WEIGHTS OF THE WORLD: An Examination of the Evolutionary Histories of the Atlas Stone and *Gada*, and the Philosophy of Resistance Training

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Abstract

In an age when everyday life demands less and less of the human body, it often feels as if we are growing further divorced from our nature as moving creatures. As the gym becomes the only sphere of life in which real physical exertion is experienced, our understanding and performance of exercise grows all the more distant—we get in and out of the gym as quickly as possible, using machines that isolate the muscles and limit the body's movement. Our blood, sweat, and labor are transformed into numbers, cold steel, and increments of time. In this thesis I call upon the wisdom of both ancient and nascent strength communities to offer a perspective on exercise that is more human but does not lose sight of the importance of empirical data and quantitative values. In doing so, I give a brief account of the evolutionary histories of two not-so-typical exercise implements—the Atlas Stone and *gada*—as well as the myths and peoples to which they are tethered by history, legend, and science. Following my examination of the implements, I outline a three-phase exercise routine that synthesizes exercises performed using them with contemporary training principles and methodologies. Thus, in drawing upon the wisdom of the Indian wrestling and European stone lifting communities, I propose the need to cultivate a fitness culture that marries ancient techniques and attitudes with empirical findings and innovative technologies to produce trainees that are smarter, fitter, and greater in number

Introduction

Walking into just about any gym anywhere in the world, one is almost guaranteed to see the fitness floor populated by the usual suspects: barbells and treadmills, ellipticals and stair climbers, dumbbells, benches, and squat racks. In a small, but growing, number of gyms, however, one finds training implements that are not so familiar: steel kegs filled with water or sand, massive hollow "logs" designed to be rolled up the body and pressed overhead, and fierce-looking sleds upon which weight plates are stacked high. The thesis at hand, however, is concerned with enormous, tacky-covered concrete stones weighing 130 kilograms (300 lbs) or more, and the unfamiliar steel bars with spherical heads which are not necessarily intended to be pulled, pressed, or curled but swung about the body following any number of paths through a wide range of motion.

Today's exercise industry is characterized by innumerable contraptions which aim at sculpting and strengthening the body by way of all manner of cables, levers, pulleys, and bands, but effective resistance training need not be so complex. The principal mechanism at play in resistance training is the exertion of force against an external, antagonistic force via muscular contraction. Sources of resistance against which a trainee may work include everything from a partner's bodyweight to gravity itself. For most of human history, equipment specifically crafted for resistance training was scarce, so athletes and coaches had to make do with that which they had on hand: the objects of nature, agricultural implements, and weapons. It is from these humble beginnings that the above-described Atlas Stone and the weapon-like *gada* got their respective starts.

Though foreign to the average gym-goer due to their presence mostly in elite gyms, the *gada* and Atlas Stone are rooted in the practices of the strength-training communities of India and Europe, communities with respected, ancient traditions that persist to this very day. These objects

are endowed with narratives from antiquity where conceptions of the body, community, and myth intersect. Across many cultures, the ability to lift heavy stones at some time became a point of praise and the object of competition due to the prestige of stone as a construction material. As one might expect, evidence of stone lifting competitions dating back thousands of years has been discovered around the world. From the Husafell Stone of Iceland, to Bybon's Stone in Greece, to the Dinnie Stones of Scotland, the rocks our ancestors once lifted remain, standing as testament to the practices of the athletes of yore. The lifting of heavy stones is an exercise often associated with masculinity—specifically as a rite of passage—and the glorification of manual labor. The *gada*, on the other hand, is directly linked to the martial arts. Ancient maces resembling those used by modern athletes have been found throughout the Indian subcontinent and Asia. To this very day mace-swinging plays a fundamental role in the strength training routines of Indian wrestlers and is practiced as an art in-and-of-itself in the form of *gada-yuddha*. Whereas lifting stones is typically used for increasing raw strength or muscular endurance, the *gada* and various similar pieces of equipment typically referred to as "Indian clubs" or "maces" are, and have been historically, used by athletes to loosen the joints, strengthen the stability muscles of the shoulder and core, and bring a sense of balance to the individual that is as much mental as it is physical.

The rich histories of these pieces of equipment reveal a great deal not only about the communities that created them, but the ways in which people have been able to develop effective means for exercise intuitively. The revival of stone lifting and mace swinging in the strongman and functional strength communities—and the many sub-communities which compose and stand adjacent to them—and the discovery of empirical evidence backing the effectiveness of these movements serves as testimony to the wisdom of the ancients, wisdom of which the modern athlete ought to take heed. In the following study, I give brief accounts of the myths of Atlas and

Hanuman—myths with which the Atlas Stone and *gada* are inextricably linked—before proceeding to trace the evolutionary histories of these pieces of equipment from their origins in the past to their manifestations in the present. Once I have unpacked the stories of the mace and stone, respectively, I will turn to the attitudes toward exercise held by the strength communities of the *akharas* of northern India, and the Nordic, Scottish, and Basque strongmen of Europe. From there, I will begin discussions of the importance of reverence and balance referring to the practice of *gada*-swinging. Additionally, I will examine the relationship between exercise and punishment—in part through a Foucauldian lens—in the context of the myths of Atlas and Sisyphus. Turning toward current fitness culture, I will examine how these notions manifest themselves in contemporary strength communities and make an argument for learning from, and paying due respect to, the attitudes and traditions of the strength communities to which so much is owed while maintaining a healthy critical eye toward current exercise trends. Finally, I will offer up a strength training program which utilizes the *gada* and Atlas Stone and synthesizes the practices of the ancients in both their original and resurgent forms with contemporary exercise science.

CHAPTER I: THE *GADA*

The Origins and Evolution of the *Gada*

With a large, typically spherical stone or metallic head attached to a lengthy metallic or wooden handle, the *gada* looks as if it belongs not in a gym, but the arsenal of some bygone army See Figure 1.4). This makes a good deal of sense considering the practice of club and mace swinging is likely rooted in the ancient martial arts of South and Western Asia, such as *gada-yuddha,* which themselves descend from militant training practices. In India, because most *gadas* are still crafted by hand, there is little standardization of weight, shape, size, or material. Each mace is wholly unique. Many maces take on a life of their own as they come to be associated with particular training facilities, used in competition, and named. *Gadas* are often named after the athletes who set records with them, figures from Hindu myth, or identifying traits such as their color. As Joseph Alter observes in "Indian Clubs and Colonialism: Hindu Masculinity and Muscular Christianity": "As a consequence of being named, jori [*gada*] take on a life of their own, and they are virtually personified in the minds of local enthusiasts, who speak of them in highly personal terms" (Alter, 2004 505). Outside of India, the *gada* has been picked up and mass-produced by companies closely associated with the Crossfit, functional training, and even powerlifting communities such as Rogue, Onnit, and Kabuki Strength. Oftentimes these pieces of equipment are referred to not by their traditional Sanskrit moniker, but generic, westernized terms such as "steel mace" or "Indian club." Mass-produced maces are, thanks to modern production processes, more uniform in construction and, in some cases, can be adjusted in weight to match individual needs. These *gadas* are almost uniformly steel or some combination of rubber and plastic, coated in black paint, and feature crisscrossed grooves—commonly referred to as

knurling—on their handles. Less intimidating than their Indian cousins, the *gadas* produced by western exercise equipment companies blend in better alongside a rack of dumbbells.

How exactly did the *gada* make its way from the hot, mud-red training pits of northern India to the sterile, air-conditioned niche gyms of the West? As it turns out, the history of the *gada*, and its bowling pin-esque cousin the *mudgar*, which has tagged along for the journey, is long and tortuous. As a result of the adoption of the practice first by British colonists and later by the fitness fanatics of Europe and the United States, however, one is able to accurately track the practice of swinging Indian clubs and maces over a span of two hundred or so years, beginning in the mid-19th century. During these two centuries, the *gada* and *mudgar* bounced back and forth across the Atlantic before ultimately being instituted around the globe, severing ties with their militaristic roots, and, in their commercialized forms, shaking loose their once powerful connections to both Hinduism and Christianity.

As noted above, the *gada* and *mudgar* initially made their way West when the practice was adopted by British colonists, specifically the British Army, in the mid-1800s. Contemporaries perceived the swinging of clubs as a method superior to those developed by the British up to that point in terms of attaining an ideal physique. At the time, there existed no analogous form of exercise in the West (Alter, 2004 503). The practice was exported back to Britain, and then across the Atlantic to the United States. In both countries it was adopted by proponents of the Muscular Christianity movement, "a social gospel that affirmed the importance of physical fitness for mental and moral improvement," whose advocates believed "Proper physical exercise built bodily strength and, with it, character and righteousness—shaping young men [and women] for God's work, and for the nation's" (Brown and Fee 723). Thus, exercise became a point of intersection for education, religion, and even nationalism. Simon Kehoe, author of *The Indian Club Exercise*, a

book which traced the origins of club swinging back to ancient Persia and included instructional diagrams depicting club exercises, saw the emergence of a new physical culture as an opportunity to follow in the footsteps of the ancient Greeks: "If history and other forms of record be credited, the people of [Greece] were, as a nation, physically and intellectually the most perfect of the human race, and there is every reason to believe that their unrivaled attention to physical culture was influential in producing the result" (Kehoe 12). Thus, a practice originating in what would then be called the "Orient" was appropriated by western culture and repurposed to reinforce western hegemony via the cultivation of a perfect society. The irony does not end here.

Club-swinging's manifestation as part of the Muscular Christianity movement took on a number of characteristics some, but not all, of which deviated from the practice as it was intended by its Asian originators. Across the West, swinging the *gada* and *mudgar* was an activity practiced en masse. Hundreds of people in uniform dress and arranged in neat formation would execute the same movements simultaneously, mimicking the standardized training routines of soldiers (Brown and Fee 723). Though there did exist a number of fitness enthusiasts who prioritized the hypertrophication of the muscles and the development of muscular strength at the time, many of the greatest proponents of mace-and-club exercises advocated solely for the use of very light weights. Their purpose was to bring balance and grace, not strength and size, to trainees. This is no surprise given the gendering the practice underwent. In India, the *gada* was—and remains—masculinized due to its almost exclusive use by male athletes and interpretation as a phallic symbol (Alter, 1992 6). Alternatively, in the United States and throughout Europe, exercise employing clubs was, in many cases, feminized. The idea was that the exercise would help women serve as better wives and mothers in addition to "counteract[ing] the deleterious effects of tight-lacing and other sartorial vices—[and] heal[ing] their 'eternal wounds'" (Alter, 2004 519). Ultimately, the

Muscular Christianity movement would fade away—replaced by an egocentric physical culture which emphasized the pleasure of exercise and pursuit of bodies larger-than-life—and, with it, the popularity of swinging clubs in the fitness culture of the West.

Swinging clubs and maces was initially, and remains to this day, a more individualized activity among Indian practitioners, though there was a short exceptional period during the 1920s when Muscular Christianity gave rise to a movement in India that both reflected the practices of the West and pushed an anti-Colonial agenda (Alter, 2004 502). In northern India, exercise incorporating clubs and maces has been preserved in a form that retains its bond to Hindu myth and faith—with some changes resulting from its adoption by the Muscular Christianity movement—among the Hindu athletic communities known as *akharas*. Though used by all manner of athletes, the *gada* and *mudgar* were in the past, and continue to be, associated with Indian wrestlers most closely. These wrestlers practice a sport called *kushti*, a hybrid of an ancient, local discipline called *malla-yuddha* and the Persian, imperialistic *pahlevani*, whose training methodologies also include swinging objects called *meets* which are similar in size, shape, and use to *mudgars*.

