

Bodies for Battle: Systematic Training in the U.S. Army's Physical Culture, 1885-1958

By
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Abstract

This study investigates the creation and evolution of an official U.S. Army physical culture between 1885 and 1958 built around systematic physical training. Facing “empty battlefields” wrought by new and improved weapons technology in the late nineteenth century, a few young officers advocated systematic physical training as a means of improving the Army’s manpower to meet the mounting physical and mental demands of combat. These advocates, most notably West Point’s Herman Koehler, drew on contemporary popular fitness culture and the professionalizing field of physical education to craft a new culture and associated system of exercise that has informed approaches to physical training in the U.S. Army ever since. Using archival sources, published training manuals, and professional journals serving military officers and physical educators, this study illuminates that original culture’s system of values, beliefs, and assumptions, then traces its change over time to 1958. This study finds that change primarily resulted from the influence of empowered institutional outsiders who applied cutting-edge physical education knowledge and expertise to orient the Army’s physical culture evermore on producing measurable physiological outcomes, especially after 1942. However, impulses driven by scientific rationalism existed alongside and interacted with relatively stable core values and beliefs, such as man’s central role in battle despite technological change, the Army’s role as a man-building agency, and definite connections between physical exercise, moral fiber, and mental strength. The Army’s physical culture also consistently existed at a nexus between intersecting concerns that influenced its development and motivated its deployment outside the Army into civilian society. Significant intersections included anxieties about American masculinity and fitness in an era of industrial war that demanded the deep mobilization of populations, and the changing relationship between man and machine in war. Beyond providing

a rich description of the U.S. Army's physical culture and training system as it evolved over the first half of the twentieth century, this study pioneers the investigation of martial physical culture as a profitable and as-yet understudied avenue for historical research.

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My Department Head at the U.S. Military Academy is fond of saying that a dissertation is a family project, especially if written while serving on the Academy's faculty. My experience has borne out this insight. Out of necessity, research and writing has been shoehorned into late nights, lunch breaks, weekends, and family vacations for nearly three years. Many people sacrificed their time, shared their talents, and lent encouragement during these odds hours and over the long haul. Without this family support I would never have finished this manuscript. Appropriately, I get to meditate on that support during Thanksgiving weekend as I pull together the final draft of this dissertation.

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Introduction: Modern War, Modern Fitness

War is physical. In combat, fortune favors the soldier in better condition. Superior conditioning enables troops to fight longer and harder, to move farther and faster, to carry heavier loads, and to endure greater physical hardship. These relative advantages can be the difference between life and death, victory and defeat. As the Prussian philosopher of war Carl von Clausewitz once observed, “War is the realm of physical exertion and suffering. These will destroy us unless we can make ourselves indifferent to them, and for this birth or training must provide us with a certain strength of body and soul.”¹ So long as humans make war, this will be an enduring truth. Thus, physical training in some form has always been a part of the preparation for war. Western traditions typically locate the idealized origins of martial physical training, and the ideal male body type, in ancient Greece and Rome. Whether in the broader educational approach of the Athenians or the utilitarian version of the Spartans and Romans, physical training shaped bodies for war. The humanist impetus behind physical training faded in the medieval period, but warrior castes in feudal systems continued utilitarian physical training for combat. Though militaries in the early modern period had little need of individual warriors, elaborate drill regulations fitted soldiers’ bodies to a new sort of combat and battlefield. With nationalism came more widespread demands on citizenries for military service. Whole populations needed to be made healthy and strong in the name of war.²

In the United States at the dawn of the twentieth century, war—as it always had—demanded physical preparation. However, that training assumed a new character and increased importance. Its new character reflected a modern confidence in man’s ability to manipulate

¹ Carl von Clausewitz, *On War*, trans. Michael Howard and Peter Paret, Indexed ed. (Princeton: Princeton University Press, 1989).

² Harold M. Barrow and Janie P. Brown, *Man and Movement: Principles of Physical Education*, 4th ed. (Philadelphia: Lea & Febiger, 1988), 66-74.

nature and society.³ Progressive educators such as John Dewey, and members of the new physical education profession such as Thomas Wood, Luther Gulick, and Clark Hetherington, endorsed an organic unity of mind and body. Learning a physical act was not just physical, they argued. Such learning was also mental and social. Play and exercise could develop the whole individual, even societies.⁴ Many military officers recognized the potential power of this new physical education philosophy. The rational application of modern, scientific training methods promised opportunities to shape both physical and non-physical qualities. Militaries around the world developed and promoted gymnastics systems and sport in order to take advantage of these opportunities. The U.S. military slowly followed suit, anxious about entering a competitive imperial world where embodied nations battled for survival in the framework of social Darwinism.⁵

This study centers on the philosophies and practices behind U.S. Army efforts to shape soldiers' bodies over more than two-thirds of a century beginning in the 1880s. Those philosophies and practices formed a physical culture, here defined as a constellation of ideas about the nature and value of fitness, and of the means by which one should achieve it. This definition draws on, but is distinct from, the physical culture phenomenon active in the period under study. This study's cast of characters includes those actors most responsible for sculpting the bodies of current and future soldiers: Army officers and physical educators. Four questions drive the analysis. First, in whose interests were bodies shaped? Second, to what ends were they shaped? Third, how did the philosophy and practice of shaping those bodies change over time?

³ Michael Anton Budd, *The Sculpture Machine: Physical Culture and Body Politics in the Age of Empire* (New York: New York University Press, 1997), x.

⁴ Barrow and Brown, *Man and Movement: Principles of Physical Education*, 83.

⁵ Kristin L. Hoganson, *Fighting for American Manhood: How Gender Politics Provoked the Spanish-American and Philippine-American Wars* (New Haven: Yale University Press, 1998), 9-13.

Finally, how did the shaping of bodies contribute to projects of man-, soldier-, and citizen-making? Because martial physical training advocates aspired to more than utilitarian benefits, the systems and practices they advocated open windows onto how they conceived of the future battlefield, the ideal soldier, the relationship between man and machine, and the nature of citizenship in America. In short, their exercise systems were cultural expressions.

Understanding the nature and significance of those cultural expressions requires an understanding of the contexts in which they formed. The demands of modern war comprised their primary context and justified their creation. Martial physical training advocates imagined ideal soldiers needed to meet those demands, then tried to shape raw human material into those forms. Not everyone imagined war or the ideal soldier in the same way, but the battlefield's basic emptiness comprised a commonality and thread of continuity in their imaginations.

Paradoxically, individuals became more important on battlefields rendered apparently empty—devoid of mass troop formations and the concomitant reassuring “elbow-touch”—by ever-more lethal weapons even as the individual soldier's relative significance seemingly declined in inverse proportion to battle's growing spatial and temporal scope. A fundamental orientation on combat, and the durable concentration on *infantry* combat specifically, should be borne in mind when considering the character of ideas and practices deployed later in other spaces.

Science and technology also informed the emerging physical culture's context. Advances in weapons technology created the empty battlefield and posed new questions about the relationship between man and machine in war. Smokeless powder, high explosive, recoilless carriages, small arms magazines, and more enabled the development of deadly new weapons, such as the machine gun and rapid-firing artillery pieces. Range, accuracy, rate of fire, and

lethality increased. So too did a defender's ability to remain concealed.⁶ High volumes of accurate fire obliged men to disperse and hug the ground, which in turn posed serious challenges for command and control and for maintaining the impetus of an attack. Unit cohesion became more fragile without the steadying influence of tightly packed ranks.⁷ By 1914, these new technologies had, in the words of historian John Keegan, mechanized and industrialized the act of killing.⁸

Leaders of modern armies had to find a way to attack despite the advantages of defense caused by the enormous increase in firepower. The strategic offensive needed success at the tactical level. Inspired by successful infantry assaults in the Russo-Japanese War (1904-05) and Balkan War (1912-13), European theorists argued frontal infantry attacks were still possible given proper support, the right attitude, and a willingness to accept casualties.⁹ Drawing on the writings of French theorist Ardant du Picq and others, military leaders stressed the moral element in war. These leaders perceived one of the basic keys to success to be the "spirit of the offensive," as advocated by French general Joseph Joffre in 1911. What later became known as the "cult of the offensive" had adherents in America too.¹⁰

Emphasis on moral forces as a key to the offensive and victory amplified the human element's importance in war. British Colonel Frederic Maude expressed the period's dominant

⁶ For a synopsis of the "empty battlefield" phenomenon, see James J. Schneider, "The Theory of the Empty Battlefield," *Royal United Services Institute for Defence Studies Journal* 132, no. 3 (1987).

⁷ Michael Howard, "Men against Fire: The Doctrine of the Offensive in 1914," in *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, ed. Peter Paret (Princeton: Princeton University Press, 1986), 510-11.

⁸ John Keegan, *The Face of Battle* (New York: Penguin Books, 1978), 230.

⁹ Howard, "Men against Fire: The Doctrine of the Offensive in 1914," 511-12, 17-18; Robert Citino, *Quest for Decisive Victory: From Stalemate to Blitzkrieg in Europe, 1899-1940* (Lawrence: University Press of Kansas, 2002), 132-41; Antulio J. Echevarria, "The 'Cult of the Offensive' Revisited: Confronting Technological Change before the Great War," *Journal of Strategic Studies* 25, no. 1 (2002): 205, 209; For an overview of the movement toward open-order tactics in this period, see John A. English, *On Infantry*, Rev. ed. (Westport: Praeger, 1994), 1-14; For more on American thought on this dilemma in the last half of the nineteenth-century, see Perry D. Jamieson, *Crossing the Deadly Ground: United States Army Tactics, 1865-1899* (Tuscaloosa: University of Alabama Press, 1994).

¹⁰ Howard, "Men against Fire: The Doctrine of the Offensive in 1914," 515-21.

sentiment in his 1905 book on tactics in arguing that men would inevitably die in battle, so commanders should not shy away from casualties. Rather, nations and officers should train men to be self-sacrificing. “The true strength of an army,” he wrote, “lies essentially in the power of each, or any, of its constituent fractions to stand up to punishment, even to the verge of annihilation when necessary”¹¹ Military theorists and leaders at the turn of the century believed that an army’s human element had to complement the power of new weapons technologies.¹² Men required moral and muscle fiber to withstand the terrifying effects of devastating weapons while advancing in isolation from others, to bear increasingly heavy physical and psychic loads, and finally to close with and kill the enemy—sometimes by bayonet or bare hand.

A broader cultural, political, social, and intellectual context informed and constrained the imaginations of those seeking to improve the Army’s human material, and the tools at their disposal. For instance, Social Darwinism and neo-Lamarckianism fixed attention on bodies and stressed race. Under these theories, physical appearance revealed internal qualities, and physical struggle shaped character or even strengthened offspring.¹³ At the turn of the century, concerns voiced mainly by white, male Americans about racial and masculine decline fueled intense anxieties.¹⁴ A medicalized discourse on the nation translated these concerns about individual

¹¹ Frederic N. Maude, *Notes on the Evolution of Infantry Tactics* (London: William Clowes and Sons, Limited, 1905), x.

¹² Echevarria, "The 'Cult of the Offensive' Revisited: Confronting Technological Change before the Great War," 209.

¹³ Gail Bederman, *Manliness & Civilization: A Cultural History of Gender and Race in the United States, 1880-1917* (Chicago: University of Chicago Press, 1995), 4-5, 78-79, 92-93; Christopher E. Forth, *Masculinity in the Modern West: Gender, Civilization and the Body* (New York: Palgrave Macmillan, 2008), 142-45.

¹⁴ For a succinct summary of the "crisis in masculinity," and a critique of its classification as a "crisis," see Bederman, *Manliness & Civilization: A Cultural History of Gender and Race in the United States, 1880-1917*, 11-15; for a deeper treatment of the crisis, see Forth, *Masculinity in the Modern West: Gender, Civilization and the Body*; for more on the specific American context of the crisis, see John F. Kasson, *Houdini, Tarzan, and the Perfect Man: The White Male Body and the Challenge of Modernity in America* (New York: Hill and Wang, 2001), 10-11.

men into worry over national strength and vigor. Men in Europe shared some of these general anxieties. One of them, a tactician whose writings were popular with American officers, despaired that the current cohort of “overcivilized” men would not be able to meet the modern battlefield’s rigors.¹⁵ But the “crisis in masculinity” also opened avenues for improving soldiers. If bodies could degenerate, they could also regenerate. A physical culture grew up in America around ideas that promoted sport and body building. With the right diet and exercise, men could cultivate proportions like Eugen Sandow, the world’s “perfect man.” If people could improve themselves, then the military might also engineer men’s bodies for martial purposes.¹⁶ Officers drew on the language and practices of existing physical culture in developing solutions to battlefield problems. An ongoing construction of masculinity informed that physical culture; so too did it inform the solutions developed for and within the U.S. Army.

Efforts to sculpt bodies through physical training in the U.S. Army also reflected a desire for order, system, and control that resonated with similar desires expressed elsewhere in American society. Inventors, industrial scientists, engineers, and system builders applied these methods and values to the production of goods, and sometimes to other areas of social activity.¹⁷ Progressive politicians and activists sought solutions to problems created by industrialization and urbanization. Often, those solutions oriented on order and control of people, environments, and

¹⁵ Wilhelm Balck, *Tactics*, trans. Walter Krueger, 4th ed., vol. 1 (Fort Leavenworth: U.S. Cavalry Association, 1911), 194.

¹⁶ Historians have thoroughly explored period beliefs in physical perfectibility, but they have rarely applied this concept to military training. For some literature on perfectibility, see James C. Whorton, *Crusaders for Fitness: The History of American Health Reformers* (Princeton: Princeton University Press, 1982), 271-94; Joanna Bourke, *Dismembering the Male: Men's Bodies, Britain and the Great War* (Chicago: University of Chicago Press, 1996), 171-74, 209; Kasson, *Houdini, Tarzan, and the Perfect Man: The White Male Body and the Challenge of Modernity in America*, 7, 29, 49; Roberta J. Park, "Healthy, Moral, and Strong: Educational Views of Exercise and Athletics in Nineteenth-Century America," in *Fitness in American Culture: Images of Health, Sport, and the Body, 1830-1940*, ed. Kathryn Grover (Amherst: University of Massachusetts Press, 1989), 123, 46-58.

¹⁷ "Order, system, and control" comes from Thomas Parke Hughes, *American Genesis: A Century of Invention and Technological Enthusiasm, 1870-1970* (New York: Viking, 1989), 4-5.

processes.¹⁸ Martial physical training also resonated with other movements applying scientific knowledge and methods, and occasionally pseudo-science such as eugenics, to improve the human body and thereby improve society. Nutritional science, which became popular in the first two decades of the twentieth century, is one example. Nutritionists revolutionized the way Americans approached eating by breaking food down into its component parts, such as calories and vitamins, and reimagining food as fuel. This approach theoretically enabled efficient and economic consumption, all while improving the health of individuals and the nation.¹⁹ Physical training advocates moralized exercise in much the same way as nutritionists moralized food consumption.

Another important contextual factor is that in an age of nationalism and conscription, making soldiers and making citizens overlapped. All male citizens were potential soldiers. Military service seemed to some a way of inculcating discipline, health, and patriotism in the public. Soldiering could potentially be a means of elevating humanity, and certainly of bettering manhood. Physically fit, patriotic, and courageous soldiers could not be made in a few weeks of army training. Such soldiers were the products of a culture, a people, and a society. Politicians, educators, and Army leaders therefore also deployed the ideals and tools of martial physical training in spaces outside the military: schools, preparedness camps, paramilitary programs, debate forums, and more. Through these deployments, martial physical training abetted the efforts of elites seeking to define the nature of citizenship in terms of obligations, and to leverage military service as a positive good for society.

¹⁸ Michael McGerr, *A Fierce Discontent: The Rise and Fall of the Progressive Movement in America* (Oxford: Oxford University Press, 2003), xv-xvi; Daniel T. Rodgers, *Atlantic Crossings: Social Politics in a Progressive Age* (Cambridge: Belknap Press of Harvard University Press, 1998), 6-7, 45-52.

¹⁹ Helen Zoe Veit, *Modern Food, Moral Food: Self-Control, Science, and the Rise of Modern American Eating in the Early Twentieth Century* (Chapel Hill: University of North Carolina Press, 2013), 44-50.

