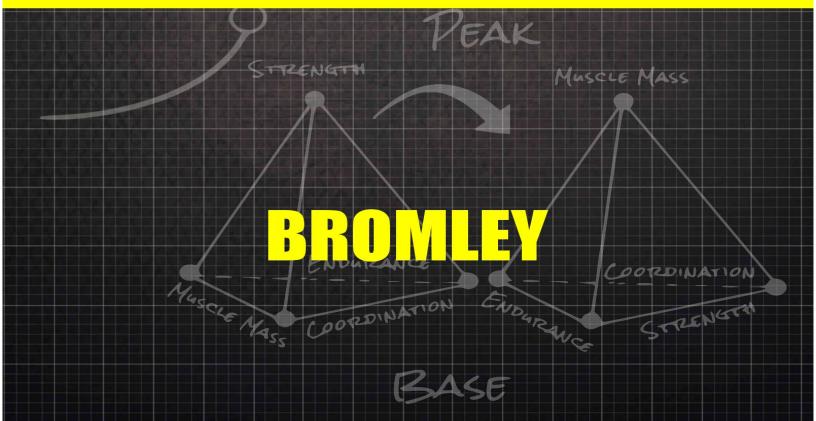


PROGRAM DESIGN BLUEPRINT



BASE strength

Program Design Blueprint

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To Mom, thank you for letting your teenage son re-purpose your garden into a Strongman training facility.

To my wife Laura, for all of your love, faith and support.

ABOUT THE AUTHOR

Alex Bromley began lifting weights in his parent's basement at 13 years old, using just two pairs of dumbbells and a wooden chair. An overweight child, Alex initially lifted weights to get shredded and get girls. Upon graduating high school, he instead decided to put his focus specifically towards strength development.

Alex began competing in Strongman in 2006 at the age of 19 and has since competed in over 50 shows. His memorable moments in the sport include placing 5th at 105kg World's Strongest Man, setting an IHGF log press record with 410lbs and tying internet phenom Larry Wheels with a 510lbs lever squat for 17 reps in front of head judge Martins Licis. He currently runs Empire Barbell in Redlands, CA with his wife, Laura.

INTRODUCTION

Nothing covered here is proprietary. I didn't invent these rules and I'm sure not the first person to write about them. The only new thing I'm bringing to the table is the bottom-up approach to understanding of them.

The top-down approach of understanding typically starts with mimicking, kind of the way a toddler learns to speak. Curious new lifters, eager to get ahead, clumsily follow training outlines pulled out of obscure textbooks and dated blog posts. Each brand of training has multiple approaches and each approach has it's own learning curve, so success rarely occurs the first time through. The new lifter, not knowing enough to know better, judges the program for it's failure to produce and moves on, much more likely to jump ship next time around if they feel like they aren't getting a return on investment.

This book is going to begin with what we *know* is needed in order to see any amount of progress. We are going to cover the basics of training and how we use stress as a tool to build that first strand of muscle growth. Then we are going to anticipate where progress stalls along the way and make logical maneuvers to make sure we never get there.

The bottom-up approach of understanding still gets us to mostly the same answer. However, by the time we get to the business of writing out our own programming, we will have context to go with our decisions. And decision making is nothing without context.

Of course, you can always just jump to the back of the book and use the provided 'Prefabricated Programs' to cheat the process. You will almost certainly grow from any one of them. But keeping that process going uninterrupted is the real hat trick and it is the content provided herein that gives you a chance of pulling it off.

So, take as much time as you need to get adequately caffeinated, grab a pen and a notepad and pay attention.

SQUARE ONE

The average person doesn't change much year to year. Aside from marginal weight fluctuations between swimsuit season and the holidays, those with a set weekly workflow tend to be consistent in appearance, behavior, and performance.

Take your modern sedentary human. Like a sports car collecting rust in an open field, the typical worker sits down most of the day and lies down the rest. The average person today has strenuous physical activity all the way at the bottom of the to-do list but, oddly enough, doesn't lose the ability to walk up stairs or carry in the groceries. This baseline of physical ability represents 'homeostasis', a clunky word used to describe our biological normal.

We as individuals are afforded, just by virtue of existing, a minimum amount of day to day ability. While much of that baseline is genetically determined, those abilities can change substantially if environmental influences push too hard one way or the other.

We can dump excess body weight when food is scarce to reduce the amount of calories we burn each day. We can gain layers of insulation in the form of body fat to protect against cold in the winter. We can build tolerance to different types of foods, pathogens, and even poisons. And, when resources are abundant, we can grow to fight harder and hunt better.

It makes sense that a certain amount of adaptive ability is part of the minimum viable product for any type of life living in a chaotic and ever-changing environment such as ours. But the fact that we can leverage that adaptive ability to the degree that we can, to completely transform our appearance and build our physical capabilities to near super-human levels, is pretty damn exciting.

We are going to review the entire process of getting to the level of World Champion, starting with the first step: getting off the couch.

MEET DUG

Dug is just like any other human centered in the middle of the bell curve. He eats whenever the mood strikes him and it is usually processed crap. His waking hours are mostly taken up by maintaining gainful employment and wishing he was doing something else. He has a few hours out of the week to himself, which usually involves binge watching TV with his wife, Caroline, and drinking too much. Both always end with some amount of guilt that he didn't use that time more productively.

As he climbs into his 30's, he gets hit with an existential crisis to go along with his high blood pressure.

"What is life?", he ponders. "I've got a family, a job, a house..... I have everything I need. But is it *everything*?"

See, Dug's attention these days has been wrapped up thinking about time. There isn't a lot of it and it's going fast. His time so far has been spent getting the bottom piece of Maslow's Hierarchy checked and accounted for (food, shelter, companionship) and he's fortunate enough to have that security. But now it's *actualization* he's missing. If he finds it, he might just have a good enough reason to get his blood pressure sorted and keep his heart pumping for a few years longer.

That actualization finally found him one day while he was sprawled out in his trademarked 'starfish' position on the couch. Flashing back and forth between old survival shows and war documentaries, a sense of awareness overcame ol' Dug. He saw footage of World War II soldiers, cold and hungry in a ditch, while he had a fridge full of snacks and a heated blanket to keep his feet warm. Usually one to complain about the elites, he pondered the people below him, those who exist today without any of the luxuries he had always taken for granted.

That awareness turned to gratitude. "I've got a good life... what have I done with it?". His eyes turned to his overfed belly, rising to obstruct the TV with every breath. Gratitude turned to shame and he decided he had to try, just try, to be a little more. Dug pushed the cat off of his bare belly, wiped the Cheetoh dust off of his hands and immediately began doing push ups.

DUG - LEVEL 1

Without any idea of where to go or where to start, our pudgy hero had the presence of mind to

realize that, when at a loss for a plan, doing anything is the only way to do something. He committed himself to following an Instagram challenge he came across on his wife's IG story: 50 push-ups, 50 squats, 50 sit-ups, every day for 90 days. The perfect system? "No", he thought, "but don't let perfect be the enemy of good".

The first workout required nearly 50 sets, took an hour and a half and almost resulted in Cheetoh puke on Caroline's new rug. Dug finished and showered, green to the gills with his hands shaking from exhaustion. That night, after the nausea dissipated, he sat down to dinner and ate like it was his last meal.

He woke up from a dead, dreamless sleep, angry that the 8.5 hours he clocked didn't feel like enough. Thankfully it was Saturday, because the crippling soreness he experienced that morning would have mandated a sick day. An obligation to show up to work would have also dropped the probability of completing day 2 of his challenge to exactly zero.

"Better take down some hair of the dog that bit me," he thought, using the old drinking wisdom to act before he was awake enough to decide otherwise.

Without so much as stopping to wipe the crust from his eyes, he dropped to the floor and went to work.

Fast forward and it's now been 21 days into Dug's 90 day crash course in physicality. Today, he mows the lawn in an old concert tee, sleeves torn off and Sunday sunshine reflecting off the now-lite beer in his hand. His wife peeks through the living room window with surprise, remembering her husband's fondness for baggy shirts and long sleeves. "What has gotten into that man?".

Premature sense of accomplishment aside, Dug has noticed that his daily workouts have gotten exponentially easier. The first thing of note was the reduction in soreness and stiffness that initially followed each session. Having suffered more and more after each successful session in the first week, he finished day 10 with his first pain-free workout.

Then his performance increased. His hour long puke-fests were now getting clipped off in 45

minutes, then 30 and, eventually, 15. He could do more reps in a single round and experienced much less fatigued in subsequent sets.

Then, the big one. The bicep vein. He saw it while brushing his teeth after one of his waking workouts. Upper body still puffy with excess blood flow, it pulsed with each stroke of the toothbrush, like using Morse code to say, "hey there, good work, fella". That was the moment Dug looked at his old Van Halen shirt and said, "yup, the sleeves are comin' off TOO-day".

The rest of the 90 day challenge went off like a Rocky montage. He settled into a steady 10 minute pace for the 150 reps; 2 minutes for the push ups, 3 minutes each for the squats and situps, and a minute in between each one. Dug didn't miss a single workout, in fact, he looked forward to it as part of his morning routine. A quick pump and a cup of coffee had an invigorating effect on him that made the first 3 hours at work the most productive part of his day. And since ol' Dug was NOT a morning person, Caroline certainly didn't mind the extra pep in his step.

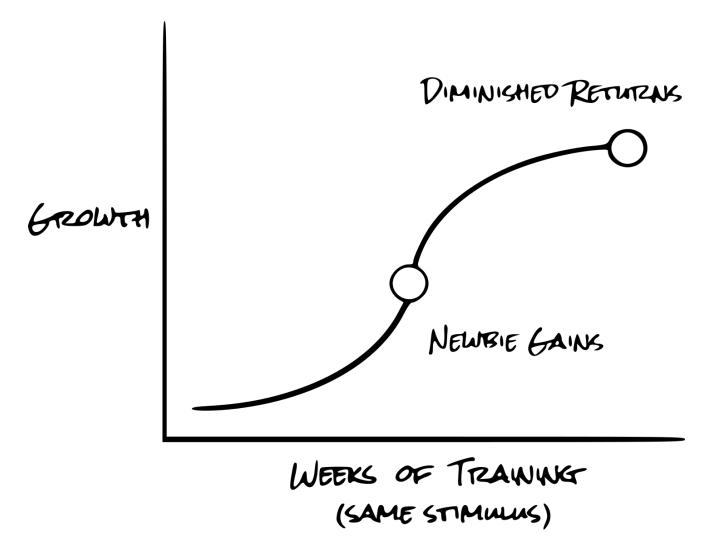
What Dug is experiencing applies to any situation or type of work where the individual has to adjust to an increase in demands. A middle-aged man doing push-ups next to his couch can be substituted for a garbage man or military enlistee who finds that week 6 on the job is much easier than week 1. It can even be applied to a newly promoted bartender who sees an increase in coordination, multi-tasking, and stress management after several Friday night shifts spent dying in the weeds.

When all was said and done, Dug looked back over the detailed notes he had kept from the start. His weight spiked up a few pounds, which he thought was odd given how well his pants fit. "Muffin top musta' changed zip codes," he thought, admiring the cue ball that protruded from his flexed arm. He was definitely stronger and had better endurance. More importantly, he felt better.

Along with keeping track of how much time and how many sets were required to complete the workout, he measured his arms, chest, and legs at the end of every week. He found that the biggest difference in size was over the first 4 weeks, with a small difference over the next 4 weeks and virtually no difference in the last 4 weeks. This coincided with his performance,

since the workouts got the easiest about halfway through and then he maintained that pace for the rest of the challenge.

Plateau, stagnation, repeated bout effect..... there are many names gym rats use to describe the dreaded and inevitable cessation of progress. The culprit here is 'diminished returns', a broad term to describe any scenario where the same investment gives less and less back over time. Dug's investment was a dose of work that consisted of 150 reps between 3 exercises, done every day. In the beginning, this dose was enough to bump him out of homeostasis; it was more work than he was outfitted to handle at the start, so his body adapted to meet the demands.



The 'S' Curve shows exponential growth in the beginning followed by diminished returns over time. To reestablish rapid growth, new and greater stressors have to be introduced.

Those same adaptations, the increases in muscle size and endurance, meant that each subsequent bout of training was registered by his body as no big deal. Basically, the act of getting stronger made the same dose of stress too low to cause any further return. His morning workouts were just part of his day now, no more substantial than taking out the trash. He realized that in order too keep things moving, he was going to need a higher dose.

PROGRESSIVE OVERLOAD

His wife stood with her hands on her hips, one eyebrow high on her forehead as Dug clawed the plastic wrap off of his new delivery.

"What're ya, some kinda bodybuilder now?"

Dug had gone through these phases before, investing in some new hobby for 3 weeks at a time before boxing them back up and banishing them to the storage shed. The cluttered shed was on Caroline's mind when she looked at the pallet of packaged metal and thought, "How in the Hell am I going to get to the Christmas decorations this year."

But her skepticism didn't phase him. 90 days in and he was just as excited now as he was during his first Cheetoh-fueled push ups.

As the last bits of packing tape were stripped from the box, foam peanuts and long black piping poured out onto the concrete. His new bar, squat rack and bench were here. He smiled, eager to put together his new gym so he can finally call himself a 'bona fide lifter'.

"What should I call it?", he asked his wife, looking around the garage. "Gym Dug?".

"No", she replied, "that's your cousin's name."

While it wasn't a full fitness facility, Dug knew the few exercises he could do with a barbell and plates were light years ahead of the push ups and body weight squats he was limited to before. If a few daily push-ups were all it took to get Vinny to pop out (the name he gave his bicep vein), imagine what he could do with all this!

He pulled a beginner template off of an online forum that focused on 3 barbell movements; squatting, bench pressing and rowing. The plan was to do each 3 times per week, starting with a weight that allowed 3 clean sets of 5 repetitions. All he had to do was add 2.5lbs to the bar every session. "Novice Linear Progression" it was called and it seemed to pop up in every website that had the term 'beginner' and 'weights' in the same sentence. The popularity paired with a certain idiot-proof quality made this plan stand out above the others.

Week 1 started less hopeful than before. Squatting with a bar was tricky. Real tricky. The movement was cumbersome compared to the body weight version and a near-tumble occurred more than once. By the time Dug got to the bench press, he was already worn out. He looked at the quiver in his legs and smiled. He hadn't felt that sensation in two months.

The benches went easy enough, but the rows caused a burn in muscles he didn't know he had. By the end, that old familiar green started to creep up his cheeks again. He got through the last of it and stumbled into the guest bathroom, finding relief on the cold tile floor.

That night, Dug ate like a bear going down for winter and slept just as hard. And once again, he woke up weak and sore, so much so that he wondered how different it would be to get run over by a car. This was his off-day and, in the last 90 days, he had never been so excited not to exercise.

The next workout came and went with 2.5lbs more on the bar. Dug bounced back a little quicker this time. "Wow, these rest days are really doing the trick!." Every difficult workout seemed to be followed by an easier one, even though weight had increased. This trend continued for several weeks.

His balance was improving and so was his confidence with the movements. He felt more in tune with each exercise, almost like there was a sweet spot to be found with every repetition.

The first time a novice like Dug benches, it is through a painfully uneven and inconsistent bar path. Shoulders slide off the bench, feet come off the ground, and the bar bounces off of a different piece of the sternum every time. Coordination is the first and most important adaptation; it doesn't matter how fast you actually are if you can't run without falling over.

Without gaining so much as a protein strand worth of muscle, Dug was able to put more force on the bar by moving it efficiently. This is Newtonian physics, which governs everything from planets and stars to bullets and billiard balls: for every action, there is an equal and opposite reaction.

When a bullet is fired, the force that pushes the bullet forward also kicks back on the gun. If the gun isn't stable or if force is leaked out in any direction, the bullet doesn't accelerate as much. This is where that old mantra goes that should be remembered by every trainee who has an inclination to skip leg day: "you can't put a canon on a canoe".

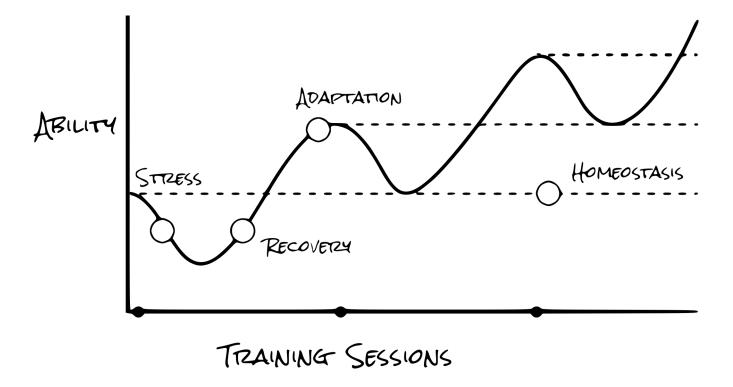
To be an efficient lifter means that no force gets lost through inefficiency, that positioning and direction of effort are such that all of the force applied goes in one direction and not a bunch of different ones. Getting stronger by being more coordinated might seem like a cheap trick, but it's not. It's necessary to develop consistency and reduce the risk of injury. You won't be able to isolate and train 'strength' traits if the limiting factor is forever your lack of inter and intramuscular communication.

So when smoother movement patterns are allowing for more weight to be moved faster, the body is put under a greater stress. More stress equates to a greater adaptive response to handle it. As a result, more protein is now being synthesized into muscle and, with more muscle, even more weight can be handled. More weight leads to further neurological coordination and.... well, you get the idea.

8 weeks into the weight training and the soreness was gone, each lift had jumped 60lbs and Vinny had grown from a shoe string to an overfed night-crawler. Caroline's skeptical eyebrow had since lowered, but the corners of her lips had certainly lifted.

At the end of this 8 weeks, Dug couldn't believe the change. He had grown more in that time than in the 90 days before and his progress didn't seem to be slowing down. What made the difference between his first 90 day body weight workouts and this new period of seemingly unrestricted growth was a principle as old as the plate loaded barbell: progressive overload. We established already that a stress, some outside force, has to be present to bump you out of homeostasis. Your body won't re-set where 'normal' is unless it has a reason to. The 90 day challenge Dug started with was a substantial stress to his soft, untrained physique and his body continued making adaptations until it could handle the work. Past that point, progress stopped because there was no reason for further change to be made. Progressive overload satisfies the need for that process to continue: in order to continue change, stress has to continuously increase.

Now, progressive overload can be carried out a bunch of ways. Dug could have stayed progressing his push ups and sit-ups instead of weight training, increasing stress by doing more total reps each workout. He could have added more total exercises. He could have moved to more difficult variations. He could have cut his training time down.



The SRA Model, a graphical representation of stress and recovery over multiple training sessions.

But he chose to progress to weights (a good choice, if I do say so) and the ability to scale the load beyond his body weight allowed for a huge surge in stress that kick-started the adaptive process once again. He managed to side-step diminished returns by implementing a simple form of progressive overload and the result was growth on autopilot.

So the pattern for growth looks like this:

- exposure to a stress
- adaptation in the form of increased performance
- use of that increase in performance to expose yourself to more stress
- even further adaptation
- repeat until the end of time!!

I wish that was the case, because then we would be done here. But this is just the tip of the arrow. What goes up eventually comes down.

8 weeks into his novice linear progression, Dug was already planning his trip to World's Strongest Man. "The math checks out", he said, reassuringly to Caroline. "At this rate, I'll be ready by summer!"

Much to his disappointment, however, several months of faithful adherence to his program resulted in something he wasn't prepared for: stagnation.

His 5 rep sets were cruising on squats, likely because he started with the same weight for all of his lifts and the leg muscles are just built to handle more. But his bench progress seemed to be grinding to a halt. He was looking forward to that first 225lb bench for sets of 5 reps, a huge milestone in the 'novice LP' community.

His workouts now featured a bigger cup of pre-workout coffee and 'Runnin' with the Devil' turned all the way up to 11. Grunting, straining, it didn't matter; every rep over 200lbs moved like molasses on a cold day. On his first go with 225, he pushed through the first, the second, the third rep, then"Caro-liiiiine!!! I'm stuck!"

Dug's wife casually walked through the garage door to find her husband twisted under the bar like a wet straw wrapper. In no particular hurry, she walked over and began pulling plates off the bar, making only the most minimal effort to hide her snickering. He popped up, cheeks red with frustration, and snapped "It's not funny!".

Caroline's petty amusement turned to real concern. "Did you hurt yourself??" she asked as she prodded his limbs. "No. I missed the damn rep!", he barked.

