other hand, those peasants always turned up again, albeit with their ranks thinner and in a state that kept getting worse.⁵¹ The main cause of this phenomenon is as follows: at certain times, England primarily grew wheat; at others it primarily bred cattle. Peasant cultivation ebbed and flowed with the alternation of these periods, which sometimes lasted for more than half a century and sometimes for only a couple of decades. It was large-scale industry driven by machines that first provided capitalist agriculture with a consistent foundation and radically expropriated the vast majority of the rural population. Furthermore, it fully decoupled farming and rural domestic industry, pulling the latter up by its roots—namely, spinning and weaving.⁵² Thus it was also large-scale industry that first conquered the entire domestic market for industrial capital.⁵³

51. Cromwell's time represents an exception. During the Republic, all strata of the English people lifted themselves out of the degraded condition they were reduced to under the Tudors.

52. "Large-scale wool industry arose, when machinery was introduced, from the manufacturing system proper and the destruction of the rural or domestic forms of the manufacturing workshop" (Tuckett op. cit. Vol. 1, pp. 139-44). [Editor's note: A paraphrase rather than a direct quotation.] "The plough, the yoke, were the invention of gods and the occupation of heroes; are the loom, the spindle, and distaff, of less noble parentage? You sever the distaff and the plough, the spindle and the yoke, and you get factories and poor-houses, credit and panics, two hostile nations—agricultural and commercial" (David Urquhart op. cit. p. 122). But now along comes Carey and accuses England, not without justification, of trying to turn every other country into a purely agricultural nation, whose manufacturer England can then become. He claims that this is how Turkey was ruined: "The owners and occupants of land have never been permitted [by England] to strengthen themselves by the formation of that natural alliance between the plough and the loom, the hammer and the harrow" ("The Slave Trade," p. 125). According to him, Urquhart himself is one of the main agents behind Turkey's ruin, the charge being that he produced free-trade propaganda there on England's behalf. Best of all, Carey, a great servant of Russia, by the way, wants to use the system of protection to prevent the very process of division that it accelerates.

53. Just as God asked Cain about his brother Abel, so the philanthropic English political economists, such as Mill, Rogers, Goldwin, Smith, and Fawcett, for example, and the liberal manufacturers, such as John Bright & Co., ask the English landed aristocracy, Where have our thousands of freeholders gone? But where then did you come from?

6. The Genesis of Industrial Capitalists

The industrial capitalist was formed less gradually than the capitalist farmer.⁵⁴ No doubt some small guild masters and still more small independent artisans—and even wage laborers—metamorphosed into small capitalists. Then, by progressively increasing their exploitation of wage labor and, in turn, their accumulation of capital, they became capitalists *sans phrase*. When capitalist production was in its infancy, things were often done as they had been done during the infancy of the medieval town, where the question of whether an escaped serf should be a master or a servant was frequently settled by asking, Did he flee before or after another escaped serf whose fate was also hanging in the balance? The snail's pace of progress here didn't accord with the commercial requirements of the new world market, which arose in the late fifteenth century as a result of the explorers' great discoveries. But two different forms of capital were handed down from the Middle Ages, usury capital⁵⁵ and merchant capital, and they ripened in the most diverse economic formations of society, functioning as capital *quand meme* even before the era of the capitalist mode of production had begun. The money capital that was created by usury capital and trade couldn't initially turn into industrial capital. Feudal relations in the countryside and guild relations in the towns prevented that.⁵⁶ Those barriers fell away when the bands of feudal retainers dissolved, and the rural population was expropriated,

From the destruction of those very freeholders. Why don't you also ask, Where have all the independent weavers, spinners, and artisans have gone?

54. Here the opposite of "industrial" is "agricultural." In a "categorical" sense, a farmer is just as much an industrial capitalist as a manufacturer is.

55. "At present, all the wealth of society goes first into the possession of the capitalist . . . he pays the landowner his rent, the labourer his wages, the tax and the tithe gatherer their claims, and keeps a large, indeed the largest, and a continually augmenting share, of the annual produce of labour for himself. The capitalist may now be said to be the first owner of all the wealth of the community, though no law has conferred on him the right to this property. . . . This change in property has been effected by the process of compound interest, and it is not a little curious, that all the law-givers of Europe endeavoured to prevent this by statutes, viz. statutes against usury. . . . The power of the capitalist over all the wealth of the country, is a complete change in the right of property, and by what law, or series of laws, was it effected?" ("The Natural and Artificial Rights of Property Contrasted. Lond. 1832," pp. 98, 90. This anonymous work was written by Th. Hodgskin). [Editor's note: In his translation of this passage, Marx renders the term "compound interest" as "Wucher," a term that primarily signifies "usury."]

56. Even as late as 1794, the small clothmakers of Leeds sent a delegation to Parliament with a petition for a law to prohibit any merchant from becoming a manufacturer. (Dr. Aikin op. cit.)

with some people being driven off the land altogether. Novel manufacturing workshops were established at seaports or places in the countryside beyond the control of the old municipalities and their guilds. Hence in England, the corporate towns waged a bitter struggle against these new industrial hotbeds.

What characterizes the dawn of the era of capitalist production? Gold and silver were discovered in America; the native population there was wiped out, enslaved, and entombed in mines; India was conquered and plundered; and Africa was turned into a commercial hunting preserve with dark-skinned people as the prey. These idyllic processes largely constitute original accumulation. Following right behind them was the European nations' commercial war, whose battlefield encompassed the entire globe. This war began with the revolt of the Netherlands against Spain, swelled to gigantic dimensions in England's Anti-Jacobin War, and continues into the present day as the Opium Wars against China.

The different aspects of original accumulation were put in motion by, in particular, Spain, Portugal, Holland, France, and England, more or less in chronological order. In late seventeenth-century England, they were methodically combined in a number of systems: the colonial system, the national debt system, the modern tax system, and the system of protectionism. These methods relied in part on the most brutal violence—for example, the colonial system did. But they all employed the power of the state, the concentrated, organized violence of society, to quicken the transformation of the feudal mode of production into the capitalist mode, as though in a hothouse, and to shorten the transitions. Violence is the midwife for every society pregnant with a new one. It is in fact a kind of economic power.

William Howitt, a man who specialized in being a Christian, said of the Christian colonial system, "The barbarities and desperate outrages of the so-called Christian race, throughout every region of the world, and upon every people that they have been able to subdue, are not to be paralleled by those of any other race, however fierce, however untaught, and however reckless of mercy and of shame, in any age of the earth."⁵⁷ The history of Dutch colonial administration—and Holland was the model capitalist

57. William Howitt, "Colonization and Christianity. A Popular History of the Treatment of the Natives by the Europeans in all their colonies. Lond. 1838," p. 9. There is a good compilation on the treatment of slaves in Charles Comte, "Traité de la Législation." 3rd ed. Brussels 1837." One would have to study this thing in detail in order to see how the bourgeois fashions himself and the worker where he, the bourgeois, is fully free to model the world according to his own image.

nation in the seventeenth century—“is one of the most extraordinary relations of treachery, bribery, massacre and meanness.”⁵⁸ Nothing is more characteristic of it than the system of stealing people in Celebes to get slaves for Java. The Dutch used trained “man-stealers,” with the thief, the interpreter, and the intermediate seller functioning as the main agents in the trade, while native princes were the main sellers. The stolen youths were kept in secret prisons on Celebes until they were old enough to be sent away on slave ships. An official report says, “This one town of Macassar, for example, is full of secret prisons, the one more dismal than the other, which are stuffed with wretches, the victims of avarice and tyranny, who, chained in fetters, are violently torn from their families.”^{xiii} Looking to gain possession of Malacca, the Dutch bribed the Portuguese governor, who in 1641 let them into the town. They promptly went to his house and assassinated him, so as to “abstain” from paying £21,875 in bribe money. Wherever the Dutch set foot, desolation and depopulation ensued. The population of Banjuwangi, a Javanese province, numbered over 80,000 in 1750. Only 8,000 inhabitants remained in 1811. That is what *doux commerce* looks like!

As is well known, the British East India Company wasn’t just given political control of India; it also got exclusive monopolies on tea trade, Chinese trade in general, and shipping goods to and from Europe. But the high officials in the Company had their own monopolies on trade along the coasts of India, between the islands, and within India, too. The monopolies on salt, opium, betel, and other commodities proved to be inexhaustible gold mines. The officials themselves set prices and stole from the unfortunate Hindus at will. Moreover, the Governor-General participated in these private dealings. His favorites got contracts under conditions that they exploited more cleverly than alchemists, for they in fact made gold out of nothing. Great fortunes sprang up in a day, like mushrooms. Original accumulation occurred without even a shilling being advanced. The trial of Warren Hastings abounded with such cases. There was this one, for example: An opium contract was awarded to a certain Sullivan, even though he was about to travel on official business to a part of India far away from the opium districts. Sullivan sold his contract to a Benn for £40,000. Benn, for his part, sold the contract on the very same day for £60,000. The final buyer, who actually executed the contract, maintained that he still made an outsize profit. According to a list presented to

58. Thomas Stamford Raffles, late Governor of that island: “Java and its dependencies, Lond., 1817.”

Parliament, the East India Company and its officials received gifts from the Indians worth £6,000,000 between 1757 and 1766! In 1769 and 1770, the English manufactured a famine by buying up all the rice and selling it only at ridiculous prices.⁵⁹

Of course, the abuse of native populations reached its nadir in the plantation colonies established to produce export products, such as the West Indies, and in rich, populous countries that were heavily plundered, such as Mexico and India. But in the actual colonies, too, the Christian character of original accumulation made no secret of itself. In 1703, the Puritans, those sober virtuosos of Protestantism, enacted decrees in their assembly that put a £40 premium on every Indian scalp and every captured Redskin. In 1722, the premium for an Indian scalp was raised to £100, and in 1744, when Massachusetts Bay declared a certain tribe to be rebels, the following prices were established: for the scalp of a male person 12 or older, £100 in new currency; for a male prisoner, £105; for women and children prisoners, £55; for women's and children's scalps, £50! The colonial system returned the favor decades later, although the ones affected were the pious pilgrims' descendants, who had by then become rebels themselves. Encouraged by the English, and for English money, the Indians tomahawked them. Britain's Parliament declared that bloodhounds and scalping counted among the "means which God and Nature had put into her power."

The colonial system fostered the development of shipping and trade, ripening them fast. "Companies called Monopolia" (Luther) served as powerful mechanisms for increasing the concentration of capital. In fact, the colonies secured for the nascent manufacturing workshops both a market for their goods and accumulation boosted by a market monopoly, while the treasures acquired outside Europe by directly robbing, enslaving, and murdering native people flowed back to the motherland, where they were transformed into capital. Holland, the first country to fully develop the colonial system, rose to the peak of its commercial greatness as early as 1648. It "nearly had sole possession of the East Indian trade and the trade between the southeast and northwest of Europe. Its fisheries, shipping, and manufacturing workshops surpassed those of all the other European countries put together. The total capital of the Republic may have been

59. In 1866, more than a million Hindus starved to death in a single province (Orissa). But this didn't stop people from trying to make India's state treasury fuller at the expense of those who were starving: the latter's means of subsistence were sold at high prices.

greater than that of all the rest of Europe put together." Gülich forgot to add that by 1648, Holland's population was already poorer, more overworked, and oppressed more brutally than all the other people in Europe put together. With one mighty shove, the colonial system sent all the old idols tumbling overboard at the same time. It proclaimed profitmaking to be humanity's sole and ultimate purpose. Here is where the modern systems of national debt and credit were born.

Cobbett, Doubleday, and many other writers have been led astray by the conspicuous role that the system of national debt and the modern system of taxation played in the transformation of society's wealth into capital, the expropriation of independent producers, and the oppression of wage laborers: they have made the mistake of seeing those systems as the root cause of all the misery the people currently endure. When national debt sprang up, so did an international credit system that often conceals the source of the original accumulation in a particular country. For example, the cruelties committed by the Venetian system of theft were the hidden foundation that allowed Holland to acquire vast wealth as capital, for when Venice was in decline, it loaned Holland large sums of money. The same thing happened with Holland and England. By the beginning of the eighteenth century, Holland's manufacturing workshops had been far surpassed, and it had ceased to be the world's dominant commercial and industrial power. Thus from 1701 to 1776, one of its main branches of business was lending enormous sums of capital, especially to England, its more powerful rival, which is now doing that for the United States. Some of the capital that arrives in the United States today with no birth certificate was, just yesterday, the capitalized blood of English children.

The system of protectionism was an artificial way to manufacture industrial manufacturers, expropriate independent workers, capitalize the national means of production and subsistence, and forcibly shorten the transition from an old-fashioned mode of production to the modern one. The European states fought one another tooth and nail over the patent to this invention, and once the states began to serve the profiteers, they did so with abandon. They not only pillaged their own people both directly (with export premiums) and indirectly (with protective tariffs); they also violently cleared away all industry in the dependent neighboring countries—England got rid of Ireland's wool production, for example. On the European Continent, the process was greatly simplified, with Colbert's operation functioning as a model. There, part of industry's original capital came straight from the state treasury. "Why,"

cried Mirabeau, “look so far back to search for the cause of Saxony’s pre-war manufacturing glory? One hundred and eighty million in debts contracted by the sovereigns!”⁶⁰

The colonial system, national debt, heavy taxes, protectionism, commercial wars, and so on—these offspring of the manufacturing period proper grew to gigantic proportions during the early years of large-scale industry, whose birth was celebrated with child-theft carried out on a Herodian scale. Sir Frederic Morton Eden might have maintained a blasé attitude toward the horrors that the expropriation of the land from the agricultural population entailed, from the last third of the fifteenth century until his own time, i.e., the end of the eighteenth century, and he certainly seemed pleased in extending his congratulations on this “necessary” process, which had to take place before capitalist agriculture and the “due proportion between arable land and pasture land” could be established. And yet, he failed to offer the same kind of economic insight into why it was necessary to commit child-theft and institute child-slavery in order to transform the manufacturing system into the factory system and bring about the true relation between capital and labor-power. Eden wrote, “It may perhaps be worthy of the attention of the public to consider, whether any manufacture, which, in order to be carried on successfully, requires that cottages and workhouses should be ransacked for poor children; that they should be employed, by turns, during the greater part of the night, and robbed of that rest which, though indispensable to all, is most required by the young; and that numbers of both sexes, of different ages and dispositions, should be collected together in such a manner, that the contagion of example cannot but lead to profligacy and debauchery; will add to the sum of individual, or national, felicity.”⁶¹ “In the counties of Derbyshire, Nottinghamshire, and, more particularly, in Lancashire,” says Fielden, “the newly-invented machinery was used in large factories built on the sides of streams capable of turning the water-wheel. Thousands of hands were suddenly required in these places, remote from towns; and Lancashire, in particular, being till then but comparatively thinly populated and barren, a population was all she now wanted. The small and nimble fingers of little children being by very far the most in request, the custom instantly sprang up of procuring apprentices [!] from the different parish workhouses of London, Birmingham, and elsewhere. Many, many thousands of these little hapless creatures were sent down into the north,

60. Mirabeau *op. cit.* Vol. 6, p. 101.

61. Eden *op. cit.* Vol. 1, Bk II, Ch. 1, p. 421.

being from the age of seven, to the age of thirteen or fourteen years old. The custom was for the master [i.e., the child-thief] to clothe his apprentices, and to feed and lodge them in an 'apprentice house' near the factory; overseers were appointed to see to the works, whose interest it was to work the children to the utmost, because their pay was in proportion to the quantity of work that they could exact. Cruelty was, of course, the consequence. . . . In many of the manufacturing districts, but particularly Lancashire's, cruelties the most heart-rending were practised upon the unoffending and friendless creatures who were thus consigned to the charge of the master-manufacturers; some lives were cut short by excess of work; the children were flogged, fettered, and tortured in the most exquisite refinement of cruelty; they were, in many cases, starved to the bone while flogged to their work and even in some instances were driven to commit suicide. . . . The beautiful and romantic valleys of Derbyshire, Nottingham, and Lancashire, secluded from the public eye, became the dismal solitudes of torture, and of many a murder. . . . The profits of the manufacturers were enormous; but this only whetted the appetite that it should have satisfied, and therefore the manufacturers had recourse to an expedient that seemed to secure to them those profits without any possibility of limit; they began the practice of what is termed 'night-working,' that is having tired one set of hands, by working them throughout the day, they had another set ready to go on working throughout the night; the day-set getting into the beds that the night-set had just quitted, and in their turn again, the night-set getting into the beds that the day-set quitted in the morning. It is a common tradition in Lancashire, that the beds never got cold."⁶²

62. John Fielden *op. cit.* p. 506. On the original outrages of the factory system, see Dr. Aikin (1795), *op. cit.*, and Gisborne, "Enquiry into the duties of men. 1795," Vol. 2. As a result of the steam engine, factories were relocated from the waterfalls of the countryside to the centers of towns. And when this happened, the "abstinence-loving" profiteer found his child material ready to hand—he didn't have to forcibly transport his supply of slaves from the workhouses. In 1815, when Sir R. Peel (father of the "minister of plausibility") introduced his bill for the protection of children, Francis Horner, luminary of the Bullion Committee and a close friend of David Ricardo, said in the House of Commons, "It had been known that with a bankrupt's effects, a gang, if he might use the term, of these children had been put to sale, and were advertised publicly, as part of the property. A most atrocious instance had come before the King's Bench two years ago, in which a number of these boys, apprenticed by a parish in London to one manufacturer, had been transferred to another, and had been found by some benevolent persons in a state of absolute famine. Another case, more horrible, had come to his knowledge while on a Parliamentary committee, that, not many years ago, an agreement had been made between a London parish

As capitalist production developed during the manufacturing period, public opinion in Europe lost its last remnants of shame and conscience. Nations cynically boasted about every misdeed that helped them accumulate capital. Just read the naïve commercial annals of the righteous Mr. Anderson. What does he trumpet as a great victory for English statecraft? That at the Peace of Utrecht, England forced Spain in the Asiento Treaty to grant it permission to ship slaves from Africa to Spanish America (it had previously been limited to selling African slaves in the English West Indies). England now acquired the right to supply Spanish America with 4,800 Negroes a year until 1743. This also provided British smuggling with official cover. Liverpool grew fat on the slave trade, its particular method for bringing about original accumulation. Even today, Liverpool “quality” have remained the Pindars of the slave trade, which, as Dr. Aiken notes in the work just cited, “has coincided with that spirit of bold adventure which has characterized the trade of Liverpool and rapidly carried it to its present state of prosperity; has occasioned vast employment for shipping and sailors, and greatly augmented the demand for the manufactures of the country.” In 1730, Liverpool used 15 ships for the slave trade. By 1751, the number had risen to 53. In 1760, it was 74. The city employed 96 ships for the slave trade in 1770, and 132 in 1792.

The cotton industry introduced child-slavery in England, while in the United States it spurred the transformation of the older, essentially patriarchal slave system into a commercial system of exploitation. This, the slavery *sans phrase* of the New World, functioned as the pedestal that the veiled slavery of European wage laborers couldn’t do without.⁶³

Tantae molis erat: to unleash the “eternal natural laws” of the capitalist mode of production, to complete the process that separates the worker from what he needs to perform his labor, to transform society’s means of production and subsistence into capital on one side of the capital relation while turning the majority of the people into wage laborers on the opposite side—into the free “laboring poor,” that artificial product of modern history.^{64,xiv} If, according to Augier, money “comes into the world with

and a Lancashire manufacturer, by which it was stipulated, that with every twenty sound children, one idiot should be taken.”

63. In 1790, there were 10 slaves for every one free man in the English West Indies, while in the French West Indies the ratio was 14:1. In the Dutch West Indies, it was 23:1. (Henry Brougham, “An Inquiry into the Colonial Policy of the European Powers. Edinb. 1803.” Vol. 2, p. 74.)

64. The term “laboring poor” began to occur in English at the moment when the class of wage laborers started to attract attention. This term is used, on the one hand, in opposition to the “idle poor,” beggars, and so on, and, on the other hand, to those workers who

natural blood stains on one cheek,⁶⁵ capital is born with blood and dirt oozing from every pore.⁶⁶

7. The Historical Tendency of Capitalist Accumulation

What does the original accumulation of capital, or its historical genesis, amount to in the end? Original accumulation means that slaves and serfs become wage laborers—in other words, a mere change of form occurs. Beyond that, all it entails is the expropriation of the people directly engaged in production, i.e., the dissolution of private property based on one's own labor. The foundation of small-scale industry is that the worker owns his means of production, and small-scale industry is a condition that has to be in place for social production and the worker's own free individuality to develop. We also find this mode of production under the slave system, serfdom, and in other situations of dependence; however, it blooms, operates with maximum energy, and battles its way to

weren't yet plucked chickens but still owned their means of labor. The expression moved from law into political economy, and was handed down to Adam Smith and Eden by Culpeper, J. Child, and so on. One should use this to assess how much good faith Edmund Burke, an "execrable political cantmonger," displayed when he called the expression "laboring poor" "execrable political cant." When this sycophant was on the English oligarchy's payroll, he played the part of the romantic opponent of the French Revolution, whereas, being on the payroll of the North American colonies when the unrest began there, he played the part of the liberal agent against the English oligarchy. He was a vulgar bourgeois through and through. "The laws of commerce, which are the laws of Nature, and consequently, the laws of God" (Burke op. cit. pp. 31-2). No wonder, then, that in accord with laws of God and Nature, he always sold himself in the very best market. In the writings of the Rev. Mr. Tucker, readers will find an excellent portrait of Mr. Burke during his liberal time: although a parson and a Tory, Mr. Tucker was otherwise an honorable man and a competent political economist. In view of the notoriously weak moral character that predominates today, and believes so devoutly in "the laws of commerce," one has an obligation to keep denouncing the Burkes of this world, who differ from their successors in only one thing—talent!

65. Marie Augier, "Du Crédit Public."

66. "Capital is said by the Quarterly Review to fly turbulence and strife, and to be timid, which is very true; but this is very incompletely stating the question. Capital eschews no profit, or very small profit, just as Nature was formerly said to abhor a vacuum. With adequate profit, capital is very bold. A certain 10 per cent will ensure its employment anywhere; 20 per cent will produce eagerness; 50 per cent positive audacity; 100 per cent will make it ready to trample on all human laws; 300 per cent, and there is not a crime at which it will scruple nor a risk it will not run, even to the chance of its owner being hanged. If turbulence and strife will bring a profit, it will freely encourage both. Smuggling and the slave trade have amply proved all that is here stated" (T. J. Dunning op. cit. pp. 35, 36).

its adequate classic form only where the worker is the free private proprietor of the things he needs to perform his labor and sets those things in motion himself—only where the peasant owns the land he cultivates, or the artisan owns the instrument he wields with the skill of a virtuoso. This mode of production presupposes that the land and the other means of production are split up, which excludes concentrating them. Thus cooperation can't take place, the division of labor can't occur within a single production process, society can't come to dominate and regulate nature, and it is also impossible for social productive powers to freely develop. In the realms of both production and society, this mode of industry is compatible only with narrow, spontaneously arising limits. Once it reaches a certain level, it brings into being the material means of its own destruction. New powers and passions begin to stir deep within the belly of society, of a society in which they feel themselves to be fettered. It must be destroyed; it is destroyed. The individual and scattered means of production are concentrated, and thus the diminutive holdings of the many are transformed into the giant holdings of the few, while the land and means of subsistence and instruments of labor are thereby expropriated from the great majority of the people. This, the old society's destruction, a frightful and difficult process of expropriation, constitutes the prehistory of capital. Of the array of violent methods it involves, we have discussed only those that play an epochal role in capital's original accumulation. The expropriation of the people directly engaged in production was carried out with the most ruthless barbarism, and driven by the nastiest, pettiest, most hateful and hideous passions. What was once the private property of an independent working individual—someone fused, so to speak, with the things he needs to perform his labor—in other words, private property that someone has worked for, is supplanted by capitalist private property, i.e., private property based on the exploitation of someone else's formally free labor.⁶⁷ The moment this process of transformation has broken down the old society widely and deeply enough; the moment workers are turned into proletarians, and the things required for their labor have been turned into capital; and, finally, the moment the capitalist mode of production stands on its own two feet, the process whereby labor becomes social is altered, as is the transformation of the land and

67. "Our situation is wholly new for society . . . we are striving to separate every type of property from every type of labor" (Sismondi, "Nouveaux Principes de l'Econ Polit." Vol. 2, p. 434).

the other means of production into socially exploited and, thus, shared means of production. Hence a change likewise occurs in the way private owners are expropriated. These processes all have a different form from this point on. No longer is the self-supporting worker the target of expropriation. Its target is now the capitalist who exploits many workers. This expropriation is brought about by none other than the operation of capitalist production's own immanent laws, which entails the concentration of individual masses of capital. One capitalist kills off many others. A number of developments advance along with this concentration, or as the expropriation of many capitalists by a few does: the cooperative form of the labor process on an ever-increasing scale; the conscious technological application of science; the systematic collective exploitation of the earth, the transformation of the means of labor into means of labor that can be used only collectively; and economizing in the use of all the means of production by employing them as the common means of combined social labor. The number of capitalist magnates falls continuously, and the remaining ones monopolize and usurp for themselves all the advantages that this process of transformation holds. Meanwhile, misery increases, as does the amount of pressure, subjugation, degradation, and exploitation inflicted upon the constantly growing working class. But the outrage felt by the members of that class also increases, and they are brought together and are trained and organized by the mechanism of capitalist production itself. Capital's monopoly now shackles the very mode of production that had flourished because of and under it. The concentration of the means of production and the socialization of labor reach the point where neither process is compatible with its capitalist shell. This bursts, and now the bell tolls for capitalist private property. The expropriators are expropriated.

The capitalist mode of production and appropriation, and therefore capitalist private property, is the first negation of individual private property based on one's own labor. In a process that has the necessity of any natural process, capitalist production then produces its own negation—the negation of the negation. This restores individual property, which, however, is now based on the achievement of the capitalist era: namely, the cooperation of free workers and their collective ownership of the land and the means of production that are produced by labor itself.

The process whereby an earlier form of private property, private property that is fragmented and based on an individual's own labor, is transformed into the capitalist kind is of course incomparably longer, harsher,

and more difficult than the one whereby capitalist private property already based on a social system of production is transformed into social property. In the first case, a few usurpers expropriate a great many people; in the second, a great many people expropriate a few usurpers.⁶⁸

68. “The advance of industry, whose involuntary promoter is the bourgeoisie, replaces the isolation of the labourers, due to competition, by their revolutionary combination, due to association. The development of Modern Industry, therefore, cuts from under its feet the very foundation on which the bourgeoisie produces and appropriates products. What the bourgeoisie, therefore, produces, above all, is its own grave-diggers. Its fall and the victory of the proletariat are equally inevitable. . . . Of all the classes that stand face to face with the bourgeoisie today, the proletariat alone is a really revolutionary class. The other classes decay and finally disappear in the face of Modern Industry; the proletariat is its special and essential product. The lower middle class, the small manufacturer, the shopkeeper, the artisan, the peasant, all these fight against the bourgeoisie, to save from extinction their existence as fractions of the middle class . . . they are reactionary, for they try to roll back the wheel of history” (F. Engels and Karl Marx, “Manifest der kommunistischen Partei. London 1848,” pp. 11, 9). [Editor’s note: English translation, *The Communist Manifesto*, in *MECW*, vol. 6, pp. 496, 494.]

The Modern Theory of Colonization¹

POLITICAL ECONOMY, AS a matter of principle, tries to perpetuate the convenient tendency to confuse two kinds of private property. One is property based on a person's own labor; the other is capitalist property, diametrically opposed to the first kind, and in fact produced by its destruction. The process of original accumulation is more or less complete in Western Europe, the homeland of political economy. Here, either the capitalist mode of production has taken control of the whole nation's production directly, or, if conditions haven't advanced as far, it at least indirectly controls the social strata of people who exist alongside it in a state of decay because they remain tied to an outdated mode of production. The more clearly the facts fly in the face of the political economist's theories, the more nervous zeal and unctuousness he brings to applying to this ready-made world of capital notions of law and property that have been handed down from a precapitalist world. Things are different in the colonies, where the capitalist mode of production and appropriation always runs up against the obstacle of self-earned property, of the producer who owns what he needs to perform his labor and works to gain wealth for himself, not to create it for a capitalist. The contradiction between these diametrically opposed modes of production and appropriation plays out on a practical level in this case. When the capitalist has the power of the mother country behind him, he seeks to clear a path for himself using violence: he tries to sweep out of his way the modes of production and appropriation that are based on an independent producer's own labor. In the mother country, the political economist, capitalist's

1. We are talking about actual colonies, that is, virgin soil colonized by free immigrants. Economically speaking, the United States is still a European colony. What also belong here are the old plantations where conditions were transformed when slavery was abolished.

sycophant, makes a theoretical declaration to the effect that the capitalist mode of production is its own opposite. The very same interest that leads him to do that there drives him to “make a clean breast of it” in the colonies, where he loudly proclaims the antagonism between the two modes of production. To this end, he shows that labor’s social productive power, cooperation, the division of labor, the application of machines on a large scale, and so on, won’t develop if the workers aren’t expropriated, and the corresponding transformation of their means of production into capital doesn’t occur. He aims to promote the so-called wealth of the nation by identifying artificial means for bringing about the poverty of the people. Here the apologetic armor he wears crumbles away bit by bit, like rotten kindling. Edward Gibbon Wakefield’s great accomplishment was that he discovered in the colonies the truth about the mother country’s capitalist relations, not that he said something new about the colonies.² Just as in its earliest days the system of protectionism attempted to manufacture capitalists in the mother country,³ Wakefield’s theory of colonization, which for a time England tried to enforce by law, worked toward manufacturing wage laborers in the colonies. He called this “systematic colonization.”

Above all, Wakefield discovered in the colonies that owning money, means of subsistence, and machines and other means of production doesn’t make a person into a capitalist if the complement required is missing—namely, the other person, the wage laborer who is forced to voluntarily sell himself. Wakefield discovered that capital, rather than being a thing, is a social relation between persons that is mediated by things.⁴ A certain Mr. Peel, he lamented, brought along £50,000 worth of means of subsistence and production when he left England for the Swan River district of Western Australia. This Mr. Peel had the good sense to also take 300 members of the working class with him—men, women, and children. But once he reached his destination, “Mr. Peel was left without a servant

2. Mirabeau *pere*, the Physiocrat, anticipated all of Wakefield’s few insights into the nature of modern colonization; English political economists did the same much earlier.

3. Later, this became a temporary necessity in international competition. But whatever the motive, the consequences didn’t change.

4. “A Negro is a Negro. He only becomes a slave in certain relations. A cotton-spinning jenny is a machine for spinning cotton. It becomes capital only in certain relations. Torn from these relationships it is no more capital than gold in itself is money or sugar the price of sugar. . . . Capital is a social relation of production. It is a historical relation of production” (Karl Marx, “Lohnarbeit und Kapital.” N. Rh. Z. No. 266 7th April 1849). [Editor’s note: English translation, “Wage Labor and Capital,” in *MECW*, vol. 9, pp. 211–12; N. Rh. Z. is the *Neue Rheinische Zeitung*.]

to make his bed or fetch him water from the river.”⁵ Poor Peel had thought of everything—except to export English relations of production to Swan River!

Wakefield made other discoveries as well; the following two remarks should help readers understand them. We know that the means of production and subsistence aren’t capital if they still belong to the people directly engaged in production: the workers themselves. They become capital only under conditions where they also serve as means to exploit and dominate workers, yet this quality, their capitalist soul, is so closely tied to their material substance in the political economist’s mind that he christens the means of subsistence and production “capital” in all circumstances, even where they are its opposite. So it is with Wakefield. Furthermore, he describes the splitting up of the means of production into individual chunks of property belonging to many independent, self-supporting workers as the equal division of capital. The political economist is like the feudal jurist who attached the labels supplied by feudal law even to purely monetary relationships.

“If,” wrote Wakefield, “all the members of society are supposed to possess equal portions of capital, no man, consequently, would have a motive for accumulating more capital than he could use with his own hands. This is to some extent the case in new American settlements, where a passion for owning land prevents the existence of a class of labourers for hire.”⁶ Thus as long as a worker can accumulate wealth for himself, which he can do as long as he owns his means of production, capitalist accumulation and the capitalist mode of production aren’t possible. The class of wage laborers that the capitalist system requires is absent. So, how was what workers needed to perform their labor expropriated from them in old Europe? How, that is, were capital and wage labor established there? By means of a completely novel kind of *contrat social*: “Mankind have adopted a simple contrivance for promoting the accumulation of capital,” which, naturally, has been hovering before them since the time of Adam as the sole and ultimate purpose of their existence. “They have divided themselves into owners of capital and owners of labour. . . . This division was the result of concert or combination.”⁷ In short, the majority of humankind expropriated itself to honor “the accumulation of capital.” Now readers might imagine that people in the colonies would be especially likely to

5. E. G. Wakefield, “England and America,” Vol. II, p. 33.

6. *Ibid.* Vol. 1, p. 17.

7. *Ibid.* p. 18.

give free rein to this instinct for fanatical self-denying abstinence, since the colonies are the only place where one finds the conditions and population needed to make the dream of a *contrat social* into a reality. Why, then, would one want to have “systematic colonization,” in contrast to spontaneous colonization? Well, “In the northern states of the American Union, it may be doubted whether so many as a tenth of the people would fall under the description of hired labourers. . . . In England the labouring class compose the bulk of the people.”⁸ Working human beings have so little drive to self-expropriate for the glory of capital that slavery is, according to Wakefield himself, the lone spontaneous foundation of colonial wealth. What he calls systematic colonization is nothing but a *pis aller*, which he has recourse to because he is dealing with free persons, not slaves.¹ “Without labourers, the capital of Spanish settlers must have perished, or at least must soon have diminished to that small amount which each individual could employ with his own hands. This has actually occurred in the last colony founded by Englishmen, where a great mass of capital, of seeds, implements, and cattle, has perished for want of labourers to use it, and where no settler has preserved much more capital than he can employ with his own hands.”^{9,ii}

As we have seen, the capitalist mode of production is based on the land being expropriated from the majority of the people. In a free colony, in contrast, the majority of the land still belongs to the people, and thus anyone who settles on it can turn it into his private property and also his individual means of production, without preventing later settlers from doing the same.¹⁰ This, the essence of a free colony, is also the secret of both the well-being of the colonies and the cancer that afflicts them: they resist capital’s attempts to establish itself. “Where land is very cheap and all men are free, where every one who so pleases can easily obtain a piece of land for himself, not only is labour very dear, as respects the labourers’ share of the produce, but the difficulty is to obtain combined labour at any price.”¹¹

Because workers in the colonies aren’t yet separated from the things they need in order to perform their labor, including the root of those things, the land—or, because they are separated from those things, but only sporadically or in a very limited way, agriculture is also not yet sepa-

8. Ibid. pp. 42, 43, 44.

9. Ibid. v. II, p. 5.

10. “Land, to be an element of colonization, must not only be waste, but it must be public property, liable to be converted into private property” (ibid. Vol. 2, p. 125).

11. Ibid. Vol. 1, p. 247.

rated from industry, and domestic industry in the countryside hasn't yet been destroyed. So where is capital's domestic market supposed to come from? "No part of the population of America is exclusively agricultural, excepting slaves and their employers who combine capital and labour in particular works. Free Americans, who cultivate the soil, follow many other occupations. Some portion of the furniture and tools which they use is commonly made by themselves. They frequently build their own houses and carry to market, at whatever distance, the produce of their own industry. They are spinners and weavers; they make soap and candles, as well as, in many cases, shoes and clothes for their own use. In America the cultivation of land is often the secondary pursuit of a blacksmith, a miller or a shopkeeper."¹² What odd characters! And where among them is the "field of abstinence" for the capitalist?

The great beauty of capitalist production lies in the fact that it not only keeps reproducing the wage laborer as a wage laborer, it also keeps producing a relative surplus population of wage laborers in proportion to the accumulation of capital. In this way, the law of labor's supply and demand is made to operate as it should, the oscillation of wages is held within limits conducive for capitalist exploitation, and, finally, the worker's so indispensable social dependence on the capitalist is guaranteed. At home, in the mother country, mealy-mouthed political economists can prettify this absolute relation of dependence, misrepresenting it as the free contractual relation of a buyer and a seller, or the equally independent owners of the commodities "money" and "labor," respectively. But in the colonies, the beautiful illusion falls apart. The absolute size of the working population increases much faster there than in the mother country because many workers enter the colonial world as ready-made adults, yet the labor market is always undersupplied. The law of labor's supply and demand breaks down completely, in fact. On the one hand, the Old World keeps putting in capital that has a desire to exploit and a need for "abstinence." On the other hand, the regular reproduction of the wage laborer as a wage laborer runs up against the most confounding obstacles, which are, moreover, partly insurmountable. And what about the production of superfluous wage laborers, superfluous, that is, in proportion to the accumulation of capital? Today's wage laborer is tomorrow's independent peasant or artisan. He disappears from the labor market but doesn't wind up in the workhouse. When this happens—when wage laborers are continuously turning into independent producers who work for themselves and

12. *Ibid.* pp. 21–2.

not capital, acquiring wealth instead of making Mr. Capitalist wealthy, the labor market is adversely affected. Not only is the wage laborer exploited to an indecently mild degree, when he sheds his relation of dependence, he no longer has the same feelings of dependence toward an abstaining capitalist. Hence all the unfortunate circumstances portrayed so frankly, so eloquently, and so movingly by our friend Wakefield.

He complains that the supply of wage labor is neither constant nor regular. Nor is it sufficient, in his view. "The supply of labor is always, not only small, but uncertain."¹³ "Though the produce divided between the capitalist and the labourer be large, the labourer takes so great a share that he soon becomes a capitalist. . . . Few, even of those whose lives are unusually long, can accumulate great masses of wealth."¹⁴ The workers flatly refuse to let the capitalist abstain from paying for most of the labor they perform. If the capitalist uses his cunning and his own money to import his own wage laborers from Europe, this won't help him. Such workers will soon "cease to be labourers for hire; they become independent land-owners, if not competitors with their former masters in the market of labour." What a horrible thing, as anyone can see!¹⁵ With his own good money: the upstanding capitalist imports flesh-and-blood competitors! This must truly be the end of days! No wonder it pains Wakefield that in the colonies wage laborers aren't dependent on capitalists in the same way, and also don't exhibit the same feelings of dependence. "On account of the high wages," says his disciple Merivale, "there is an urgent desire in the colonies for cheaper and more subservient workers, for a class of people to whom the capitalist might dictate terms, instead of being dictated to by them. . . . In the old civilized countries the labourer, although free, is naturally dependent on the capitalist; in colonies this dependence must be created by artificial means."¹⁶

13. *Ibid.* v, II, p. 116.

14. *Ibid.* v, I, p. 131.

15. *Ibid.* v, II, p. 5.

16. Merivale *op. cit.* Vol. 2, pp. 235-314 *passim*. [Editor's note: For the most part, an amplifying paraphrase rather than a direct quotation.] Even that mild free-trader and vulgar political economist Molinari says this: "In the colonies where slavery has been abolished, but forced labor has not been replaced by an equivalent amount of free labor, we have seen the opposite of the fact that is taking place every day before our very eyes. We have seen ordinary workers in turn exploit industrial entrepreneurs, demanding wages out of all proportion to their rightful share of the product. Planters, unable to obtain a price for their sugar sufficient to cover the rise in wages, were forced to pay the surplus, first out of their profits, then out of their own capital. Many planters were ruined in this way, while others closed their factories to escape imminent ruin. . . . Undoubtedly, it is better to see accumulations of capital perish than generations of men; but wouldn't it be better for nei-

What results from the dominant system of private property in the colonies, where private property is based on one's own labor and not the exploitation of someone else's? It brings about a "barbarizing tendency of dispersion" with regard to both the producers and the wealth of the nation.¹⁷ When the means of production are split up among countless workers who own them and work with them directly, not only is capitalist concentration eliminated, the capital foundation of all combined labor is as well. How, then, can one carry out long-term capitalist undertakings that extend over several years and require a large fixed outlay of capital? In Europe, capital charges ahead, since the working class acts as its living appendage and is always available in excess. Not so in the colonies! Wakefield recounts an extremely painful anecdote that has him conversing with some capitalists from Canada and the state of New York, where waves of immigration often come to a standstill, depositing a sediment of "superfluous" workers: "Our capital," sighs one of the characters in this melodrama, "was ready for many operations which require a considerable period of time for their completion; but we could not begin such operations with labour which, we knew, would soon leave us. If we had been sure of retaining the labour of such emigrants, we should have been glad to have engaged it at once, and for a high price: and we should have engaged it, even though we had been sure it would leave us, provided we had been sure of a fresh supply whenever we might need it."¹⁸

After giving a glowing account of how capitalist agriculture in England, with its "combined" labor, differs from scattered American farms, Wakefield lets the other side of the story slip out. He portrays the bulk of the American people as prosperous, independent, enterprising, and comparatively cultured, whereas "the English agricultural laborer is a miserable wretch, a pauper. . . . In what country, except North America and some new colonies, do the wages of free labour employed in agriculture, much exceed a bare subsistence for the labourer? . . . Undoubtedly, farm-horses

ther of them to perish?" (Molinari op. cit. 51-2). Mr. Molinari, Mr. Molinari! What would become of the Ten Commandments, Moses and the Prophets, and the law of supply and demand if in Europe the "entrepreneur" were able to reduce the worker's "*part légitime*" and in the West Indies the worker could reduce the "*part légitime*" of the entrepreneur? And what, pray tell, is this "*part légitime*," which, according to your own admission, capitalists in Europe daily neglect to pay? Mr. Molinari feels a strong urge to use police methods to keep the law of supply and demand, a law that operates automatically everywhere else, functioning as it is supposed to out there in the colonies—where the workers are so "simple" as to "exploit" the capitalist.

17. Wakefield op. cit. Vol. II, 52.

18. Ibid. Vol. II, pp. 191-2.

in England, being a valuable property, are fed better than English peasants.”¹⁹ But never mind; by its very nature, a nation’s wealth equals the misery of its people.

So how can the anticapitalist cancer in the colonies be cured? If one could convert all the land from public to private property, all at once, that would destroy the root of the problem, but it would also destroy . . . *the colonies*. The trick is to kill two birds with one stone. Let the state give virgin soil an artificial price, one independent of the law of supply and demand, a price that will force immigrants to perform wage labor for a long time in order to have enough wealth to buy land²⁰ and thus become independent farmers. As for the fund that results from selling the land for a price most wage laborers can’t afford, that is, the money fund extorted from the wages of labor by violating the sacred law of supply and demand, the state should use it in proportion to its growth to import penniless Europeans into the colonies, and thereby keep the wage-labor market full for the benefit of Mr. Capitalist. Under these circumstances, “*tout sera pour le mieux dans le meilleur des mondes possibles*.”ⁱⁱⁱ This is the great secret of “systematic colonization.” “By this plan,” Wakefield exclaims triumphantly, “the supply of labour must be constant and regular: because, first, as no labourer would be able to procure land until he had worked for money, all immigrant labourers, working for a time for wages and in combination, would produce capital for the employment of more labourers; secondly, because every labourer who left off working for wages and became a landowner, would, by purchasing land, provide a fund for bringing fresh labour to the colony.”²¹ The price for land established by the state must of course “be sufficient,” that is, high enough “to prevent the labourers from becoming independent landowners until others had followed to take their place.”²² This “sufficient price for the land” is nothing but a euphemism. It refers to the ransom money the worker has to pay the capitalist for permission to leave the wage labor market and settle on his own land. First the worker must produce the capital that the capitalist employs to exploit more workers; then he must supply the labor market with his own “substitute”—i.e.,

19. *Ibid.* Vol. 1, pp. 24, 47, 246.

20. “It is, you add, thanks to the appropriation of land and capital that a man who has naught but his arms can find work and earn an income . . . it is, on the contrary, thanks to the individual appropriation of land that there exist men who have naught but their arms . . . When you put a man in a vacuum, you rob him of air. This is what you do when you take over the soil . . . you are putting him in a void of wealth, in order that he may live only at your will” (Colins op. cit. Vol. 3, pp. 269–71 *passim*).

21. Wakefield op. cit. Vol. 2, 192.

22. *Ibid.* p. 45.

the person whom the state brings across the sea for the worker's former master, Mr. Capitalist, at the worker's expense.

Characteristically—very much so, in fact, the English government long employed the method of “original accumulation” that Mr. Wakefield prescribed specifically for use in the colonies. The resulting fiasco was of course every bit as shameful as that of Peel's Bank Act.^{iv} The stream of immigration was merely redirected from the English colonies to the United States. In Europe, meanwhile, the advance of capitalist production and an accompanying increase in pressure from the government have made Wakefield's prescription superfluous. The massive and unremitting stream of humanity driven onto the shores of America year after year leaves a partly stationary sediment on the east coast of the United States, for the wave of immigration from Europe hurls people into the labor market faster than the wave of migration to the Far West can carry them away. Capitalist production has thus thrived in the eastern states, even though the wage laborer's depressed wages and dependence there haven't sunk to anywhere near their normal European levels. In Australia, more than elsewhere, the English government's outrageous squandering of uncultivated land on aristocrats and capitalists, so volubly decried even by Wakefield, together with the stream of humanity lured by gold prospecting, and also the competition from imported English commodities, which affects everyone down to the smallest artisan, have produced a large “relative surplus population of workers.”²³ Hence every mail ship brings tales of woe about a “glut of the Australian labor market,” and prostitution blooms in some places as lushly as in London's Haymarket.

But it isn't the situation in the colonies that concerns us here. All we are interested in is a secret that the political economy of the Old World discovered in the New World and loudly proclaimed. The capitalist mode of production and accumulation, and thus also capitalist private property, requires that private property based on a person's own labor be destroyed—in other words, that the workers be expropriated.

23. Naturally, as soon as Australia began to make its own laws, it created legislation that favors the settlers, but the squandering of the land, already brought about by the English government, has stood in the way. “The first and main object at which the new Land Act of 1862 aims, is to give increased facilities for the settlement of the people” (“The Land Law of Victoria, by the Hon. G. Duffy, Minister of Public Lands. Lond. 1862”).

Afterword

FIRST OF ALL, I need to give readers of the previous edition an account of the changes I made in the second edition. What will jump out at them is the clearer arrangement. The notes that I produced for the second edition have been marked as such in every case. As for the text itself, the key points are as follows:

Chapter 1, section 1: Where value is derived by analyzing the equations through which each exchange-value gets expressed, more systematic rigor is applied. Similarly, the way that socially necessary labor-time connects value-substance and the determination of magnitudes of value is expressly foregrounded, whereas in the first edition it was only hinted at. Chapter 1, section 3 (value-form), has undergone comprehensive revisions, which the doubling of the presentation alone would have made necessary, but other factors played at least as big a role. Let me note in passing who prompted the doubling there—Dr. L. Kugelmann, my friend in Hanover.ⁱ I happened to be visiting him when he received the first proof sheets from Hamburg, in the spring of 1867, and he persuaded me that most readers would need an additional, more didactic account of value-form. The final section of chapter 1, “The Fetish Character of Commodities,” has been altered a great deal. Chapter 3, section 1 (the measure of values), required careful revisions, because in the first edition, this part of the book got lax treatment: I merely referred readers to the analysis already given in my earlier work, *A Contribution to the Critique of Pol. Econ.* (1859). I made substantial changes in chapter 7, particularly in its second section.

There is no point in taking a detailed look at the improvements scattered throughout the entire text: they are often purely stylistic. Yet as I revised the French translation, which is appearing just now in Paris, I saw that in some places I should have emended the German version more thoroughly and that in others I should have gone further in my stylistic

corrections or remedied occasional lapses with greater care. However, I didn't have enough time to make those changes. Only in the fall of 1871, when I was working on other projects of urgent importance, did I learn that the first printing was sold out and the second printing would begin as soon as January 1872.

The labor I put into *Capital* has paid off, above all, in that right away the book found appreciative readers throughout the ranks of Germany's working class. During the Franco-Prussian War of 1871,ⁱⁱ a man whose standpoint, economically speaking, is bourgeois—Mr. Mayer, a Viennese manufacturer—published a pamphlet in which he correctly asserts that whereas the so-called educated classes have lost the great theoretical acumen once considered a German's birthright, among members of the working class such acumen has gained new life.ⁱⁱⁱ

Even now, political economy remains a foreign branch of scholarship in Germany. Gustav von Gülich has to a large extent already laid out the historical circumstances that limited how much the capitalist mode of production could develop here and that made it difficult for us to erect a modern bourgeois society, doing so in his work *Geschichtliche Darstellung des Handels, der Gewebe etc.*, especially in the first two volumes.^{iv} (They appeared in 1830.) What Germany lacked was the living soil of political economy. Thus we imported this science from England and France as a finished article, and our professors of it remained students. In their hands the theoretical expression of a foreign reality was transformed into a collection of dogmas that they have interpreted—or rather, misinterpreted—in terms of their petit bourgeois world. What did they do with their feelings of scholarly impotence, which couldn't be suppressed entirely, and their painful awareness of their role, namely, to play the schoolmaster in a field where they weren't at home? They attempted to hide both things under shiny nuggets of literary and historical erudition, or by mixing in outside material borrowed from the so-called cameral sciences—a mish-mash of knowledge and a purgatory that every German candidate hoping for a bureaucratic position must pass through.

Capitalist production in Germany has developed at a rapid pace since 1848: the swindling has arrived! But our experts in political economy fare no better than before. When they were able to pursue that scholarship without prejudice, German reality lacked modern economic conditions. When such conditions eventually took shape, they did so under circumstances that no longer allowed it to be pursued that way within bourgeois circles. Insofar as political economy is bourgeois—that is, insofar as it sees the capitalist order as the absolute and ultimate form of social production,

rather than as a historical and temporary stage of development—it can continue to be systematic scholarship only if class conflict remains latent or appears exclusively in isolated phenomena.

Consider England, whose classical political economy belongs to a period when class conflict was still undeveloped. It was Ricardo, the last great representative of that school, who finally decided to make the antagonism between class interests, between wages and profits and profits and ground rent, into the launching point of his research, though he treated it naïvely, or as a natural law of society. Here the bourgeois science of political economy reached the limit it could not move beyond. Ricardo was still alive when, in the person of Sismondi, a critique emerged to oppose it—and him.

In England, the period that followed—1820 to 1830—was distinguished by the scholarly vitality seen in the field of political economy. It was the period when Ricardo's theory was vulgarized and widely disseminated, and when it battled against the old school. Brilliant jousting took place. On the European Continent, however, people know little about these accomplishments, because the polemics were mostly scattered over review articles, occasional pieces, and pamphlets. The circumstances of the time explain the polemics' lack of prejudice, although in exceptional cases Ricardo's theory also served already as a weapon in attacks on the bourgeois economic system. On the one hand, large-scale industry had only just begun to advance beyond its childhood: anyone looking for proof can start with the fact that the crisis of 1825 inaugurated the periodic cycle of its modern life. On the other hand, the class struggle between capital and labor remained in the background. Politically, this resulted from the conflict in which governments, along with the feudal nobility assembled around the Holy Alliance, were pitted against the mass of people led by the bourgeoisie; and, economically, it resulted from the fighting between industrial capital and landed property that in France was hidden behind the antagonism between small-scale "parceled" property and large land-ownership and that in England began to be waged openly when the Corn Laws were passed. The works of political economy produced in England during this time recall the economic storm and stress period in France after Dr. Quesnay's death, but only in the way that a summery day in the fall makes one think of spring. The year 1830 brought the crisis that would prove truly decisive.

The bourgeoisie had seized political power in France and England. From then on, the forms—both practical and theoretical—that the class struggle assumed became more and more direct and menacing. The strug-

gle now sounded the death knell for bourgeois political economy pursued in a genuinely systematic way. At stake was no longer whether this or that theory held true but rather whether a theory hurt capital or helped it, was convenient or inconvenient, or accorded with the criminal statutes or violated them. Fists for hire replaced disinterested researchers; the bad conscience and evil intentions of apologetics took the place of impartial scholarly inquiry. Still, while the Anti-Corn Law League under the manufacturers Cobden and Bright might not have imbued its pushy little tractata with any scientific value before flinging them into the world, even those works were of historical interest, owing to their polemics against the landed aristocracy. But the free trade legislation enacted since Sir Robert Peel's day has taken even that last stinger out of vulgar political economy.

The Continental Revolution of 1848–49 also reacted upon England. Men who still laid claim to scholarly importance, and wanted to do more than function as the ruling class's sophists and sycophants, tried to bring political economy into line with the proletariat's demands, which could no longer be ignored. Hence the mindless syncretism that no one exemplified better than John Stuart Mill. Here "bourgeois" political economy declared bankruptcy, something a masterful work by the great Russian scholar and critic N. Chernyshevsky has already shed light on: *Outlines of Political Economy according to Mill*.

Capitalist production thus ripened to maturity in Germany only after historical conflicts in France and England had noisily revealed its antagonistic character, and by then, the German proletariat had attained a theoretical class consciousness much more authoritative than that of the German bourgeoisie. So the moment that pursuing political economy as a bourgeois science in Germany seemed to become possible, it became impossible once again.

Under these circumstances, its spokespeople split into two groups. One group, made up of shrewd, practical businessmen, gathered around the flag of Bastiat, the most shallow—and therefore most successful—representative of apologetic political economy of the vulgar type.^{vi} The other group took pride in the professorial dignity of their scholarship and followed John Stuart Mill in attempting to reconcile what can't be reconciled. During the time of political economy's decline, which came just as it was enjoying its classical moment, Germans remained mere students, epigones, and imitators—the little traveling salesmen who worked for a large foreign company.

The peculiar historical development of German society thus made it impossible for "bourgeois" political economy to develop in an original way

there. This, however, doesn't apply to the . . . *critique of political economy*. Insofar as such critique represents a class, it can represent only the class whose historical calling is to transform the capitalist mode of production and definitively abolish all classes . . . *the proletariat*.

The scholars and nonscholars among the spokespeople of the German bourgeoisie tried at first to kill *Capital* with their silence, having successfully done that with my earlier works. But the moment this tactic no longer matched the conditions of the time, criticizing my book began to serve them as a pretext for instructing readers in "how to quiet the bourgeois mind." They encountered superior opposition, however, in the workers' press. For example, see Joseph Dietzgen's articles in the *Volkstaat*. The German bourgeoisie have yet to reply.^{1,vii}

An excellent Russian translation of *Capital* appeared in the fall of 1872, in St. Petersburg.^{viii} It hasn't taken long for the 3,000 copies printed to nearly sell out. And Mr. N. Sieber, a professor of political economy at the University of Kiev, has already written a work in which he demonstrates that my theory of the essential features of value, money, and capital further develops the Smith-Ricardo position in necessary ways. What will surprise the Western European who reads his well-crafted book, titled *Теория цѣнности и капитала Д. Рикардо* (*David Ricardo's Theory of Value and Capital*, 1871), is that it manages to consistently capture a purely theoretical standpoint.

The method used in *Capital* has been poorly understood, as the opposing perceptions of it demonstrate.

Thus the Parisian review *Positiviste* accuses me, on the one hand, of dealing with economic questions metaphysically, while on the other hand—try to guess!—it charges that I limit myself to dissecting what is and fail to offer recipes (Comtist ones?) for the eateries of the future.^{ix}

1. The mealy-mouthed scatterbrains of vulgar German political economy have criticized the way my book is written and also the way its analysis is presented. When it comes to the literary weak points in *Capital*, no one will offer judgments harsher than mine, but here I will provide an English appraisal and a Russian one: let the scatterbrains use and enjoy them. Discussing the first edition of *Capital*, *The Saturday Review*, a journal entirely opposed to my views, speaks of how my mode of presentation "invests with charm even the driest problems of political economy." And in its issue of 20 April 1872, the *C.-П.-Вѣдомости* (St. Petersburg Gazette) says, "The presentation of his work (with the exception of one or two excessively specialist parts) is distinguished by its clarity, general accessibility and, despite the subject's scientific loftiness, by an unusual liveliness. In this respect, the author of *Capital* is far from resembling . . . the majority of German scholars, who . . . write their works in a language so obscure and dry it makes the heads of ordinary mortals pound."

Countering the reproach of metaphysics, Prof. Sieber remarks, "As far as the theory itself is concerned, Marx's method is the deductive method of the whole English school; both its weaknesses and its strengths are shared by the best of economic theorists." In *Les Théoriciens du Socialisme en Allemagne. Extrait du Journal des Economistes, juillet et août 1872*, Mr. M. Block finds that my method is analytic and says, among other things, "With this work M. Marx places himself among the most eminent analytical minds." The German reviewers have of course decried my Hegelian sophistry. An article in the Petersburg-based ВѢСТНИКЪ ЭВРОПЫ (*European Herald*) finds my research method rigorously realistic but laments that my mode of presentation is German-dialectical. It says, "If one judges by the external form of presentation, it might appear as though Marx is a great idealist-philosopher, in the 'German,' i.e., bad sense of the word. In fact, however, he is infinitely more of a realist than all his predecessors in the business of economic criticism. . . . He can in no sense be considered an idealist." The best response to this author is to give some excerpts from his own critique, which, moreover, might interest readers who don't have access to the original Russian text.