Military leaders at the turn of the century began taking individual bodies more seriously. In part, this manifested in a growing embrace of sport that coincided with, even fueled, sport's growing popularity in wider American culture.²⁰ Too great a focus on sport obscures a persistent ambivalence toward sport in the Army's approach to sculpting bodies, though. Army policy displayed a preference, beginning in 1914 with its first manual, for rational systems of exercise in the early physical education mold. In this model, the Army's corporate body tended to eclipse the athlete's. Discipline similarly tended to trump individual physical capacity. These tensions and priorities echoed contemporary discourses on mass production, standardization, and efficiency. They also point toward shifting relationships between man and machine, on and off the battlefield, operating on three levels: man as a machine, man as a component of a (fighting) machine, and man versus machine.

Corporate and athlete bodies. Man and machine. These highlight a key tension in the development of an Army physical culture, and in the deployment of that culture outside the military. In every space, tensions between the community and the individual recurred. Early advocates identified this tension when seeking balance between physical training and athletic competition. Similarly, community-based physical training ideas used by Army leaders to make a case for universal military training struggled to gain traction with the public, especially when critics invoked individualism, personal liberty, and, later, the atomic battlefield.²¹ The Army's physical culture supported an obligation-based model of citizenship that privileged certain bodies, namely those of healthy, white, military-aged males. The physical culture also often

²⁰ Wanda Ellen Wakefield, *Playing to Win: Sports and the American Military, 1898-1945* (Albany: State University of New York Press, 1997); Steven Pope, *Patriotic Games: Sporting Traditions in the American Imagination, 1876-1926* (New York: Oxford University Press, 1997).

²¹ John Sager, "Universal Military Training and the Struggle to Define American Identity During the Cold War," *Federal History Journal*, no. 5 (2013): 58-59.

framed the soldier and his body as interchangeable parts in a larger machine. These models did not always resonate well with a changing American society.

This study's significance is fourfold. First, exploring the Army's contingent construction of physical training philosophy and practices opens windows to view the Army's understanding of war and man's role in it, and on slippage between the Army's and wider society's understanding of American citizenship. Second, this study historicizes perspectives in the Army on physical training and requirements. These are relevant topics in a time when policymakers and the public debate the role of women in the combat arms and worry over the poor physical condition of America's youth. Third, this study investigates assumptions about what it means to make a soldier. Surprisingly little attention has been given to this topic. Between 1885 and 1958, soldier-making entwined with sculpting a body and making a man. In that era of extreme *mens sana in corpore sano*, shaping a body was thought to shape mind, spirit, and character too. Many of these beliefs are still with us today. The content of and philosophy behind the Army's physical training program are therefore significant because they reveal much more than methods for strengthening muscles. Fourth, this study provides a rich description of the U.S. Army's physical training system, culture, and infrastructure as it developed over the first half of the twentieth century. Ultimately, this study also opens the Army's physical culture to evaluation. Between 1885 and 1958, that culture proved sufficient for adapting men to modern war. However, its evolution also proved spasmodic owing to cultural inertia and repeated failures to sustain evolutionary progress in peacetime.

Captain James Pilcher once observed how much attention military historians had paid to revolutionary developments in weapons technology, or in his words the "apparatus of war." He

contrasted that with how little attention had been paid to the “most important portion of the military *matériel*, the soldier himself.”²² Though Pilcher wrote those words in 1892, his musing could easily fit in today’s discourse on war, especially as a reaction against the technological determinism and triumphalism of the 1980s and 1990s.²³ Following Pilcher’s lead, this study centers on the soldier’s body, the basic unit of combat power. Cultural analysis takes this study to surprising places because the import of sculpting a soldier’s body went well beyond the battlefield. This study addresses the existing historiography in two ways. First, it fills a gap similar to the one Pilcher identified. Army leaders were limited in their ability to sculpt the contours and character of a battlefield, but they could sculpt a man’s contours and character. The means leaders developed to do so reflected their understanding of the battlefield on which they would deploy bodies for combat. Second, this study investigates the rich connectedness between making men, soldiers, and citizens, especially in an era of warfare that demanded mass conscription. Historians have addressed each of these processes individually, and sometimes in pairs, but rarely all together. Physical training is a thread running through all three, just as its practice has linked the experiences of millions of soldiers since the late nineteenth century.

Physical fitness has an undeniable effect on combat performance, yet historians have rarely addressed it in a sustained way. When fitness does appear, it is usually as a vaguely conceived factor in the outcome of a campaign or battle, or perhaps in the performance of a particular officer. Yet two recent works have put physical fitness front and center. James Campbell’s *“The Army Isn’t All Work”: Physical Culture in the Evolution of the British Army, 1860-1920* (2012) examines sport and physical training practices in the British Army. Whitfield East’s *A Historical Review and Analysis of Army Physical Readiness Training and Assessment*

²² James E. Pilcher, “The Building of the Soldier,” *The United Service* 7, no. 4 (1892): 22.

²³ Jeremy Black, *War and the Cultural Turn* (Cambridge: Polity Press, 2012), viii-ix.

(2013) analyzes physical training practices throughout the U.S. Army's entire history. Taken together, the books highlight crucial differences in the development of British and American martial physical cultures. The former evolved in a relatively coherent, linear form and was "inextricably tied" to the story of reform and modernization in the late Victorian and Edwardian Army.²⁴ The latter evolved in a "sinusoidal pattern of surge and consolidation through multiple force mobilizations and times of peace."²⁵ British physical culture (and Campbell's study) benefitted from a central proponent agency, the Army Gymnastic Staff. East shows that the creative sources of American physical training practices were more diffuse. Where Campbell moves outside the military to consider the reciprocal impact of British civilian and military physical cultures on one another, East limits his analysis to practices within the Army. East's functional approach also masks the cultural aspects of those practices.

Historians of sport have been more sensitive to the larger implications of physical activity. Donald Mrozek, for instance, considers military sport in the context of wider American culture. He perceives a rising moral tone in sport at the turn of the century based on sport's seeming social utility. In the military, this utility manifested in understanding the athletic field as a site for cultivating "primitive combativeness" and the "experience of victory." Sports helped shape character and character improved combat effectiveness.²⁶ This complex of beliefs is still alive and well in the Army's culture. Wanda Wakefield charts the U.S. military's embrace of sports and finds interconnectedness between war, sports, nationalism, and masculinity.²⁷ Steven

²⁴ James D. Campbell, *"The Army Isn't All Work": Physical Culture in the Evolution of the British Army, 1860-1920* (Burlington: Ashgate Pub. Co., 2012), 4.

²⁵ Whitfield B. East, *A Historical Review and Analysis of Army Physical Readiness Training and Assessment* (Ft. Leavenworth: Combat Studies Institute Press, 2013), 197.

²⁶ Donald J. Mrozek, *Sport and American Mentality, 1880-1910* (Knoxville: University of Tennessee Press, 1983), xiv-xx, quotations on 46.

²⁷ Wakefield, *Playing to Win: Sports and the American Military, 1898-1945*, 137-40.

Pope goes a step farther in arguing that the military played an important role in forging an invented national sporting culture at the turn of the twentieth century.²⁸

Sport was one means by which Army leaders sought to sculpt bodies, but too tight a focus on sport obscures the significance of systematic physical training, and the contingency in its adoption and development. Like sport, physical training reflected the ways in which Army leaders imagined the battlefield of the future and the soldier's role on it. Like sport, physical training was a tool for shaping individuals. Unlike sport, physical training promised a more scientific, rational, and precise way of sculpting bodies in line with Progressive impulses, technological systems, and industrial engineering. Army leaders therefore invested more intention when crafting physical training systems than when enabling athletic competition. Army leaders thought and acted within a cultural context when developing those systems. Historians have filled out our understanding of that cultural context through studies of fitness and health trends, movements, and thought in America.²⁹ Rarely have they addressed the linkages between the battlefield and gymnasium, though. This study traces those linkages, in the process demonstrating the two-way flow of ideas and practices between the military and civilian society.

Physical training connected more than the battlefield and gymnasium. Army leaders in the first half of the twentieth century claimed a role in three related projects: making men, making soldiers, and making citizens. Those projects converged on the male body. Army leaders therefore perceived the possibility of leveraging physical training as a positive tool to sculpt

²⁸ Pope, *Patriotic Games: Sporting Traditions in the American Imagination, 1876-1926*, 15-17; see also "An Army of Athletes: Playing Fields, Battlefields, and the American Military Sporting Experience, 1890-1920," *The Journal of Military History* 59, no. 3 (1995): 435-37.

²⁹ Whorton, *Crusaders for Fitness: The History of American Health Reformers*; Harvey Green, *Fit for America: Health, Fitness, Sport, and American Society* (New York: Pantheon Books, 1986); Kathryn Grover, *Fitness in American Culture: Images of Health, Sport, and the Body, 1830-1940* (Rochester: University of Massachusetts Press, 1989); Shelly McKenzie, *Getting Physical: The Rise of Fitness Culture in America* (Lawrence: University Press of Kansas, 2013).

people along ideal lines in all three categories. Scholars have addressed each project individually, and occasionally in pairs. For instance, a vast literature already exists on manhood and masculinity at the turn of the twentieth century.³⁰ Many of those works specifically address the relationship between masculinity and war.³¹ Scholars have also thoroughly explored the relationship between soldiering and citizenship, including the relationship's potential for generating militarization.³² Much less has been done to articulate just what it means to make an American soldier, or on the methods employed to do so. Christina Jarvis links all three projects in her book *The Male Body at War*, though only between the late Depression and the end of World War II.³³ This study similarly links all three, but through analysis of a longer period grounded more in policy and practice than in discourse. Physical training hardened, toughened, and improved men's bodies. Army leaders intended it to do the same for the body politic. To understand that approach's varied effectiveness over time, we need to understand the fundamental connectedness between making men, soldiers, and citizens.

³⁰ Works on masculinity that have most influenced this study include E. Anthony Rotundo, *American Manhood: Transformations in Masculinity from the Revolution to the Modern Era* (New York: Basic Books, 1993); Bederman, *Manliness & Civilization: A Cultural History of Gender and Race in the United States, 1880-1917*; Hoganson, *Fighting for American Manhood: How Gender Politics Provoked the Spanish-American and Philippine-American Wars*; Kasson, *Houdini, Tarzan, and the Perfect Man: The White Male Body and the Challenge of Modernity in America*; Michael S. Kimmel, *The History of Men* (Albany: State University of New York Press, 2005); John Pettegrew, *Brutes in Suits: Male Sensibility in America, 1890-1920* (Baltimore: Johns Hopkins University Press, 2007); Elliott J. Gorn, *The Manly Art: Bare-Knuckle Prize Fighting in America*, Updated ed. (Ithaca: Cornell University Press, 2010).

³¹ For a useful overview, see Robert A. Nye, "Western Masculinities in War and Peace," *The American Historical Review* 112, no. 2 (2007).

³² For a concise introduction, see Eliot A. Cohen, *Citizens and Soldiers: The Dilemmas of Military Service* (Ithaca: Cornell University Press, 1985); This study primarily engages the citizen/soldier relationship through arguments for Universal Military Training. On that topic, see also Michael J. Hogan, *A Cross of Iron: Harry S. Truman and the Origins of the National Security State, 1945-1954* (Cambridge: Cambridge University Press, 1998); Sager, "Universal Military Training and the Struggle to Define American Identity During the Cold War."; William A. Taylor, *Every Citizen a Soldier: The Campaign for Universal Military Training after World War II* (College Station: Texas A&M University Press, 2014).

³³ Christina S. Jarvis, *The Male Body at War: American Masculinity During World War II* (DeKalb: Northern Illinois University Press, 2004); Historian Rachel Moran's recent book complements Jarvis' work on federal efforts to shape citizens' bodies, although it deals less with the soldier-making project. See Rachel Louise Moran, *Governing Bodies: American Politics and the Shaping of the Modern Physique* (Philadelphia: University of Pennsylvania Press, 2018).

For all its potential, physical culture is a new and shockingly under-studied pathway in military history. Exercise is ubiquitous in military life today, and even those unfamiliar with military matters tend to intuitively associate combat and physical fitness. Since the late 1960s, military historians have expanded the scope of military history while incorporating fresh methodologies in their investigations of subjects both old and new.³⁴ Though this movement's "new military history" moniker is of dubious value half a century later, the method of examining interfaces between war and society is still alive and well.³⁵ Centering physical culture as an object of historical analysis fits within this conceptual framework. A military's physical culture is itself an interface between war and society. Military physical cultures grow out of civilian society, but they are mediated through the demands of the battlefield as perceived by military leaders and institutions. By analyzing a military's systems of exercise as cultural expressions, historians can find evidence of beliefs within a military organization and its society on topics as diverse as combat, soldier ideals, relationships between man and machine, race, gender, citizenship, and more. Because physical cultures also exist outside the military, the concept should likewise be of interest to the wider scholarly community. The ways people exercise, use their leisure time, and define fitness reveal other beliefs and values. Study of these issues, and especially of the interaction between civilian and military physical cultures, will enrich the ever-expanding literatures on weight and physique culture, biopolitics, food and eating history, state development, federal policy-making, and more.

The sheer amount of work left to be done on the Army's physical culture between 1885 and 1958 alone suggests the enormous potential in physical culture studies generally. This

³⁴ John Whiteclay Chambers, "The New Military History: Myth and Reality," *The Journal of Military History* 55, no. 3 (1991).

³⁵ Robert Citino, "Military Histories Old and New: A Reintroduction," *The American Historical Review* 112, no. 4 (2007).

project primarily examines the official culture, one created by elite producers, as captured in articles, doctrine, and policy and propagated downward with varying degrees of effectiveness throughout the rest of the organization. However, much evidence exists to suggest that the official culture did not penetrate everywhere and not everyone bought in to it. Journal articles bemoaning an undue focus on field days at the turn of the century, reports of custom-made obstacle courses at Fort Belvoir in 1941, and complaints in the 1950s about the recreational tail wagging the conditioning dog after World War II all show that the Army's official physical culture had competition. Future work might explore these sub-cultures and their divergence from the official culture. Historians may also find an examination of the physical cultures developing in other branches of the armed forces during the same period productive, especially in their interactions with the Army's culture. Future work might also explore the lived experience of soldiers. Men toiling through the Army Dozen on parade grounds around the world may not have understood fitness or exercise in the same way as Koehler, Raycroft, Bank, McCloy, or other cultural producers. There is more of this story to be told beyond 1958 as well. East has broken much ground for future researchers in this area with his monograph *A Historical Review and Analysis of Army Physical Readiness Training and Assessment*. However, East does not venture much beyond tracing doctrine and policy development, so future researchers might usefully apply the concept of physical cultures to learn more about the U.S. Army's development and its relationship to American society in the latter half of the twentieth century.

This study takes a cultural history approach to exploring the creation and development of the U.S. Army's physical training philosophies and practices in the first half of the twentieth century. Physical training policy, doctrine, and practice are loaded with meaning and both representative and constructive of values, assumptions, and beliefs widely held within the

Army.³⁶ Together, these values, assumptions and beliefs constituted a physical culture, but they did not arise spontaneously. Rather, they emerged and developed in a specific context that was discursively constructed. Discourses about the decline of white manhood in the West, perfectible bodies, and the criticality of discipline, high morale, and resilience to victory in modern war created a perceived need for systematic exercise in the Army. These discourses also inclined the organization to embrace certain solutions, namely Herman Koehler's Turner-based system. Activities included in that system came laden with meaning, and in practicing them members of the Army layered atop the exercises new and different meanings. The actual practice of physical training inculcated assumptions, values, and beliefs in participants. This made physical training a deployable tool for shaping people in ways beyond bodily strength and endurance. Thus, this study considers both the discourse on and practice of physical training in the period because both contributed to the Army physical culture's development.