The Myth of Hanuman

Among those who call *akharas* their home, the *gada*-swinging Hindu deity Hanuman is of utmost importance. Appearing in numerous incarnations in mythologies throughout Asia, Hanuman is perhaps best known by the somewhat inaccurate moniker of "Monkey King." In Hindu culture, Hanuman is recognized mostly for his appearances in two major texts: the *Ramayana* and the *Mahabharata*.

There exist a variety of origin stories detailing the deity's conception, birth, and acquisition of supernatural power. According to one legend, Hanuman is the son of Anjana, a goddess evolved from a water nymph, and Kesari, the chieftain of a forest tribe. When the couple prayed to the god Shiva for a son, one was delivered to them by the wind god Vayu, who, in certain tellings, planted Shiva's seed in Anjana's ear (Wolcott 660). In childhood Hanuman was quite mischievous. Several myths depict his attempts to capture the sun, only to have his jaw broken or his entire body incinerated and reconstructed imperfectly. In another tale, his torment of a group of ascetic monks results in a curse that puts him on a very unique path to self-discovery: "when the monkey's depredations bec[a]me unbearable they str[uck] back with the characteristic Brahmanic weapon of a curse, sentencing the young delinquent to completely forget his own strength for the time being [...] to regain it only much later, when reminded of it in a time of great distress" (Lutgendorf 317).

Hanuman's adult life is punctuated by feats of tremendous strength. He devotes his entire existence to serving Lord Rama, an avatar—a term used in Hindu myth to refer to the earthly incarnations of divine beings—of the god Vishnu, and a central character in Hindu literature. In one episode of the *Ramayana*—an epic poem depicting Rama's efforts to retrieve his wife from the clutches of the demon-king of Lanka, Ravana—Hanuman is captured by a demon army. When his tail is set on fire as a mode of torture, Hanuman makes an incredible escape, turning his flaming tail into a weapon against his enemies. In another tale from the same epic, Hanuman proves the near limitlessness of his strength when, during his search for a root with curative properties, he leaps from southern India and across a large body of water (likely the Bay of Bengal), before landing in the Himalayas. There, he lifts the entire mountain upon which the root is said to grow with a single hand (Lutgendorf 326). In many artistic depictions of Hanuman, the divine monkey carries this mountain in one hand and a *gada* in the other.

Regardless of the details of his origins, Hanuman is highly regarded for his embodiment of two forms of strength—*shakti* and *bal*—and his devotional worship, or *bhakti*. The distinction between *shakti* and *bal* is nebulous. *Shakti* and *bal* are so closely related that the terms are sometimes used interchangeably. If one needed to flesh out the distinction for a western audience, *bal* would be more in line with a definition of strength as it is understood in a western approach to athleticism: physical force. *Shakti,* on the other hand, is more abstract in nature: "It refers to the 'essence of living' for all things, without which there can be no existence. The life of man, the growth of grain in the fields, the produce of cattle, the strength of oxen are all dependent on this energy" (Wolcott 658). *Bhakti,* though distinct from the forms of strength discussed above, is an essential catalyst for Hanuman's acquisition of power. As Alter notes in *The Wrestler's Body,* "Hanuman's great strength is a direct reflection of his devotion. The more perfect his bhakti, the greater his strength; the more fabulous his strength the greater the magnitude of his bhakti." As mentioned above, the object of Hanuman's unrelenting, perfect devotion—his *bhakti*—is Lord Rama. Hanuman literally carries Rama, and Rama's wife Sita, in his heart at all times, having at least once torn open his chest to display their presence within him.

This understanding of the relationship between devotion and strength informs the means by which Indian wrestlers worship Hanuman. Wrestling *akharas* all contain at least one shrine to Hanuman, which is often located near the pit of red dirt in which the wrestlers train and spar. Though all wrestlers incorporate the worship of Hanuman into their daily regimen—by thinking on him, singing his praises, reciting memorized portions of the works in which he appears, etc.—the hierarchy at place in the *akhara* system determines who among them is responsible for maintaining the shrine. Typically, those lowest in rank spend some portion of the morning ensuring

the shrine is clean, lighting incense, and hanging wreaths around statues depicting hanuman (Alter, 1992 8).

The athletes, in their devotion to Hanuman, seek to imitate Hanuman's own devotion to Rama. The idea is always to keep Hanuman in one's heart and mind, to dedicate everything one does to Hanuman, thereby making even the most mundane tasks acts of worship. By increasing the magnitude of their *bhakti*, athletes further develop their *shakti*, thereby increasing their physical strength and improving their performance as athletes. The following excerpt depicting a young devotee's song in praise of Hanuman elucidates this notion of worship:

> As he sang the wrestlers reclined on the cement dais around the pipal, and, massaging one another and rubbing off the akhara earth from their bodies, receded into the revery of a vision [...] Still singing softly, now to himself, he went over to where a small gada lay and started swinging it steadily, allowing each pendulum swing to punctuate the meter of his verse until the exertion took its toll and the hymn faded into the exercise and strength that it recalled in deeds glorified by visionary poetics. (Alter, 1992 8)

The priest, in his expression of reverence for Hanuman's deeds of strength, channels the deity's power. In this moment, as hymn and movement become one, the boundary between exercise and worship falls away.

Though much attention is paid to Hanuman's feats of strength, it is important to note that the deity himself is limited in his ability to tap into his *shakti*. As illustrated in the quote from Lutgendorf above, Hanuman's strength, though technically boundless, is limited by his knowledge of it. His ability to utilize *shakti* is possible only through *bhakti* and self-discovery. Without faith in Rama, Hanuman's feats would be impossible. It is through his faith that he finds the strength to accomplish the feats (Wolcott 654). The wrestler's strength works in much the same way. It is through *bhakti*—not only in the sense of religious devotion to Hanuman and the various relevant

Hindu deities, but also in the sense of devotion to the art of training—and the testing of the limitations of one's body that the wrestler's strength is acquired.

Attitudes Toward Form and the *Gada's* Use in the East and West

For Indian wrestlers, swinging the *gada* is done with the intent of not only building Hanuman-like strength, but bringing balance to the body. Though swinging motions appear in all manner of physical activities—from the twisting of the shoulders and hips in a golf swing, to the rotation of the entire body in a baseball pitch—they are notably absent from most contemporary training routines. In fact, the current training zeitgeist often identifies the occurrence of swinging motions during exercise as an indicator of poor form. Typically, almost mechanical movement through a very particular range of motion is advocated for by fitness professionals and amateurs alike. This idea is further reinforced by the western tendency to atomize and systematize movement. Whereas the Hindu athletes place a considerable emphasis on flow or continuousness in their training, western exercise science advocates for the conceptualization of movement as something divisible. There has been a tendency among western trainees to think of movement as falling under some combination of fundamental movement patterns which include the squat, the hinge, the push, the pull, and the carry. These movement patterns tend to work in only one plane of motion. A swing, on the other hand, crosses through multiple planes of motion. It is only relatively recently that the contemporary exercise community has seriously considered the importance of movements that include plane-crossing movements, like the rotation of the torso.

Though many movements do demand strict form for safety's sake, the aversion to unconventional movements is problematic in that it results in the neglect of many natural movement patterns. This is especially important when discussing shoulder development, which is one of the primary uses of the *gada*. For a variety of reasons, some of which will be discussed

below—in the section comparing attitudes toward aesthetics and exercise in general—trainees have a tendency to overdevelop the anterior (front) head of the deltoid (shoulder muscle), and under-develop the medial (middle) and posterior (rear) heads, thereby negatively impacting the development of stabilizing muscles, joint mobility, and connective tissue strength.

Two cases that are useful for understanding the difference in attitude toward the function of exercise between the West and India are that of the push up and the dumbbell curl. In the West, the push up is a strict movement in which it is expected that the torso, head, and legs remain rigid as the arms bend and straighten allowing for the stimulation of the chest, shoulders and triceps. Alternatively, *kushti* wrestlers opt for the *dand* (known in the west as the Orientalized "Hindu pushup"), which is a flowing movement in which one starts on hands and toes with the buttocks high and braces the chest, shoulders, and core while descending through a long diving motion before ending with back arched and face pointed skyward. Though a strict push up remains an excellent way to build size and strength in the upper body, the *dand* offers the additional benefits of stretching the back muscles and putting the core and shoulders through a greater range of motion, thus increasing the amount of work done by the muscles (See Figure 1.5).

The case of the dumbbell curl is quite similar. Though tremendously popular, the dumbbell curl is actually a movement which demands tremendously strict form in order to fulfill a fairly limited function: hypertrophication of the biceps brachii, a muscle responsible mostly for bending the arm and turning the wrist. Western coaches prescribe all manner of physical cues to ensure that the biceps are properly stimulated—the glutes must be flexed, the core braced, the palm turned outward, the elbow remaining pinned to the trainee's side, etc. In front of a dumbbell rack at any average gym, one will find gym rats executing the movement with unstable cores and swinging arm—form that makes coaches, trainers, and physical therapists cringe. Yet it is precisely with

wide swinging movements which originate from the shoulders and sweep outward from the body—which turn what is thought of as an isolation exercise (one aimed at stimulating a particular muscle group) in the Western exercise canon into a full-body exercise—that dumbbells are used to exercise among Indian wrestlers. As in the comparison between the *dand* and the push up, there are benefits to both uses of the dumbbell, with the Western version emphasizing isolation and mechanical movement, and the Eastern sweep and flow.

To those unfamiliar with the movement, swinging the *gada* may appear a daunting, if not outright dangerous, task. Traditionally, the *gada* is swung through large, circular or semicircular paths starting on one shoulder and looping behind the back before returning to the starting shoulder or transitioning to the shoulder opposite. Though typically swung using two hands, *gadas* are sometimes swung with one hand—often in pairs, with a mace in each hand—in the same manner as the *mudgar,* whose conical shape results in a less dramatic weight distribution which decreases the intensity of the exercise. Among wrestlers, each repetition, be it one swing of a *gada* or two swings of a pair of *mudgar*, is known as a "hand" (Alter, 1992 5). As is the case with most resistance exercises, practitioners challenge themselves by either increasing the number of repetitions completed, or the weight swung.

Though certain contemporary versions of the *gada* like Kabuki Strength's ShouldeRök™ emphasize its usefulness in fortifying the shoulders and strengthening the core and forearms—the same benefits attributed to the *gada* by Indian wrestlers—countless new movements which are not trained by Indian wrestlers have been invented in western gyms. Most of these movements take advantage of the club's asymmetrical load. Because most of the mace's weight is located in the bell, one can unevenly distribute the weight across a pair of limbs such as during a curl, shoulder press, or weighted squat. There are several distinct benefits to asymmetrical loading. One toward

which many members of the functional fitness community, who emphasize the need to train in a manner that reflects the situations encountered in daily life, point is the ability to mimic real-life situations, such as the need to carry two objects of differing weights in opposite hands. Another benefit is the ability to simultaneously train limbs of unequal strength. This would potentially be useful for avoiding the development of muscular asymmetries while training during a period of injury recovery. By placing most of the load on the injured limb, one can work both limbs simultaneously, giving the weaker time to regain its strength without completely neglecting the stronger.