Having quoted from the preface to my *Contribution to the Critique of Pol. Econ.* (Berlin, 1859, pp. 19–23), where I discuss the materialist foundation of my method, the author continues:

"For Marx, one thing alone is important: to find the law of the phenomena that he is investigating. Here, what is of importance to him is not a single law that governs them as long as they have a certain form and as long as they are in a relationship that is observable at the present time. Above all, for him it is the law of their *changeability*, of their development, i.e., the transition from one form into another, from one order of relationships into another, that is important. Once he has discovered this law, he considers in greater detail the consequences through which the law manifests itself in social life. . . . Accordingly, Marx is concerned with one thing alone: to prove, by way of a precise scientific investigation, the necessity of certain orders of social relations and, as faultlessly as possible, to state the facts that serve as his starting points and basis. It is quite sufficient for him if, having proven the necessity of the present order, he has also proved the necessity of another order, to which a transition must certainly be made from the first order, regardless of whether one thinks about it or not, whether one is conscious of it or not. Marx regards social movement as a natural-historical process that is governed by laws that are not only independent of the will, consciousness, and intentions of a person but that themselves determine their will, consciousness, and intentions. If

the conscious element plays such a subordinate role in the history of culture, then it is clear that criticism, whose subject matter is culture itself, is less able than anything else to take some form or result of consciousness as its basis. That is, not an idea, but an external phenomenon alone can serve as the starting point. Criticism will consist in collating, comparing, and confronting a fact not with an idea but with another fact. All that matters is that both facts be investigated as accurately as possible and that they truly represent different stages of development, and what is additionally important is that the order, sequence, and connection within which these stages of development appear be no less accurately investigated. Are not the general laws of economic life one and the same, whether they are applied to the present or to the past? But this is exactly what Marx does not recognize. For him, such general laws do not exist. . . . In his opinion, on the contrary, every major historical period has its own laws. . . . But as soon as it has outlived a given period of development, exited a given stage and entered another, it already begins to be governed by different laws. In short, economic life presents to us in this case a phenomenon perfectly analogous to what we observe in other categories of biological phenomena. . . . A close analysis of the internal structure and properties of the actual state of the phenomena of this life has repeatedly persuaded many researchers, already since the forties, of the inexactness in the view of the old economists, according to which the nature of economic laws is identical to the laws of physics and chemistry. . . . A direct, deeper analysis of phenomena has shown that social organisms differ from one another no less profoundly than botanical and zoological organisms. . . . One and the same phenomenon can therefore, as a consequence of the difference in the structure of these organisms, the heterogeneity of their organs, and the different conditions, among which the organs have to function etc., obey completely different laws at different stages of development that different social organisms represent. Marx refuses, for instance, to recognize that the law of population growth is one and the same, always and everywhere, for all times and all places. He argues, on the contrary, that every stage of development has its own law of reproduction. . . . What transpires in economic life depends on the degree of productivity of economic forces. . . . With differences in productivity, the consequences will also be different, along with the laws governing them. In setting out, in this way, the goal to investigate and explicate the capitalist economic order, Marx was only formulating, strictly scientifically, a goal that a precise investigation of economic life might have. . . . Its scientific value lies in elucidating those

particular laws that govern the emergence, existence, development, and death of a given social organism and its replacement by another, higher one. And Marx's book really does have this value."

Insofar as the author depicts my real method, as he calls it, with great accuracy, and insofar as he proceeds with a great deal of good will where he is concerned with how I apply that method, he can't depict anything but the dialectical method.

With respect to form, the mode of presentation must of course differ from the mode of investigation. An investigation should appropriate the material in detail, analyze its various forms of development, and trace their inner connection. Only once that work has been done can the real movement be presented in a suitable way. When someone succeeds in this and produces an ideal reflection of the life of the material, we might think that we are dealing with an a priori construction.

As for its foundation, my dialectical method doesn't just differ from the Hegelian one: they are utter opposites. Hegel goes so far as to transform the process of thinking into an independent subject, doing so under the name "the idea." For him, that process is the demiurge of the real, while the real merely constitutes its external appearance. For me, conversely, the ideal is nothing but the material as it is transposed and translated inside human heads.

I criticized the mystifying side of Hegelian dialectics nearly 30 years ago, at a time when he was still in fashion.^x But just as I was working on the first volume of *Capital*, the grumpy, pompous, mediocre epigones currently dominating German letters saw fit to treat Hegel as honest Moses Mendelssohn treated Spinoza back in Lessing's day—namely, as a "dead dog." This moved me to publicly declare myself to be a student of that great thinker, and where I deal with value theory in *Capital*, I even coquette here and there with the mode of expression peculiar to him. Hegel mystified dialectics, but that didn't stop him from being the first to consciously and comprehensively represent its general forms of movement. Here the dialectical method stands on its head. You have to flip it around in order to find the rational kernel encased in its mystical husk.

The dialectical method in its mystified form became fashionable in Germany, because it seemed to transfigure that which exists. In its rational form, it annoys and even horrifies the members of the German bourgeoisie and their doctrinaire spokespeople, because the positive dialectical understanding of that which exists simultaneously implies an understanding of its negation or necessary demise. The dialectical method grasps every

developed form in the flow of its movement and, thus, grasps it in its transient side, too. The method is not impressed by anything else, for that matter. Its essence is critical and revolutionary.

The practical bourgeois feels the contradictory movement of capitalist society most keenly in the periodic alternations of the cycle that modern industry goes through and in the cycle's peak: at a moment of general . . . *crisis*. Another such moment is coming, although it is still in its preliminary stages. This crisis will play out everywhere, and its effects will be intense. Even the lucky dogs of the new Holy German-Prussian Empire will get a lesson in dialectics.

Acknowledgments

WE BEGAN THIS project with a lot of questions looming in our heads. How many years of our professional lives would it consume? Would we enjoy working together? One thing, however, was clear: we would need help. Who wouldn't need help, given the level of Marx's polymathy and the range of his aims and influences in *Capital*? But how would we be received when we asked for advice? This was yet another concern. For here is the situation in which we found ourselves: We had both been teaching Marx for decades—above all, we produced this edition with students in mind—but our publications were mostly Marx adjacent rather than Marx centered. To some extent, then, it was as scholarly outsiders that we approached Marx experts, and we wondered whether they might think, upon seeing an initial note from us, “Why didn't my spam filter catch this?” Or, “Who exactly are these guys? And where do they get the *chutzpa*?”

But the answers we received carried no trace of territorialism. Rather, they were characterized by excitement, warmth, and extraordinary generosity. No one was more generous or encouraging than the brilliant value-theorist Michael Heinrich, with whom we spent many hours talking through historical enigmas and philological knots. Regina Roth, an enormously erudite *MEGA* editor, answered more queries than we had any right to send her way. The wonderful members of the volume's editorial board, made up of economists, critical theorists, and Marxians, provided feedback that helped shape the project: thank you to Tithi Bhat-tacharya, Rebecca Comay, Michael Heinrich, Jeff Jacobs, Suresh Naidu, and Kohei Saito. Exchanges with Terrell Carver, whose English rendering of *The Communist Manifesto* we admire, deepened our thinking about Marx's rhetoric. Marcello Musto and Babak Amini shared vital unpublished research on the history of *Capital* translations. It was inspiring to listen to and interact with the speakers in the lecture series “The Value of

Marx's *Capital*," which we organized through Yale in the fall of 2020. Some of those speakers have been mentioned already: Babak, Marcello, Michael, Terrell, and Tithi. The others were Cinzia Arruzza, Andrew Kliman, Fred Moseley, Karen Ng, Lucia Pradella, William Clare Roberts, Stephanie Smallwood, and Massimiliano Tomba. They are all creative and faithful readers of Marx, dedicated to finding new revolutionary moments.

We also benefited a great deal from the feedback we got from friends who were kind enough to read part of the manuscript or, in some cases, the whole thing. Thank you, Mark Allison, Ksenia Arapko, Joshua Cohen, Amir Eshel, Peter Fenves, Jaimey Fisher, Shelley Frisch, Veronika Fuechtner, Arthur Goldhammer, David Horn, June Hwang, Noah Isenberg, Matt Johnson, Louis Menand, Karen Ng, Chris Otter, Will Roberts, Na'ama Rokem, Damion Searls, Tanvi Solanki, Keston Sutherland, Joel Wainwright, Liliane Weissberg, Chad Wellmon, and Brett Wheeler.

We are extremely grateful to Wendy Brown and Will Roberts for book-ending the edition with their learned, searching essays, and for being such thoughtful partners in this project. Ksenia Arapko and Daniel Badenhorst were models of assiduity and philological insight in locating English translations of Marx's citations from non-English sources and in examining how Marx's quotations rework their source material. In some cases, in fact, what Ksenia and Daniel were able to establish goes beyond or corrects the findings of previous Marx research: their devotion to this project has rivaled ours. Ksenia also supplied excellent English translations for the quoted passages that originally appeared in Russian. Ethan Levinbook did the same for most of the quoted passages that originally appeared in French. Carman Romano helped with some of the Latin quotes, graciously sharing her prodigious expertise.

Priya Nelson was the editor for this large project at Princeton University Press. We are especially grateful to her for making the audiobook version happen. It was a pleasure to work with Emma Wagh on administrative matters, and with Elizabeth Byrd, our production editor, on matters of production. Erin Davis oversaw the copyediting process efficiently and with good humor. Lily Brewer provided exemplary proofreading support.

*Paul Reitter: I am grateful to friends and colleagues in my department—Juan-Jacques Aupais, Matthew Birkhold, Katra Byram, John Davidson, Anna Grotans, Barbara Heck, Bob Holub (ר"ב), Merrill Kaplan, Matt Johnson, May Mergenthaler, Cynthia Porter, Kevin Richards, and Carmen Taleghani-Nikazm—and to friends elsewhere at Ohio State—Angus Fletcher, Naomi Fukumori, David Horn, Robin Judd, Ben McKean, Galey Modan, Chris Otter, Dana Renga, Johanna Sellman, Tina Sessa, Amy

Shuman, Joel Wainwright, and Ying Zhang—for the supportive and intellectually vibrant environment in which I get to work. I am also grateful to the students in the numerous Marx seminars I taught while working on this volume: the discussions in these classes were a tremendous source of energy and insight. There were fruitful discussions on the road, too: Veronika Fuechtner of Dartmouth, Peter Gordon of Harvard, Alex Kling and Johannes Lehmann of the Universität Bonn, Claudia Olk of Ludwig-Maximilians Universität in Munich, and Ariel Weiner of Northwestern invited me to come to their respective universities to speak about translating Marx's *Capital* and were remarkably deft at facilitating exchange.

Edwin Frank weighed in with crucial advice, as did Marica Bodrožić, Gregor Hens, and Brett Wheeler. Furthermore, the force of Edwin's, Marica's, Gregor's, and Brett's enthusiasm for this project mattered a lot.

I thank Ceci Reitter and Maria Miller for our sustaining *Familienglück*, and for providing very local examples of industriousness and concentration during the disarray of the pandemic. Much of the work that went into my translation of *Capital* was, on some level, an attempt to keep up.

My final thanks go to Paul North. I am so glad he joined me in this midlife Marx adventure.

*Paul North owes everything to his family, Caro, Theo, and Callie, for their brilliance and patience, and for inventing a socialistic life together in a capitalistic frame. Next, there would be no Marx for him if it weren't for the Critical Theory Re-Collective, which has been reading *Capital* and adjacent texts together since 2017. Matthew Shafer, Vanessa Gubbins, Ever Osorio Ruiz, Simon Horn, Aida Feng, Ido ben Harush, Peter Racuglia, Peter Conroy, Oliver Arellano Padilla, Alicia Steinmetz, Matthew O'Malley, Ali Ekdal, Drew Newitt, Christian Schlenker, Gabriel Wartinger, Bilal Moin, Julius Schmidt, Nica Siegel, Netta Sovinsky, Emily Tian, Anna Wilkinson, and Sophie Forst exemplify the best version of thinking-together. Friends and colleagues at Yale—Caleb Smith, Katie Lofton, Dani Botsman, Crystal Feimster, Cajetan Iheka, Gary Tomlinson, Michael Denning, Jacqueline Goldsby, John Durham Peters, Milette Gaifman, Shane Vogel, Francesco Casetti, Alicia Schmidt Camacho, Ernest Mitchell, Isaac Nakhimovsky, Nana Osei Quarshie, Langdon Hammer, Pauline LeVen, Stephen Darwall, Evren Savci, Marijeta Bosovic, and most recently Nana Adusei-Poku—make an indispensable intellectual community. No one was more enthusiastic about this project than David Malley, who I think wishes for a revolution, except perhaps Roshen Hendrickson, who I think doesn't. Friese Undine, Angharad Davies, Andrew Libby, and Anthony

Adler are continual inspirations. Thanks go to the German Department at Yale—Rüdiger Campe, Fatima Naqvi, Theresa Schenker, Sophie Schweiger, Lieselotte Sippel, and Kirk Wetters—for making a home base that is equal parts rigorous and peaceful. Susanna Al-Labban and Rebecca Stevens provided endless administrative labor. The people of Jonathan Edwards College deserve thanks for helping me protect my time and for running an impeccable institution: Gygi Jennings, Nicole Wade, and Shannon Terebesi.

Finally, North thanks Reitter for the invitation—to live five years with this astonishing text, and to get so close to Marx’s experience as to see how imperative and at the same time how demanding real social change is.

The French Reconstruction of *Capital*, 1872–75

WILLIAM CLARE ROBERTS

Please tell me, dear teacher, in a few words, if the principles that I lay out before you accord with your doctrine, and if the conclusion of the principles developed in your book will accord with the communist maxim.ⁱ

I hope the book will not earn you further persecution. The method is completely different from that applied by the French and other socialists. I do not take as my starting point general ideas such as equality etc., but I begin, on the contrary, with the objective analysis of economic relations as they are and that is why the revolutionary spirit of the book reveals itself only gradually.ⁱⁱ

I

Can the French even do dialectics?

Engels was skeptical. The “straightjacket of modern French” compels a writer, he claimed, “to bow to the dictates of a pedantic formal logic.” English, too, requires making sacrifices in the translation of “genuinely dialectical passages,” but at least English has an “energy and brevity” that allows one to compensate for this somewhat.ⁱⁱⁱ The combination in French of formalism and prolixity makes the language singularly ill suited for theoretical writing.

This may seem a strange claim, but Engels is not alone in affirming something like it, nor is it merely an expression of German linguistic chauvinism. Daniel Bensaïd, surveying the wreckage of French Marxism, argued that the development of “Marxist theory in France” had been hobbled by

“the absence of dialectical thought.”^{iv} Alain Badiou has lamented “the mechanistic and scientistic approach that has gripped Marxism since its introduction into France by Lafargue and Guesde,” declaring that France has only ever produced four eminent dialectical thinkers: Pascal, Rousseau, Mallarmé, and Lacan.^v Positivism, mechanistic thinking, formal logic, empty phraseology—these are the congenital faults of French theory.

These doubts regarding the French capacity for dialectical theory also cast a shadow over the French translation of *Capital*. In the letter quoted above, Engels was not complaining about French in general, but about “the chapter on factory legislation in the French translation.” In this case, Marx responded to Engels’s criticisms defensively, telling his partner that, if he can “persevere with it,” he “will find that some passages are superior to the German.”^{vi} Nonetheless, it is easy to criticize the French edition in Marx’s name. In a famous letter to Nikolai Danielson, Marx claimed that in *Le Capital* he was “sometimes obliged—principally in the first chapter—to ‘aplatir’ the matter in its French version.”^{vii} To those who worry about the relative lack of theoretical or dialectical precision in the French, this letter indicates that Marx had “to ‘aplatir,’ or flatten, the complex German presentation,”^{viii} or else that “the French translation *simplifies* much of what is more fully explained in the current English and the fourth German editions.”^{ix}

A full accounting and assessment of the changes Marx introduced into the French edition is beyond the scope of a short essay. The major changes, however, can be easily surveyed. Marx eliminated the subtitle, “A Critique of Political Economy.” He split chapter 4 into three chapters and chapter 24 into seven chapters, which he divided off as a separate part 8, “L’accumulation primitive.” He significantly rewrote chapters 14/16 and 15/17, eliminating the discussion of formal and real subsumption and four paragraphs that reviewed the argument, while adding in ten paragraphs discussing John Stuart Mill. He also substantially rewrote chapter 20/22, expanding his analysis of wage and productivity differentials and adding five paragraphs of new material comparing English conditions to Continental and Eastern European conditions. Throughout parts 4–6, Marx elevated numerous footnotes to the main text and introduced new empirical cases and illustrations. He also generally eliminated references to “book 4,” which was to treat the history of the theory of value.

There are also many subtler changes which seem highly significant to some readers. Marx introduces the distinction between the concen-

tration and the centralization of capital, and he seems to emphasize the role of credit in capital accumulation.^x He seems to downplay the positive effects of machinery, cast doubt on the unilinearity of economic development, and sideline property relations in his discussion of small-scale production.^{xi} In almost every chapter, Marx either cuts or adds individual sentences, and the translation even more often reformulates, eliminates, or adds clauses. There is ample material, therefore, for debate and disagreement.

Looking at the whole range of these changes, there is certainly evidence for the belief that the French edition simplifies or popularizes aspects of Marx's argument. Given how much time and energy he put into revising Joseph Roy's translation, and his evident concern over its quality—he worked on the translation off and on for over three and a half years—Marx was a surprisingly *unfussy* translator. He seems to be quite comfortable with a degree of semantic shift that can make those of us invested in the conceptual specificity of Marx's language squirm. From Marx's other extant letters concerning the French edition, it seems that his major *specific* complaint about Roy's translation was its excessive literalness.^{xii} Writing to Maurice Lachâtre, the publisher,^{xiii} Marx claimed that Roy "translates too literally in the easy passages, but he shows his strength in the difficult things. Nevertheless, your corrections would always be useful materials for me for the final correction. . . . For the final correction I have here the assistance of Longuet, Vaillant, Lissagaray and other competent Communards."^{xiv} Lachâtre seemed to concur, reiterating to Marx at one point, "the recommendation that I have already addressed to you, to entrust one of your sons-in-law, or your French and writerly friends, to read the proofs in order to remove certain Germanisms that the translator has left in the text."^{xv} In another letter to Danielson, Marx explains this by reference to his sense of the requirements of his French readers. "Although the French edition," Marx writes, "has been prepared by a great expert in both languages, he has often translated too literally. I have therefore found myself compelled to rewrite whole passages in French, to make them palatable to the French public."^{xvi} Given the way that Marx approached his revisions of the text, therefore, it can reasonably seem that the French translation blunts the conceptual precision of the German original.

A couple of examples will illustrate the issue.

Marx's vocabulary for discussing "power" and "force" undergoes an important shift between the German editions and the French. In German,

Marx uses four terms, especially, to name the worlds of power—to discuss the power to do things and the power of some over others, the impulse given to the means of production and the impulsion of the worker to work, the coercive power of the state's laws and the compulsive power of the need to sustain oneself. These terms are *Macht*, *Kraft*, *Gewalt*, and *Zwang*.

In the German text, these terms are not generally interchangeable, but are associated with particular and partially overlapping conceptual domains. *Macht* pertains to production and to the state, *Kraft* to labor and production, *Gewalt* to the state and the class struggle, and *Zwang* to the law and the market. *Gewalt* and *Zwang* come to the fore in part 3, as soon as exploitation comes into focus as an object of analysis. *Kraft* and *Macht* are more prominent whenever the material production process is being analyzed.

In the French edition, these regularities disappear. Although French has a similar set of words to German—*pouvoir*, *puissance*, *force*, and *coercion*—*Le Capital* uses *force* so widely that it displaces the specificity of all the other words. The other terms are still used, but *force* translates every single one of Marx's German terms on a regular basis. Therefore, the associations of individual terms with specific domains do not carry over into the French.

This affects the shape of what we might call Marx's ontology of labor and capital. In *Das Kapital*, there is a regular if not exclusive association of *Macht* and *Kraft* with nature—including with the natural productive capacities of human beings—and of *Gewalt* and *Zwang* with antinature—whether the monstrosity of capital or the externally coercive impositions of the law and the market. These associations disappear when *Arbeitskraft* and *Produktivkraft* are replaced by *force de travail* and *force productive* even while *force* also translates *Gewalt* in almost every instance.^{xvii}

Another instance of this apparent loss of specificity in the French edition has been discussed by Kyle Baasch.^{xviii} Interrogating Althusser's reading of *Capital*, Baasch notes that the 1872–75 version of *Le Capital* “is highly inconsistent in its translation of the more idiosyncratic terms that decorate the opening chapters.” Baasch especially highlights the word *Träger*, which is central to Althusser's conception of structural causality. *Träger* is generally rendered as *porte*, but it is sometimes omitted, or rendered as *support* or *soutien*, instead.^{xix} This is significant, Baasch argues, because, while the German text associates *Träger* with the world of the theatre, with character masks or personae that individuals—or individual use-values—wear in certain circumstances, the French text undermines this association by the addition of a structural metaphor, in which individuals support economic interests and roles the way beams and columns

support a building. This structural rendering of support erases the possibility that individuals are separable from that which they support, an implication central to the theatrical frame of reference.^{xx}

Instances like these seem to substantiate the concern that the French edition is a less precise or less conceptually rigorous version of *Capital*.

II

However, the coin has another side. There are instances, even in chapter 1—the very chapter where Marx was especially compelled “to ‘aplatir’ the matter”—in which the French translation *introduces* precision in the place of vague or ambiguous German. For a minor instance, a footnote early in the book declares that “a governing notion in bourgeois societies is the *fiction juris* that every person who buys commodities also has an encyclopedic knowledge of them.”^{xxi} Marx expanded on this rather obscure claim in the French, adding “no one is supposed to be ignorant of the law.”^{xxii} In other words, ignorance of the law is no excuse. This clarifies that the *fiction juris* in question is akin to the rule “buyer beware.”

Later in chapter 1, the second edition claims that “Different instances of labor can become fully equal only when their real nonequality is abstracted away, only when they are reduced to the common character they have as an expenditure of human labor-power: abstract human labor.”^{xxiii} In the French edition, Marx adds a crucial specification of the mechanism of this reduction to abstract labor, writing, “It is exchange alone that works this reduction by bringing the products of the most diverse labors face to face on an equal footing.”^{xxiv} In these cases, and others like them, the French edition has a concrete specificity that the more abstract or indeterminate German text lacks.

The most theoretically significant of these instances appears in one of the most famous passages in *Capital*. In his discussion of the fetish character of commodities in the second edition, Marx claims about the people frequenting the market that “ihre eigne gesellschaftliche Bewegung besitzt für sie die Form einer Bewegung von Sachen, unter deren Kontrolle sie stehen, statt sie zu kontrollieren.”^{xxv} This sentence is reproduced, unaltered, in the third and fourth German editions. Commentators relying on the German editions have generally understood the antecedent of the final phrases—“unter deren Kontrolle sie stehen, statt sie zu kontrollieren”—to be *Sachen*. That is, they have generally understood Marx to be saying that the exchangers of commodities, rather than being in control of their products, are controlled by *things*. This reading has also dominated the

English-language literature, since all of the English translations have rendered Marx's claim that way.^{xxvi}

This reading has encouraged an assimilation of Marx's argument in this section of chapter 1 to two arguments he makes elsewhere. First, Marx makes a series of claims—both in volume 1 and in his drafts and notebooks—about the tendency of capital to appear as a set of physical objects (machines, tools, buildings, etc.) rather than as a set of social relations among wage workers and capitalist employers. In this context, Marx repeatedly claims that capital, which is produced by the labor of the wage workers, dominates the workers who create it. It is “dead labor which dominates and sucks the life out of labor-power.”^{xxvii} This claim clearly has the same form as the common reading of the claim from chapter 1. Instead of being the mere means of labor, manipulated by the worker and subordinated to the process of labor, capital appears as a master that manipulates the worker and subordinates the labor process to itself. In machinery, Marx claims, this apparent reversal takes on a “palpable technological reality,” embedded in the apparatus of production.^{xxviii}

Second, and more generally, both the claim in chapter 1 about exchangers in the market and the claim in chapter 13/15 about workers in the factory are frequently integrated with Marx's writings on the *Entfremdung* of the worker from 1844. In his Paris notebooks, Marx wrote that the alienation of the worker from the products of their labor results in the fact that the worker becomes a servant of their object.^{xxix} This seems to be Marx offering a philosophically general account of the specific phenomena analyzed in *Capital*. As he writes:

All of these consequences subsist in the determination that the worker relates to the product of his labor as an alien object, or the object of another. For, it clearly follows from this presupposition: that the more the worker elaborates himself, the more powerful the alien, objective world he creates over against himself becomes, and the poorer he himself, and his inner world, becomes, the less belongs to him as his own.^{xxx}

The consequence, therefore, of bringing the passages from *Capital* together with Marx's 1844 notebooks is that the fetishism of the commodity is understood along the same lines as the fetishism of capital, and that both are rooted in the development of alienation.^{xxxi} On this basis, “fetishism” is taken to refer, generally, to any case of “human creations which have somehow escaped (inappropriately separated out from) human control, achieved the appearance of independence, and come to enslave and oppress their creators.”^{xxxii}

This interpretation of fetishism has come to be central to the English and German scholarship on Marx. According to Moishe Postone, one of the most influential Marx scholars of the post-Cold War era, Marx's "vision of a postcapitalist society" centers on "the historically generated possibility that people might begin to control what they create rather than being controlled by it."^{xxxiii} This contention rests on the presupposition, explicit in Lukács, that labor creates both material products and the social relations that arise out of the circulation of those products. As Postone claims a few pages later, "The modern, capitalist world, according to Marx, is constituted by labor, and this process of social constitution is such that people are controlled by what they make."^{xxxiv}

This all emerges from a plausible reading of Marx's claim in the German texts of *Capital*. The English translations—which uniformly render Marx as saying that, in market exchange, commodity producers are controlled by things—are reasonable. Marx's German sentence might actually mean just that.

Interestingly, however, the French edition does *not* say that producers are controlled by *things*. In French, the passage reads:

The value character of the products of labor only emerges, in fact, where they are determined as quantities of value. These latter change ceaselessly, independently of the will and foresight of the producers, in whose eyes their own social movement takes the form of a movement of things, a movement that, far from them being able to direct it, herds them about.^{xxxv}

This claims that producers are led or herded about by the *movement* of things, and, in particular, by the constant changes in the quantity of value. The measure of the quantity of value is the labor-time socially necessary to produce it,^{xxxvi} but this "changes with every variation in the productivity of labor."^{xxxvii} These constant changes appear to the producers, moreover, only in the form of changes of prices in the market itself.^{xxxviii}

Putting these things together, the text of *Le Capital* says that the producers of commodities are driven about in their social interactions by the changing prices of commodities, rather than having the power to themselves direct those price changes. In other words, the French edition argues that commodity producers are price-takers, not price-makers, and that changes in relative price levels drive the buying, selling, and producing activity of commodity producers.

This specification, however, is a stumbling block for the interpretations that have based themselves in the predominant reading of the German text.

On the basis of the French text, there is no obvious homology between what Marx says about market-dependent producers in chapter 1 and what he says in chapter 13/15 about workers' confrontation with the objective manifestation of capital. That market-dependent producers are price sensitive does not imply that they encounter the product of their own activity as an independent thing. Rather, the *products of others* represent the value of their own product, which cannot represent its own value. Nor does it imply that the social relationship between themselves and other market-goers appears to them in the guise of thing-like factors of production.

The connection between the French text of chapter 1 and Marx's 1844 remarks on alienation is no more intuitive. The claim that market-dependent producers are price-takers, not price-makers, has no clear resemblance to or basis in the claim that producers are separated from and then dominated by the product of their labor. It does not imply that producers confront their own product as an alien power over themselves. Nor does it have any clear or immediate relationship to the situation of factory workers, who *do* encounter capital in an objective form, the form of the machine factory itself.

The French text here confronts the reader with the multiple levels of dialectical mediation that separate chapter 1 from chapter 13/15. The situation of market-dependent producers, who must sell in order to buy and buy in order to live, should not be identified or conflated with the situation of factory workers, who must work in order to live and must keep up with the machine in order to work. Neither market-dependent producers nor wage-dependent workers are in control of their respective situations, but the out-of-control-ness of the two is distinct. And, while the two situations are *causally* related, they are not instances expressing one and the same underlying dynamic of alienation.

III

The conceptual distance between these three—Marx's analysis of the fetishism of commodities, his analysis of labor's constitution of the power of capital, and his earlier conception of alienated labor—may be given some measure by bringing in another term to which all three might be related: ideology.

Scholars have noted the absence of the word "ideology" from Marx's discussion of fetishism—indeed, from the entirety of *Capital*. Étienne Balibar has called special attention to the fact that "there is nothing about ideology in *Capital*," and that this is part of a larger absence in the work

of Marx and Engels, a “twenty-year eclipse of the crucial term ‘ideology’ following its massive use in *The German Ideology*.”^{xxxix} Of course, the word does appear occasionally—four times in volume 1, plus one more occurrence in the Postface to the second edition^{xl}—but these few appearances are mere mentions, and they seem far afield from the work’s treatment of “the theoretical models that figure in the classical analyses of ideology,” the models “pertaining to commodity and money fetishism and, more generally, to the inverted relation between the deep sphere of production and the superficial sphere of exchange.”^{xli} Taking into account the fact that, “after *Capital*, the term fetishism disappears in turn from the texts of Marx and Engels,” Balibar concluded that “if the question of ideology is constitutive of historical materialism, then several relatively incompatible approaches are involved,” and studying these incompatibilities and discontinuities should be central to the project of disclosing and exploring “the internal contradictions of the Marxist problematic.”^{xlii}

Charles Mills concurred, but was more categorical. Critical of “the conventional view” that “ideology” is “a broadly pejorative term for Marx, whose reference includes fetishism . . . despite the fact that Marx does not use the word in analyzing fetishism,” Mills argues that the meaning of “ideology” has been stretched and distorted far beyond anything Marx and Engels seemed to mean by it.^{xliii} According to Mills, Marx and Engels consistently used “ideology” to indicate the superstructure of society, and “ideologists” to refer to superstructural workers in general. From this primitive sense, they derived a pejorative use of the term to refer to “idealism,” which they thought to be “an occupational hazard” of superstructural work. Those who “specialize in superstructural labor” are prone to “a characteristic illusion—that their immaterial/ideal products (ideas, politics, laws, etc.) are causally independent of the material/economic base,” and “this illusion is idealism.”^{xliii} On the basis of this textual analysis, Mills concludes that “Marx and Engels had no all-encompassing concept of ideology as mystification,” and that “the goal of extracting from Marx and Engels’s writings a general theory of ideology as antiscience and mystification” has been “chimerical all along.”^{xliii}

In line with these analyses, we can say that, rather than a chain of equivalences—fetishism is alienation, fetishism is false consciousness, fetishism is ideology—the text of *Le Capital* ought to impress upon us a set of discontinuities and disjunctions. Fetishism is not alienation, as we have already seen. Nor is it false consciousness. The fetish-character of commodities may be “phantasmagoric,”^{xliii} but in it “the social relations” among the “private labor” of the exchangers “appear as what is in fact

the case here: things mediate the relations among people, while there are social relations among things.”^{xlvii} Fetishism is the accurate perception by commodity producers and exchangers of being jerked around by commodities’ changing prices.

Nor is fetishism ideology. Marx and Engels’s original scientific program was to explain how

The social organization and the state continuously emerge from the life-process of definite individuals, but these individuals not as they may appear in their own or other’s imaginations but as they really are, that is, as they work, produce materially, and thus as they work under definite material limitations, presuppositions, and conditions, independent of their will.^{xlviii}

In keeping with this original aim, Marx in chapter 1 of *Capital* is interested to show how certain “illusions” of the economists—such as the idea that nature plays a part in forming exchange-value—evolve out of the material life-process of commodity producers.^{xlix} These illusions are not fetishism, however. They are, instead, a theoretical misprision of fetishism.^l And these illusions are not properly ideological, either, since, as Mills rightly notes, economists like Bailey—who claimed that “a pearl or a diamond has value as a pearl or a diamond”^{li}—are deceived by their own crude materialism, not because they, as ideologists, take “thoughts and ideas . . . as the basis of this existing world.”^{lii} Not every error is ideological.

However, there is one place in *Capital* where Marx does directly connect a mystery of the market with ideology. It is in the relatively neglected part 6, on wages. As Marx writes in the French, “The recompense of the laborer is represented as the wages of labor: so much money paid for so much labor.”^{liiii} The payment of wages, therefore, seems to be a species of the exchange of commodities, and the labor market is supposed to behave like other markets, with buyers driven to the cheapest suppliers, and sellers driven to compete on price and quality.

This appearance of exchange is false, however, and its falseness is massively consequential. As Marx claims:

The wage-form, or the direct payment of labor, makes every trace of the division of the day into necessary and surplus-labor, paid and unpaid labor, disappear, so that all of the labor of the free worker is supposed to be paid. . . . This form, which expresses only the false appearance of wage-labor, renders invisible the real relation between capital and

labor, and shows precisely the opposite. From this derive all the legal notions of the wage-workers and the capitalists, all the mystifications of capitalist production, all of the liberal illusions and all of the apologetic evasions of the vulgar economists.^{liv}

Here we have what we do not have in the case of fetishism: the direct explanation of ideology—“les notions juridiques,” “les illusions libérales,” “les faux-fuyants apologetiques”—by reference to the material basis of society. To its participants and observers—workers and capitalists and economists alike—the exchange of wages for labor-power looks to be the exchange of wages for labor. It really seems as if the wage-worker is being paid to perform a given service, and that the employer is paying to have that service performed. The value of the service seems to determine the wage. The workers may argue that the service they perform is more valuable, and that the wage should be raised. The employers may argue that they are the best judge of the value of the service, and that they can only pay what the service is worth to them. The whole argument, however, turns around the fixed point of the fair equivalence between the service and the wage.

As Marx puts it in two sentences he added to the French edition:

The wage is the payment of labor at its value, or at a price that diverges from this. It implies, therefore, that the value and accidental price of labor-power has already undergone a change of form, which makes them appear as the value and price of labor itself.^{lv}

However—and this is the fundamental point of Marx’s theory of capitalist exploitation—the wage transaction does *not* give to the employer a definite service. Rather, it gives to them the use for a definite time of a human being. Marx underscores this in the French. All editions claim that “what the money owner directly encounters on the market isn’t in fact labor, but rather a worker.” However, where the German continues, “What the worker sells is his labor-power,”^{lvi} the French adds the important clarification, “What the latter sells *is himself*, his labor-power.”^{lvii}

What and how much “service” the employer gets out of the use of that human being is not determined by the wage transaction but by the employer’s government of the workplace. This is why Marx has to lead the reader into “the secret laboratory of production” in order to uncover the “the great secret of modern society.”^{lviii}

Only in chapter 17/19, therefore, do the readers of *Capital* find the piece of Marx’s analysis that allows them to connect Marx’s theory of commodity exchange, including his famous remarks on fetishism, to his

theory of exploitation, including his famous remarks on passing from the surface of society into the hidden abode of production, and to his account of capitalist production itself, including his remarks on the alienation of the workers' power.^{lix} And only here does the reader find a link between exchange, exploitation, and capitalist production, on the one hand, and ideology, on the other.

Only in chapter 17/19, in other words, do readers of *Capital* find the rudiments of Marx's explanation of the emergence of an ideological superstructure from an economic base. It is in *the wage transaction* that Marx locates the origin of "the definition of freedom as self-determination, which occurs among all—especially German—ideologists,"^{lx} because it is here that he locates the origin of the liberal belief that, in the words of the coiner of "ideology," the comte de Tracy, "society is purely and solely a continual series of exchanges," which transactions have the "admirable" quality that "the two contracting parties always both gain."^{lxi}

There is a tendency in the literature on ideology as a concept to downplay the connection between Tracy's original formulation of ideology as a science of ideas and Marx's critical attacks on ideologists. In fact, the continuity is direct and overwhelming. Tracy's ideology is the paradigm case of Marx's ideology: a superstructural effort to reform society by reforming ideas. Tracy wanted to reform the world by means of education, and the education he meant to provide was fundamentally an education in political economy. His goal was to realize society as a totality of voluntary and mutually beneficial exchanges, and to do so by enlightening the consciousness of social agents, so that they could see what they were trying to do and do it in the most rational way possible.

Marx thought this was illustrative of the approach of bourgeois political economy as a whole. To a "ready-made world of capital," the political economist applies "notions of law and property handed down from a precapitalist world," notions of law and property that emerge from market exchanges between independent producers and that spontaneously assimilate the sale and purchase of labor-power to the sale and purchase of finished goods. Marx thinks that "the facts contradict" the economist's "ideology," but that these facts—the overwork and exploitation of laborers, the domination exercised by the capitalists, the conquest and expropriation practiced by capitalist nations—elicit from economists only "more nervous zeal and unctuousness" in their preaching.^{lxiii} This point needs to be renewed and insisted upon today.

The reforms proposed by political economy, and the supposedly rational outlook it propounds, are founded, according to Marx, on "an irratio-

nal expression,” *the value and price of labor*.^{lxiii} This ideological founding is itself a consequence of the fact that the society that political economy reflects is “founded on labour as a commodity.”^{lxiv} Political economy borrowed this irrational expression from the “everyday life” of that society, where it circulates in the marketplace of ideas, but “without reflecting on it critically.”^{lxv} Marx’s critique of political economy is, fundamentally, a critique of this irrational expression, the value and price of labor.

Strikingly, however, Marx came to refer to it as an *irrational* expression only in the French translation. In the German editions, he calls it, instead, “an imaginary expression.”^{lxvi} In mathematics, there is an important distinction between imaginary and irrational numbers. Imaginary numbers—which all have the square root of -1 as a factor—are incomparable; because the square root of -1 is not a real number, it is impossible to say whether any given imaginary number is larger or smaller than any other number. Hence, Marx had analogized the “price” of honor or conscience to imaginary numbers back in chapter 3, since these qualities can be offered for sale at a price but without having a value according to which they can be compared to real commodities.^{lxvii} Irrational numbers, on the other hand, are numbers like π , which cannot be expressed as ratios of two integers. Irrational numbers can be compared— π is greater than e (Euler’s number), for instance—but cannot be precisely determined because they express incommensurable magnitudes. By this shift from calling the value of labor imaginary to calling it irrational, therefore, Marx shifts from implying that the value of labor is as unreal as the price of honor to implying that it *is* real but indeterminable.^{lxviii} There is no common denominator between labor and commodities whereby the value of the former could be defined. Incommensurability, not incomparability, is the salient feature.

The thought implicit here is not fleshed out by Marx, however. Indeed, the change he introduces in the French here also introduces a potential confusion. In chapter 3, Marx had included “the price of uncultivated land” among the instances of “the imaginary price-form,” since “it doesn’t contain any objectified human labor.”^{lxix} In chapter 17/19, however, he compares the value of labor to “the value of the earth.”^{lxx} Where the German text uses “*imaginär*” in both contexts, the French text calls “the price of uncultivated land” an *imaginary* expression but “the value of the earth” an *irrational* expression. How much labor is realized in the earth? The German editions of *Capital* claim that the answer is zero. The French edition implies that the question makes as little sense as asking how much labor is realized in labor.

The right answer to this question—or whether there is one—need not detain us. What is significant for our purposes is that the French translation both clarifies and troubles the reading of *Capital*. *Capital* is not all of a piece, neither between editions nor within a single edition. It is indisputable that Marx used the opportunity presented by the translation to rework and revise parts of the text. It is also indisputable that no clear boundary can be drawn between this process of revision and the process of translating the German prose into French prose. The two bleed into one another all the time. The debate between those who see in *Le Capital* a refinement and perfection of *Das Kapital* and those who see in it a simplification or vulgarization is unresolvable in principle.

IV

There is a great irony, therefore, in Marx's claim that he had "to 'aplatir' the matter in its French version." As I have argued, the French version is neither flat nor smooth. Marx's translation choices, in crucial instances, disrupt the too-immediate assimilation of discontinuous and incomplete analyses. The example I have focused on is the assimilation of fetishism to alienation and ideology, and there is further irony here. For too many readers, Marx's words—the means by which he sought to reveal the modern social world—have come to master the perception of the world itself. Marx's predilection for certain rhetorical figures and images—inversion, chiasmus, the sorcerer's apprentice—become not so much a key by which the reader opens up his analyses as an iron mask that effaces equally all of their features.

Attention to the changes made in the second German and the French editions should demonstrate the bankruptcy of this approach. A great deal of information about Marx's attitude toward and practice of translation comes from the letters he wrote to his French publisher, Maurice Lachâtre.^{lxxi} Besides these clues, however, Marx's correspondence with Lachâtre indicates a crucial part of the context for Marx's revisions, for both the French translation and the second German edition. The translator, the publisher, Marx's "French and writerly friends,"^{lxxii} the "competent Communards" he could count on for assistance with the translation^{lxxiii}—these are so many arrows pointing to the most important factor in Marx's revisions: the Paris Commune of March–May 1871.

Marx informs the readers of the second German edition that he was told "only in the fall of 1871 . . . that the first printing was sold out and the second printing would begin as soon as January 1872."^{lxxiv} Doubtless Marx's sudden

notoriety during and immediately after the Commune contributed to the demand for *Capital*. The International Workingmen's Association (IWMA) was at the forefront of the Parisian uprising, and Marx was widely regarded in the press as the leader of the IWMA. The publication of his pamphlet on *The Civil War in France* in June 1871 brought him to the attention of a much wider audience, and his defense of the Commune drove interest in the "doctrine" professed in his theoretical tome.

At the same time, the destruction of the Commune dramatically changed the political situation of socialists on the continent. The militants of the French working class had been killed, arrested and transported, or scattered into exile. The failure of the Commune held two significant lessons. The absence of a working-class political party in France had meant that there were no representatives of the workers in Versailles who might have raised a hue and cry in the National Assembly against the terroristic policy pursued against the Commune by the Thiers government. At the same time, the inability of the Commune to appeal effectively to the provincial population of France left Paris a sitting duck, which indicated the need for a socialist policy for approaching rural producers. Both the formation of working-class political parties and the study of modes of agricultural production would, therefore, occupy much of Marx's energy in the remaining decade of his life. Despite Marx's stated belief in 1870 that "only England can act as a *lever* in any seriously *economic* revolution,"^{lxxv} the Commune showed that "the political rule of the producer" might also "serve as a lever for uprooting the economical foundation upon which rests the existence of classes, and therefore of class rule."^{lxxvi} Marx's remaining energy was devoted to exploring this possibility.^{lxxvii}

While all of these developments were already apparent by the time Marx was rushing through his revisions to the second German edition in 1872, they had ripened by 1873 and 1874, when Marx was at work revising Roy's translation. Marx received the last installment of Roy's draft on October 27, 1873.^{lxxviii} He did not send the final sheets of the revised translation to Lachâtre until mid-1875, shortly after the Gotha Congress cemented the Eisenachers and the Lassalleans into the *Sozialistische Arbeiterpartei Deutschlands*. A year after this, Marx was engaged in heavily revising another translation: the German edition of Lissagaray's *Histoire de la Commune de 1871*. This "occupied Marx for almost a year, from October 1876 to August 1877," and was a central means of making the case for Marx's political line in Germany.^{lxxix} Up to and including the foundation of the Parti Ouvrier in 1880, Marx spent a decade engaged with the Commune and its aftermath, and with the effort to build a new,

post-Commune political foundation for working-class self-emancipation. The French edition of *Capital*, which took up three and a half years in the middle of this decade, must be read as part of this effort to adjust and refine theory to changing economic and political realities.

Marx's effort of translation was imposed upon him by the world he sought to change. Capitalist society is a moving target, yes, but also an internally variegated one. The French context was not the English context, nor was it the German context. France was substantially underdeveloped from the standpoint of capitalist industry. It began to undertake a process of state-led industrial development in the 1850s and '60s, with Napoleon III's championing of the *Crédit Mobilier* and the massive expansion of the railways. Despite accelerated urbanization under the Second Empire, however, the rural agriculturists remained by far the largest sector of the people and population growth was painfully slow.^{lxxx} If Marx could confidently declare to the "German reader" that "the country that is more developed with respect to industry merely shows the less developed one what its own future will look like,"^{lxxxi} this was not so clear in the case of France. Hence, Marx hedged a bit, declaring only that "the more industrially developed country only shows to the one that follows it on the industrial ladder the image of its own future."^{lxxxii} France was Russia before Russia was—a country that might not follow Britain on its climb up the industrial ladder, but might instead find a different route to communism.

The result of comparing the German and French editions of *Capital*, therefore, is not that, somewhere between vulgarization and refinement, we find the truest, final, or most precise version of Marx's concepts and arguments. Rather, what is most significant is the work of rewriting *Capital* for a changed and changing political and economic context. There is no original context to which Marx's work in *Capital* can be confined, nor any final context toward which it develops. Marx's project in *Capital* always departs from where it begins in the hope of reaching somewhere else. This is true in the crudest material form. Marx wrote in London, but in German and French. He was enthusiastic about the Russian edition. When he hoped for an English translation he was thinking of an *American* translation. The International, of which *Capital* was the manifesto, was always, of necessity, a work of translation and retranslation. In the translation of Marx's "compressed" German into "smooth" French,^{lxxxiii} and in Marx's laborious unfussiness about the work of translation, therefore, perhaps we can recover his concern to disclose the facts about the dynamics of a society dominated by the capitalist mode of production.^{lxxxiv}

APPENDIX ONE

Comparative Tables of Contents

Headnote

Chapter schemas vary among editions of volume 1. Below is a comparison of chapter schemas from four separate editions: the first and second German editions, the French translation by Roy and Marx, and the most recent English translation by Fowkes. This should make visible the few changes and the many similarities among the versions. The first and most notable change is the moderate expansion and rearrangement of material that happened between the first and second German editions. Then, the French translation, in the early sections, goes back to the order of chapters from the first edition. Later in the French translation, however, what in the second German edition were subsections of chapter 24 are turned into separate chapters. Fowkes largely follows the order of the French translation, through the mediation of Engels's fourth German edition and the earlier Moore-Aveling translation, both of which hew close to the French ordering. Note that changes in order and new chapters do not always mean significantly different contents.

Marx's first German edition (1867)	Marx's second German edition (1872) *basis for the current translation	Roy / Marx French translation (1875)	Fowkes's English translation (1976)
First Book: Capital's Production Process	Book One: Capital's Process of Production	First Book: The Development of Capitalistic Production	Book One: The Process of Production of Capital
First Chapter: The Commodity and Money	Part I: The Commodity and Money	First Section: The Commodity and Money	Part One: Commodities and Money
1. The Commodity	Chapter 1: The Commodity	Chapter I: The Commodity	Chapter 1: The Commodity
2. The Exchange Process of Commodities	Chapter 2: The Exchange Process	Chapter II: On Exchange	Chapter 2: The Process of Exchange
3. Money or Commodity Circulation	Chapter 3: Money, or Commodity Circulation	Chapter III: Money or Commodity Circulation	Chapter 3: Money, or the Circulation of Commodities
Second Chapter: The Transformation of Money into Capital	Part 2: How Money is Transformed into Capital	Second Section: The Transformation of Money into Capital	Part Two: The Transformation of Money into Capital
1. The General Formula of Capital	Chapter 4: The Transformation of Money into Capital	Chapter IV: The General Formula of Capital	Chapter 4: The General Formula for Capital
2. Contradictions in the General Formula	Chapter 5: The Labor Process and the Valorization Process	Chapter V: Contradictions in the General Formula of Capital	Chapter 5: Contradictions in the General Formula
3. Purchase and Sale of Labor-Power	Chapter 6: Constant Capital and Variable Capital	Chapter VI: Purchase and Sale of Labor-Power of Capital	Chapter 6: The Sale and Purchase of Labor-Power
Third Chapter: The Production of Absolute Surplus-Value	Part 3: The Production of Absolute Surplus-Value	Third Section: The Production of Absolute Surplus-Value	Part Three: The Production of Absolute Surplus-Value
1. The Labor Process and the Valorization Process	Chapter 7: The Rate of Surplus-Value	Chapter VII: The Production of Use-Value and the Production of Surplus-Value	Chapter 7: The Labour Process and the Valorization Process
2. Constant and Variable Capital	Chapter 8: The Working Day	Chapter VIII: Constant Capital and Variable Capital	Chapter 8: Constant Capital and Variable Capital
3. The Rate of Surplus-Value	Chapter 9: The Rate and Amount of Surplus-Value	Chapter IX: The Rate of Surplus-Value	Chapter 9: The Rate of Surplus-Value
4. The Working Day		Chapter X: The Working Day	Chapter 10: The Working Day
5. Rate and Amount of Surplus-Value		Chapter XI: Rate and Amount of Surplus-Value	Chapter 11: The Rate and Mass of Surplus-Value

Fourth Chapter: The Production of Relative Surplus-Value	Part 4: The Production of Relative Surplus-Value	Fourth Section: The Production of Relative Surplus-Value	Part Four: The Production of Relative Surplus-Value
1. The Concept of Relative Surplus-Value	Chapter 10: The Concept of Relative Surplus-Value	Chapter XII: Relative Surplus-Value	Chapter 12: The Concept of Relative Surplus-Value
2. Cooperation	Chapter 11: Cooperation	Chapter XIII: Cooperation	Chapter 13: Co-operation
3. The Division of Labor and Manufacturing	Chapter 12: The Division of Labor and the Manufacturing System	Chapter XIV: Division of Labor and Manufacturing	Chapter 14: The Division of Labour and Manufacture
4. Machinery and Large-Scale Industry	Chapter 13: Machinery and Large-Scale Industry	Chapter XV: Mechanism and Large-Scale Industry	Chapter 15: Machinery and Large-Scale Industry
Fifth Chapter: Further Investigations into the Production of Absolute and Relative Surplus-Value	Part 5: The Production of Absolute and Relative Surplus-Value	Fifth Section: Further Investigations into the Production of Surplus-Value	Part Five: The Production of Absolute and Relative Surplus-Value
1. Absolute and Relative Surplus-Value	Chapter 14: Absolute and Relative Surplus-Value	Chapter XVI: Absolute Surplus-Value and Relative Surplus-Value	Chapter 16: Absolute and Relative Surplus-Value
2. Changes of Magnitude in the Price of Labor-Power and Surplus-Value	Chapter 15: The Price of Labor-Power and the Magnitude of Surplus-Value Increase and Decrease	Chapter XVII: Variations in the Relation of Size between Surplus-Value and the Value of Labor-Power	Chapter 17: Changes of Magnitude in the Price of Labour-Power and in Surplus-Value
3. Various Formulas for the Rate of Surplus-Value	Chapter 16: Different Formulas for the Rate of Surplus-Value	Chapter XVIII: Various Formulas for the Rate of Surplus-Value	Chapter 18: Different Formulæ for the Rate of Surplus-Value
4. Value with respect to Price of Labor-Power Converted into the Form of Wages	Part 6: Wages	Sixth Section: Wages	Part Six: Wages
a) The Form Conversion	Chapter 17: How Labor-Power's Value and Price Are Transformed into Wages	Chapter XIX: The Transformation of the Value or the Price of Labor-Power into Wages	Chapter 19: The Transformation of the Value (and Respectively the Price) of Labour-Power into Wages
b) The Two Basic Forms of Wages: Time-Wage and Piece-Wage	Chapter 18: Time Wages	Chapter XX: Wages by Time	Chapter 20: Time-Wages
	Chapter 19: Piece Wages	Chapter XXI: Wages by the Piece	Chapter 21: Piece-Wages
	Chapter 20: Variations in Wages from Nation to Nation	Chapter XXII: Difference in the Rate of National Wages	Chapter 22: National Differences in Wages

(continued)

Marx's first German edition (1867)	Marx's second German edition (1872)	Roy/Marx French translation (1875)	Fowkes's English translation (1976)
Sixth Chapter: Capital's Accumulation Process	Part 7: Capital's Accumulation Process	Seventh Section: The Accumulation of Capital	Part Seven: The Process of Accumulation of Capital
1. Capitalistic Accumulation	Chapter 21: Simple Reproduction	Chapter XXIII: Simple Reproduction	Chapter 23: Simple Reproduction
a) Simple Reproduction		Chapter XXIV: The Transformation of Surplus-Value into Capital	Chapter 24: The Transformation of Surplus-Value into Capital
b) Transformation of Surplus-Value into Capital	Chapter 22: How Surplus-Value Turns into Capital	Chapter XXV: The General Law of Capitalistic Accumulation	Chapter 25: The General Law of Capitalist Accumulation
c) The General Law of Capitalistic Accumulation	Chapter 23: The General Law of Capitalist Accumulation		
2. The So-Called Original Accumulation	Chapter 24: The So-Called Original Accumulation	Eighth Section: Primitive Accumulation	Part Eight: So-Called Primitive Accumulation
	1. The Secret of Original Accumulation	Chapter XXVI: The Secret of Primitive Accumulation	Chapter 26: The Secret of Primitive Accumulation
	2. The Expropriation of the Rural Population's Land	Chapter XXVII: The Expropriation of the Rural Population	Chapter 27: The Expropriation of the Agricultural Population from the Land
	3. Bloody legislation against the Expropriated since the End of the Fifteenth Century. Legislation Enacted to Lower Wages.	Chapter XXVIII: Bloody Legislation against the Expropriated Ones from the End of the Fifteenth Century. Laws Regarding Wages	Chapter 28: Bloody legislation against the Expropriated since the End of the Fifteenth Century. The Forcing Down of Wages by Act of Parliament
	4. The Genesis of Capitalist Farmers	Chapter XXIX: The Genesis of the Capitalist Farmer	Chapter 29: The Genesis of the Capitalist Farmer
	5. How the Agricultural Revolution Affected Industry. The Creation of a Domestic Market for Industrial Capital.	Chapter XXX: Repercussions of the Agricultural Revolution on Industry. Establishment of an Internal Market for Industrial Capital	Chapter 30: Impact of the Agricultural Revolution on Industry. The Creation of a Home Market for Industrial Capital
	6. The Genesis of the Industrial Capitalist	Chapter XXXI: The Genesis of Industrial Capital	Chapter 31: The Genesis of the Industrial Capitalist
	7. Original Accumulation's Historical Tendencies	Chapter XXXII: The Historical Tendency of Capitalist Accumulation	Chapter 32: The Historical Tendency of Capitalist Accumulation
3. The Modern Theory of Colonization	Chapter 25: The Modern Theory of Colonization	Chapter XXXIII: The Modern Theory of Colonization	Chapter 33: The Modern Theory of Colonization
Appendix to Chapter I, 1. The Value-Form		Notice to the Reader	

APPENDIX 2

The First German Edition, Published 1867

Headnote

For contemporary readers of *Capital*, the most significant difference in the first German edition is the presentation of the “value-form.” There the presentation is split into two, a very short section in chapter 1 and a longer development in an appendix after the main text. The appendix breaks the material into sections and subsections, giving it more order, and goes into more detail on particular matters, such as the equivalent form. Marx largely followed the appendix in the second German edition, where it became the value-form section of chapter 1. We reproduce below the headings and subheadings—a handy outline—because in it Marx was developing the categories in fairly thetic form. A full, if erratic, translation of the entire original appendix can be found in Albert Dragstedt, *Value: Studies by Karl Marx* (London: New Park, 1976). A better version is in *Capital & Class* 2, no. 1 (Spring 1978): pp. 130–50, translated by M. Roth and W. Suchting.

The Value-Form

Our analysis of the commodity shows that it is a double thing, use-value and value. Hence, in order for a thing to have a commodity-form, it has to possess a double-form, the form of a use-value and the form of value. The use-value form is the form of the commodity-body itself—iron, linen, and so on—their palpable, sensible form of existence. This is the commodity’s natural form. Contrariwise the commodity’s value-form is its social form.

How is a commodity’s value expressed? How does it obtain its own form of appearance after all? Through a relationship to a variety of other

commodities. To be able to analyze the form contained in such a relationship correctly, we have to start off from its simplest, most undeveloped shape. A commodity's simplest relationship is obviously its relationship to a single other commodity of whatever kind. The relationship between two commodities offers thus the simplest value-expression for a commodity.

- I. The simple value-form.
 1. The two poles of the value-expression: relative value-form and equivalent-form.
 - a) The inseparability of both forms.
 - b) The polarity of both forms.
 - c) Relative value and equivalent value are only forms of value.
 2. The relative value-form.
 - a) Relationship of equality.
 - b) Relationship of value.
 - c) The relative value-form's qualitative content contained in the value-relationship.
 - d) The relative value-form's quantitative determinacy contained in the value-form.
 - e) The whole of the relative value-form.
 3. The equivalent-form.
 - a) The form of direct exchangeability.
 - b) Quantitative determinacy is not contained in the equivalent-form.
 - c) The particular features of the equivalent-form.
 - α. First feature of the equivalent-form: use-value becomes the form of appearance of its opposite, value.
 - β. Second feature of the equivalent-form: concrete labor becomes the form of appearance of its opposite, abstract human labor.
 - γ. Third feature of the equivalent-form: private-labor becomes the form of its opposite, labor in a directly social form.
 - δ. Fourth feature of the equivalent-form: the fetishism of the commodity-form is more striking in the equivalent-form than in the relative value-form.
 4. As soon as value appears independently, it has the form of exchange-value.