Dug's trauma wasn't the experience of nearly asphyxiating under a loaded barbell. Eyes watering, he confessed the real source of his anger. "I've plateaued!"

Consider another training example; this one might look more familiar. Imagine Dug's neighbor Rob, a teenager who started lifting weights during the summer as a way of getting girls. Rob didn't spend the time researching effective beginner programs and he didn't invest in a minimalist home gym. Instead, he got the cheapest membership he could find, to Planet Fitness, where there are a million machines and no real work ethic to speak of.

Rob went in without hesitation, high on teenage hormones and filled only with the knowledge that "no pain = no gain". The desire to do work superseded the need for any particular plan. He started day one by spastically jumping from machine to machine before getting tired, resting for 10 minutes or so and starting again. He looked like a small dog wearing himself out by chasing his tail.

Years went by and he never slowed down. He spent hours a day doing every exercise under the sun until he could barely hold up his phone to check his Instagram feed. He was always pushing the limits of how much weight he could handle, which meant a lot of missed reps. But each workout, he was improving something, even if it was just his ego.

5 years had gone by and Rob had a few bodybuilding shows under his belt. He never had a reason to second guess what he was doing. Until, suddenly, he stopped.

Without a concept of what he was going to do for his next session (forget about his session 4 weeks from now), Rob's workouts fell into gonzo status; stimulation for the sake of it with no

plot or direction.

This is a pattern that leads to the 'Punish and Pray' pitfall where lifters, who only see their training as a form of self-harm, break themselves against increasingly sadistic workouts. Only when the last bit of effort has been squeezed out do they call it a day, saying one last prayer to the God of Gains before they leave, so that their offering of effort might be received well enough that they be blessed with new growth.

Rob's path is much more common among recreational lifters, since few actually start with the focus and planning of an actual novice program. I remember my late night workouts at 24 hour fitness as a 16 year old, where the only inspiration for program design was the last Muscle and Fitness article I read along with whatever questionable advice I picked up from the old-timers and regulars. The one thing I did know, which turned into the basket where all of my eggs went: the harder I trained, the more I grew.

This is common in bodybuilding, where the sheer number of exercises that need to be completed to shape a prize winning physique makes rigid periodization somewhat impractical. Effort is extremely high, as is volume, and the amount of work is productive, even if it makes the whole endeavor kind of like doing surgery with a mallet.

But if you are only relying on sheer will to squeeze one more drop out of the same type of workouts, how long is that really sustainable?

Rob's big problem was that he couldn't get his legs up to par. He would train, 2 hours plus, on a dozen different exercises. His screams would fill the gym as he pulsed through endless reps on squats. After momentarily collapsing on the floor, he would pull himself up and move to front squats, then lunges, then leg presses and hamstring curls and, insanely enough, BACK TO SQUATS!

The amount of work he put in was nauseating to watch. His working sets on squats rarely went over 225 (he was a bona fide 550lb squatter, but said he couldn't 'feel' his legs with anything heavier than 2 plates). And he wasn't counting his reps; he would get somewhere in the 20s and hit the floor, resting just briefly enough to get up and do it again. So the weight wasn't going up on a regular basis and he wasn't keeping track of the total reps he was doing. The only driving force for growth was effort, which amounted to whatever his capacity to suffer was on that given day. No matter how iron your will is, pain tolerance by itself is too unreliable to let your lifting career ride on it.

Now, the amount of work he would do would slap muscle on anyone, and he was plenty bigger and stronger than most of the general lifting population. But he had been training this way for 5 years, which means whatever adaptations the human body needs to make to squat 225 for endless 20 rep sets..... his body had already made. Now his body needed a different reason to change.

Once the brick wall came for Rob, he was at a loss for what to do next. He googled 'plateau buster' and went deep into the search results, 12 pages down, until he had a list of workouts that were guaranteed to end the stagnation. He ran through all of them in randomized order, suffering DOMS that was reminiscent of his first workouts, but nothing. No new size. No new strength. Just frustration.

Dug and Rob had very different approaches to getting strong, one planned and the other erratic; but they both hit the brick wall and bounced off all the same.

When drilling the push ups and sit ups, Dug's lack of progress at the end was due to the stress never going up. He adapted to the workload when it was new but then stress stayed the same, so that was the end of it. This time, there was consistent progressive overload. The stress continued to increase so he should have continued to improve, right?

The brick wall represents the sudden end to training adaptation. It's Dug's missed rep when he thought his linear progression would carry him all the way to the big leagues. It's Rob's frustration when all of his effort and intensity failed to produce another ounce of muscle on his quads. It's what every trainee who has been lifting long enough to get strong in the first place has run into and eventually found a way to climb over.

The brick wall is inevitable; every one slams into it eventually. We need to concern ourselves with how to get over it.

BRICK WALLS AND HOW TO GET OVER THEM

WHAT IS FAILURE - TESTING VS TRAINING

The biggest conceptual problem recreational lifters have is differentiating between testing and training. Training involves organization, has purpose and direction and demands adherence to the plan if any success is to be measured.

Testing, like swapping your scheduled working sets for yet another max attempt, is an anxious and panicky move, nothing more than a hollow bid for instant reassurance. It's like stepping on the scale 2 hours into a new diet.

Too many lifters have an impulse to sabotage their training by using the heaviest loads they can count to. Whether it's for a top single or a 5×10 , I can never prescribe work for a client without anticipating the sloppy execution and abundance of missed reps that their inevitably bad weight selection guarantees.

I use the word 'fail' a lot in regards to stagnation; it's important to know that I'm not referring to a failed max attempt. I mean failure to meet a prescribed jump in your training. If you run a simple 5x5 linear progression for 6 months, adding 5lbs until, eventually, you only get 4 reps on your last set, that is an example of failure and a sign that the structure of the program needs to change accordingly.

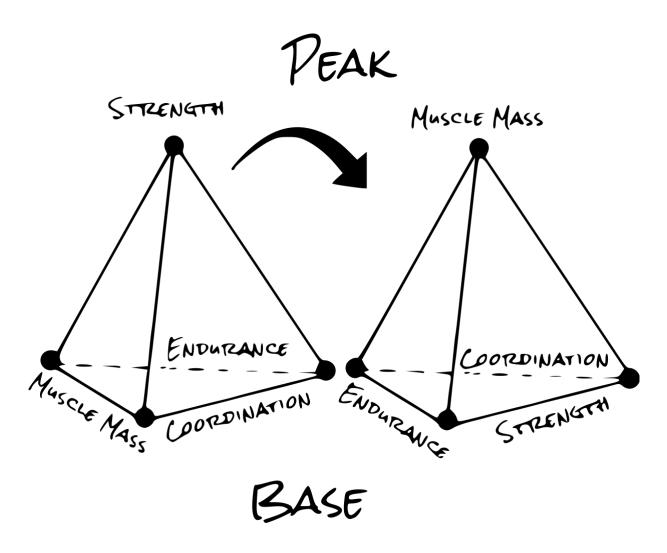
If you are serious about training, one rep maxes shouldn't occur more than twice per year. More than that, and you need a crash course on short attention spans and unchecked insecurities, specifically on how they lead to self destructive decision making, both in and out of the gym.

THE THREE REASONS THAT YOU FAIL

#1.) Specificity - Narrow Base/Stuck Peak

Wide bases make for tall peaks. Remember this. Repeat it before you sleep. Whisper it to your loved ones.

The 'base' represents all of the general physical traits you currently bring to the table. It's how much muscle mass you have, your day to day levels of strength and endurance, your coordination. It can even be your pain tolerance.



The potential for excellence in any quality is dependent on the development of other, non-specific qualities that support it. Long term growth must involve periods of time to improve those Base qualities.

These general abilities are support your 'peak', a term I use to describe your hypothetical limit with a specific threshold. The heights you can reach in a Powerlifting meet prep will be affected by qualities like muscle mass and muscular endurance, although those are not Powerlifting-specific traits. Those are the things you want developed *before* you start the business of dialing in your heavy singles.

A cross country runner will benefit from stronger legs to make it up steep grades, but the type of strength training that would require is not endurance-specific. 'Peak' qualities depend entirely on the activity you are talking about and that can be, quite literally, anything. I can write out a Base/Peak model for all physical competitions, from cycling to arm wrestling, just as I can for other tasks like preparing for an exam or bartending.

The SAID principle (specific adaptation to imposed demands) says you develop specifically to the way that you train, so we can call your chosen method of training a 'specific' activity. The weights you like to work with, the set and rep schemes, the exercises, and everything else all become activities that you develop skill in and become highly adapted to.

As you become more specifically developed towards the way you train, you move closer to your potential peak but you will never move past it; not without something in your base widening out first.

Constant bumping up against the ceiling explains why veteran gym rats can truck through grueling workouts for decades without creating a sweat drop's worth of adaptation. I call it a 'stuck peak' and it is a form of over-specialization.

All of the effort put out in the same old way drives you closer to a fixed limit that will never raise because the base won't support it. More general ability is needed and you, the lifter, have become so well adapted to the same thing that your current routine is doing a poor job of moving the peak higher.

Now, this is an inevitable problem for world champions. Being the best squatter in the world means being really damn specialized in the squat. Maintaining that degree of specialization while trying to broaden a base that is already as wide as it can get presents a problem few will have to worry about.

But for someone chasing a 600lb squat, something I've seen from plenty of genetically uninspiring trainees, the fix to the problem is too easy: stop breaking yourself against heavy,

strength specific squat workouts three times per week. Instead, find out which broad, nonstrength specific qualities you have been slacking off on and do those.

For most of you it's volume in the form of higher reps and more sets. If you think you don't need any periods of repeating sets with high reps, it means you think your capacity is good and you've acquired more than enough muscle.

I've never met you and I can tell you you're wrong.

For others, it's weaknesses in your physique that will hinder progress as long as they persist. Small triceps and weak rotator cuffs wont allow for a big bench. Squat stuck? Compare the size and strength of your hammies and quads to each other and fix the one that's lagging. The bottom line is that long periods of time dedicated to a broad selection movements that keep you well rounded are essential for ticking up the upper limits of your capabilities.

The other benefit is that widening your base allows you to rediscover newbie gains. The accessory work and unfamiliar high reps will improve insanely fast and that effect is compounded when going back to specializing in strength; you will be further away from your peak which means you should once again recover well from hard efforts and see fast adaptation.

For the few of you who are actually serial base-builders, the weirdos who actually like training for the sake of it and fill long workouts with tons of variety, you will require the opposite prescription. Spend some weeks in the realm of specificity and watch your numbers explode as you get closer to your peak. Remove some of the isolation work, get most of your volume in from the main barbell lifts, and steadily, over many weeks, move your working weights up to the 90% range. New stressors, increased recovery, and strength-specific work on top of an absurdly wide base? You will gain like it was your first month.

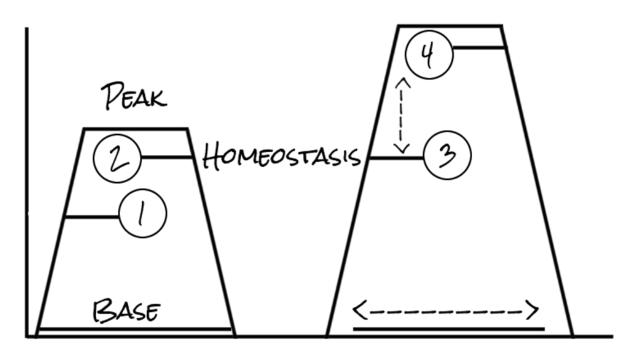
#2.) Recovery - No Rest, No Growth

Imagine the stress of running a 400m race as fast as you possibly can. Now imagine you're doing it in snow boots.

Your ability to recover is dependent on how substantial the stress is and newer lifters lack the coordination and the musculature to create a massive systemic stress.

The effort you put out might be very high in both scenarios, but the stress doesn't hit you the same. While clunking along in boots might leave you with sore hip flexors, the isolated fatigue created by working against one limiting factor doesn't compare to the total systemic beat down that comes with actually approaching peak performance. When you are efficient, your entire body is in sync and every physical trait is working in a concerted maximal effort to achieve a top result.

Only when you are skilled and experienced can this 'red-line' of stress be met.



- 1.) UNTRAINED INDIVIDUAL, NARROW BASE, LOW PEAK, UNSPECIALIZED
- 2) LINEAR PROGRESSION MOVES HOMEOSTASIS TOWARDS PEAK, RECOVERY SLOWS
- 3.) BASE WORK PUSHES PEAK HIGHER, INCREASES RATE OF RECOVERY AND GROWTH
- 4.) STRENGTH-SPECIALIZATION ON TOP OF WIDER BASE RESULTS IN STRENGTH BOOM.

The "Red Line Effect' describes the extra stress that very specialized athletes incur with very hard efforts.

The benefit of being able to bump up against your theoretical ceiling with hard efforts is that it leads to more specialized development of your chosen task. The downside is that it results in a much bigger systemic hit and requires exceptionally greater recovery.

The SRA curve gives us a visual understanding of what happens with each exposure to some progressive overload: we experience the stress, see a temporary dip in performance and pop back up better than before. Our goal in putting together a training program is to stack those curves on top of each other, making each workout a single step in a staircase of gains.

The stress experienced by a novice going 90% isn't that much more substantial than taking in the groceries, so they are able to tolerate and recover from harder efforts faster. Since the 'R' in the SRA curve is short, they can stress themselves, recover and adapt in the course of just a few days. This is what merits the 3 times per week split with each barbell lift in novice linear progressions. It's also what allows new lifters to go completely ape-shit every day in the gym and still get stronger, before it inevitably stops working and they become baffled.

Stronger lifters are more specialized in strength (duh). Training has given veteran lifters the ability to put all of the body's available resources to one singular activity. Being able to redline it, to create stress closer to the limits of what the body can tolerate, means that each hard effort is more difficult to recover from.

A perfect example is with peaking for a meet. It is not uncommon for newer lifters to perform their last heavy attempts within 4 or 5 days of the meet. For the most advanced Powerlifters? Showing up to the meet 100% and firing on all cylinders means that the last heavy attempt has to be done 3 to 4 weeks before hand.

Stress and Recovery must balance in a training program for an adaptation to be realized. There is a point in development where each 'S' that is substantial enough to create further 'A' requires a longer 'R'.

If Stress continues to climb and recovery doesn't move to accommodate, instead of adaptation, you get a brick wall.

In the case of Dug and the Novice Linear Progression, there is an expiration date. The strength he gained meant that he couldn't recover from pushing the envelope on each lift 3 days per week, every week. Stagnation was his reward for getting stronger.

If your goal is to keep adding a few lbs every session, indefinitely, the answer for moving a 3 day per week LP forward from beginner to intermediate is an incredibly simple one. All we have to do is increase recovery by moving the hard efforts further apart.

Texas Method is an example of such a 3 day per week program where each of the 3 days bounces between different thresholds but the increase in stress only occurs once per week instead of every session. Stress still climbs, recovery is accounted for, so the result is the gain train burning forward once again.

3 Week waves keep this process moving even further, since stagnation can once again find you in a program such as the Texas Method. The pattern of 5/3/1 fits the bill; the weight changes over a wide range in the 3 weeks before restarting with a few more lbs on the bar and repeating the process. Now the heaviest workouts are spaced a full 3 weeks apart, allowing continued linear progression with even advanced lifters. One of the reasons that 5/3/1 was so popular is that it could be ran by so many different levels of lifters with good results.

All of this recovery discussion is to shine a light on the common flawed thinking that the training pace you kept as a beginner will be sustainable for the rest of your training lifetime. Remember, the feature that separates novices from intermediates and advanced lifters is their recovery capacities.

Novices can train frequently and hard with little regard to how it will affect the next workout. Those who have some miles under them have to live by an egg timer that tells them exactly when they are good to train again.

#3.) Novelty - Diminished Returns and the Need for Newness

We established diminished returns earlier. If you introduce a constant stress (an hour of yard work, a hit of caffeine, a day of sunlight) you will adapt to that stress to the point where it

becomes routine. Each new bout of the same stress results in a smaller response until there is no new response at all.

Because we are so damn smart, we side step this in the gym by upping the stress, making each session a little harder. We continue to grow for quite a while before plateauing. Now recovery is the limiting factor, so we get around stagnation again by now allowing a few more days rest in between hard efforts.

The ultimate conclusion of this pattern is to have a single super-maximal, ultra high volume workout followed by weeks and weeks of recovery.... and that just doesn't sound quite right. It seems like there is something to consider in regards to stress besides just 'more and less' of it.

It turns out that the body builds a tolerance to more than the amount of stress. It can build a tolerance to the training threshold, the movement patterns and even the rate and method of stress increase. That means we can't continue looking at stress as something that is merely 'more or less'. Stress can be different.

You might have experienced this already, switching to a new movement in the gym and finding it awkward and cumbersome, only to master it in a short period of time and find that your other lifts benefited because of it. Dug was shaky and inefficient when he started squatting and that lent itself to fast adaptation once he became coordinated with it. If Dug were to later switch to a different squat stance or a different bar he very well might find the 'newbie' process repeating, even though he is starting out more advanced.

The same process occurs with volume. Months of getting good at all-out efforts with very few sets will lead to stagnation eventually, but reduced efforts with many repeating sets will bring back those Bambi legs and crippling DOMS from the first week of training.

One of the most powerful tools this gives us is the ability to change rep ranges, as your body adapts to different thresholds insanely fast. Any veteran bodybuilder who keeps the reps at 10 or more so they can 'feel' the movement will see a near-immediate surge of strength once they start adding weight to low rep sets at the start of the workout. Andy Baker, co-author of Practical Programming, uses his own experience to give insight into Mike Mentzer era bodybuilders and the HIT craze:

"After 2 years of basically over-training with too much volume and frequency, my body rebounded like crazy when I drastically dialed back the volume and frequency. I think the same thing happened to the bodybuilders of the Dorian Yates era. For decades many of these guys had been following in the footsteps of Olympians like Arnold and Lee Haney. Very high frequency, very high volume." - Andy Baker

Where the advocates of short, all-out efforts will swear it is the holy grail of lifting, coaches who have been around the block will recognize that the HIT approach was so effective because they were implemented after years of training exclusively with high volume. How they responded was entirely dependent on what they did before.

The point is, there is no single best training method because diminished returns come for everyone. A friend of mine , who was an absolute dog, had a saying, "Show me the prettiest girl in the world and I'll show you a guy who is tired of opening the door for her" (I cleaned that up a bit).

Show me the best prescription of sets, reps, and exercises and I will show you someone who got stale doing it.

APPLYING VARIATION USING SRN (SPECIFICITY-RECOVERY-NOVELTY)

Variation has long been a talking point among amateur lifters as a necessary means of breaking plateaus. But the changes implemented usually leave something to be desired, like logic.

Variation has to consider the relationship of the Base and Peak (Specificity), how sustainable the workload is (Recovery) and whether diminished returns have slowed progress (Novelty). Any successful training method will preempt stagnation by implementing variations in training over the long term. Past the novice stage, 5 more lbs per session is a fine approach over a matter of weeks. But progress that spans months demands more deliberate and aggressive planning. To summarize:

- 1. **Variation focused towards base building and specialization:** When grinding away every week at near-maximal loads stops getting you closer to that next wheel on the bar, varying the volume and exercise selection to widen your base will be the thing that grants you the next quantum leap.
- 2. **Variation as a method of recovery:** Even though effort might remain similar, subtle changes to the movement or training threshold will give the mechanisms that were previously getting hit the hardest a break. For example, consider the Westside methodology. To get a good result lifting to a maximum every week, frequent deloads are necessary. But you can scrap the 4th week deloads and increase your training density by 33% if the stress is varied by changing the exercise. Louie Simmons realized that all he needed to do was rotate between special exercises, creating a subtle change in neurological stimulus every week that was just enough to allow recovery for even the most advanced lifters.
- 3. **Variation as the only answer to diminished returns:** When the same movements and training thresholds have been present for too long, progress is guaranteed to stall. Most try to make up for diminished return by just going harder. Take an extra scoop of pre-workout, put on the Ronnie Coleman compilation.... all you have to do is fixate on that time you got dumped before prom, go Super Saiyan 3 and no plateau will stand a chance! In the family album of training variables, 'mindless training aggression' is the deadbeat dad. It's great when it shows up and delivers on it's promises, but when your birthday comes, it will skip out and go to the racetrack.