Bodybuilders and Wrestlers: Attitudes Toward Aesthetics and Exercise Generally

The attitudes towards balance and aesthetics produced by bodybuilding culture—which informs generic gym culture—of the West and the wrestling culture of India are rooted in the respective cultures' motivations for exercising and the differences in attitude toward training discussed above. As previously mentioned, the Indian wrestler's *bhakti*, or reverence toward Hanuman, is an identity-defining component of his daily life. Exercise is, for the wrestler, a mode of worship in the same way praying to Hanuman and adoring Hanuman's image are. The Western trainee typically has no such higher power to imitate or channel. Western athletes may have a penchant for thanking God after victories and losses, praying for luck, and the like, but the average training session is not an act of worship, and the average gym is not a sacred site. This was not always the case. During the Muscular Christianity movement, exercise and spirituality worked hand-in-hand. Despite the movement's nationalistic, Eurocentric agenda, the status of exercise in the societies of the East and West was in greater harmony at that time. There appears to exist a trend in the realm of fitness: when spirituality and exercise are linked, it is balance, and not external

beauty, that trainees pursue; the club-swingers of the Muscular Christianity movement were as concerned with balanced bodies as much as Indian wrestlers had been for centuries.

When bodybuilding ousted Muscular Christianity, the old notion of balance made way for another. A new breed of fitness gurus like Eugen Sandow developed a set of bodily proportions attempting to adhere to the Golden Ratio and modeled after the muscular bodies of classical statues which would come to constitute the "Grecian Ideal" (Daley 237). Thanks to this revolution, in the Western exercise lexicon, the term "balance" may be used to refer both to aesthetic ideals and the structural integrity of the body. In the former sense, balance is usually paired with the notion of proportionality, and achieved by developing the various muscle groups in a manner that is pleasing to the eye. To this day, Western ideals are shaped in part by the aesthetic ideals of the ancient Greeks and Romans. Balance in the latter sense, which closely reflects the sense in which it is used by Indian wrestlers and functional athletes, is divergent from the former in that it refers to a body that is structurally sound. Developing such a body entails paying special attention to not only strengthening the muscles, but also strengthening and mobilizing the joints and their various connective tissues.

The so-called Grecian Ideal would be embodied by pre-steroid era bodybuilders like Hollywood superstar Steve Reeves and, to some degree, by steroid-using bodybuilders like Frank Zane during the sport's Golden Age. Though the Ideal serves as the foundation for modern aesthetics, the notion of muscular beauty has evolved radically in recent times. This is likely as a result of the innumerable opinions available on the internet and the niche ideals that have cropped up as a result. This point can be made clearer by conducting a cursory survey of the norms of online fitness communities. A quick examination of posts on the websites where most people go to consume fitness-related content—Instagram, YouTube, Reddit, Bodybuilding.com, etc.—

reveals an obsession among male lifters with what is referred to as a “v-taper,” and an obsession among female lifters with hyper-development of the lower body, specifically the glutes. The latter goes without explaining. The former entails sculpting the torso so that the shoulders are the predominant muscle group and lead into a wide back that ends in a strikingly narrow waist. Among those who seek the “v-taper,” muscular development of the legs typically takes a backseat.

Other body types which become subject to idolization among male lifters include “ottermode,” “bearmode,” and, perhaps most problematically, the “x-frame.” Whereas the two preceding terms simply refer to naturally-achievable levels of muscular strength and size at different ends of the body fat spectrum, the “x-frame” is a mostly unrealistic ideal based upon the figures of professional bodybuilders whose massive limbs, coupled with small waists, are nearly unattainable without the assistance of good lighting and angling, fake tans, and steroids for most lifters. Aside from being overly idealistic, the majority of the abovementioned body types often place an undue emphasis on the so-called show “show muscles”—the arms, shoulders, chest and abs. Developing most of these muscles calls for the employment of movements in which the elbow and shoulder joints serve as the primary points of flexion. Typically, these are pushing motions which do not equally stimulate muscles on the back of the body. A disproportionate amount of push and pull training leaves athletes more prone to injury, especially in the shoulder joint, due to insufficient development of the posterior deltoids, rotator cuff, and other small muscles. Therefore, in the terminology of contemporary Western body aesthetics, the term balance could be substituted for the term “balancing act.” It is an absurd assemblage of dramatic physical features that are extravagant in isolation and produce harmony only when taken all together.

An aesthetically pleasing body among Indian wrestlers, on the other hand, is not characterized by enormous muscles and godlike proportions, but functionality. Just as the

movements Indian wrestlers execute emphasize the body's unity and its ability to move smoothly and flowingly, their notion of aesthetics emphasizes smoothness, continuousness. In *The Wrestler's Body* Alter claims that "Wrestlers [...] smirk at narrow waists that would snap in two at the slightest touch, and grimace at protruding tendons wrapped tight by the work of an iron machine." Alter recounts that one wrestler upon seeing the photos of bodybuilders said:

> That [the bodybuilder] looked like separate pieces of meat slapped together in a random manner. Another, echoing a similar aesthetic critique, said that bodybuilders look as though they come in parts, each a gross protrusion disembodied from its larger corporeal context. While the bodybuilder is seen as bits and pieces of random flesh, the wrestler's body is a smooth, integrated whole; as they say, *ek rang ka sharir*, a body of one color and uniform texture. (Alter, 1992 2)

It is clear from these quotations that, in the theory of aesthetics cultivated by Indian wrestlers, to partition the body literally, by attaining a physique in which the individuality of the muscles is emphasized by their extreme visibility, or mentally, by thinking of the body as something that can be broken down into components, is to compromise its functionality. The minds of Indian wrestlers may be populated with lofty thoughts of Hanuman, but their bodies are firmly anchored in their purpose as part of the physical world. They are not concerned with looking good at the beach or on a stage, but defeating their opponents and bringing glory to Hanuman in the process.

An Exercise in Balance: What We Can Learn from Indian Wrestlers

The standards of bodybuilding culture—which directly inform beauty standards generally—and the sometimes-unhealthy training practices and attitudes they give rise to are certainly issues worth addressing, but the larger issue at hand is a deficit in exercise overall. The Center for Disease Control and Prevention's finding that less than a quarter of adults in the U.S. met government exercise standards set in 2008 between 2010 and 2015 speaks to the general absence of exercise in the life of the average person (Gray). This, of course, is a problem

throughout much of the world thanks to the prevalence of the sedentary lifestyle, but it is particularly relevant—and ironically so, considering that the country was once a bastion of the Muscular Christianity movement—in the United States. What source of motivation could possibly stir the people of a woefully unfit nation to start moving again? Neither the worship of the body in culture at large nor the truly meager fitness standards set for students in elementary and high school have proven to have any lasting power.

It appears the problem is entrenched in an ideological rift between the East and West in attitudes toward not only the body and exercise, but time and everyday life. For many people, exercise is either something not partaken in, or a grueling experience that is completed as quickly as possible. The immense popularity of programs which advertise the development of beach-ready bodies via training protocols which cram many challenging exercises into twenty-minute sessions speaks to this point. Even those who genuinely enjoy exercise and work out on a regular basis have been conditioned to believe that life's various responsibilities exist apart from their time in the gym, that they should be willing to sacrifice their fitness for their education, careers, etc.

What is needed is a newfound sense of reverence and a new way of talking about the importance of the body—ones which draw upon the wisdom of the East, and the West's past—because the techniques used thus far have been wholly unsuccessful. In isolating fitness as something apart from the individual's daily functions, those that have adopted the western lifestyle have lost sight of the fact that the body is necessarily a thing that moves, that works against resistance. Though this purpose has been obscured by 21st century life, its truth is immanent. In the myth of Hanuman, memory is analogous to what the modern exercise community might identify as tapping into muscular potential. Many outside the exercise science community may know this phenomenon—most common among novice trainees and those returning from injury—

by the name "muscle memory." This refers to the process by which great gains in strength, muscle size, and even the re-acquisition of untrained skills can be made due to the body's incredible capacity for adapting to new stimuli and "remembering" lost adaptations to once-familiar stimuli (Luft and Buitrago 205). Oftentimes, in the case of increasing one's strength, it is not so much necessary to build more muscle as it is to draw more power out of the muscle one already has (Bruusgard). Just as Hanuman lost his power in childhood and had to rediscover it by testing his mettle against seemingly impossible tasks, we can quickly rediscover the lost potential of our bodies by pushing our own limits.

What needs to be understood once one has begun the journey of rediscovering their own strength, however, is that such a journey has no end. This is where *bhakti* must come into play. As noted above, devotion to the body alone has proven an imperfect source of motivation for exercise. It has ultimately led to a fetishization of archetypal body types that produces imbalanced trainees. The aesthetics of the body must therefore become a priority subordinate to something a good deal more abstract: balance. In channeling one's *bhakti* toward achieving balance, one takes on a perfect challenge. It is a difficult in that it entails resisting the daily obstacles large and small that threaten to upset the individual's sense of equilibrium. This same instability, however, makes balance worth devoting oneself to because it has the potential to become a source of limitless motivation. To pursue balance is to chase a goal that is as rewarding as it is fleeting. By striving to achieve balance in training and in life, we cannot help but reap the rewards of strength and health along the way.

The question then becomes how we ought to go about transforming attitudes toward exercise to align with the prioritization of balance. When engaging in discourse about exercise, it must be understood that physical exertion is something the body needs as much as food and sleep.

When it is placed on the backburner, the individual necessarily suffers. It is not something that can exist as a distinct piece of our daily routine that is rushed through hurriedly or abandoned at the slightest hint of inconvenience. Instead, there must be a recognition of the fact that failure to exercise is a denial of the individual's nature as a moving creature. For those who do engage in exercise but suffer from imbalanced bodies arising from imbalanced routines and notions of aesthetics, the necessary changes are practical. Because completing a workout as quickly as possible is often a trainee's goal, many people go without performing a proper warmup routine. Finding a balance between executing high intensity exercise and preparing for such exercise requires engaging in a low-intensity routine that raises one's body temperature, mobilizes the joints, and stretches tight muscles (Bishop). Additionally, trainees can design more-balanced workouts by trading out exercises that maximize the hypertrophy of aesthetically appealing muscles and the strength of large muscle groups for exercises that work less-visible muscles that are often smaller but undeniably important. Many exercises of this sort can be executed using the *gada*, and even common pieces of equipment such as cables and kettlebells. Ultimately, such reform requires a shift away from merely maximizing size and strength toward improving both without outpacing the maintenance of a balanced, healthy body.