5. The commodity's simple value-form is the simple form of appearance of the oppositions it contains between use-value and exchange-value.
 6. The commodity's simple value-form is the simple commodity-form of the labor product.
 7. Relationship of commodity-form and money-form.
 8. Simple relative value-form and individual equivalent-form.
 9. Transition from the simple value-form to the developed value form.
- II. Total or developed value-form.
1. The sequence's interminability.
 2. The developed relative value-form.
 3. The specific equivalent-form.
 4. Deficiencies in the developed or total value-form.
 5. Transition from the total value-form to the universal value-form.
- III. Universal value-form.
1. The relative value-form's changed shape.
 2. The equivalent-form's changed shape.
 3. Uniform relationship of development between relative value-form and equivalent-form.
 4. Development of the polarity between relative value-form and equivalent form.
 5. Transition from the universal value-form to the money-form.
- IV. Money-form.
1. Difference in the transition from the universal value-form to the money-form from the earlier developmental transitions.
 2. Transformation of the universal relative value-form into the price-form.
 3. The simple commodity-form is the secret of the money-form.

(MEGA2 II.5, pp. 764-83)

APPENDIX 3

The French Translation, Published 1875

Headnote

Below we list a small set of changes in the French translation that some scholars consider significant, revisions Marx seems to have made while redoing the French translation. The translation was largely carried out by Joseph Roy, a French history teacher who had previously translated Ludwig Feuerbach into French. Roy did not start the translation, but he worked on the bulk of it. At the same time, Marx spent three years, not full time but on and off, revising and at times retranslating Roy's French. But it should be noted that it is very difficult to tell what changes were made by Marx to Roy's translation, since Roy's sheets with Marx's changes written onto them have been lost. It is also difficult to tell what edition Roy was using when, since he seems to have had the first edition of volume 1 to start with and only received the second edition somewhat later.

Further, Marx gives contradictory statements about the value of the French translation over the three years he worked on it. For example, he says in a letter that the problem with Roy's translation is that it is too literal, and elsewhere that he wanted to make the translation "mundgerecht" for the French people—"palatable." So presumably his work on Roy's French text would have been to restore conceptual and figurative fullness, on one hand, and to make it fit into French mouths, on the other, which some have understood as a will to popularize the often-abstruse arguments. These two intentions are themselves potentially at odds. To add a level of complexity to the question, in the afterword to the French translation, which he wrote three years later, Marx claims something altogether grander. The French text "possesses a scientific value independent of the original and should be consulted even by readers

familiar with German.” And consider the following as well. One week, Marx writes the Russian translator Danielson that he should use the French translation as a source for the Russian translation. A week later, he writes Danielson again, advising him not to use the first two sections from the French, because he had to “aplatir” the text there, to flatten it, so as to reach a popular audience. So it seems as though the first two sections of the text at least are, in Marx’s estimation at the time, worse than the second German edition, although later in the book he may have considered it, in places, better. Of course, there are uncountable “differences” between the second German and the French translation. Some of these differences are inevitably changes made with some consciousness by Marx. But translating is also writing one language into another whose modes of expression, lexicon, history, and practical usages do not coincide with the original. Languages cannot be made equivalent. It remains a puzzle, then, which so-called differences in the French, for the better or not, are because of the different language.

After all this revision frenzy, Engels incorporated some changes from the French translation into the fourth edition of volume 1 that he edited and put out in 1890, but for reasons that are hard to reconstruct, he did not incorporate all of them. Below you will find some of the passages from the French translation that could make a difference for the analysis of the capital system and for anti-capitalist positions potentially arising from it. The list is necessarily partial.

Some Significant Changes in the French Translation:

1) The French edition drops the subtitle, *Critique of Political Economy*. It is titled simply “Le Capital.”

2) There are changes to the chapter structure. Chapter 4, sections 1, 2, and 3, become chapters 4, 5, and 6. Chapter 7 gets divided into section 1 on the production of use-value and section 2 on production of surplus-value. Chapter 24, sections 1–7 and chapter 25 are made into separate chapters, 26–33, all of which are gathered into a new section, Part 8.

3) There is a change seen by many as signaling a shift away from historical determinism and developmentalism. In the Preface to the French edition, Marx writes

The most industrially developed country merely shows those that follow it on the industrial ladder the image of their own future. (*MEGA*2 II.7 p. 12, lines 34–6)

However, in the preface to the first German edition he had written:

The country that is more developed with respect to industry merely shows the less developed one what its own future will look like. (This volume p. 6)

4) In chapter 1 of the French, Marx adds an important clause onto a sentence. In the second German edition, he had written:

Different instances of labor can become fully equal only when their real nonequality is abstracted away, only when they are reduced to the common character they have as an expenditure of human labor-power: abstract human labor. (This volume p. 50)

Marx replaced the period with a comma in the French and added:

and it is exchange alone that reduces them, by bringing the products of the most diverse labors into each others' presence on an equal footing. (*Le Capital*, 1875, p. 29)

He took this additional clause from a set of planned changes, titled "Ergänzungen und Veränderungen [Additions and Alterations]," that were part of a deep rethinking of the role abstraction plays in value production.

5) In chapter 7, Marx adds a clarifying footnote on the concept of "process":

In German "Arbeits-Process" (labor-process). The word "process," which expresses a development considered in the totality of its real conditions, has belonged to Europe's scientific language for a long time. In France it was first introduced timidly in its Latin form—*processus*. Then it slipped, stripped of this pedantic disguise, into books on chemistry, physiology, etc., and into some metaphysical works. It will finish by becoming naturalized. Let us note in passing that the Germans, like the French, use the word "process" in everyday speech in its legal sense. (*MEGA* II.7 p. 146, n. 1)

6) In the French chapter 24, there is a significantly different version of chapter 22, section 1, in this volume (this volume pp. 533–538). Both versions deal with the "Umschlag," the changeover of property laws into laws for capital accumulation under the new system. It is a fairly advanced development for the system that property laws, which had existed in Europe for millennia, now have a different meaning and use. In this advanced phase of development, capital produces more capital, unpaid

labor leads to more unpaid labor. When this happens, property laws become subordinated to a law-like principle governing the system that Marx calls the law of accumulation. Under this “law,” the exchange of “equivalents” between buyer and seller becomes an instrument for continued capital increase. In the third and fourth German editions, Engels puzzlingly kept the original German version of the “Umschlag” section and simply tacked on the French version, leading to a double treatment. Here is a translation of the revised French “Umschlag” text:

This mode of enriching oneself, which contrasts so strangely with the primordial laws of commodity production, results, however, it must be understood, not from their violation, but on the contrary: from their application. To be convinced of this, suffices to take a retrospective look at the successive phases of the movement that leads to accumulation.

In the first place, we saw that the primitive transformation of a sum of values into capital takes place in accordance with the laws of exchange. One of the operators sells his labor power which the other buys. The former receives the value of his commodity, whose use, or labor, is consequently alienated from the latter. The latter then converts the means of production that belong to him, using labor that belongs to him, into a new product that will rightfully belong to him.

This product’s value incorporates first of all the value of the means of production that has been consumed, but useful labor cannot use these means without their value passing from them to the product, and, in order to sell itself, the labor power must be capable of providing useful work in the branch of industry where it will be employed.

The value of the new product incorporates, furthermore, the value equivalent of labor-power plus the surplus-value that arises. This result is due to the fact that labor-power, sold for a determinate time, a day, a week, etc., has less value than its use produces in the same time. But by obtaining the exchange-value of his labor-power, the worker has alienated its use-value, as happens in every purchase and sale of commodities.

This particular article, labor-power, is used to provide labor and thereby produce value. And this does not in any way change the general law of commodity production. If, therefore, the sum of values advanced in wages ends up in the product along with a surplus, this does not arise from an injury on the part of the seller, because he indeed receives

the equivalent of his commodity, although from the consumption of it by the buyer.

The law of exchange stipulates equality only in relation to the exchangeable value of the articles alienated, the one for the other, but it presupposes a difference between their everyday values, their utilities, and has nothing to do with their consumption, which begins only when the deal is already concluded.

The primitive conversion of money into capital therefore takes place in accordance with the economic laws of commodity production and the property rights derived from them.

Nonetheless, it brings this result:

1. That the product belongs to the capitalist and not to the producer;
2. That the value of the product incorporates both the value of the capital advanced and a surplus-value which costs labor to the worker but nothing to the capitalist, whose legitimate property it becomes;
3. That the worker has maintained his labor power and can sell it again if it finds a buyer.

Simple reproduction merely repeats periodically the first operation; each time it is repeated, it in turn becomes a primitive conversion of money into capital. The continuity of a law's action is certainly the opposite of its violation. "Several successive exchanges only made the final exchange a representative of the first." [Editor's note: The quotation is from J.-C.-J. Simonde de Sismondi, *Nouveaux principes d'économie politique, ou de la richesse dans ses rapports avec la population*. 2nd ed. (Paris, 1827), p. 70.]

Nevertheless, we have seen that simple reproduction radically changes the character of the first act, taken in isolation. "Among those who share in the national income, some (the workers) acquire a new right to it each year through new work, others (the capitalists) have previously acquired a permanent right to it through prior work." [Editor's note: Ibid. p. 111] Furthermore, it is not only in labor matters that primogeniture works its wonders.

What changes when simple reproduction is replaced by reproduction on a progressive scale, by accumulation?

In the first case, the capitalist eats the surplus-value in its entirety, while in the second case, he demonstrates civic-mindedness by eating only part of it, in order to make money out of the rest. [Editor's note: Engels, when he translated this line from the French into German for the fourth edition, misunderstands the last clause, rendering

it as “beweist er seine Bürgertugend durch Verzehrung nur eines Theils und Verwandlung des Restes in Geld,” or “demonstrates his bourgeois virtue by absorbing only a part and turning the rest into money” (*MEGA* II.10, p. 524). He leaves out where the money comes from (the worker), and what is to be done with it (to be reinvested as further capital).]

The surplus-value is his property and has never belonged to anyone else. When he advances his capital, as on the first day he appeared on the market, the capitalist does so out of his own funds, although this time those funds come from the free labor of his workers. If worker B is hired using the surplus-value produced by worker A, we must consider, on the one hand, that the surplus-value was returned by A without his being harmed by a cent of the just price of his commodities and that, on the other hand, B had nothing to do with this operation. All B asks, and has the right to ask, is that the capitalist pay him the value of his labor power. “Both still gained; the worker because he was advanced the fruits of the labor (read: the free labor of other workers) before it was done (read: before his own had borne fruit); the master, because the work of this worker was worth more than the wage (read: produces more value than that of his wage).” [Editor’s note: *Ibid.* p. 135]

It is indeed true: things look very different if we consider capitalist production in the continuous movement of its reproduction and substitute the capitalist class and the working class for the capitalist and the individual worker. But to do this is to apply a measure completely foreign to commodity production. (Marx, *Le Capital*, *MEGA* II.7, pp. 506–8)

7) In the French chapter 25, “Loi générale de l’accumulation capitaliste,” Marx eliminated the last traces of a discussion of the subsumption of labor into capital. A longer discussion can be found in the posthumously published text known as “Chapter 6: Immediate Results of the Production Process.” It also seems that Marx was becoming more sophisticated about how capitalist accumulation works in this chapter. For instance, he distinguishes more clearly in the French between concentration and centralization of capital, and he elevates the role of credit, although he doesn’t develop his analysis of credit in capital accumulation here, nor can he, since he hasn’t yet introduced the notion of profit. He does so in volume 3.

8) Another change on a related topic comes in chapter 26 of the French, “Le secret de l’accumulation primitive,” which corresponds to chapter 24, section 1, in this edition. Instead of implying that England is the model and only advanced capitalist economy, as he does in the present edition where he calls England the “classic” form of primitive accumulation and the only place where it has been carried out completely, in the French translation he indicates that England’s development has been contingent and is a good site to observe capitalism temporarily, since the other European economies are on the same path. A key passage reads:

It has so far been accomplished in a radical manner only in England: this country will therefore necessarily play the leading role in our sketch. But all the other countries of Western Europe are following the same movement, although depending on the environment, the movement changes according to local color, or narrows into a tighter circle, or presents a less strongly pronounced character, or follows a different order of succession. (*MEGA*₂ II.7 p. 634)

Marx adds an important note to the French reader after the text.

Advice to the reader

M. J. Roy undertook to give as exact and even literal a translation as possible; he scrupulously fulfilled his task. But his very scruples forced me to modify the wording, with the aim of making it more accessible to the reader. These revisions, made from day to day since the book was published in installments, were carried out with unequal attention and must have produced discrepancies in style.

Having once undertaken this work of revision, I was led to apply it also to the content of the original text (the second German edition), to simplify some developments, to complete others, to provide additional historical or statistical materials, to add critical insights, etc. Whatever the literary imperfections of this French edition, it has a scientific value independent of the original and should be consulted even by readers familiar with the German language.

I give below the parts of the afterword of the second German edition, which relate to the development of

political economy in Germany and to the method employed
in this work.

Karl Marx

London, April 28, 1875
(*MEGA2* II.7 p. 690)

APPENDIX 4

Changes toward a Third German Edition

Headnote

Even after the second edition appeared in 1872, Marx continued to revise volume 1. In lists and in published copies, he corrected things he thought were wrong in existing editions and indicated new material to add. He planned to bring descriptions of contemporary social and economic conditions up to date with recent events and newer data.

1) The excerpt below is from a note by Engels prefacing the third edition. Engels's note gives a sense of what Marx's best friend found to work with, when he started to compile his own version of a third edition.

At the start, Marx planned to revise most of the text of the first volume [Engels means the second German edition], to sharpen many theoretical points, to integrate new material, to fill out the historical and statistical material up to the most current moment. The state of his illness and the pressure to finalize the revision for the second volume led him to forgo this. Only the most essential things were to be changed. Only the additions already contained in the French edition that had appeared in the meantime (*Le Capital*. Par Karl Marx. Paris: Lachâtre, 1873) were to be added.

Among his papers I found a copy of the German corrected by him in spots and furnished with references to the French edition; also a copy of the French where he had precisely marked the passages to be used. These alterations and additions confine themselves, with few exceptions, to the last part of the book, the section: "The Accumulation Process of Capital."

(MEGA2 II.8, p. 57)

2) This is a note written by Marx in the margin of a copy of the second edition. It indicates a complication for his theory about the rate of profit, that is, that in more developed capitalist economies it would tend to fall. Already in the early 1870s, he was reconsidering this theory.

Engels version:

Note to the 3rd Edition.—In Marx's personal copy there is a marginal remark here. "Note here, to handle later: if the expansion is only quantitative, profits as well as amounts of advanced capital relate to each other in the same branch of industry, whether they derive from a large or a small amount of capital. If the quantitative expansion functions qualitatively, the profit rate for the larger capital will rise at the same time."

(*MEGA*₂ II.8, p. 591 n. 77b)

Sources Cited by Marx

Headnote

In the nineteenth century, what a person read determined the kind of intellectual worker they were. An author was an archive that determined what they could argue, against and for whom, and on what basis. Even in this world of readers, few were as widely read as Marx, and few had such furious memories with which to quote out of pocket from the canon, as well as from obscure treatises on political economy. Marx's great memory was supplemented by his notebooks, which contained quotes he transcribed from his reading, a practice he kept up for about forty years. He had notebooks devoted to political economy, to be sure, and ones devoted to topics as disparate as the ethnography of human communities, the history of technology, agricultural chemistry, and ecology, along with theoretical topics such as contemporary philosophy and mathematics. When he composed *Capital*, he drew freely and continually on these notebooks for quotations and paraphrases from a range of sources, and the list below gives the bibliographic details that have been found for them. A common contention holds that Marx had three major sources for *Capital*—German idealist philosophy, French socialism, and English political economy. This is correct to a point. Without even mentioning the sources he merely alludes to and the many that are not obvious but operate in the background, the list of named sources is huge and much more varied than this trio.

Thanks to the tremendous work by the editors of the German critical edition, we include the bibliography below, used with permission (*MEGA2* II.6 Apparatband, 1633–69).

Works by Marx and Engels

1. Publications

Marx, Karl: *Der 18te [achtzehnte] Brumaire des Louis Napoléon*. In: *Die Revolution. Eine Zeitschrift in zwanglosen Heften*. Ed. J. Weydemeyer. New York. 1852.

- *Adresse du Conseil General de l'Association Internationale des Travailleurs. Aux membres et aux sociétés affiliées et à tous les travailleurs.* [Leaflet. London, July 1867.]
- *Le capital.* Trad. de M. J. Roy, entièrement rév. par l'auteur. Paris [1872–1875].
- “Elections—Financial clouds—The Duchess of Sutherland and slavery.” In: *New-York Daily Tribune.* Nr. 3686, 8 February 1853.
- [Marx, Karl:] [“Instruktionen für die Delegierten des Provisorischen Zentralrats zu den einzelnen Fragen.”] In: *Der Vorbote.* Geneva. Nr. 10, October 1866.
- Marx, Karl: *Das Kapital. Kritik der politischen Oekonomie.* Vol. 1. Book 1: *Der Produktionsprozess des Kapitals.* Hamburg 1867.
- [Marx, Karl:] (“Lohnarbeit und Kapital.”) In: *Neue Rheinische Zeitung.* Cologne. Nr. 264, 5 April 1849; Nr. 265, 6 April 1849; Nr. 266, 7. April 1849; Nr. 267, 8. April 1849; Nr. 269, 11 April 1849.
- Marx, Karl: *Misère de la philosophie. Réponse a la philosophie de la misère de M. Proudhon.* Paris, Brussels 1847.
- *Zur Kritik der politischen Oekonomie.* Issue 1. Berlin 1859.
- [Marx, Karl, Friedrich Engels:] *Manifest der Kommunistischen Partei.* Veröffentlicht im Februar 1848. London [1848].
- [Review of:] “Latter-day pamphlets.” Ed. Thomas Carlyle. No. 1: “The present time. No. 2: Model prisons.”—London, 1850. In: *Neue Rheinische Zeitung. Politisch-oekonomische Revue.* Ed. von Karl Marx. London, Hamburg, New-York. 1850. Issue 4.—Literatur. 1.
- Engels, Friedrich: “Die englische Zehnstundenbill.” In: *Neue Rheinische Zeitung. Politisch-oekonomische Revue.* Ed. by Karl Marx. London, Hamburg, New York. 1850. Issue 4.
- *Die Lage der arbeitenden Klasse in England. Nach eigener Anschauung und authentischen Quellen.* Leipzig 1845.
- *Umriss zu einer Kritik der Nationaloekonomie.* In: *Deutsch-Französische Jahrbücher.* Paris. 1844.
- Марксъ, Карлъ: *Капиталь. Критика политической экономии.* Переводъ съ нѣмецкаго. Vol. 1. Book 1: *Процессъ производства капитала.* Saint Petersburg, 1872.

2. Manuscripts

- Marx, Karl: *Das Kapital* (Oekonomisches Manuskript 1863–1865).
- *Das Kapital* (Oekonomisches Manuskript 1868–1870).
- *Zur Kritik der Hegelschen Rechtsphilosophie.*

Works by Other Authors

- An act against pulling down of towns and houses.* [1488.] From: Frederic Morton Eden: *The state of the poor* . . . Vol. 1. London 1797.
- An act concerning farms and sheep.* [1533.] From: Frederic Morton Eden: *The state of the poor* . . . Vol. 1. London 1797.
- An act concerning the employment of children in manufacturing establishments.* In: *Supplements to the revised statutes. General laws of the Commonwealth of Massa-*

- chusetts . . .* Vol. 1. Boston 1854. From: *Children's employment commission. First report . . .* London 1863.
- An act directing how aged, poor, and impotent persons, compelled to live by alms, shall be ordered; and how vagabonds and beggars shall be punished.* [1530.] From: Frederic Morton Eden: *The state of the poor . . .* Vol. 1. London 1797.
- An act for preventing the adulteration of articles of food or drink.* (6th August 1860.) From: *Report addressed to Her Majesty's Principal Secretary of State for the Home Department, relative to the grievances complained of by the journeymen bakers . . .* London 1862.
- An act for punishment of rogues, vagabonds, and sturdy beggars.* [1597.] From: Frederic Morton Eden: *The state of the poor . . .* Vol. 1. London 1797.
- An act for punishment of sturdy vagabonds and beggars.* [1535.] From: Frederic Morton Eden: *The state of the poor . . .* Vol. 1. London 1797.
- An act for reducing the laws relating to rogues, vagabonds, sturdy beggars and vagrants, into one act of parliament; and for the more effectual punishing of such rogues, vagabonds, sturdy beggars and vagrants, and sending them whither they ought to be sent.* [1713.] From: Frederic Morton Eden: *The state of the poor . . .* Vol. 1. London 1797.
- An act for regulating the hours of labour for children, young persons, and women employed in workshops; and for other purposes relating thereto.* (21st August 1867.) In: *The statutes of the United Kingdom of Great Britain and Ireland, 30 & 31 Victoria, 1867.* London 1867.
- An act for the extension of the factory acts.* (25th July 1864.) In: *A collection of the public general statutes passed in the twenty-seventh and twenty-eighth years of the reign of her Majesty Queen Victoria: Being the sixth session of the eighteenth Parliament of the United Kingdom of Great Britain and Ireland.* London 1864.
- An act for the extension of the factory acts.* (15th August 1867.) In: *The law reports. The public general statutes, with a list of the local and private acts, passed in the thirtieth and thirty-first years of the reign of Her Majesty Queen Victoria . . .* Vol. 2. London 1867.
- An act for the further relief of His Majesty's army, and the northern parts of the Kingdom.* [1640.] From: Frederic Morton Eden: *The state of the poor . . .* Vol. 1. London 1797.
- An act for the punishment of vagabonds, and for relief of the poor and impotent.* [1572.] From: Frederic Morton Eden: *The state of the poor . . .* Vol. 1. London 1797.
- An act for the punishment of vagabonds, and for the relieve of the poore and impotent persons.* [1547.] From: Frederic Morton Eden: *The state of the poor . . .* Vol. 1. London 1797.
- An act for the regulation and inspection of mines.* (28th August 1860.) In: *The statutes of the United Kingdom of Great Britain and of Ireland, 23 & 24 Victoria, 1860.* London 1860.
- An act for the regulation of bakehouses.* (13th July 1863.) In: *The statutes of the United Kingdom of Great Britain and Ireland, 26 & 27 Victoria, 1863.* London 1863.
- An act for the setting of the poor on work, and for the avoiding of idleness.* [1576.] From: Frederic Morton Eden: *The state of the poor . . .* Vol. 1. London 1797.
- An act further to regulate the employment of children in factories.* (20th August 1853.) In: *A collection of the public general statutes, passed in the sixteenth and seventeenth*

- year of the reign of Her Majesty Queen Victoria: Being the first session of the sixteenth Parliament of the United Kingdom of Great Britain and Ireland.* London 1853.
- An act made for the explanation of the statute made in the fifth year of the late Queen Elizabeth's reign, concerning labourers.* [1603.] From: Frederic Morton Eden: *The state of the poor* . . . Vol. 1. London 1797.
- An act to amend the acts relating to labour in factories.* (5th August 1850.) In: *The statutes of the United Kingdom of Great Britain and Ireland, 13 & 14 Victoria, 1850.* London 1850.
- An act to amend the criminal law relating to violence, threats, and molestation.* (29th June 1871.) In: *The law reports. The public general statutes, passed in the thirty-fourth and thirty-fifth years of the reign of Her Majesty Queen Victoria* . . . Vol. 6. London 1871.
- An act to amend the law relating to Trades Unions.* (29th June 1871.) In: *The law reports. The public general statutes, passed in the thirty-fourth and thirty-fifth years of the reign of Her Majesty Queen Victoria* . . . Vol. 6. London 1871.
- An act to amend the laws relating to labour in factories.* (6th June 1844.) In: *The statutes of the United Kingdom of Great Britain and Ireland, 7 & 8 Victoria, 1844.* London 1844.
- An act to consolidate and amend the acts relating to the regulation of coal mines and certain other mines.* (10th August 1872.) In: *The public general acts passed in the thirty-fifth and thirty-sixth years of the reign of Her Majesty Queen Victoria* . . . London 1872.
- An act to empower the magistrates therein mentioned to settle and regulate the wages of persons employed in the silk manufacture within their respective jurisdictions.* [1773.] From: *On combinations of trades.* New ed. London 1834.
- An act to limit the hours of labour, and to prevent the employment of children in factories under ten years of age.* Approved March 18, 1851. In: *Acts of the seventy-fifth legislature of the state of New Jersey.* Trenton 1851. From: *Children's employment commission. First report* . . . London 1863.
- An act to limit the hours of labour of young persons and females in factories.* (8th June 1847.) In: *A collection of the public general statutes, passed in the tenth and eleventh year of the reign of Her Majesty Queen Victoria: Being the seventh session of the fourteenth Parliament of the United Kingdom of Great Britain and Ireland.* London 1847.
- An act to place the employment of women, young persons, and children in bleaching works and dyeing works under the regulations of the factories acts.* (6th August 1860.) In: *The statutes of the United Kingdom of Great Britain and Ireland, 23 & 24 Victoria, 1860.* London 1860.
- An act to place the employment of women, young persons, youths, and children in lace factories under the regulations of the factories acts.* (6th August 1861.) In: *The statutes of the United Kingdom of Great Britain and Ireland, 24 & 25 Victoria, 1861.* London 1861.
- An act to prevent the employment of women and children during the night in certain operations connected with bleaching by the open-air process.* (11th April 1862.) In: *A collection of the public general statutes passed in the twenty-fifth and twenty-sixth years of the reign of Her Majesty Queen Victoria: Being the fourth session*

- of the eighteenth Parliament of the United Kingdom of Great Britain and Ireland.* London 1862.
- An act to prohibit the employment of women and girls in mines and collieries, to regulate the employment of boys, and to make other provisions relating to persons working therein.* (10th August 1842.) In: *The statutes of the United Kingdom of Great Britain and Ireland, 5 & 6 Victoria, 1842.* London 1842.
- An act to regulate the labour of children and young persons in the mills and factories of the United Kingdom.* (29th August 1833.) In: *A collection of the public general statutes passed in the third and fourth years of the reign of His Majesty King William the Fourth, 1833.* London 1833.
- An act to regulate the labour of children, young persons, and women, in print works.* (30th June 1845.) In: *The statutes of the United Kingdom of Great Britain and Ireland, 8 & 9 Victoria, 1845.* London 1845.
- An act to repeal the laws relating to apprentices and other young persons employed in cotton factories and in cotton mills, and to make further provisions in lieu thereof.* (15th October 1831.) From: *Reports of the inspectors of factories . . . for the half year ending 30th April 1849 . . .* London 1849.
- An act touching divers orders for artificers, labourers, servants of husbandry and apprentices.* [1562.] In: *The statutes at large, of England and of Great Britain: From Magna Carta to the Union of the Kingdom of Great Britain and Ireland.* In 20 vol. Vol. 4. London 1811.
- Addington, Stephen: *An inquiry into the reasons for and against inclosing open-fields.* 2nd ed. Coventry 1772. From: Richard Price: *Observations on reversionary payments . . .* 6th ed. Vol. 2. London 1803.
- "Agricultural labourers and Trades' Unions." In: *The Workman's Advocate.* London. Nr. 149, 13 January 1866.
- Agricultural labourers (Ireland). *Return to an order of the Honourable The House of Commons, dated 8 March 1861.* Ordered, by the House of Commons, to be printed 6 February 1862.
- "Agricultural progress and wages." In: *The Economist.* London. Nr. 856, 21 January 1860.
- Agricultural statistics, Ireland. General abstracts showing the acreage under the several crops and the number of live stock, in each county and province, for the year 1860. Also, the emigration from Irish ports from 1st January to 1st September, 1860. Presented to both Houses of Parliament by command of Her Majesty.* Dublin 1860.
- Agricultural statistics, Ireland. General abstracts . . . for the year 1861. Also, the emigration from Irish ports from 1st January to 31st July, 1861. Presented to both Houses of Parliament by command of Her Majesty.* Dublin 1861.
- Agricultural statistics, Ireland. General abstracts . . . for the year 1862. Also, the emigration from Irish ports from 1st January to 31st July, 1862. Presented to both Houses of Parliament by command of Her Majesty.* Dublin 1862.
- Agricultural statistics, Ireland. General abstracts . . . for the year 1863. Also, the emigration from Irish ports from 1st January to 31st July, 1863. Presented to both Houses of Parliament by command of Her Majesty.* Dublin 1863.
- Agricultural statistics, Ireland. General abstracts . . . for the year 1864. Also, the emigration from Irish ports from 1st January to 31st July, in 1863 and 1864. Presented to both Houses of Parliament by command of Her Majesty.* Dublin 1864.

- Agricultural statistics, Ireland. General abstracts . . . for the year 1865. Also, the emigration from Irish ports from 1st January to 31st July, in 1864 and 1865. Presented to both Houses of Parliament by command of Her Majesty.* Dublin 1865.
- Agricultural statistics, Ireland. General abstracts . . . for the year 1872. Also, the emigration from Irish ports from 1st January to 31st July, in 1871 and 1872, and the number of scutching mills in each province in 1871. Presented to both Houses of Parliament by command of Her Majesty.* Dublin 1873.
- Agricultural statistics, Ireland. Tables showing the estimated average produce of the crops for the year 1865; and the emigration from Irish ports, from 1st January to 31st December, 1865; also the number of mills for scutching flax in each county and province. Presented to both Houses of Parliament by command of Her Majesty.* Dublin 1866.
- Aikin, John: *A description of the country from thirty to forty miles round Manchester.* London 1795.
- Anderson, James: *The bee, or literary weekly intelligencer.* Vol. 3. Edinburgh 1791.
- [Anderson, James:] *An enquiry into the nature of the corn-laws; with a view to the new corn-bill proposed for Scotland.* Edinburgh 1777.
- Anderson, James: *Essays. Relating to agriculture and rural affairs.* Vol. 1-3. Edinburgh 1775-1796.
- *An inquiry into the causes that have hitherto retarded the advancement of agriculture in Europe: with hints for removing the circumstances that have chiefly obstructed its progress.* Edinburgh 1779.
- *Observations on the means of exciting a spirit of national industry; chiefly intended to promote the agriculture, commerce, manufactures, and fisheries of Scotland. In a series of letters to a friend. Written in the year 1775.* Edinburgh 1777.
- [Anderson, Adam:] *An historical and chronological deduction of the origin of commerce, from the earliest accounts to the present time. Containing, an history of the great commercial interests of the British Empire. With an app.* In 2 vol. London 1764.
- Anderson, James: *Recreations in agriculture, natural-history, arts, and miscellaneous literature.* Vol. 1-6. London 1799-1802.
- Anweisung an sämtliche Königliche Regierungen (mit Ausnahme der zu Sigmaringen) und an das Königliche Polizei-Präsidium hieselbst in Bezug auf die Beschäftigung jugendlicher Arbeiter in den Fabriken, vom 18. August 1853.* In: *Ministerial-Blatt für die gesammte innere Verwaltung in den Königlich preußischen Staaten.* [Berlin.] Vol. 14. 1853.
- Appian of Alexandria: *Römische Geschichten.* Trans. by Ferdinand L. J. Dillenius. Vol. 7. Stuttgart 1830.
- Arbeiten der Kaiserlich Russischen Gesandtschaft zu Peking über China, sein Volk, seine Religion, seine Institutionen, socialen Verhältnisse etc.* Translated from Russian, from the original published in St. Petersburg 1852-57, by Carl Abel and F. A. Mecklenburg. Vol. 1. Berlin 1858.
- [Arbuthnot, John:] *An inquiry into the connection between the present price of provisions, and the size of farms. With remarks on population as affected thereby. To which are added, proposals for preventing future scarcity. By a farmer.* London 1773.

- Aristoteles: *De republica libri VIII et oeconomica*. (Politica.) Ex rec. Immanuelis Bekkeri. Oxford 1837. (Opera. Vol. 10.)
- *Ethica Nicomachea*. In: Opera. Ex rec. Immanuelis Bekkeri. Vol. 9. Oxford 1837.
- *Politik in acht Büchern*. Der Urtext nach Imm. Bekkers Textes rec. auf's Neue berichtet und in's Deutsche übertr., so wie mit vollst. kritischen Apparate und einem Verz. der Eigennamen vers. von Adolf Stahr. Leipzig 1839.
- Ashley, [Anthony]: "Ten hours' factory bill. The speech . . . in the House of Commons, on Friday, March 15th, 1844." London 1844.
- Athenaeus: *Deipnosophistarum libri quindecim. Ex optimis codicibus nunc primum collatis emendavit ac supplevit nova latina versione . . .* Johannes Schweighaeuser. Vol. 2. Strasbourg 1802.
- Augier, Marie: *Du crédit public et de son histoire depuis les temps anciens jusqu'à nos jours*. Paris 1842.
- Babbage, Charles: *On the economy of machinery and manufactures*. London 1832.
- *On the economy of machinery and manufactures*. 2nd ed., enl. London 1832.
- *Traité sur l'économie des machines et des manufactures*. Translated from the English of the 3rd edition, par Éd. Biot. Paris 1833.
- Bacon, Francis: *The essays or counsels, civil and moral*. In: Richard Price: *Observations on reversionary payments . . .* 6th ed. Vol. 2. London 1803.
- *Neues Organon*. Trans. from the Latin by George Wilhelm Bartoldy. With commentary by Salomon Maimon. Vol. 1 and 2. Berlin 1793.
- *The reign of Henry VII*. Verbatim reprint from Kennet's England, ed. 1719. In: John Milton: *Britain under Trojan, Roman, Saxon rule*. London 1870.
- [Bailey, Samuel:] *A critical dissertation on the nature, measures, and causes of value; chiefly in reference to the writings of Mr. Ricardo and his followers. By the author of essays on the formation and publication of opinions*. London 1825.
- *A letter to a political economist; occasioned by an article in the Westminster Review on the subject of value. By the author of the critical dissertation on value therein reviewed*. London 1826.
- *Money and its vicissitudes in value; as they affect national industry and pecuniary contracts: with a postscript on joint-stock banks*. London 1837.
- Barbon, Nicholas: *A discourse concerning coining the new money lighter. In answer to Mr. Lock's considerations about raising the value of money*. London 1696.
- Barton, John: *Observations on the circumstances which influence the condition of the labouring classes of society*. London 1817.
- Bastiat, Frédéric: *Harmonies économiques*. 2nd ed., enl., from the manuscript left by the author. Paris 1851.
- Baynes, [John]: *The cotton trade. Two lectures on the above subject, delivered before the members of the Blackburn Literary, Scientific and Mechanics' Institution, . . .* Blackburn, London 1857. From: *Reports of the inspectors of factories . . . for the half year ending 31st October 1858*. London 1858.
- Beccaria, Cesare: *Elementi di economia pubblica*. In: *Scrittori classici italiani di economia politica*. [Ed. Pietro Custodi.] Parte moderna. Vol. 11. Milan 1804.
- Beckmann, Johann: *Beyträge zur Geschichte der Erfindungen*. 2., improved edited Vol. 1–4. Vol. 1. Leipzig 1786.
- Beecher-Stowe, Harriet: *Uncle Tom's cabin; or, Negro life in the slave states of America*.

- Bellers, John: *Essays about the poor, manufactures, trade, plantations, and immorality* . . . London 1699.
- *Proposals for raising a colledge of industry of all useful trades and husbandry, with profit for the rich, a plentiful living for the poor, and a good education for youth*. London 1696.
- Bentham, Jérémie: *Théorie des peines et des récompenses, ouvrage extrait des manuscrits*. Par Et. Dumont. 3 éd. Vol. 1.2. Vol. 2. Paris 1826.
- [Bentley, Thomas:] *Letters on the utility and policy of employing machines to shorten labour; occasioned by the late disturbances in Lancashire; . . .* London 1780.
- Berkley [more commonly, Berkeley], George: *The querist, containing several queries, proposed to the consideration of the public*. London 1750.
- The Bible
- The Old Testament.
- 1st Book of Moses (Genesis).
- 5th book of Moses (Deuteronomy).
- Psalter.
- The New Testament.
- Gospel of Matthew.
- Gospel of Luke.
- Revelation (Apocalypse) of John.
- Bidaut, J. N.: *Du monopole qui s'établit dans les arts industriels et le commerce, au moyen des grands appareils de fabrication*. Vol. 2: *Du monopole de la fabrication et de la vente*. Paris 1828.
- Biese, Franz: *Die Philosophie des Aristoteles, in ihrem inneren Zusammenhange, mit besonderer Berücksichtigung des philosophischen Sprachgebrauchs, aus dessen Schriften entwickelt*. Vol. 2: *Die besonderen Wissenschaften*. Berlin 1842.
- Blakey, Robert: *The history of political literature from the earliest times*. Vol. 1 and 2. Vol. 2. London 1855.
- Blanqui, [Jérôme-Adolphe]: *Cours d'économie industrielle*. Recueilli et ann. par Ad. Blaise. Paris 1838–1839.
- *Des classes ouvrières en France, pendant l'année 1848*. From: *Reports of the inspectors of factories . . . for the half year ending 31st October 1855*. London 1856.
- Block, Maurice: *Les théoriciens du socialisme en Allemagne*. Extrait du *Journal des Économistes* (Numéros de juillet et d'août 1872). Paris 1872.
- Boileau, Étienne: *Réglemens sur les arts et métiers de Paris, rédigés au XIIIe siècle, et connus sous le nom du Livre des métiers . . .* Avec des notes et une introd. par G.-B. Depping. Paris 1837.
- Boileau-Despreaux, Nicolas: *Satire VIII*.
- Boisguillebert, [Pierre]: *Le détail de la France*. In: *Économistes financiers du XVIIe siècle. Préc. de notices historiques sur chaque auteur, et accomp. de comm. et de notes explicatives*, par Eugène Daire. Paris 1843. (Collection des principaux économistes. Vol. 1.)
- *Dissertation sur la nature des richesses, de l'argent et des tributs*. In: *Economistes financiers du XVIIIe siècle. Préc. de notices historiques sur chaque auteur, et*

- accomp. de comm. et de notes explicatives*, par Eugène Daire. Paris 1843. (Collection des principaux économistes. Vol. 1.)
- Bombay Chamber of Commerce. *Report for 1859-1860*.
- [Boxhorn, Marcus Zuerius] Marcus Zuerius Boxhornius: *Institutionum politicarum*. In: Boxhorn: *Varii tractatus politici*. Amstelodami 1663. From: Johann Beckmann: *Beiträge zur Geschichte der Erfindungen*. 2nd improved edition, Vol. 1. Leipzig 1786.
- Broadhurst, John: *Political economy*. London 1842.
- Brougham, Henry: *An inquiry into the colonial policy of the European powers*. In 2 vol. Vol. 2. Edinburgh 1803.
- [Bruckner, John:] *Théorie du système animal*. Leiden 1767.
- Buchanan, David: *Inquiry into the taxation and commercial policy of Great Britain; with observations on the principles of currency, and of exchangeable value*. Edinburgh 1844.
- *Observations on the subjects treated of in Dr. Smith's Inquiry into the nature and causes of the wealth of nations*. Edinburgh 1814.
- Buchez, Philippe-Joseph-Benjamin, Pierre-Célestin Roux[-Lavergne]: *Histoire parlementaire de la Révolution française, ou Journal des Assemblées Nationales, depuis 1789 jusqu'en 1815*. Vol. 1-40. Vol. 10. Paris 1834.
- "The budget." In: *The Times*. London. Nr. 24 535, 17. April 1863.
- Buret, Eugène: *De la misère des classes laborieuses en Angleterre et en France . . .* In: *Cours d'économie politique*. Brussels 1843.
- Burke, Edmund: *A letter from the Right Honourable Edmund Burke to a Noble Lord, on the attacks made upon him and his pension, in the House of Lords, by the Duke of Bedford and the Earl of Lauderdale, early in the present session of Parliament*. London 1796.
- *Thoughts and details on scarcity, originally presented to the Right Hon. William Pitt, in the month of November, 1795*. London 1800.
- Butler, Samuel: *Hudibras*. Vol. 1. London 1835.
- [Byles, John Barnard:] *Sophisms of free-trade and popular political economy examined. By a barrister*. 7th ed., with corr. and add. London 1850.
- Cairnes, John Elliot: *The slave power: its character, career, & probable designs: being an attempt to explain the real issues involved in the American contest*. London 1862.
- Cambridge university commission. *Report of Her Majesty's commissioners appointed to inquire into the state, discipline, studies, and revenues of the university and colleges of Cambridge: together with the evidence, and an app. Presented to both Houses of Parliament by command of Her Majesty*. London 1852.
- Campbell, George: *Modern India: a sketch of the system of civil government. To which is prefixed, some account of the natives and native institutions*. London 1852.
- Cantillon, Philip: *The analysis of trade, commerce, coin, bullion, banks and foreign exchanges. Wherein the true principles of this useful knowledge are fully but briefly laid down and explained, to give a clear idea of their happy consequences to society, when well regulated. Taken chiefly from a manuscript of a very ingenious gentleman deceas'd, and adapted to the present situation of our trade and commerce*. London 1759.

- [Cantillon, Richard:] *Essai sur la nature du commerce en général*. Trad. de l'anglois. Londres 1755.
- *Essai sur la nature du commerce en général*. Trad. de l'anglois. In: *Discours politiques*. Vol. 3. Amsterdam 1756.
- Carey, Henry Charles: *Essay on the rate of wages: with an examination of the causes of the differences in the condition of the labouring population throughout the world*. Philadelphia, London 1835.
- *The slave trade, domestic and foreign: why it exists, and how it may be extinguished*. Philadelphia 1853.
- Carli, Gian-Rinaldo: (Annotations) see Verri, Pietro: *Meditazioni sulla economia politica* . . .
- Carlyle, Thomas: "The American illiad in a nutshell." In: *Macmillan's Magazine*. London, Cambridge. Vol. 8. Nr. 46, August 1863.
- *Chartism*. London 1840.
- "The case of the millowners." In: *The Times*. London. Nr. 24 413, 26 November 1862.
- [Cazenave, John:] *Outlines of political economy; being a plain and short view of the laws relating to the production, distribution, and consumption of wealth; . . .* London 1832.
- Cazenave, John: (Preface, notes, and supplementary remarks) see Malthus, Thomas Robert: *Definitions in political economy* . . .
- Census of England and Wales for the year 1861*. London 1863.
- Cervantes Saavedra, Miguel de: *El ingenioso hidalgo Don Quijote de la Mancha*.
- Chalmers, Thomas: *On political economy in connexion with the moral state and moral prospects of society*. 2nd ed. Glasgow 1832.
- The character and behaviour of King William, Sunderland, Somers etc. as represented in original letters to the Duke of Shrewsbury, from Somers, Halifax, Oxford, secretary Vernon etc.* [Manuscript in the Sloane Manuscript Collection of the British Museum, Nr. 4224.]
- Chaucer, [Geoffrey]: *The cock and the fox: or, the tale of the nun's priest*. In: [John] Dryden: *Fables ancient and modern*. Transl. into verses from Homer, Ovid, Boccace, and Chaucer: with original poems. London 1713.
- Cherbuliez, Antoine: *Richesse ou pauvreté. Exposition des causes et des effets de la distribution actuelle des richesses sociales*. Paris 1841.
- [Child, Josiah:] *A discourse concerning trade, and that in particular of the East-Indies*. London 1689.
- Children's employment commission (1863–1867). [Reports.]
- *First report of the commissioners. With app. Presented to both Houses of Parliament by command of Her Majesty*. London 1863.
- *Second report* . . . London 1864.
- *Third report* . . . London 1864.
- *Fourth report* . . . London 1865.
- *Fifth report* . . . London 1866.
- *Sixth report* . . . London 1867.
- Circular-Erlaß an sämtliche Königliche Regierungen und an das Polizei-Präsidium hier selbst, die Beschäftigung jugendlicher Arbeiter in Berg-, Hutten- und Poch-*

- werken betreff.*, vom 12. August 1854. In: *Ministerial-Blatt für die gesammte innere Verwaltung in den Königlich preußischen Staaten*. [Berlin.] Vol. 15. 1854.
- [Clarke, George:] *The case of our English wool, and the manufacture thereof truly stated . . . As also the presentment of the Grand Jury of the county of Sommerset thereon. Humbly offered to the High Court of Parliament*. [o. O. 1685.]
- [Clement, Simon:] *A discourse of general notions of money, trade, and exchanges, as they stand in relation each to other. By a merchant*. London 1695.
- Cobbett, William: *A history of the Protestant "Reformation," in England and Ireland. Showing how that event has impoverished and degraded the main body of the people in those countries. In a series of letters, addressed to all sensible and just Englishmen*. London 1824.
- Code pénal, ou code des délits et des peines*.
- Colins, [Jean-Guillaume-César-Alexandre-Hippolyte]: *L'économie politique. Source des révolutions et des utopies prétendues socialistes*. Vol. 1-3. Vol. 1-3. Paris 1856-1857.
- Columbus, Christoph: [Brief aus jamaika.]
- Comte, Auguste: *Cours de philosophie positive*. Vol. 1-6. Paris 1830-1842. 329.
- Comte, Charles: *Traite de législation ou exposition des lois générales, suivant lesquelles les peuples prospèrent, dépérissent, ou restent stationnaires*. 3rd ed., rev. et corr. Brussels 1837.
- Condillac, [Étienne Bonnot de]: *Le commerce et le gouvernement*. In: *Mélanges d'économie politique. Préc. de notices historiques sur chaque auteur, et accompagnés de commentaires et de notes explicatives*, par Eugène Daire et Gustave de Molinari. Pt. 1. Paris 1847. (*Collection des principaux économistes*. Vol. 14.)
- Considerations concerning taking off the bounty on corn exported. In some letters to a friend*. [London 1753.]
- Considerations upon the corn bill; suggested by a recent declaration from high authority*. London 1815.
- Corbet, Thomas: *An inquiry into the causes and modes of the wealth of individuals; or the principles of trade and speculation explained*. Pt. 1 and 2. London 1841.
- Corbon, Anthime: *De l'enseignement professionnel*. 2nd ed. Paris 1860.
- Corn, grain, and meal. Return to an order of the Honourable The House of Commons, dated 18 February 1867*. [London 1867.]
- Corpus iuris civilis*.
- Correspondence with Her Majesty's missions abroad, regarding industrial questions and Trades Unions. Presented to both Houses of Parliament by command of Her Majesty. 1867*. London 1867.
- "The cotton famine." In: *The Times*. London. Nr. 24 544. 28 April 1863.
- Courcelle-Seneuil, Jean-Gustave: *Traite théorique et pratique des entreprises industrielles, commerciales & agricoles ou manuel des affaires*. 2nd ed., revised and enlarged. Paris 1857.
- Creed, H. Herries, Walter Williams: "Foreign competition with British manufactures. To the Editor of The Times." In: *The Times*. London. Nr. 25 678, 11. December 1866; Nr. 25 682, 15 December 1866; Nr. 25 689, 24 December 1866; Nr. 25 692, 27 December 1866; Nr. 25 695, 31 December 1866; Nr. 25 708, 15 January 1867.

- [Cunningham, John:] *Considerations on taxes, as they are supposed to affect the price of labour in our manufacturies. In a letter to a friend.* London 1765.
- *An essay on trade and commerce: containing observations on taxes, as they are supposed to affect the price of labour in our manufactories: together with some interesting reflections on the importance of our trade to America.* London 1770.
- The currency theory reviewed; in a letter to the Scottish people on the menaced interference by government with the existing system of banking in Scotland. By a banker in England.* Edinburgh 1845.
- Cuvier, [Georges]: *Discours sur les révolutions du globe avec des notes et un appendice d'après les travaux récents de MM. de Humboldt, Flourens, Lyell, Lindley, etc.* Ed. Hoefer. Paris 1863.
- Dante Alighieri: *La divina commedia.*
- Darwin, Charles: *Über die Entstehung der Arten im Their- und Pflanzen-Reich durch natürliche Züchtung, oder Erhaltung der vervollkommeneten Rassen im Kampfe um's Daseyn.* Nach der 3. engl. Aufl. From the 3rd English edition . . . translated from English and with commentary by H. G. Bronn. 2., improved and quite enlarged edition. Stuttgart 1863.
- Daumer, Georg Friedrich: *Die Geheimnisse des christlichen Alterthums.* Vol. 1 and 2. Hamburg 1847.
- “The debate in the House of Commons on Tuesday night represents . . .” In: *The Times.* London. Nr. 24 600, 2 July 1863.
- Décret relatif aux assemblées d'ouvriers et artisans de même état et profession.* 14–17 June 1791. Art. 1–4. In: *Révolutions de Paris.* Paris. Year 3. 8th trimester. 1791. Nr. 101.
- [Defoe, Daniel:] *An essay upon publick credit: being an enquiry . . .* London 1710.
- Defoe, Daniel: *Life and strange surprising adventures of Robinson Crusoe of York, mariner.*
- De Quincey, Thomas: *The logic of political economy.* Edinburgh, London 1844.
- De Roberty, Eugene: [Review of:] Karl Marx. *Das Kapital. Kritik der politischen Oekonomie . . .* In: *La Philosophie Positive.* Revue. Paris. Year 2. Nr. 3, November to December 1868.
- Descartes, René: *De homine.* Leiden 1664.
- *Discours de la méthode pour bien conduire sa raison, et chercher la vérité dans les sciences.* Paris 1668.
- Destutt de Tracy, [Antoine-Louis-Claude]: *Éléments d'idéologie.* Pt. 4–5: *Traité de la volonté et de ses effets.* Paris 1826.
- *Traité d'économie politique.* Paris 1823.
- Diderot, Denis: *Le salon de 1767, à mon ami M. Grimm.*
- Dietzgen, Joseph: “Die bürgerliche Gesellschaft.” In: *Der Volksstaat.* Leipzig. Nr. 75, 18 September 1872; Nr. 77, 25 September 1872.
- “National-Oekonomisches.” In: *Der Volksstaat.* Leipzig. Nr. 1, 1 January 1870; Nr. 2, 5 January 1870; Nr. 24, 23 March 1870; Nr. 25, 26 March 1870; Nr. 26, 30 March 1870.
- “Oftener Brief an Heinr. v. Sybel.” In: *Der Volksstaat.* Leipzig. Nr. 31, 17 April 1872.
- “Die Religion der Sozial-Demokratie.” In: *Der Volksstaat.* Leipzig. Nr. 65, 13 August 1870; Nr. 66, 17 August 1870; Nr. 67, 20 August 1870; Nr. 37, 6 May 1871; Nr. 38, 10 May 1871.

- Dietzgen, [Joseph]: "Die Religion der Sozial-Demokratie." In: *Der Volksstaat*. Leipzig. Nr. 62, 2 August 1871; Nr. 63, 5 August 1871.
- Dietzgen, Joseph: [Review of:] *Das Kapital. Kritik der politischen Oekonomie* von Karl Marx. Hamburg 1867. In: *Demokratisches Wochenblatt*. Leipzig. Nr. 31, 1 August 1868. Beil.; Nr. 34, 22 August 1868; Nr. 35, 29 August 1868; Nr. 36, 5 September 1868.
- [Diodorus] Diodor von Sicilien: *Historische Bibliothek*. Übers. von Julius Friedrich Wurm. Vol. 1–19. Vol. 1–3. Stuttgart 1827–1829.
- A discourse of the necessity of encouraging mechanick industry*. London 1690.
- "The distress at Millwall. To the Editor of the *Star*." In: *The Morning Star*. London. Nr. 3385, 7 January 1867.
- Doubleday, Thomas: *The true law of population shewn to be connected with the food of the people*. London 1842.
- Ducpetiaux, Édouard: *Budgets économiques des classes ouvrières en Belgique. Subsistances, salaires, population*. Brussels 1855.
- Dufferin, Frederick: "Irish emigration. To the Editor of the *Times*." In: *The Times*. London. Nr. 25 678, 11 December 1866; Nr. 25 691, 26 December 1866; Nr. 25 696, 1 January 1867; Nr. 25 719, 28 January 1867.
- Duffy, Gavan: *Guide to the land law of Victoria*. London 1862.
- Dunning, Thomas Joseph: *Trades' Unions and strikes: their philosophy and intention*. London 1860.
- Dupont, Pierre: *Le chant des ouvriers*. From: *Public health. Seventh report . . .* London 1865.
- Dupont de Nemours, Pierre-Samuel: *Maximes du Docteur Quesnay, ou résumé de ses principes d'économie sociale*. In: *Physiocrates. Quesnay, Dupont de Nemours, Mercier de la Rivière, L'Abbe Baudeau, Le Trosne, avec une introd. sur la doctrine des physiocrates, des commentaires et des notices historiques* par Eugène Daire. Pt. 1. Paris 1846. (Collection des principaux économistes. Vol. 2.)
- East India (Bullion). "Return to an address of the Honourable The House of Commons dated 8 February 1864." Ordered, by the House of Commons, to be printed, 16 March 1864.
- Eden, Frederic Morton: *The state of the poor: or, an history of the labouring classes in England, from the conquest to the present period; . . . with a large app.* In 3 vol. Vol. 1. London 1797.
- Ensor, George: *An inquiry concerning the population of nations: containing a refutation of Mr. Malthus's Essay on population*. London 1818.
- An essay, in answer to the question, whether does the principle of competition, with separate individual interests; or, the principle of united exertions, with combined and equal interests; form the most secure basis for the formation of society?* London 1834.
- An essay on credit and the Bankrupt Act. With some reflections on the Escape-Act*. London 1707.
- An essay on the political economy of nations: or, a view of the intercourse of countries, as influencing their wealth*. London 1821.
- "Every government has its traditions . . ." In: *The Times*. London. Nr. 24 082, 5 November 1861.

- “Factories. Return to an address of the Honourable The House of Commons, dated 15 April 1856.” Ordered, by the House of Commons, to be printed, 4 February 1857.
- “Factories. Return to an address of the Honourable The House of Commons, dated 24 April 1861.” Ordered, by the House of Commons, to be printed, 11 February 1862.
- “Factories inquiry commission. First report of the central board of His Majesty’s commissioners.” Ordered, by the House of Commons, to be printed, 28 June 1833. [London 1833.] From: *Reports of the inspectors of factories . . . for the half-year ending 31st October 1848 . . .* London 1849.
- “Factories regulation acts.” Ordered, by the House of Commons, to be printed, 9 August 1859.
- Faulhaber, Johann: *Mechanische Verbesserung einer Alten Roszmuhlen, welche vor die sem der Königliche Ingenieur Augustinus Ramellus an tag geben . . .* Ulm 1625.
- Fawcett, Henry: *The economic position of the British labourer*. Cambridge, London 1865.
- Ferguson, Adam: *Essai sur l’histoire de la société civile*. Ouvrage trad. de l’anglois par Bergier. Vol. 1 and 2. Vol. 2. Paris 1783.
- *An essay on the history of civil society*. Edinburgh 1767.
- Ferrier, François-Louis-Auguste: *Du gouvernement considéré dans ses rapports avec le commerce*. Paris 1805.
- “Feudalism and deer forests.” In: *The Economist*. London. Nr. 1188, 2 June 1866.
- Fielden, John: *The curse of the factory system; or a short account of the origin of factory cruelties; . . .* London [1836].
- First report from the select committee on adulteration of food, etc.; with the minutes of evidence, and app.* Ordered, by the House of Commons, to be printed, 27 July 1855.
- Fleetwood, [William]: *Chronicon preciosum: or, an account of English gold and silver money; the price of corn and other commodities; and of stipends, salaries, wages, jointures, portions, day-labour, etc. in England, for six hundred years last past*. London 1745.
- [Fleetwood, William:] *Chronicon preciosum: or, an account of English money, the price of corn, and other commodities, for the last 600 years*. London 1707.
- Fonteret, Antoine-Louis: *Hygiène physique et morale de l’ouvrier dans les grandes villes en général et dans la ville de Lyon en particulier*. Paris 1858. From: Report addressed to Her Majesty’s Principal Secretary of State for the Home Department, relative to the grievances complained of by the journeymen bakers . . . London 1862.
- [Forbonnais, François-Veron de:] *Éléments du commerce*. New ed. Pt. 2. Leiden 1766.
- [Forster, Nathaniel:] *An enquiry into the causes of the present high price of provisions*. Pt. 1 and 2. London 1767.
- Fortescue, John: *De laudibus legum Angliae*.
- Fourier, Charles: *La fausse industrie morcelée, répugnante, mensongère, et l’antidote, l’industrie naturelle, combinée, attrayante, véridique, donnant quadruple produit*. Paris 1835.
- *Le nouveau monde industriel et sociétaire, ou invention du procédé d’industrie attrayante et naturelle distribuée en séries passionnées*. Paris 1829.
- *Théorie de l’unité universelle*. Vol. 2. In: *Œuvres complètes*. 2nd ed. Vol. 3. Paris 1841.