Understand, the need for variation is not a blank check to implement a bunch of wonky and impulsive training decisions. Routinely substituting your plan for whatever 5 page e-book you overpaid for is not a cerebral application of 'muscle confusion'. You need a consistent thread that ties all of your training together or else you aren't training, but playing.

LINEAR PROGRESSION FOR 275lb SQUATTER

Let's start with the simplest application of progressive overload, which is the novice-oriented linear progression that Dug implemented in his first run with a barbell. Consider that Dug has now grown to a 275lb one-rep max squat and decides to continue on, figuring, "if it ain't broke". He commits to 12 weeks of a twice-per-week 3x5 LP.

Week	Day 1	Day 2		
1 3x5	205	207.5	Week 1 Volume	6,187.5lbs
2	210	212.5		
3	215	217.5		
4	220	222.5		
•••••				
12	260	262.5	Week 12 Volume	<u>7,837.5lbs</u>
			Difference in Volume	1,650lbs
			Difference in Intensity	55lbs

With a 5 rep max of 240, he conservatively begins with 205 for week 1. Progress slowed his last time around so he consulted the message boards where the LP die-hards insisted he could keep grinding gains if he swapped his 2.5lb plates to 1.25lb fractionals.

After 12 full weeks, the last 4 of which were extra spicy, Dug puuuuuuushed through a 3x5 with 262.5. Doing the math, he realized that meant 15 reps with 96% of his starting one rep max. "Dang", he thought.

Proud as he was at the improvement, he was happier that he lived through the experience. Aboout 9 weeks in, what should have been sets of 5 looked more like 5 singles. There came a point where he just sat with the bar on his back, resting longer and longer before the next rep. It got the job done, but the ball breaking effort required to get through each workout was taking a toll and the thought of living through another week of it made his palms sweat.

Dug felt like he was beginning to stall and saw missed reps near in his future. Let's apply the SRN model to troubleshoot the factors that could have resulted in stagnation:

SPECIFICITY - BASE/PEAK

After a week of rest, Dug decided to test his new 1 rep max. Despite getting within 10lbs of his old 1 rep max for 3x5, Dug was blown away to find that he could only stand up with 285lbs. "Stupid rep-max calculators must be off", he thought, aggravated. But thinking back on the hardest workouts, it made sense. The weights didn't really move better or feel lighter as he progressed, not like they had in the past. He could just last longer. All of his experience with 5's based LPs has made Dug sure of one thing; he has become a master at sets of 5.

This is a perfect example of specialization; his training had been so narrowly focused that each new PR was only making him better at that one thing (and doing so very slowly, now) while no longer leading to wider benefits. To reestablish consistent growth, he has to focus his attention on more global qualities that, in the face of 5s and only 5s, have been hanging on by a thread.

Remember, you can overspecialize in any mode of training. In the context of performing 5s, Dug is very specialized (close to his limit) but in the context of performing a 1 rep max, he is farther away from his peak. If his main goal is to compete in a Powerlifting meet, his ability with 5s already represents a wide base and will aid in his development from work that is more specific to a 1 rep max.

RECOVERY

Dug's body was starting to feel the effects of stalling on an LP. He was tired all the time and felt lackadaisical for workouts that used to excite him. He was burning the candle at both ends and was, frankly, unimpressed with the progress that all this suffering produced.

The message boards all had the same advice for him.

Don't jump ship.

Stick to the plan.

0.1% better every week.

Grinding is life.

They lived by the single dimension of the SRA model and it only allowed for one answer for stalled adaptation: stress or recovery was too high or too low.

In the Linear Progression universe, adding 5 more lbs to the bar is King and the solution for stagnation is finding creative ways to keep that pattern alive. When adaptation stalls, it's because the lifter is too strong to recover, so more time has to occur between efforts. This takes us to weekly, then bi-weekly, then 3 week progressions where the 5lb jumps come just as predictably, just further and further apart.

Dug wasn't convinced. He wasn't even to his first 300lb squat and his knees were starting to rebel every time he approached a set of stairs. And man, was he starting to HATE squats. It was clear he wasn't recovering, but doing the same routine and same jumps but just taking longer to do it did not seem like an optimal, or even appealing, answer.

NOVELTY

The impact of each hard 3x5 was becoming more blunted with each workout. Each set required more effort but didn't seem to pay off in any real way when the load was increased for the next session.

The math was there. More weight. More volume. More effort. Stress was going up, but Dug wasn't adapting as fast. He felt like a veteran roofer, beat up from a days work and knowing

that tomorrow wasn't going to be any easier.

5s had become so ingrained in his routine that seeing the number out in the world would make his heart rate spike. Mid way through his last LP run, he had dinner with Caroline at their favorite hole-in-the-wall diner; Dug over-tipped on his \$37 bill because 15% was \$5.55.

He figured at this point there had to be some benefit to clearing out and doing something new, if not for his squat numbers at least for his sanity.

LINEAR PROGRESSION-VERSE - STARTING STRENGTH TO TEXAS METHOD

This is how the LP afficianados prescribe changes to training as lifters become more developed and inevitably stall out on linear progressions.

Stagnation is viewed primarily as a recovery issue, so more time is put between hard/similar efforts to allow growth from each training session. Instead of adding weight to the same set/rep scheme 2 or 3 times per week, now weight is only added once per week.

Weekly

T.M.	5x5	2x5	1x5	
	75%	65%	MAX	+5lbs each week

The Texas Method is a common intermediate program. There is a volume day and light day, both of which provide variety and recovery to the week of training. The heaviest day is the 'intensity day', which features a rep max and that number is to be beaten every week. And, of course, it is all for 5s.

There is a trade off with the diverse split; recovery is increased in that hard and similar efforts are spaced further apart, but the training starts with a weekly 5 rep max and only increases from there. There is no build up of effort, just straight into the heaviest weights you can handle.

Neurological and muscular adaptive abilities aside, there is a point where the monotony can take a toll on the tendons and connective tissues. And, just like with LP, there is a point where you just won't care about your 5 rep max enough to suffer through.

When that becomes stagnant, the move can go to increases ever other week.

Alternating Weekly

	Day 1	Day 2	Day 3
Week 1	3x5 @ 75%	-20%	-10%
Week 2	5x3 @ 85%	-20%	-10%
Week 3	repeat +5lbs		

... and every 3 weeks.

3-Week Wave

	Day 1	Day 2	Day 3
Week 1	5x5 @ 80%	-20%	-10%
Week 2	2x5 @ 70%	-20%	-10%
Week 3	5 RM	-20%	-10%

These are completely viable methods of keeping the train moving forward and you can check out more from Rip, Andy Baker and Matt Reynolds (Barbell Logic) if you want more insight directly from those who program this way.

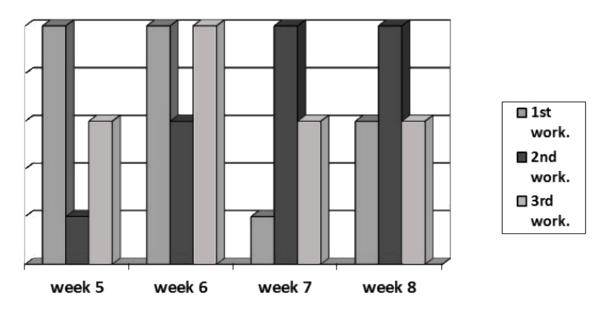


Fig. 6.2. Training loads distribution within microcycles in a preparatory mesocycle, 3 workouts a week (B. Sheiko 2005)

Alternating splits and 3-week waves seem to hit on something that is universal among top level strength athletes; the ratio of hard workouts to light ones. In the West, the Lilliebridge family made their alternating split popular, whereby a heavy lift is done one week and speed work the next. Brandon Lilly (and many others) advocated for rotating heavy work once every 3 weeks, where volume and speed work filled the rest.

In the East, we see similar considerations. Russian Master of Sport Pavel Tsatsouline ha commented on a Soviet discovery that is often ignored: about half of the workouts done should be substantial. Looking at the graph above from Boris Sheiko's textbook 'Powerlifting Foundations and Methods', we can see how one of the best coaches to do it distributes total reps within a week (small, medium, large) and adjusts the stress of each week.

Though there are other substantial differences between these methods of training, they all share common ground in their surgical scheduling of heavy workouts.

Pulled from Sheiko's "Powerlifting Foundations and Methods", this is an example of how some Eastern systems distribute total weekly reps throughout the week.

LINEAR PERIODIZATION FOR 275lb SQUATTER

Dug read through the advice of the message boards and, motivated by one petty requirement, decided to go a different way. "For the next 3 months, I don't ever want to see a set of 5 again!"

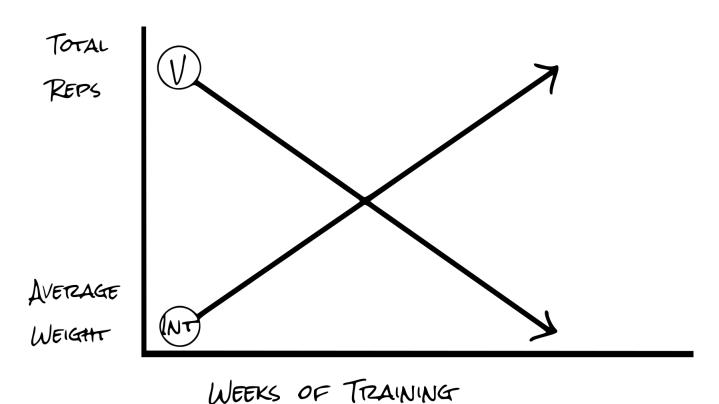
Sifting through old programming articles, he came across a discussion of the oldest and most well known iteration of periodization; Linear (or Classical) Periodization.

"Frickin' game changer!", he thought. He punched in a conservative max of 275lbs, what he started with before his last uninspired run at LP. His plan looked like this.

Week

1	5x10	65%	180lbs	Volume = 9,000lbs
2	5x8	70%		
3	4x8	74%		
4	4x6	78%		
5	4x4	82%		
6	3x4	85%		
7	3x3	88%		
8	2x3	92%		
9	2X2	96%		
10	1X1	100%	275lbs	Volume = 275lbs
11	Deloa	ıd		
12	New I	Max	300lbs	

What stands out from the start is how different the first few weeks of training were from anything Dug had ever done. He thought his proficiency with 5s meant he was conditioned, but he found the effect of doubling the reps with nearly twice as many sets to be nearly ruinous.



Linear Periodization hinges on the principle that volume drops as the average weight used in each session increases over time. All systems have some amount of linearity, but linear periodization is known specifically for it's smoothness.

The day after his first squat session, he woke up to find that his legs were about as steadfast as a plate of Pad Thai. His quads hurt to the touch. Caroline had to walk over to the driver side to help him out of their low Corolla every time they parked. And at night, as he was trying to fall asleep, that old 'ran over by a Zamboni' feeling began to creep back.

It was like he was a newbie all over again. Dug was sold after week 1.

The high rep work made the 6s and 4s feel like a breeze. Dug stuck to the prescribed weight and noticed that, just as the workouts became difficult, the drop in sets and reps made them manageable again. At every turn, there was a tweak that let the weight keep climbing up and up.

By the end, he was getting into triples, doubles, and single, all foreign territory for him, and he began to experience 'strain'. The strain here was different than with the 5s. It wasn't a fight against fatigue, it was something else. There was a 'handle' he could feel, like a gear that was

trying to kick into place when the weight forced the bar slowed down.

These 3 weeks were by far the most eye-opening for him. When moving weights close to a 1 rep max, he always felt like he was working with a stalled motor. The impulse was there, but nothing was happening. He eventually started changing direction a little quicker and, halfway up, he was noticing a follow through where previously there was none.

On a cellular level, his nervous system was actually improving coordination within the muscles. More motor units were being pulled and they were being pulled faster. What's more, they were being pulled with perfect timing to the lift.

On a larger level, muscles were coordinating with each other in a way they never had to in the days of endless 5s. The result was specialization towards strength that Dug had never experienced, which led to a sudden boom in performance.

He now understood specificity as it pertained to a 1 rep max. The time spent with 5s built a damn wide base but didn't get him any closer to his true capabilities with maximal weight. The 'Base/Peak' dynamic clicked and he could feel how every successful rep at these weights moved him closer to his peak.

In the last week, his single at 275 moved quick. He wanted to triple it, but decided to stick with the plan. He stuck with the deload, missing hours of sleep those nights in anticipation of his next test day. When he finally went in for it, he was recovered like he had never been in recent history and the result was a display of speed and power that took ol' Dug quite by surprise. Chipping away 30lbs at a time, then 20, then 10, he finally hit that 300lb squat, even leaving a little for next time.

Evaluating again using SRN:

NOVELTY

Dug's entire lifting career up until now was 3x5, 3x5, 3x5, 3x5, 3x5..... for months.... and months....

This periodization program began with a lot of 10s and ran through an entire spectrum of percentages and volumes. The adaptive process kick-started faster, as was evident by the resurgence of DOMS, Bambi legs, and hard night's sleep. Dug knew after workout number one that the novel stress was going to lead to something big.

RECOVERY

The old novice LP was like trying to run against a rubber band: the farther you got, the tighter it pulled, so you had to push harder, which made it pull even more. Once you started to get into PR territory, you knew you were in for it. Hell, you looked forward to your first missed rep so you could start over.

The linear periodization approach dropped sets and reps as time went on, allowing the rate of increase to be sustainable. The trend was basically greater recovery to match greater weights. To Dug, this was fresh water to a shipwrecked man. There was no doubt in his head that his success in the last weeks of this program was a direct result of allowing a level of recovery that his previous programming attempts forbid.

SPECIFICITY - BASE/PEAK

Having been so conditioned to medium rep ranges, both high reps and low reps were missing from Dug's tool belt. Running down the ladder of linearity, Dug exposed himself to all of these ranges, reinforcing qualities that 5s based LPs had stopped developing some time ago. By the time he got to 4's, 2s' and 1s, he was able to actually specialize in strength specific work and he exploded because of it.

If you've been paying attention, you should know already that the moral of the story isn't the ultimate superiority of this type of training. This isn't a love letter to linear periodization. It just happened to do some things that a simple LP didn't, some things that Dug was in desperate need of. Just like the advocates of HIT benefiting from the volume work that came before, Dug tore through these 12 weeks the way he did because, relative to his 1 rep max, he had built a base as wide as the Grand Canyon and was overdue for some work on his peak.

This is an example of how dosing the right variation of novelty, recovery, and specificity will always lead to a new growth response. It's just like Dug going from the couch into his pushups, then from his push-ups to his linear progression, and from that LP into this cycle of linear periodization. Each phase did something that the one before did not, matching his current level of adaptation with just the right complement of stress and variety.

BLOCK PERIODIZATION

Discussions about block periodization pop up quite a bit and most of the materials out there do a poor job of explaining how it is similar or different to anything else. We like to borrow the proven principles from established methods while shedding the unnecessary parts of the dogma, so it's worth covering the Cliff Notes.

Issurin, author of Block Periodization, said "The general approach to the compilation of Block Periodized training assumes the sequencing of three different-type mesocycle-blocks that form a single training stage ending in some competition."

Basically, 3 mesocycles (blocks) of training are arranged in sequence so that the completion of each adds to the productivity of the next. It looks a lot like linear in some respects; percentages still grow over time, volume still drops over time, but the emphasis is put entirely on optimizing each block, even if it means more dramatically punctuated changes from block to block.

We are abiding by the broad rules of Linear Periodization while allowing for detours and pitstops as needed. Essentially Linear Periodization with more freedom.

Speaking of more formal methods of periodization, I would be remiss if I didn't include basic terminology. I don't use these much in general programming discussion because they turn out to be pretty inflexible outside of the systems that created them, but you should be aware of them all the same.

A microcycle is a single week of work, but is not defined by 7 days. It's easy to conceptualize with this periodization example, but with other programs it isn't so straightforward. For instance, with alternating splits, do we call a week of work the microcycle or two weeks combined? I don't know and it really doesn't matter.

A mesocycle is a block of several working weeks strung together. It might be 2 weeks, it might be 6 or more. There is a general implication that the weeks in a mesocycle all have some common trait that they focus on, but that can vary quite a bit. I prefer the less pretentious term 'block', so that's what I use.

1	5x10	Week 1	Microcycle
2	5x10	Weeks 1-4	Mesocycle
3	5x8	Weeks 1-12	Macrocycle
4	4x8		
		Weeks 1-4 =	4 Week Long Volume/Hypertrophy Mesocycle
5	4x6		(Accumulation)
6	4x6		
7	4x5		
8	4x4	Weeks 5-8 =	- 4 Week Long Strength/Transition Mesocycle
			(Transmutation)
9	3x3		
10	3x2		
11	2X2		
12	1X1	Weeks 9-12	= 4 Week Long Intensity/Peaking Mesocycle
			(Realization)

Week

A macrocycle is an entirely fleshed out competitive cycle, consisting of each type of mesocycle and completing with a full peak and test.

ACCUMULATION

Accumulation corresponds to volume and hypertrophy phases. Percentages are lower, 70-85%

typically, and the point is to acclimate to a lot of total sets and reps at those percentages.

TRANSMUTATION

Labeled strength or transition in other parts of the periodization world, in this phase we are 'transmutating' the physical qualities acquired in the accumulation phase into more strengthspecific qualities.

REALIZATION

This is where everything comes together and contest performance is optimized. The jump in percentages paired with the steep drop in volume is the most important part, since the recovery that results is what ultimately allows for the actual peak to take place.

If you aren't living at the Olympic training compound and don't answer to a guy with a clipboard, you will get by just fine without this terminology.

The three phases in block correspond pretty nicely to a Classical setup. Just put a break in our linear example after every fourth week and you can basically call it 'block'. The difference is that linear periodization insists on smoothness of transition in volume and intensity, where block doesn't care.

Much ado has been made about block approaches, but my 2 cents is that it has become overblown in the world of barbell sports. Keep in mind that formal periodization came from the Soviet sports machine which concerned itself with the acquisition of gold medals. Olympic lifting (which is where all of these methods originate) was treated as a sport, no different than gymnastics or any track and field event.

In such sports, qualities like speed and endurance compete directly against each other for scarce resources and benefit greatly from a block type model. Strength training, however, is much more one-dimensional than those other sports and more so than many of the professional text-book writers would like you to believe. There are fewer qualities to build and we have a multitude of modalities that can build them.

Block approaches work because they abide by the same rules of variation we have already covered. The change in training threshold from block to block provides relief from old, stale stressors while introducing new ones that the body has since become sensitive to. Given the doubt that some studies have cast on high minded principles such as phase potentiation, I believe that obsessing over the minutiae of block design is a waste of mental resources to the recreational lifter and a good way to increase the likelihood of a misstep.

The requirements for long term growth in the gym, it seems, are little more than some short term application of progressive overload matched with a simple ebb and flow of training variation over time.

WAVY PERIODIZATION

"American program design may be compared to a photograph, and Russian to an impressionist painting. An experienced eye can easily see the logic behind an American powerlifting plan. A Russian plan, when you look at it up close, is just noise." - Pavel Tsatsouline

The Russians uncoupled volume and intensity, breaking from the confines of purely linear periodization. What they found was that sharp jumps and drops in load actually allowed lifters to recover better than the purely smooth transitions in linear periodization. This makes intuitive sense after so many years of training, since there has been no period of training, even in my novice days, where strength increased in a smoothly linear fashion. Progress was always punctuated and it was always surprising.

It seems that the body's capacities are resilient enough that they can withstand a very high amount of stress for short periods of time without deleterious effects and that they can take advantage of intermittent periods of recovery to allow huge surges in adaptations. As clean as the inverse relationship between intensity and volume looks on paper, it seems to be a superficial attraction. The 'impressionist' image that Pavel talks about hits home, since I can still look at a Sheiko template and not know right off the bat what is going on. I have to pull back and look at the big picture, see the calculations in tonnage from week to week and month to month. Like an art-house movie, you won't know everything about the structure and motivations until you talk to the person who made it.

"It has been proven that if the load (volume or intensity) increases smoothly and gradually, you will inevitably encounter the stress, which exceeds your adaptive capacities, adaptation does not occur at the same time, thus you find yourself in a state of overtraining. Conversely, if the intensity of the load increases gradually but not smoothly but rather sporadically, by the principle of «step back - two steps forward», then this condition usually does not occur, and productivity and training success increases»" - Boris Sheiko

If you get the chance, open a textbook and see how the Russians and those they influence prescribe workload. It's a process of choosing an appropriate number of repetitions for the month and distributing them in a specific pattern day to day, week to week. Following the program is like driving a minefield; periods of smooth sailing are interrupted by sudden and catastrophic increases in workload. It's as elegant as it is cold and there is no doubt that it works just as well as anything other approach to be applied to strength sports.