Some of the changes suggested above require re-examining attitudes toward exercise on not only the individual, but the societal level. Though a fitness revolution to rival Muscular Christianity is likely not on the horizon, by capitalizing upon the popularity of reemergent exercise technologies and trending methodologies like the *gada* and the functional fitness movement, respectively, it may be possible to spark renewed interest in fitness that looks at exercise through literary, historical, and even spiritual lenses. These trends, should they be given the proper attention, have the potential to give rise to explorations of the practices of our predecessors that

bring past and present together in unprecedented ways. By subjecting topics in fitness to humanistic examination, we open up new worlds of thought in which the cold numbers, steel, and increments of time we use to quantify exercise are exchanged for myths, personal narratives, and unique histories that serve to inspire our participation in exercise while enriching our understanding of it.

CHAPTER I FIGURES

Figure 1.1: A photograph by Sujit Kumar of a Hanuman Statue in Haladiagada, India, 2007. In his right hand Hanuman holds a *gada.* In his left, he holds the mountain said to be home to a plant with magical curative powers. Hanuman is said to have not only near-limitless strength, but also the ability to change in size at will.

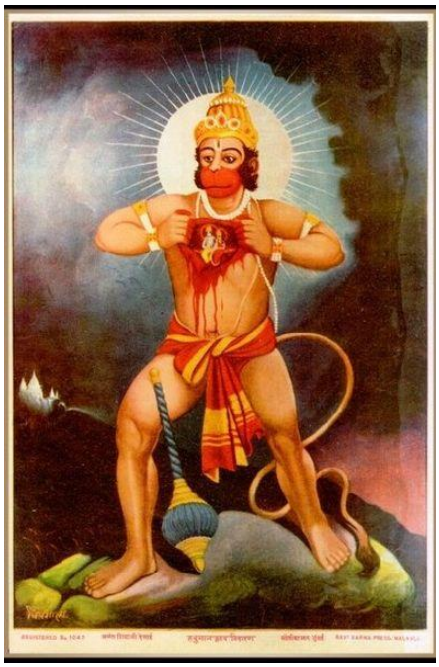

Figure 1.2: In a graphic display of devotion, Hanuman opens his chest to reveal the presence of Rama and Sita in his heart. This physicalizes the notion of unyielding devotion or *bhakti.* This photo of a poster dating back to 1945 was taken by Anant Shivaji Desai. The poster is currently housed at the Baroda Art Museum.

Figure 1.3: Photo of Prabhu Darshan during Deepawali 2017, by Anavil Jaiswal. Notice to the left of the statuette depicting Hanuman an ornate *gada.* Such iterations of the implement are often given as prizes to the winners of wrestling and mace-swinging contests (Alter, 1992 7).

Figure 1.4: A photo by Paratha Sarathi Sahana taken in 2010. A traditional Indian wrestler swings a pair of *mudgar* to supplement his wrestling training. In the foreground stand a small collection of hand-crafted *gadas* of various sizes. Their concrete bells are fused to bamboo handles, and all are coated in red, a color closely associated with Hanuman.

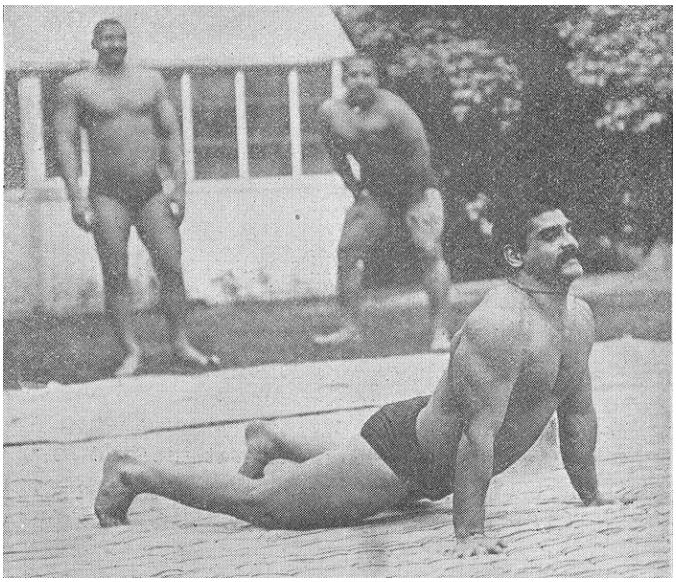

Figure 1.5: A photo by Ricky Bennison possibly depicting the legendary Indian wrestler known as "The Great Gama." Here the wrestler demonstrates the finishing position for the *dand*, an exercise that serves a purpose similar to that of the push up in the western exercise arsenal.

Figure 1.6: The author completing a repetition, or "hand," of a 360-degree *gada* swing. Successfully performing the movement requires the bracing of the entire body. The *gada* used here is of an interesting material composition: the bell is mostly plastic, and the handle is mostly rubber.

CHAPTER II: LIFTING STONES

The Myth of Atlas. A Misinterpretation and the World's Strongest Man

In the discussion of the *gada* above, we have seen how clear the connection between the myth of Hanuman and the practice of mace-swinging is. Identifying the connection between the myth of Atlas and the spheres that bear the titan's name, however, is not so easy because the evolutionary journey of stone lifting from its widespread points of origin in the ancient world to its presence among the strongman and functional fitness communities of today is not so straightforward. In fact, the image that comes to mind for many when they hear the titan's name is based upon modern misinterpretations of art depicting Atlas.

The myth of Atlas finds its origins among the lore of the ancient Greeks. Atlas is considered one of the greatest of the titans—the race of divine beings that preceded the Gods of Olympus (See Figure 2.1. When Zeus plotted against his titan father Cronus in an attempt to free his siblings from their prison in the latter's viscera, it was Atlas who was chosen to replace the defeated Cronus (Graves 26). Atlas then led the titans in an unsuccessful campaign against Zeus and his gods. It is relatively agreed upon that Atlas bears his burden as punishment exacted by Zeus in response to the titan's participation in the uprising against the Olympians. From this point on, the various retellings of the myth diverge further. In some, Atlas is identified with the *axis mundi*. In this role, he serves as a sort of pillar separating the heavens from the Earth. In other tellings, the weight of the celestial spheres in their entirety rests on his shoulders. In others still, Atlas is turned into a mountain by Perseus using the gorgon Medusa's petrifying stare (Graves 87). Atlas is perhaps best known for his encounter with Heracles. According to myth, Heracles—tasked with acquiring the Apples of Hesperides as the eleventh labor on a punitive journey of his own—convinced Atlas to take the apples from the Hesperides, to whom the latter was related, by offering to bear the load of

the heavens. In a classic display of the victory of brains over brawn, Heracles then fooled Atlas into taking the weight back by promising to replace the titan after readjusting his cloak or padding his head, depending on which version of the myth one encounters (Graves 295).

New Lore Springs into Being

Strangely enough, the contemporary connection between Atlas and the practice of stone lifting did not exist until 1998. Stone lifting was first featured in the world's premier strongman competition—World's Strongest Man—in 1986. At the time, the stones—ranging in weight from 90 to 140 kilos (200 to 300 lbs.)—were called McGlashen stones, in reference to a crafter of stones in the Scottish tradition. This name stuck until the 21st World's Strongest Man, which was held in Tangier, Morocco. It was at this competition that the stones were re-christened in honor of the Atlas Mountain Range, which is composed of several sub-ranges spanning across northern Africa (Atlas Stones). The Atlas Range is associated with the titan of legend due to a conception found in the work of Homer and held by the ancient Greeks of mountains as bearers of the weight of the heavens (*Odyssey* 1.52).

With the renaming of the stones came the propagation of a widely-held misinterpretation of the myth resulting from depictions of Atlas in art. Modern depictions of Atlas—the kind one might find serving as a paperweight in a modern office, in advertising for Atlas Tires, or, ironically enough, featured in the logo for the World's Strongest Man competition—often show the titan not bearing the weight of the celestial spheres or acting as an *axis mundi*, but balancing the terrestrial globe on his shoulders. This interpretation, of course, does not align with any of the widely accepted Atlas myths circulated by the ancients. These terrestrial globe-bearing Atlases are a result of erroneous interpretations of some of the oldest depictions of Atlas, such as the Farnese Atlas,

which is thought to be one of the oldest extant statues of its kind. Named after Cardinal Alessandro Farnese—who acquired the statue in the 1600s—the Farnese Atlas is a Roman copy of a Greek statue from the Hellenistic period. The statue depicts the titan not as *axis mundi*, but bearer of the celestial spheres (Anghelina 195). On the sphere the Farnese Atlas holds one finds a collection of objects including a ship, a satyr, and various creatures representing the constellations ancient astronomers used to organize the night sky (See Figure 2.3). Astronomers have gone to great lengths to interpret the figures on the globe in an attempt to accurately date the statue. Schaefer's comprehensive examination of the work has concluded that the constellations yield an approximate date of 125 BCE, though the statue itself may have been produced some time after (Schaefer 181). Perhaps due to some combination of the tendency of myth to muddle its own content and the lack of clarity of contemporary depictions of Atlas, artistic depictions that followed the Farnese Atlas would misinterpret or—perhaps more charitably—reinterpret the spherical object held by Atlas as the Earth. It is from this ambiguity in translation that countless Earth-bearing depictions originate. The term "Atlas Stone" is thus something of a misnomer. Though Atlas does bear a great weight upon his shoulders, it is the weight of the heavens or the celestial globe in its entirety, and not the Earth as the World's Strongest Man logo and the act of stone lifting might suggest.

The Stone Lifting Communities of Europe

Despite the misnomer and ironies of its globalization, the exercise that would come to be known as the lifting of the Atlas Stone has a history rooted deeply in proud, distinct fitness cultures. Of particular importance to the global stone lifting community are the traditions of three communities in Europe: those of Scotland, the Nordic countries, and the Basque region of Spain. While the Nordic countries are home to some of the most famous stones and greatest strongmen

of all time, the Scottish and Basque cultures have made major contributions to stone lifting culture by way of the Highland Games and *harri-jasotze*, respectively. Commercial strength competitions like the World's Strongest Man, and the equipment and apparel companies which sponsor them, are indebted to these cultures for their popularization and regulation of rural sports.

The rural games and competitions in which the practice of stone lifting is rooted take the activities necessary for success in societies dependent upon manual labor and abstract them. Activities like chopping wood, pulling stone blocks, and carrying massive yokes—chores in any other context—are turned into sport, both as means for celebrating the laborers' lifestyle and—as is the purported case in the Highland Games—identifying the fittest individuals in the community.

Additionally, there is a gendered component to rural games and competitions, as certain feats of strength are often used in determining a male community member's ascent to manhood. The gendering of stone lifting is especially clear in Iceland, where the lifting of stones has been historically tied with communities of fishermen and rites of masculinity. Rather than assign stones a numerical value or refer to degrees of "lightness" and "heaviness," the Icelandic taxonomy of lifting stones, which includes the categories *fullsterkur* (full strength), *hálfsterkur* (half strength), *hálfdrættingur* (weakling), and *amlóði* (useless) establishes a social hierarchy (*Fullsterkur*). In order to achieve manhood, the individual is expected to complete a movement which involves stooping over with rounded back, pinching the stone with the forearms, assuming a squat position, and rolling the stone onto the thighs before finishing the move by hitching the stone up onto a platform or the athlete's shoulder. The Nordic countries are also home to numerous legendary lifting stones, which are used to strength in less typical ways. Take, for example, the Husafell Stone, which inspired the production of countless replicas and various pieces of equipment which

are typically shield-like in appearance and carried close to the torso as the trainee quickly waddles over long distances (See Figure 2.4).