- Fourth report of the commissioners of Her Majesty's inland revenue on the inland revenue.* Presented to both Houses of Parliament by command of Her Majesty. London 1860.
- Franklin, Benjamin: *A modest inquiry into the nature and necessity of a paper currency.* In: *The works. With notes and a life of the author.* By Jared Sparks. Vol. 2. Boston 1836.
- *Positions to be examined, concerning national wealth.* In: *The works. With notes and a life of the author.* By Jared Sparks. Vol. 2. Boston 1836.
- Freytag, Gustav: *Neue Bilder aus dem Leben des deutschen Volkes.* Leipzig 1862.
- Fullarton, John: *On the regulation of currencies; being an examination of the principles, on which it is proposed to restrict, within certain fixed limits, the future issues on credit of the Bank of England, and of the other banking establishments throughout the country.* 2nd ed. With corr. and add. London 1845.
- "The funds. - City, Saturday, April 23." In: *The Observer.* London. Nr. 3806, 24 April 1864.
- Galiani, Ferdinando: *Della moneta.* In: *Scrittori classici italiani di economia politica.* [Ed. Pietro Custodi.] Parte moderna. Vol. 3 and 4. Milan 1803.
- Ganilh, Charles: *Des systèmes d'économie politique, de la valeur comparative de leurs doctrines, et de celle qui paraît la plus favorable aux progrès de la richesse.* 2nd ed. Vol. 1-2. Paris 1821.
- *La théorie de l'économie politique, fondée sur les faits résultans des statistiques de la France et de l'Angleterre.* Vol. 1 and 2. Paris 1815.
- [Garnier, Germain:] *Abrégé élémentaire des principes de l'économie politique.* Paris 1796.
- Garnier, Germain: ("Notes du traducteur") see Smith, Adam: *Recherches sur la nature et les causes de la richesse des nations.*
- Gaskell, Peter: *Artisans and machinery: the moral and physical condition of the manufacturing population considered with reference to mechanical substitutes for human labour.* London 1836.
- *The manufacturing population of England, its moral, social, and physical conditions, and the changes which have arisen from the use of steam machinery; with an examination of infant labour.* London 1833.
- Genovesi, Antonio: *Lezioni di economia civile.* In: *Scrittori classici italiani di economia politica.* [Ed. Pietro Custodi.] Parte moderna. Vol. 8. Milan 1803.
- Geoffroy Saint-Hilaire, [Etienne]: *Notions synthétiques, historiques et physiologiques de philosophie naturelle.* Paris 1838.
- "German literature." In: *The Saturday Review of Politics, Literature, Science, and Art.* London. Nr. 638, 18 January 1868.
- Gisborne, Thomas: *An enquiry into the duties of men in the higher and middle classes of society in Great Britain.* 2nd ed., corr. In 2 vol. Vol. 2. London 1795.
- Goethe, Johann Wolfgang von: "An Suleika."
- "Erkönig."
- *Faust. Der Tragödie erster Teil.*
- *Natur und Kunst.*
- v. Krüdener. Jena, 4 April 1818.
- [Gray, John:] *The essential principles of the wealth of nations, illustrated, in opposition to some false doctrines of Dr. Adam Smith, and others.* London 1797.

- [Greg, Robert Hyde:] *The factory question, considered in relation to its effects on the health and morals of those employed in factories. And the "Ten Hours Bill," in relation to its effects upon the manufactures of England, and those of foreign countries. London 1837. From: Reports of the inspectors of factories . . . for the half-year ending 31st October 1848 . . . London 1849.*
- Gregoir, Henri: *Les typographes devant le Tribunal correctionnel de Bruxelles*. Brussels 1865.
- Grove, William Robert: *The correlation of physical forces*. 5th ed. Followed by a discourse on continuity. London 1867.
- Gülich, Gustav von: *Geschichtliche Darstellung des Handels, der Gewerbe und des Akkerbaus der bedeutendsten handeltreibenden Staaten unsrer Zeit*. Vol. 1-5. Vol. 1 and 2. Jena 1830.
- Haller, Carl Ludwig von: *Restauration der Staats-Wissenschaft oder Theorie des natürlich-geselligen Zustands; der Chimäre des künstlich-bürgerlichen entgegengesetzt*. Vol. 1-6. Vol. 1. Winterthur 1816.
- Hamm, Wilhelm: *Die landwirthschaftlichen Geräthe und Maschinen Englands. Ein Handbuch der landwirthschaftlichen Mechanik und Maschinenkunde, mit einer Schilderung der britischen Agricultur*. 2., gänzl. umgearb. u. bed. verm. Aufl. Brunswick 1856.
- [Harlow, John, Thomas Barber Wright:] *The currency question. The Gemini letters*. London 1844.
- Harris, James: *A dialogue concerning happiness*. London 1741.
 ——— *Dialogue concerning happiness*. In: *Harris: Three treatises . . .* 3rd ed., rev. and corr. London 1772.
- Harris, James: *Diaries and correspondence of James Harris, First Earl of Malmesbury; containing an account of his missions to the courts of Madrid, Frederick the Great, Catherine the Second, and the Hague; and his special missions to Berlin, Brunswick, and the French Republic*. Ed. by his grandson, the Third Earl. Vol. 1-4. London 1844.
- Harrison, William: *The description of England*. From: Frederic Morton Eden: *The state of the poor . . .* Vol. 1. London 1797.
- Hassall, Arthur Hill: *Adulterations detected or plain instructions for the discovery of frauds in food and medicine*. 2nd ed. London 1861.
- Haxthausen, August von: *Die ländliche Verfassung Rußlands. Ihre Entwicklungen und ihre Feststellung in der Gesetzgebung von 1861*. Leipzig 1866.
 ——— *Studien über die innern Zustände, das Volksleben und insbesondere die ländlichen Einrichtungen Rußlands*. Parts 1-3. Hannover, Berlin 1847-1852.
- Hegel, Georg Wilhelm Friedrich: *Encyclopädie der philosophischen Wissenschaften im Grundrisse. Part 1: Die Logik*. Ed. by Leopold von Henning. Berlin 1840. (*Werke*. Vollst. Ausg. durch einen Verein von Freunden des Verewigten . . . Vol. 6.)
 ——— *Grundlinien der Philosophie des Rechts, oder Naturrecht und Staatswissenschaft im Grundrisse*. Ed. by Eduard Gans. 2nd ed. Berlin 1840. (*Werke*. Vollst. Ausg. durch einen Verein von Freunden des Verewigten . . . Vol. 8.)
 ——— *Wissenschaft der Logik*. Ed. by Leopold von Henning. Parts 1 and 2. Part 1: *Die objektive Logik. Section 1: Die Lehre vom Seyn*. Berlin 1833. (*Werke*. Vollst. Ausg. durch einen Verein von Freunden des Verewigten . . . Vol. 3.)
- Heine, Heinrich: "Heinrich. Zeitgedicht."
 ——— "Kobes I."

- Heron Alexandrinus: *Buch von Lufft- und Wasser-Kuensten, welche von Friderich Commandino von Urbin aus dem Griegischen in das Lateinische uebersetzt . . . Und mit einem Anhang von allerhand Muehl-, Wasser- und Grotten-Wercken aus Salomon De Cous . . . Ingenieur und Baumeistern, auch anderen beruehmt- und erfahrenen Autoribus zusammen getragen.* Frankfurt 1688.
- Hieronymus: *Epistula XXII. Ad Eustochium.*
- “The Highlands of Scotland.” In: *The Portfolio. Diplomatic Review.* (New ser.) London. Nr. 15, 1 October [1844].
- Hind, John: *The principles of the differential calculus; with its application to curves and curve surfaces. Designed for the use of students in the university.* 2nd ed. Cambridge 1831.
- Historical and descriptive account of British India, from the most remote period to the present time.* By Hugh Murray [u. a.]. In 3 vol. Vol. 2. Edinburgh 1832.
- Hobbes, Thomas: *De cive.* In: Hobbes: *Opera philosophica.* Amsterdam 1668.
- *Leviathan: or, the matter, form, and power of a commonwealth, ecclesiastical and civil.* In: Hobbes: *The English works.* Now first coll. and ed. by Sir William Molesworth. Vol. 3. London 1839.
- *Leviathan, sive de materia, forma, et potestate civitatis ecclesiasticae et civilis.* In: Hobbes: *Opera philosophica.* Amsterdam 1668.
- [Hodgskin, Thomas:] *Labour defended against the claims of capital; or, the unproductiveness of capital proved. With reference to the present combinations amongst journeymen. By a labourer.* London 1825.
- *The natural and artificial right of property contrasted. A series of letters, addressed without permission, to H. Brougham . . . By the author of “Labour defended against the claims of capital.”* London 1832.
- Hodgskin, Thomas: *Popular political economy. Four lectures delivered at the London Mechanics’ Institution.* London 1827.
- Homer: *Odyssea.*
- Hopkins, Thomas: *On rent of land, and its influence on subsistence and population: with observations on the operating causes of the condition of the labouring classes in various countries.* London 1828.
- Horatius Flaccus, Quintus: *Ars poetica.*
- *Epistulae.*
- *Saturae.*
- [Horne, George:] *A letter to Adam Smith on the life, death, and philosophy of his friend David Hume. By one of the people called Christians.* 4th ed. Oxford 1784.
- Horner, Leonard: Letter to Senior. May 23, 1837. In: Nassau William Senior: *Letters on the factory act . . .* London 1837.
- *Suggestions for amending the factory acts to enable the inspectors to prevent illegal working, now become very prevalent.* In: *Factories regulation acts.* Ordered, by the House of Commons, to be printed, 9 August 1859.
- Houghton, John: *Husbandry and trade improv’d: being a collection of many valuable materials relating to corn, cattle, coals, hops, wool etc. . .* Vol. 1–4. London 1727–1728.
- “House of Commons.” In: *The Morning Star.* London. Nr. 2219, 17. April 1863.
- Howitt, William: *Colonization and Christianity: a popular history of the treatment of the natives by the Europeans in all their colonies.* London 1838.

- Hume, David: *Essays and treatises on several subjects*. A new ed. In 2 vol. London 1764.
- Hutton, Charles: *A course of mathematics*. 4th ed., enl. and corr. In 2 vol. Vol. 2. London 1804.
- Huxley, Thomas Henry: *Lessons in elementary physiology*. London 1866.
- “Industrial partnership.” In: *The Spectator*. London. 26 May 1866.
- The industry of nations. A survey of the existing state of arts, machines, and manufactures*. Pt. 2. London 1855.
- An inquiry into those principles, respecting the nature of demand and the necessity of consumption, lately advocated by Mr. Malthus, from which it is concluded, that taxation and the maintenance of unproductive consumers can be conducive to the progress of wealth*. London 1821.
- “The international exhibition.” In: *The Standard*. London. Nr. 11 889, 19 September 1862.
- “In the House of Lords . . .” [Correspondence from:] London, Tuesday, March 24, 1863. In: *The Times*. London. Nr. 24 514, 24 March 1863.
- [Isocrates] Isokrates: *Werke*. Obers. von Adam Heinrich Christian. Vol. 4. Stuttgart 1835.
- Juvenalis, Decimus Iunius: *Satirae*.
- Jacob, William: *An historical inquiry into the production and consumption of the precious metals*. In 2 vol. Vol. 2. London 1831.
- *A letter to Samuel Whitbread, being a sequel to considerations on the protection required by British agriculture; . . .* London 1815.
- Jones, Richard: *An essay on the distribution of wealth, and on the sources of taxation*. London 1831.
- *An introductory lecture on political economy, delivered at King’s College. London, 27th February 1833. To which is added a syllabus of a course of lectures on the wages of labor*. London 1833.
- *Text-book of lectures on the political economy of nations, . . .* Hertford 1852.
- Kent, Nathaniel: *Hints to gentlemen of landed property*. London 1776.
- Laborde, Alexandre de: *De l’esprit d’association dans tous les intérêts de la communauté, ou essai sur le complément du bien-être et de la richesse en France par le complément des institutions*. Paris 1818.
- “Labour and wages. Overworked and underpaid railway servants.” In: *Reynolds’s Newspaper*. London. Nr. 808, 4 February 1866.
- “Labour and wages. Strike amongst cloth weavers at Westbury.” In: *Reynolds’s Newspaper*. London. Nr. 694, 29 November 1863.
- The labour question. An address to capitalists, and employers, of the building trades, being a few reasons in behalf of a reduction of the hours of labour*. London 1861.
- Laing, Samuel: *National distress; its causes and remedies*. London 1844.
- Lancellotti, Secondo: *L’Hoggidi ovvero gl’ingegni non inferiori a’passati*. Pt. 2. Venice 1636. From: Johann Beckmann: *Beyträge zur Geschichte der Erfindungen*. 2nd improved ed., Vol. 1. Leipzig 1786.
- Lassalle, Ferdinand: *Herr Bastiat-Schulze von Delitzsch, der ökonomische Julian, oder: Capital und Arbeit*. Berlin 1864.
- *Die Philosophie Herakleitos des Dunklen von Ephesos. Nach einer neuen Sammlung seiner Bruchstücke und der Zeugnisse der Alten dargestellt*. Vol. 1 and 2. Vol. 1. Berlin 1858.

- Lauderdale, [James Maitland]: *Recherches sur la nature et l'origine de la richesse publique, et sur les moyens et les causes qui concourent à son accroissement*. Trad. de l'anglais, par E. Lagentie de Lavaisse. Paris 1808.
- Lavergne, Léonce de: *The rural economy of England, Scotland, and Ireland. Transl. from the French with notes by a Scottish farmer*. Edinburgh, London 1855.
- Law, Jean: *Considérations sur le numéraire et le commerce. Mémoires et lettres sur les banques, opuscules divers*. In: *Économistes financiers du XVIIIe siècle. Préc. de notices historiques sur chaque auteur, et accompagnés de commentaires et de notes explicatives*, par Eugène Daire. Paris 1843. (Collection des principaux économistes. Vol. 1.)
- Lenau, Nicolaus: *Die Albingenser*.
- Lesage, Alain-René: *Histoire de Gil Blas de Santillane*.
- Le Trosne, Guillaume-François: *De l'intérêt social par rapport à la valeur, à la circulation, à l'industrie et au commerce intérieur et extérieur*. 1777. In: *Physiocrates. Quesnay, Dupont de Nemours, Mercier de la Rivière, L'Abbe Baudeau, Le Trosne, avec une introd. sur la doctrine des physiocrates, des commentaires et des notices historiques*, par Eugène Daire. Pt. 2. Paris 1846. (Collection des principaux économistes. Vol. 2.)
- A letter to Sir T. C. Bunbury, Bart. On the poor rates, and the high price of provisions. With some proposals for reducing both*. By a Suffolk gentleman. Ipswich 1795.
- Levi, Leone: "On deer forests and highland agriculture in relation to the supply of food." In: *Journal of the Society of Arts, and on the Institutions in Union*. London. 23 March 1866.
- Liebig, Justus von: *Die Chemie in ihrer Anwendung auf Agricultur und Physiologie*. 7th ed. In 2 Parts. Pt. 1. Brunswick 1862.
- *Einleitung in die Naturgesetze des Feldbaues*. Brunswick 1862.
- *Ueber Theorie und Praxis in der Landwirthschaft*. Brunswick 1856.
- [Linguet, Simon-Nicolas-Henri:] *Théorie des loix civiles, ou principes fondamentaux de la société*. Vol. 1 and 2. London 1767.
- Livius, Titus: *Ab urbe condita libri*.
- Locke, John: *Some considerations of the consequences of the lowering of interest, and raising the value of money* (1691). In: *The works*. 8th ed. In 4 vol. Vol. 2. London 1777.
- Lucretius Carus, Titus: *De rerum natura*.
- Luther, Martin: *An die Pfarrherrn wider den Wucher zu predigen. Vermanung*. Wittenberg 1540.
- *Von Kauffshandlung und Wucher*. In: *Der Sechste Teil der Bücher des Ehrwürdigen Herrn Doctoris Martini Lutheri . . .* Wittenberg 1589.
- Macaulay, Thomas Babington: *The history of England from the accession of James the Second*. 10th ed. Vol. 1. London 1854.
- *The history of England from the accession of James the Second. Vol. 1. From: Reports of the inspectors of factories . . . for the half year ending 31st October 1855 . . .* London 1856.
- Macculloch, John Ramsay: *A dictionary, practical, theoretical, and historical, of commerce and commercial navigation*. Ill. with maps and plans. A new ed., corr., enl., and improved; with a suppl. London 1847.

- *The literature of political economy: a classified catalogue of select publications in the different departments of that science, with historical, critical, and biographical notices.* London 1845.
- *The principles of political economy: with a sketch of the rise and progress of the science.* Edinburgh, London 1825.
- *The principles of political economy: with a sketch of the rise and progress of the science.* 2 ed., corr. and greatly enl. London 1830.
- Maclaren, James: *A sketch of the history of the currency: comprising a brief review of the opinions of the most eminent writers on the subject.* London 1858.
- Macleod, Henry Dunning: *The theory and practice of banking: with the elementary principles of currency; prices; credit; and exchanges.* Vol. 1. 2. Vol. 1. London 1855.
- Malthus, Thomas Robert: *Definitions in political economy, preceded by an inquiry into the rules which ought to guide political economists in the definition and use of their terms; with remarks on the deviation from these rules in their writings.* A new ed., with a pref., notes, and suppl. remarks by John Cazenave. London 1853.
- [Malthus, Thomas Robert:] *An essay on the principle of population, as it affects the future improvement of society, with remarks on the speculations of Mr. Godwin, M. Condorcet, and other writers.* London 1798.
- Malthus, Thomas Robert: *An inquiry into the nature and progress of rent, and the principles by which it is regulated.* London 1815.
- *Principles of political economy considered with a view to their practical application.* 2nd ed., with considerable add. from the author's own manuscript and an orig. memoir. London 1836.
- [Mandeville, Bernard de:] *The fable of the bees: or, private vices, publick benefits.* London 1714.
- *The fable of the bees: or, private vices, publick benefits.* 3rd ed. . . . London 1724.
- *The fable of the bees: or, private vices, publick benefits.* 5th ed. . . . London 1728.
- *The grumbling hive: or, knaves turn'd honest.* London 1705.
- “Manifest der Maatschappij De Vlamingen Vooruit! Gerigt tot alle de voorstanders van de eerlijke en regtzinnige uitvoering der Belgische Grondwet, gestemd door het National Congres van 1830.” Brussels 1860.
- Martineau, Harriet: *Illustrations of political economy.* In 9 vol. Vol. 3. No. 7: *A Manchester strike. A tale.* London 1832.
- [Martyn, Henry:] *The advantages of the East-India trade to England.* London 1720.
- [Massie, Joseph:] *An essay on the governing causes of the natural rate of interest; wherein the sentiments of Sir William Petty and Mr. Locke, on that head, are considered.* London 1750.
- The Master Spinners & Manufacturers' Defence Fund. *Report of the Committee appointed for the receipt and apportionment of this fund, to the Central Association of Master Spinners and Manufacturers: Manchester 1854.* From: *Reports of the inspectors of factories . . . for the half year ending 31st October 1856 . . .* London 1857.
- Maurer, Georg Ludwig von: *Einleitung zur Geschichte der Mark-, Hof-, Dorf- und Stadt Verfassung und der öffentlichen Gewalt.* Munich 1854.

- Mayer, Sigmund: *Die sociale Frage in Wien. Studie eines "Arbeitgebers."* Dem Nieder österreichischen Gewerbeverein gewidmet. Vienna 1871.
- Mercier de la Riviere, [Paul-Pierre]: *L'ordre naturel et essentiel des sociétés politiques.* Vol. 1 and 2. Londres 1767. In: *Physiocrates. Quesnay, Dupont de Nemours, Mercier de la Rivière, L'Abbe Baudeau, Le Trosne*, avec une introd. sur la doctrine des physiocrates, des commentaires et des notices historiques, par Eugène Daire. Pt. 2. Paris 1846. (*Collection des principaux économistes.* Vol. 2.)
- Merivale, Herman: *Lectures on colonization and colonies.* Delivered before the University of Oxford in 1839, 1840, and 1841. Vol. 1.2. London 1841-1842.
- Mill, James: *Éléments d'économie politique.* Trad. de l'anglais par J. T. Parisot. Paris 1823.
- *Elements of political economy.* London 1821.
- [Mill, James:] *Colony.* In: *Supplement to the fourth, fifth and sixth editions of the Encyclopædia Britannica.* Edinburgh 1824. From: [Edward Gibbon Wakefield:] *England and America.* In 2 vol. Vol. 2. London 1833.
- Mill, John Stuart: *Essays on some unsettled questions of political economy.* London 1844.
- *Principles of political economy with some of their applications to social philosophy.* In 2 vol. Vol. 2. London 1848.
- *A system of logic, ratiocinative and inductive, being a connected view of the principles of evidence, and the methods of scientific investigation.* In 2 vol. London 1843.
- Mirabeau, [Honoré-Gabriel-Victor Riqueti] de: *De la monarchie prussienne, sous Frederic le Grand. Avec un app., cont. des recherches sur la situation actuelle des principales contrées de l'Allemagne.* Vol. 1-8. Vol. 2, 3, 6. London 1788.
- Miscellaneous statistics of the United Kingdom* (Part VI). Presented to both Houses of Parliament by command of Her Majesty. London 1866.
- Molinari, Gustave de: *Études économiques.* Paris 1846.
- Mommsen, Theodor: *Römische Geschichte.* 2. Aufl. Vol. 1-3. Berlin 1856-1857.
- Monteil, Amans-Alexis: *Traité de matériaux manuscrits de divers genres d'histoire.* Vol. 1 and 2. Vol. 1. Paris 1835.
- Montesquieu, [Charles-Louis de Secondat] de: *De l'esprit des loix.* Nouv. éd., revue, corr., et considérablement augm. par l'auteur. Londres 1767. *Œuvres.* Vol. 2.
- *De l'esprit des loix.* New Edition, reviewed corrected and considerably enlarged by the author. Londres 1769. *Œuvres.* Vol. 1-3.
- More, Thomas: *Utopia.* Originally printed in Latin, 1516. Transl. into English by Ralph Robinson . . . Carefully ed. by Edward Arber. London 1869.
- Morton, John Chalmers: *A cyclopedia of agriculture, practical and scientific; in which the theory, the art, and the business of farming, are thoroughly and practically treated.* By upwards of fifty of the most eminent practical and scientific men of the day. Vol. 2. Glasgow, Edinburgh, London 1855.
- "On the forces used in agriculture." In: *The Journal of the Society of Arts*, and of the Institutions in Union. London. Nr. 368, 9 December 1859. From: *The Economist.* London. Nr. 856, 21 January 1860. [Under the title:] *Agricultural progress and wages.*
- Mr. Edmund Potter: "in another part of our paper" . . . In: *The Times.* London. Nr. 24 514, 24 March 1863.

- Müller, Adam Heinrich: *Die Elemente der Staatskunst*. Oeffentliche Vorlesungen, vor Sr. Durchlaucht dem Prinzen Bernhard von Sachsen-Weimar und einer Versammlung von Staatsmännern und Diplomaten, im Winter von 1808 auf 1809, zu Dresden, gehalten. Parts. 1-3. Part 2. Berlin 1809.
- Mun, Thomas: *England's treasure by forraign trade. Or, the ballance of our forraign trade is the rule of our treasure*. Now publ. for the common good by his son John Mun. London 1669.
- Murphy, John Nicholas: *Ireland industrial, political, and social*. London 1870.
- The National Association for the Promotion of Social Science: *Report of proceedings at the seventh annual congress, held in Edinburgh, October 1863*. Edinburgh, London 1863.
- National Labor Congress: "Grand industrial demonstration in Baltimore." In: *The International Journal*. Vol. 1. Nr. 6, September 1866.
- Newman, Francis William: *Lectures on political economy*. London 1851.
- Newman, Samuel Philips: *Elements of political economy*. Andover, New York 1835.
- Newmarch, William: "Address." In: *Report of the thirty-first meeting of the British Association for the Advancement of Science*. London 1862.
- Newmarch, William *see* Tooke, Thomas, William Newmarch: *A history of prices . . .*
- Newnham, George Lewes: *A review of the evidence before the committees of the two Houses of Parliament, on the corn laws*. London 1815.
- Niebuhr, Barthold Georg: *Römische Geschichte*. Emended ed. in 1 vol. Berlin 1853.
- [North, Dudley:] *Discourses upon trade; principally directed to the cases of the interest, coynage, clipping, increase of money*. London 1691.
- Observations on certain verbal disputes in political economy, particularly relating to value, and to demand and supply*. London 1821.
- Olmsted, Frederick Law: "A journey in the seaboard slave states . . ." From: John Elliot Cairnes: *The slave power: its character, career, & probable designs: being an attempt to explain the real issues involved in the American contest*. London 1862.
- On combinations of trades*. New ed. London 1834.
- "On his last circuit . . ." In: *The Daily Telegraph*. London. Nr. 1422, 17 January 1860.
- Opdyke, George: *A treatise on political economy*. New York 1851.
- "The opening of parliament." In: *The Times*. London. Nr. 25 727, 6. February 1867.
- Ortes, Giammaria: *Della economia nazionale*. Vol. 6: Veneziano. In: *Scrittori classici italiani di economia politica*. [Ed. Pietro Custodi.] Parte moderna. Vol. 21. Milan 1804.
- Otway, J. H.: Judgment of J. H. Otway, Chairman of County Sessions.—Belfast. *Hilary Sessions, 1860*. In: *Reports of the inspectors of factories . . . for the half year ending 30th April 1860 . . .* London 1860.
- "Our white slaves who are toiled . . ." In: *The Morning Star*. London. Nr. 2276, 23 June 1863.
- Ovidius Naso, *Publius: Ars amatoria*.
— *Fasti*.
- Owen, Robert: *Observations on the effect of the manufacturing system: with hints for the improvement of those parts of it which are most injurious to health and morals*. 2nd ed. London 1817.

- Pagnini, Giovanni Francesco: *Saggio sopra il giusto pregio delle cose, la giusta valuta della moneta e sopra il commercio dei romani*. In: *Scrittori classici italiani di economia politica*. [Ed. Pietro Custodi.] Parte moderna. Vol. 2. Milan 1803.
- “A painful spectacle . . .” In: *The Standard*. London. Nr. 13 311, 5 April 1867.
- [Papillon, Thomas:] *The East-India-trade a most profitable trade to the Kingdom. And best secured and improved in a company, and a joint-stock. Represented in a letter written upon the occasion of two letters lately published, insinuating the contrary*. London 1677.
- Parry, Charles Henry: *The question of the necessity of the existing corn laws, considered, in their relation to the agricultural labourer, the tenantry, the landholder, and the country*. London 1816.
- [Parry, William Edward:] *Journal of a voyage for the discovery of a north-west passage from the Atlantic to the Pacific; performed in the years 1819–20, in His Majesty’s ships Hecla and Griper under the orders of William Edward Parry*. 2nd ed. London 1821.
- Pecqueur, Constantin: *Théorie nouvelle d’économie sociale et politique, ou études sur l’organisation des sociétés*. Paris 1842.
- Petty, William: “An essay concerning the multiplication of mankind . . .” In: Petty: *Several essays in political arithmetick* . . . London 1699.
- *The political anatomy of Ireland. . . . To which is added Verbum Sapienti. . . .* London 1691.
- Petty, William: *Quantulumcunque concerning money. To the Lord Marquess of Halifax*. Anno 1682. London 1760.
- [Petty, William:] *A treatise of taxes, and contributions* . . . London 1667.
- [Pinto, Isaac de:] *Traité de la circulation et du crédit*. Amsterdam 1771.
- Plato: *De republica*. In: *Opera quae feruntur omnia*. Recogn. Georgius Baiterus, Caspar Orellius, Augustus Guilielmus Winckelmarinus. Vol. 13. Turici 1840.
- A political enquiry into the consequences of enclosing waste lands, and the causes of the present high price of butchers meat. Being the sentiments of a society of farmers in—shire*. Holborn 1785.
- Poppe, Johann Heinrich Moritz: *Geschichte der Technologie seit der Wiederherstellung der Wissenschaften bis an das Ende des achtzehnten Jahrhunderts*. Vol. 1–3. Göttingen 1807–1811.
- Postlethwayt, Malachy: *Great-Britain’s commercial interest explained and improved* . . . 2nd ed. Vol. 1–2. London 1759.
- The universal dictionary of trade and commerce: with large additions and improvements . . . From: [John Cunningham:] *An essay on trade and commerce: containing observations on taxes, as they are supposed to affect the price of labour in our manufactories: together with some interesting reflections on the importance of our trade to America*. London 1770.
- Potter, Alonzo: *Political economy: its objects, uses, and principles: considered with reference to the condition of the American people*. New York 1841.
- Potter, Edmund: “The cotton districts and emigration.” In: *The Times*. London. Nr. 24 514, 24 March 1863.
- Price, Richard: *Observations on reversionary payments; on schemes for providing annuities for widows, and for persons in old age; on the method of calculating the*

- values of assurances on lives; and on the national debt.* 6th ed. By William Morgan. Vol. 1 and 2. Vol. 2. London 1803.
- Programme du Congrès International Statistique, tenu à Paris le 10 Septembre 1855.*
From: *Reports of the inspectors of factories . . . for the half year ending 31st October 1855 . . .* London 1856.
- “The progress of the nation.” In: *The Journal of the Society of Arts, and of the Institutions in Union.* London. Nr. 998, 5 January 1872.
- Proudhon, Pierre-Joseph: *Système des contradictions économiques, ou philosophie de la misère.* Vol. 1 and 2. Paris 1846.
- *Système des contradictions économiques, ou philosophie de la misère.* From: Karl Marx: *Misère de la philosophie. Réponse à la philosophie de la misère de M. Proudhon.* Paris, Brussels 1847.
- Public economy concentrated; or, a connected view of currency, agriculture, and manufactures.* By an enquirer into first principles. Carlisle 1833.
- Public health. [Reports.]
- *Third report of the medical officer of the Privy Council.* 1860. (Presented pursuant to act of parliament.) Ordered, by the House of Commons, to be printed, 15 April 1861.
- *Fourth report . . . with app.* 1861. (Presented pursuant to act of parliament.) Ordered, by the House of Commons, to be printed, 11 April 1862.
- Public health. Sixth report . . . with app.* 1863. Presented pursuant to act of parliament. London 1864.
- *Seventh report . . . with app.* 1864. Presented pursuant to act of parliament. London 1865.
- *Eighth report . . . with app.* 1865. Presented pursuant to act of parliament. London 1866.
- “The punishment of labourers, &c. departing from their service into another country.”
From: Frederic Morton Eden: *The state of the poor . . .* Vol. 1. London 1797.
- Quesnay, François: *Analyse du tableau économique.* In: *Physiocrates. Quesnay, Dupont de Nemours, Mercier de la Rivière, L'Abbe Baudeau, Le Trosne, avec une introd. sur la doctrine des physiocrates, des commentaires et des notices historiques,* par Eugène Daire. Pt. 1. Paris 1846. (*Collection des principaux économistes.* Vol. 2.)
- *Dialogues sur le commerce et sur les travaux des artisans.* In: *Physiocrates. Quesnay, Dupont de Nemours, Mercier de la Rivière, L'Abbe Baudeau, Le Trosne, avec une introd. sur la doctrine des physiocrates, des commentaires et des notices historiques,* par Eugène Daire. Pt. 1. Paris 1846. (*Collection des principaux économistes.* Vol. 2.)
- Quetelet, Adolphe: *A treatise on man and the development of his faculties.* Now first transl. into English. Edinburgh 1842.
- Raffles, Thomas Stamford: *The history of Java.* With a map and plates. In 2 vol. London 1817.
- Ramazzini, Bernardino: *De morbis artificum diatriba.* Mutinae 1700. From: *Report addressed to Her Majesty's Principal Secretary of State for the Home Department, relative to the grievances complained of by the journeymen bakers . . .* London 1862.
- *Essai sur les maladies des artisans.* Trad. du latin. Paris 1777.
- *Essai sur les maladies des artisans.* In: *Encyclopédie des sciences médicales; ou traite général, méthodique et complet des diverses branches de l'art de guérir.* 7. div.

- Auteurs classiques. Paris 1841. From: *Report addressed to Her Majesty's Principal Secretary of State for the Home Department, relative to the grievances complained of by the journeymen bakers . . .* London 1862.
- Ramsay, George: *An essay on the distribution of wealth*. Edinburgh, London 1836.
- Ravenstone, Piercy: *Thoughts on the funding system, and its effects*. London 1824.
- Read, George: *A brief history of the bread baking trade, from the earliest period to the present time*. London 1848. From: *Report addressed to Her Majesty's Principal Secretary of State for the Home Department, relative to the grievances complained of by the journeymen bakers . . .* London 1862.
- Real-Encyclopadie der classischen Alterthumswissenschaft in alphabetischer Ordnung*. Ed. August Pauly. Vol. 1–6. Stuttgart 1837–1852.
- Reasons for a limited exportation of wooll [London] 1677. Reasons for the late increase of the poor-rates: or a comparative view of the price of labour and provisions, humbly addressed to the consideration of the legislature*. London 1777.
- Regnault, Elias: *Histoire politique et sociale des principautés danubiennes*. Paris 1855.
- Reich, Eduard: *Ueber die Entartung des Menschen, ihre Ursachen und Verhütung*. Erlangen 1868.
- Remarks on the commercial policy of Great Britain, principally as it relates to the corn trade*. London 1815.
- “Rent no robbery . . .” In: *The Economist*. London. Nr. 412, 19 July 1851.
- Report addressed to Her Majesty's Principal Secretary of State for the Home Department, relative to the grievances complained of by the journeymen bakers; with app. of evidence*. Presented to both Houses of Parliament by command of Her Majesty. London 1862.
- Report from the committee on the “Bill to regulate the labour of children in the mills and factories of the United Kingdom”: with the minutes of evidence*. Ordered, by the House of Commons, to be printed, 8 August 1832.
- Report from the Secret Committee of the House of Lords appointed to inquire into the causes of the distress which has for some time prevailed among the commercial classes, and how far it has been affected by the laws for regulating the issue of bank notes payable on demand*. Together with the minutes of evidence, and an app. Ordered, by the House of Commons, to be printed, 28 July 1848. (Reprinted 1857.)
- Report from the select committee on bank acts; together with the proceedings of the committee, minutes of evidence, app. and index*. Ordered, by the House of Commons, to be printed, 30 July 1857. Pt. 1: Report and evidence.
- Report from the select committee on mines; together with the proceedings of the committee, minutes of evidence, and app.* Ordered, by the House of Commons, to be printed, 23 July 1866.
- Report from the select committee on petitions relating to the corn laws of this Kingdom: together with the minutes of evidence, and an app. of accounts*. Ordered, by the House of Commons, to be printed, 26 July 1814.
- Report from the select committee on the bank acts; together with the proceedings of the committee, minutes of evidence, app. and index*. Ordered, by the House of Commons, to be printed, 1 July 1858.

- Report of the commissioners appointed to inquire into the condition of all mines in Great Britain to which the provisions of the act 23 & 24 Vict. cap. 151 do not apply. With reference to the health and safety of persons employed in such mines; with app.* Presented to both Houses of Parliament by command of Her Majesty. London 1864.
- Report of the commissioners appointed to inquire into the operation of the acts (16 & 17 Viet. c. 99. and 20 & 21 Viet. c. 3.) relating to transportation and penal servitude. Vol. 1: Report and appendix. Vol. 2: Minutes of evidence.* Presented to both Houses of Parliament by command of Her Majesty. London 1863.
- Report of the committee on the baking trade in Ireland for 1861.* From: *Second report addressed to Her Majesty's Principal Secretary of State for the Home Department, relative to the grievances complained of by the journeyman bakers . . .* London 1863.
- Report of the officer of health of St. Martin's-in-the-Fields. 1865.* From: *Public health. Eighth report . . .* London 1866.
- Reports by Her Majesty's secretaries of embassy and legation, on the manufactures, commerce, &c., of the countries in which they reside.* No. 6. London 1863.
- Reports from poor law inspectors on the wages of agricultural labourers in Ireland. Presented to both Houses of Parliament by command of Her Majesty.* Dublin 1870.
- Reports of the inspectors of factories to Her Majesty's Principal Secretary of State for the Home Department . . .*
- for the half year ending the 31st December 1841: also, the joint report of the inspectors of factories for the same period. (Presented by command of Her Majesty.) Ordered, by the House of Commons, to be printed, 16 February 1842. [London 1842.]
- for the quarter ending 30th September, 1843. From: [Anthony] Ashley: Ten hours' factory bill. The speech . . . in the House of Commons, on Friday, March 15th, 1844. London 1844.
- for the quarter ending 30th September, 1844; and from 1st October, 1844, to 30th April, 1845. Presented to both Houses of Parliament by command of Her Majesty. London 1845.
- for the half-year ending 31st October 1846 . . . London 1847.
- for the half-year ending 31st October 1847 . . . London 1848.
- for the half-year ending 30th April 1848 . . . London 1848.
- for the half-year ending 31st October 1848 . . . London 1849.
- for the half-year ending 30th April 1849 . . . London 1849.
- for the half-year ending 31st October 1849 . . . London 1850.
- for the half-year ending 30th April 1850 . . . London 1850.
- for the half-year ending 31st October 1850 . . . London 1851.
- for the half year ending 30th April 1852 . . . London 1852.
- for the half year ending 30th April 1853 . . . London 1853.
- for the half year ending 31st October 1853 . . . London 1854.
- for the half year ending 30th April 1855 . . . London 1855.
- for the half year ending 31st October 1855 . . . London 1856.
- for the half year ending 31st October 1856 . . . London 1857.
- for the half year ending 30th April 1857 . . . London 1857.
- for the half year ending 31st October 1857 . . . London 1857.

- for the half year ending 30th April 1858 . . . London 1858.
- for the half year ending 31st October 1858 . . . London 1858.
- for the half year ending 30th April 1859 . . . London 1859.
- for the half year ending 31st October 1859 . . . London 1860.
- for the half year ending 30th April 1860 . . . London 1860.
- for the half year ending 31st October 1860 . . . London 1860.
- for the half year ending 30th April 1861 . . . London 1861.
- for the half year ending 31st October 1861 . . . London 1862.
- for the half year ending 31st October 1862 . . . London 1863.
- Reports of the inspectors of factories to Her Majesty's Principal Secretary of State for the Home Department . . .*
- for the half year ending 30th April 1863 . . . London 1863.
- for the half year ending 31st October 1863 . . . London 1864.
- for the half year ending 30th April 1864 . . . London 1864.
- for the half year ending 31st October 1864 . . . London 1865.
- for the half year ending 31st October 1865 . . . London 1866.
- for the half year ending 31st October 1866 . . . London 1867.
- Reports respecting grain, and the corn laws: Viz: First and second reports from The Lords Committees, appointed to enquire into the state of the growth, commerce, and consumption of grain, and all laws relating thereto; . . . Ordered, by the House of Commons, to be printed, 23 November 1814.*
- The Reverend Newman Hall . . . [Correspondence from:] London, Saturday, August 15.
In: *The Standard*. London. Nr. 12 172, 15. August 1863.
- The revised statutes of the state of Rhode Island and Providence plantations: to which are prefixed, the constitutions of the United States and of the state.* Providence 1857.
From: *Children's employment commission. First report . . .* London 1863.
- Ricardo, David: *The high price of bullion, a proof of the depreciation of bank notes.* 4th ed. London 1811.
- *On protection to agriculture.* 4th ed. London 1822.
- *On the principles of political economy, and taxation.* London 1817.
- *On the principles of political economy, and taxation.* 3rd ed. London 1821.
- Richardson, [Benjamin]: "Work and overwork." In: *The Social Science Review*. London. Vol. 2. Nr. 58, 18 July 1863.
- Roberts, George: *The social history of the people of the southern counties of England in past centuries; illustrated in regard to their habits, municipal bye-laws, civil progress, etc.* London 1856.
- [Robertson, George:] *Essays on political economy: in which are illustrated the principal causes of the present national distress; with appropriate remedies.* London 1830.
- Rodbertus, [Heinrich Karl]: *Soziale Briefe an von Kirchmann. Dritter Brief: Widerlegung der Ricardo'schen Lehre von der Grundrente und Begründung einer neuen Rententheorie.* Berlin 1851.
- Rogers, James Edwin Thorold: *A history of agriculture and prices in England from the year after the Oxford Parliament (1259) to the commencement of the continental war (1793).* Compiled entirely from original and contemporaneous records. Vol. 1–2. Oxford 1866.

- Rohatzsch, R. H.: *Die Krankheiten, welche verschiedenen Ständen, Altern und Geschlechtern eigenthümlich sind*. Vol. 1–6. Ulm 1840. From: *Report addressed to Her Majesty's Principal Secretary of State for the Home Department, relative to the grievances complained of by the journeymen bakers* . . . London 1862.
- Roscher, Wilhelm: *Die Grundlagen der Nationalökonomie*. 3rd enl. and impr. ed. Stuttgart, Augsburg 1858. (Roscher: *System der Volkswirtschaft*. Vol. 1.)
- Rossi, Pellegrino: *Cours d'économie politique*. Année 1836–1837. (Cont. Jes deux vol. de l'éd. de Paris.) In: *Cours d'économie politique*. Brussels 1843.
- Rouard de Card, Pie-Marie: *De la falsification des substances sacramentelles*. Paris 1856.
- Rousseau, Jean-Jacques: *Discours sur l'économie politique*. Nouv. éd. Geneva 1760.
- Roux[-Lavergne], Pierre-Celestin *see* Buchez, Philippe-Joseph-Benjamin, Pierre-Celestin Roux[-Lavergne]: *Histoire parlementaire* . . .
- [Roy, Henry:] *The theory of the exchanges. The bank charter act of 1844. The abuse of the metallic principle to depreciation*. London 1864.
- Royal commission on railways. *Report of the commissioners*. Presented to both Houses of Parliament by command of Her Majesty. London 1867.
- Rumford, Benjamin [Thompson], Count of: *Essays, political, economical, and philosophical*. Vol. 1–3. London 1796–1802.
- Say, Jean-Baptiste: *Lettres à M. Malthus, sur différens sujets d'économie politique, notamment sur les causes de la stagnation générale du commerce*. Paris 1820.
- *Traite d'économie politique, ou simple exposition de la manière dont se forment, se distribuent et se consomment les richesses*. Paris 1802. From: Wilhelm Roscher: *Die Grundlagen der Nationalökonomie*. 3., verm. und verb. Aufl. Stuttgart, Augsburg 1858. (Roscher: *System der Volkswirtschaft*. Vol. 1.)
- *Traite d'économie politique, ou simple exposition de la manière dont se forment, se distribuent et se consomment les richesses*. 3rd ed. Vol. 1–2. Paris 1817.
- Schiller, Friedrich von: *Die Bürgerschaft*.
- *Kabale und Liebe*.
- *Das Lied von der Glocke*.
- Schouw, Joakim Frederik: *Die Erde, die Pflanzen und der Mensch. Naturschilderungen*. Aus dem Dän. unter Mitw. des Verf. von H. Zeise . . . 2nd ed. Leipzig 1854.
- Schulz, Wilhelm: *Die Bewegung der Production. Eine geschichtlich-statistische Abhandlung zur Grundlegung einer neuen Wissenschaft des Staats und der Gesellschaft*. Zurich, Winterthur 1843.
- Scrope, George Poulett: *Principles of political economy, deduced from the natural laws of social welfare, and applied to the present state of Britain*. London 1833.
- Second report addressed to Her Majesty's Principal Secretary of State for the Home Department, relative to the grievances complained of by the journeyman bakers*. Presented to both Houses of Parliament by command of Her Majesty. London 1863.
- [Seeley, Robert Benton:] *The perils of the nation. An appeal to the legislature, the clergy, and the higher and middle classes*. 2nd ed., rev. London 1843.
- Senior, Nassau William: "Address." In: The National Association for the Promotion of Social Science. *Report of proceedings at the seventh annual congress, held in Edinburgh, October 1863*. Edinburgh, London 1863.
- Senior, Nassau William: *Journals, Conversations and Essays relating to Ireland*. In 2 vol. Vol. 2. London 1868.

- *Letters on the factory act, as it affects the cotton manufacture . . . To which are appended, a letter to Mr. Senior from Leonard Horner, and minutes of a conversation between Mr. Edmund Ashworth, Mr. Thomson and Mr. Senior.* London 1837.
- *An outline of the science of political economy.* London 1836.
- *Principes fondamentaux de l'économie politique*, tires de leçons éd. et inéd. de N.-W. Senior, par Jean Arrivabene. Paris 1836.
- *Three lectures on the rate of wages, delivered before the University of Oxford, in Easter term, 1830.* With a pref. on the causes and remedies of the present disturbances. London 1830.
- Sextus Empiricus: *Adversus mathematicos.*
- Shakespeare, William: *King Henry IV.*
- *The merchant of Venice.*
- *A midsummer-night's dream.*
- *Much ado about nothing.*
- *Timon of Athens.*
- Sismondi, Jean-Charles-Léonard Simonde de: *De la richesse commerciale, ou principes d'économie politique, appliqués à la législation du commerce.* Vol. 1 and 2. Vol. 1. Geneva 1803.
- *Études sur l'économie politique.* Vol. 1–2. Brussels 1837–1838.
- *Nouveaux principes d'économie politique, ou de la richesse dans ses rapports avec la population.* 2nd ed. Vol. 1–2. Paris 1827.
- Skarbek, Frédéric: *Théorie des richesses sociales.* Suivie d'une bibliographie de l'économie politique. 2nd ed. Vol. 1 and 2. Vol. 1. Paris 1839.
- Smith, Adam: *An inquiry into the nature and causes of the wealth of nations.* In 2 vol. London 1776.
- *An inquiry into the nature and causes of the wealth of nations . . .* With notes, and an add. vol., by David Buchanan. In 3 vol. Vol 1. Edinburgh 1814.
- *An inquiry into the nature and causes of the wealth of nations.* With a commentary, by the author of "England and America" [Edward Gibbon Wakefield]. In 6 vol. [mainly the 4th vol.]. Vol. 1–3. London 1835–1836.
- *Recherches sur la nature et les causes de la richesse des nations.* Trad. nouv., avec des notes et observations; par Germain Garnier. Vol. 1–5. Vol. 1, 5. Paris 1802.
- *The theory of moral sentiments.* London 1759.
- Some thoughts on the interest of money in general, and particularly in the publick funds.* London [1738].
- Somers, Robert: *Letters from the Highlands; or, the famine of 1847.* London, Edinburgh, Glasgow 1848.
- Sophokles: *Antigone.*
- The source and remedy of the national difficulties, deduced from principles of political economy*, in a letter to Lord John Russell. London 1821.
- Spinoza, Benedictus de: *Ethica.* In: Spinoza: *Opera posthuma, quorum series post praeactionem exhibetur.* [Amsterdam] 1677.
- S[tafford], William: *A compendious or briefe examination of certayne ordinary complaints, of divers of our country men in these our dayes, etc.* London 1581.
- Statistical abstract for the United Kingdom in each of the last fifteen years, . . .* London.
- No. 8: From 1846 to 1860. 1861.

- No. 13: From 1851 to 1865. 1866.
- No. 15: From 1853 to 1867. 1868.
- The statute of labourers confirmed, altered, and enforced.* [1360.] From: Frederic Morton Eden: *The state of the poor* . . . Vol. 1. London 1797.
- Statutum de servientibus.* (The statutes of labourers.) [1349.] In: *The statutes at large, of England and of Great-Britain: from Magna Carta to the Union of the Kingdoms of Great Britain and Ireland.* In 20 vol. Vol. 1. London 1811.
- Steuart, James: *An inquiry into the principles of political oeconomy: being an essay on the science of domestic policy in free nations.* In 2 vol. Vol. 1. London 1767.
- An inquiry into the principles of political oeconomy: being an essay on the science of domestic policy in free nations.* In 3 vol. Vol. 1. Dublin 1770.
- An inquiry into the principles of political oeconomy* . . . In: *The works, political, metaphysical, and chronological.* Now first collect. by James Steuart, his son, from his father's corr. copies, to which are subjoined anecdotes of the author. In 6 vol. Vol. 1. London 1805.
- Steuart, [James] Jacques: *Recherche des principes de l'économie politique, ou essai sur la science de la police intérieure des nations libres.* Vol. 1-5. Vol. 1. Paris 1789.
- Stewart, Dugald: *Lectures on political economy.* Vol. 1. Edinburgh 1855. (*The collected works.* Ed. William Hamilton. Vol. 8.)
- Stolberg, Christian zu: *Gedichte.* Aus dem Griech. übers. Hamburg 1782.
- Stolberg, Friedrich Leopold zu: *An die Natur.*
- Storch, Henri: *Cours d'économie politique, ou exposition des principes qui déterminent la prospérité des nations.* Vol. 1-4. Vol. 1-2. St. Petersburg 1815.
- Cours d'économie politique, ou exposition des principes qui déterminent la prospérité des nations.* Avec des notes explicatives et critiques par J.-B. Say. Vol. 1-4. Vol. 1, 3. Paris 1823.
- Strange, William: *The seven sources of health.* London 1864. From: *Children's employment commission.* Fourth report . . . London 1865.
- Strype, John: *Brief annals of the church and state.* From: Frederic Morton Eden: *The state of the poor* . . . Vol. 1. London 1797.
- Tenth report of the commissioners of Her Majesty's inland revenue on the inland revenue.* Presented to both Houses of Parliament by command of Her Majesty. London 1866.
- Thiers, Adolphe: *De la propriété.* Paris 1848.
- Thompson, Benjamin see Rumford, Benjamin [Thompson], Count of: *Essays* . . .
- Thompson, William: *An inquiry into the principles of the distribution of wealth most conducive to human happiness; applied to the newly proposed system of voluntary equality of wealth.* London 1824.
- Thornton, William Thomas: *Over-population and its remedy; or, an inquiry into the extent and causes of the distress prevailing among the labouring classes of the British Islands, and into the means of remedying it.* London 1846.
- Thucydides: *De bello Peloponnesiaco libri octo.* Leipzig 1831.
- Thünen, Johann Heinrich von: *Der isolirte Staat in Beziehung auf Landwirthschaft und Nationalökonomie.* Part 2, Section 2. Rostock 1863.
- Tooke, Thomas, William Newmarch: *A history of prices, and of the state of the circulation, during the nine years 1848-1856.* In 2 vol.; forming the 5th and 6th vol. of the *History of prices from 1792 to the present time.* Vol. 5-6. London 1857.

- Torrens, Robert: *An essay on the external corn trade; containing an inquiry into the general principles of that important branch of traffic; an examination of the exceptions to which these principles are liable; and a comparative statement of the effects which restrictions on importation and free intercourse, are calculated to produce upon subsistence, agriculture, commerce, and revenue.* London 1815.
- *An essay on the production of wealth; with an app., in which the principles of political economy are applied to the actual circumstances of this country.* London 1821.
- *On wages and combination.* London 1834.
- [Townsend, Joseph:] *A dissertation on the poor laws.* By a well-wisher to mankind. 1786. Republished. London 1817.
- Townsend, Joseph: *Journey through Spain in the years 1786 and 1787.* In 3 vol. London 1791.
- “The trials of young girls in London.” To the Editor of the “Star.” In: *The Evening Star.* London. Nr. 3911, 11 September 1868.
- Tucker, Josiah: *A brief essay on the advantages and disadvantages which respectively attend France and Great Britain, with regard to trade.* 3rd ed. London 1753.
- *Four tracts, together with two sermons, on political and commercial subjects.* Gloucester 1774.
- Tuckett, John Debell: *A history of the past and present state of the labouring population, including the progress of agriculture, manufactures, and commerce . . .* Vol. 1–2. London 1846.
- Turgot, [Anne-Robert-Jacques]: *Réflexions sur la formation et la distribution des richesses.* In: *Œuvres.* Nouv. éd., . . . par Eugène Daire. Vol. 1. Paris 1844. (*Collection des principaux économistes.* Vol. 3.)
- “Twenty-second annual report of the Registrar-General of births, deaths, and marriages in England.” Presented to both Houses of Parliament by command of Her Majesty. London 1861. From: “Every government has its traditions . . .” In: *The Times.* London. Nr. 24082, 5 November 1861. 273
- Two letters on the flour trade, and dearness of corn . . .* By a person in business. London [1767].
- Ure, Andrew: *Philosophie des manufactures ou économie industrielle de la fabrication du coton, de la laine, du lin et de la soie, avec la description des diverses machines employées dans les ateliers anglais.* Trad. sous les yeux de l’auteur et augm. d’un chapitre inédit sur l’industrie cotonnière française, etc. Vol. 1–2. Paris 1836.
- *Technisches Wörterbuch oder Handbuch der Gewerbskunde.* In alphabetischer Ordnung. Bearb. nach Andrew Ure’s *Dictionary of arts, manufactures and mines* von Karl Karmarsch und Friedrich Heeren. Vol. 1–3. Vol. 1. Prague 1843.
- Urquhart, David: *Familiar words, as affecting the character of Englishmen and the fate of England.* London 1855.
- Vanderlint, Jacob: *Money answers all things: or, an essay to make money sufficiently plentiful amongst all ranks of people, and increase our foreign and domestick trade.* London 1734.
- Varro, Marcus Terentius: *De re rustica.*
- Vauban, [Sebastien le Prestre de]: *Projet d’une dime royale.* In: *Économistes financiers du XVIIe siècle.* Préc. de notices historiques sur chaque auteur, et accomp.

- de comm. et de notes explicatives, par Eugène Daire. Paris 1843. (*Collection des principaux économistes*. Vol. 1.)
- Vergilius Maro, Publius: *Aeneis*.
 ——— *Georgica*.
- Verri, Pietro: *Meditazioni sulla economia politica . . . con annotazioni di Gian-Rinaldo Carli*. In: *Scrittori classici italiani di economia politica*. [Ed. Pietro Custodi.] Parte moderna. Vol. 15. Milan 1804.
- Vice, [Giovanni]: *La science nouvelle*. Trad. par l'auteur de l'essai sur la formation du dogme catholique. Paris 1844.
- Vincard, Pierre: *Les ouvriers de Paris*. Paris 1863.
- Vissering, Simon: *Handboek van praktische staathuishoudkunde*. Delen 1–3. Amsterdam 1860–1862.
- Voltaire: *Candide, ou l'optimisme*.
- Wade, John: *History of the middle and working classes; with a popular exposition of the economical and political principles which have influenced the past and present condition of the industrious orders*. Also an app. . . . 3rd ed. London 1835.
- “Wages of agricultural labourers.” (From the Morning Chronicle.) In: *The Economist*. London. Nr. 13, 29 March 1845.
- [Wakefield, Edward Gibbon:] (A commentary to Smith's wealth of nations.) In: Adam Smith: *An inquiry into the nature and causes of the wealth of nations . . .* Vol. 1. London 1835.
 ——— *England and America. A comparison of the social and political state of both nations*. In 2 vol. London 1833.
- Wakefield, Edward Gibbon: *A view of the art of colonization, with present reference to the British Empire; in letters between a statesman and a colonist*. London 1849.
- Warburton, John: “Inspection of mines. To the Editor of the Times.” In: *The Times*. London. Nr. 25 718, 26 January 1867.
- Ward, John: *The borough of Stoke-upon-Trent, in the commencement of the reign of Her Most Gracious Majesty Queen Victoria*. London 1843. From: *Children's employment commission*. First report . . . London 1863.
- Watson, John Forbes: [Discussion of:] “John Crawford: On the cotton supply.” [Report:] In: *The Journal of the Society of Arts, and of the Institutions in Union*. London. 19. April 1861.
- Watts, John: *The facts and fictions of political economists: being a review of the principles of the science, separating the true from the false*. Manchester, London 1842.
 ——— Robert Owen, “*The Visionary*,” a lecture, on the third anniversary of the opening of the Manchester Hall of Science. Manchester 1843.
 ——— *Trade societies and strikes: their good and evil influences on the members of Trades Unions, and on society at large. Machinery; its influences on work and wages, and cooperative societies, productive and distributive, past, present, and future*. Manchester [1865].
- Wayland, Francis: *The elements of political economy*. Boston 1843.
- “We are afraid . . .” In: *The Bengal Hurkaru*. Calcutta. 22 July 1861.

- [West, Edward:] *Essay on the application of capital to land, with observations shewing the impolicy of any great restriction of the importation of corn, and that the bounty of 1688 did not lower the price of it.* By a fellow of University College, Oxford. London 1815.
- West, Edward: *Price of corn and wages of labour, with observations upon Dr. Smith's, Mr. Ricardo's, and Mr. Malthus's doctrines upon those subjects; and an attempt at an exposition of the causes of the fluctuation of the price of corn during the last thirty years.* London 1826.
- "The wholesale starvation of the London poor." In: *Reynolds's Newspaper*. London. Nr. 858, 20 January 1867.
- Wilks, Mark: *Historical sketches of the South of India, in an attempt to trace the history of Mysoor from the origin of the Hindoo Government of that state, to the extinction of the Mohammedan Dynasty in 1799.* Vol. 1–3. Vol. 1. London 1810.
- Wirth, Max: *Grundzüge der National-Oekonomie.* 3., verb. Aufl. Vol. 1 and 2. Vol. 1. Cologne 1861.
- "Worked to death." To the Editor of the Times. In: *The Times*. London. Nr. 24 597, 29 June 1863.
- "The working of the factory act." In: *The Economist*. London. Nr. 242, 15 April 1848.
- "The workrooms of Madame Elise." To the Editor of the "Star." In: *The Morning Star*. London. Nr. 2281, 29 June 1863.
- Wright, Thomas: *A short address to the public on the monopoly of small farms, a great cause of the present scarcity and dearness of provisions. With the plan of an institution to remedy the evil: and for the purpose of increasing small farms throughout the Kingdom.* London 1795.
- Wright, Thomas Barber see [Harlow, John, Thomas Barber Wright:] *The currency question.*
- Xenophon: *Cyropaedia.* Ed. E. Poppo. Leipzig 1821.
- Young, Arthur: *Political arithmetic. Containing observations on the present state of Great Britain; and the principles of her policy in the encouragement of agriculture.* London 1774.
- *A tour in Ireland: with general observations on the present state of that Kingdom . . .* 2nd ed. In 2 vol. London 1780.
- Зибєрь, Николай [Иванович] [Ziber, Nikolai Ivanovich]: *Теорія цѣнности и капитала Д. Рикардо въ связи съ позднѣйшими дополненіями и разъясненіями. Опытъ критико-экономическаго изслѣдованія.* Куіv, 1871.
- K[ауфманъ], Иларіонъ [Игнатъевич] [Kaufman, Illarion Ignatevic]: "Точка зрѣнія политико-экономической критики у Карла Маркса." [Rezension zu:] *Капиталь.* Vol. 1. Saint Petersburg. 1872. In: *Вѣстникъ Европы.* Saint Petersburg. Vol. 3. 1872.
- Покровскій, Василій [Иванович] [Pokrovskiy, Vasiliy Ivanovich]: [Review of:] "Капиталь Изд." Н. П. Полякова. 1872. In: *С.-Петербургскія Вѣдомости.* Nr. 97, 8. (20.) April 1872.
- Чернышевскій, Николай [Гаврилович] [Chernyshevsky, Nikolay Gavrilovich]: *Очерки изъ политической экономіи (по Миллю).* Изд. Михаила Эллидина и компаніи. Geneva, Basel 1870. (Сочиненія. Vol. 4.)