Two more themes relevant to this study's methodology bear mentioning: influence vectors and agency. First, external sources of influence dominated in the Army physical culture's initial period of development. These external influences were resources upon which members of the Army could draw that both enabled and constrained their imaginations. After the core of the Army's systematic training-based physical culture coalesced, it became a resource upon which individuals and organizations external to the Army could draw. Over time, influence increasingly moved in two directions. This study is sensitive to the changing magnitude and direction of influence as it relates to exercise and its meanings. Second, individual actors decisively shaped the Army physical culture's character and path of development at various inflection points. This

³⁶ This draws on historian Joan Burbick's observation that "language about the body is saturated with culture." Joan Burbick, *Healing the Republic: The Language of Health and the Culture of Nationalism in Nineteenth-Century America* (Cambridge: Cambridge University Press, 1994), 3.

was not an abstract, amorphous culture that emerged solely from the accretion of popular thought and practice. Thus, this study acknowledges and highlights the tremendous influence of a select few people such as Herman Koehler, Joseph Raycroft, and Charles McCloy.

Physical training philosophy and practice share a mutually influential relationship, so this study draws chiefly on two overlapping types of sources. First, it uses actual physical training practices within the Army. The Army first published standardized, universal training guidance in 1914. Before that, many related systems published by several officers were in use. After 1914, doctrine began standardizing unit training practices. Published manuals supplemented by memoirs and articles in newspapers, periodicals, and professional journals enable a close study of the means employed to sculpt bodies. Except for East's monograph on Army physical readiness training, no focused study of these practices exists.

Second, this study uses the forums in which cultural producers proposed and debated practices to access the philosophy underlying and bound up in those practices. Professional journals are especially useful here. Within the military, key journals include the *Journal of the Military Service Institute* and the *Infantry Journal* (later *Army*). Journals serving the combat arms, especially the infantry, and the medical corps proved most sensitive to physical training issues. Outside the military, the *American Physical Education Review* (1896 - 1929) and its successors *The Journal of Health and Physical Education* (1930 - 1948) and the *Journal of the American Association for Health, Physical Education, and Recreation* (1949 - 1954) reveal discussions among physical educators. These professionals are important because they influenced the Army's philosophies and practices, sometimes through direct involvement, but often by helping set the intellectual and cultural context for military practice. Physical

educators also transmitted Army ideas and systems into wider American society, sometimes as promoters, sometimes as opponents.

Many sources needed for this analysis are published. Most of the unpublished sources reside in three locations: The United States Military Academy (USMA), Princeton University's library, and the National Archives. The USMA and its Department of Physical Education exerted an enormous influence on physical training philosophy and practice throughout most of the period under study. Historians have made little use of the Academy's files on physical training, except in exploring sport at USMA. Princeton University's library holds the papers of Dr. Joseph Raycroft, a Princeton faculty member and leader in the Commission on Training Camp Activities who played a deeply influential role in Army physical training during and after World War I. The National Archives hold files pertaining to wartime practices, physical training schools, Army boards responsible for writing and approving physical training policies, and extra-military spaces such as the Citizens' Military Training Camps, Victory Corps, the post-World War II Universal Military Training initiative, and President Eisenhower's President's Council on Youth Fitness.

This project's exploration of the official Army physical culture's evolution over the first half of the twentieth century proceeds chronologically. The first chapter, "Bodies and Battlefields: Contextualizing Martial Fitness for Modern War," argues that the Army's physical culture developed as a response to specific battlefield concerns and within the context of contemporary American culture. This argument begins with an analysis of the tactical problems created by improved weapons technology before World War I and the solutions military theorists proposed. A key theme in most of these solutions was the improvement of an army's and nation's human material. Human improvement as a concept drew on popular fitness cultures,

evolutionary science and racial pseudo-science, and experimentalist philosophy then dominant in American society and scholarship. More generally, it also echoed impulses toward order, systems, control, and moralizing in Progressivism, industrial management, and technological development. From the beginning, the Army's physical culture was about much more than a soldier's simple physical efficiency. It was also about cultivating desirable qualities, especially discipline; promoting an idealized warrior masculinity; and improving the moral fiber of individuals and units. Chapter one situates the soldier's body at the intersection between the battlefield, Progressive culture, physical education philosophy and pedagogy, and the components of the period's "crisis in masculinity." This chapter relies mainly on professional military and physical education journals, periodicals, physical training manuals published by Army officers, and secondary literature.

Chapter Two, "Origins of a U.S. Army Physical Culture, 1885-1916," examines the construction of the Army's first systems of exercise and the first deployments of the ideas bound up in those systems outside the military. This chapter shows how rational physical training philosophies, themselves cultural expressions, decisively shaped the Army's physical culture. Also visible are the ways in which the Army's physical culture began bending back and exerting influence on the larger societal context within which it formed. Debates inside the military about the nature of physical fitness, its value, and the best means for achieving come under analysis first. Exploration follows of the transnational roots of the Army's physical culture, pre-World War I systems promoted by physical training advocates, and the parallel development of training systems at USMA. Politicians, physical educators, Army officers, and other elites deployed the Army's emergent, systematic-training-based physical culture to support arguments about the need for improving American citizens' bodies as a matter of national security in an age of

American imperialism. Ultimately, linkages between individual bodies and national security bore implications for the nature of American citizenship and for state reach.

Army practices return to the fore in chapter three, “The U.S. Army’s Battle of the Systems, 1914-1920.” Before World War I, West Point’s Master of the Sword, Herman Koehler, and his disciplinary gymnastics largely defined the physical training in the U.S. Army. In 1917, war demands called hundreds of civilian educators into service. Civilian physical training directors, most notably Dr. Joseph Raycroft, replaced Koehler as hegemonic culture producers until 1920. These civilians changed the character of Army physical training and redefined fitness along the lines of functional combat efficiency and introduced now-familiar concepts such as measurable fitness standards. An analysis of the competing training systems’ manuals and of contemporary discussion in professional military and physical education journals provide the foundation for this chapter. Changes in the Army’s physical culture during wartime and the durability of its core components in peace also come under analysis. This chapter also investigates how the Army’s physical conditioning philosophy and practice reflected cultural assumptions about the role of man in modern war and his place on the modern battlefield. Largely as a result of efforts made by Raycroft and his team of civilians to refresh the Army’s approach to mass physical training and supplement its means of delivering that training, the Army’s physical culture proved adequate for these challenges.

Chapter four, “Reversion, Disaggregation, and ‘Prehabilitation,’ 1919-1940” shifts attention to the influence of the Army’s physical culture on American society in the interwar years. This chapter chronicles changes in the Army’s physical culture in the interwar years, along with its deployment elsewhere in the project of shaping good citizens. Wholesale reversion to Koehler’s physical culture, which was the greatest change in the period, is explained as being the

result of cultural preference and the earlier system's bureaucratic entrenchment. Other subjects for exploration include the debates about masculinized national health and analyzes the deployment of martial physical culture in practical and rhetorical ways to improve the body politic. Anxieties over national health, rooted in large draftee rejection rates during World War I and the Depression's devastating physical, psychic, and moral toll, framed those debates. Finally, chapter four explores deployments of the U.S. Army's physical culture's in American society through the Civilian Military Training Camps (CMTC) and Civilian Conservation Corps (CCC). Where the CMTC linked physical fitness with citizenship, the CCC also sculpted men's bodies and helped remasculinize their public and self-images, often under the direction of Army leaders.

Much like chapter three, chapter five ("Physical Cultures for Total War, 1936-1946") examines the development of the Army's physical culture during wartime. As in World War I, Army physical training underwent intense change during the war. Remarkably, the Army almost totally failed to retain lessons learned during its WWI experience. As a result, the officers and civilians responsible for physical training had to rapidly re-learn how to prepare a mass conscript force for war. The culture's emphasis returned to functional, combat-oriented training and its producers rediscovered standardized testing. Spurred by the need to draft an enormous army and by trends in civilian physical education, the Army's physical culture increasingly recognized different body types and degrees of ability during the war years. Again, professional physical fitness educators and athletic coaches, such as Theodore Bank and Charles McCloy, pushed changes based on state-of-the-art thought in the physical education community. However, these civilians operated within military structures to a greater degree than had their WWI predecessors. Their empirical, data-driven approach to crafting a physical training system with performance standards came to be hailed as the "new physical training concept" by later cultural producers.

Additionally, the creation of the Women's Army Auxiliary Corps (WAAC, later WAC) in 1942 and publication of a WAC physical training manual in 1943 provides a unique opportunity to analyze the Army's physical culture as a gendered construct. As in World War I, the Army's physical culture proved adequate and adaptable between 1940 and 1945, even if cultural inertia and a failure to sustain growth in the interwar years unnecessarily complicated the culture's evolution.

This study's sixth and final chapter ("Hard Bodies for a Cold War: Conditioning and Prehabilitation, 1945-1958") follows the Army's physical culture into the early Cold War years when its producers re-evaluated the need for and nature of fitness on the battlefield of the future. As in the late nineteenth century, the real and imagined battlefield implications of technological advances converged with cultural anxieties over American masculinity and physical fitness. On one hand, nuclear weapons and technology suggested to some the likelihood of "push-button" war in which the soldier's physical capacity barely factored. On the other, Korean War experiences and deep-rooted cultural convictions in the Army about the centrality of man in war suggested that physical training remained relevant, and that it might even be more necessary than ever. By 1958, the chief producers of the Army's physical culture came down firmly in support of the latter camp and reaffirmed the basic tenets of the Army's World War II-era physical culture. Fitness was not just a soldier's concern in the 1950's, though. Mass mobilization in World War II and the intense ideological struggle of the Cold War kept attention on civilian bodies and their training as well. Yet the acceptable and effective means by which the state could pursue the prehabilitation of its citizenry had changed considerably since the 1930s. This final chapter therefore also explores a series of federal efforts to enhance American fitness: the Victory Corps, proposals for Universal Military Training, and the President's Council on Youth

Fitness. American social, cultural, and political posturing against militarism and totalitarianism combined with a popular understanding of citizenship in which obligations factored less and less to reduce the appeal of martial prehabilitation and increase federal reliance “advisory state” approaches. Analyzing arguments for and against these programs, and the character of the programs that were implemented, helps illuminate the relationship between the Army’s physical culture and wider American society.

Chapter 1: Bodies and Battlefields: Contextualizing Martial Fitness for Modern War

Images of soldiers running, sweating, squatting, pushing, and pulling their way toward physical readiness are ubiquitous in the media and popular imagination today, so it may be surprising to learn that such activities have only officially and regularly been part of the U.S. soldier's life since 1914.¹ In that year, the U.S. Army published its *Manual of Physical Training*. This manual laid out for the first time in the Army's history a comprehensive, professionally developed, uniform system of exercise designed to occupy a permanent position in the training of America's soldiers. Major General Leonard Wood, then Chief of Staff of the Army, penned an introduction to this seminal document in which he asserted that "There is nothing in the education of the soldier of more vital importance than [physical training]."² Wood's words were undoubtedly genuine. The Chief of Staff was a famously active man, known especially as a companion of Theodore Roosevelt's in the "strenuous life." Hagiographies published about Wood in the lead-up to his 1920 presidential campaign invariably extolled his "magnificent health and robust physique" that resulted from making "part of the day's work to keep the body in trim."³ Yet this riding, rowing, and wrestling general officer was an abnormally avid physical culturist among his cohort of military leaders. Accordingly, his ideas on the importance of physical training were not universally held, especially among older officers. Wood's confident assertions about physical training's importance in 1914 should therefore also be read as an argument for a relatively new idea that still lacked total acceptance throughout the Army. Before

¹ Modern U.S. Army physical training practices continue to evolve. The most recent doctrinal publication on physical training, Training Circular 3-22.20 dates to 2010. The current Army Physical Fitness Test (APFT) consisting of a two-mile run and two minutes each of push-ups and sit-ups dates to 1980. Testing only became mandatory in 1963. As of this manuscript's completion in late 2018, Army officials have revealed a new six-event, age- and gender-neutral physical fitness test set to take effect in 2020.

² War Department, *Manual of Physical Training for Use in the United States Army* (New York: Military Publishing Co., 1914), 3.

³ Hermann Hagedorn, *That Human Being, Leonard Wood* (New York: Harcourt, Brace, and Howe, 1920), 11.

1914, the place of formal exercise systems in American military training practice was not determined, as highlighted by Wood's introduction to the 1914 manual. Physical training's benefits had been of a "negligible quantity" in the past, Wood argued, "owing to the absence of any well-defined authorized method of procedure"; that absence created conditions that "lacked system and uniformity."⁴ The Army's implementation of systematic physical training had indeed been haphazard and belated in relation to European militaries, and even to wider American society.⁵ In contrast with the boom in American interest in physical training immediately following the Civil War, efforts to incorporate physical training into standard Army practice did not gain traction until the 1880s and 1890s.

Understanding the system that emerged in 1914, and the patterns and dynamics in Army physical training philosophy and practice thereafter, requires an understanding of the broader context in which advocates conceived that system. At the turn of the century, social, intellectual, and cultural anxieties intersected with struggles to understand and prepare for combat on new battlefields rendered more dangerous and demanding than ever by technological developments. Physical training seemed to be a means by which to address all of these problems. Emerging physical training thought and practice inside the Army also corresponded with a simultaneous professionalization movement among physical educators. This chapter contextualizes the perceived need for, and form of, Army physical training in its earliest years.

That context begins with a set of social, intellectual, and cultural concerns that gripped Americans in the latter decades of the nineteenth century and the early decades of the twentieth.

⁴ War Department, *Manual of Physical Training for Use in the United States Army*, 3.

⁵ This was true even at the U.S. Military Academy. USMA introduced its first comprehensive program in 1859, but it was abandoned during the Civil War. Physical training did not return in a comprehensive way until the late 1870s. Whitfield B. East, *A Historical Review and Analysis of Army Physical Readiness Training and Assessment* (Ft. Leavenworth: Combat Studies Institute Press, 2013), 28-31.

These interlocking concerns produced a broad anxiety about the nation's human material. Speaking generally, this anxiety manifested in fears of degeneration and a loss of American virility and vitality. In a world often conceived of in terms of social Darwinism, the degeneration of a nation's human material was a critical problem, perhaps even an existential one. Of America's declining human material, men's bodies composed the most important portion. As historian Kristin Hoganson observes, Americans believed the health of the nation and the political system depended on the robustness of its men and their "manly character."⁶ Examination of the broader anxiety's basic parts and their interactions helps explain this proposition, the problems it posed for Americans generally, and the problems it posed for the U.S. Army specifically. This anxiety over the nation's human resources is especially interesting because it remains with us today, even if it manifests somewhat differently. Contemporary concerns about high obesity rates, the national security implications of those rates, and the billions of dollars Americans spend annually on diets and exercise all signal the enduring relevance of the body politic's fitness.

American men, and Western men in general, struggled to navigate a gender geography in flux in the late nineteenth century. The crisis was especially acute in white middle class America. The sources of this crisis were many, but class and economic issues were crucial. To a middle-class Victorian of the mid-nineteenth century, "manliness" had meant self-restraint, character, and a good work ethic. To these qualities, the American Civil War added military service and combat experience. This was the era of the "self-made man."⁷ In many ways, industrialization, corporations, management systems, depressions, and made the achievement of Victorian

⁶ Kristin L. Hoganson, *Fighting for American Manhood: How Gender Politics Provoked the Spanish-American and Philippine-American Wars* (New Haven: Yale University Press, 1998), 3.

⁷ E. Anthony Rotundo, "Body and Soul: Changing Ideals of American Middle-Class Manhood, 1770-1920," *Journal of Social History* 16, no. 4 (1983): 25-26.

manliness very difficult for many men. Fewer men were self-employed, more were trapped in sedentary clerical jobs, opportunities to prove oneself in war grew rare, and hard work and restraint did not insulate men against the effects of market failures beyond their control. Industrialization changed the nature of other jobs too by mechanizing production, seemingly integrating workers as pieces of a larger machine and sometimes relying less on male physicality. This transition, made especially visible in Frederick Taylor's time-and-motion studies, eroded men's ownership of their own time and labor. Meanwhile, urbanization packed Americans into less healthy environments. Men living in these conditions faced more competition for fewer prizes, along with less opportunity for self-mastery and independence in the workplace.⁸ Meanwhile, the western frontier's closure, once a man-making space at the border between primitiveness and civilization, denied men their classic option for regeneration.⁹

Even as middle-class men struggled to make themselves in a changing economy, many perceived threats from women suggested a "feminization" of modern man and of America. Women, it seemed, encroached everywhere in the traditional male sphere. Women increasingly entered the once male-exclusive working world in the late nineteenth century, denying men many workplaces as all-male preserves.¹⁰ More and more, women workers provided new competition for men, and men in most workplaces had to modify standards of behavior to account for women. Woman suffrage movements and other forms of political involvement, contemporaries argued, also denied men exclusive claims in the realm of politics.¹¹ Even as it

⁸ Ibid., *American Manhood: Transformations in Masculinity from the Revolution to the Modern Era* (New York: Basic Books, 1993), 248-50.