In the Scottish tradition, stone lifting appears alongside a variety of typical rural sport activities including the hammer throw and the hay bale pitch. Though it is claimed that the Highland Games got their start when King Malcolm III of Scotland assembled Scottish clans and held a foot race in order to find viable candidates to act as royal messengers, sport historians have expressed their doubts in the veracity of this account, arguing that it is more likely the games existed in some primitive form—perhaps as a seasonal celebration called a "harvest-kirn"—for centuries before experiencing a revival in the 1800s and 1900s (Jarvie 164).

Trying to identify any sort of system organizing Scottish stones is nearly impossible due to their sheer number. The Scottish countryside is home to hundreds of stones, many of which—like noteworthy *gada*—are named and tied to local histories. At best, one can identify a category of stone known as the c*lach cuid fir*. The *clach cuid fir,* or "manhood stones," are utilized in much the same way as their Icelandic cousins—their lifting is a rite of passage. There exist several famous *clach cuid fir,* including the Dinnie Stones, a pair featuring metal hooks which athletes use as grips as they either hold the suspended stones for time, or attempt to walk with the stones dangling precariously between their legs (Martin). Though superstar female stone lifters have historically been few and far between, growing interest in the strength exercises and exhibitions known collectively known as strongman has produced some truly remarkable women athletes who have proven their mettle against these ancient stones. An Australian competitor by the name of Leigh Holland-keen, for example, recently became the second woman in history to lift the 332+ kg Dinnie Stones.

The Basque stone lifting tradition known as *harri-jasotze* has perhaps the clearest evolutionary history of the three examined in this chapter. The sport is unique in that it employs not only naturally formed stones of great repute such as the *Albizuri-haundi*—a massive 167 kg (370 lbs.) boulder—but a variety of curiously shaped implements crafted from the *harri beltza*—black stone—of Basque quarries. The shapes employed include the *zilindroa*, the *laukizuzena*, the *kuboa*, and the *biribila* or the circular cylinder, rectangular cylinder, cube, and sphere, respectively. Basque stones are often lifted for maximum repetitions in a given span of time. Unlike other stone lifting traditions, in which stone lifting is seen mostly as a challenge against oneself, Basque stone lifting ramps up the pressure of competition by pitting lifters against one another in more intimate competition. A pair of *harri-jasotzaileak* will often face off, going blow-for-blow—or, more appropriately, lift-for-lift—driving each other to complete staggering numbers of repetitions in the process. Also unique to *harri-jasotze* is the donning of heavily padded leather vests and pants which protect lifters from scrapes and bruises as they hitch, hurl, and scrape the stones up their bodies (Arana).

At the center of the regulation and popularization of *harri-jasotze* lies a figure of legendary proportions. Dubbed Arteondo (Basque for "artwork"), Bittor Zabala is credited with standardizing the shapes and weights of stones lifted in competition. Born in 1886, Arteondo began lifting stones in approximately 1910. He competed for nearly forty years, bringing the sport of *harri-jasotze* from humble venues on Basque farmsteads to city squares along with him. Stone lifting, and Basque rural sports generally, grew in popularity thanks not only to his implementation of rules and regulations, but also his performance of tremendous feats of strength. For the first fifteen years of his stone lifting career, Arteondo was undefeated (Aperribai).

Another pivotal figure in the popularization of Basque stone lifting is Iñaki Perurena, a Basque soap opera star and strongman of the highest caliber. Perurena is known for completing some of the most impressive Basque lifts ever, including setting a record in 1994 by being the first athlete to lift a stone weighing over 300 kilos (661 lbs.). Aside from accomplishing feats of sheer strength, Perurena also does less conventional lifts which are relatively popular in *Harri-jasotzaileak*, but much less so in other stone lifting traditions. These include one-handed hoists, and endurance-lifting sessions. In one instance of the latter, Perurena lifted a 100 kilo (220 pound) stone 1700 times over a span of about nine hours (Arana).

Discipline, Punishment, and CrossFit

In order to develop a better understanding of how the discourse of punishment and figures from myth who embody physical discipline inform contemporary understandings of exercise, the tale of Sisyphus ought to be brought into conversation with that of Atlas. Sisyphus, like Atlas, was sentenced by Zeus to physical toil *ad infinitum*. Prior to his condemnation to eternal labor, Sisyphus was king of Corinth. Known for his craftiness, Sisyphus's reign was pockmarked by nefarious schemes. After being banished to the underworld, he continued his antics as he turned the chain that bound him against Thanatos—the embodiment of death—himself, and even made a somewhat successful escape attempt from Hades. Upon his return to the underworld following the escape attempt, Sisyphus finally received the punishment that solidified his place in collective imagination, even resulting in the coining of the term "Sisyphus syndrome" in psychology to describe individuals who derive no satisfaction from the achievement of their goals. That image—the image of Sisyphus rolling a massive boulder up a hill only to have it roll back down again—has been construed with positive and negative valences alike. For those less concerned with the

damned king's backstory, Sisyphus symbolizes perseverance even in the face of seemingly insurmountable odds and continuous failure. Alternatively, the punishment is often associated with hopelessness and the absurdity of seemingly pointless work.

While contemporary scholarship on the myths of Sisyphus and Atlas focused on the ancient material, it needs to also be recognized that the connection between the punishments of the mythical figures and physical exercise is a notion that has imbedded itself within the collective psyche of the fitness community. It echoes throughout contemporary fitness culture, especially in the colloquial discourse used to describe exercise. Across all forms of fitness-centric media one encounters on the internet, plastered in bold type above gym equipment, and adorning the walls and social media feeds of meatheads and Instagram models alike, one finds the language of pain, punishment, and discipline. The connection between exercise and punishment, however, is not a notion exclusive to modern day gym rats. Foucault gets at the way exercise becomes a means for systematically extracting value from the body in *Discipline and Punish.* He calls exercise "that technique by which one imposes on the body tasks that are both repetitive and different, but always graduated," a definition that is both specific enough to be arguable and ambiguous enough for the individual to project their own meaning upon it (Foucault 161). Punishment, within Foucault's theory of power, is the systemic practice harming, incarcerating, or extracting labor from the body in response to a criminal offense. Discipline, on the other hand, refers to the means by which the movement of bodies in time and space is controlled through all manner of organizing structures, from rankings within an organization, to procedural drills, to daily schedules. Foucault goes on to make the argument that modern bodies, through discipline, take on a form that makes them of use within the context of larger systems, a stance contemporary exercise culture seems to resist.

Foucault's terms do not necessarily describe the same sort of discipline or punishment the average gym-goer has in mind. Though exercise still entails extracting value from the body, the modern individual is not typically engaged in exercise in order to become a better-functioning component of a system of power. Our reasons and the rewards we reap from exercise are, in fact, wholly egocentric. We exercise in order to look and feel good, or because we enjoy exercise as an activity in-and-of itself. We exercise to improve our own health, to appear more attractive—and more appealing than others—to those around us. Ultimately, we exercise to individualize ourselves. Even though most of us today have the liberty of exercising because we like to or, at the very least, want to, the language of discipline and punishment persists. Thus, in contemporary fitness discourse the terms "discipline" and "punishment" have taken on new meanings. After all, it is the individual—not a system of power—that exercises discipline and inflicts punishment on the self. The exercise programs against which trainees test their discipline are constructed by the trainees themselves. As a result, "discipline" has come to mean fulfilling contracts—to show up to the gym, perform exercises as planned, remain faithful to a diet, etc.—of one's own devising. "Punishment," on the other hand, is something to be endured—the self-inflicted pain arising from exercise itself.

With the myths of Sisyphus and Atlas, and the writings of Foucault, in mind, a few phrases spring to the fore immediately. The term "No pain, no gain," for example, reflects the notion of punishment with an exchange economy angle. The body is at the very same time something which must be invested in but also destroyed; and invest we do. The body is, by its nature, a locus of exchange—what we put into it plays an important role in determining what we get out of it, not only in terms of general health, but also athletic performance. The fitness enthusiast, especially the weightlifter but also the endurance athlete and the team sports player, is a massive consumer. In

addition to the enormous amounts of food eaten in order to maximize performance, athletes spend countless dollars on dietary supplements, sport-specific apparel, auxiliary equipment, personal coaches, and training programs. It is no wonder we refer to the corporeal fruit of our labor and sacrifice as "final products"—the athletic body is a made thing.

As the investment increases, however, so too does the willingness to sacrifice oneself. A term rooted in the "No pain no gain" mentality which is gaining traction in certain circles, especially among endurance athletes, is "the pain cave." It refers to a state of bodily exertion that has veered beyond mere exhaustion, into the realm of self-punishment. Entry of the pain cave is marked by telltale signs of injury, including cramping, vomiting, and severe muscle soreness. The pain cave is not merely a physical state, but a state of cognitive detachment from the exterior world. One who has entered the pain cave constructs mental barriers blocking out everything but the body's movement through the activity at hand. The idea is to subsume oneself in pain to transcend it—to break down the body's weaknesses by drawing upon the raw power of the will. This is an attitude often expressed by trainees in less extreme forms, including the desire to "feel the burn," which refers to the painful sensation evoked by the buildup of lactic acid and microscopic tears in the muscles (Nosaka 63). Forcing the body to undergo discomfort thus allows the individual to transform the self on both the physical and mental levels: The former in the sense that one transcends their previous level of physical performance or appearance, the latter in the sense that one has proven to have the willpower to accomplish the mentally-taxing feat of pushing the body beyond its former limits. Though exercise always demands some degree of discomfort, the "No pain, no gain" mentality and the masochistic practices it has given rise to have had major deleterious effects across many fitness communities, but especially among those of CrossFit, bodybuilding, and powerlifting.

CrossFit refers to a branded exercise regimen which combines exercises and training principles from numerous disciplines, including Olympic weightlifting, running, calisthenics, and strongman. Most CrossFit workouts are composed of demanding combinations of strength and cardiovascular exercises completed in rounds, for time. Those who excel at the "Work Outs of the Day" produced by the company have the opportunity to compete in the CrossFit Games, a massive exercise spectacle held annually. Since its inception, CrossFit has been characterized by its corporate attitude. The company licenses out its name to gyms and has strong ties to fitness apparel giants like Adidas. Those outside the CrossFit community tend to look down upon it not only for its contrived corporate image, but also its purported tendency to push trainees to a point of exhaustion that makes overexertion common and injury more likely. The latter half of the claim, though commonly accepted, has yet to be proven with empirical data. The former seems more substantial, as numerous case studies have been produced supporting the assertion that CrossFit trainees are at greater risk for suffering from rhabdomyolysis. Rhabdomyolysis is a condition in which skeletal muscle has been severely damaged. The byproducts of the damaged muscles enter the bloodstream, and ultimately end up in the kidneys, thereby preventing the organs from removing waste from blood as usual. A few nasty symptoms include vomiting, the production of reddish-brown urine, and irregular heartbeat. At best, rhabdomyolysis results in significant muscular discomfort but does not majorly impede the extraction of waste from the bloodstream. At worst, the syndrome can cause hospitalization and even death (Jabur 102).