The attraction to a wavy approach is to the promise of a consistent method of allowing recovery. We all know how to train hard. That makes sense. But pairing the hard work with necessary recovery in a pattern that is sustainable and productive is where we all fall short, and that's why this book was written to begin with.

Now, I don't believe that we have to calculate out elaborate distributions of rep totals that are just as likely to trip us up as they are to give us an edge. We just have to avoid the rigid trail made by a purely linear setup by allowing for sharp buildups in stress and sudden increases in recovery. Easy peasy.

EVERY PROGRAM NEEDS.....

At this point, we've quantified the things that create strength, pinpointed the variables that slow progress and have seen those both fleshed out in formal programming. Boiled down, we are left with this, the 20% of investment that provides 80% of the return:

1.) A clear pattern of weekly progressive overload.

2.) Transition between phases of high volume base building and low volume specificity.

3.) Consideration of recovery.

4.) Some planned incorporation of novel movements and training thresholds.

If you can build and adhere to a program that checks these 4 boxes, plateaus will be a thing of the past.

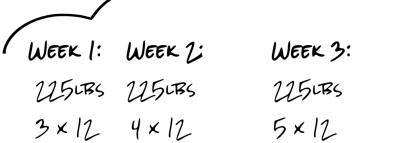
WAVE PROGRESSIONS

OVERVIEW

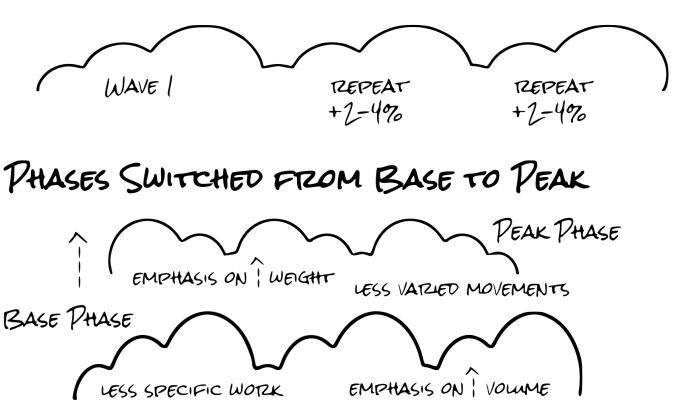
PROGRESSIVE OVERLOAD

EXAMPLE: INCREASE VOLUME EACH SESSION





WAVES STACKED INTO PHASES



MOTZE VATZIED MOVEMENTS

PROGRESSIVE OVERLOAD: ONE WORKOUT TO THE NEXT

The smallest unit of programming is the pattern of increasing stress from one workout to the next. Progressive overload can be achieved many different ways, but the two big ones are 1.) to expose you to more weight or 2.) to expose you to a greater amount of total work.

1.) We can increase the load on a single top set or by increasing the average weight across working sets. If your baseline of work averages around 200lbs per set and you bump that average to 210lbs, growth will occur.

As an example, start with a baseline of work that is actually doable, say, 3 sets of 10 reps at 65%, and increasing the weight by manageable increments over time.

Week 1	Week 2
3x10 @ 65%	3x10 @ +2% of 1 rep max

It's most common for increases in weight to drive progress, but where the lifter should be making even, calculated jumps in weight that give enough time for an actual change to occur, most gym sheep let wishful thinking decide their next weight jump. Example:

Week 1	Week 2	Week 3
3x10 @ 65%	3x10 @ 75%	New Max!
	(in reality, 10,8,5)	(in reality, missed 95%, cut workout short to
		post a negative program write up on Reddit)

Pro tip: strength does not round up to the nearest 25 or 45lb plate and failing under your 'goal weight' doesn't count as training.

2.) Volume can be increased each session by adding sets or reps to the same (or greater) working weights. This method is less common because, and I firmly believe this, most gym sheep only lift seriously when they are excited and they are never excited about doing extra work. Driving volume up in the short term is devastatingly effective and is featured in one way or another in the programs of the world's best coaches.

There are a lot of ways to increase volume as it simply means hanging around and doing more work. Adding exercises increases volume as does upping the number of work sets and working for higher reps. If you've ever worked through a bad breakup by spending an extra hour in the gym, you likely subjected yourself to some volume of work that your body was previously unequipped to handle. That breakup probably led to a few PRs.

The easiest way to progress volume week to week is to Step Load: just keep the weights the same and add either a rep or a set each workout.

Week 1	Week 2		
3x5 @ 75%	4x5 @ 75%		

Adding a set creates a nasty training effect since it jacks volume up so quickly. Week 1 featured 30 total reps, where Week 2 took that to 40, so you can see how just a few weeks of work can lead to massive training stress. And when you are using manageable weights (like you should be), the hit of the workout can sneak up on you. Some of the most effective volume workouts I've ever gone through, while long, weren't especially difficult to get through. But the DOMS 48 hours later were so much that if I dropped anything less than a \$10 bill, it was gone forever.

Week 1	Week 2
3x10 @ 65%	3x11 @ 65%

Adding a rep doesn't increase the volume quite as rapidly, but it does increase the difficulty of each set, which brings about it's own unique flavor of stress. And since the number of sets stays the same, workouts remain short.

Oddly enough, there doesn't seem to be a problem with lifters making crazy volume increases ahead of schedule the way they do with their working weight. If there is a competitive bone in your body, you will see that as an in.

WAVES: 3 WEEKS TO ADAPT

We are going to build off of a 3 week wave structure, meaning we are going to pick a method of progressive overload and increase stress every week for 3 weeks. Any less, and you don't have enough time to actually get good at the thing you are training. Any more, and the rate of progression becomes unsustainable and you over-train.

Easy/Medium	Medium/Hard	Really. F'n. Hard.
3x10>	4x10>	5x10
200lbs	205lbs	210lbs
6,000lbs	8,200lbs	10,500lbs

3 is an easy number to work with, which is why it shows up in so many pop ebooks and formal training templates (5/3/1, Cube, Juggernaut, H/L/M). The especially short timeline does a good job of reminding you when to hit the gas and when to back off. It allows for an aggressive buildup so that your training doesn't fall into the grindy, micromanaged tight rope of a traditional linear progression.

It also coincides with the spacing of really hard workouts that we see from the highest performers. Soviets recommended roughly half of the workouts you do being very difficult. American powerlifting royalty the Lilliebridges were known for their linear approach that alternated a heavy top set one week with light speed work the next.

You aren't likely to find a 1,000lb raw squatter or 900lb deadlifter who trains balls out every week because injury and stagnation would have prevented them from getting to that level in the first place. By the time you have enough experience to justify messing with this setup, you wont want to.

The easy week is a week of 'base line' workouts; something manageable that serves as the launching pad for the weeks to come. RPE should be a 7 at the most, technique should be crisp, and there should be plenty left in the tank. Remember, this is the workout that comes right after the ball-breaker, making it the recovery component of wavy training structure. Don't be a hero; get the most out of it by letting it do what it's supposed to do.

The medium week will start to dose increases in stress. This is where strain will begin to show, even though failure should still be a ways away. The work should feel substantial but each set should be far from failure. Leave no doubt that you can meet your prescribed jumps next week without missing a rep.

Now the hard week: we know that we have a recovery week coming up and it doesn't do us any good if we have nothing to recover from. So go HAM, especially when building towards volume. No matter how run down you are, this has to be the most substantial workout of the block, both in effort and on paper. The surest way to do that without missing reps or getting sloppy is to just jack the volume up, so that's what we do in volume phases. We still want crisp execution, just a lot more of it.

The first run through of a wave in a new threshold, if done correctly, will always result in a sense of improvement by the 3rd week. The bar moves faster, technique improves and, even in the face of accumulated fatigue, capacity is noticeably better.

STACKING WAVES INTO PHASES

The real magic is going to come with stringing each successful wave together to create a larger Phase. 3 weeks is long enough to see tangible change, but the traits you build in a single 3 week wave can be drilled longer. The last thing you want to do is jump ship right as a course of action is starting to pay dividends.

Each one of these progressions can be ran on repeat, meaning they start over every 4th week with marginally more weight on the bar. Example:

Week	1	2	3		4	5	6
	3x12	4x10	5x8	+2%	3x12	4x10	5x8

This can generally be repeated for 3 or more cycles before risking stagnation, at which point we will have already pivoted to a new training threshold and started the process over.

I'm calling a run of waves that are all in the same ballpark a phase because, well, it just makes sense to me. Don't mistake this for a macrocycle; it isn't. A macrocycle implies a fully realized competition run, start to finish. A phase describes a set period of training at a certain range of percentages with a certain amount of volume and specificity. In that sense, a phase is more like a longer 'block'.

Waves can also be ticked forward into slightly different thresholds to keep the phase going.

Week	1	2	3		4	5	6
	3x10	4x10	5x10	+6%	3x8	4x8	5x8

The move to 8s from 10s allows a bigger jump in weight and creates a more substantial disruption. They both feature higher reps (and lower percentages) and are progressing the number of sets first (volumizing), so these 2 waves would still be part of the same phase.

PHASE SWITCHING BETWEEN BASE AND PEAK

Phases group into Base or Peak phases, depending on how specialized they are to strength. This is where we pull influence from the more established parts of formal periodization.

Base Phases feature a variety of lifts, emphasize muscle mass and capacity along with rounding out rough edges and weak points. The point is to get a lot of solid technical practice and accrue a lot of fatigue.

BASE PHASE

- Broad selection of exercises
- Volume is the primary driver of progress (Sets increase week to week)
- Lower range of percentages (65-80%)

Peaking phases are designed to chase the newly increased Peak that your Base Phase established. This is a very specific phase, where most of the work is with the competition movement and done with lower volume. Here, exposure to heavier weights (with greater effort on any one set) creates neurological adaptation that drives up maximal strength.

For those who are non-competitive, Peaking phases are still important to maintain a minimal amount of variety long term (though they can certainly be more abbreviated). For those who are competitive, practice with the Peaking phase is going to be crucial to get a handle on the timing of fatigue and performance as you get closer to meet day.

PEAK PHASE

- Narrow selection of exercises
- Weight is the primary driver of progress (Weight increases week to week)
- Higher range of percentages (80-95%)

REMEMBER:

These qualities are relative. There isn't an absolute list of what qualifies as base volume or peak exercises, they just represent a focal point to guide the changes you make to your workout.

A gym rat who has historically done every exercise under the sun for a bazillion reps does not need to drop all of his accessory movements and follow an uber-specific DUP routine in order for it to count as a 'Peak Phase'.

Conversely, a young powerlifter who started specializing too early doesn't need to adhere to Arnold's Bodybuilding Encyclopedia to adequately build a foundation in a 'Base Phase'.

All that is needed to move from your current routine to a complimentary phase are a few intentional changes in specificity, the method of progression and the average working weight.

A WORD ON VOLUME AND EFFORT

A BIG point that misses many lifters is exactly how difficult each training threshold should be. Intuition tells most that they should be pushing as hard as they can which is always where reps get missed and form gets sloppy.

If I just recommend that a lifter go from 3x10 the first workout to 4x10 the next without any further instruction, the odds of any set actually reaching 10 reps quickly approaches zero. A lot of hard fought 5s and 8s.... but 10s.... not likely.

So what does moving to 4x10 look like when the first workout didn't even meet it's basic requirements? It looks like starting over and doing it right.

The following will solve all of the confusion you've encountered when trying to put percentage based programs into practice:

Volume work is ALWAYS sub-maximal!!

If you are in a volume-oriented phase where the main driver of progress is increasing work over time, you HAVE to leave reps in the tank on each and every set. It is the only way you can actually predict what your workouts are going to look like, which is a pretty big requirement of programming.

Consider this. Compound movements use a lot of muscles in a concerted effort to carry out the movement. Your bench press, for instance, uses just about every muscle above the belly button. Getting in an adequate amount of volume means that the movement has to be carried out for a lot of reps with a minimum threshold of weight (volume = weight x total reps). If the average amount of weight drops or the total amount of reps decrease, volume suffers and the program will be a bust.

Every muscle that work in perfect synchronicity to execute a strenuous set of bench presses (the pecs, delts, triceps, biceps, lats) will fatigue at a different rate. If you take an early set to the absolute limit, the weakest link in the chain is going to be so blown that it won't be able to pull it's weight on subsequent sets. This means form goes to hell, reps get misses and, eventually, weight has to drop.

At this point, you can no longer complete enough work at the prescribed weight to meet the

balance of weight and total reps. Volume is shot for the workout and so is the program.

1/2 to 2/3 are the numbers that get thrown around for finding the sweet spot in a working set. If a certain weight is a 10 rep max, you want to work within 5 to 7 reps for repeating sets. If it is a 6 rep max, 3 to 4 reps, and if you are performing repeating singles, it should stay at a 2 rep max or lighter.

Of course, this applies to most of the work but not all of it. Occasional amrap sets can be beneficial, but they are almost always done as a last working set and should never be done to actual failure.

SETS ACROSS

Almost all of your work is going to be encompassed by repeating sets. There's a time and a place for only performing one, all out set, but that won't be 99% of your training. For you guys that stumbled across an old High Intensity Training article that recommends one set, done to and beyond the brink of failure, I'll remind you about the role volume training had with Mentzer's successful transition to HIT methods. Multiple sets gives you more dials to turn to get the desired outcome, where HIT gives you exactly one.

Effort is substantial, but so are diminished returns.

There are some 'top set' progressions where a single heavy set will serve as a sort of primer before your volume work while steadily acclimating you to more strength-specific loads as the program goes on. Progressing a top set is extremely basic; if you've come across 5/3/1, you understand it about as well as you need to.

Pay attention to the pattern of progressing multiple sets because that will be the driving force of your progress and will be where complexity can trip you up.

CONSIDERING TOTAL VOLUME

3x10

That's about as cookie-cutter as it gets. Open any publication from the last 50 years and you will see a prescription of 3 sets of 10 reps. That number isn't entirely arbitrary; it actually represents a peak of volume, where the number of reps meets an amount of weight that allows for the most tonnage in the fewest sets.

Consider what a 400lb bench presser could perform for 3 sets at each rep range.

	Inter	nsity	Volume
3x20	45%	180lbs =	10,800lbs
3x15	55%	220lbs =	9,900lbs
3x10	65%	260lbs =	7 ,800 lbs
3x5	80%	320lbs =	4,800lbs
3x2	90%	360lbs =	2,160lbs

GRAPH OF VOLUME VS INTENSITY

The highest volume is met with the lightest weights. The muscles are going to endure quite a bit of tear down, but the low weight makes the work very non-specific to strength. Conversely, the heaviest, most strength-specific loads result in the lowest volumes.

At 3 working sets, 10 reps, or work done in the 65-75% range, represents the intersection where volume and intensity are the highest, where both traits are represented equally (higher reps also stress multiple energy systems, hitting more triggers for growth).

As a generic muscle building protocol, sets of 10 are a proven approach.

But we need a plan for next week and the week after. The decisions we make in the short term have to take into account what our immediate priorities are.

DRIVE UP VOLUME OR WEIGHT?

VOLUMIZING

If we are focused on building out our base by adding mass and increasing capacity, our weekly method of progressive overload should force increases in volume. All we have to do is keep the load at a minimum level and simply add sets or reps over time.

Week 1	Week 2	Week 3
3x10	4x10	5x10
65%	65%	65%

INTENSIFYING

If we are focused on climbing the peak, which means making neurological changes that are specific to strength, we instead should prioritize increases in intensity (weight). To keep that pattern sustainable, volume has to drop by losing either sets or reps.

Week 1	Week 2	Week 3	or	Week 1	Week2	Week 3
3x10	3x8	3x6		5x10	4x10	3x10
65%	70%	75%		65%	67%	70%

Each one will push us to one side of the volume/intensity graph, leading to specialization in one trait and some amount of de-training in the other. Remember, we want to re-establish newbie gains when we transition back into a new phase, so said de-training is part of the plan.

TOP SETS AND BACK-OFF VOLUME

Some of the waves will use a single heavy top set to start the workout. Top sets are almost always followed by some amount of volume work at reduced effort or percentages. There are two very easy methods I like to use for back-off sets: 2/3 METHOD - Keep weight the same and drop reps by 2/3.

For example, if my goal was to hit a top set of 10 and I finished with 200lbs, I would keep the weight at 300lbs and perform repeating sets of 6 (I usually round down).

Week 1	Week 2	Week 3	Week 4
200 x 10	215 x 8	230 x 6	repeat + 2% 1 rep max
200 x 3x6	215 x 3x5	230 x 3x4	

This method works best with top sets of 5 or more. I really like this in a volumizing wave where I will typically add a set each week to compensate for the loss of a rep; for example, the volume work here would be 3x6, then 4x5 and finally 5x4. The result is a sustainable way of keeping total reps similar while increasing weight over the 3 week wave. It works really damn well.

10% DROP METHOD - Drop the weight by 10% of your 1 rep max and keep reps the same.

Example of a 300lb in a percentage based top-set wave:

Week 1		Week 2		Week 3	
75% x F	225 x 10	80% x F	240 x 8	85% x F	255 x 6
	195 x 3x10		210 x 3x8		225 x 3x6

For these back off sets, you can opt to keep the number of sets the same all 3 weeks, but I generally like to adjust the volume to make sure fatigue builds over the wave at the right pace.

As I pointed out with the 2/3 method, I almost always volumize in Base Phases by adding a set each workout (3/4/5 sets). For a Peak phase, where more work comes from singularly hard efforts and recovery has to increase, I intensify by peeling sets away each week (5/4/3 sets).

AUTO-REGULATION

Picking your weights at the start of a wave and setting the rules for advancing them forward is actually very straightforward; there are just a few different approaches and each one has it's own guidelines to follow.

Auto-regulation methods are a preference of mine because they account for swings in performance ability week to week. Some days, meeting the requirements of your pre-selected reps and percentages feels like forcing a square peg into a round hole; auto-regulation addresses that.

Any method that bases the weight or reps for the day based off of your ability to perform counts as auto-regulation. This includes using RPE to select weight for a top set, AMRAP sets and the 2/3 and 10% Drop method we just covered.

RPE WAVE

RPE (rate of perceived exertion) was coined by renowned coach and lifter Mike Tuscherer and it is something he uses heavily in his programming. It's simple enough, just a ranking of difficulty from 1 to 10. An easy way to gauge is to ask how many honest, crisp reps you had left in the set and subtract that number from 10.

rep left in the tank? RPE 9.
 reps? RPE 6.

There's some play in the joints, but the point is to schedule work that is specifically below a 10/10 to control fatigue for the week. Most of the work is at RPE 7, 8 and 9 (10 gets saved for meets) and abiding by this scale will ensure that you don't hit the gas too hard on a day where you should be recovering. Percentages vary quite a bit from lifter to lifter making exact weight selection tricky. RPE adjusts for that.

RPE can be used for setting top sets, like so:

Week 1	Week 2	Week 3	Week 4
10 reps @ RPE 7	10 reps @ RPE 8	10 reps @ RPE 9	8 reps @ RPE 7

This 3 week wave (10 reps @ RPE 7/8/9) starts with an easy set of 10 and moves forward by increasing weight for the top set each week until it resets, allowing recovery with a lower rep range and a lower RPE.

Another example is to spread the working weights apart for each week before resetting the whole thing marginally heavier. The wave below starts with an easy 3 weeks (12/10/8 reps @ RPE 7) before repeating the 3 weeks at an RPE 8 and then again at an RPE 9. The implication is that the weight goes up every three weeks; use RPE as a guideline but don't use it as an excuse to drop or maintain weight from wave to wave.

Week 1	Week 2	Week 3	Week 4
12 reps @ RPE 7	10 reps @ RPE 7	8 reps @ RPE 7	8 reps @ RPE 8

After the third wave, you could continue just adding microscopic weight plates every 3 weeks, but it would make more sense to just move into a heavier wave (10/8/6) or a different phase.

Back-off volume gets selected very easily by using either the 2/3 or 10% Drop method.

AMRAP WAVE

The other option is to set a fixed weights and perform as many reps as possible (with good, crisp execution, preferably stopping before you dump the bar). This is an appealing method because there is no guesswork in selecting weights.