Periodicals

- The Bengal Hurkaru Overland summary of news* (Calcutta)—daily, appeared between 1795 and 1866.
- The Bury Guardian*—daily, founded 1857.
- The Daily News* (London)—bourgeois-liberal daily, appeared between 1846 and 1930.
- The Daily Telegraph* (London)—daily, appeared between 1855 and 1937; first a bourgeois-liberal newspaper, from the 1980s took a conservative direction; since 1937 under the title *Daily Telegraph and Morning Post*.
- Demokratisches Wochenblatt* (Leipzig)—appeared between January 1868 and September 1869 once weekly, after August 18, 1869, twice weekly, under the editorship of Wilhelm Liebknecht; initially the organ of the German People's Party (Die deutsche Volkspartei), from December 5, 1868, also the organ of the Federation of German Worker Associations (Verband deutscher Arbeitervereine); Marx and Engels published important articles in it; after the Eisenacher Congress in 1869 it became the organ of the Social Democratic Worker's Party of Germany (die sozialdemokratischen Arbeiterpartei, or SDAP).
- Deutsch-Französische Jahrbucher* (Paris)—published in German under the editorship of Marx and Arnold Ruge; only the first double issue appeared in February 1844.
- The Economist, Weekly Commercial Times, Bankers' Gazette, and Railway Monitor: a political, literary, and general newspaper* (London)—weekly, founded in 1843. Organ of the upper classes for economic questions and politics.
- The Evening Star* see *The Morning Star*.
- The Glasgow Daily Mail*.
- The International Journal*—organ of the "International Ironmolders' Union."
- The Journal of the Society of Arts, and of the Institutions in Union* (London)—weekly, founded in 1852; journal for the study of art and antiquity.
- La Liberté* (Paris)—conservative evening newspaper, appeared between 1865 and 1944. Founded by Émile de Girardin; organ of the upper classes.
- Macmillan's Magazine* (London, Cambridge)—edited by David Masson.
- The Morning Chronicle* (London)—daily, appeared between 1769 and 1865; organ of the Whigs in the 1840s and of the Peelites in the 1850s; later an organ of the conservatives.
- The Morning Star* (London)—daily, appeared between 1856 and 1869, as an evening edition under the title *The Evening Star*; organ of free trade advocates.
- Neue Rheinische Zeitung. Organ der Demokratie* (Cologne)—first independent proletarian daily, published under the leadership of Marx from June 1, 1848, to May 19, 1849; editors included Engels, Wilhelm and Ferdinand Wolff, Georg Werth, Ernst Dronke, and Ferdinand Freiligrath, among others.
- Neue Rheinische Zeitung. Politisch-ökonomische Revue* (London, Hamburg, New York)—appeared between January and October 1850 in six issues; edited by Marx and Engels.
- New-York Daily Tribune*—daily, appeared between 1841 and 1924, founded by Horace Greeley; until the middle of the 1850s, organ of the left wing of the American Whigs,

- subsequently organ of the Republican Party; published between August 1851 and March 1862 with regular reportage by Marx and Engels; later the paper moved farther and farther to the right.
- The Observer* (London)—conservative weekly, appearing since 1791; oldest English Sunday paper.
- The Pall Mall Gazette. An Evening Newspaper and Review* (London)—conservative daily, appeared between February 1865 and 1920; between July 1870 and June 1871 Marx and Engels were linked to it; increasing attacks by the paper on the Paris Commune after its destruction led both Marx and Engels to break relations to the paper.
- La Philosophie Positive* (Paris)—appeared between July 1, 1867, and 1883; edited by Paul-Maximilien-Émile Littré and Georgi Nikolajewitsch Wyrubow.
- Die Revolution* (New York)—weekly, 1852 edited by Joseph Weydemeyer; due to financial difficulties only two issues appeared in January; in May and June with the help of Adolf Cluß, Weydemeyer put out two further issues of the journal under the title “The Revolution: A journal in informal issues” (*Die Revolution. Eine Zeitschrift in zwanglosen Heften*).
- Révolutions de Paris, dédiées a la Nation et au district des Petits Augustins* (Paris)—weekly, appeared between July 12, 1789, and February 28, 1794; edited by Louis-Marie Prudhomme; redacted in September 1790 by the republican Élisée Loustalot.
- Reynolds’s Newspaper. A Weekly Journal of Politics, History, Literature, and General Intelligence* (London)—weekly, founded in August 1850 as *Reynolds’s Weekly Newspaper* by the petit bourgeois democrat George William MacArthur Reynolds.
- The Saturday Review of Politics, Literature, Science, and Art* (London)—conservative weekly, appeared between 1855 and 1938.
- The Social Science Review* (London).
- The Spectator* (London)—weekly, founded in 1828. Originally represented liberal perspectives, later conservative.
- The Standard* (London)—conservative daily, appeared between 1857 and around 1917; arose from the *Evening Standard*.
- The Times* (London)—daily, founded January 1, 1785, under the title *Daily Universal Register*; appeared after January 1, 1788, under the name *The Times*; largest English conservative paper.
- Der Volksstaat* (Leipzig)—social-democratic paper, appeared between October 2, 1869, and September 19, 1876, initially twice weekly, after July 1873 thrice weekly, at first with the subtitle “Organ of the social-democratic worker party and of the trade cooperatives” (*Organ der sozial-demokratischen Arbeiterpartei und der Gewerksgenossenschaften*); after July 2, 1870, as “Organ of the social-democratic worker party and of the international cooperatives” (*Organ der sozial-demokratischen Arbeiterpartei und der Internationalen Gewerksgenossenschaften*); and after June 11, 1875, as “Organ of the German workers party” (*Organ der Sozialistischen Arbeiterpartei Deutschlands*); reflected the views of the revolutionary strand of the German worker movement; Wilhelm Liebknecht was lead editor; Marx and Engels worked on the paper since its founding.
- Der Vorbote* (Geneva)—monthly, appeared between January 1866 and December 1871, at first with the subtitle “Organ of the international worker association” (*Organ*

der Internationalen Arbeiter-Association), after January 1867 with the subtitle "Political and social-economic monthly" (*Politische und sozial-ökonomische Monatsschrift*); central organ of the German-speaking section in the International Workingmen's Association; redacted by Johann Philipp Becker; published articles by Marx.

The Westminster Review (London)—liberal journal for politics, economics, religion, and literature; appeared quarterly between 1824 and 1887, monthly between 1887 and 1914; founded by Jeremy Bentham and John Bowring, later led by James and John Stuart Mill.

The Workman's Advocate (London)—worker weekly; after September 1865 the official organ of the General Council of the International Workingmen's Association; along with other members of the General Council, Marx belonged to the leadership; in February 1866 the paper was reorganized and renamed *The Commonwealth*.

Вѣстникъ Европы. Журналъ исторіи, политики, литературы (Санктп-етербургъ) [Bulletin of Europe. Journal of History, Politics, Literature (St. Petersburg)]—organ of the moderate bourgeois liberals; appeared between 1866 and 1918.

С.-Петербургскія Вѣдомости. Газета политическая и литературная [St. Petersburg Vedomosti. Political and literary newspaper]—daily, appeared under this title between 1728 and 1914; official organ of the government.

Notes

Foreword

i. Marx writes, “The sphere of circulation or commodity exchange, within whose limits the movement of buying and selling labor-power occurs, is in fact a veritable Eden of innate human rights. What reigns is exclusively freedom, equality, property, and Bentham. Freedom! Because only the free wills of the buyer and seller of a commodity, for example, labor-power, determine how these figures act. They enter into business dealings as free persons, equal before the law. . . . Equality! Because they interact only as commodity owners and exchange an equivalent for an equivalent. Property! Because each owner does whatever he wants with only what is his. Bentham! Because each cares only about himself” (149).

ii. “A money owner has to find a free worker in the commodity market—free in two senses—in order to turn money into capital. As a free person, the worker can do whatever he wants with his labor-power: he can sell it as his own commodity. Furthermore, he is otherwise commodity-free: he has none of the things he needs to realize his labor-power” (142).

iii. Fredric Jameson, *Representing Capital: A Reading of Volume One* (London: Verso, 2014), 16.

iv. Marx writes in the preface: “To prevent possible misunderstandings, let me say this: I don’t paint the figures of the capitalist and landlord in rosy colors—far from it. But individual persons play a role here only insofar as they are the personifications of economic categories, or the bearers of particular class relations and interests. My approach treats the development of society’s economic formation as part of natural history, as that type of process, and no other approach does less to make the individual responsible for conditions that he remains a creature of socially, however much he manages to transcend them subjectively” (9).

v. This is how Marx’s critique leads beyond those of the utopian socialists.

vi. Melinda Cooper, *Counter-Revolution: Extravagance and Austerity in Public Finance* (Zone Books, 2024); and Daneila Gabor, “The (European) Derisking State,” Center for Open Science, 2023, *SocArXiv* Papers, <https://osf.io/preprints/socarxiv/hpbj2>.

vii. See Quinn Slobodian, *Crack-Up Capitalism: Market Radicals and the Dream of a World Without Democracy* (London: MacMillan, 2023).

viii. Alyssa Battistoni “Bringing in the Work of Nature: From Natural Capital to Hybrid Labor,” *Political Theory* 45, no. 1 (February 2017): 5–31.

ix. “The German Ideology,” in *The Marx-Engels Reader*, 2nd ed., ed. R. Tucker (New York: Norton, 1976), 159.

x. “Every time the earth’s fertility is successfully increased for a given period, this ruins some part of the earth’s sources of long-lasting fertility. The more a country—e.g., the United States—bases its development on large-scale industry, the faster this process of destruction runs its course. Capitalist production thus advances the technological means of social production processes and combines those processes more and more only by damaging the very founts of all wealth: the earth and the worker” (461).

Editor’s Introduction

i. Ludovico Silva, *Marx’s Literary Style*, trans. Paco Brito Núñez (London: Verso, 2023), 75.

ii. Isaiah Berlin, *Karl Marx* (Princeton, NJ: Princeton University Press, 2013), 200.

iii. Karl Marx to Heinrich Marx, Berlin, November 1837. In Karl Marx and Friedrich Engels, *Collected Works*, vol. 1, electronic ed. (Lawrence and Wishart, 2010), 17.

iv. *Ibid.*, 18.

v. A new translation and an analysis of the articles from 1842–43 can be found in Daniel Bensaid, *The Dispossessed: Karl Marx’s Debates on Wood Theft and the Right of the Poor*, trans. Robert Nichols (Minneapolis: University of Minnesota Press, 2021).

vi. Marx and Engels, *Collected Works*, 1:256.

vii. *Ibid.*, 238.

viii. Karl Marx and Friedrich Engels, *Collected Works*, vol. 3, electronic ed. (Lawrence and Wishart, 2010), 182.

ix. *Ibid.*, 185.

x. Fernand Braudel gives a cursory history of “capital” as an economic term in *Civilization and Capitalism 15th–18th Century*, vol. 2, *The Wheels of Commerce*, trans. Siân Reynolds (London: Book Club Associates, 1983), 232–39.

xi. Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, ed. Edwin Cannan (Chicago: University of Chicago Press, 1976), 2.

xii. *Oxford English Dictionary* Online. “Capital,” 3.a, https://www.oed.com/dictionary/capital_adj?tab=meaning_and_use#I0136349. Accessed November 17, 2023.

xiii. The best recent account of the writing and rewriting of texts we associate with *Capital* is Michael Heinrich’s article “‘Capital’ after MEGA: Discontinuities, Interruptions, and New Beginnings,” *Crisis and Critique* 3, no. 3 (2016): 93–138.

xiv. Karl Marx, *Grundrisse: Foundations of the Critique of Political Economy*, ed. Martin Nicolaus (London: Penguin, 1973), 267. See also this volume, p. 182.

xv. Smith, *Wealth of Nations*, 33.

xvi. *Ibid.*, 62

xvii. Thorsten Veblen, “The Preconceptions of Economic Science,” repr. *Essential Writings of Thorsten Veblen*, ed. Charles Camic and Geoffrey M. Hodgson. (London: Routledge, 2011), 239.

xviii. This volume, p. 43.

xix. A recent reconstruction of Marx's thought on the plunder of nature and its consequences is Kohei Saito's *Karl Marx's Ecosocialism: Capital, Nature, and the Unfinished Critique of Political Economy* (New York: Monthly Review Books, 2017).

xx. Karl Marx, *Early Writings*, trans. Rodney Livingstone and Gregor Benton (London: Penguin, 1992), 207.

xxi. Marx distinguishes the economic thought of the period preceding and contemporaneous with him into "classical political economy" and "vulgar" or "bourgeois" economists, the latter being those writers and policy makers who turn away from analyzing conditions and deriving laws and turn that into an apology for the greatness of the capital system. Vulgar economists cling to "mere semblance" (this volume, p. 277) and classical political economy has "come close to stumbling onto the true state of affairs" (this volume, p. 498). To Marx, the second is worthy and worthy of critique; the first, however, is only worthy of contempt. In the "bourgeois" economists, Marx spies a tendency to reify the system, to treat it as natural and permanent, taking its ability to satisfy human wants and needs as an almost a divine occurrence. In contrast, Marx sees the system as historical, having a beginning and an end, as not just an imperfect satisfier of wants and needs but more—as a producer of abuse, dissatisfaction, disease, and death. The bourgeois economists foreshadowed the marginalists, the "neoclassicals" who exploded onto the scene in Marx's final years. He seems to have been ignorant of the work of Walter Stanley Jevons in England, Carl Menger in Austria, and Marie-Esprit-Léon Walras in France.

xxii. This volume, p. 59.

xxiii. Marx, *Grundrisse*, 881.

xxiv. See §44 of G. W. F. Hegel, *Elements of the Philosophy of Right*: "A person has the right to place his will in any thing [*Sache*], The thing thereby becomes mine and acquires my will as its substantial end (since it has no such end within itself), its determination, and its soul—the absolute right of appropriation which human beings have over all things [*Sachen*]."

xxv. Marx to Engels, January 8, 1868, in Marx, *Selected Writings*, ed. David McLellan (Oxford: Oxford University Press, 2000), 563.

xxvi. Irreplaceable accounts of the shift in the mode and meaning of knowledge in Marx's late work are Louis Althusser's essay collection, *For Marx* (London: Penguin, 1969), and his co-authored *Reading Capital* (London: New Left Books, 1970).

xxvii. Thesis 1 in Marx, "Theses on Feuerbach," in Marx and Engels, *Collected Works* (Moscow: International Publishes, 1976), 3–5.

xxviii. *Ibid.*, thesis 6.

xxix. *Ibid.*, thesis 11.

xxx. Marx, *Grundrisse*, 90.

xxxi. *Ibid.*, 296.

xxxii. This volume, p. 235.

Translator's Preface

i. *Marx Engels Werke* (hereafter *MEW*), vol. 36 (Berlin: Dietz Verlag, 1973), 42.

ii. *Ibid.*, 35.

- iii. “Eine Heidenarbeit” is the term Engels liked to use. See *ibid.*, 348, for example.
- iv. *Ibid.*, 28.
- v. *Ibid.*, 473.
- vi. *Ibid.*, 438.
- vii. See Karl Marx and Friedrich Engels, *Collected Works*, vol. 39, *Letters 1852–1855* (London: Lawrence and Wishart, 1982), 188–90. Engels makes the remark about “gedrungen” in the preface to the third edition of *Capital*, vol. 1 (1883); see *MEW* (Berlin: Dietz Verlag, 1968), vols. 23, 34.
- viii. *MEW*, vol. 36, 370.
- ix. Friedrich Engels, “How Not to Translate Marx,” *The Commonwealth* (November 1885), 96–98.
- x. This isn’t to suggest that I translate Marx’s neologisms with iron consistency. The meaning of such terms can vary, thereby inviting different renderings (e.g., “Waarenkörper,” which can mean “the physical body of a commodity” and “a commodity as a physical body”), and his neologisms vary in other ways as well. There are borderline cases, for example, terms that Marx didn’t exactly coin, but that were uncommon in his day. And since German is a famously hospitable environment for building compound nouns, some of Marx’s compound-noun neologisms (or near neologisms) look and feel much more natural than the most direct English matches do, which means that translating every such term as a hyphenated neologism would alter the character of Marx’s prose. I use annotations to alert readers to translation inconsistencies in this area.
- xi. Karl Marx and Friedrich Engels, *Collected Works*, vol. 35, *Capital*, vol. 1, trans. Samuel Moore and Edward Aveling (London: Lawrence and Wishart, 1996), 57.
- xii. See Ben Fowkes, “Translator’s Preface,” in *Capital*, vol. 1, trans. Fowkes (London: Penguin, 1976), 87–88.
- xiii. With “value terms” such as “Werthding,” it’s unlikely that, despite reservations, Fowkes kept some of Moore-Aveling’s translations in place because those translations had become established parts of the Marx studies lexicon. They aren’t exactly iconic concepts, and he renders them into English with several different terms. But in at least one important case (“previous accumulation”), Fowkes tells readers that he stayed with the conceptual rendering Moore-Aveling settled on because that choice had attained a kind of canonical status.
- xiv. *Capital*, vol. 1, trans. Moore and Aveling, 57; *Capital*, vol. 1, trans. Fowkes, 144.
- xv. *Capital*, vol. 1, trans. Fowkes, 88.
- xvi. Karl Marx, *Kapital: Kritik der politischen Oekonomie*, vol. 1 (1872 edition), *Marx-Engels Gesamtausgabe* (hereafter *MEGA*) II.6 (Berlin: Dietz Verlag, 1987), 319.
- xvii. I am not suggesting that this sentence, a single sentence in a translation that runs to more than 300,000 words, constitutes a representative moment. But if I regarded it as a stylistic outlier, it would be very cynical of me to frame it as I do in the body of this preface. I believe that the formulation in question is hardly a singular occurrence in Fowkes’s rendering of *Capital*, i.e., neither typical nor exceptional.
- xviii. The idea that a translation should follow a source text as the latter’s register, rhythm, and so on change sounds less like a strategy than a truism, or a way to describe one of the things that most translators of literature and philosophy believe they are supposed to do. But what it means to follow a text varies from work to work, and where the movement of the writing is especially pronounced, this part

of the translation process will of course be more likely to take on a central role. “Nachdichtung”—a “creative writing after”—strikes me as an apt name for the work a translator performs in such cases.

In the nineteenth century, the term denoted “creative reimagining”—Goethe’s retelling of the story of Iphigenia was a “Nachdichtung.” It could also signify “translation,” however, and in the first decades of the twentieth century, that connotation was built up by Karl Kraus (1874–1936), a German-Jewish journalist, essayist, dramatist, aphorist, and translator. While Kraus’s own translations, which he called “Nachdichtungen,” weren’t translations in the conventional sense, since he didn’t always know the language of his source text, he made it clear that the word applied to translation in general, or rather to “true translation”—“wahres Über-setzen.” This he defined as “a creative substitution” of language, or a “schöpferisches Ersetzen,” that involves the “transposition,” or “Versetzen,” of intellectual and emotional experience from one language to another. When carried out with enough thought and attentiveness to the “individual lives of both languages,” such a multidirectional process can amount, he suggested, to “a creative writing after” in terms of space as much as time: the German preposition “nach” has both meanings.

In his fullest statement on the topic, Kraus sets his notion of “Nachdichtung” against the ornate “Umdichtung,” or “creative rewriting,” practiced by the German poet Stefan George, indicating that someone engaged in the former pursuit doesn’t seek to preserve the “identity” of individual terms, which is a futile undertaking, given how language systems differ from one another. Rather, she will try to retain the workings of spatial configurations, or more specifically, the essential things “between the words”—the “breath” or “the fullness of life” there.

It hardly seems coincidental that Kraus’s own prose was marked by an extreme, dissonance-evoking, singularity-asserting mobility, which resembles the one we find in *Capital* as closely as any writer’s does. For all the differences between Kraus and the Marx of *Capital*, both authors move easily among aphoristic expression, imitation and expansive citation, arresting directness and clarity, sentences that seem designed to defy consumption, the most intricate and relentlessly logical criticism, wry asides and wordplay, sober attempts to document injustice, rollicking accounts of horrible yet also absurd situations, furious lamentations, and artful invocations of the Western literary canon that illustrate claims and signal a highly unconventional attachment to the classics.

xix. *Capital*, vol. 1, trans. Fowkes, 438.

xx. This volume, p. 293.

xxi. *Capital*, vol. 1, trans. Moore and Aveling, 20. In an essay that I have profited from a great deal, Keston Sutherland discusses how this translation move echoes an element of jargon in Marx’s prose in a holistic way—that is, “bourgeoisdom” would be an over-the-top translation for its German counterpart, except that it preserves an ambient feature of the writing that can’t always be preserved exactly where it occurs. See Sutherland, “Marx in Jargon,” *World Picture* 1, no. 1 (April 2013), <https://www.yumpu.com/en/document/view/10877445/marx-in-jargon-keston-sutherland-first-term-world-picture>.

xxii. Isaiah Berlin, *Karl Marx*, ed. Henry Hardy (Princeton, NJ: Princeton University Press, 2013), 19.

xxiii. Joseph Schumpeter, *History of Economic Analysis* (New York: Oxford University Press, 1994), 384.

xxiv. Gareth Stedman-Jones, *Karl Marx: Greatness and Illusion* (Cambridge, MA: Harvard University Press, 2016), 5. In the 1960s, for example, scholars debated whether the Marx of *Capital* had broken in some essential way with his writings from 1840s and thus with an earlier version of himself.

xxv. Ludovico Silva, *Marx's Literary Style*, trans. Paco Brito Nuñez (London and New York: Verso, 2023) and Robert Paul Wolff, *Moneybags Must Be So Lucky: On the Literary Structure of Capital* (Amherst: University of Massachusetts Press, 1988). This isn't to suggest that the tradition of reading Marx as "pure theory," and turning away from the literary qualities of *Capital*, has lost all its force and influence. On its enduring presence in Marx studies, see Sutherland's critical account in "Marx in Jargon."

xxvi. Jacques Derrida, *Specters of Marx: The State of Debt, the Work of Mourning, and the New International*, trans. Peggy Kamuf (New York and London: Routledge, 1994). The book was first published in French in 1993.

xxvii. See Ricardo Bellofiore and Tommaso Redolfi Riva, "The *Neue Marx Lektüre*: Putting the Critique of Political Economy Back into the Critique of Society," *Radical Philosophy* 189 (January/February 2015): 24–36, <https://www.radicalphilosophy.com/article/the-neue-marx-lekture>. There are of course always outliers and exceptions. In the 1920s, I. I. Rubin developed an extremely sophisticated and nuanced reading of the conceptual development of Marx's value theory. See his posthumously published *Essays on Marx's Theory of Value*, trans. Miloš Samardžija and Fredy Perlman (Delhi: Aakar Books, 2008). Hayden White's influential account of the "tropological strategies" in Marx's writing, including *Capital*, dates to the early 1970s. See his *Metahistory: The Historical Imagination in Nineteenth-Century Europe* (Baltimore: Johns Hopkins University Press, 2014), 285ff. It was in 1979, moreover, that Diane Elston published her edited volume *Value: The Representation of Labour in Capitalism* (reissued by Verso in 2015), which includes several essays that carefully and incisively probe how Marx's conception of value works—and how it figures in his critique of social relations under capitalism. This goes above all for her own essay in the volume, "The Value Theory of Labour."

xxviii. Here I have in mind the work of Moishe Postone and Michael Heinrich, for example.

xxix. See Michael Heinrich, "'Capital' after MEGA: Discontinuities, Interruptions, and New Beginnings," *Crisis and Critique* 3 (2016): 93–138.

xxx. See Sharon Deane-Cox, *Retranslation: Translation, Literature and Reinterpretation* (London: Bloomsbury, 2014), 3–5.

xxxi. For example, in June 1883, Engels complained to his friend Friedrich Sorge that no one in the English-speaking world, including those who can read German, has any kind of feel for Marx's writing, for there isn't a single person who can translate it into English competently. See *MEW*, vol. 36, 45.

xxxii. Of course, other kinds of readers have detected a note of parody here. Edmund Wilson did in a reading that sees *Capital* as having a number of different intellectual tendencies and internal tensions. See Wilson, *To the Finland Station: A Study in the Writing and Acting of History* (New York: Farrar, Straus, and Giroux, 1972), 342.

xxxiii. See *Capital*, vol. 1, trans. Moore and Aveling, 63; *Capital*, vol. 1, trans. Fowkes, 144. Both Moore-Aveling and Fowkes translate “Werthding” and “Werthkörper” with other terms as well—for example, Moore-Aveling also translate Werthkörper as “value in *propria persona*,” and Fowkes at one point renders “Werthding” as “a thing possessing value,” which matches what Marx means by “commodity” but not what he is trying to do with “Werthding,” in this case and elsewhere, too. Nowhere do either Moore-Aveling or Fowkes translate “Werthding” as “value-thing” or Werthkörper” as “value-body.”

xxxiv. This kind of problem isn’t limited to the value neologisms in chapter 1. There are many further examples of neologism trouble in Fowkes’s translation. To cite just one instance, in chapter 3, he renders the phrase “Formbewegung der Waare” as a commodity’s “form of motion” when Marx seems to have in mind the idea of “the movement of the commodity’s form” (or really, the movement of its form changes).

xxxv. The German term here is “Gallerte,” which can also be translated as a gelatin. For a perceptive discussion of the term and the dissonance produced by juxtaposing “Gegenständlichkeit” and “Gallerte,” see Sutherland’s “Marx in Jargon.”

xxxvi. Or rather, it does nothing but serve as the physical form through which value is expressed: Marx treats the commodity whose value is expressed as the active commodity in the value expression and its counterpart commodity as a passive player in this—he says that the one commodity (A) uses the physical form of the other commodity (B) to express its (A’s) value.

xxxvii. *Capital*, vol. 1, trans. Fowkes, 138.

xxxviii. Yoko Tawada, “Von der Muttersprache zur Mutter,” in her *Talisman* (Tübingen: konkursbuch, 1996), 10.

xxxix. “Foreignization” is Laurence Venuti’s term for the process whereby a translation makes visible that it is a translation—whereby it keeps in view that it is a rendering of a foreign text. Foreignizing translations sound foreign rather than natural in the target language. Proponents of foreignization tend to suggest that it preserves local, foreign qualities that get lost when translators “domesticate” source texts—that is, when they try to make source texts come across as natural and elegant in the target language. Yet foreignization often introduces a foreign element, since many texts don’t sound foreign in the source language. It can thus create foreignness rather than preserve it.

xl. By “natural prose,” I mean American English prose, whose syntax and vocabulary sound natural to me and will hopefully sound natural to some other twenty-first-century readers. But steering toward such prose, rather than, say, prose that sounds historical, does not necessarily entail making Marx sound like a twenty-first-century American author. For the most part, I have avoided obvious anachronisms.

xli. Paradoxically, retaining the natural, colloquial aspects of the prose in *Capital*, or at least working to retain them more than other English-language translators have, will likely yield a text that is “newly strange,” to use Emily Wilson’s phrase. For if the Moore-Aveling translation sounds less technical than the Fowkes translation, it often renders Marx’s everyday terms with elevated or arcane words. Thus English-language readers of *Capital* will expect to encounter prose that generally doesn’t sound natural,

and in this context, what seems natural will also seem strange. There is a further paradox here: Moore-Aveling may have at times denaturalized Marx's vocabulary in order to bring it into line with what readers would have expected from an erudite German scholar-critic with scientific aspirations, in order to make it seem less strange or, in a way, more natural for his particular speech context—broadly speaking, the phrase “natural prose” may mean “non-technical or non-mannered prose,” but on some level, such natural writing will feel unnatural in specialized settings, where it is in fact less natural than technical-sounding writing that generally counts as non-natural. In one prominent case, the Moore-Aveling translation gives the recondite term “integument” for Marx's plain *Hülle* (“husk” or “shell”), repeating the word where the original text replaces it with a pronoun and thereby drawing added attention to it—this comes just before the book's climactic line about how the “expropriators will be expropriated.” But as intimated, the Moore-Aveling and Fowkes translations also normalize Marx's prose in other ways: e.g., by dropping or muting some of his boldest instances of personification—for example, where he applies to things arresting adjectives that tend to go with people (such as “weltlustig”) or where he has “Kapital” do things one would expect a person to do (Moore-Aveling and Fowkes sometimes translate “Kapital” as “capitalist” and thus elide that personification).

xlii. Marx, *Kapital*, vol. 1, 66.

xliii. The Moore-Aveling and Fowkes translations of the sentence are identical: see Moore-Aveling, 9, and Fowkes, 91.

xliv. *MEGA* II.9, 707.

Preface to the 1867 Edition

i. Marx had to contend with ill health during much of his life. At seventeen, he suffered from a “weak chest” bad enough to get him out of Prussian military service. Pleurisy, rheumatism, recurring bronchitis, inflammation of the liver, and boils and carbuncles counted among his afflictions. Recent scholarship has suggested that we add autoimmune disease to the list. Nor had these problems gone into remission when Marx was working on *Capital*. He once told his friend Friedrich Engels that his physical discomfort made for the particularly livid prose style in some sections, which meant, he continued, that in a way the bourgeoisie would be brought down by carbuncles.

ii. The German here is an old saying: “Aller Anfang ist schwer.”

iii. The terms “abstract and concrete” as Marx uses them had undergone a change of meaning in Hegel's writing. The terms entered philosophical discourse in the medieval philosophy of Boethius, for whom, in translating Aristotle, “ab(s)-tracta” named things that are drawn away from their material bearers, whereas “con-creta” named things enmeshed with material. Hegel's understanding of “abstract” maintains the sense of moving away from something, but what is moved away from is not material but determinations. A determination is simply a trait that makes something itself. A physical object is spatial and temporal and extended. These are its determinations. “Abstract” applies to things when they have few determinations. For example “being” is abstract, insofar as it has not yet received all the determinations that would make up a real worldly thing. You can see this when you compare being to an apple. One has

form and purpose; the other might, but you can't readily tell. In contrast, an American high school teacher is "concrete" because they have a whole set of determinations that distinguish them from all other things—a national allegiance, an occupation, a set of skills, and inner and outer distinctions. Marx by and large adopts Hegel's understanding of abstract and concrete, where abstract means moving away from determinations, empty, ahistorical, and ignoring real distinctions, and concrete means the contrary of these things: highly determinate, really existing, historical, full, and fully developed. Abstract things, like value, have determinations; they just don't have enough to make them societally useful on their own. Thus value has to be embodied in things.

iv. The Latin expression "De te fabula narratur!" means "the tale is told of you" and comes from Horace's *Satires*.

v. "Le mort saisit le vif" is a French phrase meaning "the dead seizes the living."

vi. Unlike "natural history," "Naturgeschichte," the English term's closest German counterpart, has an adjective form, and Marx uses that form in this sentence, describing the process in question as "einen naturgeschichtlichen Prozeß."

vii. The word rendered as "scholarly" is "wissenschaftlich." It can mean "scientific," that is, "having to do with natural science," and also "systematic," in the sense of truly rigorous and properly self-reflective with regard to scholarly method. Complicating matters is that "wissenschaft" can be used in opposition to "scholarly," in the sense of the German idea of "gelehrt," since "gelehrt" (and "scholarly") can suggest something to the effect of "learned but amateurish," whereas "wissenschaftlich" signifies knowledge produced and organized according to the standards of modern professional scholarship. Hence a basic dissertation requirement in Germany is that whatever its discipline (literary studies, art history, etc.), the thesis submitted must be "wissenschaftlich" (if the term were applied to an art history dissertation, we would probably still want to translate it as "scholarly"). Moreover, in the context of German philosophy, the word "systematic" ("systematisch") can refer to intellectual work that constitutes a system (or wants to). In this translation, "systematic" generally isn't used in that narrower sense, since Marx tends to use "wissenschaft" more broadly. As we see right away in *Capital*, Marx regarded his project not as an example of philosophical system-building, but as what we now would call "social science."

viii. "Culpa levis" is a Latin phrase referring to a category in Roman law meaning "mild infraction."

ix. The publications of Britain's Parliament and Foreign Ministry came outfitted with blue covers—hence the name "Blue Books." When Marx uses the term, he is referring to those government publications that have to do with labor conditions, such as the factory inspectors' biannual reports and the reports written by the Children's Employment Commission.

x. Marx is alluding to lines from Nicolaus Lenau's poem "The Albigensians" (1842), which is about the papal campaign against the Albigensian heretics or Cathars in medieval Languedoc. Lenau's lines read, "In purple coats or dark cassocks / the Hussites followed the Albigensians."

xi. The original line from Dante's *Divine Comedy* reads, "Follow me, and let the people talk." The version Marx quotes says instead, "Go on your own way, and let the people talk." Marx may have been unaware of transcription errors in the edition he cited from, or he may have reworked the line.

Chapter 1: The Commodity

i. Marx uses the phrase “erscheinen als”—translated mostly as “appears as” in what follows—twice in the first lines of *Capital* and many times throughout the book. He tends to employ this uncommon phrase in a fairly technical sense. Saying that the wealth of capitalist societies “erscheint als” an enormous accumulation of commodities wouldn’t have sounded like natural German to the first readers of *Capital*, unless they had read a lot of Hegel, who had developed a whole language of “appearance.” Marx initially planned to take on the task of translating the first chapters of *Capital* into English because, as he wrote in a letter to Engels, “it won’t be easy, but it will be unavoidable” to “develop a vocabulary that works as a way to translate the Hegelian terminology.” Still, “erscheint als” is probably less of a curveball for German readers than “appears as” is for their English counterparts. A key reason why is that German has two words for “appear”—“erscheinen” and “scheinen,” with the latter meaning “appear” in the sense of “seem.” So the English phrase “appears as” immediately suggests the possibility of “false appearance” in a way that the German phrase “erscheint als” doesn’t. In other words, it suggests something along the lines of “merely appears to be” much more than “erscheint als” does (though in *Capital* Marx sometimes uses “erscheinen als” to signify “misleading appearance,” particularly in the sections on wages). German’s “er-” prefix (which is related to its famous “ur-” prefix) frequently indicates accomplishment or realization: “kämpfen” is “to fight,” but “erkämpfen” is “to achieve by fighting;” and “erscheinen” versus “scheinen” loosely conforms to that pattern. For a fuller account of what “appearance” means in *Capital* and the Hegelian background here, see editorial note xiii to this chapter, below.

ii. Throughout, the German word “unmittelbar” is translated with the idiomatic American English “direct” or “directly.” It should be kept in mind that Marx refers here to one-half of a pair of modes crucial to Hegel’s philosophy, “unmittelbar” and “mittelbar,” “immediate” or “unmediated” and “mediate” or “mediated.” “Unmittelbar” refers to the unmediated, first-blush, unreflected, simple appearance of something, which later on in the analysis always turns out to be made up of a much more complex relation. An unmediated appearance is revealed to depend altogether for its character on another thing and so is in fact mediated by that thing. Money is the unmediated, direct appearance of value, but of course, as we learn, what allows money to represent value is that it is in constant communication with workers, production, commodities, exchange, circulation, imperialism, and so on. In short, the unmediated form of something temporarily disguises that thing’s position in a multiform process, in a process of processes, in a global system, regardless how well, or how violently, it works.

In defining the commodity in this paragraph, Marx relies on three words—“Gegenstand” (object), “Ding” (“thing”), and “Sache” (“object,” “thing”)—which have been reduced to two in the translation: “object” and “thing.” The phrase “Gegenstand des Genusses,” which occurs in the final sentence, contains, as we can see, another instance of “Gegenstand.” Marx seldom uses that phrase, and the choice of words is worth noting. Since “Genuß” means “enjoyment” or “pleasure,” “Gegenstand des Genusses” suggests not only an “object of use” but also an “object of pleasure.” And if an “object of pleasure” counts as a “means of subsistence” (“Lebensmittel”), then

Marx establishes right away that when he speaks of “means of subsistence,” he is not necessarily referring to a certain amount of food, clothing, and shelter. For him the bare essentials of human existence include leisure, social connections, and, it seems, the consumption of things that bring human beings pleasure. As indicated, “Genuß” can also mean something more like “use.” Someone can have the “Genuß” of a practical object that isn’t typically a source of pleasure. In his *Economic and Philosophical Manuscripts* of 1844, Marx activates this sense of the term, speaking in fact of the “Genuß” of a “Gegenstand” to signify “the use of an object.” But it seems unlikely that he has only that meaning in mind at the beginning of *Capital*, because if “Gegenstand des Genusses” signifies only “object of use” or “object of consumption,” then we would have a circular statement.

iii. Here Marx uses the term “Waarenkörper” as a singular noun, and it refers to a commodity’s body, the thing that gives it its useful properties. As a plural noun, “Waa-renkörper” evokes one of the ways in which commodities exist—namely, as “physical commodity bodies.” The term’s opposite and complement is “Waarenwerthe,” because, as we will see, commodities also exist as nonphysical “commodity values.”

iv. The word translated as “human beings” is the singular noun “der Mensch,” which presents challenges beyond the one that applies here: Does it need to be translated as a plural noun? “Mensch” signifies “human being,” but its meaning can also be more abstract than that—it can signify “humanity”—and (especially in its plural form) less abstract: it can signify “people,” too. It is translated all three ways in this text.

v. “Material” can refer to physical stuff, sometimes called “matter” in American English; and it can be used as a technical philosophical term, a concept opposite to the concept of “spirit” or “mind” (Geist), which is immaterial and not directly perceivable. Although Marx wrote his doctoral dissertation on both these meanings of material, somewhat counterintuitively, the words Marx usually turns to in *Capital*—which include “Stoff” and “stofflich,” “Material” and “materielle”—are equivocal. Sometimes he uses them to refer to physical stuff, sometimes to a particular kind of social stuff that underlies capitalism. Thus “use-value” is the “material content” of wealth, even if the wealth is currently in a form quite distant from use—for example, a government bond. “Material” does not mean matter here, but rather using a commodity to satisfy a need. As a rule, “material” refers to physical stuff when Marx talks about it in the sphere of nature. This he sometimes calls the “material substrate” of human activity. At other times, “material” has a new, critical meaning; it refers to the social basis for economic relations, when he talks about it in the sphere of human things. There material means a social thing that makes capitalist abstractions possible. A social thing always involves real-time relations between people that pertain somehow to their needs. For example, wage labor is “material” insofar as it is how one set of people interacts with another in order to sustain their lives. We should note, in addition, that it was Marx’s friend and writing partner Friedrich Engels who developed “the materialist conception of history” (i.e., “historical materialism”) in *Socialism: Utopian and Scientific* (1880) and elsewhere. This notion was then advanced by Vladimir Lenin, in *Materialism and the Empirico-Criticism* (1908), and taken up by many other “Marxists,” including Marx’s first biographer, Franz Mehring.

vi. In this translation, an ellipsis that comes at the end of a paragraph and is followed by a single term, generally one Marx has built up to and is unveiling, indicates

emphasis rather than elision. In the German text, Marx uses a dash in these cases, but the German dash or “Gedankenstrich” enjoys a certain weight, as its name (“thought stroke”) implies, that the dash in English lacks; and with a space on either side of it, Marx’s German dash heightens the effect of buildup—the “wait for it . . .” effect—that he seems to be going for.

vii. The Latin phrase “*contradictio in adjecto*” means “contradiction in terms.”

viii. Nicholas Barbon (ca. 1640–ca. 1698) was an English entrepreneur and economic theorist. An early critic of mercantilism, Barbon sparred with Locke but shared his view that since money and commodities lack intrinsic value, they shouldn’t be stockpiled. Barbon and Locke were pioneers of this position.

ix. “*Gespenstige Gegenständlichkeit*” is the phrase translated here as “ghostly objecthood.” The German term “*Gegenstand*” means “object,” while the suffix “-lich” turns a noun into an adjective, and the suffix “-keit” turns an adjective into a noun. The English word “objectivity” matches this morphology, but it has come to be associated so thickly with “disinterestedness” that employing it directs readers away from what Marx seems to have in mind. For in *Capital* he generally uses “*Gegenständlichkeit*” to evoke what value is under capitalism: on the one hand an object, on the other hand not fully there, an apparition of an object. “*Gegenständlichkeit*” often signifies the “objecthood” of human labor, a living process made into an object, human labor in its “coagulated state,” as he likes to say. And when it comes to value, the product of abstract labor, the object is neither a physical thing nor a mental construct—Marx dropped the neologistic term “thought-thing” (“*Gedankending*”) after the first edition of *Capital*, where its function is to describe value.

Value in capitalist societies is a “social substance” that operates beyond the consciousness of the people in such societies, although it affects them and, moreover, behaves like a physical thing, even though it doesn’t contain even an “atom of matter” and sometimes acts more like a soul, “transmigrating” from one body to another. Marx in fact emphasizes that value is human labor that is no longer in its fluid state and exists in a solidified, postfluid form (“*im ronnenen Zustand*”). Hence he keeps imagining value in terms of discrete “pieces,” “blobs,” and “masses,” and speaks of how the commodity exists as a “value-thing” that has a special purely social “value-objecthood”—“*Werthgegenständlichkeit*”—in addition to the regular objecthood it possesses as a physical thing. The commodity, owing to the double character of the labor represented in it, has a nonphysical objecthood that contrasts with its other objecthood, that “crude thing for the senses,” but is still an objecthood, a paradoxical “ghostly objecthood” that can simply dematerialize, or vanish without a trace, if the social relation that sustains it changes. Needless to say, the image of “gelatinous blobs” doesn’t neatly cohere with the idea of “ghostly,” and numerous critics have commented on this rhetorical dissonance. “*Gallerte*” is the German term Marx uses just after “*gespenstige Gegenständlichkeit*,” and it denotes a blob of gelatin made from bone marrow, something people bought and ate in (and beyond) nineteenth-century Europe.

Interestingly, the Grimms’ *Deutsches Wörterbuch* warns that “*Gegenständlichkeit*” doesn’t “coincide” with the Latinate word “*Objectivität*.” “*Gegenständlichkeit*” is more “sensuous, more *gegenständlich*,” as the *Wörterbuch* wryly puts it, adding that “*Gegenständlichkeit*” tends to suggest something more concrete than the “purely conceptual term” “*Objectivität*.”

This isn't to suggest that the questions of what value is in *Capital* and where exactly it comes into being have been settled. Marx scholars continue to offer competing answers.

x. Marx uses the terms "social" and "socially" in a distinctive way in *Capital*. American English tends to say "social" to communicate gregariousness or conviviality, a desire to be together in a group. Marx's use of "social" is different, usually pertaining to a particular society, made by the society rather than by nature, the singular way things are organized in this human grouping. "Societal" is another possible translation. Throughout the *Capital* project, Marx uses the term "gesellschaftlich" to make a critical distinction. A thing that is "social" is not first and foremost formal or technical or natural, and certainly not metaphysical or logical. What seems like a special kind of entity or a functional part of the system is actually a mode of socializing in this system. This distinction is important for Marx to argue against the method and results of classical political economy and its practical adherents, the so-called vulgar economists, who treat commodities, for example, as technical features of the economy, rather than as the perverted form that interactions among people take in this kind of economy. Value needs to be understood as a "crystalized" piece of a social substance, abstracted from real interactions among actors but nonetheless essentially social or societal. "Social" is a term of critique: it reveals the concealed basis for seemingly technical economic aspects in human relations, albeit the distorted ones under capital.

xi. The German wording translated here as "presents itself to us as" is "erscheint uns als." "Appears to us as" would have the advantage of consistency, since "erscheinen als" is generally rendered as "appears as," and the question of how the capitalist system is simultaneously a system of appearances is a crucial one in the book. But the English phrase "appears to us" strongly suggests a subjective impression and would thus take the reader in the wrong direction.

xii. The world of capital is not made up of separated, independent beings but rather is a mesh of interrelated phenomena with internal linkages. One kind of linking is when something "appears as" another thing. There seem to be two other closely related modes of internal linking for Marx. Something can "express itself in" something else, and something can "represent itself in, as, or through" something else. Expression or "Ausdrücken" implies an inner thing, part of which gets pushed out to become an external thing; representation or "presentation," "Darstellen," implies that a thing elsewhere has an image of it or an aspect of it placed here, where we can encounter it. The English words "express" and "present" are very alike in form and meaning to their German counterparts. The metaphor "expression" came into philosophy with Gottfried Leibniz's mirror theory of mind and since then has had a long career, in particular in philosophical aesthetics.

xiii. The capital system depends on appearances. Marx makes this point already in the book's first sentence. The basic intuition is that the capital system is not transparent, much like religion as Marx sees it. The capital system hides some of its operations and depends on looking different than it is. It is easier to see the priest's tithe, he jokes, than the blessing he promises. As in some religions, "looking different" is part of how capitalism operates; things "appear as" other things. Appearances derive from the system itself. It ceaselessly throws off appearances without which it wouldn't be

able to function. Capitalists need to see value as coming from their activities. Laborers need to see wages as fair recompense for their labor. Consumers need to look at a sandwich and see food, not value. The main mechanisms that depend on appearance in this volume are commodity fetishism (chapter 1) and the wage-form (chapter 17). Both of these capitalistic phenomena have appearance, German “Erscheinung,” as a necessary part of their functioning, and because they don’t understand this kind of appearance, the vulgar economists remain with something less than appearances, in German signaled in the word “Schein.”

What is Marx’s overall attitude toward appearance? In crediting appearance as “real” he follows a development in modern philosophy. Immanuel Kant raised “Erscheinung” above mere “Schein,” when he defined human cognition as limited to what can legitimately appear to it. Kant called “Erscheinung” any humanly experienceable phenomenon and opposed it to a “thing-in-itself” that can never be experienced directly. Kant’s theory revised ancient Hellenic reasoning, going back to Parmenides’s sixth-century BCE philosophical poem and systematized in Plato’s writings of the late fifth and early fourth centuries BCE, that held appearances to be opposed to truth, being, and reality. In order to make knowledge scientific, Kant discovers that he has to make appearances into a kind of reality, reality for human cognition. Hegel changes this around somewhat, taking an even more positive view of appearance: “essence must appear,” he writes in the *Logic*; and in the *Encyclopedia* he elaborates that “essence is not behind or beyond appearance.” An essence without an appearance is blind; an appearance without an essence is empty. Essences are “in” their appearances and reality is the multiple possible appearances of something.

Hegel’s demand that appearance itself be taken as essential stands close to Marx’s use of the term, but Marx changes the territory from general metaphysics to a specific historical form. Appearance is essential . . . to capitalism. And he agrees with Hegel that appearance is objective, not subjective. It is neither my personal illusion nor a limitation in human cognition that makes things appear one way and also be another. This means that we cannot simply correct our thinking, using philosophy to move to a truer vision. We can, however, understand the fact that appearance is a necessary part of the system and understand that the true movements go together with their appearances. Understanding this complex structure will not remove the appearances, as it would if it were simply a correction of bad thinking or false perception. To change the system it is not enough to raise consciousness or portray it as it “really” is. This system really is: commodity-form and wage-form. Its reality is both what it actually is and how it appears. Marx makes this clear with his use of the important term of art “Erscheinungsform,” “form of appearance.” Forms of appearance are many and are continually being invented by the system. Value, for example, has many forms of appearance—it appears as use-value and exchange-value, and exchange-value can appear as a commodity, including labor, or money.

xiv. Marx’s word for “labor-power,” “Arbeitskraft,” has a more standard meaning in German. It can mean “workforce,” designating the group that goes out to work or something like the number of people needed to get something done, similar to “manpower” in English. But Marx gives a distinctive meaning to the word. “Arbeitskraft” refers to an abstraction that capital makes. Within the particular work of a person, laboring to produce a particular object, the capital system projects a special substance

that is general and exchangeable. Marx calls that projected substance labor-power. This idea is ripe for critique, to Marx, since it is labor-power, as a tool of capital, that allows workers to work more than they are paid for (see chapter 17).

xv. Edmund Cartwright (1743–1823) invented the mechanical loom in 1785. By 1830, the steam-powered mechanical loom was playing a key part in England's textile production—in 1829, the power looms in England and Scotland numbered more than fifty-five thousand. This massively disrupted the textile industry on the Continent, too, leading to the uprising of the Silesian weavers in 1844, an event that Marx embraced as pivotal for the German proletariat. It also occasioned one of the most famous poems about modern workers in revolt, Heinrich Heine's "The Silesian Weavers" (1844).

xvi. Despite the quotation marks, Marx has actually altered his own formulation here (the one he is citing, that is): a word-for-word translation of the original line would read, "with respect to their exchange-value." This is due to the fact that Marx didn't begin to strictly distinguish between value (i.e., objectified abstract (socially necessary) human labor) and exchange-value (i.e., one of value's forms of appearance) until the second edition of *Capital*. The phrase translated as "coagulated labor-time" is "festgeronnener Arbeitszeit." An uncommon German word, "festgeronnen," employed most often in literary contexts, and with reference to blood, signifies the hardening of something that had been flowing—its root, "rinnen," is related to the word "rennen," which means to run.

xvii. The significance of "technologisch," the term Marx uses here, changed as he wrote and revised *Capital*. It actually began to feel old fashioned, which is why it occurs much less often in the 1872 edition of *Capital* than it does in the 1867 edition: twenty-one times versus fifty-four. For the most part, Marx simply replaced it with "technisch," which therefore experienced the opposite fate, going from twenty-four instances in the 1867 edition to fifty-six in the 1872 one. But what these terms in fact signified also changed. Marx sometimes employs "technologisch" in the camera-list sense, where it refers primarily to the study of useful devices, rather than to the devices themselves. However, he also edges the term toward its modern meaning, especially in chapter 13—the machines chapter. In a well-known footnote, he laments the lack of a "critical history of technology" ("kritische Geschichte der Technologie") analogous to Darwin's "history of nature's technology," as he puts it. Because Marx goes on to speak of "what technology reveals," it is possible to argue that he is still using "Technologie" to name an area of study. But it seems more likely that he was operating somewhat inconsistently with a term whose meaning was very much in flux. With "technisch," which today can mean either "technical" or "technological," Marx sometimes refers to the skills a given form of labor requires and sometimes to the useful devices that help drive the capitalist process of production. Eric Schatzberg's book *Technology: Critical History of a Concept* offers a compact but informative account of "Technik" and "Technologisch" in *Capital*.

xviii. Marx is referring to William Jacobs's *An Historical Inquiry*, vol. 2 (London, 1831), 101: "It is probable that in all ages those metals have cost more in their production than their value ever repaid."

xix. This appears to be a reference to a reference: In his *Lectures on Colonization and Colonies*, vol. 1 (London, 1841), 52, which Marx had read, Herman Merivale remarks, "According to M. Eschwege, about 20,000 Negroes were still employed by

it in 1823. He estimates the total value of diamond workings in eighty years at a sum hardly exceeding eighteen months' produce of sugar or coffee in Brazil!"

xx. The German here is "erscheint uns als."

xxi. The term translated as "natural resources" is "Naturstoffe," which Marx uses with shifting points of emphasis. Hence it is translated in different ways—sometimes "natural resources" and elsewhere as "natural materials." "Stoff," which also occurs in this section, is rendered most often as "matter." These terms of course go with the word "Stoffwechsel," which we discuss in the next note.

xxii. Here Marx introduces (i.e., uses for the first time in *Capital*) the term "Stoffwechsel," which could also be translated as "exchange of matter" or "material exchange" (in a later chapter, Marx pairs it with "Formwechsel," or "change of form"). The term "Stoffwechsel" gained currency in the 1830s and 1840s, when the German natural scientists Friedrich Tiedemann and Justus von Liebig used it to describe vital processes of substance conversion in physiology. The (Greek-derived) English term "metabolism," now the standard translation for "Stoffwechsel," wasn't employed widely until after 1900, and thus it could be considered an anachronistic rendering of Marx's use of "Stoffwechsel" in 1867/1872. Franklin C. Bing provides a helpful sketch of the early history of the English term in "The Origin of the Word Metabolism," *Journal of the History of Medicine* 26, no. 2 (April 1971): 158–80. The French edition of *Capital* uses plain language for "Stoffwechsel": "la circulation matérielle."

xxiii. In his work *A Treatise of Taxes and Contributions*, published anonymously in 1647, Petty writes, "Here we are to remember in consequence of our opinion, that labour is the Father and active principle of Wealth, as Lands are the Mother that the State by killing, mutilating or imprisoning, do withal punish themselves."

xxiv. Here Marx uses a hyphenate, "Waaren-Werth" ("commodity value"), which is unusual for him.

xxv. "Formwechsel," the term rendered as "shape-shifting," is otherwise translated as "form change."

xxvi. In the passage to which Marx refers us in the footnote, Hegel distinguishes among "the person," "the citizen," and "the human being," which he defines as follows: "It's from the standpoint of needs . . . that we speak of the human being in this sense."

xxvii. So in its capacity as abstract human labor, labor "creates" ("bildet") commodity value ("den Waaren-Werth"), while in its capacity as concrete useful labor, it "produces" ("produciert") use-value. "Bildet," a form of the verb "bilden," has a wide range of meanings: "shape," "form," "cultivate," "make up," "constitute," "create," "develop" (hence "Bildungsroman"), and more. Marx uses it to say that abstract human labor is what creates or constitutes or forms the substance of value. It is important to recognize that abstract, not concrete, labor alone creates value, and so a quasi-Ricardian "labor theory of value" in which particular labor goes into a use-value and "makes" its value is not what Marx means here. This might be somewhat confusing, since, earlier in the chapter, Marx calls useful labor "die Bildnerin" ("creator") of use-values, thereby establishing an association among the "bilden" word family, labor, and the creation values in general. We should note, however, that Marx is not completely consistent with his terminology regarding the creation of value. He sometimes speaks of the "production of values," in fact.

xxviii. Value is a teletechnology that allows one thing to be exchanged for a qualitatively different thing at a distance of time and space, without significant loss. In the *Capital* project, value is the main object of study.

Although a technology, it isn't purely or even primarily physical, even if it often counts on physical "bearers" like commodities or coins or concrete labor. Value is as much an idea as a thing, as much a phantasm in the mind as a practical commitment by everyone involved, as much a general feature of the system as an individual quasi-immaterial substance actually existing and realized in a purchase, sale, or trade. When I buy something, I obtain the thing and I also obtain, mysteriously, its value, a hypothesized "amount of a common something [that] exists in two different things," which adheres to my purchase in a ghostly fashion and is ready later to leap over, if I sell it, to another item I get in return.

Although words relating to "value" have existed since European antiquity, value or "Wert" changes its meaning radically in the capital system. In Aristotle's philosophy, value was a share in justice. For actors in the marketplace, "just" meant having an equal amount before and after a transaction (*Nicomachean Ethics* 5.4). Value meant you got what you paid for, in other words. In the ancient Stoic school, individual good things, which always fell short of the universal and impossible ideal of "the good," were to be judged according to their relative worthiness of being pursued for a good life. You prefer this thing over that thing because it is worth it for the good life you want. Nowhere previously, however, did value make up the specific kind of teletechnology it became under capital—a medium for communicating the homogenized, generalized, standardized labor involved in the production of a commodity to be realized in exchange. Marx considers this idea the most peculiar in the whole system and the most radical of his discoveries. Even though concrete work and material exchanges are necessary for this kind of economy to function, value is peculiar because through all the changes (of raw materials into finished products) and the exchanges (of goods for other goods), value remains abstract yet quasi-material, invisible yet present, and although transiting through multiple forms remains somehow always the same thing and always the same amount of that thing when subject to certain laws. Value looks like the last metaphysical entity in the most practical, material zone, the economy.

It is important to note the difference between value and wealth. Wealth is an accumulated stock of riches that allows a person to live comparatively better or to undertake comparatively bigger projects. A pauper's wealth buys bread; a king's finances a war. You can think of wealth as accumulated purchasing power. Value, on the other hand, is first of all a social form; it is the medium for human interaction under this system. Instead of meeting face to face, social actors meet at a distance, through the medium of value. Laborers meet their bosses, sellers meet buyers, intermediate sellers meet intermediate sellers, and retailers meet consumers through the value that is exchanged, although they may never meet face to face. Indeed, because of value and because value is the impersonal medium and the goal of the system, people do not meet even when they do meet. The crucial part of their interaction is always the value that moves through it.