The truly shocking detail of the situation is not that CrossFit seems to be causing a uptick in cases of "rhabdo," but that the CrossFit community has seemingly embraced the infamy resulting from the situation. Of course, there have been apologetic open letters issued here and there, but, for the most part, the problem has been scoffed at. The ultimate offense committed by

members of the CrossFit community has been the creation of a pair of characters named "Uncle Rhabdo" and "Pukie the Clown." The former first appeared in 2005, in "CrossFit Induced Rhabdo," an article by CrossFit founder Greg Glassman. In the article, Glassman's attitude toward rhabdo victims is, at best, unapologetic, and, at worst, downright demeaning. He shifts the blame away from his company, toward the victims and the training programs they used prior to trying CrossFit. Despite making claims like, "Without deliberately training for maximum expression of effective work against a wide-ranging time domain, it is virtually impossible to deliver power output as high as our athletes do," which are laced with bravado and semi-scientific phrases throughout, Glassman ultimately assumes the role of good businessman, and promises to bring more attention to the issue going forward (3). Pukie, who is not as closely associated with rhabdomyolysis as Uncle Rhabdo but still closely tied to the symptoms of overexertion, also appears in an article in the company's *Crossfit Journal*. In "Deconstructing Pukie," which appears in the same publication, Hilary Achauer explores the prevalence of CrossFit athletes vomiting in the middle of, and immediately after, workouts. After looking at several possible explanations for the phenomenon, Achauer dismissively asserts, "It just happens. Scientists don't totally understand why. Things just get weird, and sometimes you have to pay the clown," thus sidestepping the likely explanation that CrossFit training protocols and the overexertion they cause are to blame (Achauer 8).

Uncle Rhabdo and Pukie the Clown, like Sisyphus and Atlas before them, act as manifestations of pain and punishment. This iconographical evolution reflects the mirror evolution our attitudes toward exercise—with attention to discipline and punishment—have undergone. Where once systems of power—acting with sovereignty like that of the gods of Olympus—were the executors of discipline and punishment, it is now the individual who disciplines and punishes

the self. Rhabdo and Pukie are the source of their own pain. Clutching their broken bodies as they stand next to exercise equipment, pools of blood and vomit collecting at their feet, the figures serve a twofold purpose (See Figure 2.7). On one hand, they act as tools for shaming those who experience overexertion as a result of engaging in CrossFit. The grotesque appearance of the clowns hyperbolizes the symptoms of rhabdomyolysis, thus catapulting the syndrome into the realm of absurdity and exposing those afflicted by it to ridicule. In many cases, those who experience overexertion publicize their situations in order to call attention to irresponsible or underqualified coaches and excessively intense workouts. In response to these criticisms, certain parties in the CrossFit community have been known to launch verbal attacks against victims via message boards and others such online avenues, rallying around the sentiments proliferated by Uncle Rhabdo and Pukie. On the other hand, the clowns have been embraced by the CrossFit community as unofficial mascots representing the CrossFit athlete's willingness to experience great pain and push on. Appearing on apparel, walls, and lifting platforms throughout CrossFit gyms, the figures have come to represent—in the same spirit as the pain cave—the desire to overcome the body's limits by pushing it past its breaking point. For many throughout the fitness community—in the sport of CrossFit and beyond—exercise and pain have become interchangeable terms.

Is Exercise a Sisyphean Task?: What We Can Learn from Stone Lifting

Across the many sports and training methodologies that define contemporary fitness culture—from CrossFit, to bodybuilding, to powerlifting and beyond—the drive to break one's boundaries demands re-examining the relationship between exercise, punishment and discipline. A wide array of biological processes and features of human anatomy, such as the heart's circulation

of blood throughout the body and the tendons' ability to withstand the stress of heavy loads, impair one's ability to achieve certain levels of size, strength and performance. The body operates in accordance with the law of diminishing returns. When one begins their resistance-training career, both muscular size and muscular strength grow by leaps and bounds. As one accumulates training experience, the effect training of the same sort has on the body quickly decreases. Over time, the trainee begins to experience less and less progress (McMaster). For the natural athlete, the physical limitations of the human body become painfully apparent within a couple of years of consistent training. Like Sisyphus, one eventually finds oneself pushing their limits to little or no effect.

Attempts at transcending the natural boundaries of the human body often end in abuse. In addition to overtraining—a practice whose risks has been outlined clearly above—the use of performance enhancing drugs (PED) has grown commonplace across the board. In bodybuilding, anabolic steroids—among other drugs—are used to induce otherwise unachievable muscle growth. In their wake they leave a plethora of health issues, including expanded organs which cause a protrusion of the belly known within the bodybuilding community as "HGH gut." Various other ailments—such as heart disease, hormonal imbalance, etc.—resulting from PED abuse are often suffered in silence thanks to societal taboos. When "outed" enhanced athletes are run through the gauntlet in the public eye, those with greater insight into the fitness and sports industries are left shaking their heads knowing countless other athletes continue to use unnatural enhancements in secret. This necessitates that one ask at what point or to what degree training the way most of us do—without drugs, with less-than-ideal genetics and limited knowledge, under time and budgetary constraints—is a futile activity, and whether pursuing our aspirations is worth the cost of our health.

As the world grows smaller, the pressure upon professional athletes and, as a result, the trainees they inspire, grows greater. In this day and age, all we need to do to see people who are bigger, stronger, harder-working, and more talented than ourselves is open an app. The weight of the universe does not rest on our shoulders but in our palms and within our hearts. To pursue exceptionalism in such a world is to pit oneself against the masses. In doing so, we often fail to see that we transform ourselves into our own worst enemies. Finding the body's limits is healthy; attempting to break them is madness. In order to save ourselves, we must accept a truth that may not sit well with many: we are all a lot more like Sisyphus then we are Atlas. No matter how hard we punish ourselves and no matter how great our discipline is, our failures will be countless. Our training will often go unrewarded. We will grasp for the heavens and must be satisfied when we find our reach falls short. Luckily, this is not a reason to despair. There is at least one big difference between us and Sisyphus: we have the option to find another hill. When we have built all the muscle we can, we can train to grow stronger. When we have grown as strong as we can, we can train to endure more. On and on we can go, making small sacrifices—the gains we make will not be without their tradeoffs—as we pursue new goals and enjoy the small rewards that come with them.

By focusing on what is ahead and what is beyond—beyond ourselves, beyond the feats of our predecessors and opponents, beyond the limits of our bodies—we often fail to see that some of the most rewarding challenges lie at our very feet. What stone lifting represents is one possible opportunity for escape from the patterns in which we have trapped ourselves. As the sport has grown more popular, it has become detached from its origins in many ways: the stones lifted are regulated, the competitors have turned to drugs, and the traditions that started it all have been abandoned for something more sterile, more globally appealing. And yet, there remains something

exceptionally raw, exceptionally unchanged, about stone lifting. The stone is both an ego check and a doorway to the past. It connects us to our ancestors who lifted stones by hand as they loaded wagons and boats, built their homes and defenses, and proved their grit to those around them. One cannot punish oneself into being good at stone lifting—it's too risky and much too challenging. Unlike barbell and dumbbell movements, there is no perfect form for the exercise, and thus no two lifts will be the same—the movement often requires improvisation as one's grip begins to slip, the stone rolls, and the platform for which the implement is destined suddenly appears much too far away. Stones teaches us how to lift things akin to the objects of the world; things that irregularly shaped, shifting, resistant. They teach us to be patient, to think about how we move, to take care not to overwork ourselves. Ultimately, stones teach us to look back and to look within—two crucial steps in developing a new understanding of the relationship between exercise, discipline, and the punishment we choose to inflict upon ourselves.

CHAPTER II FIGURES

Figure 2.1: Laconian Black Figure *amphoriskos,* ca 530 BCE (Archaic) from the Vatican Museum. Two scenes of eternal punishment: Atlas on the left bears his burden while being tortured by the Hesperian snake. Prometheus on the right is tied to a post while an eagle pecks his liver.

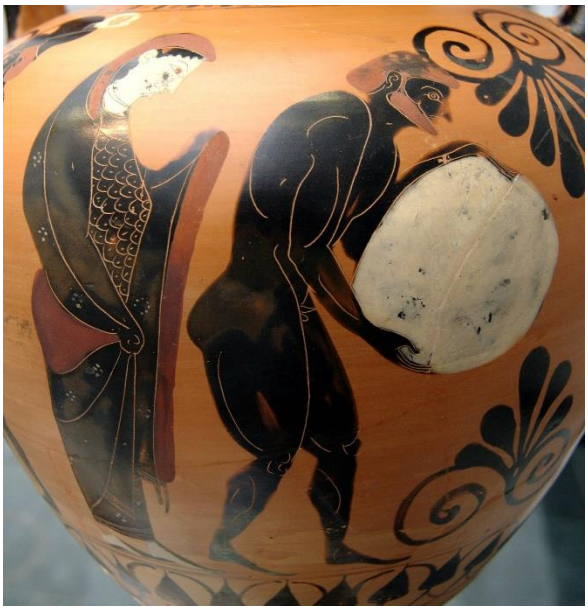

Figure 2.2: Black-figure Greek *amphora* (a two-handled vase) ca. 530 BCE, archaic, depicting Persephone, the queen of the Underworld, as she supervises Sisyphus. Displayed in the Munich Staatliche Antikensammlungen Museum.

Figure 2.3: A Roman copy of the Hellenistic Farnese Atlas, 2nd Century CE. This stance—a lunge with sphere centered on the upper back—appears in many depictions of Atlas, resulting in the coining of the art history term "Farnese Position." Displayed at the Naples Archaeological Museum.

Figure 2. 4: An athlete carrying a replica of the legendary Husafell stone at a highland games event. The stone's unique shape allows one to bear hug the stone and test the distance one can carry it. The original stone weighs a mind-boggling 186 kg (409 lbs). Author not listed.

Figure 2.5: A strongman competitor lifts an Atlas stone to a platform. Notice the rounded back, a position considered indicative of bad form in most lifts, but one often entered when lifting irregularly shaped objects. It demands proper bracing of the core. Photo by PjotrP.

Figure 2.6: A photograph by Spanish photographer Indalecio Ojanguren, 1924. Arteondo, a key figure in the sport of *harri-jasotzaileak* lifts a *laukizuzena*-style stone. Like spherical stones, rectangular stones are typically caught on the thighs in a squat position before being hoisted to the shoulder or a platform.