⁹ Frederick Jackson Turner, *The Frontier in American History* (New York: Henry Holt, 1920), 2-4; Michael S. Kimmel, *Manhood in America: A Cultural History*, 3rd ed. (New York: Oxford University Press, 2012), 87-89.

¹⁰ Kimmel, *Manhood in America: A Cultural History*, 87.

¹¹ Simultaneous threats came from working-class men and immigrants when political machines leveraged these populations' latent political power. See Gail Bederman, *Manliness & Civilization: A Cultural History of Gender and Race in the United States, 1880-1917* (Chicago: University of Chicago Press, 1995), 12-14; Kimmel, *Manhood in America: A Cultural History*, 82-83.

seemed that men's purview was shrinking, increasingly fewer men could claim political and social power on the grounds of military service in an era when men lacked a major war in which to "prove" themselves, unlike their Civil War-veteran fathers and grandfathers.¹²

Beyond politics and the workplace, changes in child-rearing and family life fanned fears of feminization. Economic changes relocated most men's place of work from the home to a more distant office or factory, so men spent less time in their roles as fathers and male models. The bonds between mothers and their children, and especially with their sons, grew simultaneously.¹³ Also, fewer male role models were available to American boys because women increasingly dominated the teaching profession. Men feared that women's growing control over the development of male children, and the consequent "regime of sugary benignity," would produce a generation of spoiled, physically weak, and morally suspect men.¹⁴ The period's rising consumer culture and its "ethos of pleasure and frivolity," in the words of historian Gail Bederman, further amplified an obsession widely held by American men with "softening."¹⁵

Fears shared by many white middle-class men about feminization manifested in another, related concern: "overcivilization." Fast living, feminization, and fewer opportunities for self-making threatened to make men too soft, too refined. In response, white middle-class men in the late nineteenth century increasingly celebrated the primitive. This strategy served a social and cultural purpose by defining distinctly masculine virtues as vital to the nation's vitality.¹⁶

¹² Hoganson, *Fighting for American Manhood: How Gender Politics Provoked the Spanish-American and Philippine-American Wars*, 109-16, 29-31.

¹³ Rotundo, "Body and Soul: Changing Ideals of American Middle-Class Manhood, 1770-1920," 30.

¹⁴ G. Stanley Hall, "Feminization in School and Home," *The World's Work* 16 (1908): 10238.

¹⁵ Bederman, *Manliness & Civilization: A Cultural History of Gender and Race in the United States, 1880-1917*, 13; German military theorist Wilhelm Balck spoke directly to this point in blaming the day's "fast manner of living" for the Western soldier's decline. See Wilhelm Balck, *Tactics*, trans. Walter Krueger, 4th ed., vol. 1 (Fort Leavenworth: U.S. Cavalry Association, 1911), 194.

¹⁶ Rotundo, *American Manhood: Transformations in Masculinity from the Revolution to the Modern Era*, 251-55; Bederman, *Manliness & Civilization: A Cultural History of Gender and Race in the United States, 1880-1917*, 16-17.

However, according to historian Gail Berderman “civilization” also had a racial meaning at the time. In this formulation, civilization was a stage of development beyond savagery or “barbarism.” Anglo-Saxons had achieved their advanced status as a civilized people through a long Darwinian struggle.¹⁷ Overcivilization’s chief threat in this sense was that soft men made for a soft race, a race unworthy of the evolutionary ladder’s top position. Industrialization, urbanization, and the frontier’s closure denied men traditional sources of struggle and hardening, demanding that new spaces be found and new methods developed.

By the turn of the century, many white men, especially those of the middle-class, began defining manhood bodily in response to this complex of anxieties. In this corporeal configuration, an unstable, performative “masculinity” increasingly displaced the earlier inward-focused ideal of a self-made man.¹⁸ More and more, proving one’s masculinity demanded constant effort and visible proof. The earlier ideal of a self-made man had acquired a physical element by the late 1870s as an outward manifestation of inner strength. However, by the turn-of-the-century men tended to view physicality as an end to be pursued rather than as a natural byproduct of proper manhood. Men may have doubted the possibility of achieving their forefather’s manly virtues, but through gymnasium work they could at least produce the appearance of a virtuous inner life.¹⁹ In the best-case scenario, such work might even strengthen morals as it strengthened muscles.

An irony of the turn toward a more bodily-centered masculinity was that American men simultaneously grew more anxious about their bodies and physical capacities. Men viewed as

¹⁷ *Manliness & Civilization: A Cultural History of Gender and Race in the United States, 1880-1917*, 26-31, 77-84.

¹⁸ Rotundo, "Body and Soul: Changing Ideals of American Middle-Class Manhood, 1770-1920," 29; Kimmel, *Manhood in America: A Cultural History*, 119-20; Berderman, *Manliness & Civilization: A Cultural History of Gender and Race in the United States, 1880-1917*, 18-19.

¹⁹ John F. Kasson, *Houdini, Tarzan, and the Perfect Man: The White Male Body and the Challenge of Modernity in America* (New York: Hill and Wang, 2001), 28-30.

increasingly effeminate, overcivilized, and living soft lives in mentally over-stimulating modern society seemed prone to breaking. Americans quickly invented a medical diagnosis for this culturally based fear: neurasthenia. Though the idea of nervous disease had been discussed since at least the 1830s, it became well-defined as an important problem, even a “near epidemic,” in the 1880s after the publication of George Beard’s book *American Nervousness*.²⁰ Beard defined nervousness not as a mental illness or an excess of emotion, but simply “nervelessness—a lack of nerve force.” Extreme nervousness led to neurasthenia, or “nervous exhaustion.”²¹ Beard employed bank account and battery metaphors to explain the condition. Some people were blessed with large accounts or batteries (reserves of nerve energy), and others made due with little. In either case, drawing too much on those accounts or batteries led to bankruptcy or depletion. Nervousness manifested in a wide range of symptoms ranging from dyspepsia and fatigue to premature baldness.²² Its appearance nearly everywhere in America should therefore, according to Beard, not be surprising.

Beard chiefly blamed modern civilization for American’s susceptibility to nervous exhaustion in the late nineteenth century.²³ He argued that constant activity brought on by steam power, the telegraph, the periodical press, social institutions, and the “indulgence of appetites and passions” overstimulated men, especially “brain workers.”²⁴ At the same time, men’s physical activity decreased both due to economic changes that required less manual labor and to

²⁰ Harvey Green, *Fit for America: Health, Fitness, Sport, and American Society* (New York: Pantheon Books, 1986), 137-39; “near epidemic” from Bederman, *Manliness & Civilization: A Cultural History of Gender and Race in the United States, 1880-1917*, 85.

²¹ George M. Beard, *American Nervousness: Its Causes and Consequences* (New York: Putnam, 1881), 5-6.

²² *Ibid.*, viii.

²³ Permutations of Beard’s “American nervousness” and neurasthenia appeared in European societies also, especially France, Britain, and Germany. See Antulio J. Echevarria, “The ‘Cult of the Offensive’ Revisited: Confronting Technological Change before the Great War,” *Journal of Strategic Studies* 25, no. 1 (2002): 205-07.

²⁴ Beard, *American Nervousness: Its Causes and Consequences*, vi, “brain workers” on ix.

increasing culture and refinement. Confronted with constant overstimulation, these weakening bodies possessed smaller reserves of nerve energy. Beard saw the signs of this pernicious problem everywhere, even in the American man's reduced capacity to hold his liquor, as evidenced by his poor "bottle-power" in comparison to an English man.²⁵ Neurasthenia was, however, not only a problem but also something of a badge of distinction because only the most civilized peoples (a concept freighted with cultural and racial meaning) were susceptible to its force. Neurasthenia did not seem to afflict more "primitive" peoples, those whose passionate and powerful manhood, according to Beard, both strengthened bodies and disqualified them for civilization.²⁶ Beard's solution was not to throw out civilization, but rather to leverage its tools to develop new technologies and social customs productive of "strength and vigor."²⁷

Yet embedded in the neurasthenia concept was a potential solution. If bodies could degenerate, they could also regenerate. Methods designed to encourage regeneration varied widely and came from multiple sources. One of the more famous proposals came from G. Stanley Hall, an American educator and vocal expert on psychology and pedagogy. He argued beginning in the late 1880s that educators could utilize "recapitulation" to help American boys. Hall's recapitulation theory presumed an evolutionary ladder up which human races could progress. Anglo-Saxons had supposedly reached the top rungs, but the modern world denied them the chance to experience the highly physical and passionate earlier stages. Anglo-Saxons therefore grew up intelligent, but lacking in passion and power, making them susceptible to neurasthenia. Hall proposed encouraging "primitivism" and "savagery" in young boys by allowing misbehavior, reading bloody stories, and even fighting in controlled environments. This

²⁵ Ibid., 35.

²⁶ Bederman, *Manliness & Civilization: A Cultural History of Gender and Race in the United States, 1880-1917*, 84-88.

²⁷ Beard, *American Nervousness: Its Causes and Consequences*, ix.

process supposedly molded boys into men while inoculating them against the degenerative forces of modern civilization.²⁸

More visible signs of regeneration efforts appeared in America's late-nineteenth and early twentieth-century physical culture. This culture, in line with the period's bodily focused masculinity, promoted sport, health remedies, body building, and more. With the right diet and exercise, men could cultivate proportions like Eugen Sandow, the world's "perfect man."²⁹ Americans could harness science and hard work engineer their bodies so as to appear strong and vital, and in the process cultivate those same qualities. The idea was not to turn back the clock to an idealized earlier time, but to leverage modernity's tools to fashion new ways of fitting civilized men to a new time.

Biological thought translated these broad cultural anxieties spurred by economic, social, geographic, and political change into a national crisis. Although Charles Darwin's 1859 book *The Origin of Species* made no attempt to apply evolution to explain the behavior of people or groups, many Americans and Europeans did just that from the 1870s to the early twentieth century. Social sciences and politics informed by biological concepts framed global politics as a struggle for survival in a world ruled by the iron law of natural selection.³⁰ National survival in such a world depended simply on strength, the definition of which contained racial and gender

²⁸ For more on recapitulation, see Bederman, *Manliness & Civilization: A Cultural History of Gender and Race in the United States, 1880-1917*, 88-101.

²⁹ James C. Whorton, *Crusaders for Fitness: The History of American Health Reformers* (Princeton: Princeton University Press, 1982), 271-94; Joanna Bourke, *Dismembering the Male: Men's Bodies, Britain and the Great War* (Chicago: University of Chicago Press, 1996), 171-74; Kasson, *Houdini, Tarzan, and the Perfect Man: The White Male Body and the Challenge of Modernity in America*, 7, 29, 49; Roberta J. Park, "Healthy, Moral, and Strong: Educational Views of Exercise and Athletics in Nineteenth-Century America," in *Fitness in American Culture: Images of Health, Sport, and the Body, 1830-1940*, ed. Kathryn Grover (Amherst: University of Massachusetts Press, 1989), 123, 46-58.

³⁰ Scholars often refer to this body of ideas as "Social Darwinism," though the term is problematic because of the diverse, often paradoxical conclusions biological thought produced in social sciences. For a brief but thorough exploration of the term, see Daniel Becquemont, "Social Darwinism: From Reality to Myth and from Myth to Reality," *Studies in History and Philosophy of Science* 42, no. 1: 12-19.

components. American power therefore depended upon the strength of white American men—the exact population whose masculinity the modern world seemed to threaten most.³¹ War thus held a paradoxical significance in late-nineteenth-century American thought. On one hand, war posed a threat to national survival if American manhood was indeed weakening. This was especially true given the likelihood of massive conscription in the imagined wars of the future because a broad swath of the male population needed to be fit to fight. On the other hand, war could also be a vehicle for toughening the latest generation of American men, who were denied both a frontier and their forefathers' crucible of combat. In either case, biological thought heightened the national significance of strong male bodies.

Doubts about the strength, character, toughness, and vigor of American men were of particular concern to many young officers in the U.S. Army because those doubts coincided with specific military concerns over the changing nature of combat developing simultaneously. Such change owed chiefly to advances in weapons technology such as smokeless powder, high explosive, rifling, small arms magazine loading systems, and quick-firing systems for artillery. Taken together, these advances increased the range and lethality of artillery pieces and made the ordinary infantryman a much deadlier combatant. Equipped with a small caliber, breech-loading, magazine-fed rifle, the infantryman of the late nineteenth century could carry more ammunition and achieve a higher rate of fire with greater accuracy than could his predecessor of just a few decades. An infantryman could do this all from the prone position, or within field fortifications, which enhanced his chances of survival. So long as he remained immobile, smokeless powder

³¹ Hoganson, *Fighting for American Manhood: How Gender Politics Provoked the Spanish-American and Philippine-American Wars*, 12-13; Carl N. Degler, *In Search of Human Nature: The Decline and Revival of Darwinism in American Social Thought* (New York: Oxford University Press, 1991), 14-15; Becquemont, "Social Darwinism: From Reality to Myth and from Myth to Reality," 16.

rendered him practically invisible. In short, modern small arms and artillery ushered the earlier age's densely packed ranks of colorfully uniformed troops into a deadly obsolescence.³²

Battlefields changed along with combat. New weapons and technologies imposed a new tactical geometry. Rifling, high explosives, and smokeless powder extended the effective range of small arms and artillery. As ranges grew, so too did the lethal zone before defensive positions that attackers had to cross. Longer distances increased the time troops in an assault spent exposed to fire, which also increased the period of time over which morale deteriorated. Defenders using rapid-firing weaponry generated volumes of firepower equal or superior to that generated by much larger units in earlier eras, but with fewer soldiers. Troop densities on typical battlefields thus plummeted, falling from one man per 257 square meters during the American Civil War to one per 2,457 in World War I.³³ For attacking soldiers, survival on this ever-more-lethal battlefield depended on dispersion. But while spreading out and seeking cover may have preserved lives, it also damaged morale by denying soldiers the support and mutual observation of their comrades. Dispersal also limited leaders' ability to control units and sustain the momentum of an attack. With friend and foe alike invisible, individual soldiers found themselves isolated, vulnerable, and rooted in place. Additionally, the effects of these munitions on the human body yielded increased physical, mental, and emotional trauma, placing even greater demands on the body than in earlier eras.

Military leaders and theoreticians in the latter third of the nineteenth century were keenly aware of the challenges posed by these new weapons technologies and battlefield modifications.

³² James J. Schneider, "The Theory of the Empty Battlefield," *Royal United Services Institute for Defence Studies Journal* 132, no. 3 (1987): 37-38; Michael Howard, "Men against Fire: The Doctrine of the Offensive in 1914," in *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, ed. Peter Paret (Princeton: Princeton University Press, 1986), 511.

³³ Schneider, "The Theory of the Empty Battlefield," 37.

Indeed, the limitations on offensive maneuver at the tactical level became the “tactical problem of the day” in the aftermath of the Franco-Prussian War (1870-1).³⁴ Some theoreticians argued that the defense’s superiority was so great as to be insurmountable, at least in the near term. Jan Bloch is the best-known representative of this school. In his book *Is War Now Impossible?* and his earlier multi-volume study, Bloch argued that the defensive superiority generated by new weapons technologies would yield a bloody stalemate on a vast battlefield. Victory in such a war hinged on exhausting the enemy’s economic resources and reserves of will. In Bloch’s formulation, the use of force had little utility in national policy.