Second of all, value is not a natural feature of the world or a fixture in economics but a historical anomaly marking a particular epoch. Other kinds of social arrangements did not, do not, and will not need value in this sense. It rankles Marx that

classical political economists naturalize value and then conceive of political economy as the study of an eternal phenomenon, and their method as a positivism: to tell how value is produced and, subsequently, to tell how to produce it better. For Marx, value is a construct, invented by the system and apotheosized by economists. They name, naturalize, and prop up this feature of the system. Value is real, but only in the system; in fact, it is the system's lynchpin, which is why the critique of political economy aims to expose value as historically limited and conceptually foggy, aiming to pull the lynchpin.

Third of all, value, which is made in this system (though this does not mean it is made up) is made out of peculiar ingredients. It is tempting to think of value as something physically injected into products by workers. Marx does say that workers transfer the energy of their bodies and the skills of their know-how into products. But this is misleading. It is true that Marx wants to open up the hidden abode of production in order to put workers back at the source of value production. Yet it is not their concrete labor, what he calls the "private" activity of a worker on materials, and it is also not the useful item that results that "create" value. One process, human work that works a material into a useful thing, transforms into another process, value creation. Capital does this: goods get worked and value gets created at the same time—it is indisputable that value is created in part out of worked goods. How it is created out of concrete labor and its products requires a different explanation, however.

Through exchange on a big market, the labor market, labor becomes homogenized and abstracted, losing its particularity. It becomes a quantitatively measured expenditure of labor-in-general, measured by homogenized standard, clock-time. In this way, labor itself becomes treated as a commodity—as uniform, undifferentiated, comparable with all other labor on the market—and, like other commodities, it is thus exchangeable with all other kinds of labor on the market. Exchange-value is value's form of appearance—one of its forms—but what is exchanged in exchange, under capital, just as ultimately what is produced in production, is ultimately the pseudo-metaphysical thing, value. Further, value can stand on its own. It commandeers an already existing form, money, and bends that form to its own uses. Previously a means of exchange, a tool of account, or a medium for storing wealth, money now represents and actually embodies value.

This is one of the main innovations in Marx's analysis. Two terms, value-form and form-of-appearance, change the way we see value. First of all, value is a historically contingent existence. It is only under capitalism that economic and social relations take the form of value. And secondly, value is polyform and it mutates. The system's flexibility depends on this. Value takes the form of raw materials, a finished commodity, a thing for use, a thing for exchange, money, credit, and so on. It remains value through all its forms, which are thus forms of appearance of what functions as a stable substance, although, as Marx argues, its substantiality is a feature of this system alone.

Money and the value that appears in that form is a different perversion of individual and social life than that older Marxian keyword, alienated labor, was. When he wrote about alienation in 1843–44, he had not yet decided that the characteristic feature of capitalist sociality was abstraction from qualitative differences among kinds of labor and kinds of things in a homogenized pseudosoul of the world.

He had not yet discovered the real figment, value substance, maybe because the way it distorts human sociality is harder to see and harder to combat. Alienation gives way in the later critique of political economy to value forms and their intertransformations.

One further note: debates over the “labor theory of value” have been fashionable since soon after publication of the first edition of the book and continue today, but they are by and large disconnected from what Marx says about value. In the main, worries about the labor theory of value derive from prior commitment to another school of thought. Today, the mainstream understanding of value comes from marginalist theory, invented in several places at once during Marx’s late years, although it is unclear whether he knew about the development at the time. William Stanley Jevons, Léon Walras, Carl Menger, and later Alfred Marshall theorized value as a measure of the marginal utility of goods in psychological assessment by consumers. As a reflex, because of the popularity of this school and its explanation of value, Marx’s arguments were assimilated to those of David Ricardo and the Ricardians, when in truth he departed from them starkly. Put briefly, Adam Smith thought value was equal to the costs of production, which added up to its “natural price.” Ricardo had a “costs of production” theory as well, but for him the labor input was the dominant factor in those costs. Rediscovery of Marx’s own idea of value, that idiosyncratic social-historical polyform abstraction, happened progressively over the twentieth century through a set of unorthodox readers, starting with Isaac Il’ich Rubin (1924), continuing in Hans-Joerg Backhaus and the German “Neue Marx Lektüre” in the 1960s, which developed into “value-form theory,” which was anticipated separately by the feminist economist Diane Elson in an influential article from 1979.

xxix. The term translated as value-objecthood is “die Werthgegenständlichkeit,” which Marx introduces here. Mistress Quickly is one of the many references to Shakespeare plays in *Capital*. A bawdy innkeeper who appears in the *Henriad* and *The Merry Wives of Windsor*, Quickly tells Falstaff, with obvious sexual overtones, in *Henry IV*, part I, act 3, scene 3, “Thou or any man knows where to have me, thou knave thou.”

xxx. The German term translated as “ungraspable” is “unfaßbar,” which has the same double meaning—a) physically untouchable and b) incomprehensible.

xxxi. Marx’s term here is “Werthausdruck,” which I translate alternately as “expression of value” and “value expression,” though mostly as the latter term. The same goes for his term “Werthverhältnis,” or “value relation.” It is sometimes translated here as “relation of value.”

xxxii. Marx’s term is the neologism “Werthabstraktion”—“our analysis” reduces commodities to “die Werthabstraktion.”

xxxiii. The scare quotes are Marx’s: he writes of “eine ‘Gegenständlichkeit,’” which is translated here as “something that has ‘objecthood.’”

xxxiv. “Paris is worth a mass.” Statement attributed to Henry IV (1553–1610), who converted to Catholicism in order to hold onto the French crown.

xxxv. Marx uses the term “Werthspiegel” or “value-mirror” here.

xxxvi. “Werthsein,” sometimes translated as “value-existence” and “to be worth” (and also as “existence as value”), is the term rendered as “exists as value.”

xxxvii. Samuel Bailey (1791-1870) was a British political economist and philosopher (of value), known to Marx for his *Questions in Political Economy, Politics, Morals, Metaphysics, &c.* (1823), *Critical Dissertation on the Nature, Measure, and Causes of Value* (1825), and *Money and Its Vicissitudes in Value* (1837).

xxxviii. “Werthbestimmung” is the term translated (throughout) as “determination of value.”

xxxix. Marx sometimes uses the Latin expression “quid quo pro” somewhat ironically. The phrase means an equivalent thing for an equivalent thing, this for that; yet Marx’s whole aim here is to show that a sensual, usable object is not equivalent to a value.

xl. The term translated as “the linen value” is “der Leinwandwerth,” which evokes a construction found in English political economy: for example, “coatvalue” or “cloth-value.” In a footnote, Marx comments on that construction and gives an example from a text by Samuel Bailey. People have used the notion of a commodity’s “coat value” (“Rockwerth”), Marx explains, to speak of its value as represented through the commodity “coats” (just as today we still speak of the dollar value of this or that commodity). Linen, for instance, has a certain coat value, or, as Bailey put it, “coatvalue.” More specifically, two coats would be the “coatvalue” of twenty yards of linen, according to Marx’s hypothetical exchange relation. Marx himself employs the construction differently, and in his case it has an oxymoronic character, because he does something English political economists did not do: develop a theory about how commodity value is a nonphysical social substance—objectified abstract labor. As such a substance, value can’t actually have become bound up with the physical thing “linen.” “The linen value” (“der Leinwandwerth”), as Marx uses it, signifies “the value component of the linen commodity,” or “the value contained in the linen commodity.”

xli. These are quotes from Aristotle’s *Nicomachean Ethics*, V.5, 1133 b 17-20.

xliv. Marx is paraphrasing Aristotle here from *Nicomachean Ethics*, V.5, 1133 b 17-20.

xliv. “Mercantilism” was a term used by the generation of economists and economic historians that followed Adam Smith to classify the form of political economy they saw as dominant in early-modern Europe. After Smith, who described it slightly differently, as the “mercantile system,” the term “mercantilism” came to denote the opposite of the kind of free-trade economy he had advocated. The main actor in “mercantilist” theory and practice is the nation-state. The main impulse is to guard and keep the nation’s wealth within that nation (protectionism) and this requires, at least in theory, that the state strenuously regulate the economy.

xlv. Lombard Street was famous for being at the center of London’s banking district. Henry Dunning MacLeod (1821-1902) was a Scottish political economist known in Marx’s day for his works *The Theory and Practice of Banking* (1856) and *Elements of Political Economy* (1858).

xlvi. As elsewhere, “erscheinen als” with a dative object is translated here as a form of “presents itself/herself/himself to.”

xlvii. Marx puts the word “Bestimmungen” to use as it is employed in post-Kantian philosophy during this era: to indicate the set of characteristics that distinguish one thing from other things. It could be rendered, according to the context, as “definitions,” “determinations,” “framework,” “parameters,” or “properties.” The related adjectives

tive “bestimmt” often, though not always, indicates a particular something as opposed to a general condition or universal principle.

xlvi. When Marx uses the words “fetish” and “fetishism” (from the Portuguese “feitiço,” née Latin *factitious*) he is not thinking of their history, but the history is there nonetheless. These words were, to put it neutrally, one European way to come to terms with alien cultures, specifically with African gods and beliefs, and ritualistic practices regarding them. Long in use by European traders with West African peoples, “fetish” was put to theoretical use by the French philologist and historian of culture Charles de Brosses, in his 1760 treatise on non-Christian religion, *Du culte des dieux fétiches ou Parallèle de l'ancienne religion de l'Égypte avec la religion actuelle de Nigritie*. For de Brosses, a fetish was a sacred object believed to have intrinsic supernatural power, the distinctive marker of an alien “religion.” Already here, in proto-cultural anthropology, the word was being used to make distinctions within European discourse as much as between Europe and Africa. Friedrich Schelling, a pivotal figure in the philosophy of German Idealism, used the term “fetishism” to signify not the power itself but a dangerous attitude toward the supposed power inhering in inanimate objects. He called this attitude “stupide Verehrung,” a “stupefying adoration” excited by an object in a universal human being viewed philosophically (F. W. J. Schelling, *Werke*, ed. Manfred Schröter, vol. 6, *Philosophie der Offenbarung* [München: C. H. Beck, 1858], 398). Leaning on and also obscuring its old connections, Schelling understood fetishism as a general possibility of mind, an attitude beyond and against rational consciousness. His friend Hegel went further and described “fetish” as “a putrid Portuguese word” for a naïve intuition of the true power of human thought [“Geist”] falsely projected onto external objects.” (G. W. F. Hegel, *Werke*, vol. 16, *Vorlesungen über die Philosophie der Religion I* [Frankfurt am Main: Suhrkamp, 1969], 293–96.) For a critique of this notion and its reinforcing position in the ideology of global colonialism, see J. Lorand Matory, *The Fetish Revisited: Marx, Freud, and the Gods Black People Make* (Durham, NC: Duke University Press, 2018).

xlviii. In the original German, Marx’s chiasmus reads as follows: “sachliche Verhältnisse der Personen und gesellschaftliche Verhältnisse der Sachen.” “Sachlich,” the adjectival form of “Sache,” is a word with a wide range of meanings—“expert,” “professional,” “factual,” “physical,” “thingly,” and so forth. Marx activates several of these meanings in *Capital*. Above all, though, he uses the term “sachlich” to evoke and analyze what capitalism does to the relations between people and the things they make. In another chiastic moment, he speaks of the “personification of things” (“Personificirung der Sachen”) and the “thingification of people” (“Versachlichung der Personen”). Toward the end of the book, moreover, he defines its subject as follows: “Capital isn’t a thing (‘Sache’); rather it is a social relation between persons that is mediated by things (‘Sachen’).” Of the various meanings of “Sache,” a term whose history stretches back to legal discourse of the ninth century CE, where it signified a dispute to be settled by a judge, the key meaning here is that of a material thing made by human subjects. The German word “Ding,” a cognate of the English term “thing,” resembles the English term in being even more of a catch-all signifier.

But “sachlich” also describes the abstract human labor encased in “Sachen,” that is, labor products. That labor may not be a physical thing, however, in its objectified state—that is, as value—it has a special objecthood and thus thing-like properties. Having

stressed that “not even an atom of natural material goes into this value-objecthood,” Marx later writes that “the equality existing among different kinds of human labor takes on the thingly [“sachliche”] form of labor products’ equal value-objecthood.” So, the objectified abstract labor that is encased in, and very different from, its thingly (“sachlich”) “husk” is itself thingly (“sachlich”), in the sense of thing-like. At times, moreover, it can be hard to tell whether Marx is using “sachlich” to signify “thing-like”—that is, that something is like a “Sache” in the sense of a “man-made physical object,” but not actually a “Sache” in that sense—or to signify that something does in fact have the properties of a such a “Sache.” Since the English word “thingly” has both meanings, “thing-like” and “relating to or characteristic of things,” it preserves this ambiguity, which is why it is the preferred term for “sachlich” in this translation.

xlix. A paraphrase of words spoken by Jesus on the cross, “Forgive them, Father, for they know not what they do” (Luke 23:34).

l. A reference to the New Testament—more specifically, the Gospel of John 14:1.

li. Latin phrase meaning “after the fact.”

lii. Marx uses the formulation “sachlich verschleiert,” making “thingly” (“sachlich”) into an adverb modifying “verschleiert” (“obscures,” “veils”), a move that doesn’t really work in English. Hence the paraphrase “obscures . . . presenting them as relations among things.”

liii. Max Wirth (1822–1900) is serving here as a typically obtuse economist. Given that he wrote books and articles for popular audiences in Germany and Austria, his was a name German readers were likely to recognize.

liv. The European family is described at several other moments in *Capital* as having a “spontaneously arising” (“naturwüchsig”) division of labor. Where this happens, an implicit comparison is being made. On one side is the division of labor within the family, in which women perform unpaid labor within the home while men work outside the home in the zone of production for wages. Marx implicitly compares this “spontaneously arising” division to what he considers the “unnatural” division of labor between the worker class and the owner class in a capitalist society, which he wants to critique. The comparison itself has become the object of critique, because it appears to raise the critique of political economy above the equally necessary critique of patriarchal power relations. Below the surface of this comparison lie assumptions about sexual difference and the relative values of what Marx refers to, controversially, as “productive” and “reproductive” labor, which feminists, but not only feminists, have been calling into question almost since the book’s publication.

As early as 1884, however, Friedrich Engels revised the premise that the family order was natural, in his book *The Origins of Family, Private Property, and the State*. The contemporary sexual division of labor came into being along with the legal institution of private property, and so, whether this assessment is historically correct or not, Engels’s conceptual point is that the family division was a historical and not a natural fact about women and families. Marx himself may have also been interested in revising this assumption. In 1877, he made extensive notes on Lewis H. Morgan’s book *Ancient Society*, which argued that families had gone through a series of different structures over a specific history. In fact, these are the notes that Engels used after Marx’s death as the basis for his book on the family. Regardless of the traditional roles women held in the European family unit, both Marx and Engels saw capitalism as drawing women, and children too, out of the home and into mechanized factories,

making them *de facto* members of the proletariat—although this did not mean they ceased to do the housework as well. Recently this situation has come to be called the “double burden” of those who do wage work during some part of the day, and unpaid domestic labor during another part. Along these lines, the Polish philosopher and revolutionary activist Rosa Luxemburg, who made important revisions to Marx’s theories and founded the protocommunist Spartacus League in Germany, maintained throughout her writings that the emancipation of women, both economically and politically, was as crucial to the formation of a communist society as the emancipation of workers. She, too, returned to so-called primitive family structures, tracking the much more porous movement of women between households and external jobs in her book *The Accumulation of Capital* (1913). Since at least the 1970s, feminist thinkers have made precise incisions into assumptions made less by Marx than by Marxists, under the general critique that, as Heidi Hartmann put it in an influential essay, “they subsume the feminist struggle into the ‘larger’ struggle against capital” (“The Unhappy Marriage of Marxism and Feminism: Towards a More Progressive Union,” in *Capital and Class*, Summer 1979). Two landmark books that explore the terms of a more progressive union are Mariarosa Dalla Costa and Selma James, *The Power of Women and the Subversion of the Community* (Bristol: Falling Wall, 1975); and Silvia Federici, *Caliban and the Witch* (Brooklyn, NY: Autonomedia, 2004).

lv. According to the materialist Greek philosopher Epicurus (341–270 BCE), the gods lived in the *intermundia*, or the spaces between worlds, and didn’t influence the development of the world or the lives of people.

lvi. That Marx’s text has “formulas” (Formeln) rather than “forms” (Formen) here is likely due to a printer’s error.

lvii. The sentence “A pearl or a diamond has value as a pearl or a diamond,” which Marx sets outside his quotation marks, is in fact part of Bailey’s text.

lviii. The quote at the end of the chapter is from Shakespeare’s *Much Ado about Nothing*, act 2, scene 3: “Come hither, neighbor Seacoal: God hath blessed you with a good name: to be a well-favoured man is the gift of fortune; but to write and read comes by nature.”

Chapter 2: The Exchange Process

i. With “unwilling” and “use force”—“nicht willig” and “Gewalt brauchen” in German—Marx is playing off a line from Goethe’s famous “Erlkönig” poem, written in 1782: “Und bist du nicht willig, so brauch’ ich Gewalt.”

ii. “Levellers” was a name given by their enemies to a radical populist group that, starting in the First English Civil War (1642–66), advocated for power transfer to the House of Lords, universal male suffrage, and land use reform. With “cynic,” Marx is referring to the members of a Greek philosophical school; “cynic,” in the modern sense of a depressingly negative or jaded person, was and is spelled in German “Zyniker,” whereas here Marx has “Cyniker.” The cynics of ancient Greece thought that the purpose of life and our greatest virtue is happiness. Achieving it required independence from, and the negation of, what the majority treated as the most important human institutions: the family, the culture, the state, and so on, even if that meant causing social conflict. In comparison with Athenian society, the cynics lived “like dogs,” hence their pejorative name, “kynikoi;” “dogs.”

iii. La Maritornes, a comical character in Cervantes’s *Don Quixote*, appears in chapter 16 of the first volume, where Quixote and Sancho Panza, out on adventure, meet her in a roadside “venta,” an inn or tavern. Despite her bad breath, cheap costume, and coarse hair, Don Quixote imagines he sees a beautiful princess.

iv. Equivalence is a pivotal concept for Marx’s critique of political economy. Adam Smith in *Wealth of Nations* sees “equivalent to” as analogous with “can be represented by,” that is, as what can be given in exchange for a quantity of a thing. Marx largely takes over this definition.

v. An adapted line from Goethe’s *Faust* (part 1), where in act 1, Faust decides to rewrite the famous opening to the New Testament Gospel of John 1:1, which reads, “In the beginning was the word.” Faust eventually settles on “In the beginning was the act.”

vi. “These have one mind, and shall give their power and strength unto the beast” (Revelation 17:13, KJV). “And that no man might buy or sell, save that he had the mark, or the name of the beast, or the number of his name” (Revelation 13:17, KJV).

vii. Marx’s phrase “an und für sich” / “in and for itself” derives from Hegel’s version of the same. “In itself” is the simplest and most unactualized, “for itself” has more complexity, but for Hegel, the most complex and self-knowing form is “in and for itself.” The phrase “an sich” or “in itself” came into standard philosophical usage as a translation of Aristotle’s phrase “kath’auto,” something that exists purely according to itself, as an absolute, without reference to other things. Kant used the phrase “an sich” to talk about a thing apart from any human cognition of it, a “thing-in-itself” that is not in any way “for us”—like God. He famously banned knowledge of such completely disconnected things, leaving some of them to a different disposition, faith. For Hegel, a relational thinker, something merely “in itself” is impoverished. A thing is not much if it is cut off from other things or from cognition. To Aristotle’s “in itself” Hegel adds two new philosophical modes of relationality. In itself a thing is merely there. For itself, a thing, more like a subject, knows its qualities and can act on the knowledge. The agglomeration of both, “in and for itself,” Hegel uses to talk about the highest form of being, when something becomes a concept. As a concept a thing has recognized its place in a world of differences and has become explicit and legible to everyone. Following this meaning, Marx sometimes uses the phrase “in and for itself” to describe phenomena when they have developed to their most complete capitalistic form, though sometimes he seems to use it just to mean “things as they are,” which ignores the philosophical meaning Hegel gave to it and hence could be a lexical tic for Marx, or at times maybe a parody of Hegel.

viii. What Marx is calling the “bourgeois revolution” is commonly known as the French Revolution (1789–99). Here he tacitly compares it with a future proletarian revolution, an uprising by workers. Marx recognizes the French Revolution as essentially an uprising of the budding capitalist class against the remaining feudal aristocracy.

Chapter 3: Money, or Commodity Circulation

i. Gold became a standard for currency in the United Kingdom in 1821. Taking over from bimetallism, the use of gold *and* silver, the use of gold alone spread as a single standard outside the UK in the late nineteenth century and became the exclusive

standard on and off into the twentieth century. Gold finally ended its use as a currency reference when the US dollar was decoupled from it in 1971. What the gold standard provided was a restraint on the proliferation of currency, given the metal's rarity, and a common reference point for international trade and currency exchange. Noncommensurate currencies could easily be converted to a gold price and back again into another currency. What replaced gold is called "fiat money," versions of currency not backed by gold, but now backed by "trust" in the government that issued it.

ii. Marx is referring to ancient Greek writer Hesiod's scheme, whereby the age of gold was followed by the silver age, which was followed by the bronze age. This scheme was later taken up by Ovid, among other poets.

iii. This issue came to be known in the twentieth century as the "transformation problem." Marx presents it per se in volume 3, chapter 9. Roughly speaking, the transformation problem becomes a problem because Marx defines value as socially average labor-time, and yet prices are assumed to derive from a different process, namely the way forces of competition drive prices toward the average profit rate. Value on one side, prices on the other—where do the two meet? This so-called problem produced another fault line between Marxist economists and neoclassical economists, the latter arguing that the labor theory of value is an unnecessary hypothesis and that prices can be derived purely from market forces and individual psychology. This obviously guts what is perhaps the single major finding in Marx's project.

iv. The term rendered here as "body" is "Leib," which has numerous meanings—"abdomen," "bowels," "womb"—and is cognate with the English word "life." In comparison to another German word for body, "Körper," which tends to indicate extension in space or the physical presence of an organic being, "Leib" often indicates the part of a human being that can die. Thus it also has strong associations with death, as well as strong associations with the particular phrase "the Body of Christ."

v. The term translated as "worldly" is "weltlustig"—something like "taking pleasure in the world"—only a few occurrences of which predate *Capital*. Most notably, Ludwig Feuerbach, one of Marx's major early influences, used it in an 1846 work on religious doctrines of immortality, *Die Unsterblichkeitsfrage vom Standpunkt der Anthropologie*, doing so to evoke a perceived divide between religion and art, where the latter is thought of as the opposite of true spirituality—that is, as "weltlustig, sinnlich, gottlos" (world-desirous, sensuous, godless).

vi. "Right well hath now been tested this coin's alloy and weight; but tell me if thou hast it in thy purse." (Dante, *La Divina Commedia*, "Paradiso," canto 24, lines 84–85.)

vii. Contradiction is more than opposition. It is more than a full negation of one thing by another and vice versa, in the way that "dead" opposes "alive," without remainder. In European thought systems, you are either dead or alive—a third possibility is not usually mentioned, or else it is relegated to mysticism or superstition. Contradiction, however, is opposition plus necessity, where two states and two terms exclude one another in every case under all conditions, without alternative. It would be hard to argue in discourses of Europe that "alive" and "dead" are not, in addition to being opposed, also contradictory. What differs among the three major thinkers of contradiction, Aristotle, Hegel, and Marx, is both what kind of necessity is involved and what ultimately results from the contradictions. For Aristotle, contradiction is logically prohibited. Existing beings and logical propositions can never exhibit opposite

traits in the same respect at the same time. A person can never be both sitting and not sitting at the same time, and, in parallel, the propositions “S is P” and “S is not P” can never hold at the same time. This comes to be called the “the law of noncontradiction.” A ban on logical contradiction implies an ontologically and logically consistent world. Contradiction runs counter to this world, and so the law against it comes to be thought of as “the supreme law of thought.”

In part Hegel overturns this supreme law, in part he modifies it. It is true that, for him, contradiction is the law of the world; it serves as an objective principle for the way all things are interrelated and the way history moves. The first step is to admit contradiction into the world. Anything is what it is, not because it doesn't contradict itself, but because it does contradict something else: there is (despite what Kant argued early in his career) real contradiction. Underlying this principle is an assumption about the identity of a thing, whose classic formulation is that a thing is what it is by being equal to itself only: $A = A$. Hegel brings another logic of identity, in conversation with his former friend Friedrich Schelling and their thought-mentor, Johann Gottlieb Fichte. A tree is a tree precisely and only through what it is not. The not-tree is what defines the tree; in an important sense, $A = \text{not } A$. And furthermore, just as a tree contradicts a not-tree, there is movement between contradictions, and contradictions are moved on from, though maintained, in a higher synthesis. In the famous breakthrough book *Phenomenology of Spirit*, Hegel gives an example of this moving, overcoming-maintaining, emerging-out-of-contradiction synthesis that looks at the original contradiction from a different vantage point. “The bud disappears in the bursting-forth of the blossom, and one might say that the former is refuted by [i.e., contradicts] the latter; similarly, when the fruit appears, the blossom is shown up in its turn as a false manifestation of the plant, and the fruit now emerges as the truth of it instead” (G. W. F. Hegel, *Phenomenology of Spirit*, trans. A. V. Miller [Oxford: Oxford University Press, 1977], 2). Truth and falsity are now principles of development, not just descriptors of static being with its motionless logic. Contradictions do not give birth to absurdities but literally bear fruit. Bud holds back flower, flower strains against bud and bursts it; fruit, though it is hard to see as a synthesis of bud and flower, is in fact not possible without them and their dialectic. The contradiction of bud and flower is necessary, now in a different sense—their opposition is necessary *for development*, so that a fruit should emerge out of their antagonistic interaction.

What does Marx do with Hegel's new moving, contradictory ontology? He was not the only one to work on the economy with a Hegelian hammer. French philosopher Pierre Proudhon's book on economics was called *The Philosophy of Poverty or System of Economic Contradictions* (Marx ridiculed it philosophically in 1847 in a book he satirically titled *The Poverty of Philosophy*). But Marx departs from Hegel in significant ways. You could say he accepts the form but not the contents. It isn't “being” that moves through contradictions, but the capital system, and contradictions are not “objective ideas,” the way a flower is considered a “not-bud.” Rather, contradictions are real, which means they involve actual social forces, confrontations, struggles, strikes, negotiations, and resistances. Hegel's (and Proudhon's) “contradiction” is too ideal, removed, a thing of thought, ahistorical, and without obvious material existence. In the very early *Critique of Hegel's Philosophy of Right*, which was never published, Marx complains that in talking about contradiction, Hegel starts from “an imagi-

nary antithesis”; Hegel may claim that contradictions are real, but all the examples he uses are contradictory only in an ideal sense. Buds and flowers do not contradict one another; if anything, this realm of idealities contradicts reality, where real forces oppose one another, like the two main classes of workers and capitalists. Marx agrees that existence is full of contradictions, especially social and political existence, but he insists that the real existence of a contradiction, what it is and what it affects, needs to be rethought.

Marx’s work with and on “contradiction” can be divided roughly into two phases, each with its own main concern. The first we can call “historical materialist,” although this is not a term he used. In his writings of the 1840s and in letters through the 1850s Marx imagines contradiction first as the most important corrective to classical political economy, to Ricardo’s theory, because when that operation is added, economics no longer seems eternal, but it is shown to emerge, develop, and come to an end. As early as the manuscript of *The German Ideology* (1845–46) Marx, writing with Engels, sees a confrontation between “the productive forces” and the “form of intercourse,” which leads, they say, to revolution. The “productive forces” (the workers) have one interest, and the forms of intercourse (political domination by the “bourgeoisie”) have another interest, leading to “collisions of various classes, contradictions of consciousness, battle of ideas, political struggle” (Marx and Engels, *Collected Works*, vol. 5 [New York: International Publishers, 1976], 74). This kind of real contradiction drives historical movement, producing social change through conflict.

In a second phase, Marx turns to more technical contradictions within the economic structure, one major site of tension being money. In the late work, historical movement takes a back seat to the “inner contradictions” in the value form, in the draft of the *Capital* project that came to be called *Grundrisse* (“Outlines” or “Floor Plans”). The commodity is double, and this doubleness “ripens” into a contradiction when money comes on the scene: “This double, differentiated existence must develop into a difference, and the difference into antithesis and contradiction” (Karl Marx, *Grundrisse: Foundations of the Critique of Political Economy*, trans. Martin Nicolaus [London: Penguin, 1973], 147). Money arises out of the contradictions inherent in the capitalistic commodity: “The contradiction between the general characteristics of value and its material existence in a particular commodity, etc.—these general characteristics being the same as those later appearing in money—gives rise to the category of money” (Letter, Marx to Engels, 2 April 1858, in Marx and Engels, *Collected Works*, vol. 40 [Chadwell Heath, UK: Lawrence and Wishart: 2010], 301). Many conflicting characteristics are gathered in money: substance and appearance; value and valuelessness; generality and particularity; labor-time and objectification; money as a measure, as means of payment, as means of circulation; as objectification and symbolization; as use and exchange. Marx talks about these strong contradictions in *Grundrisse* as thoughts that he wants to further develop. *Capital* is an attempt to do so: he brings these two kinds of contradictions together—structural ones such as the ones within the money-form together with clashing social forces. Contradictions inherent to the commodity can lead to crises when certain conditions are in place.

viii. The term translated here as “materialization of value” is the neologism “*Werthmateriatur*.”

ix. The verb Marx pairs with “process” in this sentence is “erlöschen,” a term with a literary flavor that often has the sense of “extinguish,” as it does here, except that Marx is using it in a way that doesn’t match how “extinguish” is used, namely, as an active but intransitive and nonreflexive verb. (The German verb “schweigen,” “to be silent” but not just that, poses a similar challenge for English translators.) In English, someone generally extinguishes something, or a thing is extinguished. But we don’t say that a thing extinguishes when we want to convey that it dies out or dims and disappears, and so forth. So if a translator goes with “extinguish” here, the process in the sentence loses some agency, because it will “be extinguished.” It may be relevant here that “erlöschen,” not exactly the most obvious word choice in this context, sounds like the verb “erlösen,” whose primary meaning is “to redeem,” as in spiritual or religious redemption. After all, the motif of Christianity figures prominently in Marx’s discussions of the metamorphosis of commodities and the formation of capital.

x. The Latin expression *salto mortale* means “death-defying leap.”

xi. A quotation from Shakespeare’s *A Midsummer Night’s Dream*. Lysander says this to Hermia in the first scene of the play. Marx alters the quotation a little, or slightly misquotes the line, which in Shakespeare reads, “The course of true love never did run smooth.”

xii. The Latin phrase *disjecta membra* means “scattered parts” or “scattered pieces.”

xiii. A remark by the Roman emperor Vespasian, who, upon being criticized by his son Titus for taxing public bathrooms, is thought to have said of money, “It doesn’t smell” (“Non olet”).

xiv. In this paragraph, the term “Charaktere,” otherwise rendered mostly as “characteristics,” is translated as “roles.”

xv. *Dramatis personae* is a Latin expression meaning “cast of characters.”

xvi. The term translated as “crystal of value” is “Werthkrystall.”

xvii. Marx treats circulation cursorily here. The entirety of volume 2 of *Capital*, edited and published posthumously by Engels, is devoted to the topic.

xviii. “Water of everlasting life” refers to a passage from the New Testament, John 4:14, which depicts Jesus espousing the virtues of baptism to a Samaritan woman.

xix. One great advantage of a system put together from many disparate kinds of actors with disparate motives and goals is that it is adaptable—it can pull together what doesn’t naturally fit together. A disadvantage of such an assemblage is that because it holds together all the conflicting forces by force, it can disintegrate, sometimes also with force. Such partial or total disintegrations Marx calls “crises.” Europe and the United States went through economic crisis after economic crisis in the nineteenth century. The English crisis of circulation of 1809–11; a collapse due to speculation in 1819; the panic of 1825, in which the Bank of England nearly failed; the global panic of 1837, centered in the United States and Britain; the Anglo-French panic of 1847; and so on. An important innovation in Marx’s theory of the capital system is to consider crises as endemic to the system rather than as historical accidents. Groups with contradicting purposes, if the force holding them together falters, may spring apart. Some crises are smaller, such as the crisis of circulation indicated here. When circulation slows and commodities can’t be sold in a timely manner, capital won’t flow back to production fast enough to keep the machines

running. A stoppage occurs, money is lost, and a business or an entire industry may go under, with concomitant suffering by workers. Some crises are larger and apply to the whole system as a historical organism. The main example of this is the “law of the tendency of the rate of profit to fall,” which Marx presents directly in volume 3, part 3 of *Capital*. In brief, this “law of a tendency” states that industrial economies inevitably occupy their wealth in more and more fixed capital, such as machinery, and because the capital gets trapped in this way, the rate of profit will tend to fall. The validity of this law has been much disputed, and some commentators consider it refuted definitively, but its implications for the critique of political economy are clear. Marx was looking for an innate and permanent tendency for the system to fall under its own weight.

xx. In introducing this section on money’s motion or “circulation,” Marx uses the term “Umlauf,” which he pairs below with “Kreislauf,” contrastively, to some extent. The prefix-preposition “um-” means “around,” and “Kreis” means “circle” or “cycle” (e.g., a vicious cycle in German is a “Teufelskreis,” or “devil’s cycle.”).

xxi. “Movement on money’s part” and “movement of the commodity’s form changes” are paraphrastic translations. Marx’s terms are “Geldbewegung” and “Formbewegung,” respectively.

xxii. “Only the first step costs anything.” This saying is attributed to the French Enlightenment salonnière Madame du Deffand. In a letter to D’Alembert, she wrote this about the decapitated Saint Denis, who in the legend picked up his severed head and started to walk around with it.

xxiii. In these lines, Marx appears to be a “metallist,” someone who believes that money has to be a stable store of value, metal being the traditional substance that does this. This position, common in the nineteenth century when fiat money existed but was not considered essential to monetary theory, serves Marx’s conviction that money gets its power to represent commodities because it actually stores value, it being a commodity itself. In this view, paper money is closer to credit, because it represents a claim to metal money but is not a store of value itself. This stance does not stop Marx, however, from developing other facets of money, such as its symbolic function and its tie to movement and circulation. It is worth noting that unlike some contemporaries, such as Proudhon, Marx makes monetary theory central to his understanding of the capital system.

xxiv. Marx is referring to the pioneering French economist Pierre Boisguillebert (1646–1714), who pushed for a laissez-faire economic policy and is often seen as the Ur-Physiocrat.

xxv. Marx’s term “Schatzbildung,” either a neologism or a near neologism, doesn’t have the decidedly negative resonance that “hoarding” has had in the past and still has today. (“Hoarding,” a term sometimes used in political economy, also has a fairly direct German equivalent, “horten.”) Like many of Marx’s key terms, such as “use-value” and “exchange-value” (“Formwechsel” and “Stoffwechsel”). “Schatzbildung” is part of a pair. It has a complement (and opposite) in another of his neologisms, “Werthbildung,” which means “creating value” (something that doesn’t happen in the process of “Schatzbildung”). So, throughout *Capital*, Marx pairs terms with the same root word—often the pairs are oppositional, though sometimes they aren’t—but it’s especially the case in this chapter that the shared root words aren’t

preserved in the translation: “entfremden” and “fremd,” “einseitig” and “vielseitig,” “entäußern” and “veräußern,” “Umlauf” and “Kreislauf,” “Formwechsel” and “Stoffwechsel,” and so forth.

xxvi. A reference to Jacob Vanderlint’s work *Money Answers All Things* (1734). Vanderlint (d.1740) was an influential theorist of international monetary equilibrium and a free trade advocate.

xxvii. The Latin phrase says “consecrated objects, beyond human commerce.”

xxviii. Quoted from the *Salon of 1767* by Denis Diderot, the French expression says, “Let’s be rich or appear rich.”

xxix. Marx certainly knew something about forced sales. From his father’s death in 1838 until his mother’s in 1863, his financial situation was often grim. His letters from his first years in London, where he settled with his young family in 1849, abound with requests for help and references to pawnshops, creditors, and the effects of his money troubles on his daily life. This passage, which comes from a letter Marx wrote to a friend in 1852, is typical: “A week ago I reached the pleasant point where I am unable to go out for want of the coats I have in pawn, and can no longer eat meat for want of credit.”

xxx. “Virements” is a French term that in this context means “clearinghouses.”

xxxi. Marx is mischievously rewriting a line from Psalm 42, “As the hart pants after fresh water, so pants my soul after Thee.” A hart is a male deer.

xxxii. Sir James Denham Steuart (1712–1780) was a Scottish economist whose chief book, *Inquiry into the Principles of Political Economy* (1767), is considered by some to be the first systematic study of political economy in English. As a representative of mercantilism, Steuart was the opponent against whom Adam Smith tacitly pitched his *Wealth of Nations*.

Chapter 4: The Transformation of Money into Capital

i. Keeping track of Marx’s categories is difficult because there are so many and they shift. There are formulas and “general formulas,” laws and tendencies, categories that seem mainly logical, like “contradiction,” and openly social or political categories like “crisis,” as well as processes like circulation or production that seem to impinge on the others. Even though the array of categories is difficult to coordinate into a unity, it is true that the major task undertaken in this book is a broader and more powerful table of categories than that of the classical political economists and a more real and critical table of categories than that of Hegel.

ii. When it comes to the category of human consciousness, Marx is unequivocal: it does play a role in the capital system, but not a decisive structural one; above all, critical consciousness alone does not liberate anyone from oppressive constraints. Consciousness intensifies the capital relation. When an owner of money becomes conscious that their role is to further the circulation of capital, they recognize themselves as bearers of the system, and they can participate in it in a way that furthers the system. A way out will not come from consciousness. Whether for workers or for owners, consciousness is a tool of the system for keeping its local goals before one. Consciousness works to turn capital’s goals into a personal motivation.

iii. Marx is playing with a prominent stereotype, namely, that Jews have a special connection to commerce, something he does elsewhere in *Capital* and beyond it,

too—for example, in his essay *On the Jewish Question* (1843). But he is also making a point about capitalism by way of a New Testament analogy, and thus suggesting that capitalism and Christianity share basic conceptual structures. This, too, Marx does elsewhere in *Capital*. The high point of such analogizing comes in the present chapter, where Marx uses the doctrine of the Trinity to explain the ontological relation between capital and surplus-value. The line about the circumcised Jews refers to Paul's Letter to the Romans, 2:25–29 (KJV): “For circumcision verily profiteth, if thou keep the law: but if thou be a breaker of the law, thy circumcision is made uncircumcision. Therefore if the uncircumcision keep the righteousness of the law, shall not his uncircumcision be counted for circumcision? And shall not uncircumcision which is by nature, if it fulfil the law, judge thee, who by the letter and circumcision dost transgress the law? For he is not a Jew, which is one outwardly; neither is that circumcision, which is outward in the flesh: But he is a Jew, which is one inwardly; and circumcision is that of the heart, in the spirit, and not in the letter; whose praise is not of men, but of God.” Thus the capitalist resembles Paul. For the capitalist knows that every commodity may be saved by Christ/capital, which cares only about what is in the commodity's soul/value, not its outward adherence to any law/use-value.

iv. The term translated here as “interpreters” is “Dolmetscher,” which means interpreters in the sense of those who translate, generally in real time, to make verbal communication possible where people don't have a common language.

v. In this case the expression *quid pro quo* signifies “confusion” or “mix-up.”

vi. Étienne Bonot de Condillac (1715–80) was a Roman Catholic priest, philosopher, and polymath known as the French expositor of John Locke's philosophy and an associate of the Encyclopédistes.

vii. In his translation of this sentence, Marx renders both “value” and “worth” as “Werth,” implying that that term can, and should, be translated into English sometimes as the one (value) and sometimes as the other (worth).

viii. Robert Torrens (1780–1864) was an economist whose monetary theory influenced England's economic policies in the early nineteenth century.

ix. In Aesop's fable “The Boastful Athlete,” the eponymous main character braggingly recounts how he once won a long jump on the island of Rhodes. His interlocutor dares him to put his money where his mouth is, saying, “Here is Rhodes, jump here!”

x. Jean Charles Léonard de Sismondi (1773–1842) was a Swiss economic thinker critical of unfettered capitalism. He coined the term “class struggle,” argued for government regulation of economic actors, and developed a theory of economic crises important for Marx and later economists.

xi. This phrase is in English in the German text.

Chapter 5: The Labor Process and the Valorization Process

i. Bees had a special place in political economy, thanks to Bernard Mandeville's *The Fable of the Bees* (1714), which caused a major stir when the second edition appeared in 1723. Mandeville (1670–1733), an economic theorist, among other things, scandalized readers by suggesting that tendencies such as vanity and deceit make for prosperity, while honesty is an economic hazard. In *The Fable of the Bees*, which carries the subtitle *Or, Private Vices, Publick Benefits*, the bees' economy flourishes

until Jove forces them to practice radical honesty: financial hardship ensues. The legal profession suffers, for example, and so do the clergy. Mandeville's book doesn't say much about bees as builders; however, he marvels at how flies are constructed, enthusing over the "Workmanship" and "Elegancy of the Machinery." Marx of course ridicules the idea that society benefits when its members act according to their own self-interest, and not some sense of how they might promote the common good—he does that at the end of chapter 4 and elsewhere in *Capital*. But he also insists that capitalism does not run on the greed of the capitalists. It is not their greed but the endemic imbalance in the system that causes inequality of outcomes.

ii. The phrase "the free play of powers" refers to the central notion in Immanuel Kant's theory of aesthetic pleasure. Kant's famous book *Critique of the Power of Judgment* (1790) describes the experience of beauty as a free play among a human being's cognitive faculties where the pleasure that arises in an aesthetic experience is closely related to the freedom it gives to the mind. Aesthetic experience gives the mind freedom because, since the beautiful object exceeds the understanding and hence there is not immediately a concept under which the beautiful object can be subsumed, it brings the imagination powerfully into action. This argument has an important afterlife in German thought. In his *Letters on the Aesthetic Education of Human Beings* (1795), Friedrich Schiller adapts it for his political theory as the freedom to form a harmonious political state. In the early studies known as the *Economic and Philosophic Manuscripts of 1844*, Marx extends and enriches this afterlife, saying that "human beings create also according to the law of beauty." There he seems for a moment to transfer the pleasure and freedom of aesthetic experience to an ideal experience of work. This idea echoes through this passage and much of chapter 5 of *Capital*. Marx intimates that human work, when it is not alienated, produces a pleasure akin to the experience of beauty, that is, pleasure at the exercise of one's own powers and a feeling of freedom. "Free play of powers" is one of several varieties of freedom mentioned in this volume.

iii. Marx uses the term, or nominalized adjective, "das Natürliche," whose closest formal equivalent in English is probably "the natural," a phrase that would make little sense here. "The natural world" conveys what Marx means more effectively, but it's worth noting that in *Capital* he doesn't use the phrase that would be its closest formal equivalent in German: "die natürliche Welt."

iv. Likely a reference to Luke 12:25 (KJV)—"And which of you with taking thought can add to his stature one cubit?" But the passage might also be meant to evoke the beginning of the book of Genesis, where God is said to give all of nature to Adam as his dominion, so that its fruits are instantly and effortlessly his to enjoy (Genesis 1:28–29). A realistic Adam and Eve would have had to till the soil and pluck the apples by their own sweat. Moreover, through their work they would extend the shape God gave them. God created human beings, but with their tools, human beings create themselves, anew.

v. The relationship of production to consumption is an important question, which Marx confronts as early as the "Introduction" to his *Grundrisse* in 1857. Obviously, consumption is a necessary complement to production, although not in the way you might initially think. Abstractly speaking, it is not necessary to the capital system that goods be consumed, only that they be bought. What the buyer does with them is strictly their business. But here need intervenes, on both sides. Consumers

need to consume to reproduce their energies and life. Owners need consumers to consume so that they return to work the next day. If we are talking about vital provisions, for example, workers not only need to buy them but also to consume them, to secure their own continued existence. In this example, as in others, a natural need gets coopted by the capital system for its own ends. Because workers need to eat, they need to buy; their need drives their consumption, and what they consume and that they are able to consume are direct effects of production. The need is mutual between workers and owners, not to mention between industry and agriculture. You eat because someone has produced your food. A business survives because you eat. As early as in the *Grundrisse*, however, Marx begins to distinguish productive consumption from other kinds of consumption. Whereas with workers' needs, there is a gap of time, space, and effort between production and consumption, which political economists call "circulation," there is a further form of consumption that immediately coincides with the production process. The latter is what Marx means by "productive" consumption.

Productive consumption takes two forms, subjective and objective (*Grundrisse* pp. 90–94). Subjectively, a worker uses up their own energies while working. Energy expenditure is simultaneous with, necessary for, and factually the same as the manufacture of a product. At the same time, objectively, the worker also uses up alien materials (means of production) in this same act of manufacture. In short, what the worker does at home is private consumption; what they do at the factory is productive consumption, both subjective and objective. And yet, it is easy to see that the raw materials and worker energy needed to make a commodity are not any more necessary than the private consumption of those commodities outside the workplace. Both private and productive consumption are indispensable. In fact, when a worker eats or otherwise consumes to continue their existence, they are indirectly aiding production in two ways, first by consuming what has been produced, second by reproducing their own energies for further labor..

vi. Lucius Quinctius Cincinnatus (519–430 BCE) was a Roman statesman famous for voluntarily relinquishing power in order to return to and work on his small farm. A "jugera" is an acre.

vii. *In spe* is a Latin expression that means "aspiring" or "future," as in our future capitalist.

viii. *Qu'on aime pour lui-même* is a French phrase meaning "the thing desired for its own sake."

ix. The German here, "wo nichts ist, hat der Kaiser sein Recht verloren," is an old saying that was particularly popular in Germany around the time of the Thirty Years' War (1618–1648). Given its upshot—that you can't render anything unto Caesar when you have nothing—it makes sense that the expression would be used more often during times of material hardship. By Marx's day, the phrase had become rather antiquated.

x. With the formulation "den Casus, der ihn lachen macht," Marx is alluding to (or reworking) a line from Goethe's *Faust* (Part 1). Speaking to Mephistopheles, who has disguised himself as a traveling scholar, Faust says, "der Casus macht mich lachen"—"the case makes me laugh."

xi. "Everything is for the best in the best of all possible worlds" is a quote from Voltaire's satirical novel *Candide, or Optimism*, published in 1759. The line is said by

Dr. Pangloss, a parody of philosopher Gottfried Wilhelm Leibniz, who argued in his theodicy that this must be the most perfect world because the God that created it is absolutely perfect.

xii. The German here, “als hätt’ es Lieb’ im Leibe,” “as though it had love in its body,” is another modified line from Goethe’s *Faust* (Part 1), where the thing whose body seems to be possessed by love is a rat.

Chapter 6: Constant Capital and Variable Capital

i. The phrase “Devil’s Dust” was sometimes used interchangeably with the term “shoddy,” since the machine that ground old rags and scraps of fabric into shoddy was known as “the devil.” But Marx is clearly pointing to a different meaning, where “Devil’s Dust” signifies the unusable bits of cotton thrown off when cotton is spun into yarn.

Chapter 7: The Rate of Surplus-Value

i. Marx refers several times in volume 1 to Henry Charles Carey (1793–1879), an American social scientist and publisher, who, like Marx, wrote for the *New-York Tribune*. Carey, whom Marx called in a letter “the American national economist,” was known for, among other things, his major work in four parts, *Principles of Political Economy*, published between 1837 and 1840. In those volumes he developed a theory of value in which value derives from production cost. Eventually and controversially, he became an advocate for protectionism, arguing that only a collective effort, such as that of an entire nation, can lead to increases in overall value. Marx carried out “hidden warfare” against Carey in his own *Tribune* articles to expose the contradiction he saw in Carey’s position. In the name of anti-industrial socialism, Carey provided the arguments for a state that existed solely to support and expand industry. For Marx, the chief “harmonizers” [Harmoniker] were Carey and the French economist Frédéric Bastiat. Carey and Bastiat wrote books that explicitly make the case for economic harmony, *The Harmony of Interests* (1851) and *Harmonies économiques* (1851), respectively. In the *Grundrisse*, Marx claims that even though Bastiat advocated for free trade and Carey for protectionism, and even though both thinkers saw a lot of “disharmony” in bourgeois economies, they believed that such economies were essentially harmonious (one just had to manage them the right way). According to Marx, this was how Carey and Bastiat tried to push back against socialists who drew on classical political economy’s theorizing about the essential antagonisms in bourgeois economies.

ii. Marx is citing from William Jacob’s *A letter to Samuel Withbread, being a sequel to considerations on the protection required by British agriculture*, London, 1815, p. 33.

iii. Nassau W. Senior (1790–1864) was an English property lawyer and later a professor of political economy and government advisor, as well as one of Marx’s favorite targets. Senior was committed to a utilitarian understanding of consumption and production and a belief in human progress. According to Senior, simple supply and demand were the cause of value creation, and productivity would increase infinitely

through technology. Aside from the view that profits are created in the “last hour,” Senior was known for the “abstinence” theory of interest that Marx derides in chapter 22 of *Capital*. Wealth is only created by labor, Senior argued, when capitalists abstain from spending their money on consumption and instead, abjuring “immediate enjoyment,” put it to work.

Carl Gottlieb Samuel Heun (1771–1854), a Prussian civil servant, published novels and short stories under the pseudonym Heinrich Clauren. His works achieved popular success but his sentimental style elicited scorn in his own day and afterward.

iv. Senior doesn’t actually speak of gross profit in this line. His text simply reads: “5,000/. out of the 115,000/.” (He uses an older symbol for the £ sign.) Marx wrote £15,000 for the latter figure—this was corrected in later editions.