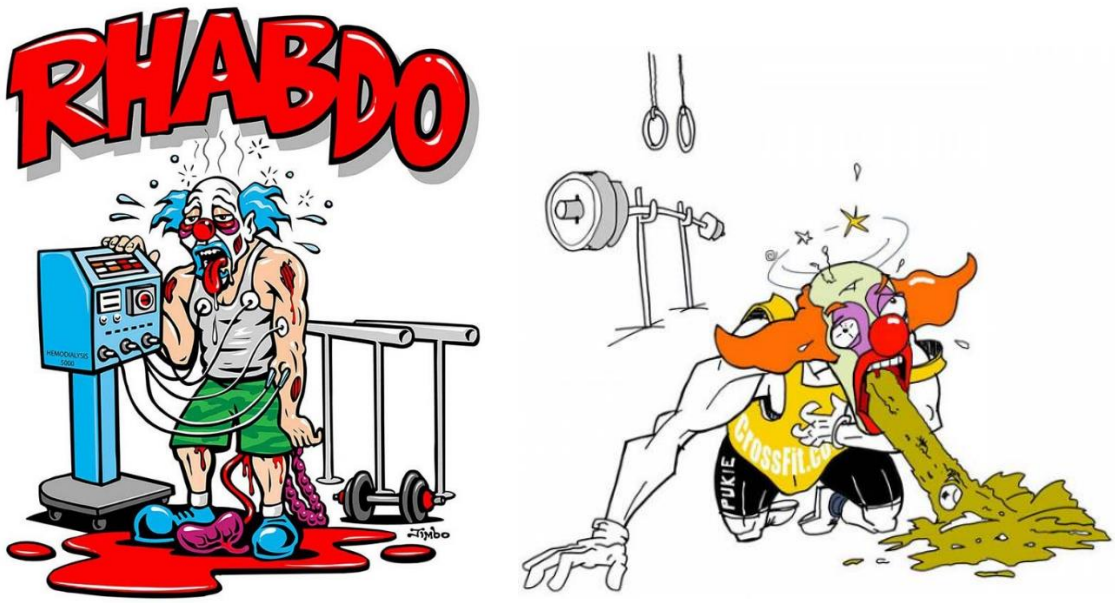

Figure 2.7: A side-by-side comparison of Uncle Rhabdo (left) and Pukie the Clown (right). Both figures appeared, at different times, in *CrossFit Journal*, a publication sanctioned by Crossfit, whose articles are often penned by founding members of the corporation and professional athletes.

Figure 2.8: Mike Rojas, owner and Head Strength & Performance Coach of Strong 101 Gym demonstrates the proper technique for lifting an Atlas Stone to the shoulder. This is a movement that should be performed with smaller, lighter stones. Form may vary greatly depending upon various attributes of the trainee's body, including torso and limb length.

Preface to the Program

The following exercise program fuses the use of ancient training implements with currently-trending methodologies and scientifically-proven exercise protocols. Its target audience is fitness enthusiasts with some training under their belt who are seeking new challenges. Absolute beginners should complete a program that focuses on building proficiency in the fundamental lifts—the squat, bench press, deadlift, pull up, etc.—and work on achieving basic mobility before trying this program. It should be noted that the *gada* and Atlas Stone, though growing in popularity, remain unavailable in many commercial gyms. The exercises performed using them, however, can often be substituted with movements employing kettlebells, sandbags, medicine balls, and other more common pieces of equipment. Some of the exercises prescribed by the program, especially those completed using the Atlas Stone, are inherently more dangerous than typical barbell, dumbbell, and machine exercises. With greater risk, however, comes greater reward, as these "functional" exercises build strength and proficiency in movement patterns that are more applicable to everyday situations.

There are three phases to the program. Each features a weekly workout "split"—a means for organizing exercises into workouts based on the body parts they work—dictating which exercises should be completed in which order during a given workout. In addition to the main exercises, each training day features a short warmup routine that can be modified as needed. Following each phase are Excel sheets which dictate the number of sets and repetitions that ought to be completed in each workout. Prior to the performance of the "working sets"—sets completed using the weight and repetitions recommended by the program—trainees are encouraged to complete two or more warmup sets using light weights and special attention to form. The amount of time spent resting in-between sets should be decided by the trainee. Most

trainees will feel comfortable with resting for shorter periods between higher-rep sets, and for longer periods between lower-rep sets. As a rule of thumb, a rest period should be no shorter than one minute, and no longer than five. Trainees can plan their rest days as needed but resting for at least one day after every two training days is recommended. Engaging in cardiovascular exercise or low-intensity core training on rest days is perfectly acceptable.

In the first phase—Prehab/Rehab and Building a Foundation—the goal is getting the trainee accustomed to unfamiliar movement patterns as well as feeling out muscular asymmetries and weaknesses. It seeks to rectify some of the postural imbalances typically developed as a result of a sedentary, screen-centric lifestyle—such as rounded shoulders and tight hips—by employing various corrective stretches and exercises, including deep squats and facepulls. By the end of the first phase, the trainee will have acclimated to the unique stimuli offered by the *gada* and Atlas Stone, so training intensity is increased in the second phase.

The objective during the second phase—Building Size and Strength—is, as one might gather, primarily stimulating muscular hypertrophy, but also increasing strength. Within this phase, several essential barbell movements—the back squat, front squat, bench press, and overhead press—are introduced into the program. The resultant product is a hybrid of ancient and contemporary techniques that is, of the three phases, perhaps of greatest utility to trainees who see barbell movements as the meat of a good program, and less conventional exercises as mere accessories. This is a position not without its merits. After all, barbells make incorporating the principle of progressive overload—the need to gradually increase the stress placed on the body by an exercise to stimulate improvement—into one's training relatively easy, as one need only periodically load more weight on the barbell to effectively increase the stimulus. It is oftentimes difficult to consistently overload the body using irregular implements because

changing their weight is impractical, if not impossible, and simply adding more repetitions or sets within a workout may prove too taxing.

In the third and final phase of the program—Maximizing and Testing Strength—exercises employing the *gada* and the Atlas Stone become the primary movements, with entire training sessions dedicated to their use each week. Trainees will experience workouts that emphasize explosiveness, shoulder health, and full-body strength, respectively. Once this phase has been completed, trainees should give themselves about a week or so to rest by either refraining from going to the gym or exercising using around fifty percent of their one-rep maximum on the given exercises. Doing so will alleviate the central nervous system fatigue the trainee will have accumulated over the six weeks spent training intensely. Following this week away from the gym—often referred to as a "deload"—trainees are encouraged to test their newfound strength by attempting three- to five-rep maximum effort sets.

A Note on the *Gada*

Swinging the *gada* is a deceptively challenging exercise, so trainees should start with very light weights. Even a sub-20 lb. mace has the potential to seriously challenge a trainee's ability to maintain their balance. The movement requires bracing from the feet to the hands. One key component of proper form is maintaining a slight bend in the knee while flexing the abs and glutes. This will put the trainee in an especially stable position that will facilitate quick responses to shifts in the load resulting from the asymmetricity of the weight. There are countless progressions one can try before graduating to the more difficult exercises. I recommend checking out the Onnit Academy "Steel Mace Exercises" catalogue for ideas. The site features pages upon pages of movements with short descriptions and instructional videos.

A Note on the Atlas Stone

The Atlas Stone, like the *gada*, is a piece of equipment whose use is as challenging as it is rewarding. Thus, the benefit of implementing stone lifting into training regimens is twofold. On one hand, the Atlas Stone better prepares trainees for situations they may encounter in everyday life. Ardent supporters of strongman and functional-style training are quick to point out that, despite the many benefits of working with dumbbells and barbells, few things in the real world are characterized by balanced loads and easily-gripped handles. In the context of doing physical labor—in the domestic and work spheres—and responding to emergencies—by lifting the body of an incapacitated friend, for example—the practicality of being proficient at lifting irregularly-shaped objects becomes clear.

Again, like the *gada*, the Atlas Stone demands that we question the standard stance on lifting weights using the hallmarks of perfect form. When lifting the Atlas Stone, trainees must put themselves in a position few would ever use to lift a barbell. At the start of the lift, the back is rounded the shoulders are rolled forward, allowing the trainee to hug the stone to their body, but also demanding that they brace their core powerfully to prevent the muscles of their back from taking the brunt of the load (See Figure 2.8).

The Resistance Training Principles Undergirding the Program

1. **Specificity-** As noted in the Preface section, this program is not designed for trainees just beginning their training careers. That is not to say that beginners should not attempt to exercise using the *gada* and Atlas Stone but that there are plenty of other fundamental movements they ought to prioritize in order to improve their overall health and strength. Instead, this program is aimed at improving performance in stone lifting and mace

swinging, a very particular goal that requires the completion of hundreds of repetitions of those movements specifically. Though there will be carryover from one physical activity to another, practicing these exercises will improve the trainee's ability to complete movements most like them (Campos et. al).

2. **Progressive Overload-** A principle captured by the tale of Milo of Croton, who trained by carrying a calf up a mountain every day until the animal was grown. Progressive overload refers to the need to gradually increase a training stimulus in order to make progress. This is incorporated into the program via the gradual ramping-up of the weight used in most cases, and the increasing of repetitions performed in others (Kraemer).

3. **Daily Undulating Periodization (DUP)-** DUP refers to the need to perform similar, or the same, movement patterns using different rep ranges and numbers of sets within the same training week. This method has been proven to be preferable to linear periodization (LP), which features fewer changes in training volume (Rhea et al. 254).

4. **Rate of Perceived Exertion-** For many of the exercises listed below, it is recommended that trainees complete their sets while leaving a few reps "left in the tank" so to speak. For example, it may be suggested that a trainee use a weight they feel they could complete for ten reps, but only complete seven. This training protocol is derived from a modified version of the RPE scale, a tried-and-true method for estimating the intensity of an activity developed by Gunnar Borg. The RPE scale is used throughout the resistance-training community and is supported by exercise science literature (Day et. al 5).

THE PROGRAM

Phase I: Prehab/Rehab and Laying a Foundation

Day 1: Lower Body, Strength Emphasis

1. **Dynamic Warmup**
    a. *Leg Swings*
    b. *Cross-body Leg Swings*
    c. *Bodyweight Lunge with Torso Rotation*
    d. *Scapular Pull Up*
    e. *Unweighted Lateral Raises*
2. **Kettlebell Swing**
3. **Atlas Stone Lift to Platform**
4. **Barbell Lunge**
5. **Farmer's Carry**
6. **Plank**

Day 2: Upper Body, Conditioning Emphasis

1. **Dynamic Warmup**
    a. *Overhead Squat Using Stretching Staff or Empty Bar*
    b. *Shoulder Dislocations*
    c. *Large Arm Circles (Forward and Backward)*
    d. *Dand*
    e. *Plank*
2. **Facepull**
3. ***Gada* Standing Overhead Press**
4. **Dumbbell Bench Press**
5. **Standing Kettlebell Press**
6. **Pull Up**

Day 3: Lower Body, Conditioning Emphasis

1. **Dynamic Warmup**

   a. *High Knees*
   b. *Butt-kickers*
   c. *Deep Squat*
   d. *Dead Bug*
   e. *Resistance Band Reverse Fly*
2. **Barbell Deadlift**
3. **Barbarian Squat**
4. ***Gada* Front Squat with Switch**
5. ***Gada* Overhead Lunge**
6. **Step Up with Bag / Stone / Kettlebell Shouldered**

Day 4: Upper Body, Strength Emphasis

1. **Dynamic Warmup**
   a. *Jumping Jacks*
   b. *Scorpions*
   c. *Cross-Body Arm Swings*
   d. *Scapular Pull Up*
   e. *External Shoulder Rotation*
2. **Pendlay Row**
3. **Atlas Press**
4. **Unilateral Lat Pulldown**
5. ***Dand***
6. ***Gada* Curl**