Sometimes your body lies to you and a day that started out with you feeling like a dry rubber band finished with a near super-human performance. Having a fixed weight to work around can coax you into getting work in you might have otherwise skipped out on.

A similar range to the 12/10/8 rep wave from above would be a 65/70/75% wave, where each

week features a set for as many reps as possible.

Week 1	Week 2	Week 3	Week 4
65% x F	70% x F	75% x F	repeat + 2% 1RM
			(i.e. a 500lb squatter adds 10lbs)

Incorporating a progressive overload 2% of your 1 rep max each wave will allow you to run through it multiple times, and the amrap creates a bit of competition with yourself. Performing more reps than the wave before with 2% more is a sure sign that strength (and, thus, muscle mass) is on the up and up.

This particular pattern is similar to Wendler's 5/3/1, but we won't be running it for months on end. Long before this wave gets mind-numbingly routine, we will have already established new training maxes, incorporated new accessory work and switched phases. Back off work is, again, set with the 2/3 or 10% Drop method.

REGULAR REGULATION

Work done with a generic prescription of sets across, such as a 5x8, won't allow for an autoregulated top set. In this scenario, we can default to percentages, keeping in mind that all volume work is sub-maximal. Percentages change a bit from lifter to lifter and your 10 rep max for your bench is likely to be a different percentage than the 10 rep max for your squat. This chart gives a good cushion and experience should make up the rest.

Sets x Reps	Week 1 (easy)	Week 2 (med.)	Week 3 (hard)	MAX
3-5 x 10	60%	65%	70%	75%
3-5 x 8	65%	70%	75%	78%
3-5 x 6	74%	77%	80%	83%
3-5 x 5	76%	79%	83%	85%
3-5 x 4	79%	82%	85%	87%
3-5 x 3	82%	85%	88%	90%
3-5 x 2	85%	90%	95%	94%
3-5 x 1	91%	94%	97%	100%

ESTIMATING TRAINING MAXES USING AMRAP SETS

This is a set of coefficients I memorized some time ago that helped me plan out me establish how much progress I was making in the middle of a training cycle without actually having to stop everything to test my max.

It isn't 100% accurate, but it will track relative progress by telling you how your hard set of 4 matches up to your old 8 rep max.

1	2	3	4	5	6	7	8	9	10
1	1.07	1.12	1.15	1.18	1.21	1.23	1.27	1.3	1.33

If you benched 225 for an amrap set of 10, multiplying by 1.33 gives you 300lbs. If you have an idea of some current rep maxes, plug them in and see how closely they represent your current ability. That will give you an idea of how many grains of salt to take with the training maxes it spits out down the road.

Keep an eye on your training max, but don't go out of your way to adjust it. The waves have a built in method of progressive overload, so it won't really be necessary until you switch phases and start over with new percentages.

BASE WAVES

Here's a summary of the waves that go well with Base Phases. These all emphasize the qualities we want when widening the base: lower percentages, a focus on increasing volume, more variation and more sub-max effort.

Don't crawl all over the place trying to think of ways to mess with these. I've already done that while writing this and I can tell you that A.) there are a million variations and B.) there are no bonus points for doing all of them. This is already WAY more options than you need.

TOP SET BASE #1

12 reps @ RPE 7/8/9 Progress to 10 reps, 8 reps, 6 reps for 4 total waves/12 total weeks Back-off sets using 2/3 or 10% Drop (number of sets don't change)

Example using 2/3 Method:

Week 1	Week 2	Week 3
12 reps @ RPE 7	12 reps @ RPE 8	12 reps @ RPE 9
3x8 at same weight	3x8 at same weight	3x8 at same weight

Remember that the point is that weight increases each week, so make sure week 1 is ACTUALLY an RPE 7 so that you actually have room to move forward.

TOP SET BASE #2

Top set of 12/10/8, repeat + 2% of 1 rep max Can also use waves of 10/8/6 and 8/6/4Back-off sets using 2/3 or 10% Drop, Volumizing (3/4/5 sets) Example using 10% Drop Method:

Week 1	Week 2	Week 3
12 reps @ RPE 7	10 reps @ RPE 7	8 reps @ RPE 7
-10% x 3 x12	-10% x 4 x10	- 10% x 5 x8

This is a fantastic introduction to volumizing, since the low RPE guarantees the top set and back off work won't be that difficult for the first wave. Many skip out because the work is intimidating on paper; this is a good way to get your feet wet.

TOP SET BASE #3

AMRAP @ 65/70/75%, repeat + 2% of 1RM Can also use waves of 70/75/80%, 75/80/85% Back off sets using 2/3 or 10% Drop, Volumizing (3/4/5 sets)

Example using 2/3 Method:

Week 1	Week 2	Week 3
65% x 14	70% x 12	75% x 10
3x10 at same	4x8 at same	5x6 at same

I prefer to stick with the 2/3 method for this wave because dropping 10%, while doable, keeps the percentages lower and the reps higher than I generally like.

SETS ACROSS - VOLUMIZING

Sets Across of $3/4/5 \ge 12$ reps Progress to waves of 10, 8 and 6 reps

You can keep it really simple; just step load by keeping the weight the same over the 3 weeks,

adding weight when the reps drop at the start of the next phase. I prefer, however, a more aggressive approach that prioritizes recovery on week 1 and pushes the envelope on week 2.

MY FAVORITE BASE PHASE:

	Wave 1	Wave 2	Wave 3	Wave 4
Wk. 1	3x12 @ 55%	3x10 @ 60%	3x8 @ 65%	3x6 @ 70%
Wk. 2	4x12 @ 55-60%	4x10 @ 60-65%	4x8 @ 65-70%	4x6 @ 70-75%
Wk. 3	5x12 @ 55-65%	5x10 @ 60-70%	5x8 @ 65-75%	5x6 @ 70-80%

After clearing out from the stress of a big contest, I don't want to start a new phase worrying about top sets or amraps. I just want to drop the weight down, let my joints and adrenal glands rest and progress without the need for monumental efforts.

This run checks all of those boxes. It starts out super easy and doesn't tick up the difficulty until I've already adapted to the workload. By the time the stress starts catching up with me, I've already enjoyed my down time and am in the mental state to get after it.

Instead of keeping the weight the same for each wave, I keep it lightest for week 1 so that it can serve as a recovery week. That means I can start creeping the weight up on some of the sets each week, which moves the average intensity up along with the total volume. When both of those variables move up together, the stress increase is undeniable.

The trade off is that capacity increases dramatically and I find each week moving better than the one before. That trend continues down through 10s and 8s, where I might switch to a Top Set protocol or just switch into a Peak phase.

The range of percentages is meant to give you flexibility, so use it intelligently. Keep week 1 light because you won't be able to push week 3 without it. On week 2, only perform one or two of your sets at the heavier range. Resist the urge to go as heavy as possible on every set. For week 3, let it fly. If you feel like you can clear out all of the sets at the upper limit, go ahead. If you aren't firing at 100% that day, pyramid up and back down. As long as the weight doesn't drop from week 1, total volume still goes up and progress gets made.

PEAK WAVES

These are the same patterns of progression from the base phases at lower reps and higher percentages. There are a few new ones thrown in that fit particularly well with the demands of strength-specific programs.

TOP SET PEAK #1

5 reps @ RPE 7/8/9 Progress to 4 reps, 3 reps, 2 reps, 1 rep Back-off sets using 2/3 or 10% Drop, Intensifying (5/4/3 sets)

Example using 2/3 Method:

Week 1	Week 2	Week 3
5 reps @ RPE 7	5 reps @ RPE 8	5 reps @ RPE 9
5x3 at same weight	4x3 at same weight	3x3 at same weight

This is the same example as in the Base phase, just with lower reps and an intensifying scheme. When the reps get low, the 2/3 Method becomes more like 1/2. If you are taking this top set to doubles and singles, the 10% Drop is an easy substitute.

Remember, this one doesn't repeat with more weight; progress forward to a lower rep count.

TOP SET PEAK #2

Top set of 7/5/3, repeat + 2% of 1 rep max Can also use waves of 6/4/2 and 4/2/1Back-off sets using 2/3 or 10% Drop, Volumizing (3/4/5 sets) Example using 10% Drop Method:

Week 1	Week 2	Week 3
7 reps @ RPE 7	5 reps @ RPE 7	3 reps @ RPE 7
-10% x 3 x7	-10% x 4 x5	- 10% x 5 x3

Even though it is technically a Base strategy, I keep the volumizing pattern for this type of wave to keep the volume from dropping too much in week 3. Going from 5x7 to 3x3 is a dramatic shift in total reps, so spreading the work out over the 3 weeks makes more sense here.

TOP SET PEAK #3

AMRAP @ 80/85/90%, repeat + 2% of 1RM Progress to Wave of 85/90/95% Back-off sets using 2/3 or 10% Drop

Example using 2/3 Method:

Week 1	Week 2	Week 3
85% x 6	90% x 3	95% x 2
3x4 at same weight	3x2 at same weight	3x1 at same weight

LINEAR PEAK

This is about the most classically proven method for ramping up to a one rep max. The deload every 4th week provides a sudden period of low effort work, allowing the other 3 weeks to be packed with many sets of low rep, strength-specific work.

This method won't do much for you if you jump right into it, but if you've put in the work on a vicious Base phase, the reduced volume paired with the high percentages will get you dialed in for something BIG.

The week before the recovery week allows us to train harder for more of the cycle, so we don't have to worry about volumizing or intensifying within each wave. But in the spirit of increasing recovery the closer we get to our peak, I recommend a 10% Drop approach, using 5 sets on wave 1, 4 sets on wave 2, and 3 sets on wave 3.

	Wave 1	Wave 2	Wave 3	Test
Wk. 1	82% x 3	88% x 2	95% x 1	New Max
Wk. 2	84% x 3	91% x 2	98% x 1	
Wk. 3	86% x 3	93% x 2	100% x 1	
Wk. 4	65% x 5	70% x 4	75% x 3	
(Deload)				

I keep a normal amount of secondary movements in for the first 2 waves, but by wave 3, I'm hitting the main movement and calling it a day. It will seem like a waste at the time, but trust me when I say that those last 4 weeks of maximal weight and minimal work will lead you to the biggest number of your life.

SETS ACROSS - INTENSIFYING

5/3/1 sets x 5 reps

Progress to waves of 4 reps, 3 reps, 2 reps and 1 rep

	Wave 1	Wave 2	Wave 3	Wave 4
Wk. 1	5x5 @ 75%	5x4 @ 80%	5x3 @ 85%	5x2 @ 88%
Wk. 2	3x5 @ 80%	3x4 @ 85%	3x3 @ 90%	3x2 @ 92%
Wk. 3	Max 5	Max 4	Max 3	Max 2

Aggressively tanking the volume and ramping up the effort over three weeks is one of my favorite approaches when training for a max lift. It works especially well with movements that are difficult to recover from, like deadlifts. The low effort on week 1 and the low volume on week 3 keeps a sort of consistent recovery throughout the block.

The pattern is essentially Chad Wesley Smith's Juggernaut Method, the small difference being

a subtle change in percentages and the rep max on week 3 instead of a plus set. I stumbled across this pattern of progression separately, having found a max/volume/recovery wave (like the one below) to work fantastically well for problem lifts.

It just goes to show how connected everything is; though the exact methods may vary, the principles that drive effective decision making in the gym are the same for everyone.

MAX/REPS/SPEED (MRS) - MY FAVORITE PEAK PHASE

		Wave 1	Wave 2	Wave 3
Week 1	Reps	3x5 @ 80%	3x4 @ 85%	3x3 @ 90%
Week 2	Speed	8x3 @ 60%	10x2 @ 65%	12x1 @ 70%
Week 2	Max	Max 3	Max 2	Max 1

On top of publishing Cube Method, Brandon Lilly also published an article regarding his best deadlift peaking cycle that followed something similar. Practical Programming discusses a "2 steps forward, 1 step back" approach that plans for consistent maximal attempts intermittent with weeks of volume. Even Sheiko discusses in his textbook a '1 back, 2 forward' approach for allowing recovery while driving volume adaptations.

For very advanced lifters or those who just have problems recovering from a particular lift, this pacing hits the nail on the head. The wave kicks off with challenging but moderate volume, followed by a week of speed work that permits adequate recovery for the big max effort day on week 3.

This is as close to a 'max effort' based program that I get to, since consistent maximal work above 90% can go so wrong so fast. But with the speed work present, we can go pretty hard on the volume and max effort day without any ill effects.

BEGINNER/INT/ADVANCED

Once again, be realistic about your development and recovery capacities with each movement. You might be an exceptional deadlifter and a relatively novice bench presser, in which case you will have to be more liberal with periods of deadlift recovery than with your bench press.

In general, beginners can run each week at high difficulty. Any given wave might be RPE 9 for each week.

Intermediates should look at 2 of the 3 weeks as being substantial, making sure to get the most recovery out of the lightest/easiest week. For instance, a 10/8/6 wave might start with 10 @ RPE 7, then push a top set of 8 @ RPE 8-9 followed by a top set of 6 @ RPE 9+, then repeat by adding 2% of your 1 rep max.

For those who are truly advanced, you already should know your pacing, but generally one week can be balls to the wall while the other 2 feature enough of a drop in volume/weight/effort to allow recovery.

TROUBLESHOOTING BURNOUT

We spent quite a bit of time talking about recovery early in the book. We want fatigue to build over the course of a wave and, eventually, towards the end of a phase, but the work has to be sustainable. If you feel that the work within a wave is too difficult to maintain and burnout is around the corner, there are 3 easy areas to troubleshoot.

- Consecutive weeks at RPE 9 or higher

Newer lifters won't likely struggle with this so long as the weekly progression moves through different rep ranges and the wavy structure is maintained. But as you get stronger, especially as work gets above 85%, 3 or more consecutive weeks of all-out effort on a top set might lead to a dip in performance.

If this is the case, incorporate a full deload week on week 4 (making it a 4-week wave) or reduce the RPE on week 1 to allow recovery from the hardest week.

- Consecutive weeks at 90% or higher

Work at or above 90% isn't intended to last long; don't expect to put it on repeat and run indefinitely like the other ranges. There has to be a routine break from work at 90% of your 1 rep max, so simply waving between 90 and 100% won't cut it.

Keeping it at singles instead of going to failure each week is a step in the right direction, but there will likely have to be a deload on week 4 if the work doesn't transition back to a wave at a lower percentage range.

This work is almost always saved for the last part of a Peak phase before a contest or 1 rep max test, which we will flesh out more thoroughly.

- Consecutive weeks at very high volume

The discussion about the soviet approach to wavy structure was in regards to volume, specifically. In a discussion of his methods, Sheiko talks about categorizing workouts from Small to Extra Large based on how many total reps were featured. The sessions constantly shift between bigger and smaller amounts of work; there are never very large workouts prescribed back to back, just as there are never large weeks that are not met with some sort of drop in volume afterwards.

Remember that volume can not continuously climb without a break. The structure of these Waves and Phases takes a lot of the guesswork out, but if the volume has been climbing for too long, you might very well be due for an odd deload or a shift to an intensifying pattern.

WEEKLY SPLITS

When discussing frequency, we are concerned with an individual lift more than how many total workouts you get in a week. Saying that you train 5 days per week doesn't tell me anything. Training only 3 days per week can be 'high frequency' if the same lifts get hit all 3 days. Similarly, you can bust your ass 6 days per week, but a split where each day is dedicated to one muscle still qualifies as low frequency.

There are examples of champions across the entire spectrum, from powerlifting minimalists who work up to one heavy set, once per week, to powerbuilders who spend hours in the gym, up to 5 days per week. There are a lot of ways to do it but each approach has it's own set of rules that have to be followed.

I'm not going to get into the fringe cases on either side, like the squat-every-day fanatics.

For squatting, pressing, and pulling, frequency is virtually always at 1 to 3 times per week.

Training a movement once per week is associated with a lot more total work; more exercises, more sets, more reps. Once per week means that you get a full 7 days of recovery and you can recover from a lot of damage in 7 days.

As a teenager with a collection of Muscular Development as my only influence, bench press Mondays would consist of so much work that my chest wouldn't stop throbbing until Sunday night. While not the most strength specific approach in the world, I had a handle on the timing between stress and recovery. The result was that I grew and I got strong.

With once per week splits, you don't have to stress yourself out with tweaking the work load on the second or third workouts of the week. If I have my heavy Squat progression on Monday and am slated to go again on Wednesday and Friday, I have to train in a different rep range or reduce the amount of work or I won't recover. That's an extra layer of complexity that poses it's own risk of pitfalls.

As frequency with one lift moves to 2 or more per week, training time can be spread across different thresholds and variations that refine technique and target weak points. The main

movement can be treated more like a skill to be mastered than just a method of creating fatigue. While there won't be as much work in each workout, total weekly volume with the main lift can be much higher, making it a more strength-specific option.

One lean isn't exactly better or worse than the other. There have been plenty of top athletes and lifters who grew from once per week workouts that look like they were pulled out of Arnold's Bodybuilding Encyclopedia, just as there is no shortage of the uber-specific, high frequency, skill oriented powerlifting purists. Each one has a learning curve, so whatever you commit to, don't jump ship until you've found a way to make it work for you. Down the road, it can be insanely valuable to be able to effectively transition from method to the next.

RECOVERY W/ HIGH FREQUENCY

If you train M, W, F and M is a hard 5x8, you aren't going to repeat that on W and F, since you would soon become unable to recover and hit a brick wall (this assumes you are not a complete novice who is specifically running a novice-oriented linear progression like Starting Strength).

To train the same movement multiple days per week but still recover enough to not backslide, you have to get creative, and that means changing (undulating) the amount and type of work that you are doing from session to session.

Option 1: Feature an arbitrarily lighter day.

Start with your main weekly progression for a given lift and repeat it on a second day, 10-20% lighter and with one fewer sets. That's about as much thought as you need to put into a 'heavy/light' split. If weight and volume on Day 2 is reduced from Day 1, then it will grant extra weekly practice in that lift while still permitting recovery week to week.

If M is bench presses at 5x8 with 70%, then T h might be 4x8 with 60%.

Option 2: Alternate Volume with Intensity

5x8 is a substantial amount of volume, so you might instead pair it with a heavier day that features less total work. You could work up to a single top set of 8 or a top set at a different rep range.

At this point, it's worth pointing out that we have just covered 'the Texas Method', the only difference being the use of 8s instead of 5s. TM features squatting 3 days per week with one volume day (5x5), one recovery day (2x5, lighter), and one intensity day (max 5) and the balance of high frequency with varied/lighter thresholds allows for enough recovery that linear weekly gains can be made in even intermediate lifters.

Option 3: Work a different physical quality on each day (DUP)

DUP = Daily Undulating Periodization

DUP was coined in the 1980s by Americans as a foil to Block Periodization. Where periodization methods at the time compartmentalized each physical quality into it's own phase within the prep, DUP set itself apart by training those qualities concurrently; instead of several weeks of training where each was dedicated to 'hypertrophy', 'strength' or 'power', those phases were now represented in each day of a 3x per week split.

In practice, this looks like what we've already covered; a volume day, a heavy day, and a recovery day. There is plenty of overlap between these perspectives, but starting from the standpoint of programming 'physical quality' instead of just manipulating numbers to allow recovery will give you more room to come up with creative ways to stress yourself.

Hypertrophy workouts will include more work with less weight (similar to the 5x8 we started with). You might incorporate a variation with increased range of motion or more time under tension or be inclined to incorporate tempos or rest/pause tactics.

Strength workouts will feature lower rep ranges and higher percentages, which might benefit from overload movement, like a pin press or heavy banded variations.

Power will be low reps at high speeds. For lower body work, you might substitute weighted

squat jumps or clean pulls. Or you use a box for your squats, a deficit for your deadlift, some specialty bar, or any variation of height and stance changes. Maybe you add bands. Maybe you superset with a plyometric in a similar movement pattern for post activation potentiation.

The point is, with DUP there are options.

3x per Week

Whole Body Splits

To squeeze in more than 2 sessions per week with a given lift, upper and lower body movements have to over lap. There are approaches that don't arrange days by body part or exercise and merely choose the desired frequency of each lift and schedule them together or apart based on whatever is convenient. You might have a day where there are only deadlifts, a day of squatting and benching, a day of deadlifts and squats. The 'neatness' of the split isn't considered, only the amount of weekly work with each lift.