The argument advanced by Bloch and other like-minded theoreticians never earned a place in the period’s mainstream of military thought. Military leaders simply could not accept such a hopeless future. Successful offensive strategies depended upon an army’s ability to succeed on the tactical offensive, at least sometimes. Dominant Napoleonic and Prussian models guided the thoughts of most European and American theoreticians in the late-nineteenth century. The Napoleonic and Prussian models demanded aggressive action to achieve conclusive results. The alternative, theoreticians argued, was passivity and a return to the indecisive wars of the seventeenth and eighteenth centuries.³⁵ The battlefield may have become deadlier, but to most military thinkers this was just another surmountable obstacle. No complete consensus on the best solution to the new battlefield’s tactical problems emerged, but a dominant intellectual position formed between 1870 and 1914. Some historians have labeled this position the “cult of the offensive,” though the term is misleading because it characterizes turn-of-the-century military

³⁴ Echevarria, "The 'Cult of the Offensive' Revisited: Confronting Technological Change before the Great War," 202.

³⁵ Azar Gat, *The Development of Military Thought: The Nineteenth Century* (Oxford: Clarendon Press, 1992), 138; Perry D. Jamieson, *Crossing the Deadly Ground: United States Army Tactics, 1865-1899* (Tuscaloosa: University of Alabama Press, 1994), 75-76.

leaders as irrational, self-defeating, and ignorant.³⁶ Military leaders and theorists were not ignorant or irrational. Rather, they were trying to solve massive problems with the material, intellectual, and cultural resources at hand, and some were unfortunately slow learners.

The solutions these theorists proposed derived generally from two propositions. First, theorists argued that weapons technology benefitted the attacker as much as the defender. Colonel G. F. R. Henderson, an influential British military theorist at the turn of the century, advanced ideas typical of this position: “Neither smokeless powder nor the magazine rifle will necessitate any radical change. If the defence has gained, as has been asserted, by these innovations, the plunging fire of rifled howitzers will add a more than proportional strength to the attack.”³⁷ Simply put, the advantages accruing to the offense and defense through technological innovation canceled each other out. Second, theorists turned to a constant in war: man. Henderson made this argument too. Magazine rifles and other innovations “introduced a new and formidable element into battle,” he wrote, but “the moral element still remains the same. Weapons improve, but human nature remains the same.”³⁸

Moral forces run as *the* key thread in turn-of-the-century military literature.³⁹ Depending upon context, the concept held two closely related meanings. Moral forces referred to a wide range of intangibles, including morale, the feeling of confidence present in a force, skill, training, resilience, judgment, or the “inherent strength of [an army’s] national character.”⁴⁰ Moral forces did not represent a new idea in military literature. Clausewitz emphasized them in his writing, for

³⁶ For an overview and critique of the cult of the offensive’s historiography, see Echevarria, “The ‘Cult of the Offensive’ Revisited: Confronting Technological Change before the Great War,” 199-201.

³⁷ G. F. R. Henderson, *The Science of War: A Collection of Essays and Lectures, 1891-1903* (London: Longmans, Green, and Co., 1906), 159.

³⁸ *Ibid.*, 160.

³⁹ Howard, “Men against Fire: The Doctrine of the Offensive in 1914,” 515.

⁴⁰ Echevarria, “The ‘Cult of the Offensive’ Revisited: Confronting Technological Change before the Great War,” 200-01.

instance, and many authors before him paid moral force close attention too. However, these forces assumed a marked prominence in the late nineteenth century following from the technology-imposed tactical stalemate that Bloch predicted and many feared. Victory in battle inclines to the side capable of generating greater combat power at the decisive point. Combat power derives from troop numbers, force capabilities such as firepower and mobility, and intangible moral factors. If theoreticians were correct in asserting that technological innovations offset one another, then moral forces could provide the crucial relative advantage victory demanded.

The writings of French Colonel Charles Ardant du Picq epitomize the turn-of-the-century military thought that awarded moral forces the key role in battlefield victory. Ardant du Picq, whose service as an infantry officer began in 1844, recognized the changes new weapons technology wrought on the battlefield. However, Ardant du Picq rejected technology as the key determinant in battle. Instead, he emphasized man. Based upon his study of ancient battle and his modern experience, Ardant du Picq argued that “in battle, two moral forces, even more than two material forces, are in conflict. The stronger conquers.”⁴¹ Ardant du Picq did not believe those moral forces came from destructive power. Instead, moral forces derived from confidence, resolution, and “threatening power” in the form of fresh reserves or forces on the enemy’s flank or in his rear.⁴² Men needed to be made strong in order to project moral force against the enemy, and to resist the terror and fear inherent in combat. Ardant du Picq advanced several methods to improve an army’s moral force, but discipline was his central theme. Ardant du Picq defined discipline as a “state of mind” and a “social institution” built over time that “made men fight in

⁴¹ Charles Ardant du Picq, *Battle Studies: Ancient and Modern Battle*, trans. John N. Greely and Robert C. Cotton, 8th ed. (1921), 123.

⁴² *Ibid.*, 123-24.

spite of themselves.”⁴³ Nations and armies needed to find new means by which to instill discipline, and thereby attain superior moral force.

A Prussian artillery shell fired near Metz in August 1870 cut short Ardant du Picq’s career as a military theorist. His book, *Battle Studies*, was published posthumously and achieved wide readership and influence in the French military with its second edition in 1903.⁴⁴ Ardant du Picq’s writing resonated with the pre-1914 generation of military officers who were preoccupied with similar tactical problems. *Battle Studies* did not decisively impact military thought before 1903, but Ardant du Picq’s work was representative of a broader, transnational trend in military thought at the dawn of the twentieth century. Just as in France, most military theorists in Britain, Germany, the United States, and elsewhere promoted moral forces as essential to victory on the modern battlefield.⁴⁵

Military thinkers could draw on more than abstract theory to support their conclusions about tactics and moral forces. Wars fought by European powers between 1870 and 1914 furnished practical experience open to interpretation. The Franco-Prussian War of 1870-1871 that claimed Ardant du Picq’s life provided the first major data point. French and Prussian forces employed similar weapons technology and tactics, though the extended order’s value remained open to question. Prussian officer Major Wilhelm von Sherff, writing from experience in the Franco-Prussian War, highlighted the debate between “new” and “old” tactics. Sherff and likeminded military men argued that rifling required forces on the offensive to adopt an extended or “individual” order or else suffer catastrophic losses, but that new weapons also enabled loose formations to achieve a sufficiently high rate and volume of fire at a given point to triumph over

⁴³ Ibid., 111.

⁴⁴ Gat, *The Development of Military Thought: The Nineteenth Century*, 140.

⁴⁵ Howard, “Men against Fire: The Doctrine of the Offensive in 1914,” 514-22.

a more tightly packed opponent. For Sherff and others like him, the offensive was still alive and preferable.⁴⁶ Armies needed “new” tactics to make the offensive work, and those tactics hinged on improving individual soldiers through training in order to offset the psychological penalties of the empty battlefield. Furthermore, if French and Prussian forces were fairly evenly matched in terms of technology and tactics, then perhaps men were the determining factor.

Not everyone agreed with the conclusions Sherff and others drew from the Franco-Prussian War. Advocates of what Sherff termed “old” tactics defended the continued relevance of close order on the basis of moral forces. Only in close-order and under the control of leaders, advocates argued, could men face the terror of battle and still advance. However, close order did not mean quite the same thing by the late nineteenth century as it did in the Napoleonic wars, or in the American Civil War. Where the old basic unit had been the battalion or even regiment, the basic unit in later close-order systems was the platoon or company. These smaller formations allowed for greater flexibility in employment and would have been well-spaced on the battlefield. In such a system, close order did not mean marching toward the enemy shoulder-to-shoulder, but advancing in longer, thinner lines at a quick walk or run while making use of available cover.⁴⁷

The British experience in the Anglo-Boer War (1899-1902) challenged the old close order orthodoxy, even in its updated form. On the veldt, hidden Boer defenders decimated British formations that advanced in tight formations and relied on cold steel. British Colonel G. F. R. Henderson, who observed part of the campaign and had earlier argued that new technologies benefitted the offense and defense equally, responded to continental criticism of the

⁴⁶ Wilhelm Karl Friedrich Gustav von Sherff, *The New Tactics of Infantry*, trans. Lumley Graham (Leavenworth: C. J. Smith & Co., Printers, 1891), 17-18, 20-23.

⁴⁷ John A. English, *On Infantry*, rev. ed. (Westport: Praeger, 1994), 4-5.

British army by pointing out that “the flat trajectory of the small-bore rifle, together with the invisibility of the man who uses it, has wrought a complete revolution in the art of fighting battles.”⁴⁸ Henderson insisted that infantry now had to attack in successive lines of skirmishers in an extended order. Henderson observed that troops in close order might achieve a local numerical superiority, but he argued that those formations would take enormous losses that would likely undermine the close-order formation’s moral power.⁴⁹ As a result of the British experience in South Africa, contemporary military thought swung toward open-order formations as the solution to the old problem of crossing the deadly zone, a zone which continued expanding due to progressive improvements in weapons technology.

Infantry actions in the Russo-Japanese War (1904-1905) stalled, then reversed the Boer War-induced swing toward skirmishing. Western military theorists and leaders could dismiss the Anglo-Boer War as abnormal, or as a brawl between an army geared for colonial warfare and an irregular opponent. In contrast, the Russo-Japanese War pitted two modern militaries equipped with modern weaponry against one another. Even if the Japanese were considered racial inferiors, their German-provided training and largely Westernized military practices made them near-peer competitors in the eyes of most European military thinkers. The ensuing combat closely approximated the future of battle many theorists had earlier envisioned.⁵⁰ Military leaders seeking the offense’s continued viability found much on Manchuria’s and Korea’s battlefields to support their theories. The Japanese army in particular furnished examples of successful infantry assaults on entrenched positions. Artillery fire did not eject Russian defenders from their trenches, but close infantry combat did. Commonly, infantrymen sapped their way forward

⁴⁸ Henderson, *The Science of War: A Collection of Essays and Lectures, 1891-1903*, 371.

⁴⁹ *Ibid.*, 373-74.

⁵⁰ Howard, "Men against Fire: The Doctrine of the Offensive in 1914," 517.

toward enemy defenses over several nights under the cover of darkness. Once in position and receiving supporting fire, Japanese infantry charged forward in mass to overwhelm their opponents at close quarters. In some ways, this experience upset part of Ardant du Picq's theory. Ardant du Picq argued that little *actual* close combat occurred because one side or the other would break purely on the basis of moral force. However, the modern battlefield created an environment in which close combat occurred often because lethal fires kept troops fixed in their entrenchments and unable or unwilling to flee in the face of an assault.⁵¹ Close combat in entrenchments thus added a new layer to existing theories about the criticality of moral forces. Now soldiers needed not only superior moral force to engage the enemy, but also superior physical force to defeat him in individual combat and eject him from defensive works.

Archibald Becke, a former British Army officer and an author of several historical works, captured the most widespread and persuasive pre-World War I interpretation of Russo-Japanese War tactics in his 1909 book *An Introduction to the History of Tactics, 1740-1905*.⁵² Like many military theorists of his time, Becke concluded that the attack was much preferable to the defense, and that offensive action was still possible on the modern battlefield. Becke argued that artillery and supporting infantry fires were necessary in an attack, but that Japanese success hinged on the Japanese soldier's superior "*fighting power*," which derived from his high levels of "training, courage, intelligence, self-reliance, and patriotism."⁵³ Positions and weapons were not

⁵¹ Echevarria, "The 'Cult of the Offensive' Revisited: Confronting Technological Change before the Great War," 204-05.

⁵² The lessons derived from this interpretation most heavily influenced the tactical thought and practice of Western militaries in 1914. Studies of the Balkan Wars of 1912 and 1913 may have refuted some of these lessons, but World War I exploded before many militaries had time to process Balkan Wars experiences. English, *On Infantry*, 7.

⁵³ Archibald F. Becke, *An Introduction to the History of Tactics, 1740-1905* (London: Hugh Rees, Limited, 1909), 95.

decisive in war, he argued, but rather the *men* who occupied those positions and used those weapons. This exhortation echoed throughout military theory since at least 1870.

The Japanese army suffered heavy casualties even with superior fighting power. Becke and many of his contemporaries accepted these high casualty rates as the price of victory on the modern battlefield. For instance, Colonel Frederic Maude, one of Becke's contemporaries, argued that successful assaults depended on soldiers being trained to "know how to die" and not "how to avoid dying."⁵⁴ Becke and others extended this need for bloody-mindedness beyond soldiers and their superiors to the whole people of a state. If people wanted victory, and a decisive one especially, then they had to be willing to pay the price.⁵⁵ Predictions about a major future war's nature reinforced the need to steel not only soldiers, but also the whole citizenry. Bloch and others forecast a protracted, attritional struggle. In such a war, conscription would fill the military ranks. Widespread conscription brought the human cost of war home to a society. Conscription also meant that most soldiers would have little time to prepare before finding themselves on a very lethal battlefield.

On the eve of WWI, a half-century of military thought grounded in experiences on the battlefields of Europe, Asia, and Africa suggested a few key lessons. Of these, the most significant was that the offense remained possible and desirable. Despite rifling, smokeless powder, small arms magazines, and other technological developments, even frontal assaults made by infantry against entrenchments could succeed if certain conditions were met. For instance, soldiers might follow the Japanese example and patiently sap their way toward enemy trenches, and properly timed and coordinated offensive artillery fires could suppress defenders.

⁵⁴ Frederic N. Maude, *Notes on the Evolution of Infantry Tactics* (London: William Clowes and Sons, Limited, 1905), 146.

⁵⁵ Becke, *An Introduction to the History of Tactics, 1740-1905*, 65.

However important these preparations were, though, the key determinant of success was man, and specifically the concentration of *moral* forces at a critical point. Superior moral forces derived from the discipline, resilience, and psychology of individuals and units. The new battlefield posed a serious challenge to this formula, though. How could militaries sustain or improve their moral forces, and those of a whole nation, in the face of higher casualty rates and more challenging battlefield conditions without traditional means such as close order formations and tactics?

Historians have since proposed several ways by which modern militaries sought to improve their human material. For example, some argue that a mystical (and irrational) reverence for the offensive seized military leaders, civilian elites, and publics in the decades leading up to World War I. This reverence produced a “cult of the offensive” in which military and civilian elites in Germany, France, Britain, and elsewhere blindly promoted the offensive on the basis of myth. The cult simultaneously generated security dilemmas while predisposing elites to logics that preferred war in order to address those dilemmas.⁵⁶ In this formulation, the self-deception underwriting the cult of the offensive was as a means by which militaries and states improved their human material psychologically by teaching soldiers and citizens to accept the offensive’s horrors in hopes of securing victory.

Michael Howard and Antulio Echevarria, among others, disagree with the accusation of blind ignorance at the heart of the “cult of the offensive” argument. Both insist that military and political leaders understood the new battlefield’s challenges and the likely consequences of an offensive. Indeed, military leaders followed a “compelling rationale” in emphasizing the

⁵⁶ For a concise statement of the “cult of the offensive” argument and a guide to further reading, see Stephen Van Evera, “The Cult of the Offensive and the Origins of the First World War,” *International Security* 9, no. 1 (1984).

offensive spirit.⁵⁷ Armies needed the ability to attack at the tactical level in order to achieve offensive or defensive objectives at the operational and strategic levels, and attacking meant crossing the deadly zone. Such a passage demanded disciplined, confident soldiers and a resilient population along with firepower and appropriate tactics.

Howard and Echevarria only lightly address the tools militaries used to improve their human material in the quest for superior moral forces, though. Howard fingers doctrine. Doctrine could predispose officers and men toward attacking and instill the confidence necessary to succeed in spite of heavy losses. Howard finds that a common sentiment pervaded the doctrines of most European armies in the years before World War I, one perhaps best expressed by French colonel Louis de Grandmaison in 1911: the offensive depended upon “cultivating with passion everything that bears the stamp of the offensive spirit. We must take it to excess: perhaps even that will not go far enough.”⁵⁸ Howard interprets Grandmaison’s assertions as an intentional action based on a realistic assessment of probable battlefield conditions, not as an expression of an irrational “cult” of thought. Echevarria points to a more concrete, though narrow, method of improving human material: weapons drills. Echevarria argues that fire discipline training, especially for machinegun crews, developed confidence and a union of man and machine that kept soldiers focused on a definite task under stressful battlefield conditions.⁵⁹

Despite Howard’s and Echevarria’s discussions of offensive cults and weapons drills, they and other historians have overlooked another tool nearly every modern military force leveraged at the turn of the twentieth century—physical training. This tool was more concrete

⁵⁷ Howard, "Men against Fire: The Doctrine of the Offensive in 1914," 510-11; Echevarria, "The 'Cult of the Offensive' Revisited: Confronting Technological Change before the Great War," 199-202, "compelling rationale" on 01.