PHASE I	REP SCHEME							
EXERCISE	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
DAY 1								
Kettlebell Swing	4 x 12	4 x 10	4 x 8	4 x 6	3 x 12	3 x 10	3 x 8	3 x 6
Atlas Stone Lift to Platform	5 x 4	5 x 3	5 x 2	5 x 1	5 x 4	5 x 3	5 x 2	5 x 1
Barbell Lunge	3 x 10	3 x 8	4 x 10	4 x 8	3 x 10	3 x 8	4 x 10	4 x 8
DAY 2								
Facepull	4 x 15	4 x 12	4 x 10	4 x 8	4 x 15	4 x 12	4 x 10	4 x 8
Dumbbell Bench Press	3 x 10	3 x 8	4 x 10	4 x 8	3 x 10	3 x 8	4 x 10	4 x 8
Standing Kettlebell Press	3 x 10	3 x 8	4 x 10	4 x 8	3 x 10	3 x 8	4 x 10	4 x 8
Pull Up	3 x 5	3 x 6	3 x 7	3 x 8	3 x 5	3 x 6	3 x 7	3 x 8
DAY 3								
Barbell Deadlift	5 x 5	5 x 4	5 x 3	5 x 2	5 x 5	5 x 4	5 x 3	5 x 2
Barbarian Squat	3 x 5	3 x 6	3 x 7	3 x 8	3 x 5	3 x 6	3 x 7	3 x 8
Gada Front Squat with Switch	3 x 5	3 x 6	3 x 7	3 x 8	3 x 5	3 x 6	3 x 7	3 x 8
Gada Overhead Lunge	3 x 10	3 x 8	4 x 10	4 x 8	3 x 10	3 x 8	4 x 10	4 x 8
DAY 4								
Pendlay Row	5 x 5	5 x 4	5 x 3	5 x 2	5 x 5	5 x 4	5 x 3	5 x 2
Atlas Press	3 x 10	3 x 8	4 x 10	4 x 8	3 x 10	3 x 8	4 x 10	4 x 8
Unilateral Lat Pulldown	3 x 10	3 x 8	4 x 10	4 x 8	3 x 10	3 x 8	4 x 10	4 x 8

Notes: In Phase I, trainees should not prioritize increasing the weight used, but improving form. The weights selected for each exercise should be challenging, but failure of a rep must be avoided. Trainees ought to feel as if they can complete 3-4 more reps at the end of each set. In Week 5, the Rep/Set cycle restarts, at which point the trainee should slightly increase the weight use for each training day. For example: a trainee who deadlifts 135 lbs for 5 x 5 in Week 1 should attempt to deadlift 140 lbs for 5x5 in Week 5. Rep/Set schemes for any exercises which are not listed above are up to the discretion of the trainee.

Phase II: Building Strength and Size

Day 1: Lower Body

1. **Dynamic Warmup**
    a. *5-15 Min of Walking on Treadmill, Moderate Intensity*
    b. *Deep Squat*
    c. *Walking Lunge*
    d. *Overhead Squat Using Stretching Staff or Empty Bar*
    e. *Bar Hang with Flexed Core*
2. **Barbell Back Squat**
3. **Stone Lift to Shoulder**
4. **Romanian Deadlift**
5. **Unilateral Leg Press**
6. **Barbell Standing Calf Raise**

Day 2: Upper Body, Pull Emphasis

1. **Dynamic Warmup**
    a. *5-15 Minutes of Rowing, Moderate Intensity*
    b. *Facepull with Resistance Band*
    c. *Lat Stretch*
    d. *Chest Stretch*
    e. *Plank*
2. **360 Degree *Gada* Swing**
3. **Weighted Pull Up**
4. **Barbell Overhead Press**
5. ***Gada* Bent-over Row**
6. **Unilateral *Gada* Curl**

Day 3: Core

1. **Dynamic Warmup**
    a. *10-15 Minutes of Walking on Treadmill, Moderate Intensity*
    b. *Cat/Cow Pose*
    c. *Cobra Pose*
    d. *Reverse Plank*
2. **Unilateral 360 Degree *Gada* Swing**
3. **Hanging Leg Raise**
4. **Bent-over Torso Rotation with *Gada***
5. **Hanging Knee Raise**
6. **Decline Sit Up**

Day 4: Lower Body

1. **Dynamic Warmup**
    a. *5-15 Minutes of Cycling, Moderate Intensity*
    b. *Lateral Squat*
    c. *Walking Lunge with Torso Rotation*
    d. *Butt-kickers*
    e. *Bridge*
2. **Atlas Stone Lift to Platform**
3. **Front Squat**
4. **Jefferson Deadlift**
5. **Barbell Lunge**
6. **Weighted Sled Push**

Day 5: Upper Body, Push Emphasis

1. **Dynamic Warmup**
    a. *Burpees, Moderate Intensity*
    b. *Scapular Pull Up*
    c. *Band Pull-apart*
    d. *External Shoulder Rotation*

   e. *Chest Stretch*

2. **Facepull**
3. ***Gada* Slam**
4. ***Dand***
5. **Barbell Bench Press**
6. **Arnold Press**

PHASE II								
EXERCISE	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
DAY 1								
Back Squat	3 x 5, 1 F	3 x 5, 1 F	3 x 5, 1 F	3 x 5, 1 F	4 x 4	4 x 3	4 x 2	4 x 1
Stone to Shoulder	4 x 4	4 x 4	4 x 5	4 x 5	4 x 6	4 x 6	4 x 7	4 x 7
Romanian Deadlift	4 x 8	4 x 8	4 x 6	4 x 6	4 x 5	4 x 5	4 x 5	4 x 4
DAY 2								
360 Gada Swing	2 x 10	2 x 10	3 x 8	3 x 8	3 x 10	3 x 10	3 x 12	3 x 12
Weighted Pull Up	3 x 5, 1 F	3 x 5, 1 F	3 x 5, 1 F	3 x 5, 1 F	3 x 8	3 x 7	3 x 6	3 x 5
Overhead Press	3 x 5, 1 F	3 x 5, 1 F	3 x 5, 1 F	3 x 5, 1 F	4 x 4	4 x 3	4 x 2	4 x 1
DAY 4								
Stone to Platform	5 x 4	5 x 3	5 x 2	5 x 1	5 x 4	5 x 3	5 x 2	5 x 1
Front Squat	3 x 5, 1 F	3 x 5, 1 F	3 x 5, 1 F	3 x 5, 1 F	4 x 4	4 x 3	4 x 2	4 x 1
Jefferson Deadlift	4 x 8	4 x 8	4 x 6	4 x 6	4 x 5	4 x 5	4 x 5	4 x 4
DAY 5								
Facepull	3 x 15	3 x 15	3 x 15	3 x 12	3 x 12	3 x 12	3 x 10	3 x 10
Gada Slam	3 x 10	3 x 10	3 x 12	3 x 12	4 x 8	4 x 8	4 x 10	4 x 10
Bench Press	3 x 5, 1 F	3 x 5, 1 F	3 x 5, 1 F	3 x 5, 1 F	4 x 4	4 x 3	4 x 2	4 x 1
Notes: In Phase II, the volume of training increases significantly. Additionally, trainees may notice that the last set of certain exercises is being taken to failure, which is marked with an "F." Trainees should begin their training of these exercises during Week 1 with 62.5-65% of a a weight they can do for only one repetition, which can be calculated using an online calculator or tested the week prior to Phase II. Each week, trainees should increase the weight used for exercises taken to failure by 2.5%.								

Phase III: Maximizing and Testing Strength

Day 1: Explosive Power Emphasis

1. **Dynamic Warmup**
    a. *Overhead Squat Using Stretching Staff or Empty Bar*
    b. *Leg Swings*
    c. *Cross-Body Leg Swings*
    d. *Reverse Arm Circles*
    e. *Shoulder Dislocations*
2. **Squat Clean**
3. **Muscle Up**
4. **Box Jump**
5. **Atlas Push Up**
6. **Weighted Sled Drag**

Day 2: *Gada* Emphasis

1. **Dynamic Warmup**
    a. *Cross-body Arm Swings*
    b. *Small Arm Circles (Forward and Reverse)*
    c. *Large Arm Circles (Forward and Reverse)*
    d. *External Rotations*
2. **360 Degree *Gada* Swing**
3. **Unilateral *Gada* Swing**
4. ***Gada* Slam**
    a. **Superset with *Gada* Overhead Squat**
5. ***Gada* Static Hold with Outstretched Arms**

Day 3: Atlas Stone Emphasis

1. **Dynamic Warmup**
    a. *3-6 Minutes of Bear Crawling, Moderate Intensity*
    b. *3-6 Minutes of Reverse Bear Crawl, Moderate Intensity*
    c. *Dand*

   d. *Glute Bridges*
   e. *Cat/Cow Pose*
2. **Atlas Stone Lift to Shoulder**
3. **Atlas Stone Lift to Platform**
4. **Atlas Stone Carry**
5. **Captain's Chair Knee Raise**

Day 4: Auxiliary Movement Emphasis

1. **Dynamic Warmup**
   a. *5-10 Minutes of Jumping Rope, Moderate Intensity*
   b. *Bar Hang*
   c. *Lunge with Torso Rotation*
   d. *Deep Squat*
   e. *Band Facepulls*
2. **Pull Up**
   a. **Superset with Band Pull-apart**
3. **Handstand Push Up/Barbell Overhead Press**
   a. **Superset with Atlas Press**
4. **Goblet Squat**
5. **Bulgarian Split Squat**
6. **Pallof Press**

PHASE III							
EXERCISE	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
DAY 1							
Squat Clean	5 x 4	5 x 4	5 x 3	5 x 3	5 x 2	5 x 1	
Muscle Up	3 x 5	3 x 5	3 x 5	3 x 6	3 x 6	3 x 6	
Box Jump	4 x 3	4 x 3	4 x 3	5 x 3	5 x 3	5 x 3	
DAY 2							
360 Gada Swing	3 x 8	3 x 8	3 x 8	3 x 10	3 x 10	3 x 10	
Gada Slam	3 x 8	3 x 8	3 x 10	3 x 10	3 x 12	3 x 12	
DAY 3							
Stone to Shoulder	4 x 4	4 x 4	4 x 4	5 x 4	5 x 4	5 x 4	
Stone to Platform	5 x 4	5 x 4	5 x 3	5 x 3	5 x 2	5 x 1	
CC Knee Raise	3 x 8	3 x 8	3 x 10	3 x 10	3 x 12	3 x 12	
DAY 4							
Pull Up	4 x 5	4 x 5	4 x 6	4 x 6	4 x 7	4 x 7	
HS Push Up/OHP	5 x 5	5 x 5	5 x 5	3 x 8	3 x 8	3 x 8	
Goblet Squat	3 x 8	3 x 8	3 x 10	3 x 10	3 x 12	3 x 12	
BS Squat	3 x 10	3 x 10	3 x 10	3 x 12	3 x 12	3 x 12	
Notes: In Phase III, the trainee's priority is improving their strength							
in lifting the Atlas Stone, and increasing endurance in swinging the							
gada. For those exercises that decrease in volume, the weights							
selected should be very heavy by Week 8, with trainees feeling as							
if they only have enough energy to complete 1-2 more reps by the							
end of their sets. On DAY 1, all repetitions should be executed							
with as much speed as possible.							

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