This tells me that organizing movements around each other in a particular way isn't that important, so long as recovery is accounted for. Well, if all other things are equal, I prefer the methods that are easiest to conceptualize. 'Neatness' may not tangibly add something to the training, but it will make it much easier to keep track of where you are in the program and make decisions accordingly. So, when I can, I make it look good on paper.

3 days of each exercise per week fits neatly into 3 total training days where each lift is ran through on each day. This organizational tactic is seen in Starting Strength, Texas Method, Old Bill Star Programs, and plenty of DUP programs.

The Classic LP Split

Day 1	Day 2	Day 3
Squat	Squat	Squat
Bench Press	Military Press	Bench Press (alternated)
Bent Row	Deadlift	Power Clean

This is similar to what you would see in the most common Linear Progression programs. Squatting is one of the more bio-mechanically friendlier movements, so it is commonly prescribed for high frequency. The upper body can also recovery from high frequency work, but in a bid to keep the upper body well rounded, pressing is often alternated between bench pressing and overhead pressing each session (although, you could surely specialize on one).

Deadlifts are much harder to recover from, especially in the face of high frequency squatting, so most LPs only include them once. These programs, like the one's Bill Starr wrote, have influence from 70s football training and will often include cleans or other Olympic variations to compliment deadlifts.

This same split can be followed with a pattern of 'heavy/light/medium' (intensity/recovery/volume, if you prefer) giving variety to the weekly program and moving the steady increases in weight to once per week instead of every single session. The extra recovery this allows is what makes Texas Method the default move for those who have outgrown novice LPs like Starting Strength.

3x3 Split (H/L/M or DUP)

Day 1	Day 2	Day 3
Squat	Squat	Squat
Bench	Bench	Bench
Deadlift	Deadlift	Deadlift

This split forces you to pay equal attention to each lift, which would be best suited for a powerlifting hopeful looking for a lot of specificity in their training. There isn't going to be a

lot of accessory here as getting through the main lifts will be taxing enough. For that reason, variations can be used to round out weak areas while still providing specific technical practice that will carry over to the main lift.

Day 1	Day 2	Day 3
H. Sq - Box Squat	L. Sq - Front Squat	M. Sq - Comp. Squat
L. BP - Close Grip	M. BP - Pause Bench	H. BP - Pin Bench
M. DL - Deficit DL	H. DL - Rack Pull	L. DL - Pause DL

Andy Baker, co-author of Practical Programming, has put out a lot of information on his 'Heavy/Light/Medium' methods. With pacing cues that take influence from the Texas Method, Andy prescribes his work as follows:

- Day 1 is a 'Heavy' effort, which may be one all-out set or several sets across with a very challenging weight,

- Day 2 is a 'Light' effort, where there are fewer sets than Day 1 and the weight is 10-20% lighter

- Day 3 is a 'Medium' effort, where the weight is 5-10% lighter than Day 1.

Start by establishing a baseline progression for what a 'heavy' day is, and figuring out the rest is easy.

Remember that variation has a recovery component to it, so frequency can be handled better if small variations to the main movements are made in conjunction with changes to the volume and weight used. Movements that are more conducive to overload on one day (like a rack pull) can be alternated with movements that require lighter weights in another (stiff leg deadlift).

A DUP approach will emphasize an entirely different threshold of training on each day instead of adding/subtracting volume and intensity for recovery purposes. These workouts can all be waved together on the same timeline.

Example:

	Hypertrophy Day	y Strength D	ay	Power Day
Wk 1	65% x 3x12	75% x 3x6	60% x 12x2	
Wk 2	70% x 3x10	80% x 4x4	65% x 10x2	
Wk 3	75% x 3x8	85% x 5x3	70% x 8x2	
Wk 4	Repeat, + 5-10lbs			

This pattern can be applied to each lift in the 3x3 split, so that each day features a Hypertrophy exercise, Strength exercise and Power exercise.

2x per Week

Twice per week programming is the most common, since it allows more weekly volume in the main lift than once per week while allowing for more accessory work than 3x per week.

I'm going to stick with 4 day splits because they are the easiest to lay out. For those who only can dedicate 3 solid days, just combine the main lifts on days 3 and 4 and scrap the isolation for those days.

The same rules as above apply; commit to a heavy/light, volume/intensity, or DUP split and run those progressions side by side.

Day 1	Day 2	Day 3	Day 4
Bench	Squat	Bench	Squat
OHP	Deadlift	OHP	Deadlift

This is super generic. How you modify this template depends entirely on your goals. For a powerlifting prep, overhead pressing will be an accessory rather than a main feature and the squat and deadlift will take equal priority. For a Strongman prep, I will ditch benching and squatting altogether to focus on overhead and deadlifts.

Powerlifting 2x/week

Day 1	Day 2	Day 3	Day 4
Bench Press	Squat/DL	Bench Press	Squat/DL
Bench Variation		Bench Variation	
Pecs, Lats, Bis	Glutes, Hams	Pecs, Lats, Bis,	Glutes, Hams
Tris, Delts	Quads, Abs	Tris, Delts	Quads, Abs

Bench, Squat and Deadlift are all given equal weight here and can easily be prescribed a heavy/light, volume/intensity or DUP split. Benching can benefit from more volume, so a bench variation is prescribed each day, whereas squatting and deadlifting together is too taxing for most trainees to benefit from more variations being added on. Staggering the squat and deadlift work is also a good idea in this scenario (i.e. Volume Squat/Intensity DL, Intensity Squat/Volume DL).

Squat/Bench Off-season

Day 1	Day 2	Day 3	Day 4
Bench	Squat	Bench	Squat
Wide Grip	Front Sq.	Incline	Romanian DL
Pecs, Lats, Bis	Glutes, Hams	Pecs, Lats, Bis,	Glutes, Hams
Tris, Delts	Quads, Abs	Tris, Delts	Quads, Abs

Focusing on two lifts instead of four can keep you from burning the candle at both ends. Squatting performance can boost dramatically when the recovery cost of deadlifts isn't a factor, so I like off-season runs that are more aggressive with progressing the squat. Shoulder work should still be present (as should some type of hip hinge) but their role as an accessory will increase recovery with the two main lifts you are focusing on. Yes, overhead pressing and deadlifting can be handled this way as well.

Blended

Day 1	Day 2	Day 3	Day 4
Bench Press	Squat	Strict Press	Deadlift
OH Pin Press	13" Deadlift	Floor Press	Box Squat
BTN Press	Romanian DL	Incline Bench	Front Squat
Pecs, Lats, Bis	Glutes, Hams	Pecs, Lats, Bis,	Glutes, Hams
Tris, Delts	Quads, Abs	Tris, Delts	Quads, Abs

Blended is my preferred choice for fitting in all 4 lifts into a twice per week split. The same muscle groups overlap in benching and overhead pressing as do those involved with squatting and deadlifting. Distributing the work across two movements keeps weekly volume high while preventing DOMS from setting in. Also, most benchers have painfully weak shoulders, so treating overhead pressing as a lift that is equal in importance to benching will usually result in new delt growth and take the bench numbers up a notch.

1x per Week

One time per week workouts require a substantial amount of stress to justify the 7 day recovery period. For those who are comfortable with the long sessions that come with typical bodybuilding approaches, this might be your ticket. But if you can't commit to getting 20 or more working sets in a single workout, spread the work around with higher frequency.

I've followed 1x per week frequency for some time since I have to mind the integrity of my joints in the midst of Strongman event training. Squatting and pressing twice per week isn't as straightforward when Saturday consists of odd object presses and overloaded yoke runs.

This cookie cutter bodybuilding approach is the origin of the 1x per week prescription: each muscle attacked on it's own day with a scorched earth mentality.

Classic Bodybuilding Split

Day 1 Chest Bis	Day 2 Quads	Day 3 Shoulders Tris	Day 4 Back Hams/Glutes	Day 5 Abs Calves
 Bench Wide Spoto	Squat Front Sq.	Military Press Behind the Neck	Deadlift Romanian	Situps Leg Raise
Incline DB	Leg Press	Upright Row	Bent Row	Side Bends
DB Flye	Lunges	Arnold Press	Lat Pulldown	Crunches
BB Curl	Leg Ext.	Dips	Kroc Row	Standing Calf
Hammer Curl		Skull Crusher	Ham. Curl	Seated Calf
DB Incl. Curl		Rope Pressdown	GHD	Donkey Calf

I might have gotten carried away here (I know most of you aren't eager for an abs and calves day), but this split is standard "Muscular Development circa 2002". Subtract day 5, and this is basically a Bench/Squat/OHP/Deadlift split with a ton of volume packed in. It ensures complete destruction, then takes your attention elsewhere while said muscle tissue recovers.

This is an effective approach for muscle growth, doubly so if you aren't used to doing this much work in a single workout. The good news is that we can exploit this bro-split for strength by simply starting the workout with a strength progression for the main lift before moving to traditional bodybuilding methods down the line. Think 'heavy to light' as you move through the exercises.

Another benefit of using this amount of volume is that we have a lot to cut away if we want to transition to a more specific, low volume phase to emphasize on strength. If we were to move out of a phase like this, we could select more strength-specific movements, jack the weight up, and cut the volume in half by eliminating the fluff exercises. The surge in recovery paired with heavier, movement-specific work would allow for astounding leaps in strength.

Fatigue builds up quickly with each high rep set; into the second exercise, your 10 rep max is more like a 6 rep max, so you should not to go into it with some preconceived performance

standard. Learn how to use fatigue to increase intensity and drive progress; push the reps, keep rest periods short, and don't wuss out.

I chose hypertrophy oriented movements here, but you can definitely take a 'powerbuilder' approach and schedule variations that are more specific to the main lift, like lockout or pause work, and then finish off with the isolation and machine variations. An example:

Upper/Lower/Upper/Lower Split

Day 1	Day 2	Day 3	Day 4
Bench Press	Squat	Strict Press	Deadlift
Pin Press	Box Squat	Push Press	13" Deadlift
Flyes, Pullovers	Lunges, Leg Ext.	Upright Row,	Ham Curls, GHD,
Machines, etc.	Leg Press, etc.	Raises, etc.	Rev Hyper, Back Ext., etc.
Biceps		Triceps	Back

The first two movements are lift specific instead of body-part specific. They can be done heavier in a strength-specific range while the accessory movements are better for blanket hypertrophy work with higher reps.

The same rules apply as in the Bodybuilding example; how many exercises you choose as well as the sets and reps will depend on what phase you are working in. Starting with a lot of exercises will increase the recovery effect when volume is dropped for a heavier phase down the road.

L/U/Other

Day 1	Day 2	Day 3
Squat	Bench	Back
Deadlift	Overhead Press	Odds and Ends
Lower Acc.	Upper Acc.	

This is a solid once per week minimalist split. The accessory day makes sure that you will actually do the upper back and bracing work that you usually schedule after your squats and deadlifts, but never do. With only 2 days of heavy compound movements, this split has a bunch of recovery built into it, so it works well for heavy phases, after volume/hypertrophy blocks.

Strongman Split

Day 1	Day 2	Day 3
Squat	Overhead	Yoke, Farmers, Log
Deadlift	Bench Press	Tire Flip, Stone Load
Plyos	Press Acc.	
Lower Acc.	Back/Arms	

This is a Strongman event day split. The whole body strain of event work makes high frequency a poor choice. One lower body and one upper body day in the gym is more than enough to continue growth in the context of rigorous event work and it will decrease the likelihood of the pitfalls that face over-eager first year Strongman hopefuls.

This is, of course, just a vague template. Which exercises and how much accessory work is to be done should be scheduled on an individual basis.

PRE-FABRICATED

PROGRAMS

VOLUME/INTENSITY

3 Days Whole Body 3 Week Volumizing Wave alternated with 3 Week 'Top Set' Wave Leans Hard on Main Lifts, Limited Variation/Accessory

This is influenced by the Texas Method and Bill Starr's Power Program, both representative of sound intermediate training strategies and the logical move for those who have outgrown novice LPs.

Monday	Wednesday	Friday
Squat Vol.	Deadlift Int.	Squat Int.
Bench Int.	OHP Vol.	Bench Vol.
Row	Chinups	Row

+ Deadlift only uses Intensity progression

+ OHP only uses Volume progression

This program features more recovery than a traditional novice LP and a greater element of complexity than intermediate ones.

The Base phase starts with very low percentages and high reps. Sets increase as reps drop which keeps the total rep count roughly the same. The effect when paired with the jumps in percentages is a huge increase in volume AND intensity. This pattern can prove brutal for those who aren't used to working in this range, but the more deconditioned you are to this volume threshold, the more dramatic the change week to week

BASE PHASE

	Volume	Intensity
Wk.1	3x12 @ 55%	65% x F
Wk. 2	4x10 @ 60%	70% x F
Wk. 3	5x8 @ 65%	75% x F

Of course, 'F' doesn't mean literal failure; don't push past technical breakdown and leave one or two in the tank.

Repeat 2 to 3 waves with another 2-4% of your 1 rep max each cycle. Reestablish training max using max calculator (not by actually maxing!) and reset with this wave.:

Wk. 1	3x10 @ 60%	70% x F
Wk. 2	4x8 @ 65%	75% x F
Wk. 3	5x6 @ 70%	80% x F

PEAK PHASE

	Volume	Intensity
Wk. 1	5x5 @ 75%	Top 5 @ RPE 7
Wk. 2	5x4 @ 80%	Top 3 @ RPE 7
Wk. 3	5x3 @ 85%	Top 1 @ RPE 7

Repeat at least 3 waves with 2-4% more each cycle. On the last cycle planned, a test for a true 1 rep max can be done after a full deload week.

Average percentages are climbing which will lead to more strength specific development. To accommodate this, we take the volume day down week to week instead of ratcheting it up. This means more recovery which leads to better performance when the weight is the heaviest.

The pattern on the intensity day is to get our feet wet with higher percentages by starting with low RPE top sets, giving plenty of room to increase weight each cycle. It also reinforces that PRACTICE with heavy weights is a driving force of progress and not just lifting maximally for the sake of it.

The extra layer of variety in the 3 week wave guarantees that many cycles can be ran without the need for deloading.

POWERBUILDER

4 Day, 1x per week split
Upper/Lower/Upper/Lower
3 Week 'Pyramid' Wave for Main Lifts
3 Week High Rep Volumizing Wave for Accessories
Reduced Presence of Main Movement Variations, Heavy Lean on Bodybuilding Acessory

For those who love hard efforts, movement variety, and feeling a burn, this template features the best elements of training for size and strength.

In the Base phase, we flirt with high percentages, but are prioritizing practice and growth with a ton of sub-max volume. The ascending pyramid with sub-maximal percentages allows us to accumulate fatigue while still keeping technical execution crisp. The volumizing effect of adding sets is as aggressive as it is effective, but be warned: a deload very well may be warranted in between waves if the reset itself doesn't provide enough recovery.

BASE PHASE

Μ	onday	Tuesc	lay	Thursda	ay	Friday	
Sq	uat	Bench	Press	Deadli	ft	Overhead P	ress
3 Week	Pyramid Wa	ve					
Week 1	60% x 10,	70% x 8,	75% x 6	80% x 4	(70% x F)		
Week 2	60% x 10, 7	70% x 8,	75% x 6	80% x 4	85% x 2	(75% x F)	
Week 3	60% x 10, 7	70% x 8,	75% x 6	80% x 4	85% x 2	90% x 1	(80% x F)
Week 4	Repeat, +2-	4%					

Accessory Exercises and Progressions

Split Squat	Hammer Strength	RDL	Dips
Leg Press	DB Press	Back Extension	DB Shoulder Press
Leg Extension	DB Fly	Hamstring Curl	Lateral Raises
Barbell Rows	DB Curl	Kroc Rows	Pressdown
Pulldowns	Barbell Curl	Chinups	Skull Crusher

	Wave 1		Wave 2		Wave 3
Wk. 1	2x15	Wk. 4	2X12	Wk. 7	2x10
Wk. 2	3x15	Wk. 5	3x12	Wk. 8	3x10
Wk. 3	4x15	Wk. 6	4x12	Wk. 9	4x10

PEAK PHASE

	Set 1	Set 2	Set 3
Week 1	85% x F	80% x F	70% x F
Week 2	90% x F	85% x F	75% x F
Week 3	95% x F	90% x F	80% x F
Week 4	repeat +2-2	1% of 1 rep m	ax

Accessory Progressions

	Wave 1		Wave 2		Wave 3
Wk. 1	5x9	Wk. 4	5X7	Wk. 7	5x5
Wk. 2	4x9	Wk. 5	4x7	Wk. 8	4x5
Wk. 3	2x9	Wk. 6	2X7	Wk. 9	2x5

In the Peak phase, we remove the superfluous volume by using a simple reverse pyramid to the main movements. Performing the heaviest set when fresh is more strength-specific and the reduction in total reps paired with the new stimulus of amrap sets creates a huge intensifying effect.

Although we don't think of bodybuilding movements as having as much 'bang for the buck', the benefit is they can be used more surgically to develop a well rounded physique and fix weak areas. They can also be worked with much, much more volume without impacting systemic recovery as much. The extra work also helps keep body fat down and increases capacity.

In the Peak Phase, true-blue Powerbuilders can still keep a split that utilizes a lot of isolation and machines; I would just recommend finding one or two exercises from your Base Phase to cut out to give an extra boost to recovery. The Peak works best when there is a noticeable drop in total workload.

708 POWERLIFTER

4 Days

Upper/Lower/Upper/Lower (1 lift each day)

3 - 3 Week Volumizing Waves

3 - 3 Week Intensifying Waves

Leans on both Variations of Main Lift and Bodybuilding Work

Monday	Tuesday	Thursday	Friday
Bench Press	Squat	Overhead Press	Deadlift
Variation 1	Variation 1	Variation 1	Variation 1
Variation 2	Variation 2	Variation 2	Variation 2
BB Accessory	BB Accessory	BB Accessory	BB Accessory

There's a heavy influence of the prototypical 70's lifter here. Many of the accounts of some of the monsters that populated meets at that time, such as Doug Young and Bill Kazmaier, cited high volume approaches with many compound variations and plenty of bodybuilding movements to top it off.

There was also an apparent lack of creativity in the progressions, something I see as a positive. If the main lift was done for 5 sets of 10, often times, so were the second and third. Turns out they all progressed just as well as if they had been done for 8s, 6s, 12s, or anything in between. Each lift doesn't, in fact, need it's own unique progression scheme. Just set a baseline of work for each lift and progress forward.

BASE PHASE

Main Movement Progression

	Wave 1	Wave 2	Wave 3
Wk. 1	3x10 60%	3x8 65%	3x5 70%
Wk. 2	4x10 60-65%	4x8 65-70%	4x5 70-75%
Wk. 3	5x10 60-65-70%	5x8 65-70-75%	5x5 70-75-80%

The range in percentages is to give you flexibility depending on how you recover each week. If the weight moves well, do most of your sets at the top range. If you feel under-recovered, do all of them at the low end. Increases in weight is second priority; the important thing is that weight doesn't go down as you add a set each week.

Variation Exercises and Progression

Wide Bench	n Wid	le Squat	Wide Grip Press	Romanian Deadlift
Incline Ben	ch Fro	nt Squat	Behind the Neck	Good Morning
	Wave 1	Wave 2	Wave 3	
Wk. 1	2x10	2x8	3x6	
Wk. 2	3x10	3x8	4x6	
Wk. 3	4x10	4x8	5x6	

Week 1 of each wave starts at an RPE 6-7 with the variations. Weight doesn't have to go up each week (and shouldn't if it risks missed or sloppy reps), but the important thing is that it **doesn't go down**.

Bodybuilding Exercises and Progression (swap as needed)

Lat Pulldown	Leg Ext.	Lateral Raise	Bent Row
T-Bar/Seal Row	Lunges	Skull Crusher	Hamstring Curl
Barbell Curl	Situps	Rope Pressdown	Leg Raises
Wave	e 1 Wave	e 2 Wave 3	

Week 1	3x15	3x12	3x10
Week 2	4x15	4x12	4x10
Week 3	5x15	5x12	5x10

PEAK PHASE

Main Movement Progression

	Wave 1	Wave 2	Wave 3
Wk. 1	5x3 80%	5x2+ 85%	5x1 90%
Wk. 2	3x3+ 85%	3x2+ 90%	3x1 95%
Wk. 3	Max 3	Max 2	Max 1

Variation Exercises and Progression

	Wave 1	Wave 2	Wave 3
Wk. 1	5x5 70%	5x4 75%	5x3 80%
Wk. 2	4x5 75%	4x4 80%	4x3 85%
Wk. 3	3x5 80%	3x4 85%	3x3 90%

Pause Bench	Pause Squat	Push Press	Block Deadlift
Floor Bench	High Box Squat	Standing Pin Press	Sumo Deadlift

These paused and partial movements replace the disadvantaged variations from the last block. They are selected for their strength-specificity, since they better condition the nervous system to explosive efforts and heavier loads.