Chapter 8: The Working Day

i. “Ultima Thule”—an island near Great Britain that the Romans once regarded as the world’s northernmost land mass. By Virgil’s time, its name had become an expression meaning “outer limit,” which is the sense in which Marx uses it.

ii. “καλὸς κἀγαθός” is an Ancient Greek term for an aristocrat, meaning “beautiful and good or noble.” “Civis romanus” is the Latin for “Roman citizen.” Boyars were rich landowners in medieval Russia with a privileged relationship to a prince and later to the Tsar. Peter I abolished the rank of Boyar early in the eighteenth century but in Marx’s time it still existed in Wallachia, a region of Romania where these aristocrats (hence known as “Wallachian Boyars”) continued the practice of exacting unpaid labor from peasants.

iii. “Corvée” labor was unpaid labor that those in power required of some inhabitants. Originally a convention under the Roman Empire, where it was called “opera corrugata,” it became a standard mode of extracting work in the European Middle Ages. Vassals owed their lord a certain amount of unpaid labor per year.

iv. *Ager publicus*: Lands owned by the state during the Roman Empire, usually confiscated from conquered enemies. The *ager publicus* was sometimes distributed to forepersons or to the poor, and sometimes leased to the wealthy, depending on the attitude of the rulers in the particular period.

v. The “Règlement organique” was the first constitution to go into effect in the principalities of Moldau and Wallachia. This happened in 1831, as a consequence of the Russian-Ottoman war of 1828–29. The two principalities were occupied by Russian troops, and the Règlement was a project overseen by the Russian governor there (General Pawel). It gave legislative power to a body elected by estate owners.

vi. The English Factory Acts, seen comprehensively, are a set of laws regulating the treatment of workers in industrial factories. In England, here as elsewhere Marx’s petri dish for studying capitalistic interactions, major regulations were enacted and revised multiple times each decade throughout the nineteenth century. The regulations were sometimes fought for by worker groups, who were sometimes supported by influential members of Parliament, who in turn received reports from a legion of factory inspectors sent to assess compliance. In Marx’s view, the feature of factory work that most needed regulating was the length of the working day. His reasoning was as follows: Since wages always hit an absolute minimum in order for workers to

earn enough to reproduce their vital energies for the next day of work, one tactic for pushing wages below this threshold anyway was to keep wages steady at the absolute minimum and at the same time to lengthen the working day. In this way more labor could be gotten for the same wages, driving the effective cost of labor down for owners, while still keeping workers alive—to a point. Since the incentive would always be to extend the day beyond healthy limits, given a theoretically endless supply of laborers, state intervention was good for workers. Marx argues as well that state intervention was good for capitalists, because it would keep them from pushing labor past its natural limits and undermining their own purpose.

vii. Without using ellipses to mark the gaps, Marx omits some sentences here that soften a bleak and brutal picture ever so slightly. For example, John Murray allows in the part of the passage that Marx (partially) cites that “I have not worked any other night this week” and “I have worked fives times in my life all night.”

viii. Dante Alighieri (c. 1265–1321) wrote the narrative poem *The Divine Comedy* (1308–21), whose first part, *Inferno*, describes horrible punishments awaiting sinners in hell.

ix. *Iterum crispinus* is a Latin phrase meaning, in this case, “the same people.”

x. *Pluralis majestatis* is a Latin phrase that means “the royal we.”

xi. Marx is likely referring to Ovid’s unfinished *Fasti*, in which bread making and the rituals around it play an important role.

xii. The Eleatics refers to a pre-Socratic philosophical school in ancient Greece that got its name from Elea, the home of its most famous member, Parmenides. Along with Xenophanes and Zeno, Parmenides taught that the multiplicity and movement we think we see in the world exists only in our minds.

xiii. In Book 11 of Homer’s *Odyssey*, “The Dead,” spirits of the dead come out of Erebus—“Teenagers, girls and boys, the old who suffered / for many years, and fresh young brides whom labor / destroyed in their youth.” They crowd around Odysseus and his men, emitting “eerie cries.” See lines 34–43 in book 11. The lines cited here are from Emily Wilson’s translation of the *Odyssey* (New York: W. W. Norton, 2018).

xiv. In his translation of the English source material, Marx renders “was greatly accelerated” simply as “was accelerated” (“beschleunigt worden sei”). This could be a decision stemming from Marx’s compressing tendencies as a translator. It could also be a mistake—a word dropped unintentionally. Or it could be an instance of nudging evidence in this or that direction. For without the “greatly,” the sentence does less to acknowledge the role of overwork in the milliner’s death, and the unwillingness of the Coroner’s Jury to acknowledge the full extent of the role of overwork there is precisely what Marx wants to stress.

xv. Like other progressive European intellectuals of his time, Marx was horrified by the cruel and ongoing oppression of enslaved Africans and African Americans in the US and elsewhere. With this quote from John Elliott Cairnes’s 1862 book *The Slave Power*, he emphasizes two aspects of the situation in the US: the use and abuse of enslaved people at the hands of their owners and their existence as a form of capital, that is, property that produces more than its value. Slave labor, human beings whose powers were under the command of owners so that they could be completely exploited to produce the maximum of surplus-value, was so close to the way Marx describes capitalist

wage labor that at times he equivocates. Is chattel slavery more akin to ancient slavery, making wage labor something truly new on the planet? Or is slavery the forerunner to labor under capital, an extreme form of alienated labor and the first true commodification of human beings? In *Capital*, the slave system sometimes serves as a counterpoint to or even as an analogy for European labor. “For slave trade read labor market,” Marx advises. Yet slavery was more to him than a hyperbolic mirror for the pains of wage work. It was the major oppressive institution of the epoch, and he came to consider the American Civil War a liberatory event paralleled only by the wars of revolution. Successful emancipation of enslaved African Americans would guide European workers toward their own freedom, he believed. Beyond the historic event of emancipation, Marx also recognized the absolutely central role the institution of chattel slavery played in world trade. The cotton engine drove the English factory system that was the object of his critique. Shortly before *Capital* was published, in 1861 and 1862, Marx (and Engels) wrote many articles for the *New-York Tribune* and *Die Presse* in Vienna on the progress and meaning of the US Civil War. In those articles, Marx developed a broad view of the slave system. It is clear from these texts that he considered chattel slavery to be economic in origin, a source of capital not only for the US South but also for the North, as well as for world capitalism. For more on the topic of *Capital* and slavery, see the introduction to Andrew Zimmerman’s edition of Marx’s and Engels’s writings, *The Civil War in the United States* (New York: International Publishers, 2016).

xvi. Given that elsewhere in *Capital* Marx addresses the evolution of the slave system—that is, the difference between what he calls a “patriarchal” slave system and a more ruthless one dominated by commodity production—it is worth noting that his translation of the passage drops the phrase “natural system,” which Cairnes uses to describe slavery before the commercial slave trade was introduced. Cairnes’s text reads, “Considerations of economy, moreover, which, under a natural system, afford some security for humane treatment by identifying the master’s interest with the slave’s preservation.”

xvii. *Mutato nomine de te fabula narrator* is a Latin phrase meaning “you are being discussed here under another name.”

xviii. In 1834, Parliament enacted a new Poor Law. The commission that designed it had proceeded from Malthus’s position, according to which the destitute population should be limited as much as possible, rather than supported adequately, and in fact the new law abolished all support for the poor beyond the prison-like workhouses, which workers dubbed “poor-law bastilles.”

xix. Marx uses the English phrase “natural selection.”

xx. “Après moi le déluge.” The Marquise of Pompadour is supposed to have uttered these lines in 1757, upon learning that Frederick the Great had defeated the French at the Battle of Roßbach.

xxi. Dr. Andrew Ure (1778–1857) was a physician, a professor of natural sciences at the University of Glasgow, a well-known apologist for the manufacturing class, and a defender of child labor. He was also, in today’s parlance, a tech utopian. In *The Philosophy of Manufactures, or an Exposition of the Scientific, Moral, and Commercial Economy of the Factory System* (1835), he praises “the blessings which physio-mechanical science has bestowed on society.” Marx spends a good deal of time citing and skewering him in the machines chapter of *Capital* (chapter 13).

xxii. “Der treue Eckhart” is a trustworthy guardian figure who appears in the Old Norse *Thidrek Saga* and the German *Nibelungenlied*. In earlier legends, he tells unsuspecting travelers to leave the forest road so as to avoid the murderous Wild Huntsman.

xxiii. In German, “Manufaktur” referred mainly to the English large-scale firms that used serial or distributed production methods with high specialization of workers. Unlike our contemporary use of the word, “manufacturing,” in the mid and late nineteenth century, still tended to mean manual production and craft labor, albeit with much more efficient working procedures, organized to produce more surplus-value. So, when Marx speaks of the “manufacturing workshop” or the “manufacturing system,” he is referring to ways of organizing production that preceded the mechanized factory system and large-scale industrial production. How the manufacturing workshop differs from the factory system while also being one of the enabling conditions of that system receives considerable attention in *Capital*.

xxiv. Marx’s translation/paraphrasing of these passages features a characteristic double movement. On the one hand, he draws out aspects of the text that he is critical of and wants to alert readers to. Where John Cunningham, the anonymous author, writes that the Bible contains an implied injunction to work six days a week, and that society should “enforce it,” Marx, who reserved a special contempt for those who invoked religious piety as they sought to justify the exploitation of workers, has him say that this “Gebot Gottes,” or “divine commandment,” should be enforced. Marx also has Cunningham speak of the “manufacturing rabble” (“Manufakturpöbel”) where he (Cunningham) uses a fairly neutral English word to describe them, “populace,” and he has Cunningham wring his hands over the circumstance that this English “manufacturing rabble” have a “fixe Idee” (“idée fixe”) in their heads—namely, that they have the right to be freer and more independent than workers in other countries, when, according to the original passage, the English “populace” have merely “adopted the notion” that they should be freer and more independent than their counterparts elsewhere. But as Marx amplifies Cunningham’s hostility toward workers, he also draws the passage closer to the kind of framing he himself prefers in his own economic analyses. More specifically, Marx inserts the line about how the bushel of wheat represents all the worker’s weekly means of subsistence; the line isn’t present, or directly implied, in the original English version.

xxv. In 1851 the supporters of then president Louis-Napoléon Bonaparte of France proclaimed him dictator. Then in 1852 he declared himself “Emperor of the French.” Between those two events, Marx wrote a short text titled “The Eighteenth Brumaire of Louis Napoleon,” which denounced the new dictator as a farcical repetition of his uncle, Napoleon I. The counterrevolutionary cry under the new Napoleon, a far cry from the French Revolution’s “liberty, equality, fraternity,” was “property, family, religion, order,” which was even farther from the socialist revolution Marx hoped would take place in the nineteenth century. As Marx recounts in his text, during Bonaparte’s years as president, from 1848 to 1852, the politician had gradually filled the major roles in government with cronies and supporters, and when term limits forbade him from running again, he incited a coup and quickly began revising the constitution and deporting opponents, positioning himself to control all governmental activities in perpetuity, which turned out to be the twenty years of

his eventual reign. The key to Bonaparte's success, Marx maintains, was his ability, through strategic appeasement and the promise of authoritarian measures, to hold steady, if not to reconcile, competing economic claims among the remaining landed aristocracy, industrial capitalists, workers, and peasants that threatened to break out into another kind of revolt. Thus, Marx writes, "in this unspeakable, deafening chaos of fusion, revision, prorogation, constitution, conspiracy, coalition, emigration, usurpation, and revolution, the bourgeois madly snorts at his parliamentary republic, 'Rather an end with terror than terror without end!' Bonaparte understood this cry" (*The Eighteenth Brumaire of Louis Bonaparte*, in *MECW 11* (Lawrence and Wishart, 2010, 176).

xxvi. *Periculum in mora* is a Latin expression meaning that there is danger in waiting.

xxvii. The Corn Laws were an important indicator for Marx. How cheaply the majority of a country's workers could feed themselves was a crucial variable in the capital system. Wages were strongly determined by the cost of food. By far the most important staple foods in England were made from grain (known as "corn"), wheat bread making up the largest part of the workers' diet. Beyond nutrition for workers and wage levels for owners, the Corn Laws themselves tracked the successes and failures of the new commerce ideology: free trade. Laws regulating import of corn changed with the political wind. In 1815 strict protectionist laws were passed by the House of Commons. In 1828 they were liberalized and in 1846 abolished. Marx mentions the abolition of the Corn Laws, at different moments across *Capital*, as being deceptive in several ways. Under the guise of making food more affordable for the worker, the "free trade" bosses could bank on cheaper imported grain and thus lower wages. True, cheaper grain benefited workers in one way: it provided the means to shorten the maximum working day to ten hours (chapter 8). But cheaper food did not mean richer workers. Further, the crises that were cushioned by the availability of imported grain and lower wages came back quickly (chapter 13). Under the guise of cheaper food, the repeal of the Corn Laws also led to competition in domestic agriculture and challenged landed lords' control over the land. In turn, a boom in technological development, in response to competitive forces, opened English agriculture even more to capital (chapter 23). The larger lesson to be drawn from these deceptions is that changes in the law, for or against protectionism, did not fundamentally alter capital processes.

xxviii. Tory philanthropists were conservative social reformers who supported factory legislation. Later in *Capital*, the Tory politician Lord Ashley (1801–1885), who introduced the Ten Hours' Bill in Parliament in 1833, is referred to as "the leader of aristocratic-philanthropic movement." Marx had mixed views about Ashley. He sometimes cited Ashley's writings about the ills of industrial capitalism to document those ills. But he also believed that aristocratic philanthropists like Ashley used pious rhetoric and displays of Christian "indignation" to mask their deeper motivation for resisting the capitalist transformation of society: they were protecting their own material interests. In a footnote in *Capital*, moreover, Marx speaks of "German Christian philanthropists." Here he seems to be applying the term "philanthropists" to people he sees as the German counterparts of English philanthropists. This is a little confusing, since "philanthropism" was an influential pedagogical movement

in late-eighteenth-century Germany, named after Johann Bernhard Basedow's teaching institute in Dessau, the Philanthropinum. Basedow wanted to make various Enlightenment ideas about education—namely, Locke's and Rousseau's—into the basis of a curriculum that would facilitate a child's moral development and social consciousness.

xxix. The long quotation is to a large extent a paraphrase of passages from the factory inspectors' reports of April 1848 and October 1849. Here are the passages that come closest to what Marx presents in *Capital* (see *MEGA* II.6, 1362–63): “The Occupier of every Factory” must display “Notices . . . of the Clock by which the Hours of Work in the Factory are regulated, of the Times of beginning and ending daily of the Work of all Persons employed in the Factory . . . and the Amount of Time allowed for their several meals.” “The Times allowed for Meal Times as provided by the Factory Act shall be taken between the Hours of Half past Seven in the Morning and Half past Seven in the Evening of every Day, and One Hour thereof at the least shall be given, either the whole at one Time or at different Times, before Three of the Clock in the Afternoon; and no Child or young Person shall be employed more than Five Hours before One of the Clock in the Afternoon of any Day without an Interval for Meal Time of at least Thirty Minutes; and during any Meal Time which shall form any Part of the Hour and a Half allowed for Meals no Child or young Person shall be employed or allowed to remain in any Room in which any manufacturing Process is then carried on.”

xxx. The Chartists, named after the People's Charter they published on May 8, 1838, demanded, among other things, the franchise for all men over twenty-one, annual Parliamentary elections, and the abolition of the property census for Parliamentary candidates. The crisis of 1847–48 breathed new life into the movement.

xxxi. During the Reign of Terror, “Commissioners of the Convention” functioned as representatives of the National Convention and were authorized take action against “counterrevolutionaries.”

xxxii. The final pair here, “young whores and old nuns,” comes from one of Goethe's “Xenien” poems: “Junge Huren, alte Nonnen / hatten sonst schon viel gewonnen.”

xxxiii. This law, which was enacted on February 19, 1858, gave the emperor and his government the unlimited right to incarcerate or expel all people suspected of harboring subversive attitudes toward the Second Empire.

xxxiv. In *Capital*, Marx often counters the argument that factory labor helped advance the moral development of children, and he does that here when he adds a phrase to the passage he cites: “of both sexes” isn't in the original English version. For Marx, to have adult men work together with girls (after all the other workers had left) was to facilitate the moral degradation of those girls. Hence inserting “of both sexes” is more than a minor correction. Marx further evokes an insalubrious moral atmosphere by translating the plain phrase “practice exists” as “practice has managed to creep its way in”—like “creep,” “einschleichen,” the word Marx uses, carries associations of sexual violation and debasement. Thanks in part to Marx's way of translating the passage, the quotation sets up the line that follows it, where Marx notes that workers and factory inspectors denounced the practice in question on hygienic and moral grounds.

xxxv. Shylock utters these words in *The Merchant of Venice*, act 4, scene 1.

xxxvi. Shylock says these lines, too, in act 4, scene 1 of *The Merchant of Venice*.

xxxvii. Here, as elsewhere, Marx intervenes where the exploitation of women or younger female workers is also at issue but hasn't been noted. More specifically, he adds the words "and women" to the passage, which he translates quite freely—that is, simultaneously translates and paraphrases. The passage comes from the factory inspectors' report for the half year ending on October 31, 1848 (p. 134).

xxxviii. In his translation of this passage, Marx runs with the idea of "shuffling" and puts an analogy from playing cards into the mix. "Shuffling the hands about in endless variety" becomes what backtranslates into English as "shuffling the hands about in endless variety, like cards." This is one of those cases where he translates in such a way that his translation has considerably more stylistic brio than the source text.

xxxix. Charles Fourier (1773–1837) was a well-known French utopian socialist. He envisioned a society where people pursued different occupations throughout the workday, in blocks that would last approximately two hours. He called these blocks of labor "courtes séances," and he believed the variety his system entailed would boost workers' productivity, so much so that the workers of tomorrow would live better than today's capitalists.

xl. The German phrase translated here as "nub of it" is from Goethe's *Faust* (part 1)—"des Pudels Kern."

xli. The source text for this translation/quotation hasn't been identified.

xlii. Marx plays on the disdain in the New Testament for the ancient Jewish group the Pharisees, who were supposed to be particularly strict about religious rites and laws and to derive a sense of superiority from this.

xliii. The line "Schlange ihrer Qualen" ("serpent that torments them") comes from Heinrich Heine's poem "Heinrich."

xliv. "Catalogue of human rights" refers obliquely to the 1789 *Declaration of the Rights of Man and Citizen*, the list of seventeen articles enshrining in law the main value of the French Revolution, equality of each person before the law. "Magna Carta" refers to a much earlier document, a list of sixty-three articles, agreed to by the English king in 1215, that protected the rights of nobles against excesses by the crown.

xlv. Latin phrase meaning "What a large change!" From the *Aeneid* II, 274. The line could also be translated as "How changed from that!" See Emily Wilson, "Quantum Mutatus ab Illo: Moments of Change and Recognition in Tasso and Milton," in *Epic Interactions: Perspectives on Homer, Virgil, and the Epic Tradition Presented to Jasper Griffin by Former Pupils*, ed. M. J. Clarke, B. G. F. Currie, and R. O. A. M. Lyne (Oxford: Oxford University Press, 2010), 291.

Chapter 9: The Rate and Amount of Surplus-Value

i. This quote is probably from Chevalier de Panat an Mallet Du Pan, *Mémoires et correspondance de Mallet du Pan. Pour servir à l'histoire de la Révolution Française*. Recueillis et mis en ordre par A. Sayous. T. 2. Paris 1851. p. 197: "Personne n'a su ni rien oublier, ni rien apprendre."

ii. Although Spinoza is mentioned here ironically, Marx read Spinoza during his philosophical formation, largely because Spinoza had been the primary reference for attacks on religion in the late eighteenth century. In this passage, Marx ironically refers to the central commitment, from the Jewish philosopher's magnum opus, the

Ethics (written 1661–1675), that everything that exists has a sufficient reason to exist and thus all of nature is knowable.

iii. This claim, that a qualitative thing can become a quantitative thing and vice versa, is a keystone of Marx’s analysis. It is a radical thought, which he adapts from Hegel’s *Greater Logic* (see the section “Measure,” especially C. Ratio of Powers, #3). Traditionally the adverb in Latin *qualis*, of what sort something is, was considered absolutely distinct from *quantis*, how much of a thing there is. You can see their absolute distinctness for example in the atom: no matter how little there is of aluminum, down to the smallest possible quantum, it is still aluminum. Likewise, no matter how large a quantity there is, even an infinite number of atoms, we expect it to remain qualitatively the same, aluminum. Marx’s radical claim, following Hegel, is that, in the capital system, there is no uniformity of substances. In exchange, qualitatively distinct commodities or modes of concrete labor can be equivalents. At the same time, money, which is qualitatively uniform, can transform into qualitatively distinct commodities. The capital system perverts ontology.

Chapter 10: The Concept of Relative Surplus-Value

- i. *Pro tanto* is a legal term in Latin meaning “to that very extent.”
- ii. “Tutti quanti” is an Italian expression meaning “and the like” and “and others.”

Chapter 11: Cooperation

i. Marx gives the English phrase “animal spirits” in parentheses; he thereby suggests that he isn’t reaching back to an old philosophical tradition of thinking about *spiritus animalis* as a vital spirit produced by the brain and distributed to the body through the blood. Rather, he seems to have in mind something closer to what “animal spirits” signifies in Defoe’s *Robinson Crusoe*, which of course Marx references in chapter 1 of *Capital*, namely, “enthusiasm and engagement.” The German word that Marx also uses, “Lebensgeister,” in fact evokes the idea of “life spirits.” “Animal spirits” did not gain currency in economic writing until John Maynard Keynes’s book *The General Theory of Employment, Interest, and Money* appeared in 1936. In that work it has to do with a confidence that helps determine economic behavior but isn’t based on a rational assessment of economic conditions. This is the sense in which today’s economists use the term, which was given new life in 2009, when two leading economists, George Akerlof and Robert Schiller, published their study *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism*.

ii. *Faux frais*, literally “false costs,” is the French term Marx prefers for expenditures that don’t produce surplus value in the production and realization processes. At different points he mentions different costs that belong to this category. These include costs of circulation, costs of managerial supervision of labor, and the part of their capital that capitalists have to consume in order to live. *Faux frais* of production are “immanent to production” and although they can be minimized, which decreases the loss of profit, they cannot be eliminated. Marx also calls them “merely economic” costs.

Chapter 12: The Division of Labor and the Manufacturing System

i. The German term translated as “specialized workers” is “Theilarbeiter,” and here “specialized” signifies “focused on one thing” more than “requiring advanced training and expertise.” While the words “Theilarbeiter” and “Theilarbeit” (“specialized labor”) hardly enjoyed wide currency in Marx’s day, one occurrence of the latter suggests that the term had a negative resonance in socialist circles. In an 1847 German translation of a work by Pierre-Joseph Proudhon, we read, “Die Theilarbeit ist eine Sklavenbeschäftigung” (“specialized labor is a slave occupation”).

As Keston Sutherland has pointed out, “Theilarbeit” consolidates the nouns in the German phrase for the “division of labor”—“Theilung der Arbeit.” And in *Capital* “Theilarbeit” and “Theilarbeiter” are the work and workers, respectively, that go with the “Theilung der Arbeit” under modern capitalism, and especially with the division of labor in the modern manufacturing system. In the book, the word “Theilarbeiter”—“Theil” means “part” in German—also goes with Marx’s phrase “the collective worker,” which he uses to describe the functioning of the modern manufacturing workshop as a whole. The “collective worker” is the sum of the “Theilarbeiter” carrying out their narrow individual tasks (“Theilarbeit”) in the workshop. These “Theilarbeiter” suffer, according to Marx. The conditions of their labor make it impossible for them to flourish, to develop fully as human beings.

ii. “Division of labor” is an ancient topic in European political thought. Plato’s “myth of the metals” divides citizens by the quality of their soul into ranks of actors in society. Marx and Engels argued at times that the origin of all labor divisions was sexual difference in the family. Under the capital system, Marx also claimed, the social division flowed from the economic division, and not the other way around. Organization of social labor then became an instrument for increasing productivity, and in this it departed radically from the supposed natural division in the family.

iii. The German word “Machwerk,” translated here as “product,” refers to something hastily thrown together for expedience’s sake, usually of poor quality. Marx seems to use it as a synonym for the outcome of labor, something put together through a set of processes, perhaps with some irony; sometimes in *Capital* it has the sense of “the work to be executed.”

iv. *Membra disjecta* is a Latin phrase from Horace’s *Satires* (book 1, satire 4, line 62). It means “scattered members.”

v. Marx clearly has in mind initial processes that have to occur at the beginning of a larger production process.

vi. *Bellum omnium contra omnes*: “War of everyone against everyone.” A quote from Thomas Hobbes, *De cive* (1642), retweeted in *Leviathan* (1651).

vii. Marx is referring to Argentina and Uruguay.

viii. The Roman historian Livy tells the story of Menenius Agrippa, who was asked in 494 BCE by the patrician ruling class to persuade the plebian commoner class not to secede from the Roman Republic. Agrippa supposedly persuaded the plebes using a fable about the body. Commoners, he said, were the arms and legs that had decided, by abandoning the body, to starve the stomach, which represented the rulers. He also argued that this would eventually starve the arms and legs as well, since they were directly connected to the stomach.

ix. Richard Arkwright (1732–1792) is known for bringing the water frame into general use in the 1760s, a device that could power a number of spinning frames at one time, thus reducing the labor required to produce yarn and increasing output. Mass production of yarn jumpstarted the modern factory system.

Chapter 13: Machinery and Large-Scale Industry

i. John Stuart Mill is mentioned occasionally in Marx’s political economic writings, as is his father, James Mill. By and large, J. S. Mill shows up as the well-known English political economist, although he is much better known today as a political philosopher, invested in a single principle for human action, that every act is supposed to be, ideally, “conducive to happiness,” a position that is sometimes called “utilitarian.” J. S. Mill’s economic thought was collected in his 1848 *Principles of Political Economy, with some of their Applications to Social Philosophy*, which became a standard economics textbook.

ii. Soon after publishing the first edition of *Capital* (Vol. 1), Marx contributed a resolution to the Brussels Congress that gave two sides to machinery’s effect, a bad side and a good one: “Resolved: that on the one side machinery has proved a most powerful instrument of despotism and extortion in the hands of the capitalist class; that on the other side the development of machinery creates the material conditions necessary for the superseding of the wages system by a truly social system of production” (from the “Draft Resolution on the Consequences of Using Machinery under Capitalism Proposed by the General Council to the Brussels Congress” of the First International Workingmen’s Association in 1868, *MECW*, vol. 21, p. 9).

iii. Friedrich Engels and Karl Marx were friends, intellectual collaborators, and coconspirators in international socialist organizing for four decades. Although Marx was merciless in his criticisms of others, especially others on the left, Engels counted as a lifelong ally and at times as actual life support. Engels kept Marx afloat financially over long periods, sending him what amounted to a stipend. Soon after they met, Engels and Marx embarked independently of each other on a common project—to glean insights from those who benefited least from the social system and to use those insights, combined with economic and philosophical arguments, to benefit those same people.

This of course became a joint project. The two worked together as journalists, cowrote texts theoretical and practical, most notoriously *The Communist Manifesto*, and thought together in concert, through a correspondence that continued from shortly after remeeting in 1844 until just before Marx’s death in 1883. A typical letter between them ends with the words “think about this” or “please give me your opinion on the matter.” Engels wrote an early article about political economy, “Outlines of a Critique of National Economy” (1844), which inspired Marx to launch his own economic work (Marx refers to this text four times in volume 1 of *Capital*). Some of Marx’s journalistic articles were actually written by Engels, and in many cases it is impossible to attribute individual authorship to key “Marxian” ideas; the friends passed arguments back and forth like raw material in a workshop, to be reworked and refined in the fire of the other’s critical eye.

In the book mentioned here, *The Condition of the Working Class in England* (published in 1845 in German), Engels wrote about his experiences on a 20-month

stay in Manchester, England, where he observed the effects intensive industrialization had on workers. Unlike Marx, Engels didn't enter critical theory through the university—he never got a degree. His father was a wealthy mill owner in fast-industrializing Western Germany and Engels was being trained to join the business. The trip to Manchester in 1842 was for Engels, at age 22, to continue his commercial training and also to leave behind the radical politics and philosophy he had been absorbing. He did complete his training; at the same time, he gave those same radical politics a grounding in current social conditions. He chronicled the astoundingly poor conditions for laborers in the Manchester mills and the deleterious effects of high-productivity manufacturing on their health and well-being. The book was written as a report to German intellectuals about the real basis for the coming social revolution.

With this book as a starting point, Engels went on to become an influential social theorist, if also at times a controversial one. Steven Marcus notes in *Engels, Manchester, and the Working Class* (1974), “In some senses Engels never gave up his conviction that the revolution would take place next Thursday” (89). In addition to his own involvement in labor mobilization, Engels wrote books, such as *Anti-Dühring* (1877), *Socialism: Utopian and Scientific* (1880), and *The Origin of the Family, Private Property, and the State* (1884), whose claims were later taken up by revolutionary movements, in particular the one spearheaded by Vladimir Lenin in Russia. And yet, he also wrote on less directly revolutionary topics, like philosophy, natural science, and the history of religion. One of his most abiding achievements is philological and editorial. He shepherded many of Marx's works into the public eye. It was Engels who, after Marx's death in 1883, undertook the enormous project of editing the manuscripts for volumes 2 and 3 of *Capital*—in places little more than scattered notes—into readable books.

iv. “Aye, summat” means (or meant) “Oh, yes, something” in British dialect. Marx translates this line with a few words of Swabian dialect, while also giving the original “summat” in brackets. His translation reads, “Ih jeh, Ebbes.”

v. Since we have stressed that Marx sometimes enlivened the language of the factory inspectors' reports as he translated them, we should also point out that his translations go in the opposite direction as well. For example, Marx doesn't try to preserve the literary flourish at the end of this long quotation (“until the tale of the 150 hours was told”); instead his rendering has 150 hours being merely “abgezählt,” or “counted off.”

vi. “The sunny time of his first love”—here Marx is playing off a line from Friedrich Schiller's famous poem “The Song of the Bell,” which speaks of “the wonderful time of young love.”

vii. Scholars haven't been able to locate the source or sources for these memorable and much-quoted phrases, which Marx gives in English. This holds for us, too, unfortunately.

viii. This is more a paraphrase than a direct translation. The figure of labor performed over a longer period being “compressed” into a shorter one, a figure Marx often employs in discussing the intensification of labor, certainly conveys something said in the English source material, but it doesn't have an immediate equivalent there. The source text reads, “Twelve hours' work was, it further appeared, now done instead of 10.”

ix. A paraphrase of a quotation in a Parliamentary speech (by William Ferrand), rather than a direct citation.

x. *Nominibus mollire licet mala* is a Latin phrase meaning “it is proper to lighten evils with words,” from Ovid, *Artis Amatoriae*, book 2, line 657.

xi. “Big Loaf” was a slogan of the Anti-Corn Law League, the idea being that if free trade were introduced, wages would rise and workers would be able to afford twice as much bread: their loaf of bread would be doubled, becoming a “Big Loaf.”

xii. *Experimenta in corpore vili* is a Latin expression meaning “experiments on a worthless body.”

xiii. Marx is quoting an article from the *Times* (April 28, 1863) titled “The Cotton Famine”: “In 1833 the China and Indian trade was opened, and during the last 30 years it had extended itself in the East by the destruction of the human race.”

xiv. The first part of this long quotation is more a paraphrase than a translation. When he gets to the phrase “each moulder,” Marx changes his strategy. He starts to follow the source material more closely. In cases like this one, it can be hard to know whether he has committed an error or is simply translating in a freewheeling way. Here, for example, he renders “fruitful source of demoralization” as “furchtbare Quelle der Demoralisation,” which backtranslates into English as “frightful source of demoralization.” Has he simply made a mistake? That is, written “frightful” when he meant to write “fruitful”? This is even easier to do in German than in English, since in the former language those two words are “furchtbar” and “fruchtbar,” respectively. Or is Marx amplifying a modifier and eliding what appears to be some irony in the source text, perhaps because he thought the irony wouldn’t work as well in German?

xv. Some amplification by way of elision here: where the source text has “it has been at times no uncommon thing in Nottingham,” Marx drops the qualifying “at times,” which makes the scene being described seem even more dire. Since Marx leaves out qualifying words in some other cases too, this elision was likely deliberate—that is, not simply the result of an oversight.

xvi. Marx does some reordering of the source material here, so that sentences that come from different passages appear to come from the same one. In doing so, he compresses the source material, dropping some (seemingly) nonessential words and phrases. But once again Marx might be doing more than that in eliding certain words. For example, he doesn’t translate the term “almost,” which in the source text modifies “is unbearable.” Thus the “smell” that “is almost unbearable” in the source text is a stink (“Gestank”) that is simply “unbearable” (“unerträglich”) in Marx’s translation. Is he weeding out a word for the sake of compression? Or is this another instance of amplification through omission? Or do both motivations apply? Or, has he left out a word unintentionally? Or did he read the “almost” as an instance of ironic understatement that doesn’t translate well?

xvii. “Taillable à merci et miséricorde” is a French phrase that was applied to serfs during the Middle Ages. It means “exploitable at pleasure and mercy.”

xviii. Marx again intensifies a reported sensory impression by dropping the word “almost.” Where the source material speaks of an effect that is “almost overpowering,” Marx’s translation of the passage simply says of “the effect” [“die Wirkung”] that it “ist unerträglich,” or “is unbearable.” But his translation also compresses the quotation quite a bit, so here, too, it is hard to say what exactly motivated the elision.

xix. Mirabeau’s “Impossible! Ne me dites jamais cet imbécile de mot!”: “Impossible! Never speak that ridiculous word to me!” From a letter the physiocrat Honoré Gabriel Riqueti, Count of Mirabeau, wrote to one of his secretaries. (Dumont, *Souvenirs sur Mirabeau*, 1832)

xx. “Écoles d’enseignement professionnel” refers to “vocational schools.”

xxi. *Ne sutor ultra crepidam!* is a Latin phrase meaning “shoemaker, stick to what you know!” The Greek painter Apelles is supposed to have responded with words to that effect when a shoemaker criticized his work.

xxii. *Nec plus ultra* is a Latin phrase meaning “peak” or “zenith.”

Chapter 14: Absolute and Relative Surplus-Value

i. What owners call “profit” and landlords call “rent,” Marx, using a term he borrowed from followers of David Ricardo, calls “surplus-value.” He once said his own theory of surplus-value was his most radical contribution to political economy, bar none (Letter to Engels of August 24, 1867, in *MECW*, vol. 42, 407). The theories that came before his willfully ignored the most important aspect of this basic product of the capital system, namely the way it is produced value, and although he critiques previous theories in the published volume 1, he reserves an entire book for a full attack on the classical political economists and their theories. Marx seems to have thought of the text, now known as “Theories of Surplus-Value,” as the “historical part” of his project, because it mapped changes over time to the concept of the “extra” a capital system generates. Notebooks 6–15 plus notebook 18, the texts out of which the volume *Theories of Surplus-Value* was assembled posthumously, give an intricate history of the theories, focusing mainly on Adam Smith and Ricardo, but also bringing other political economists, like James Steuart and Quesnay, into evidence, along with pamphleteers like Thomas Hodgskin and Piercy Ravenstone, laying out a history that runs from the late seventeenth century to Marx’s present day. Marx never prepared these texts for publication or even revised them. After his death, Engels set in motion a plan to publish *Theories of Surplus-Value*, although it wasn’t actually accomplished until Karl Kautsky edited and published the material in three volumes between 1905 and 1910.

ii. Although it gets only a brief mention here, “real subsumption,” along with its companion concept “formal subsumption,” was discussed in an important section from the 1861–63 drafts that has come to be known as “the unpublished chapter 6.” Marx’s title, “Results of the Direct Production Process,” indicates what he is after there. Once the idea of capital has fully taken over and the production of products has been fully transformed into the production of value, when, that is, everyone agrees that production is not first and foremost for making useful goods to secure human existence but instead for making value to secure the continued existence of the system, the workers’ relationship to production changes dramatically. No longer independent actors, they become “subsumed” into the labor process, in two ways. They become formally subsumed through the coercive practices of managers, who need to control workers’ time and movements in order to increase productivity. You might call this “supervised efficiency.” More horrifying was the second kind of subsumption Marx theorized next. Workers become, more than formally, really subsumed into the labor process when their individual feelings, thoughts, and goals become indistinguishable from the goal of value creation, when in effect they regulate themselves and take productivity as a personal, rather than a systemic, aim. A kind of capitalist superego forms. Today we sometimes call this “loving your work.”

iii. Marx is borrowing and reworking a line from Friedrich Leopold Graf zu Stolberg's poem "To Nature" ("An die Natur"): "Leite mich an deiner Hand / wie ein Kind am Gängelband." In the poem, the speaking I asks nature to maintain control and is ready to forfeit all independence.

iv. The term translated as "this good man" is "der Brave," the idea being that Marx is using a nominalized form of the adjective "brav," which means "good" or "upstanding." But there is another possibility. Marx often employed English terms in contexts like the one in question, and he wasn't always very precise in doing so. Perhaps, then, the word he had in mind is English noun "brave," even though it has traditionally signified "North American Indian warrior."

Chapter 17: How the Value and Price of Labor-Power Are Transformed into Wages

i. *Do ut des, do ut facias, facio ut des* and *facio ut facias* is a Latin phrase expressing the four contractual relations according to Roman law: "I give, that you may give; I give, that you may do; I do, that you may give; I do, that you may do."

Chapter 18: Time Wages

i. While he was writing the manuscript that posthumously came to be called *Grundrisse* (between 1857 and 1861), Marx wrote up a six-book plan that included a third book dedicated to this topic, to be titled "Wage Labor" ("Von der Lohnarbeit"), although that book was never written. "Book" in this case means a full-fledged treatment of a topic at length, though not necessarily a separate physical volume.

Chapter 19: Piece Wages

i. "Anti-Jacobin War" was a term for the series of wars Great Britain waged against France from 1793 to 1815. During these campaigns, the British government was conspicuously aggressive in trying to prevent and actually suppressing workers' protests, enacting laws that sweepingly prohibited workers' organizations, for example.

ii. Although Marx tends to disdain Thomas Malthus (1766–1834) in this volume and elsewhere, Malthus was an important popularizer of political economy whose theory had a profound effect inside and outside the discipline, most notably in the invention of evolutionary theory by Charles Darwin and Alfred Russel Wallace. Friend of David Ricardo and member of the Royal Economy Club along with James Mill, Malthus first became known for a scandalous (though originally anonymous) pamphlet, *An Essay on the Principle of Population as It Affects the Future Improvement of Society, with Remarks on the Speculations of Mr. Godwin, M. Condorcet, and Other Writers* (1798), which openly renounced the historical optimism of the French Revolution and social revolutionaries like William Godwin. Human existence was not infinitely improvable, it argued—it was doomed to a disastrous end because of a discrepancy between population growth and humans' ability to feed themselves. A famous line reads: "Population, when unchecked, increases in a geometrical ratio. Subsistence increases only in an arithmetical ratio." So, before it became perfect, humanity would starve. Marx's opin-

ion about this theory never changed much from what he read in Engels's *Outlines of a Critique of Political Economy* in 1844. Young Engels questioned the empirical basis for Malthus's theory ("Where has it been proved that the productivity of the land increases in arithmetical progression?") but he also praised one of its effects. With Malthus's material pessimism, even if exaggerated or wrong, "we have come to recognise in the dependence of man upon competitive conditions his most complete degradation."

Chapter 20: Variations in Wages from Nation to Nation

- i. "De faux aloi" is a French phrase meaning fake or spurious.

Chapter 21: Simple Reproduction

- i. Marx notes that some consumption is productive and some is not, just as some labor is productive and some is not. "Productive," however, has a technical meaning; rather than the English colloquial sense of "getting things done," "productive" in the text means "having to do with the production of commodities, involved in the process of producing value." "Productive" and "nonproductive" could be translated as "producing" and "not involved in producing." "Nonproductive" then describes activities outside of the fabrication sphere, though activities that are not at all lesser ones, activities that are still ultimately connected to production. Nonproductive consumption, such as personal consumption, and nonproducing labor, like service labor, are necessary to the system and definitely entail "getting things done." They contribute to producing the labor-power that produces value, and so "nonproductive" is a bit of a misnomer, something Marx clearly recognized. Elsewhere in the book he tells readers that they shouldn't regard "productive workers" as the fortunate ones. To be a productive worker in a capitalist society means that you are being exploited by a capitalist. Here, as so often, Marx is adapting the terminology of political economy.

- ii. *Fictio juris*: An assumption that something is true even without evidence in order to make a legal decision. An oft-cited example in Roman law is the captured soldier, who was considered dead from the moment of capture for disposition of their property, even though the court could not know for sure one way or the other.

- iii. A reference to a character in Friedrich Schiller's play *Kabale und Liebe*; when faced with the prospect of losing his position as a royal courtier, Lord Chamberlain Kalb cries in despair that he would be nothing without it.

- iv. The source text that Marx translates for the body of *Capital* refers to Potter as "Mr. Edmund Potter," and then as "Mr. Potter." In his German version, Marx does something a little different with this name, initially writing it as "Herr E. Potter." And people say that Marx couldn't see into the future . . .

Chapter 22: How Surplus-Value Is Transformed into Capital

- i. *Conditio sine qua non* is a Latin phrase that passed from legal jargon into general parlance in European languages. It means a condition without which something couldn't exist, so a necessary condition. Marx's reference to Hegel here is to the section of *The Philosophy of Right* that deals with the divisions in what Hegel calls

“systems of needs” (what Marx calls the economy) into different estates, closer to a feudal social division than Marx’s classes. In the subsection from which this quote, emended by Marx, comes, Hegel deals with the “substantial estate,” that is, with the agricultural economy, which he says “will always retain the patriarchal way of life” (G. W. F. Hegel, *Elements of the Philosophy of Right*, trans. H. B. Nisbet. Cambridge: Cambridge University Press, 1991, §203, Addition, 236).

ii. At the National Assembly in Frankfurt on August 31, 1848, the Silesian aristocrat Felix von Lichnowsky spoke out against Poland’s historical right to independence and, in doing so, repeatedly used the awkward phrase “keinen Datum nicht hat.” Marx jumped on this, mocking Lichnowsky’s double-negative formulation in a newspaper piece.

iii. A line from Goethe’s *Faust* (part 1), in the scene, before the wager with Satan, where Faust confides to his assistant Wagner his misgivings about life without pure knowledge:

Two souls, alas! reside within my breast,
and each is eager for a separation:
in throes of coarse desire, one grips
the earth with all its senses;
the other struggles from the dust
to rise to high ancestral spheres.
If there are spirits in the air
who hold domain between this world and heaven—
out of your golden haze descend,
transport me to a new and brighter life!

(Goethe, *Faust I & II*, ed. and trans. Stuart Atkins [Princeton, NJ: Princeton University Press, 2014], 30.)

iv. “Das ist Moses und die Propheten” is a phrase that means something like “That’s the whole religion.” Accumulation is sect founder, messiah leading all to the promised land, and predictor of a rich future.

v. Marx is referring to the 1831 revolt of the silk weavers in Lyon.

vi. Vishnu—one of the highest Hindu gods, some of whose worshippers engaged in extreme forms of self-denial and self-flagellation.

vii. “Caballero de la triste figura,” “knight of the sorrowful countenance,” is Sancho Panza’s name for Don Quixote, because, the vassal says, of his fatigue after many battles and his missing teeth (part 1, chapter 19).

viii. The passage from Thompson’s book adduced here is more a paraphrase than a direct quotation.

ix. “Dogberry”—Marx uses the English word—is a fruit unfit for human consumption, as well as a character in Shakespeare’s *Much Ado About Nothing* who thinks too highly of himself and speaks in malapropisms. It became a slangy term for “incompetent official.”

Chapter 23: The General Law of Capitalist Accumulation

i. Sir Frederic Morton Eden (1766–1809) was an English noble and chairman of the Globe Insurance Company in London. As an economist, he was a follower of Adam Smith and a qualified liberal who nonetheless advocated some state interven-

tion, especially on behalf of the workless poor. Eden wrote the major compendium of information on the English poor in three volumes, *The State of the Poor* (1797). The book contains unvarnished portraits of the workhouses to which these populations were assigned and gave impetus for the revised Poor Laws of the early and mid-nineteenth century, which sent impoverished people out to work for the lowest wages.

ii. In Roman law, a *peculium* was a piece of property legally owned by the master or the father but practically in the possession of the slave or the son.

iii. *Caeteris paribus* is a Latin phrase meaning “under conditions that are otherwise equal.”

iv. In the third (1883) and fourth (1890) editions of *Capital* (Vol. 1), Engels added a footnote here: the note reproduces a handwritten observation in Marx’s own copy of the text, the upshot of which is that with a merely quantitative extension, larger and smaller amounts of capital in the same branch of industry will yield profits that correspond to the capital advanced. If the quantitative extension results in a quantitative change, then for the larger capital the rate of profit will increase.

v. “Les dés sont pipés” is a French expression meaning “the dice are loaded.”

vi. This quotation, which Marx first used in 1864 in his inaugural address for the International Working Men’s Association, prompted a debate that went on for decades. At issue was whether Marx had falsified (i.e., invented) part of it. That is what the left-leaning political economist Lujo Brentano charged him with, anonymously, in 1872. As we can see, in *Capital* Marx attributed to Gladstone the line “this intoxicating augmentation of wealth and power . . . entirely confined to classes of property,” and in “How Karl Marx Quotes,” which appeared in the industry magazine *Concordia*, Brentano asserted that “Marx made up this sentence, both its form and content!” Not one to deescalate, Marx rejected the accusation in strong terms, calling his unnamed accuser “an ass.” Writing in the social democratic newspaper *Der Volksstaat*, he pointed out that important circumstances had gone unmentioned. For one thing, Gladstone had had the opportunity to edit the version of the speech cited by Marx’s critic. For another, as Chancellor of the Exchequer, Gladstone had plenty of motivation to excise a remark about England’s growing class divide. Marx could have helped himself by producing the original source he had relied on for the quotation, but he failed to do that. Instead, he referred readers to newspaper transcriptions of the speech that included the sentence on which the debate turned, and thus nearly twenty years later, Engels’s devoted much of his preface to the fourth edition of *Capital* (1890) to an attempt to vindicate Marx in the Gladstone affair.

vii. The grain as a standard of measure grew out of the long-standing custom of measuring the mass of cereals such as wheat by the individual seed. It became the basis for the English weight system, and, although outmoded now, is equivalent to 64.79891 milligrams.

viii. In the seventeenth century, the mines of Potosí, located in Bolivia, were among the most lucrative in the world.

ix. *Instrumentum vocale* is a Latin phrase that means “talking tool” and referred to slave labor as opposed to the supposedly mute tools like oxen and hammers.

x. From 1830 to 1833, English agricultural workers wrote menacing letters to farmers, demanding a say in how new technology was implemented in the fields and also better pay. The signatory of these real letters was the fictional Captain Swing—hence

what were known as the Swing Riots, which entailed acts of property destruction as well.

xi. Incarcerated for three years (1827–30) for seducing and marrying an underage heiress, Edward Gibbon Wakefield (1796–1862) spent his time in prison studying economic conditions, and by extending the scope of his studies, he came to critique the forced population of the colony New South Wales (now part of the nation of Australia) with convicts. This in turn led him to concoct a theory of colonization that was both liberal and capitalist. Wakefield insisted that colonial populations (though not the indigenous peoples they displaced) should govern themselves, but this liberality went hand in hand with a social engineering project, for which he developed a theory of systematic colonization. His plan's objective was to reproduce an English milieu through the resettlement of married couples, capitalists, and laborers, and he promoted this plan in the press and appealed to government officials with singular zeal, in the face of the apathy of the British public and the protests of actual colonists. His propaganda about New South Wales strongly affected the establishment of the colony New Zealand and was also used to support a massive reform in the colonial structure in Canada.

xii. Anthony Ashley Cooper, Earl of Shaftesbury; see the note about Tory philanthropism on p. 823, this volume.

xiii. *Post tot discrimina rerum* is a Latin phrase meaning “after so many major turning points.” “*Secundum artem*” is a Latin phrase meaning “according to the rules of art.”

xiv. *Nihil habeo, nihil curo* is a Latin phrase meaning “I have nothing, I have no worries.”

xv. In the following sections, Bedfordshire through Worcestershire, Marx is paraphrasing *Public Health, Seventh Report*, London, 1865, 138–285.

xvi. “Phanerogamie” was Fourier's term for the polyandry that would be practiced in the social society he imagined, where the communal unit would replace the family.

xvii. Marx is playing off a line from Goethe's *Faust*, part 1, which says that it is very nice of a “great Lord” to “speak so humanely with the devil himself.”

xviii. “Erin” is a Celtic term for “Ireland.”

xix. The French phrase “comme l'appétit vient en mangeant” means “as appetite comes with eating.”

xx. Fenians were Irish revolutionaries who hoped to throw off the yoke of English rule and turn Ireland into an independent democratic republic. The movement gained prominence around 1857 and was active in the United States, too.

xxi. From Horace's *Epodes* VII, “A cruel fate and the crime of a brother's murder have driven the Romans on.” The translation is from Horace, *Odes and Epodes*, trans. Niall Rudd (Cambridge, MA: Harvard University Press, 2015), 290.”

Chapter 24: The So-Called Original Accumulation

i. “Original accumulation” is sometimes translated into English as “primitive accumulation,” but “primitive” is a strong and unnecessary interpretation of the German “ur-,” which indexes the earliest, proto-form of something, without implying a simpler or less sophisticated thing. Accumulation is “original” when value is extracted from people and the earth without recompense—equivalent to theft or pillage, though

it goes by more pleasant names. It is a first accumulation, without precedent or contract, as well as the origin of all future accumulation. In this section, Marx makes the critical distinction between what he sees as the essential mode of accumulation under capital, wage labor, and the many other ways capitalism will have appropriated and expropriated resources in order to establish wage labor as the standard in the first place, while, in the process, rooting out other social systems in order to come to dominance. For that reason the section touches on some of the most violent experiences perpetrated by Europe and its satellites on its own populations and land, as well as on other peoples and parts of the planet, over the last five hundred years.

Marx begins by critiquing prior political economists on the topic. When he uses the epithet “so-called” and puts “original” (“ursprünglich”) into quotation marks, he is referring in the main to Adam Smith (whose account has roots in the political economy of James Steuart, *An Inquiry into the Principles of Political Economy*, 1767). In the edition Marx owned of Smith’s *Wealth of Nations*, we read, “As the accumulation of stock is previously necessary for carrying on this great improvement in the productive powers of labour, so that accumulation naturally leads to this improvement” (Adam Smith, *An Inquiry into the nature and causes of the wealth of nations* . . . Vol. 1 [Edinburgh, 1814], 435). Prior to labor becoming productive, accumulation has to happen, and not through production. Nothing is natural about this previous accumulation, Marx retorts, just as nothing is natural about the capitalistic labor relations it makes possible. Nevertheless, Smith is not wrong about the need for previous accumulation. But Smith ignores a number of equally crucial factors. In order for capital processes to get started, a prior accumulation of materials, enough means of production to employ enough laborers, is certainly necessary. Beyond that, capitalists also need an accumulation of disposable labor, workers who have been freed from other obligations and made ready for the productive work that is their destiny. Marx makes it clear that a proletariat has to be created—it is not born but forged by force and disciplined to serve its new boss. An ever-larger stock of land is also needed, dedicated to producing the food to support the mass of laborers who no longer produce their own means of subsistence. This is why it is misleading to translate “ursprünglich” as “primitive.” Original accumulation is neither undeveloped nor simple, and its savagery should not be compared to anything other than itself, European legal violence or *ursprüngliche Gewalt*, original violence.

“Original accumulation” counts as a leap in Marx’s explanations of the capital system’s birth. In earlier texts, such as the *Communist Manifesto*, Marx, with Engels, envisioned a more sequential chain of events, where feudal society gave way almost by fate to industrial society and industrialized Europe prepared the world for the postcapitalist society to come. Marx began to think through a new account of the capital system’s nascency in *Value, Price, and Profit* (1865). In those lectures, he said directly what he says here indirectly, with added quotation marks around the phrase. He wrote that what the economists called “The Previous or Original Accumulation” should in fact be called “Original Expropriation” (412). Marx’s revised concept of “ursprüngliche’ Akkumulation” as proletarianization through force has provoked controversy since at least 1913, when Rosa Luxemburg wrote a renowned critique and extension of Marx’s theory entitled *The Accumulation of Capital*. Obviously, “original” forms of accumulation still occur, in ongoing events of colonization and imperialism,

as Luxemburg argues in her book; the capital system cannot exist without inputs continually coming in from the outside. In addition to exploitation within its precincts, capital continuously ransacks the world around it.

ii. Marx is referring to Adolphe Thiers (1797–1877) and his work *De la Propriété* (1848). A journalist, a historian, and pro-revolution activist in 1830 and 1848, Thiers did in fact become a statesman during France Second Empire.

iii. “Clair obscure” is a French expression meaning “half light.”

iv. “The great feudal wars” that Marx refers to here were credited with bringing to a definitive end a political, juridical, economic, and social system that, according to the historiography of Marx’s time, was in effect in Europe from roughly the ninth to the fifteenth century. That system only came to be called “feudalism” well after it ended; Montesquieu gave an important boost to the name and concept in 1748 in *De l’esprit des lois* (*The Spirit of the Laws*). By Marx’s time, the historical category “feudalism” had come to stand for a relationship between property and power, which is in essence the exchange of military protection by lords for land from the king. In schematic outline, feudal power relations begin with a landholding, the use of which was transferred from social stratum to social stratum for a differing fee. A “fief” could be given by the king to a noble, for instance, and the noble would owe the king a fee of military service, because the king had the obligation (and the dire need) to protect the lands under his sovereignty from foreign invasion. Parts of that same land could be subsequently deeded by the noble to vassals in exchange for fealty and other considerations. The land would then be worked by tenant peasants who benefited by being able to live on it and keep the equivalent to their subsistence in crops. However problematic the idea is historically, the term “feudal” was critically important to Marx throughout his career as a social theorist. It helped him articulate the difference the French Revolution made to political life (*On the Jewish Question* 1843), it became a fixture in the “materialist concept of history” (*The German Ideology* 1845–46), and it gave him a weapon against political economists and pseudocritics like Proudhon, who thought the bourgeois system was better (*The Poverty of Philosophy* 1847). In *Capital*, the term “feudal” is used in all these ways as well, but a crucial distinction is developed between the feudal mode of exploitation, which was about status, and the capitalist mode, which was about profit, and between the ostentatious feudal lord and the capitalist whose luxury spending was always calculated against capital returns. The English wars Marx refers to here culminated in the “Wars of the Roses,” an eighteenth-century designation for civil wars in the fifteenth century that divided the loyalties of the people, greatly weakened the “feudal system,” and led to its overthrow by the Tudors, under whose first ruler Henry VII power became more centralized in the monarchy.

v. *Pauper ubique jacet* is a Latin phrase (from Ovid, *Fasti* I, 218) meaning “the poor man is oppressed everywhere.”

vi. Marx is referring to a 1597 Russian edict, according to which peasants who fled from a noble estate and its labor conditions were to be tracked and, if caught, forced to return.

vii. “Republican revolution” refers to what historians commonly refer to as the English Civil War (1642–1652), which named the struggles between supporters of parliamentary rule and supporters of absolute monarchy.

viii. “Inclosure of the commons” refers to a historical process in which land was subtracted from shared use and made private, exclusive to one owner. The gradual mass dispossession of land by this means had a disastrous effect on small farmers, who, without the free use of meadows and fallow fields, could not afford to keep livestock. The consensus among historians is that in the Middle Ages, nearly all land in England included some common use rights; by 1600 or so less than one-third of it did, and by 1850 virtually all land had become private. “Enclosure” generally refers to the fencing or walling off of grazing land that had been freely usable by small landowners and that had been managed cooperatively. With the closing of the commons, a cooperative mode of political organization also passed away. Across this history, fences became laws, and rights to land were eventually removed in huge swaths by acts of Parliament. Companion processes to enclosure were consolidation and clearing. Enclosure enabled a single landowner to make many smaller tracts into a large estate, consolidating them. It also performed the function of removing peasants from the land, clearing them and thus “freeing” them for wage labor, which they sometimes performed on the very estates where they had once grazed their cattle for free.

ix. The original English line couldn’t be located; the English here is a translation of Marx’s German sentence, which is most likely a paraphrase.

x. Quite a few of the quotations in this section contain sentences that are more paraphrase than direct quotation. The quotation given here goes further in this and appears to be mostly a paraphrase.

xi. In 1745 and 1746, the followers of Charles Edward Louis Philip Casimir Stuart, the Pretender, made their final concerted attempt to have him installed as King of England.

xii. This act was promulgated in 1536.

xiii. Here is one of those places where Marx’s translating simultaneously amplifies and compresses to the point of being close enough to paraphrase, i.e., far enough from the source text, to warrant being translated; in other words, the English quotation given has been adapted to match the version Marx provides, where the line “taken away from their wives, children, parents, friends, and comforts” is rendered as “ihren Familien gewaltsam entrissen,” which translates into English as “violently torn from their families.”

xiv. *Tantae molis erat* is an abbreviated form of a line from the *Aeneid* (I, 33) that means “the effort it took to establish the Roman people.”

Chapter 25: The Modern Theory of Colonization

i. “Pis aller,” a French phrase meaning emergency measure.

ii. Marx clearly takes the term “labourers” to signify “slaves” here: he translates it into German as “Sklaverei.”

iii. “Tout sera pour le mieux dans le meilleur des mondes possible” is, as noted earlier, a phrase meaning “all’s for the best in the best of all possible worlds.” It is a quote from Voltaire’s satirical play, *Candide* (1759), which pokes fun at the philosopher Gottfried Leibniz, whose metaphysics rested on a plurality of worlds, ours being the best of them.

iv. Marx is referring to an act of 1844, initiated by Robert Peel, that restructured the Bank of England, creating two separate divisions: one for banking operations and

one for issuing currency. It further stipulated that for the most part, paper notes had to be backed by a special gold reserve; according to the act, no more than fourteen million pounds in paper notes could be backed by the Bank's silver reserve.

Afterword

i. Louis or Ludwig Kugelmann (1828–1902) was a German medical doctor who participated in the revolution of 1848 and became a communist, a member of the First International, an early adherent to the SPD (the Social Democratic Party of Germany), and an important interlocutor for Marx while composing *Capital*.

ii. In what is also known as the Franco-German War, which ran from July 1870 to May 1871, Germany, which had defeated Austria in 1866, then defeated France. The coalition of smaller German states led by Prussia that won this war went on to become, under Bismarck, a unified German state with imperial ambitions: the Second Empire or Kaiserreich.

iii. Marx is referring to Sigmund Mayer's work *Die soziale Frage in Wien*. The term in the title, "social question" ("soziale Frage"), means something like "the question of the working class"—how could the situation of the working class be improved? And, if you were taking up the question from a bourgeois perspective, how could the workers' discontent be managed?

iv. Gustav von Gülich (1791–1847) came from a prominent business and banking family in Bremen and was best known for his book on his history of business practices, on which Goethe commented favorably.

v. Nikolay Chernyshevsky (1828–1889), quoted often by Lenin, and just as often criticized for his democratic leanings, was a towering intellectual figure in nineteenth-century Russia, writing as a journalist, novelist, critic, and political theorist. His novel *What to Do?* (Chto delat' or Что делать?) set the standard for social reform, namely, the liberation of women and the formation of socialist cooperatives, for generations of revolutionary thinkers in Russia and abroad.

vi. As noted earlier, French journalist, economist, and legislator Frédéric Bastiat was an antiprotectionist liberal, an impassioned supporter of free trade. In 1850, he published an influential pamphlet, *The Law*, which argued for a limited set of laws that encourage protection of persons, liberty, and property. He is also known for a satirical tract against legal intervention in the economy, in which the associated candlemakers petition the government for a law against the sun because it unfairly competes with their lighting business.

vii. Joseph Dietzgen (1828–1888) coined the phrase "dialectical materialism" and is known for his critiques of the "old" materialisms, such as those of the Greek atomists and the "mechanical materialists" of the eighteenth century. The materialism of Marx and Marxism, he was one of the first to articulate, is not physicalist. The self-educated son of a tanner and a tanner himself, Dietzgen was a friend of Marx and Engels and a collaborator in communist organizing.

viii. The Russian translation of *Capital* was the earliest edition in another language. Translated by German Lopatin (1845–1918) and Russian socialist economist Nikolai Danielson (1844–1918) in 1872, it was, ironically, allowed to be published in Tsarist Russia because it was considered to be unreadably abstruse—so abstruse that

the first person contracted to do the translating, the now famous anarchist Mikhail Bakunin, found the task too tedious and gave up.

ix. The reference is to the review of *Capital* by Eugène De Roberty in *La Philosophie Positive*, Paris. Nr. 3 (November–December 1868): 508–9.

x. Marx is referring to the published “Contribution to the Critique of Hegel’s Philosophy of Law: Introduction” (1843), which is related to the longer critical commentary from the same year on the metaphysical aspects of Hegel’s text on social theory. Marx never published the latter work. The “Introduction” can be found in *MECW*, vol. 3, 175–87.

The French Reconstruction of *Capital*, 1872–75

i. “Veuillez me dire, cher maître, en deux mots, si les principes que je vous expose sont conformes à votre doctrine, et si la conclusion des principes développés dans votre livre sera conforme à la maxime communiste.” M. Lachâtre to Marx, May 5, 1872, in Gaudin, François, ed., *Traduire Le Capital: Une correspondance inédite entre Karl Marx, Friedrich Engels et Maurice Lachâtre* (Presses universitaires de Rouen et du Havre, 2019), 103.

ii. “J’espère que le livre ne vous vaudra de nouvelles persécutions. La méthode est tout-à-fait [*sic*] différente de celle appliquée par les socialistes français et autres. Je ne prends pas pour mon point de départ des idées générales comme l’égalité etc., mais je commence, au contraire, par l’analyse objective des rapports économiques tels qu’ils sont et c’est pour cela que l’esprit révolutionnaire du livre ne se révèle que graduellement.” Marx to Lachâtre, March 7, 1872; Gaudin, *Traduire Le Capital*, 85.

iii. Engels to Marx, November 29, 1873; *Karl Marx, Frederick Engels: Collected Works*, vol. 44 (New York: International Publishers, 1989), 540–41 (hereafter *MECW*).

iv. “The Crisis of French Marxism,” *International Marxist Review*, no. 14 (Winter 1992): 82.

v. “L’approche mécaniste et scientiste, où, depuis son introduction en France par Lafargue et par Guesde, le marxisme s’est tenu” (“En finir avec le vieux marxisme [et] avec la vision représentative de la politique,” *A l’indépendant*, July 1, 2009).

vi. Marx to Engels, November 30, 1873; *MECW* 44, 543.

vii. Marx to Danielson, November 15, 1878; *MECW* 45, 343.

viii. Kyle Baasch, “The Theatre of Economic Categories: Rediscovering *Capital* in the Late 1960s,” *Radical Philosophy* 2, no. 8 (August 2020): 18–32.

ix. William Outhwaite and Kenneth Smith, “Karl Marx, *Le Capital*,” *Review of Radical Political Economics* 52, no. 2 (June 2020): 215. See also Michael Heinrich, “‘Capital’ after MEGA: Discontinuities, Interruptions, and New Beginnings,” trans. Cindy Zeiher, *Crisis and Critique* 3, no. 3 (2016): 124. To those who prefer the French to the German, it becomes “to ‘aplatir’ [smooth out] the matter” (Rodrigo Pinho, “The Originality of Marx’s French Edition of *Capital*: An Historical Analysis,” trans. Naomi J. Sutcliffe de Moraes, *The International Marxist-Humanist*, September 3, 2021, <https://imhojournal.org/articles/the-originality-of-marxs-french-edition-of-capital-an-historical-analysis/>). The French word will support either reading; it can

refer to everything from smashing something flat with a hammer to smoothing out the wrinkles in a dress.

x. Heinrich, “‘Capital’ after *MEGA*,” 117.

xi. Kevin Anderson, “The ‘Unknown’ Marx’s Capital, Volume I: The French Edition of 1872–75, 100 Years Later,” *Review of Radical Political Economics* 15, no. 4 (1983): 71–80.

xii. He had a number of very vague complaints, as well. Marx vacillated wildly on the appropriateness of Roy as a translator. On January 9, 1872, Marx wrote a long letter to Lachâtre, in which he sought to excuse his own tardiness in returning proofs to the printer. He blamed the printer himself for much of the delay, but saved some harsh words for the translator as well.

It is the translation of M. Roy that gives me perhaps more work than if I had done the whole task myself. . . . Almost all my work is interrupted by the revision of this translation. Sometimes I have to redo pages entirely, sometimes I have to correct details of the manuscript, but in these last cases I often find the adequate form, even after consultation with Lafargue and Longuet, only by seeing the proofs in front of me. Longuet wrote a letter to M. Roy in which he reprimanded him sharply, and I communicate this fact to you on the express condition that you do not say a word about it to M. R. It would be useless, after all, I am now convinced that this is not the translator I need” (Gaudin, *Traduire le Capital*, 78).