⁵⁸ Quoted in Howard, "Men against Fire: The Doctrine of the Offensive in 1914," 520.

⁵⁹ Echevarria, "The 'Cult of the Offensive' Revisited: Confronting Technological Change before the Great War," 208-09.

than doctrine and more widely applicable than weapons drills. In the period's tactical ferment and foment, military theorists and leaders sought solutions within their cultural environments. Contemporary ideas about the relationship among the body, mind, and spirit, and about the nature of masculinity, informed the thoughts of military leaders seeking to improve an army's human material. As U.S. Army leaders scoured their cultural terrain in search of an answer to the "tactical problem of the day," they encountered programs designed to sculpt bodies in specific ways grew in popularity in the latter half of the nineteenth century. Many of these programs were rooted in martial purposes or bore a martial edge. Physical training promised not only to make the individual soldier's body stronger, but also to discipline individuals and units, to strengthen an organization's moral force. Physical training also held wide appeal outside the military, unlike weapons drills. This appeal was important because it seemed to offer a way to make whole populations stronger and more resilient, thus preparing them for the demands of a future war in which success probably depended on heavy conscription. The specific means by which the U.S. Army in particular came to value physical training is the story of the next chapter. Before that, we need to link U.S. Army leaders and the wider cultural environment in which they thought and worked.

In that cultural environment, military leaders confronted a problem when emphasizing man as the key to victory on the modern battlefield: widespread anxieties that modern man was just not as strong, motivated, resilient, and self-sacrificial as his forebears. German military officer and author Wilhelm Balck addressed this issue directly in his 1908 treatise on tactics, in which he argued that units appeared to be growing more brittle. Where units in the Franco-Prussian War could sustain 25-33 percent casualties and function, similar sized units in the Boer

War seemed unable to sustain casualties above about seven percent.⁶⁰ Balck explained that the “nerve-racking impressions of the battlefield” had grown over the recent decades owing to extended lines, the suddenness of entering combat, and the decreasing ability of officers to control dispersed formations. However, individual soldiers were also growing more susceptible to the battlefield’s impressions. “Steadily improving standards of living,” Balck observed, “tend to increase the instinct of self-preservation and to diminish the spirit of self-sacrifice.” Also, the simple “physical powers of the human species” were “partly diminishing.”⁶¹ Balck’s observation lays bare an interaction between the period’s “tactical problem of the day” and one of its major cultural phenomena—a crisis of masculinity.

Army officers seeking to improve the military’s human material, and perhaps the nation’s as well, had access to tools present in American society and culture. There, fears of degeneration had spurred the development of regenerative means, many of which involved bodily improvement. These ideas held obvious martial potential. Early advocates of “scientific” physical training for the Army were therefore not thinking, speaking, and writing in a vacuum. Instead, they belonged to and were surrounded by the booming American physical culture composed of popular and professional elements.

The people and organizations shaping popular physical culture were many and varied. For instance, the “Muscular Christianity” movement encouraged bodily improvement as a means of developing character, manliness, and the vigor necessary to work in arduous mission fields at home and abroad. The movement’s millennial message held that man was responsible for his

⁶⁰ Balck, *Tactics*, 1, 194.

⁶¹ *Ibid.*, 194-95.

own salvation and that he could approach perfection through training of body and soul.⁶² The contours of popular physical culture were also made visible in the period's plethora of health and fitness magazines. Featuring increasingly risqué cover art and photos, these magazines promoted a wide variety of exercise programs, diets, daily practices, and more for both men and women that ranged from pure quackery to cutting-edge science. Magazines also provided an advertising vehicle for makers of tonics, "parlor gymnasium" equipment, and books on exercise.⁶³ Bernarr Macfadden's *Physical Culture* epitomized the genre, though several predecessors pre-dated its rise in the 1890s.⁶⁴ Exercise crazes such as bicycling, Indian clubs, wall-climbing, and more regularly gripped the American public in this period, too. Gymnastic and calisthenic exercise systems also competed for the favor of the American public. Most of these systems originated in Europe, two of the most popular examples being Swedish gymnastics and German Turner gymnastics. Dudley Sargent's American individual strength training machine system entered the competition near the turn of the century too, though it assumed a distant third place.⁶⁵ A construction boom accompanied the boom of interest in physical health. Public gyms, many

⁶² Muscular Christianity originated in England in the first half of the nineteenth century and migrated to America, chiefly the northeast, beginning in the 1850s. Harvey Green, "Introduction," in *Fitness in American Culture: Images of Health, Sport, and the Body, 1830-1940*, ed. Kathryn Grover (Amherst: University of Massachusetts Press, 1989); Whorton, *Crusaders for Fitness: The History of American Health Reformers*, 271; For a thorough analysis of the movement, see Clifford Putney, *Muscular Christianity: Manhood and Sports in Protestant America, 1880-1920* (Cambridge: Harvard University Press, 2001).

⁶³ Green, *Fit for America: Health, Fitness, Sport, and American Society*, 195-97; T. J. Jackson Lears, "American Advertising and the Reconstruction of the Body, 1880-1930," in *Fitness in American Culture: Images of Health, Sport, and the Body, 1830-1940*, ed. Kathryn Grover (Amherst: University of Massachusetts Press, 1989).

⁶⁴ Macfadden and his magazine are the subject of many studies. See, for example, Mark Adams, *Mr. America: How Muscular Millionaire Bernarr Macfadden Transformed the Nation through Sex, Salad, and the Ultimate Starvation Diet* (New York: Harper, 2009); Lisa Robin Grunberger, *Bernarr Macfadden's "Physical Culture": Muscles, Morals, and the Millennium* (University of Chicago, 1997); Robert Ernst, *Weakness Is a Crime: The Life of Bernarr Macfadden* (Garden City: Syracuse University Press, 1991); William R. Hunt, *Body Love: The Amazing Career of Bernarr Macfadden* (Bowling Green: Bowling Green State University Popular Press, 1989).

⁶⁵ Gertrud Pfister, "The Role of German Turners in American Physical Education," *The International Journal of the History of Sport* 26, no. 13 (October, 2009): 1910.

ornate and elaborate, appeared in American cities and towns alongside ethnically aligned Turnenhallen and *Sokol* facilities.⁶⁶

A sports and athletics craze, both participatory and spectator, accompanied the growing American fascination with physical training. Much of the sports craze originated in colleges and universities, and thus among America's middle- and upper-classes, but deepening obsessions with football, rowing, baseball, and more extended beyond student bodies to seize whole communities. By 1890, notable contemporary commentator Edward Hartwell observed that it had become fashionable to speak of colleges "as if they were schools for forming ball-players, oarsmen, and athletes."⁶⁷ Organizational and business structures soon grew up around these activities that accelerated a transition from pure amateurism to professionalism in sports, though Americans clung to an amateur ideal in athletics.

The sporting craze had many sources, and sport itself served many purposes. One contemporary scholar posited that sport provided a safety valve for American energy and pioneer spirit pent up after the frontier's closure.⁶⁸ Turn-of-the-century political and cultural elites certainly promoted sport as a vehicle for renewing society, preparing future leaders, and socializing American youth.⁶⁹ Other historians have argued that sports acted like a "social glue" that bonded a diverse nation and helped build a unified national American myth.⁷⁰ Whatever its

⁶⁶ Green, *Fit for America: Health, Fitness, Sport, and American Society*, 181-82.

⁶⁷ Edward Mussey Hartwell, *Physical Training Treated from American and European Points of View* (Boston: G.H. Ellis, 1890), 8.

⁶⁸ Frederic L. Paxson, "The Rise of Sport," *Mississippi Valley Historical Review* 4, no. 2 (1917): 145.

⁶⁹ Donald J. Mrozek, *Sport and American Mentality, 1880-1910* (Knoxville: University of Tennessee Press, 1983), 28-31.

⁷⁰ Steven Pope, *Patriotic Games: Sporting Traditions in the American Imagination, 1876-1926* (New York: Oxford University Press, 1997), 3-6.

origins and appeal, the athletic side of American physical culture permeated the U.S. military.⁷¹ Sports and sports culture powerfully influenced the thinking of U.S. Army leaders. However, sports came heavily laden with cultural assumptions that were occasionally at odds with the values and assumptions motivating advocates of “scientific” physical training in the U.S. Army.

The advocacy of “scientific” physical training in the Army must be understood within the context of a concurrent push for professionalization in the physical education field. Physical educators, many of whom were physicians and physiologists, sought to separate themselves in the last two decades of the nineteenth century from popular physical culture, antebellum health reform movements, and the competitive athletics craze. The paths toward expert status blazed by physical training advocates in the Army and physical educators in American society were closely related, and they often intersected. Within the Army, physical training began gaining traction after 1885 following the United States Military Academy appointment of Herman Koehler as its Master of the Sword.⁷² Physical educators also took a major step toward professional status in 1885 with the founding of the American Association for the Advancement of Physical Education (AAAPE). Physical education pioneers such as William Anderson, Edward Hitchcock, Tait McKenzie, James McCurdy, Dudley Sargent, and others set up the organization to discuss the “underlying principles of the new profession.” The AAAPe’s founders believed that most teachers were “individualists” and “missionaries” interested in pressing their own special theories of health and fitness.⁷³ Such a chaotic discourse needed discipline, especially in light of

⁷¹ For extended treatments of this point, see Wanda Ellen Wakefield, *Playing to Win: Sports and the American Military, 1898-1945* (Albany: State University of New York Press, 1997); Steven Pope, "An Army of Athletes: Playing Fields, Battlefields, and the American Military Sporting Experience, 1890-1920," *The Journal of Military History* 59, no. 3 (1995).

⁷² The Master of the Sword was (and remains) responsible for the physical development of cadets. Calls for physical training in the Army predated Koehler’s appointment, but Koehler was deeply influential in securing official sanction for standardized, systematic physical training.

⁷³ James Huff McCurdy, *The Objectives of the American Physical Education Association* (Springfield, MA: American Physical Education Association, 1927), 1-2.

an absence of licensing measures. The AAAPPE's proto-professionals sought to establish this discipline, earn society's trust and confidence, and distance themselves from a long-associated history of health reform movements. To do so, they asserted an expertise rooted in scientific knowledge that promised benefits to the whole of American society.

The social benefit physical educators began promising in the late nineteenth century had two components, which historian Roberta Park labels *hygienic* and *educative*.⁷⁴ Presenters at a landmark 1889 physical training conference held in Boston described both succinctly. Speaking before the assembled body of the region's educators and the nation's physical education authorities, the United States Commissioner of Education, William Harris, defined hygiene as the pursuit of making "the most of the body for human purposes." Harris argued that physical training, which he defined as the "conscious or voluntary training of the muscular side of our system," played a crucial role in hygiene by improving students' wills. Improvement of will occurred through voluntary processes, such as muscle strengthening exercise, that also "call[ed] into action the higher nervous motor-centres of the body and brain."⁷⁵ Such promises of improvement and development, referring vaguely to how bodies grew and character developed, undergirded the educative arguments for physical training.

Harris's arguments reflected the positions of the field's proto-professionals, who combined antebellum ideas about the nature of the will with new developments in biological science and evolutionary theories.⁷⁶ The presentation following Harris's at the 1889 conference, given by the widely respected physical training pioneer Dr. Edward Hartwell, reveals both the

⁷⁴ Roberta J. Park, "Physiologists, Physicians, and Physical Educators: Nineteenth-Century Biology and Exercise, *Hygienic and Educative*," in *Sport and Exercise Science: Essays in the History of Sports Medicine*, eds. Jack W. Berryman and Roberta J. Park (Urbana: University of Illinois Press, 1992), 138.

⁷⁵ Isabel C. Barrows, ed. *Physical Training: A Full Report of the Papers and Discussions of the Conference Held in Boston in November, 1889* (Boston: Press of George H. Ellis, 1890), 1-2.

⁷⁶ Park, "Physiologists, Physicians, and Physical Educators: Nineteenth-Century Biology and Exercise, *Hygienic and Educative*," 138-39.

composite basis of the educative functions and the expansive mission conceived of by early physical educators for their profession. Hartwell, a medical doctor with an interest in history who served as the director of physical training in Boston schools and as Johns Hopkins University's gymnasium director, was a leading authority on the effects of exercise on the human body and mind. Research trips throughout America and Europe, and the influential series of reports that followed beginning in 1885, also gave Hartwell cachet as an expert on pedagogical practices.⁷⁷

Hartwell began his 1889 address by asserting that physical training deserved a stature at least equal to mental and moral training as “an integral and indispensable factor” in education. “Muscular exercise is at once a means and an end of mental, and moral, as well as of physical training,” he asserted, because “without bodily actions we have no means of giving expression to mental power, artistic feeling, or spiritual insight. Without muscular tissue we cannot live or move.”⁷⁸ Hartwell supported his argument with a detailed explanation of the appearance and function of muscle fibers. By 1889, research in biology seemed to have validated the older “blacksmith's arm” analogy, which found that exercise enlarged, hardened, and strengthened muscle fibers while making them more responsive to the nervous system. Conversely, disuse led to “wasting” or atrophy. In his remarks, Hartwell paid particular attention to the connection between muscle fibers and the “nerves and centres” that transmit stimuli, then continued by way of analogy in asserting that the cells and centers of the nervous system and brain similarly strengthened or atrophied depending upon use. Hartwell reasoned that in order to strengthen the brain, physical trainers needed to identify the muscular activation sequences that triggered

⁷⁷ Fred Eugene Leonard, *Pioneers of Modern Physical Training* (New York: Association Press, 1919), 147-55.

⁷⁸ Edward Mussey Hartwell, "The Nature of Physical Training, and the Best Means of Securing Its Ends," in *Physical Training: A Full Report of the Papers and Discussions of the Conference Held in Boston in November, 1889*, ed. Isabel C. Barrows (Boston: Press of George H. Ellis, 1890), 5.

actions in desirable regions of the brain in order to exercise them.⁷⁹ The new scientific findings and theories Hartwell discussed seemed to provide a definitive and direct link between the body and the mind, which had been long regarded as the seat of the will. Exercised strengthened muscles as well as the nerves and cells that made the mind work. Muscular training was therefore fundamental to human mental and moral development, and it was up to physical training professionals to unlock the most efficient and effective means of training all three domains at once.

The means available were many and varied, ranging from sports and dance to free play, but Hartwell and most of his fellow proto-professionals advocated gymnastics. Trainers struggling to define themselves as experts on the basis of scientific knowledge and expertise found great appeal in gymnastics because they were, in Hartwell's words, more "comprehensive in their aims, more formal, elaborate, and systematic in their methods," and more productive of "solid and considerable gains" than any other alternative.⁸⁰ Gymnastics systems came in many different forms based on ethnic origins and use of apparatus, among other factors. Indeed, debate raged in the latter half of the nineteenth century over which of the many possible systems was best, and what in fact constituted an "exercise." These diverse systems shared a few characteristics in common, however. First, most attended to the needs of a broad population, male or female, and of the whole person. Gymnastics were not generally designed to create elite athletes or train the select few. Second, gymnastics systems were geared to produce symmetrical development of participants along the lines of fixed standards of physical perfection. Finally, all gymnastics systems were formal and pre-determined by instructors. Experts were supposed to be able to prescribe exercises to correct specific bodily deficiencies, strengthen particular muscle

⁷⁹ Ibid., 8-17.

⁸⁰ Ibid., 20.

groups, and, in some cases, even cultivate certain mental and moral characteristics. Americans especially embraced the idea of collecting precise bodily measurements and prescribing targeted exercises to generate desired outcomes.⁸¹ This idea manifested in many of the American systems, including Dudley Sargent's and, in the U.S. Army, Herman Koehler's. The supposed precision in gymnastics gave physical education proto-professionals a strong claim to unique, scientific knowledge and methods.