Bodybuilding Exercises and Progression (swap as needed)

V Handle Pulldown	Leg Press	Upright Row	Pendlay Row
Kroc Row	Side Bends	JM Press	Ab Rollout
Hammer Curl		French Press	

	Wave 1	Wave 2	Wave 3
Week 1	5x9	5x7	5x5
Week 2	4x9	4X7	4x5
Week 3	2x9	2X7	2x5

This is a full 18 week cycle (more, if you throw in some likely needed deload weeks) that should leave you in a different solar system than when you started. BE WARNED: this is an abnormal amount of work. The point of programming is to adapt to amounts of work that you are not used to. If you commit to this, understand that success hinges on reasonable weight selection. You will be more and more fatigued for each successive compound movement, so be prepared to adjust the weights way down. If any set in the Base phase was within 3 reps of failure, it was too heavy.

BULLMASTIFF

4 Days Upper/Lower/Upper/Lower (1 Lift per day) Even Mix of Main Movements, Variations, and Bodybuilding 3 Week Autoregulated Plus Set Wave

This is a blend of strength and volume work that starts with mid-range strength reps and follows up with a main movement variation for A LOT of reps. It isn't that fun on upper body days and it's less so on lower body days.

You will be excited to try this at the start, but will soon get three sets in and start coming up with all of the phony rationalizations for why it's suddenly a bad idea.

"I just can't handle that much volume!".

The exact point of training is to subject yourself to more volume than you are currently cut out to handle. As long as hard efforts are spaced with adequate periods of recovery, you will grow.

Before doubts get the best of you, know that you absolutely can perform squats and deadlifts for multiple exercises across a variety of reps. In fact, for some extended period of time in your training lifetime, you should. You just have to pick weights appropriately.

An old school approach to slapping a ton of muscle on in a short period of time, this autoregulation tactic is what Doug Young used to become a 600lb+ bencher at well under 300lbs body weight. I made a slight modification by putting it in a wave structure and resetting the starting weight and rep range every fourth week. Remember the recovery benefit of wave loading comes from aggressive buildups followed by sharp drop-offs.

On the main lift, we are going to use plus sets (last set for an amrap) to decide what our weekly weight jumps are. **For every rep over base line**, add 1% of your 1 rep max in weight

to next week's working sets. So if I'm working off of a max of 500 and hit 70% on week 1 for 6,6,6,11, that's an extra 5lbs per rep (1% of 500) at 5 extra reps. I add 25lbs (5lbs x 5 extra reps) and repeat, likely getting 6,6,6,8. 2 extra reps at 5lbs each is a 10lb jump, which will probably have me finish at a hard 4x6 across before resetting to the prescribed percentage for the next wave and rep range.

BASE PHASE

Main Movement Progression w/ Autoregulation

	Wave 1	Wave 2	Wave 3	
Wk. 1	4x6+ @ 70%	4x5+ @ 75%	4x4+ @ 80%	
Wk. 2	4x6+	4x5+	4x4+	
Wk. 3	4x6+	4x5+	4x4+	
	Monday	Tuesday	Thursday	Friday

The point isn't to get as heavy as possible as fast as possible, but to slowly and sustainably improve the amount of work you can perform to these parameters. If you progress at the right pace, the workload will no longer seem devastating. That means you've gotten stronger.

VARIATION PROGRESSION

*base percentages off estimated 1rm of actual variation

	Wave 1	Wave 2	Wave 3
Wk. 1	3x12 609	% 3x10 6g	5% 3x8 70%
Wk. 2	4x12 609	% 4x10 6g	5% 4x8 70%
Wk. 3	5x12 609	% 5x10 6g	5% 5x8 70%

If you don't have a reasonable idea of a training max for these variations, find a weight on week 1 that puts you at the prescribed rep range around an RPE 5-6. You should feel like there

are a solid 6 or more reps in the tank.

The variation work will use 'step loading' to slowly increase your tolerance to load without burning you out in the first wave. That means we aren't adding weight each week, just an extra set. Don't roll your eyes; week 3 of each wave is a barn burner and will require an exceptional amount of effort so come prepared. If the third week of each wave is done right, you will be begging for the volume reset at the start of the next wave.

Accessory Progressions

А. В. А. В.	Leg P Leg E Cable Pulld	xtension Row	DB Press DB Fly Hammer Curl Barbell Curl	Back Extension Hamstring Curl Bent Row DB Row	DB Shoulder Press Lateral Raise French press Rope Pressdown
(A.) Wk. : Wk. : Wk. ;	2	Wave 1 2x10 3x10 4x10	Wave 2 2x8 3x8 4x8		
(B.) Wk. : Wk. : Wk. ;	2	Wave 1 2x15 3x15 4x15	Wave 2 2x12 3x12 4x12		

PEAK PHASE

	Monday	Tuesday	Thursday	Friday
Main	Squat	Bench Press	Deadlift	Overhead Press
Variation	Pause Squat	Board Press	Low Trap Bar	Seated Pin Press

MAIN LIFT PROGRESSION

	Wave 1	Wave 2	Wave 3
Wk. 1	5x3+@85%	5x2+@88%	5x1+@92%
Wk. 2	3x3+	3x2+	3x1+
Wk. 3	1X3+	1x2+	1X1+

VARIATION PROGRESSION

*base percentages off estimated 1rm of actual variation

	Wave 1	Wave 2	Wave 3
Wk. 1	4x6 75%	4x5 80%	4x4 85%
Wk. 2	3x6	3x5	3x4
Wk. 3	2x6	2x5	2x4

If there isn't a reasonable guess of a training max, start week 1 with a weight that gets you 6 at an RPE 7. Add 5% of working weight for weeks 2 and 3.

There will be a lot more recovery here just with the changes to the main lift and variation. Accessory work can be ran similar to the Base Phase with some substitutions to get a bit of variety. The high rep work accessory work ran concurrently with repeating high-percentage sets makes this split a mass-building H-bomb year round.

PYRAMID

4 Days Upper/Lower/Upper/Lower (1 Lift per day) Emphasis on Main Movement and Close Variations

This is a play on one of my favorite strength oriented training structures: the Reverse Pyramid.

A typical pyramid involves ramping weight up as the reps drop, like 10, 8, 6, 4, 2, where each set is challenging and effort is spread over a variety of weights and rep ranges.

A reverse pyramid starts heavy and goes light (2, 4, 6, 8, 10), which makes more intuitive sense. Not only will you not be fatigued for the heavy sets after performing a bunch of high rep work first, but

We start out with one all out set on the main lift, then apply a medium volume rep scheme to a 'heavy lift' (which can accommodate more weight than the main lift, like a block pull for a deadlift) and higher volume rep scheme to the 'light lift' (which can accommodate less weight than the main lift, like a behind the neck press to a military press).

	Monday	Tuesday	Thursday	Friday
Main Lift	Strict Press	Squat	Bench Press	Deadlift
Heavy Variation	Pin Press	Box Squat	Board Bench	Block Pull
Light Variation	Behind the Neck	Front Squat	Wide Grip Bench	Good Morning

	Main	Heavy	Light
Wk. 1	80% x 1x5	3x5 @ 75%	3x8 @ 65%
Wk. 2	85% x 1x3	3x5 @ 80%	3x8 @ 70%
Wk. 3	90% x 1x1	3x5 @ 85%	3x8 @ 75%
Repeat +2-4% of 1 RM			

Bodybuilding Accessories and Progression

Moi	nday	Tuesday	Thursday	Friday
Bent	Rows	Situps	Lat Pulldowns	Hamstring Curls
Han	nmer Curl	Leg Raises	Barbell Curls	Side Bends
	Wave 1	Wave 2	Wave 3	
Week 1	3x15	3x12	3x10	
Week 2	4x15	4x12	4x10	
Week 3	5x15	5x12	5x10	

You may find that the amount of work done on one day interferes with the prescribed work on another (which is yet another reason to start light to give time to adapt to the weekly volume). If, for any reason, you find that doing something like 3 deadlift exercises is difficult to execute several days after doing the same thing with squats, you can adjust your split to accommodate.

- Blend the workouts by swapping the heavy accessory on like days; for instance, going Squat-Block Pull - Front Squat on your squat day and Deadlift- Box Squat - Deficit Pull on your deadlift day.
- 2. Spread the 4 days outside of a single week with a M-W-F-M split to space the efforts out farther and allow further recovery (this option works fantastically well).
- 3. Focus on 3 lifts instead of 4.

THE MINIMALIST

3 DaysWhole Body3 Week Top Set WaveLeans on Main Movements and Close Variations, Little to No Accessory

This was the first true strength-specific split I ever went on, though, admittedly, I wasn't planning out or waving my attempts.

While working my first training job at a corporate gym, I would get my training in during the short breaks I had between clients. This would amount to a single top set for 3 or so reps followed by a back off set done for as many reps as possible, 10-15% lighter.

I would average two compound exercises, 3 if I hustled.

This was completely born out of laziness and the desire to not spend 90 minutes in the gym on top of the 6 to 8 hours I had to be there already. It was a happy accident that the minimalist approach rocketed my numbers up faster than anything I had done since I first started training. It seemed that singular difficult efforts with compound movements paired with a ton of recovery (low volume plus lots of chocolate milk) was a golden ticket to growth.

The end result of applying this to my squat, deadlift, and push jerk (I was in my first 2 years of Strongman) was an unwrapped 545 squat, a 620 deadlift, and a 365 push jerk for a double. I was a 105kg competitor, 20 years old, and drug free.

It's worth pointing out that this came after 5 or so years of the 3 hour gym sessions that marked my developmental period. Don't misunderstand this as me signing off on 4 working sets per workout being all you ever need to do from here on out; it isn't. I think low volume work can be very beneficial, but even more so if it comes after extended periods of highvolume base building. I mean, that's what periodization is, after all. This split exploits a few devastatingly effective principles to get a lot of return out of little investment.

Short for post-activation potentiation, PAP is the phenomenon where more force is placed on lighter weights after the lifter is first exposed to a heavier load. When we place a failure set after a heavier top set, we get faster reps and more of them. The result is more intensity in our high intensity split.

The few exercises and low volume also means extra recovery, which works out well with multiple sets to failure.

Monday	Wednesday	Friday
Squat	Push Press	Front Squat
Bench Press	Deadlift	Strict Press
Bent Row	Weighted Dips	Weighted Pullups

BASE PHASE

- **Wk. 1** 80/70/60% x F
- **Wk. 2** +2-4% of 1 rep max
- **Wk. 3** +2-4% of 1 rep max
- Wk. 4 Repeat at weight from week 1

The Base Phase in this one is unique, since there isn't a tick up in weight from wave to wave; it's like a longer form of step loading. The 'Base-iness' is the chasing of more reps via increased muscular endurance and that is what will allow for a bigger disruption in the Peak when reps are dropped and weight drives up once again.

PEAK PHASE

- **Wk. 1** 80/65% x F
- **Wk. 2** 85/70% x F
- **Wk. 3** 90/75% x F
- Wk. 4 Repeat +2-4% of 1 rep max

There isn't a ton of play in the joints between a Base and Peak approach given how little we start with. The heavier percentages and increases in total weight each wave will be a substantial disruption, along with the loss of one of the working sets.

We are leaning heavily on the AMRAP set, using it to replace volume as the driver of progress. Sets to failure (or close to) are extremely effective, but they leave little room for variation once training becomes stale. There are only so many cycles you can run through when adding weight and squeezing out one more rep is your main tool. For that reason, try not to milk this one dry: once it gets stagnant, volume will once again be your best friend.

DUP

Whole Body, 3x per Week Daily Undulating Periodization Wave Primarily Uses the Main Lifts, Little to No Accessory

Daily undulating periodization involves running through multiple training thresholds within a single week. It is most commonly used in 3x per week training splits where squats, deadlifts, and presses can conveniently be scheduled on each day.

The high frequency of each lift makes recovery a primary concern. Don't be put off by the compact appearance of this split; this is more than enough work to keep you growing. If anything gets added, it better not be more than a few lat pull-downs and some curls.

DUP can be seen as 3 individual progressions that are all ran side by side, which is much more intuitive when putting a program together. Just take a generic hypertrophy, strength, and power wave (or high rep, medium rep, low rep, if you prefer), sprinkle them through the week, and progress them all forward. As you gain experience, you may find it beneficial to tweak the effort on certain days to keep the amount of work sustainable.

BASE PHASE

Monday	Wednesday	Friday
H- Squat	M- Squat	L- Squat
M- Bench Press	L- Bench Press	H- Bench Press
L- Deadlift	H- Deadlift	M- Deadlift

	High Rep	Medium Rep	Low Rep
Week 1	60% 2x12	70% 3x8	75% 4x5
Week 2	65% 3x10	75% 4x6	80% 5x4
Week 3	70% 4x8	80% 5x4	85% 6x3
Week 4	repeat +2-4%		

The Base Phase features 3 waves, a 10/8/6, an 8/6/4 and a 5/4/3. The variety of rep ranges creates a daily switch in emphasis from hypertrophy and capacity to strength and power development. Reps drop, but the number of sets increases to make the total rep count similar from week to week.

Remember to stagger the work so that the same threshold isn't trained on the same day between two exercises.

PEAK PHASE

	Day 1	Day 2	Day 3
Week 1	3 @ RPE 7	6 @ RPE 7	1@ RPE 7
	-10% 5x3	-10% 3x6	-10% 5x1
Week 2	3 @ RPE 8	6 @ RPE 8	1@ RPE 8
	-10% 4x3	-10% 2x6	-10% 4x1
Week 3	3 @ RPE 9	6 @ RPE 9	1 @ RPE 9
	-10% 3x3	-10% 1x6	-10% 3x1

The peak phase is oriented towards strength-specific adaptations, which means percentages need to stay higher and volume needs to drop over time.

Top sets are great for directing strength-specific growth forward week to week and we can use the 10% drop method as a reliable method of choosing volume. By transitioning to an RPE method, we can better manage fatigue by selecting appropriate top sets for each day.

H/L/M

Whole Body, 3x per Week

Heavy/Light/Medium Wave

Primarily uses the main lifts, little to no accessory

Monday	Wednesday	Friday
H- Squat	M- Squat	L- Squat
M- Bench Press	L- Bench Press	H- Bench Press
L- Deadlift	H- Deadlift	M- Deadlift

Not entirely different from DUP, H/L/M doesn't place a particular emphasis on working through different training thresholds in the same week. Instead, the goal is to allow recovery by changing volume and intensity day. When done right, consistent weight increases can be made on a weekly basis.

Check out Practical Programming co-author Andy Baker's website and Youtube. He has a ton of content on this method, including reliable ways of increasing stress, what to do when the program gets stale and ways to incorporate variety to attack weak points and prevent monotony-induced psychosis.

My spin on this particular method is to apply it to higher rep ranges at the start and use a 3 week wave pattern. Day 1 features a substantial amount of volume, day 2 is a recovery day with fewer sets and reps and day 3 features a single top set at a prescribed difficulty.

Each wave repeats with a small increase in weight, which can be ran through multiple times before progressing forward.

BASE PHASE

Day 1	Day 2	Day 3		
60% x 3x12	60% x 2x8	Top 12 @ RPE 8		
65% x 4x10	65% x 2x6	Top 10 @ RPE 8		
70% x 5x8	70% x 2x5	Top 8 @ RPE 8		
2-4% more weight;	after several cycles, _J	progress to the wave below:		
65% x 3x10	65% x 2x6	Top 10 @ RPE 8		
70% x 4x8	70% x 2x5	Top 8 @ RPE 8		
75% x 5x6	75% x 2x4	Top 6 @ RPE 8		
<u>ASE</u>				
70% x 5x5	70% x 4x3	Top 5 @ 7		
75% x4x5	75% x 3x3	Top 5 @ 8		
80% x 3x5	80% x 2x3	Top 5 @ 9		
Repeat with 2-4% more weight; after several cycles, progress to the wave below:				
80% x 5x3	80% x 4x2	Top 3 @ 7		
85% x 4x3	85% x 3x2	Top 3 @ 8		
90% x 3x3	90% x 2x2	Top 3 @ 9		
	60% x 3x12 65% x 4x10 70% x 5x8 2-4% more weight; a 65% x 3x10 70% x 4x8 75% x 5x6 SE 70% x 5x5 75% x4x5 80% x 3x5 2-4% more weight; a 80% x 5x3 85% x 4x3	60% x 3x12 60% x 2x8 65% x 4x10 65% x 2x6 70% x 5x8 70% x 2x5 2-4% more weight; after several cycles, p 65% x 3x10 65% x 2x6 70% x 4x8 70% x 2x5 75% x 5x6 75% x 2x4 70% x 5x5 75% x 2x4 70% x 5x5 70% x 4x3 75% x4x5 75% x 3x3 80% x 3x5 80% x 2x3 2-4% more weight; after several cycles, p 80% x 5x3 80% x 4x2 85% x 4x3 85% x 3x2		

By now it should look predictable: we schedule the peak by taking volume down over the wave and increasing effort. 5s are a great transition range to begin emphasizing on strength-specific qualities and the muscular endurance gained in the last phase will be a definite help when the 5s get sticky. After cycling through your last wave of 3s, deload for at least 7 days before testing a new one rep max.

M/R/S

1x per Week

Maximal Efforts Alternated Weekly with Volume and Recovery Work Even Mix of Variations and Bodybuilding Accessory

Max/Reps/Speed is an organizational strategy that allows maximal efforts to be hit regularly without risking overuse issues or burnout. I talked earlier in the book about influences for this type of split coming from Sheiko, Rippetoe, Brandon Lilly and others.

There are a lot of variations that can be applied to this template and they probably merit a book all their own. I've seen different movement variations used every week and different protocols for the recovery/speed workout.

Recovery work and 'speed work' are interchangeable. While I don't believe speed work with very light weights to be a direct driver of strength, it is extremely useful as a way to program work that allows recovery while keeping the lifter dialed into the groove.

Monday	Tuesday	Thursday	Friday
Squat	Bench Press	Deadlift	Overhead Press
Front Squat	Close Grip Spoto	Pendlay Row	Behind the Neck
Leg Press	Dips	RDL	Upright Row
Split Squat	DB Tricep Ext.	Kroc Row	Bent Raise
Chinups	Flys	Back Extension	Hammer Curl
Pulldowns		Abs	Reverse Curl
Abs			

The accessory is important here, which is why there is a ton of it. Across the board, it can be

progressed on an easy RPE wave. Start at 3x10 @ RPE 7 and add a small amount of weight each workout. Make sure that the weight dials back for the recovery weeks. When things get sticky, reset to 4x8 then 5x6.

BASE PHASE

		Wave 1	Wave 2	Wave 3
Week 1	Max	Max 5	Max 4	Max 3
Week 2	Reps 1	75% 3x5	80% 3x4	85% 3x3
Week 3	Reps 2	80% 5x3	85% 5x2	90% 5x1
Week 4	Speed	60% 8x3	65% 10x2	70% 12x1

Applied over 4 exercises, the substantial weeks might end up putting the screws to you. There is enough recovery included in a months work to get a way with it, but you might prefer to stagger all of the exercises over the 4 weeks so you don't end up with 4 max attempt workouts in the same week. For instance:

	Monday	Tuesday	Thursday	Friday
Wk. 1	Sq - Max	BP - Reps 1	DL - Reps 2	OHP - Speed
Wk. 2	Sq - Reps 1	BP - Reps 2	DL - Speed	OHP - Max
Wk. 3	Sq - Reps 2	BP - Speed	DL - Max	OHP - Reps 1
Wk. 4	Sq - Speed	BP - Max	DL - Reps 1	OHP - Reps 2

The set and rep prescriptions are a bit different and we have 4 exercises and set/rep prescriptions each instead of 3, but all in all, this isn't very far off from the Cube Method.

The Base phase features two volume weeks, a max and a recovery week over a 4 week Wave. After so many cycles, the template can be made more specific to a meet prep by dropping one of the volume days and coming back to a maximal set every three weeks, as below.