It is hard to tell how truthful all of this is. Longuet did write to Roy, but not yet by the ninth, it appears, and not obviously to reprimand him for the shoddiness of his translation. On the thirteenth, Longuet wrote to Marx to inform him that he was *just now* writing to Roy, “advising him to leave his teaching if he cannot be ready at time for publishing” (Gaudin, *Traduire le Capital*, 81). The issue being pressed seems to be the timeliness of Roy’s translation work, not its quality.

xiii. Lachâtre was a friend of Proudhon and collaborator of Félix Pyat, so hardly an ideologically congenial choice of publisher. After the Commune, he lived in exile in Spain, Belgium, and Switzerland.

xiv. Marx to Lachâtre, May 1, 1872; Gaudin, *Traduire le Capital*, 100. In any case, Marx’s fall-back preference of giving the translation to Charles Keller would not work. Keller—who had begun a translation two years prior—was now occupied otherwise, and was not exactly a sympathetic translator. In December 1871, he had written to Léo Fränkel (in exile in London), and had jocularly extended his greetings to Marx: “Give my best to citizen Marx, and keep on begging him to redo the 1st chapter of his 1st volume, or else I threaten him to translate it as it is” (quoted in Gaudin, *Traduire le Capital*, 23). Marx was stuck with Roy.

xv. Lachâtre to Marx, February 15, 1875; Gaudin, *Traduire le Capital*, 158.

xvi. Marx to Danielson, May 28, 1872; *MECW* 44, 385.

xvii. This has had some downstream effects when French theory is translated into English. *Force de travail* in non-Marxist texts is often translated as “labor force,” for instance, and this has the effect of hiding the connection to Marx, since *Arbeitskraft* was translated directly into English as “labor-power.” This happens several times in English translations of Foucault. See, for example, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (New York: Vintage, 1977), 138, 142, 145, 163, and 221. For more, see Alex J. Feldman, “Power, Labour Power and Productive Force in

Foucault's Reading of Capital," *Philosophy & Social Criticism* 45, no. 3 (March 1, 2019): 307–33.

xviii. Baasch, "The Theatre of Economic Categories," 18–32.

xix. *Ibid.*, 24.

xx. An instance of this can be found in chapter 4, where the French edition replaces "Als bewußter Träger dieser Bewegung wird der Geldbesitzer Kapitalist" with "C'est comme représentant, comme support conscient de ce mouvement que le possesseur d'argent devient capitaliste" (*MEGA2* II.6, 171/II.7, 123).

xxi. "In der bürgerlichen Gesellschaft herrscht die fictio juris, daß jeder Mensch als Waarenkäufer eine encyclopädische Waarenkenntniß besitzt" (*MEGA2* II.6, 70, n. 5; this volume p. 14, n. 5).

xxii. "Nul n'est censé ignorer la loi" (*MEGA2* II.7, 20, n. 5).

xxiii. "Die Gleichheit toto coelo verschiedner Arbeiten kann nur in einer Abstraktion von ihrer wirklichen Ungleichheit bestehn, in der Reduktion auf den gemeinsamen Charakter, den sie als Verausgabung menschlicher Arbeitskraft, abstrakt menschliche Arbeit, besitzen" (*MEGA2* II.6, 104; ms. p. 34–35).

xxiv. "C'est l'échange seul qui opère cette réduction en mettant en présence les uns des autres sur un pied d'égalité les produits des travaux les plus divers" (*MEGA2* II.7, 55).

xxv. *MEGA2* II.6, 105. The predecessor version of this claim in the first edition can be found in *MEGA2* II.5, 47.

xxvi. Moore and Aveling: "To them, their own social action takes the form of the action of objects, which rule the producers instead of being ruled by them" (*MEGA2* II.9, 65). Untermann reproduces Moore and Aveling's version (Karl Marx, *Capital: A Critique of Political Economy*, ed. Friedrich Engels, trans. Samuel Moore, Edward Aveling, and Ernest Untermann [Chicago, IL: C. H. Kerr, 1906], 86). Cedar and Eden Paul: "These magnitudes are perpetually changing, independently of the will, foreknowledge, and activity of those who make the exchanges, whose own social movement seems to them a movement of things—of things which control them instead of being controlled by them" (Karl Marx, *Capital*, trans. Eden Paul and Cedar Paul, Everyman's Library [London: J. M. Dent & Sons, 1934], 48). Fowkes: "Their own movement within society has for them the form of a movement made by things, and these things, far from being under their control, in fact control them" (Karl Marx, *Capital: A Critique of Political Economy*, trans. Ben Fowkes, vol. 1 [London: Penguin, 1976], 167–68).

xxvii. *MEGA2* II.6, 410/II.7, 363.

xxviii. *MEGA2* II.6, 410; this volume p. 391.

xxix. "Der Arbeiter also ein Knecht seines Gegenstandes" (*Marx-Engels Werke*, vol. 40 [Berlin: Dietz, 1968], 513).

xxx. "In der Bestimmung, daß der Arbeiter zum Produkt seiner Arbeit als einem fremden Gegenstand sich verhält, liegen alle diese Konsequenzen. Denn es ist nach dieser Voraussetzung klar: Je mehr der Arbeiter sich ausarbeitet, um so mächtiger wird die fremde, gegenständliche Welt, die er sich gegenüber schafft, um so ärmer wird er selbst, seine innre Welt, um so weniger gehört ihm zu eigen" (MEW Ergänzungsband, Erster Teil [1977], 512).

xxxi. One of the reasons that Lukács is felt to have anticipated the discovery of Marx's 1844 manuscripts is that he articulated this understanding of fetishism already

in 1920, twelve years before the David Ryazonov–led team at the Marx-Engels Institute published their edition of Marx’s notebooks. In his essay on “Class Consciousness,” Lukács already brings together the sentence from the fetishism section of chapter 1 with the claim, from later in *Capital*, that capital is a social relation, not a thing. The pursuit of a “sociologically’-lawful” history merely expresses, Lukács writes, “the fact that people in bourgeois society are at the mercy of the forces of production.” This is immediately followed by his citation of the line from chapter 1, which is supposed to serve as a proof text. He then generalizes, claiming that Marx’s view is confirmed by the ostensibly natural and rational laws of classical economics, and that the entire perspective of political economy is upended by Marx’s insistence that capital—and every other “Gegenständlichkeitsform” of political economy—is “not a thing but a social relation among persons mediated by things” (Gyorgy Lukács, “Class Consciousness,” in *History and Class Consciousness: Studies in Marxist Dialectics*, trans. Rodney Livingstone (Cambridge, MA: MIT Press, 1971), 49; translation modified). Lukács’s closing citation of Marx is from the closing chapter of *Capital* (MEGA2 II.6, 700/II.7, 681).

xxxii. David Leopold, “Alienation,” *The Stanford Encyclopedia of Philosophy* (Fall 2018 edition), ed. Edward N. Zalta (<https://plato.stanford.edu/archives/fall2018/entries/alienation/>).

xxxiii. *Time, Labor, and Social Domination: A Reinterpretation of Marx’s Critical Theory* (Cambridge: Cambridge University Press, 1993), 373.

xxxiv. Postone, *Time, Labor, and Social Domination*, 384.

xxxv. “Le caractère de valeur des produits du travail ne ressort en fait que lorsqu’ils se déterminent comme quantités de valeur. Ces dernières changent sans cesse, indépendamment de la volonté et des prévisions des producteurs aux yeux desquels leur propre mouvement social prend ainsi la forme d’un mouvement des choses, mouvement qui les mène, bien loin qu’ils puissent le diriger” (MEGA2 II.7, 56).

xxxvi. MEGA2 II.7, 24.

xxxvii. MEGA2 II.6, 74/II.7, 23.

xxxviii. MEGA2 II.6, 72, 80/ II.7, 30–31. In the French, Marx deleted the most famous sentence declaring that exchange-value is the necessary form of appearance of value (MEGA2 II.6, 72; compare MEGA2 II.7, 22), but he certainly did not eliminate the idea. “Si l’on se souvient cependant que les valeurs des marchandises n’ont qu’une réalité purement sociale,” he writes, “qu’elles ne l’acquièrent qu’en tant qu’elles sont des expressions de la même unité sociale, du travail humain, il devient évident que cette réalité sociale ne peut se manifester aussi que dans les transactions sociales, dans les rapports des marchandises les unes avec les autres” (MEGA2 II.7, 30). Human labor in the abstract can only manifest itself in the social relations among commodities on the market; that is, their exchange relations.

xxxix. Balibar, “The Vacillation of Ideology in Marxism,” in *Masses, Classes, Ideas: Studies in Politics and Philosophy Before and After Marx*, trans. James Swenson (London: Routledge, 1994), 89.

xl. MEGA2 II.6, 364 n. 89, 428, 529, 558, and 684/II.7, 318 n. 95, 384, 497, 680, and 696; this volume pp. 343, n. 4; 409; 527 (where “Ideolog” is translated as “theoretician”); 558; and 693 (where “Ideologie” is rendered as “theories”).

xli. Balibar, “The Vacillation of Ideology in Marxism,” 89.

xlii. *Ibid.*, 90.

xl. Charles Mills, “‘Ideology’ in Marx and Engels: Revisited and Revised,” in *From Class to Race: Essays in White Marxism and Black Radicalism* (Lanham, MD: Rowman & Littlefield, 2003), 29.

xli. Mills, “‘Ideology’ in Marx and Engels: Revisited and Revised,” 16.

xlii. *Ibid.*, 30.

xliii. This volume p. 49; “fantastique” (*MEGA2* II.7, 54); “phantasmagorisch” (*MEGA2* II.6, 103).

xliiii. *MEGA2* II.7, 54/II.6, 104; this volume p. 49.

xlv. “Die gesellschaftliche Gliederung und der Staat gehen beständig aus dem Lebensprozeß bestimmter Individuen hervor; aber dieser Individuen, nicht wie sie in der eignen oder fremden Vorstellung erscheinen mögen, sondern wie sie wirklich sind, d.h. wie sie wirken, materiell produzieren, also wie sie unter bestimmten materiellen und von ihrer Willkür unabhängigen Schranken, Voraussetzungen und Bedingungen tätig sind” (*MEGA2* I.5, 15).

xlv. See *MEGA2* II.7, 62.

l. In the German, Marx says that the economists are “fooled” or “tricked” [*getäuscht wird*] by fetishism (*MEGA2* II.6, 112).

li. *MEGA2* II.6, 113/II.7, 63; this volume p. 59.

lii. Mills, “‘Ideology’ in Marx and Engels: Revisited and Revised,” 25; quotation from *The German Ideology*, *MEGA2* I.5, 77.

liii. “La rétribution du travailleur se représente comme le salaire du travail: tant d’argent payé pour tant de travail” (*MEGA2* II.7, 461; compare *MEGA2* II.6, 498; this volume p. 491: “Workers’ wages present themselves on the surface of bourgeois society as the price of labor—a certain amount of money that is paid for a certain amount of labor”).

liiii. “La forme salaire, ou paiement direct du travail, fait donc disparaître toute trace de la division de la journée en travail nécessaire et surtravail, en travail payé et non payé, de sorte que tout le travail de l’ouvrier libre est censé être payé. . . . Cette forme, qui n’exprime que les fausses apparences du travail salarié, rend invisible le rapport réel entre capital et travail et en montre précisément le contraire; c’est d’elle que dérivent toutes les notions juridiques du salarié et du capitaliste, toutes les mystifications de la production capitaliste, toutes les illusions libérales et tous les faux-fuyants apologétiques de l’économie vulgaire” (*MEGA2* II.7, 466). Compare *MEGA2* II.6, 502, in the present translation (this volume p. 496): “On this form of appearance, which renders the true relation invisible, presenting it as the opposite of what it is, rest all the worker’s and capitalist’s notions of what is fair and just, all the mystifications of the capitalist mode of production, all the illusions of freedom and apologetic humbug in vulgar political economy.”

liiii. “Le salaire est le paiement du travail à sa valeur ou à des prix qui en divergent. Il implique donc que valeur et prix accidentels de la force de travail aient déjà subi un changement de forme qui les fasse apparaître comme valeur et prix du travail lui-même” (*MEGA2* II.7, 464; compare *MEGA2* II.6, 501).

liiii. “Was letzterer verkauft, ist seine Arbeitskraft” (*MEGA2* II.6, 499; this volume p. 493).

liiii. “Ce que celui-ci vend, c’est lui-même, sa force de travail” (*MEGA2*, II.7, 463, emphasis added). Misunderstanding this point—or not seeing it at all—underlies the errors of otherwise disparate interpretive and critical traditions. Lukács did not grasp

it. Therefore, he concluded that the worker has an epistemically privileged position within capitalist society since “the worker recognizes themselves and their own relation to capital in the commodity” (*History and Class Consciousness*, 168; translation modified). Marx’s argument in chapter 17/19 is precisely that the wage-form militates against this recognition, since the wage seems to be for labor—the worker’s service—rather than for labor-power—the worker themselves. Thus, Lukács is led to claim that, while “the reification process and becoming-a-commodity of the worker” “stunts and cripples their ‘soul;’” nonetheless, the worker’s “human-spiritual being is not transformed into a commodity” (*History and Class Consciousness*, 172; translation modified). Marx disagrees. The sale of labor-power is the sale of “the ensemble of physical and intellectual abilities that exist in the human body, in the living personality [l’ensemble des facultés physiques et intellectuelles qui existent dans le corps d’un homme, dans sa personnalité vivante]” (*MEGA2* II.7, 135).

At the opposite end of the Marxological spectrum, John Roemer has made the same error. Roemer argues that “the struggle between worker and boss on the factory floor over the extraction of labor from labor-power” is a mere “dispute over the terms of the labor contract,” and is therefore beside the point of Marx’s account of exploitation, which assumed “frictionless markets with costlessly enforced contracts” (“Exploitation, Class, and Property Relations,” in *After Marx*, ed. Terence Ball and James Farr [Cambridge: Cambridge University Press, 1984], 198). This takes for granted the notion that the wage contract specifies fully—or at least could so specify—the services to be delivered. This is what Marx denies.

lviii. “Le laboratoire secret de la production . . . grand secret de la société moderne” (*MEGA2* II.7, 143; compare *MEGA2* II.6, 191).

lix. Therefore, I disagree with David Harvey, who has claimed that “the later chapters on wages are pathetically thin” (“History versus Theory: A Commentary on Marx’s Method in Capital,” *Historical Materialism* 20, no. 2 [2012], 11).

lx. *MEGA2* I.5, 290.

lxi. Antoine Louis Claude Destutt de Tracy, *A Treatise on Political Economy*, trans. Thomas Jefferson (Indianapolis: Liberty Fund, 2011 [1817]), 95. Tracy’s work was originally published in France as *Éléments d’idéologie, IV partie: Traité de la Volonté*.

lxii. *MEGA2* II.7, 680; *MEGA2* II.6, 684; this volume p. 693.

lxiii. *MEGA2* II.7, 463

lxiv. *MEGA2* II.7, 463, n. 6; *MEGA2* II.6, 500, n. 26; this volume p. 493, n. 6. Marx is quoting from his own *The Poverty of Philosophy*.

lxv. *MEGA2* II.7, 463; compare *MEGA2* II.6, 500 (this volume p. 494).

lxvi. This volume p. 493; *MEGA2* II.6, 500.

lxvii. *MEGA2* II.7, 79; *MEGA2* II.6, 128; ms. p. 55.

lxviii. David Harvey confuses matters by assimilating the rate of interest to Marx’s analogy. Drawing on volume 3, Harvey claims that “the rate of interest is . . . an ‘irrational expression’ (which Marx elsewhere likens to irrational numbers in mathematics)” (Harvey, “History versus Theory,” 32). He claims that the comparison to irrational numbers takes place in the passage in chapter 3; however, that passage does not include a reference to interest and, as we have seen, does not refer to irrational numbers but to imaginary numbers.

lxix. *MEGA2* II.7, 79; *MEGA2* II.6, 128; this volume p. 77.

lxx. *MEGA2* II.7, 463; *MEGA2* II.6, 500; this volume p. 493.

lxxi. The letters concerning the French translation have been collected in Gaudin, *Traduire Le Capital*. For a recent overview of some of this correspondence, see Kenneth Hemmereichs and Noheми Jocabeth Echeverria Vicente, “The Publishing Process of the First Series of Karl Marx’s *Le Capital* (February–October 1872),” *Quaerendo* 53, no. 1 (March 29, 2023): 40–70.

lxxii. Lachâtre to Marx, February 15, 1875; Gaudin, *Traduire le Capital*, 158.

lxxiii. Marx to Lachâtre, May 1, 1872; Gaudin, *Traduire le Capital*, 100.

lxxiv. MEGA2 II.6, 701; this volume p. 702.

lxxv. Marx, *Circulaire du Conseil Général de l’Association Internationale des Travailleurs au Conseil Fédéral de la Suisse Romande du 1 janvier 1870*, quoted in MEGA2 I:21, 159–65.

lxxvi. Marx, *The Civil War in France*, MEGA2 I.22, 142.

lxxvii. The wave of French exiles also transformed Marx’s immediate personal and political relations. Two Communards, Léo Fränkel and Prosper-Olivier Lissagaray, would court Marx’s youngest daughter, Eleanor. Another, Charles Longuet, would marry his eldest, Jenny. The influx of Communards into London, together with the horror at the Commune expressed by some of the trade-unionists in the IWMA, would embroil Marx in a series of fights over the direction of the General Council. The eclipse of orthodox Proudhonism by Bakuninism was equally significant. Bakunin may have been a political abstentionist, but he had embraced the Commune and participated in the failed attempts to set up Communes in Lyon and Besançon. The conflict between Marx and Bakunin, in which Communards like Longuet and Vaillant were pivotal, would see the end of the IWMA after the Hague Congress of 1872. Longuet and Vaillant would also recommend to Marx and Lachâtre that Joseph Roy—another Communard in exile—might capably translate *Capital* into French.

lxxviii. Marx to Just Vernouillet, October 28, 1873; in Gaudin, *Traduire le Capital*, 151.

lxxix. Daniel Gaido, “The First Workers’ Government in History: Karl Marx’s Addenda to Lissagaray’s *History of the Commune of 1871*,” *Historical Materialism* 29, no. 1 (March 19, 2021), 50.

lxxx. “The proportion of the nation engaged in agriculture fell from 61 per cent in 1851 to 53 per cent in 1861 to 45 per cent in 1891 and 32.5 per cent in 1931–46. This drastic drop still left France with far more peasants than most other western countries: in 1939 Britain had only 5.7 per cent, Belgium 17 per cent, Germany 29 per cent. The rural depopulation continued rapidly after the Second World War: the agricultural population fell between 1946 and 1960 from 32.5 per cent to 20 per cent” (Alan Bullock and F. W. D. Deakin, “Peasants,” in *France 1848–1945*, edited by Theodore Zeldin, Oxford: Oxford University Press, 1973).

lxxxi. “Das industriellere Land zeigt dem minder entwickelten nur das Bild der eignen Zukunft” (MEGA2 II.6, 66; this volume p. 6).

lxxxii. “Le pays le plus développé industriellement ne fait que montrer à ceux qui le suivent sur l’échelle industrielle l’image de leur propre avenir” (MEGA2 II.7, 12).

lxxxiii. Engels, “Forward to the Third Edition,” MEGA2 II.8, 57.

lxxxiv. I owe an immense debt to the students in POLI 561 in the Winter term of 2021, who worked through the entirety of volume 1 with me, with special attention on the changes among editions and translations. Thanks also to Luc Moulaison for his careful assistance with the text. I have avoided many errors and confusions thanks

to incisive comments and questions from readers. In particular, I want to thank the participants in the Dartmouth Workshop on Marx and Critical Theory (organized by Jake McNulty and Kenneth Waldon) and in the conference “Politique, valeurs, art: Perspectives en philosophie politique allemande” (organized by Antoine Panaïoti, le Centre canadien d’études allemandes et européennes, and the Deutscher Akademischer Austauschdienst). Paul Reitter, Paul North, Hasana Sharp, and Yves Winter contributed helpful comments on early versions.

Index

*an asterix refers readers to an editor's note on the person or concept

- absolute surplus-value, 151, 288, 377,
466-68, 473
- abstraction, 6, 15-16, 22-24, 27, 277,
*792niii; abstract human labor, 16,
24, 28, 35, 50, 52, 56. *See also* concrete
labor
- accumulation of capital, 336, 414, 519-20,
527, 539, 557, 567-70, 577-79, 581-84,
588, 590-91, 650; definitions of,
533-534, 562-63; misunderstandings
of, 538-539; original accumulation,
572-76, 650-51, 695, 697-98; versus
amassing wealth, 541-49
- Africa, 237, 407, 682, 688
- agricultural workers, 224, 239, 243-45,
458-60, 485, 550, 587, 598-600, 603,
615-18, 620-23, 626, 634-35, 638-39,
646-47, 649, 657-58, 662, 673
- alienation, 84, 103, 110, 141, 398, 525, 558,
590
- Allinsworth, George, 229
- America. *See* United States
- American Civil War, 7, 141, 166, 227, 257,
261, 364, 389, 400-1, 418, 496
- ancient Greece, 36, 58, 75, 105, 337-38, 451
- Anderson, James, 461, 516, 567, 661, 663,
677, 688
- animal spirits, 298, 301, 313, *826ni
- Anne, Queen, 137
- Anti-Corn Law League, 260, 705
- appearance, 16, 25, 29, 33-5, 37-8, 40-1,
43, 51, 57, 61, 64-6, 69, 121, 276, 493,
496, 498, *794ni, *797-8nxii
- appropriation, 14, 83, 126-27, 153, 159-161,
228, 273, 278, 291, 349, 356, 465-66,
470, 519-20, 523-25, 536-38, 542,
557, 691; non-capitalist, 693; of the
labor-power of women and children,
363-371; personal, 336
- Archilochus of Samos, 336
- Archimedes, 274
- Aristotle, 35-36, 58, 61, 126-27, 138, 298,
376
- Arkwright, Sir Richard, 339, 347, 351, 392,
395, 449, *828nix
- Ashworth, Henry, 257, 374
- Athenians, 207, 336-38
- Augier, Marie, 688-89
- Australia, 238, 414, 666, 701
- Babbage, Charles, 318, 321, 345, 360,
373
- Bacon, Francis, 359, 654-55
- Bailey, Samuel, 27, 33, 39, 59, 491, 559,
724, *804nxxxvii
- Baker, Robert, 270, 368, 393, 646
- Bank of England, 100, 113, 115
- Barbon, Nicholas, 13, 15, 97, 102, 115-17,
566, *796nviii
- Barton, John, 577, 616
- Bastiat, Frédéric, 5, 37, 58, 168, 377, 517,
705, 818, *840nvi
- Baynes, John, 358, 360
- Beccaria, Cesare, 336
- Beecher-Stowe, Harriet, 664
- Belgium, 247, 269, 318, 425, 614-15

- Bellers, John, 104, 111, 117, 298, 319, 394, 441, 450, 563
- Bentham, Jeremy, 149, 558-61
- Berkeley, George, 307, 325
- Bible, 79-80, 84, 86, 88, 90, 93, 155, 221, 503
- Blanqui, Louis-Auguste, 247, 309
- Boisguillebert, Pierre, 103, 113
- Bonaparte, Louis Napoleon, 246, 635, *822-23nxxv
- bourgeois economists, 57-8, 524, 704, *787nxxi
- bourgeoisie, 27, 45, 57, 111, 71, 243, 246, 389, 392, 501, 591, 692, 703-5, 710; industrial, 618; liberal, 614; petite, 589; as political economists, 25, 403, 405-6; use of machinery, 448, 459
- Bright, John, 514, 595, 680
- Buchanan, David, 100, 515, 664
- Burke, Edmund, 181, 207, 295, 551, 659, 689
- Cairnes, John Elliot, 171, 237, 304
- Cantillon, Philip, 512
- Cantillon, Richard, 511-12
- capital, 119-49, 235-37, 239-41, 273-81, 301-307, 331-40, 364-66, 466-68, 532-51, 553-64, 585-88, 650-51, 688-700; constant, 174-195, 198, 227, 276, 288, 290, 297, 302, 330, 356, 358, 374-75, 403, 412-13, 485, 508, 534, 553-55, 559-60, 562, 571, 581, 585, 677-78; merchant, 121, 125, 129, 137-38, 330, 467, 681; usury, 121, 137-138, 467, 681; variable, 174-195, 273-77, 330, 375, 403, 413, 448, 484, 486, 522-528, 533-34, 536, 540, 542, 553, 557, 559, 560, 562, 570-82, 585, 671, 677
- capitalist, 127-30, 137, 147-49, 153, 160-63, 166-72, 181-83, 186-94, 205, 207, 236, 240-41, 267-69, 271-80, 289-97, 300-307, 330-40, 361-65, 372-75, 394-98, 403-5, 443, 451, 460-61, 460-68, 482-87, 496-97, 501-10, 517-28, 530-32, 534-38, 540-8, 572-74, 578-81, 681-82, 690-701; capitalist anthropology, 250; capitalist apologetics, 166-168, 180, 190, 327, 404-5, 510, 559, 585; capitalist farmers, 278, 485, 620, 675-76; industrial capital-ists, 137, 454, 476, 546-47, 643, 677, 681; modernized capitalist, 543
- capital relation, 302, 332, 365, 394, 469, 486, 532, 535-37, 563, 568-69, 651
- Carey, Henry Charles, 191, 486, 516-17, 665, 680, *818ni
- Carlyle, Thomas, 226
- Cartwright, Edmund, *799nxxv
- categories, 8, 52, 88, 136, 142, 493-94, 560, *814ni
- Cazenove, John, 523, 533, 546
- Cervantes Saavedra, Miguel de, 58
- Chalmers, Thomas, 127, 136, 566-67
- Charles I, 656
- Cherbuliez, Antoine-Élisée, 157, 161, 537
- Chernyshevsky, Nikolay, 705, *840nv
- children and child labor, 145, 200, 228-29, 238-43, 246-52, 256-57, 262-70, 388-89, 399, 402, 428-41, 449-56, 603, 612-14, 618-19, 628-39, 646-47, 684-88, *824nxxxiv; harmful effects of, 218-19, 362-72, 423-26, 444-47
- Cicero, Marcus Tullius, 376
- Cincinnatus, Lucius Quinctius, 160, *817nvi
- circulation, 71-72, 86-103, 105, 107-12, 114, 116, 121-35, 137-40, 147-48, 167, 169-70, 519, 535, 537, 539
- classes, 109, 136-37, 144, 147, 172-73, 202, 207, 217, 242, 247, 252, 255, 261, 269, 278, 321, 336, 377, 388-89, 397, 408-11, 449, 468, 482-83, 523, 526-30, 534, 551, 564, 577, 580, 582-92, 596-99, 602-5, 615, 617-18, 622, 646, 671, 674, 676, 679, 691-92, 695-96, 703-4
- coal, 157, 165, 177, 191, 194, 196-97, 233, 235, 269, 347, 357-58, 380, 406-7, 410, 414, 425, 454-56, 458, 469, 510, 526, 531, 552, 577, 595, 597, 605, 610
- coats, 19-23, 25-35, 38-42, 44, 46-47, 52, 368
- Cobbet, William, 656, 685
- Cobden, Richard, 226, 253, 620, 705
- Colins, Jean-Guillaume, 545, 563, 635, 700
- colonialism, 306, 325, 353, 396, 414, 433, 529, 579-80, 603, 682-89, 693-701
- Columbus, Christopher, 105
- commodity, 5-6, 13-59, 60-68, 69-120, 121-49, 160-63, 166-72, 183-85, 205-7, 271, 287-97, 309, 316-17, 323-24, 326-28, 359, 404, 491-94, 497, 504-5,

- 519-20, 522-25, 534-39; commodity value, 21-25, 29, 36-37, 39-40, 43, 52, 57, 62, 65, 69, 71-74, 80, 90-92, 101, 130, 135, 294, 494, 522, 534; money commodity, 46-47, 65, 69-71, 77-79, 102-103, 116, 134; production, 20, 49, 51-55, 60, 63, 69-70, 84, 88, 104, 113, 121, 133, 143, 161-62, 172, 317, 322, 327, 336, 466, 533, 537, 572
- commons, enclosure of, 659-62, *839nviii
- competition, 81, 240, 251, 289, 291, 298, 315, 317, 327, 362, 389, 397-98, 401, 416n151, 424, 433-36, 451-52, 459, 483, 502, 504-506, 511, 542, 555-56, 573-4, 577, 580, 582, 586, 646, 692, 694, 698
- Comte, Auguste, 304
- concentration, 302, 305, 309, 320, 331, 353, 397, 422, 436, 439, 458, 461, 570-76, 595, 602, 634, 640, 644, 648, 677, 684, 691
- concrete labor, 23-4, 28, 35, 88, *792miii.
See also abstraction
- Condillac, Étienne Bonnot de, 133, *815nvi
- consciousness, 58, 127, 177, 280, 289, 327, 364, 372, 497, 528, 542, 705, 707-8, *814nii
- consumption, 89, 124, 126, 140, 148, 159, 181, 205, 226, 364, 411, 428, 521-22, 525-28, 532, 534, 538-54, 557, 567, 596, 671, *816-17nv
- contradiction, 15, 77-8, 88, 95, 106, 111, 130, 138, 187, 270, 276, 339, 376, 402, 405, 446-49, 459, 492, 517, 547, 587, 693, 710, *809-11nvii
- cooperation, 292, 294-311, 316-17, 319, 330-32, 335, 348-50, 355-57, 387-9, 392, 396, 421-22, 435, 486, 690-91, 694
- Corbet, Thomas, 125, 539
- Corn Laws, 251, 253, 260, 417, 421, 512, 618-19, 704, *823nxxvii
- corvée labor, 208-11, 495-96, *819niii
- cotton, 122, 124-25, 158, 162-70, 174-77, 179, 181, 183, 187-88, 191, 193-200, 208, 228, 237-41, 258, 265-66, 300, 324, 349, 353, 360-61, 385-87, 389, 393, 398, 400, 407-8, 414-15, 417-21, 496
- credit, 100-2, 108-13, 141, 147-48, 544, 574, 578-79, 685
- crisis, 87-8, 96, 111, 213, 215, 253, 364, 389, 401, 410-421, 569, 580, 598, 612, 704, 710, *812-13nxix
- Cromwell, Oliver, 656-57, 680
- Crusoe, Robinson, 52-4
- Custodi, Pietro, 21, 50, 65, 67, 127, 132, 336, 591
- Dante Alighieri, 78, 218, *820viii
- Darwin, Charles, 313, 342
- Defoe, Daniel, 52-55
- Demeter, 377
- De Quincey, Thomas, 364
- Descartes, René, 359
- Destutt de Tracy, Antoine, 56, 131, 137, 299, 593
- determination (*Bestimmung*), 33-4, 39, 52, 67, 85, 492, *804-5nxlvi
- dialectics, 537, 547, 707-710
- Diderot, Denis, 107
- Diodorus Siculus, 208, 312, 338, 469-70
- division of labor, 20, 50-1, 54, 80-82, 97, 299, 307-40, 348-51, 353, 355-56, 388-90, 396-97, 405, 408, 421-23, 445-46, 448-450, 586-87, 589, *827niii
- Dufferin, Lord Frederick, 647-48
- Dunning, Thomas Joseph, 507, 510-11, 689
- Eden, Sir Frederic Morton, 215, 551, 564-65, 567, 616-17, 657, 659, 662, 686, 689, *834-35ni
- education, 145, 230, 250, 262, 269, 271, 368-71, 391, 431, 444-45, 449-455, 612
- Edward III, 71, 242, 671
- Edward VI, 668-69
- Egypt, 187, 208, 305, 312, 338, 344, 418, 425, 469-71
- Elizabeth I, 242, 656-57, 669, 672
- Engels, Friedrich, 13, 51-52, 58, 63, 69, 126, 138, 167, 212, 216, 225, 238, 261, 272, 328, 368, 390-92, 408, 448, 555, 580, 598-99, 692, *827-28niii
- England, 6-8, 17, 71, 104, 19, 112-13, 172, 187, 197, 200, 211-12, 218, 220-23, 228, 230, 235, 237-39, 241, 248, 253, 260-61, 267-70, 310, 339, 343, 349, 351, 362-63, 366-68, 381-82, 395-99, 407-9, 411, 415-17, 427-28, 432-38, 459-61, 469, 481-82, 504, 510, 512, 516-17, 528, 555, 558-62, 577, 583-84, 587, 593-600, 603, 605, 614-18, 621-28, 639, 644-45, 647, 649, 652, 653-57, 668-70, 673, 675-76, 680, 682, 685, 688, 694, 699-70, 703-5

- Epicurus, 55
 equivalence, 26-47, 62-70, 76-78, 80,
 85-6, 99, 108-9, 112, 125, 132-39, 143,
 145, 149, 162, 169, 170, 182-83, 189,
 193, 209, 275, 286, 466, 474, 492, 525,
 535, 537, *808niv
 Europe, 7, 104, 114, 210, 395, 415, 420-22,
 431, 545, 653, 681-85, 688, 698-701
 exchange-value, 14-16, 24-25, 37-38, 42,
 56-57, 59, 63-64, 77, 79-80, 103-4,
 126, 128, 131-34, 143, 161, 167-68,
 176-78, 180, 207-8, 292-93, 373-74,
 378, 495-96, 556
 exploitation, 7, 185-193, 215-16, 224, 228,
 249, 255, 261, 268-69, 273-76, 279,
 302-3, 356, 364-68, 374-76, 384, 390,
 424, 432, 449-52, 466-67, 484-85,
 509-10, 543-44, 549, 553-55, 563,
 567-69, 578-79, 605, 608, 611, 635,
 681, 690-91, 697-99; pre-capitalist,
 207-8, 304, 306, 497-98; rate of, 190,
 193, 485
 expression, 15-16, 21, 25-44, 47, 51-2,
 62-3, 67-8, 70-1, 75-78, *797nxii
 expropriation, 435, 443, 573, 652-674,
 677-81, 685-86, 689-92, 694-696, 701
- Factory Acts, 196, 201, 211, 214, 239, 241-2,
 248, 250-55, 259, 261, 263-70, 272,
 337, 362, 365, 368-71, 379, 385, 389,
 394, 428, 436-40, 442-45, 449, 451-52,
 458, 503, 513, 582, 614, *819-20nvi
 factory inspectors, 200, 212-14, 217,
 238-39, 250, 254-61, 263-67, 270-72,
 280, 365, 368-69, 372, 380, 382, 385,
 393-94, 400, 411-12, 418-20, 441, 444,
 454, 457-58, 503, 646; probity of, 7
 family, 54, 141, 145, 147, 224, 323, 363-64,
 376, 408, 435, 445, 450-51, 454, 468,
 473, 513, 552, 564, 573, 588, 600, 604,
 607, 609-10, 613-33, 660-61, 664,
 *806-7nliv
 farmers, 95, 106, 125, 181, 220, 278, 410,
 442, 485, 531-32, 551-52, 584, 616-17,
 619-23, 626-66, 675-80
 Farre, John Richard, 249
faux frais of production, 300, 304, 589,
 *826nii
 Fawcett, Henry, 458, 514, 560-61, 597-98,
 680
 Ferguson, Adam, 325, 332-34
- Ferrand, William Bushfield, 384, 529
 Ferrier, François, 37
 fetish, 47-59, 68, 107, 702, *805nxlvi
 feudalism, 57, 109, 304, 306, 396, 532,
 652-59, 667, 676, 681-82, 704, *838niv
 Fichte, Johann Gottlieb, 30
 Fielden, John, 372, 381, 686-87
 fixed capital, 186, 374, 530, 560, 577
 Forster, Nathaniel, 606-7, 660-61
 Fourier, Charles, 260, 353, 394, 546, 637,
 *825nxxxix
 France, 8, 64, 72, 116, 137, 211, 239, 241,
 247, 269, 325, 339, 351, 359, 425, 512,
 550-51, 635, 645, 655, 657, 670, 676-77,
 682, 703-5
 Franklin, Benjamin, 28, 138, 155, 565-66
 freedom, 45, 77, 148-49, 245, 249, 269,
 271, 327, 365-66, 392, 461, 496, 511,
 669, 674
 free trade, 37-8, 149, 220-21, 253, 428,
 442, 593, 705
 French Revolution, 64, 269-270, 612, 674,
 689; July Revolution, 546
 Freytag, Gustav, 673
 Friedrich II, 666, 677-78
 Fullarton, John, 101-2, 114, 116
- Galiani, Ferdinando, 50, 65-66, 74, 128,
 132, 287, 588
 Ganilh, Charles, 37, 57, 68, 147, 155, 411
 Garnier, Germain, comte de, 333-34, 509
 Gaskell, Peter, 401, 408
 George II, 17, 71, 672
 George III, 673
 Germany, 6-8, 48, 223, 237, 243, 344, 395,
 425, 666, 672, 703, 705, 709
 Gladstone, William Ewart, 596-97, 673
 Goethe, Johann Wolfgang von, 45, 62, 544
 gold, 15, 18, 34, 46-47, 51-2, 65-80, 82-84,
 91-92, 96-107, 112-7, 133, 135, 208,
 682-83, *808-9ni
 Great Britain, 100, 237, 258, 303, 366,
 402, 413-15, 425, 455, 458, 509, 512,
 516, 594, 643
 Greeks, 58, 75, 128, 338
 Gülich, Ludwig Gustav von, 685, 703,
 *840niv
- Harrison, William, 654, 675
 Hegel, Georg Wilhelm Friedrich, 22, 66,
 141, 155, 233, 278, 334, 538, 709

- Heine, Heinrich, 272, 559
 Henry VII, 242, 654-55, 668
 Henry VIII, 655, 668-69
 Heraclitus, 80
 Hobbes, Thomas, 143, 359, 566
 Hodgskin, Thomas, 311, 324, 326, 493,
 528, 681
 Holland, 243, 324, 339, 345, 351, 362, 395,
 425, 471, 551, 670, 682, 684-85
 Homer, 39, 225, 336
 Horace (Quintus Horatius Flaccus), 6,
 235, 649
 Horner, Leonard, 197, 213, 247, 251, 254,
 257, 259, 265, 369-70, 382-83, 394, 508
 Howell, Thomas Jones, 200, 213, 259-60
 Howitt, William, 682
 Hume, David, 96-7, 471, 512, 566-67
 Hunter, Julian, 367, 603, 605-607, 610-11,
 621, 625-29, 634-35, 656
- in and for itself, 15, 23, 63, 69, 77, 89, 132,
 140, 350, 414, 447, 496, *808nvii
 India, 20, 104, 107-8, 110, 181, 187, 300,
 306, 312, 324, 328-29, 351, 360-61,
 368, 398, 401, 414, 417, 469, 471, 529,
 548, 555, 596, 682-84
 industrial reserve army, 440, 575, 578-79,
 581-83, 585-86, 589-91
 industrial revolution, 342-345, 395, 397,
 413, 436
 Ireland, 223-24, 237-38, 407, 424, 442,
 516, 529, 594, 623, 639-649, 658
 Isocrates, 338
- James I, 657, 670, 672
 Jesus, 50, 230
 Jews, 55, 129, 137, *814-15niii, 825nxlii
 Jones, Richard, 278, 293, 301, 305, 524,
 538, 548, 578
- Kincaid, John, 369-70
 Kugelmann, Louis, 702, *84oni
- labor (labour), 16-25, 27-31, 35-6, 38-45,
 47-59, 139-46, 153-86, 187-99, 201-11,
 243-47, 270-81, 285-341, 355-64,
 375-82, 386-99, 401-2, 444-50, 465-79,
 491-516, 549-50, 552-58, 567-71,
 581-87, 695-700; complex, 22, 172-173;
 craft, 294, 311, 315-316, 319-321,
 330, 335, 338-40, 343, 348, 359, 390,
 399, 406, 410, 421-23, 445-46, 451,
 467, 572, 588, 679; definitions of, 153,
 181; enhanced simple, 22; multiplied
 simple, 22; nonproductive, 409, 537,
 539, 546, 583, *833ni; simple, 22, 164,
 172-173, 286; specialized, 308, 311,
 324-25, 331; unskilled, 172, 321-22,
 338, 399, 409, 423, 436, 446, 581-82
 labor fund, 523-24, 559-62
 labor-power, 140-49, 160-61, 168-72,
 182-90, 202-6, 235-36, 273-77, 285-88,
 290-92, 294-97, 364-66, 473-74,
 476-81, 493-502, 522-27, 534-37,
 539-40, 562-64, 567-72, 581-82,
 *798-99nxiv; as a condition of capi-
 talist production, 142; capitalists' theft
 of, 235-36; compromising of, 146,
 287, 331-32; definitions of, 140, 177;
 exploitation of, 185-190, 205-7, 215,
 274, 384-86, 390-91; special charac-
 teristics of, 140, 146, 168; use-value of,
 147; value of, 144-147, 273, 276, 288,
 290, 295, 364, 416, 468, 473, 476-79,
 481, 486, 494-95, 497, 499, 501, 507,
 509, 549
 labor-time, 30-32, 67, 76-7, 131, 143-46,
 162-165, 174-76, 198-99, 202, 203-4,
 209, 234-35, 239-40, 250-51, 262,
 274-75, 293, 295, 299, 301, 317, 319,
 371, 373, 378, 382, 468-69, 483-84,
 502, 508-9, 513-14; average and socially
 necessary, 16-18, 51-5, 81-2, 189,
 285-91; coagulated, 67, 189, *799nxvi;
 money and, 69
 Laing, Samuel, 172-73, 588-89, 602, 617
 landlords, 531, 552, 611, 616, 618, 620-21,
 625, 627, 629-30, 633-34, 638-39,
 643, 649, 659, 663-64, 675-76
 large-scale industry, 244, 247, 314-16,
 320-21, 332, 334-35, 339-461, 467,
 512, 574, 680, 686, 704
 Lassalle, Ferdinand, 5, 80
 Law, Jean, 66
 Le Trosne, Guillaume-François, 14, 17, 66,
 76, 85, 90, 93, 116, 132-33, 135, 137, 184
 Levellers, 61, 105, 366, *807nii
 Liebig, Justus Freiherr von, 211, 300, 356,
 461, 527
 linen, 19-35, 38-47, 52, 79-82, 84-86, 88,
 90, 166
 Linguet, Simon, 205, 257, 305, 565, 671

- Locke, John, 13-14, 66, 76, 98, 125, 359, 566
 Longe, Francis Davy, 216-17, 416, 445
 Loyd, Samuel Jones (also Lord Overstone),
 98, 116
 lumpen proletariat, 589
 Luther, Martin, 108, 167, 279, 543, 684
- Macaulay, Thomas Babington, 243, 247,
 652, 657
 MacCulloch, John Ramsay, 116, 125, 128,
 167, 244, 377, 406, 476, 557, 559, 661
 machinery, 191-92, 196-200, 218-19,
 233-34, 268, 320, 362-64, 379-86,
 390-91, 414, 417-19, 422-23, 432-33,
 435-37, 529-31; as means of produc-
 tion, 176-81; components of, 341-344;
 to extend the workday, 371-76; value
 and, 356-60; workers and, 394-412
 MacLeod, Henry Dunning, 37-38, 128
 Malthus, Thomas, 136, 186, 286, 323, 461,
 482, 513, 523, 528, 533, 538-39, 545-46,
 548, 556, 559, 565, 580, 592, *832nii
 Mandeville, Bernard de, 326, 563-64,
 566; *Bees, Fable of*, *815-16ni
 manufacturing system, 308-39, 341,
 348-50, 352-55, 371-72, 389, 396-97,
 421-24, 433, 439, 679-80, 686,
 *822nxxiii
 material, 14, 20-1, 25-6, 47, 55-8, 65,
 153-54, 156-59, 165, 342, *795nv
 means of labor, 154-58, 162-63, 170-71,
 184, 287-88, 315, 374, 390-92, 406,
 408, 469, 534, 547-48, 552-57, 691; as
 machine, 341, 348, 355-57, 359, 363,
 372, 397, 571; concentration of, 353,
 397; duration of, 176-79; used-up,
 193-96; workers and, 394, 397, 399,
 460, 590
 means of production, 18, 54-55, 142-43,
 156-64, 167, 184-95, 198, 207, 227,
 276-80, 287-91, 296-97, 326-27,
 300-3, 351-54, 434, 521-28, 554-60,
 570-78, 644-45, 651-52, 689-96; con-
 centration of, 300-3, 437; control over,
 207; labor objectified in, 170, 193-95,
 205; value and, 174-88
 means of subsistence, 13, 48, 55, 142-43,
 144-46, 154-55, 159, 189, 286-92, 331,
 404-5, 448, 468-70, 473-78, 496-97,
 523, 525-28, 559, 641, 651, *794-95ni
 Mercantilists, 37-38, 125, 129, *804nliii
 Mercier de la Rivière, Paul-Pierre, 83-84,
 103, 122, 125, 132, 135, 166
 Merivale, Herman, 579-80, 698,
 *799-80onxix
 metabolism, 78-80, 86, 88, 94, 103, 111,
 149, 158-59, 460, *800onxxii
 Middle Ages, 58, 66, 99, 306, 396, 402, 653,
 676, 681, *819niii, *830onxvii, *839nviii
 Mill, James, 88, 98, 128, 161, 173, 324, 403,
 461, 522, 525, 527, 559, 680, *828ni
 Mill, John Stuart, 98, 107, 341, 403, 461,
 546, 550, 560, 705, *828ni
 Mirabeau, Honoré, 439, 566, 653, 666,
 678-79, 685-86, 694, *830onxix
 Molinari, Gustave de, 133, 390, 547, 699
 Mommsen, Theodor, 141, 144
 money, 57-58, 61-149, 166, 169-70, 205-6,
 257, 277-8, 291-92, 361, 521-26, 533-36,
 539-40, 563-65, 569, 650-51, 614,
 675-77; labor and, 491-500; money-
 form, 6, 25, 46-7, 52, 64-7, 70, 75,
 83-85, 103, 132, 534-36
 Montesquieu, Charles, 66, 98, 565, *838niv
 More, Sir Thomas, 566, 654-55, 669
 Morton, John Chalmers, 346, 510
- Nasmyth, James, 355, 383
 Newman, Francis William, 658, 663
 Newman, Samuel Philips, 134, 181
 nonproductivity, 409, 527, 539, 546, 583,
 *833ni
 North, Sir Dudley, 76, 95, 98-99, 107, 359,
 566
- objectification, 16, 22, 35, 39, 43, 69,
 76-77, 81, 102, 132, 140-145, 156,
 162-65, 168-72, 189-90, 294, 357,
 361, 492-93, 525, 555, *796nix,
 *805-6nxxlviii
 original accumulation, 524, 572, 617,
 650-51, 667, 671, 677, 682-85, 688-90,
 693, 701, *836-38ni
 Orkney, Lady Elizabeth, 658
 Ortes, Giammaria, 566, 591
 Owen, Robert, 53, 69-70, 269, 372, 445, 459
- Parry, Charles, 551-52, 617
 pauperism, 588-90, 597-99, 602, 625,
 634, 656
 Peel, Sir Robert, 115, 205, 687, 701, 705,
 *839-40niv

- Petty, William, 21, 28, 57, 67, 76, 96, 114,
117, 144, 243, 286, 314, 319, 336, 396,
512, 566, *80onxxii
- Philip of Valois, 66-67
- Philippe, Louis, 248
- Physiocrats, 21, 58, 137, 155, 166, 487, 494,
541, 694, *813nxxiv, *83onxix
- Pindar, 125, 387, 688
- Pitt, William (the Younger), 181, 673
- Plato, 336-38, *797-98nxiii, *827nii
- political economy, 8, 25, 52, 67-68, 88,
196, 210, 243-44, 265, 304, 359, 485,
538-39, 556, 579-80, 645, 650-51, 666,
680, 689, 693-95; vulgar, 32, 56-9,
132, 166-68, 180, 274, 276-77, 364,
403, 405-6, 459, 484-85, 493-96, 527,
545-48, 593, 698, 703-6, *787nxxi
- Poor Law, 237-38, 398, 417, 552, 592,
601, 607, 617, 624, 647, 649, 657, 662,
*821nxvii
- Potter, Edmund, 265, 529-31, *833niv
- price, 70-84, 91-102, 109-10, 131-40, 148,
192-93, 277, 290-92, 359, 404, 477-82,
491-516, 550, 559, 568-69, 700
- Price, Richard, 616, 661-62
- Princess Alexandra, 230
- private property, 54, 105, 537, 572, 659,
663, 689-93, 696, 699-701
- productivity, 176-77, 288, 312-13, 356,
360, 371-72, 390, 468-69, 478-79,
483, 513-15, 570-71, 708, *816-17nv
- Protestantism, 55, 89, 245, 657, 684
- Proudhon, Pierre, 45, 58, 60, 390, 471,
493, 537
- Prussia, 211, 239, 666, 703
- quality, 13, 16, 19-23, 27-30, 35-8, 56, 106,
124-27, 278, 294-95, 317-20, *827nii
- Quesnay, François, 83, 292-93, 511, 566,
704
- Quételet, Adolphe, 295
- Ramsey, George, 136, 578
- rate of profit, 188, 190, 476, 494
- Read, George, 222-23
- Redgrave, Alexander, 238-39, 347, 365,
371, 385, 400, 412, 418-19, 503
- Reformation, Protestant, 656-57
- representation, 15-19, 22-9, 32-43, 56-8,
66-73, 101-3, 153, 177, 331, *796nix,
*797nxii
- reproduction, capitalist process of, 519,
522-28, 532, 534, 536, 538, 541, 548,
552-56, 569
- Ricardo, David, 32, 39, 52-3, 56-7, 59, 98,
115, 140, 163, 179, 201-2, 357, 361-63,
376, 397-98, 403, 461, 475-76, 482,
491, 517, 527, 539-40, 549, 556, 563,
577-78, 687, 704, 706
- Richardson, Sir Benjamin, 226-27
- Rivière, Mercier de la, 83-84, 103, 122,
125, 132, 135, 166
- Robinson Crusoe, 52-3
- Rogers, James, 616, 620, 657, 680
- Rome, 58, 74, 109, 136, 144, 207, 257, 661,
675
- Roscher, Wilhelm, 67-8, 133, 180, 190,
201, 234, 296, 335, 563
- Rossi, Pellegrino, 146, 526
- Rousseau, Jean-Jacques, 492-93, 678
- Ruge, Arnold, 51, 126
- Russia, 54, 206, 209-11, 262, 425, 612,
658, 680, 705-7
- Say, Jean-Baptiste, 56, 88, 128, 137, 146,
168, 180, 333, 357, 405, 476, 493, 545,
556
- science (*Wissenschaft*), 5, 45, 278, 342,
355-56, 401-2, 447, 460-61, 691,
703-5, *793nvii
- Scotland, 74, 114, 148, 218, 223-24, 228,
237-38, 258, 266, 281, 369-70, 447,
503, 516, 551, 595, 598, 621, 623, 647,
657, 663-67, 673
- Senior, Nassau, W., 196-97, 200-201, 234,
293, 374, 403, 444-45, 453, 501, 504,
546-47, 557, 649, 665, *818-19niii
- Sextus Empiricus, 336
- Shaftesbury, Earl of (also Lord Ashley),
371, 381-82, 618
- Shakespeare, William, 105, 448, 676
- Simon, Sir John (medical doctor), 368,
426-27, 599, 601, 603, 608, 611, 622,
624
- Sismondi, Léonard Simonde de, 129,
146, 207, 287, 492, 522, 532, 545, 580,
592-93, 690, 704, *815nx
- slavery, 64, 141, 171, 208, 226-27, 236-37,
270-72, 365, 392, 407, 410-11, 417,
445, 466, 496, 498, 617, 661, 664-65,
668-69, 688-89, 694, *820-21nxv,
*821nxvi

- Smith, Adam, 24, 57, 97-98, 140, 243, 320, 325-26, 333-34, 336, 357, 378, 421-22, 461, 476, 487, 492, 494, 497, 511-12, 515-16, 539-41, 545, 560, 563, 565-68, 570, 588, 650, 664, 671, 680, 689, 706, *803nxxviii, *814nxxxii, *831ni, *834ni, *837ni
- Sophocles, 106
- Spinoza, Baruch, 277, 547, 709, *825-26ni
- Steuart, Sir James, 96-97, 116, 123, 154, 304, 323, 396, 511-12, 565, 592, 653, 663, 677, *814nxxxii
- Stewart, Dugald, 293, 316, 331, 447
- Storch, Henri, 147, 157, 322, 331-32, 541, 592
- subsumption, 306, 327, 466-67, *831nii
- surplus population, 237-38, 363, 529, 575-80, 582-591, 606, 634-35, 639, 645-46, 670, 697, 701
- surplus product, 190, 201, 328, 484, 408, 471-72, 534-35, 538-39, 541-42, 545, 548, 553, 561-63, 572, 578, 644, 662, 675
- surplus-labor, 189-93, 199, 202-12, 215, 219, 227, 233, 235-36, 267, 273, 277, 279-81, 285-87, 290-91, 361, 364, 373, 375-76, 379, 466, 468, 470-72, 475-87, 495-96, 502, 535, 557
- surplus-value, 125-26, 128-29, 131, 133-39, 148, 166, 172, 182-205, 208, 210, 215, 236, 273-79, 285-92, 294-97, 302, 335, 341, 358, 368, 375-78, 465-68, 473-82, 484-87, 519-22, 524, 532-62, 567-68, 572, 650, *831ni
- Sutherland, Duchess of, 663-65
- technology, 18, 155, 176, 184, 278-79, 287-88, 310, 340, 342, 345-55, 386-91, 400, 413-416, 424, 436, 439-41, 445, 447-49, *799nxvii
- Thucydides, 336-37
- Thünen, Johann Heinrich von, 570
- Torrens, Robert (Colonel), 135, 145, 160, 374, 403, *815nviii
- Townsend, Joseph, 323, 565-66, 591-92
- Tremenheere, Hugh Seymour, 147, 221, 234
- Tucker, Josiah, 244, 566, 689
- Tuckett, John Debell, 333, 656, 680
- Tupper, Martin, 558-59
- Turgot, Anne-Robert-Jacques, 155, 286, 487
- United States (America), 141, 215, 226-27, 238, 241, 257, 270, 300, 304, 324, 326, 353, 355, 362, 364, 400, 407, 415, 417, 420, 422, 459-461, 469, 496, 664-66, 682, 685, 688, 693, 695-97, 699, 701, *786nx, *812nxix, *820-21nxv
- Ure, Andrew, 200, 234, 243, 269, 320-22, 339-40, 350, 356, 373, 387-89, 392, 399, 401-2, 509, 513-14, 516, *821nxxi
- Urquhart, David, 75, 334, 460, 665, 679-80
- use-value, 13-26, 28-30, 32-3, 37-40, 42, 47-8, 56, 59, 61-65, 78-87, 106, 110-11, 123-28, 131-34, 140, 147-48, 153, 156-59, 161-63, 167-70, 174-75, 177-81, 287, 301, 336-38, 496, 556, *795nv, *800nxxvi
- value-form, 5-6, 24-30, 32-47, 57, 59, 62, 64, 66, 70, 76-77, 106, 108, 111, 702, *801-3nxxviii
- Vanderlint, Jacob, 97, 104, 116, 244, 246, 286, 302, 319, 566
- variable capital, 174-95, 273-77, 375, 403, 412-13, 484, 486, 522-24, 527-28, 534, 536, 540, 553, 557, 559-60, 570-71, 575-76, 581-82, 667
- Verri, Pietro, 21, 65, 107, 301
- Voltaire, François-Marie, 48, *817-18nxi, *839niii
- Wade, John, 215, 242, 568
- wages, 146-48, 161, 198-99, 238-39, 242, 253, 286-87, 292, 361-65, 396-404, 416-20, 431, 433-34, 446, 468, 477, 480, 482, 491-517, 522-24, 540-41, 546, 548-53, 560, 562, 568, 583-84, 588, 617-621, 635, 645-47, 670-81, 697-701, *819-20nvi
- Wakefield, Edward Gibbon, 239, 298, 492, 536, 617, 694-96, 698-701, *836nxi
- Wales, 172, 225, 228, 237, 407, 409, 427, 432, 460, 566, 577, 587-88, 593, 595, 598, 623
- Walkley, Mary Anne, 225-26
- Watt, James, 345, 347, 351, 355, 449
- Wayland, Francis, 137, 182
- weaving, 19, 21-2, 28, 35, 43, 79-81, 83-4, 86, 88, 90, 154, 158, 259, 309, 312, 342,

- 348, 380-83, 385, 393, 395-96, 398,
 406-8, 413, 416-17, 419-422, 425, 441,
 447, 451-53, 510-12, 514, 540, 577, 601,
 678, 680-81, *799nxv, *834nv
- Wedgwood, Josiah, 237, 240
- Wilson, James, 201, 312
- working class, 7, 172, 197, 207, 218, 223,
 242, 246-48, 255, 269, 376, 397, 409,
 448-49, 458, 482, 523, 526-28, 534,
 582-89, 592, 596-99, 604, 610, 612,
 615, 654, 668, 670, 673-74, 679, 691,
 699, 703
- yarn, 16-17, 22, 158, 160-69, 174-76,
 179, 183, 189, 191-96, 198-99, 201,
 358-360, 362, 385-87, 400, 407-8,
 418, 420, 555
- Young, Arthur, 202, 244, 616, 623