Sports and their popularity posed problems for physical educators in the late nineteenth century, both in and out of the Army. Many physical educators recognized the potential value of sports, especially their assumed power to provide social training, especially in teamwork. However, school athletic programs and the intercollegiate competition model threatened to overshadow proliferating physical education efforts in the 1880s and 1890s. Athletic coaches, a body also staking out claims to professional status, competed directly with physical educators for institutional resources, prestige, and power. Intercollegiate competition threatened to take control of athletics out of the faculty's hands, potentially undermining the educative premise of physical education.⁸² Sports also posed a few philosophical challenges. First, sports were inherently spontaneous and thus challenged the science-based claim to expert status made through the precision in gymnastics. Second, the dynamics of competition tended to focus attention on the development of the elite few over the ordinary many. Still, trends in physical education thought moved gradually toward an embrace of sport in the early twentieth century, partly in response to growing Progressive era social and societal concerns, and partly out of recognition of sports' much greater popularity in comparison with gymnastics.

⁸¹ Jakob Bolin, *What Is Gymnastics?* (New York: Willett Press, 1902), 3.

⁸² Park, "Physiologists, Physicians, and Physical Educators: Nineteenth-Century Biology and Exercise, *Hygienic and Educative*," 166-68.

The Army's first efforts to introduce formal, systematic physical training must be understood within this intellectual and cultural environment surrounding physical education. Many of the environment's influences can be understood as indirect. Army physical training advocates wrote and thought in the context of the period's popular physical culture and physical educators' push for professional status. Other influences were very direct. For instance, the U.S. Military Academy's Herman Koehler, a product of a Turner normal school, contributed to the construction of the physical education profession through articles, conference participation, and organizational service. Many advocates and system designers also received formal training at institutions such as Sargent's Springfield College. Similar trends in thought on physical training manifested in both the Army and the wider physical education world too, as will be seen. Army physical training advocates similarly combined new scientific findings with older ideas about will, character, regeneration, and mind-body mutualism by way of reasoning through analogy. From the beginning, Army preferences for scientific prescription and highly formal exercise systems also faced challenges from popular pressure for sport. Much like their physical education contemporaries, Army physical training advocates gradually accommodated athletics to a greater degree over time. Still, differences existed too. For instance, preferences for formal, highly-controlled systems of exercise persisted much longer in the Army than outside it.

The Army's first efforts to introduce physical training must also be understood within the larger social, cultural, and intellectual context. Nineteenth-century anxieties over America's health, understood chiefly in terms of the nation's perceived masculine quotient, prompted fears of degeneration. By the turn of the century, Progressive era social and societal concerns added new anxieties while both amplifying and modifying the old. All of these anxieties seemed to pose a threat to the nation's survival, or at least its vitality. Could America survive and thrive in a

highly competitive world? Were its men capable of enduring the demands of modern war? But where problems existed, so did solutions. Bodily improvement was one among many of those solutions. In a world fixated on social degeneration and efficiency, gymnastics and sport promised regeneration, renewal, discipline, order, character, morality, and more. Faith in modernity suggested a way forward for Americans—not a return to an idealized past, but the leveraging of science and technology to develop men in new ways for a new world.

Army officers were particularly attuned to the dangers and opportunities in this wider context. Like physical educators and many national leaders, some of these officers turned to physical training and drew on thought and practice in popular physical culture and in the professionalizing field of physical education. The direct benefits of physical training seemed obvious. Soldiers could march farther, carry more, and fight harder if in better physical condition. Physical training's less direct benefits were just as desirable, if not more so. Physical training's potential for moral and mental development, and for cultivating discipline, promised improvement of the Army's human material necessary for success on the future battlefield. The potential value of such improvement was amplified by the Army's central position in the overlapping fields of soldier-, man-, citizen-making. The Army depended upon a fit and resilient male population to fight a war based on conscription, but the Army could also be an agent to help create a more fit and resilient population. Development of appropriate exercise systems for the Army, which established the basis of the Army's durable physical culture, would come through the labors of a small set of physical training advocates whose identities and ideas are the subject of the next chapter. However, it is crucial to remember that those advocates worked within and drew on a specific cultural and military context unique to the turn of the twentieth century.

Chapter 2: Origins of a U.S. Army Physical Culture, 1885-1916

Standing before a convocation of modern physical education's brightest early luminaries in the spring of 1891, Lieutenant Colonel Charles Greenleaf, the Assistant Surgeon-General of the Army, made a shocking claim. Greenleaf began by first identifying the "popular belief" that soldiers were men who exemplified the benefits of physical training. Surely the care taken in a soldier's selection, his need to "endure the hardship of campaigns in every variety of climate" and still triumph in combat, and his discipline, habits, and diet made a soldier the "model of physical perfection." Nonetheless, Greenleaf claimed, the soldier "cannot be regarded either as an athlete or even as a well trained man physically."¹ Greenleaf attributed this failure chiefly to an absence of "systematic gymnastic training."² Yet even as Greenleaf made these remarks, a movement was afoot within the U.S. Army to rectify the problem. That movement's heart resided at the United States Military Academy, but its voices bubbled up from across the force in professional journals and popular periodicals. The movement crested with the publication of the Army's first physical training manual 23 years after Greenleaf sounded his warning. For the first time in its history, the U.S. Army established an official physical culture, one based around systematic training.

This chapter analyzes this first official physical culture as captured in the Army's 1914 manual. A surprisingly small clique of men was responsible for producing that culture. This chapter analyzes their experiences, relationships, and publications during the period between 1885 and 1914. Reading their works and the 1914 manual together reveals a coherent and consistent physical culture with four key features. First, physical training advocates in the Army

¹ Charles R. Greenleaf, "Physical Training in the U.S. Army," in *Proceedings of the American Association for the Advancement of Physical Education at Its Sixth Annual Meeting* (Ithaca: Andrus & Church, 1891), 58-59.

² *Ibid.*, 59.

valued expert knowledge and sought to subordinate actual training practices to their expertise. Second, the culture they produced valued a soldier's psychologic development at least as much as his physical development. Third, their culture prioritized unit fitness over maximizing the individual's physical capabilities. Finally, these early advocates assumed that the human material needing sculpting would be of relatively high quality because the small American army could be somewhat selective in the personnel it inducted.

In most ways, this culture reflected contemporary assumptions, beliefs, and practices in the professionalizing field of physical education. Yet by 1906, the Army's physical culture and American physical education began diverging for institutional and cultural reasons. Ultimately, the physical culture that the Army's 1914 manual represented responded to the beliefs of its producers about the value of fitness in modern war—and that value went well beyond bigger biceps and stronger lungs. But another question beckons first, one carried forward from last chapter: Why did physical training become so important to some members of the U.S. Army in the 1880s and 1890s?

That interest had much to do with European practices. In the wake of the Franco-Prussian War, many commentators advanced theories to explain the Prussian victory. One theory held that superior Prussian education accounted for the outcome. A representative example of this argument appeared in an 1872 letter written to the editors of the *Army and Navy Journal*. Its author, known to history as T. Gentz, argued that only one component of the superior Prussian education mattered—physical education, both in and out of the army. Integrating Prussia's victory into a longer history of hale northern nations conquering their neighbors, Gentz insisted that even in modern warfare “muscular power and a hardy constitution” still mattered. Human bodies put machines into action, gymnastics imparted “firm nerves and a manly spirit” to its

practitioners. The stronger arm could “take the steadier aim and deal the more forcible blow,” the “stout shoulder” bore more weight, the stronger legs leapt ditches and charged uphill better, and superior constitutions saw soldiers through the “brunt of the dusty battle.”³ Gentz went on to argue that the United States would also benefit from gymnastics, especially as a part of military training. With the frontier’s closing, Gentz argued, “it is time that gymnastics should raise us a new generation of men.”⁴

Positive impressions about the desirability and utility of gymnastic persisted in parts of the U.S. Army through the following decades. Writing twenty years later, systematic training advocate Captain James Pilcher advanced an argument similar to Gentz’s. “When the superior physical training of one of the parties to so great a contest as the Franco-Prussian War is known to have been the force that turned the tide of victory in its favor,” Pilcher wrote, “the United States cannot afford to reject it.”⁵ Army officers had long been aware that European militaries used gymnastic training to improve their soldiery. The Delafield Commission’s Captain George McClellan, who traveled Europe as a military observer between 1855 and 1856, had praised the French army’s 1847 physical training manual and gymnastic school near Vincennes, for instance.⁶ Major Richard Delafield, the commission’s leader, and subsequently the U.S. Military Academy’s superintendent, later acted on these findings. In 1858, he directed Lieutenant J. C. Kelton to develop a “systematic course” of training for West Point’s cadets based on systems in

³ T. Gentz, "Gymnastics as a Branch of Military Education," *Army and Navy Journal* 9, no. 35 (1872): 562.

⁴ *Ibid.*, 593.

⁵ James E. Pilcher, "The Building of the Soldier," *The United Service* 7, no. 4 (1892): 336.

⁶ The French gymnastic school accepted one sergeant or corporal from every regiment and independent battalion for a six-month program. Graduates returned to their units as trainers, and the best remained at the school for another six months as assistant instructors. The course included training in “gymnastics, scaling walls, swimming, fencing with the bayonet, singing, dancing, reading, writing,” and more. McClellan reported that the “efficiency of the French infantry is in no small degree attributable to the great attention paid to these points throughout the army.” George B. McClellan, *Report of the Secretary of War Communicating the Report of Captain George B. McClellan, One of the Officers Sent to the Seat of War in Europe in 1855 and 1856* (Washington: A.O.P. Nicholson, Printer, 1857), 44.

use at military schools in Paris and Vienna.⁷ Praise for systematic gymnastic training came to Army officers through civilian sources as well. For instance, physical education pioneer Edward Hartwell commended Prussian practices in his influential 1886 report on the state of physical education. “In the interval between Jena and Sedan,” Hartwell argued, Prussia and “demonstrated most clearly and strikingly the power and worth of comprehensive and scientific ‘training.’”⁸

Some American officers also viewed systematic training as a way to prepare soldiers for the demands of the new empty battlefield created by the need for troops to disperse in the face of increased firepower, which resulted from technological advances. Greenleaf, the Army’s Assistant Surgeon General, insisted that soldiers themselves, lacking the “elbow touch” of linear warfare, had begun by 1891 to “feel the necessity for physical activity and endurance in attacking an enemy or in defending himself.”⁹ Pilcher, also a medical officer, similarly argued that the “soldier’s physique” had more than ever “become indispensable.”¹⁰ Fortunately, Pilcher insisted, modern knowledge and science made it more possible than ever to precisely and efficiently condition bodies for combat. This way of thinking fit perfectly with the contemporary turn in American high and popular culture toward activity, dynamism, and masculinity. Similarly, these ideas harmonized with a movement in American higher education toward

⁷ Greenleaf, 60.

⁸ Edward Mussey Hartwell, “Physical Training in American Colleges and Universities,” in *Circulars of Information of the Bureau of Education* (Washington: Bureau of Education, 1886), 180; more on Hartwell’s analysis of gymnastics training in European militaries can be found in his comments on Lieutenant Colonel Greenleaf’s presentation to the AAAP in 1891, Greenleaf, 77-80.

⁹ Greenleaf, 59.

¹⁰ Pilcher, 323. American experience in Cuba and Philippines between 1898 and 1902 tended to reinforce these earlier assessments. For instance, Brigadier General W. H. Carter claimed in 1905 that American success in the Spanish-American War derived largely from a training system that “aimed to secure its results in war by putting every man on the firing line in physical condition to run from cover to cover without becoming so winded as to be unable to shoot straight.” See W. H. Carter, “A Meet in the Philippines: A Rational Plan of Athletic Training,” *Journal of the Military Service Institution of the United States* 36, no. 135 (1905): 455-456.

physical education and sport. If colleges and universities took interest in fitness, should the U.S. Army do so too?¹¹

Yet not everyone in the Army agreed with the premise or upon the means of implementation. Nor did many officers possess the expert knowledge needed to employ systematic training. Many senior Army officers had long acknowledged the connection between physical fitness and soldiering, but they rarely made methodical efforts to improve soldier fitness. Instead they assumed that soldiers' bodies best adapted to the rigors of soldiering by soldiering. Lieutenant John Kulp captured this idea of incidental training when he complained that the older generation of officers believed "the shovel to be the best gymnastic apparatus for soldiers."¹² Some members of this older generation also considered systematic physical training a fad, possibly a dangerous one, and therefore not a necessity.¹³ Thus, dedicating precious training time to exercise outside of traditional drill made little sense.

Others saw utility in physical training but did not know how to structure programs or lead exercises. Such shortcomings typically inclined officers toward either extreme emphasis on popular sports and field days or dull repetition of the drill manual's limited setting-up and rifle exercises. Major General Leonard Wood, the Army's outgoing Chief of Staff in 1914, stressed the consequences of these conditions in his preface to the 1914 physical training manual. Despite the well-intentioned efforts of many commands, Wood wrote, physical training's benefits would "remain a negligible quantity" without a "well-defined authorized method of procedure" that imposed "system and uniformity."¹⁴

¹¹ Bowers Davis, "A System for Army Athletics," *Infantry Journal* 3, no. 2 (1906): 83.

¹² John Stewart Kulp, "What to Avoid in Army Athletics," in *Proceedings of the Seventh Annual Meeting of the Association of Military Surgeons of the United States*, ed. James E. Pilcher (Columbus: Berlin Publishing Co., 1897), 314.

¹³ Edmund Butts, "Athletic Training," *Infantry Journal* 2, no. 1 (1905): 18.

¹⁴ War Department, *Manual of Physical Training for Use in the United States Army* (New York: Military Publishing Co., 1914), 3.

Desire for system and uniformity in training informed by expert knowledge also existed at the Army's lowest levels. For instance, Lieutenant Frank Besson also warned prior to the 1914 manual's publication that Army officers were aware of physical training, but they needed more specific guidance. Besson counted five manuals in publication dedicated to military exercise, but none resided in the headquarters library of the Hawaiian Department where he served, and he knew of no officers who owned copies. Besson had seen copies of then-Major Edmund Butts' *Manual of Physical Drill* occasionally in company libraries. However, he believed officers were only familiar with the fifteen pages that described rifle drill and contained sheet music to accompany the drill, and even these exercises were rarely employed.¹⁵ According to Besson, units usually resorted to using the seven setting-up exercises in the drill regulations, but that these tended to "do more harm than good" owing to a lack of knowledge and enthusiasm. Too often, Besson remarked, physical training amounted to little more than a squad of men, "blouses unbuttoned and hats jammed down on their heads, going through these, the same monotonous exercises day after day, each man with a funereal cadence all his own."¹⁶

Wood and Besson both proposed a solution: the Army should first compile the best of what had been written on military physical training since the 1880s into a single, comprehensive manual. Next, the Army should require all commanders to make that training system a universal part of every soldier's regular education. Publication of the Army's 1914 physical training manual was an attempt to do just this. The manual's pages, steeped in a rich broth of ideas and

¹⁵ Frank S. Besson, "Physical Training in the Army," *Journal of the Military Service Institution of the United States* 55 (1914): 39-40; criticisms of the Army's proliferation of manuals, circulars, and orders on physical training were not new, nor were complaints that this proliferation prevented systematic training. For instance, see Guy G. Palmer, "Physical Culture and Training in the Army," *Journal of the United States Infantry Association* 2, no. 4 (1906): 126.

¹⁶ Besson, 42.

practices cultivated by a cluster of physical training advocates, crystallized and institutionalized a physical culture three decades in the making.

An exploration of that first official physical culture benefits from knowledge of its founding document. The Army's 1914 *Manual of Physical Training* equipped officers responsible for training in philosophical and practical ways. In terms of philosophy, the manual described fitness and ascribed it value. In practical terms, the manual offered advice on hygiene issues, gave guidance on structuring training programs, and dictated exercise methods. Several manuals may have come before, but none equaled the 1914 manual in breadth, depth, specificity, distribution, and official endorsement.