PEAK PHASE

			Wave 1	Wave	e 2	Wav	e 3
Week	1 R	Reps	85% 3x3	90% :	3x2	95% 3	3x1
Week	2 S	Speed	60% 8x3	65% 1	.0x2	70%	12X1
Week	3 N	Лах	Max 3	Max 2	2	Max	L
	Monda	ıy	Tuesday		Thursday		Friday
1	Squat		Bench Press		Deadlift		Overhead Press
1	Safety B	Bar Pause	Floor Press		13" Deadlift		OH Pin Press
	Hip Belt	t Squat	JM Press		Good Morni	ng	Weighted Dips
	Abs		Bent Rows		Abs		Pulldowns

The volume of accessory drops and we swap 'light' variations with ones that involve overload. The increased frequency of max effort attempts makes this a very strength-specific block and the exercise selection plays heavily into that. For accessories, run 3x6 @ RPE 7-8, adding weight for the 3 weeks until resetting at 3x4 then 3x3. Place the highest RPE on max day.

At this point, I would almost certainly be prepping for a contest, which means emphasizing one pressing movement instead of two. In that case, staggering 3 exercises with the 3 week wave is pretty straightforward. If you want to run all 4, it would look like this:

	Monday	Tuesday	Thursday	Friday
Wk. 1	Sq - Max	BP - Speed	DL - Speed	OHP - Max
Wk. 2	Sq - Reps	BP - Max	DL - Max	OHP - Reps
Wk. 3	Sq - Speed	BP - Reps	DL - Reps	OHP - Speed

This makes sure that there isn't a max squat and deadlift in the same week (or ohp and bench) and lets week 3 serve as a full recovery week..

STRONGMAN

3 Day Split, 1x per week Upper/Lower/Events Leans Heavily on Main Movements and Event Variations 3 Week Volumizing, Intensifying, and Top Set Wave

Even with the new popularity of the sport of Strongman, the role of events in developing strength for the general population is sincerely underrated. There's no reason you can't take any one of the previous splits we've covered and include some type of carry, loading, flipping, or dragging at the end. In fact, it's probably a good idea.

This is a split for a competitive Strongman. Getting good at Strongman requires exactly two things: getting physically stronger over time and getting more experienced with the events. The best metric we have for developing and gauging broad physical strength are the main lifts, so we aim to increase those steadily, and there is no substitute for experience, so we will get our hands dirty on the events every week.

There are splits for doing events throughout the week after the standard gym lifts, but I am not a fan of those. Strongman training often requires (and always benefits) from a crew, so having one day where everyone can have a hand in setting up, loading, and spotting is ideal. It also compartmentalizes strength work and skill work.

Use the weekdays to get stronger. Use the weekend to build skill, capacity and confidence.

Upper Body	Lower Body	Events
OHP	Squat	Odd Press
Bench	Deadlift	Walking Event
		Carry / Load

Events are very taxing on the lower body, especially the lumbar spine, so frequency with squats and deadlifts is out of the question. One lower body day on top of events is all you need and more will usually be counter productive.

I've had success incorporating a third weekday session before, with lighter accessory work for the upper body, but this can come at a price since many events also tax the shoulders and elbows. Getting through log or axle clean and presses, stone or sandbag picks and tire flips can be a bit daunting after a week of benches, overhead presses, rows and curls.

Preserving joint health is much more important than squeezing in another day of work, so use your judgment.

Unless you have a contest on the horizon with specific events to train, you want your training to be as well rounded as possible. Events break down into a few categories: pressing (log, axle, circus dumbbell), deadlifts (axle, elevated, side handle, etc.), carries (keg, sandbag, Husafell stone), walking (yoke, farmers) and loading (stones, sandbag, etc.). Deadlifts get done during the week, so resist the urge to include axle or frame deadlifts on Saturdays.

The one-off events that are unique and don't carry over to other events should be saved for contest specific prep. Tire flips, power stairs, fingal fingers and even truck pulls don't have a lot of carry over to other events and take a ton of effort to set up and break down. You are much better off focusing on the more popular events that promoters tend to favor before spending time on these events because they are fun or new.

Tuesday	Thursday	Saturday
Deadlift	Overhead	Farmers
Squat	Bench Press	Log Clean and Press
		Bag Carry
		Stones

There are two options for building skill in events. One is to continue the 3 week waves for several cycles before switching exercises. Another, and probably my favorite, is to write out 2 3-week waves featuring different events and stagger them into one 6 week block. We can actually do the same with the weekday barbell lifts to space taxing movements further apart, allowing further recovery and more variation.

Week 1

Deadlift	Push Press	Farmers
Front Squat	Close Grip Bench	Log Clean and Press
Bent Row	Dips	Sandbag Carries
		Stone to Shoulder

Week 2

Squat	Bench Press	Yoke
Trap Bar Deadlift	Strict Press	Axle Clean and Press
Bent Row	Dips	Shield Carry
		Keg Over Bar

These are pretty close to the best movements to help with both static movements and classic events. You have to have a good deadlift and overhead press to steal points when those events come up, but the strength they give will also improve your efficiency with the classic events.

Box squats, front squats, and zercher squats are all solid variations, as are any side-handle deadlift or 13-16" elevated deadlift (never above 18", and only 18" if you are using an axle).

Benching does indeed help with upper body strength for crushing stones and sandbags while providing overload that may help with overhead press strength. Some athletes jerk to get close to competitive numbers early on, but I prefer to prescribe the push press, since jerking odder objects require either a strong pressing base or master-level precision anyways. I outright stole the alternating structure from Mike Westerling, who has coached a ton of Strongman over the years, including World's Strongest Man athletes. Kristen Rhodes is actually the one who recommended his book to me. If you don't know of Kristen, she is arguably the most decorated female in the sport, who's trailblazing in the field of Women's Strongman involved competing directly against the men when active women were few and far between. If you have further interest in programming for Strongman, check out his book, Built by Mike.

You can use any one of the progressions we have covered, and periodize them accordingly, but volumizing schemes aren't suited for all movements and making everything fit can get tricky. Intensifying Waves and Top Set Waves should give plenty of variation without throwing a wrench in the gears.

BASE PHASE

Plus Set Wave (last set to failure)

	Wave 1	Wave 2	Wave 3
Wk. 1	5x5+@70%	5x4+ @ 75%	5x3+ @ 80%
Wk. 2	3x5+@75%	3x4+ @ 80%	3x3+ @ 85%
Wk. 3	1x5+ @ 80%	1x4+ @ 85%	1x3+ @ 90%

For Strongman, I like these for 5s (70%,75%,80%) and 3s (75%,80%,85%) on pretty much all static movements. The 'plus' set at the end is a great driver of progress on it's own, but has the added benefit of conditioning rep endurance, which is key in Strongman.

PEAK PHASE

Top Set Wave (Minimalist)

	Wave 1	Wave 2	Wave 3
Wk. 1	75/60% x F	80/65% x F	85/70% x F
Wk. 2	80/65% x F	85/70% x F	90/75% x F
Wk. 3	85/70% x F	90/75% x F	95/80% x F

Any Top Set Wave will be strength specific with an emphasis on rep endurance. The scheme from the Minimalist features a back-off set that puts an exclamation point on the rep endurance part. Strongman is filled with static events that are 'As Many Reps as Possible in 60 Seconds'. Since the weights are kept lighter in the amateur divisions, getting good means that, at some point, you will go over 20 reps. If you are not comfortable in that threshold by the time the contest comes around, you are in for a bad time.

BONUS STRONGMAN PROGRESSIONS

I saved this bit for a sort of post-credits Bonus. Strongman has seen a dramatic increase in popularity since I started in 2005 and it doesn't seem to be slowing down. As exhilarating as it is to compete in and spectate a sport that involves the same 3 movements done for the same one rep, I strongly recommend that you branch out by incorporating some Strongman movements if you have access to them.

Basic barbell lifts will always be the backbone of strength development, but in order for that strength to be useful, a little more is needed. Carries, loads, throws and flips satisfy that requirement. And they aren't exactly boring to do.

The variety of Bodybuilding movements round out your physique on a local level; individual muscles can be brought up to contribute to the efficiency of the overall system. In contrast, the variation of Strongman movements round you out in a more general way.

Maneuvering odd objects with no handle builds strength through new patterns and planes. Logs, stones and tires for reps condition multiple energy systems, teaching explosiveness in the context of fatigue. And the demand on the posterior chain builds a base that makes Strongman synonymous with word 'Deadlift'.

Whether you are just looking for some unique GPP work or are currently prepping for your first show, I included these to add some direction to your efforts.

Here are some of the Strongman event progressions that set me up for some of my best performances at World's and the Arnold.

DENSITY/REST-PAUSE WAVE

Density work is often overlooked as a way of progressing stress. While I'm not a fan of obsessing over reduced rest periods as a primary method of increasing size and strength, I am a fan of occasionally changing the parameters of a 'set' to increase density as a way of including some much needed variety.

Option 1: Standard Rest/Pause

Wk. 1	3 RP sets @ 60%
Wk. 2	2 RP sets @ 65%
Wk. 3	1 RP sets @ 70%
Wk. 4	repeat with 2-4% more
Wk. 1	3 RP sets @ 70%
Wk. 2	2 RP sets @ 75%
Wk. 3	1 RP sets @ 80%
U	
Wk. 4	repeat with 2-4% more

Rest-Pause is one of the most common methods, like many of you might have seen in Dogg Crapp training. In a nutshell, you pick a weight and take it until failure, rest 12-15 breaths, go to failure again, more breaths and repeat one last time. That's one set.

A single set at 60% might go 15 reps, then 9, then 6. Effort and fatigue get much higher than anything laid out so far in this list of progressions, but density is the big variable. This example has you doing did 30 working reps at 60% in right around 2 minutes, much faster than you would have with any other traditional set and rep scheme.

In the heart of a volume/hypertrophy phase, this is a fantastic way to add some mustard to your main upper body lifts as well as lower body accessory exercises (not recommended for squats or deadlifts unless you leave a few reps in the tank on each attempt). It can certainly be used for your accessory and isolation work as well.

Option 2: Clusters

- **Wk. 1** 60% @ 4x5 w/ :20 rest
- **Wk. 2** 65% @ 5x4 w/ :20 rest
- **Wk. 3** 70% @ 6x3 w/ :20 rest
- Wk. 4 repeat with 2-4% more

Wk. 1	70% @ 5x4 w/ :20 rest
Wk. 2	75% @ 6x3 w/ :20 rest
Wk. 3	80% @ 7x2 w/ :20 rest
Wk. 4	repeat with 2-4% more
Wk. 1	75% @ 6x3 w/ :20 rest
Wk. 1 Wk. 2	75% @ 6x3 w/ :20 rest 80% @ 7x2 w/ :20 rest

I like these for movements that carry over to Strongman events, more than for actual Strongman events themselves. Carries, flips and loads are all harder to scale, so some type of step load works out better in practice. But barbell movements can be scaled to this pattern easily. My favorites Strongman staples to use with clusters are front squats, zercher squats, trap bar deadlifts, snatches or cleans (with an axle, of course) and viper presses. A few waves with clusters popping in as a finisher and gassing out in medleys and rep events will be a thing of the past.

Option 3: Timed AMRAPS

Wk. 1	70% x :45
Wk. 2	75% x :45
Wk. 3	80% x :45
Wk. 4	repeat at 1:00 and 1:15 before resetting to :45 with 5% more

Another density approach comes right out of Strongman contest prep. When you perform a deadlift, squat, press, or load for reps in Strongman event, you have a set period of time, usually 1:00, which means you can get creative with how you pace your attempts.

I might be able to deadlift 635lbs for 8 reps straight before reaching failure, but if I have a minute I can do clusters of 3 to 4 reps with 15 seconds in between and likely reach 10 reps or more. Take my word for it; when you try this for the first time, you will be surprised both by how much more work you can get in and how much it sucks.

SKILL/SPEED PROGRESSION

Wk. 1	10X2	@ 60%
Wk. 2	8x2	@ 65%
Wk. 3	6x2	@ 70%
Wk. 4	repeat	t with 2-4% more

Speed work is a common training buzz term. I'm not a huge fan of it as a primary driver of strength, but I have used it for plyometrics, skill work, and some extra weekly volume on a recovery day.

Example: Deadlifts performed heavy every other week can be alternated with speed work to keep the movement fresh while allowing recovery.

Week 1:	Top 3	Week 2:	10x2 EMOM @ 65%
Week 3:	Top 2	Week 4:	8x2 EMOM @ 70%
Week 5:	Top 1	Week 6:	6x2 EMOM @ 75%

The 'heavy' week can be any progression; it can be a wave that repeats or moves linearly, it can include top sets, amraps, or sets across. The speed work simply waves continuously, starting over each time with marginally more weight on the bar. You can add variety by including bands or chains (as long as it stays fast), using different bars, or changing your stance or grip.

Another way I use this progression is when technique needs to be cleaned up on a new movement, specifically one that favors speed or explosiveness. In strongman, circus dumbbell presses, log clean and presses, tire flips and stone loads, just to name a few, can benefit from a run like this to knock the rust off before training it at more contest-specific thresholds.

Example:

Circus DB Presses can be done on an event day or after heavy pressing on the main movement on an upper body day.

Week 1:	10x2	EMOM @ 70% (alt. L and R arm each set)
Week 2:	10x1/1	EMOM @ 75% (alt. L and R arm each rep)
Week 3:	10X1	EMOM @ 80% (alt. L and R arm each set)

Without a contest on the horizon, I might drop to 8 sets and restart at 75% for the next wave. If I am getting closer to a meet, I will drop the sets to a normal range of just a few sets and focus on working closer to the contest threshold with another strength progression.

FOOT-SPEED WAVE

Wk. 1	:08 Max @ 60'
Wk. 2	:10 Max @ 60'
Wk. 3	:12 Max @ 60'
Wk. 4	repeat with 2-4% more

Here, your ability to meet the time cap will determine how heavy you go in a given workout. 60' represents a standard distance for a yoke or farmer's drag race and the fastest times generally end up around 8-10 seconds. Week 1 will be the lightest and fastest week and each week will get steadily heavier (and slower) before resetting and trying to break old PRs by 5-10lbs each time.

An :08 max means the most weight that still allows you to complete the distance within 8 seconds. You start with an empty implement for a few quick warm-up runs then slowly add weight, keeping track of your time on each run. You want to pace your warm-ups so you get at least 5 solid runs before your heaviest set. That means smaller jumps for those just starting out. An example would look like this:

 Farmer's Walk (weight per hand) for 60'

 Weight
 Seconds

 45
 5.8

 95
 6.2

 115
 6.6

 135
 7.0

 155
 7.8

It's obvious that 155lbs is as close as you can get to your time cap, so you shut it down. You set your sights to 3 weeks from now when you revisit your 8 second max at the start of the next wave, resolving to finish the course with 160 or 165 just as fast.

The following week will feature a 10 seconds cap, so you anticipate getting 15-20lbs heavier on your top run. Use your best judgement (setting your ego aside) and do not count sets that go over your time cap.

This is a great way to build comfort with yoke and farmer runs in the off-season, especially if foot speed with lighter weights is an issue (as it was with me for so long).

You can also run a similar wave using percentages instead of time caps. I will often use the most weight I can carry 60' without dropping as a sort of 1 rep max and base percentages off of that. You can wave these percentages the same way we have done with the barbell lifts:

 Wk. 1
 3 x 70%

 Wk. 2
 2 x 80%

 Wk. 3
 1 x 90%

 Wk. 4
 repeat with 2-4% more

 *all sets as fast as possible

You could also opt for a linear run that starts with multiple light runs and drops volume each wave as the weight climbs. This is a good option for getting to maximal runs in a shorter time frame, which is recommended when prepping for a show where the yoke or farmers weight is heavy (speed work doesn't matter if you can't stand up with the contest weight).

Week 1	Week 2	Week 3
5 x 65%	5 x 70%	5 x 75%
Week 4	Week 5	Week 6
3 x 80%	3 x 85%	3 x 90%
Week 7	Week 8	Week 9
1 x 95%	1 x 100%	1 x 105%

*deload after each 3 week wave if needed

Just keep track of the unique way that moving events can accumulate fatigue; getting overzealous with your progressions can interfere with your barbell work throughout the week.

MAX DISTANCE CARRY WAVE

Setting minimum distances can work similarly to the time-cap on the 'Foot-speed Progression' as a way of setting your weight. It's tempting to go as heavy as possible all the time, but events like Husafell or sandbag carries for max distance test a different energy system that won't benefit from constant short, heavy runs.

Case in point; the best Strongmen in the world carried the 409lb Husfall stone for max distance at the Arnold Classic in 2019. Only 2 of the 10 went over 200', Thor (218') and Novikov (211'). At Strongman Corp. Amateur Nationals in 2020, the winning run with a 400lb Husafell was 300' from Alex Kopp. Of course, deadlifting 1,000lbs makes maneuvering heavy and awkward objects easier, but if you have to carry something for well over a minute straight, you won't dominate unless you are extremely comfortable working in that time-frame and energy system.

You big lifters who have had to set the groceries down before you got to the front door know

what I'm talking about.

So instead of setting time caps, we can set a minimum distance; something that will force us to select an appropriate weight to make sure we are training at the right threshold.

Since your ability to choose the exact right weight will be limited (you won't know if you can carry something 300' or 350' until you do the run), it makes more logistical sense to start with a doable weight for a long distance and slowly add weight, jumping to a shorter distance in a more punctuated style.

For instance, I started my Husafell prep for nationals, which was to be a 375lbs stone, with 400' runs with a 160lb implement. It sounded easy when I wrote it out... it wasn't. I then added 20lbs every workout, aiming to meet that 400' minimum. It continued to suck, but I was still able to squeeze it out. After several weeks, I made a more substantial jump and dropped the distance to 350', then 300', then 250'.

Week 1	Week 2	Week 3
2 x 400'	2 x 400'	1 x 400'
160lbs	180lbs	205lbs
Week 4	Week 5	Week 6
2 x 350'	1 x 350'	1 x 350'
230lbs	250lbs	275lbs
Week 7	Week 8	Week 9
1 x 300'	1 x 300'	1 x 250'
310lbs	330lbs	350lbs

When runs get this long, more than a couple of sets becomes impractical. I would do a second run if the distance was manageable and would shut it down after one if it was a grinder.

The linear approach made sense; I needed a set period of time to adapt to runs that went 1:00 or longer but I also had a set deadline to get close to contest weight. The reason I could

benefit from starting so far away from contest weight was because capacity was my limiting factor, not strength, and the lighter weights were needed to stress those qualities. By the time the weight got heavy again, I had an extra gear I could rely on that had never been present before.

This is a very clear cut example of the Phase principles that we've been discussing; adapt to one training threshold and use the gains from that period to build into the next.

Waving, again, is an option and probably better suited for work when a contest is not on the horizon.

Week 1	Week 2	Week 3	Week 4
3 x 250' (easy)	2 x 250' (medium)	1 x 250' (hard)	Repeat, +10lbs
or			
Week 1	Week 2	Week 3	Week 4
1 x Max 300'	1 x Max 200'	1 x Max 100'	Repeat +10lbs

These are just some examples. You can vary these progressions as long as there is a clear method of progressive overload and the prescribed work permits recovery.

ATLAS STONE STEP LOAD WAVE

This can be used for kegs and sandbags as well. These implements can't be loaded in the same increments as plate loaded equipment, so we have to find a way to increase work with the same weight before jumping up. This is kind of a 'Strongman Step-Loading' that steadily increases density.

Week 1	Week 2	Week 3
5x1	1x5	1:00 Amrap
Week 4	Week 5	Week 6
5x2	2x5	1:00 Amrap
Week 7	Week 8	Week 9
5x3	3x5	1:00 Amrap

Repeat with a heavier stone.

The first 3 week wave should be done with a relatively light stone. The first week features 5 sets of 1 rep where you can focus on tightening up technique, reinforcing speed and improving transition time. If it is especially easy, you might even perform it every minute, on the minute.

The next week should feature the same stone, but for a few sets of 5 reps. This is going to acclimate you to the fatigue that builds up with higher rep sets. Make sure to practice crisp technique in the face of fatigue.

The third week is just one, all-out set for the most reps you can squeeze into a minute. Your endurance should be a little higher than week 1 and you should be able to move continuously for the entire minute. 7 reps or more is a good target for a 'heavy' stone while lighter ones can be cycled through 10-12 times in a minute.

FIN.

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