Appropriately for an expression of and foundation for a physical culture, the 1914 manual began with a definition of fitness. This definition's elements existed in a pyramid structure, capped by and supporting the ultimate component—discipline. The pyramid's foundational layers were fourfold: general health and bodily vigor; muscular strength and endurance; self-reliance; and “smartness, activity, and precision.” The latter qualities were described as “physical expressions of mental activity.”¹⁷ The first two elements, both hygienic and physical, formed a base for the second set of elements, which were psychological. Once the soldier obtained “robust health” and an awareness of his increased strength and endurance, then he needed to be “taught how to former the former and how to use the latter to best advantage.”¹⁸ This knowledge translated into self-reliance and self-consciousness. The manual's authors intended for soldiers to exercise not just their muscles, but their minds as well. Instructors exercised minds chiefly by insisting on “precision and exactitude.” Doing so supposedly cultivated “essential soldierly

¹⁷ War Department, 5-6.

¹⁸ *Ibid.*, 6.

qualities” such as self-respect, neatness, and grace, which “combined spell discipline.”¹⁹ Fit soldiers were mentally and physically healthy, strong, and resilient. Fit soldiers were confident in their abilities, in complete control of their bodies and minds, and willing to submit themselves to a unit’s needs.

The manual provided instructors with more practical advice regarding hygiene, which was typical of training guidance found in period professional physical education and the popular press.²⁰ For example, the manual advised that exercise should occur in open air, preferably “pure, dry air,” whenever possible.²¹ Other hygiene tips equipped instructors to teach their charges proper breathing techniques, and to recognize the onset of exhaustion. In the interest of completeness, the manual’s authors recommended the best time of day to exercise (never after a meal), the best clothing to wear while exercising (flannel), and the healthiest way to recover after drill (sponging the body with tepid water) too.²² Some pieces of advice were worded more strongly than others, but few mandated specific practices.

The manual’s authors also stopped short of dictating programming. Instead, they gave those responsible for training leeway to build programs that took into account their soldiers’ aptitude and condition, and the facilities and time available. This was an enormous responsibility. Officers needed to take their work seriously and “not for an instant lose sight of the fact that to them has been intrusted [sic] a part of the soldier’s training which is of great importance.”²³ However, most instructors held only basic training in performing exercises at best, so the manual included some guidance to help them structure their programs. Sample

¹⁹ Ibid.

²⁰ Roberta J. Park, "Physiologists, Physicians, and Physical Educators: Nineteenth-Century Biology and Exercise, *Hygienic and Educative*," in *Sport and Exercise Science: Essays in the History of Sports Medicine*, ed. Jack W. Berryman and Roberta J. Park (Urbana: University of Illinois Press, 1992), 137-42.

²¹ War Department, 14.

²² Ibid., 14-15.

²³ Ibid., 12.

advice included working extensor and flexor muscles in paired exercises, seeking harmonious and symmetrical total-body development, and ensuring that every day's work "should dovetail into the next and be progressive."²⁴ The "setting-up exercises," which were series of calisthenic drills, formed the core of every session. Instructors could add various types of apparatus and skill work to this core. The manual was like a menu. Instructors could select from a wide variety of exercises that ranged from dumbbell and rifle drills to gymnastic contests and apparatus work. Grouping and sequencing those exercises fell to the instructor's discretion.

A sample five-day program illustrated the application of these principles generally, though even this sample stopped short of prescribing specific exercises. This latitude might seem odd for a document that purported to standardize physical training practices across the Army. However, the manual's authors sought to account for the variety of conditions in which units might train.²⁵ Too prescriptive a program might allow officers to make excuses for not doing physical training at all if local conditions did not match those assumed in prescription. Flexibility in programming therefore enabled standardization of physical training itself across the force.

In contrast with the suggestive hygienic and programming sections, the manual dictated how individual exercises and drill series were to be executed. Of the manual's 335 pages, 319 contained exercise instructions, guidance on issuing commands, and photos and drawings illustrating movements and positions. The instructions were comprehensive. For instance, the broad jump alone required four pages and three images to explain.²⁶ Specificity served at least two functions. First, it enabled the focus on precision and exactitude supposedly vital to building discipline. Second, it allowed amateurs to employ expertly developed movements that were

²⁴ Ibid.

²⁵ Ibid., 3.

²⁶ Ibid., 193-96.

calculated to deliver specific results. According to the manual's authors, every exercise had a "function peculiarly its own" that had a "certain effect upon a certain part of the body."²⁷

Officers could be entrusted with arranging those exercises according to general guidelines, but they lacked the expert knowledge to design movements capable of achieving such precise results. Major General Leonard Wood, writing in the manual's preface, therefore discouraged any "departures" from the manual that were "at variance with its methods generally."²⁸

Taken together, the manual's methods, guidelines, definition of fitness, and underlying assumptions comprised a physical culture. This culture was the product of a long history and a particular moment. A small group of men produced that culture over the three decades preceding 1914. Their associations were chiefly with the United States Military Academy and the infantry branch. Their backgrounds, ideas, and contributions to Army physical training practice and policy provide a rich resource that informs the physical culture that ultimately emerged in 1914.

None of those cultural producers exercised greater influence than Herman Koehler. His impact is evident in the general culture's subtleties and obvious in the 1914 manual's final form. A three-officer board prepared that manual, but the final document's language and form betrays its paternity unmistakably as Koehler's.²⁹ That document essentially combined two of Koehler's earlier manuals, the *Manual of Calisthenic Exercises* (1892) and *Manual of Gymnastic Exercises* (1904). No other advocates of systematic training had published as frequently and widely as had Koehler. His articles appeared in professional military and physical education journals alike. He may not have been the first to raise the issue of systematic, standardized training for the Army in

²⁷ Ibid., 10.

²⁸ Ibid., 3.

²⁹ The two other board members were Lieutenant Colonel Fred Sladen and First Lieutenant Philip Mathews. The former was West Point's Commandant of Cadets and Koehler's superior in the Department of Tactics. Sladen likely provided supervision and the weight of his rank and position. Mathews was an officer in the Department of Tactics and Koehler's assistant instructor of gymnastics. Ibid.; *Official Register of the Officers and Cadets United States Military Academy* (West Point: United States Military Academy Printing Office, 1913), 7.

the professional journals of the day, but his voice became more prominent as the years wore on and the Army edged closer to sanctioning an official physical culture. Koehler's role as West Point's Master of the Sword, where he became known as West Point's father of physical education, was crucial to his influence too.³⁰ The Master of the Sword's responsibilities were once limited to teaching swordsmanship and other physical skills, but Koehler had extended those responsibilities to cover every aspect of cadet physical development. In this position, he was the Army's only dedicated expert in and practitioner of physical training. Furthermore, Koehler's long service as Master of the Sword, from 1885 to 1923, meant that he personally trained two generations of West Point graduates, who in turn carried his ideas out into the wider Army.

West Point's administration had taken tentative steps toward incorporating systematic physical training into its curriculum by the time Koehler arrived in 1885. Kelton's European-inspired program of 1860 had cadets of all four classes performing calisthenics and gymnastics, though it was discontinued in 1861 with the Civil War's onset. After 1861, cadets did not follow a systematic program of training, but they were required to spend time in the gym pursuing whatever caught their interest. Gymnastics languished at West Point until 1877 when the Superintendent, General John Schofield, recommended its resumption.³¹ The recommendation went nowhere until a Board of Visitors report in 1881 criticized gymnasium conditions at the Academy. "There was no exhibition of exercises in the gymnasium," the board noted, and "the whole furnishing is unsatisfactory." The board's members declared that the "value of this class

³⁰ Michael J. Reagor, "Herman J. Koehler: The Father of West Point Physical Education," *Assembly* 51, no. 3 (1993).

³¹ Robert Degen, "The Evolution of Physical Education at the United States Military Academy" (Master's Thesis, University of Wisconsin, 1966), 46-49; Herman J. Koehler, "The Physical Training of Cadets, 1802-1902," in *The Centennial of the United States Military Academy at West Point, New York, 1802-1902* (Washington: Government Printing Office, 1904), 897-98.

of exercise for whose profession requires good physical development cannot be doubted.” They then recommended construction of a new gym and creation of a department that would make gymnastics training a “positive requirement” for every cadet.³²

The report helped jolt the Academy’s administration into action. The superintendent directed Lieutenant Edward Farrow, an instructor in the Department of Tactics, to draw up a training program. Farrow’s system, which included gymnastics and swimming, became a part of cadet development in 1882.³³ Farrow directed training until he departed for a new assignment in 1884 and was replaced by a Lieutenant Henry Kirby. Koehler later criticized Farrow’s program because there “was but little system” in the course and because it “lacked many of the fundamentals of a rational training system.” However, as Koehler also observed, Farrow and Kirby deserved credit for “breaking up the pernicious practice of permitting Cadets to use the gymnasium as they saw fit,” and for raising the Academy’s appreciation of physical training as a necessary component of cadet development.³⁴

Then in 1884, an opportunity arose to put West Point on equal footing with other institutions of higher education, which were rapidly incorporating physical education into their curricula. West Point’s long-time Master of the Sword, Antone Lorentz, died. Lorentz did little to advance systematic training in his twenty-seven-year tenure and seemingly left much to be desired, having been replaced in practice if not in title by Farrow in 1881.³⁵ The search for a professional educator to replace Lorentz led to George Brosius, the Milwaukee Normal School’s

³² *Annual Report of the Board of Visitors to the United States Military Academy for the Year 1881*, (Washington: Government Printing Office, 1881), 7.

³³ For a complete overview of Farrow’s system, see Edward Samuel Farrow, *A Military System of Gymnastic Exercises and a System of Swimming* (New York: Metropolitan Publishing Company, 1881). Farrow’s system descended directly from Archibald MacLaren’s *A System of Physical Education* (1869).

³⁴ Koehler, 898-99.

³⁵ Whitfield B. East, *A Historical Review and Analysis of Army Physical Readiness Training and Assessment* (Ft. Leavenworth: Combat Studies Institute Press, 2013), 31.

director and coach of the Milwaukee Turnverein's award-winning 1880 team.³⁶ Brosius declined the offer, citing his work in Milwaukee, but recommended his nephew, protégé, normal school graduate, and "best man of the Frankfurt class"—Herman Koehler.³⁷ Academy officials offered Koehler the position. He accepted and began instructing in 1885.

Koehler, only twenty-five years old, was an impressive candidate by dint of his physical prowess alone (he boasted flexed biceps nineteen-and-a-half inches around), not to mention his education and credentials.³⁸ A talented gymnast, Koehler placed second overall at the 1880 international Turner Festival in Frankfurt. While observing another meet a year later, Koehler learned that the man who beat him in 1880 was competing. Despite not having trained, Koehler entered the competition and won first place in a field of more than three hundred contestants.³⁹ Koehler also boasted an educational pedigree that qualified him as a professional physical educator, unlike any of his predecessors at West Point. He also possessed some practical experience, having worked since 1882 as a school gymnastics director in Oshkosh, Wisconsin.

Koehler immediately set about constructing a system of physical training for West Point's cadets. He expressed the philosophy behind this program and his broader concept of fitness in an article written for the Academy's centennial in 1902. Koehler's aim was to counteract the pressure placed on cadets by their program of study, the "mental strain" of which was "fraught with danger to the physical welfare of the cadet." Koehler's plan was supposed to

³⁶ The Milwaukee Normal School was one of the nation's premier schools for physical educators.

³⁷ Brosius came to the search committee's notice for two reasons. First, his 1880 team's success at the Fifth German Turner Festival in Frankfurt won wide recognition in Turner circles and in American newspapers. Second, one of his former students, a Captain Reed, was involved in the search. Reed was an advocate of applying the "Milwaukee idea of physical exercises" at West Point. George Brosius, *Fifty Years Devoted to the Cause of Physical Culture, 1864-1914* (Milwaukee: Germania Publishing Co., 1914), 89-90.

³⁸ Lance Betros, *Carved from Granite: West Point since 1902* (College Station: Texas A&M University Press, 2012), 164-66.

³⁹ Elliott C. Cutler, "Lt. Col. Herman J. Koehler, Master of the Sword: An Account of His Service and Influence," *Assembly* 39, no. 3 (1980): 20.

do this by building up the weak so that they might “have an even chance with the naturally strong,” sculpting sound bodies that might yield sound minds, and nurturing energy and strength reserves upon which cadets could call in times of stress. The first objective of Koehler’s system was general health, though he sought simultaneous cultivation of “strength, agility, precision, self-reliance, courage and endurance.”⁴⁰ Because physical training had a fundamentally educative purpose at West Point, Koehler intended his system to raise the general standard among the Corps of Cadets. Endeavoring to “turn out record-breaking strong men, or skilled acrobats” was “wrong in every particular” in Koehler’s opinion because focus spent on elites did the majority harm through neglect. To this end, Koehler laid down a single principle that recurred through his later work as well: “The greatest good to the greatest number, and only at the expense of those who can afford it.”⁴¹

Physical training’s share of the Academy’s curriculum grew throughout Koehler’s tenure. Beginning in 1885, fourth class cadets received three weeks of daily drill upon arrival at the Academy, then three drills of 45 minutes a piece and three periods of fencing instruction per week from October through June. The upper three classes were not required to attend drill, but they were encouraged to do so in the winter months.⁴² The benefits accruing to cadets were obvious. For instance, the 1889 Board of Visitors gushed in their report that it was “exceedingly difficult to believe that the gymnastic exercises performed by the fourth class could be the result of only one year of practice under instruction by Professor Koehler. The feats of agility were simply wonderful; they are valuable chiefly as evidence of sound, muscular, trained bodies.”⁴³

⁴⁰ Koehler, 899.

⁴¹ *Ibid.*, 900.

⁴² *Ibid.*, 902, 04.

⁴³ *Report of the Board of Visitors to the United States Military Academy for the Year 1889* (Washington: Government Printing Office, 1889), 38-39.

Koehler pressed continuously to require physical training for all classes so that gains made in the first year were not lost in the latter three. He finally realized this objective in 1905, and simultaneously had boxing and wrestling added to the curriculum.⁴⁴ Koehler published some of his system's methods in his 1892 *Manual of Calisthenic Exercises*. Readers of the Army's 1914 manual would immediately recognize its setting-up exercises in this 1892 manual.⁴⁵ West Point's superintendents and Boards of Visitors repeated requests beginning in 1889 to grant Koehler a commission in recognition of his achievements and the value of his work. Congress agreed in 1899, commissioning Koehler as a First Lieutenant. In 1901, Congress also made Koehler's post permanent by law. Furthermore, the law required the Master of the Sword to henceforth act as "instructor of military gymnastics and physical culture," and that Koehler's successors be officers of the line specially selected for the post. Koehler received subsequent promotions to Captain, Major, and Lieutenant Colonel in 1905, 1917, and 1920 respectively.⁴⁶

Koehler's system reflected its creator's Turner roots. *Turnen* was a German system of gymnastics descended from Friedrich Jahn, who witnessed the Prussian army's disastrous defeat at Jena in 1806 and participated in subsequent Prussian educational reforms as a leading physical trainer.⁴⁷ Major aims of those reforms included instilling national pride and preparing Prussian men for a future war that might throw off French dominance. *Turnen* therefore sought whole body improvement for a broad population, not the creation of elite athletes. *Turnen* also harnessed exercise as a means of promoting well-trained citizens faithful to the nation and

⁴⁴ Degen, 63-68.

⁴⁵ The 1892 manual resulted from a suggestion by the West Point superintendent, Colonel John Wilson, to Koehler that he publish his system for use in the wider Army. The Army's Adjutant-General reviewed the manual and the Secretary of War urged calisthenic instruction of enlisted soldiers to conform to Koehler's system. However, little seems to have come of this urging given continued complaints about a lack of system two decades later. Herman J. Koehler, *Manual of Calisthenic Exercises* (Washington: Government Printing Office, 1892), v.

⁴⁶ Degen, 64-65.

⁴⁷ Fred Eugene Leonard, *A Guide to the History of Physical Education*, ed. George Baird Affleck, 3d ed. (Philadelphia: Lea & Febiger, 1947), 86-7.

prepared for war.⁴⁸ Two waves of German emigres fleeing government crackdowns in Prussia and elsewhere brought Turner practices to the U.S., first in the mid-1820's and later following the 1848 revolutions. In the U.S., *Turnen* clubs became centers of ethnic communities, but they also sought to Americanize their message. Turners earned national recognition for their service in the Union Army during the Civil War, which helped propel their system of gymnastics to prominence.⁴⁹ Later, Turners pressed to integrate that system into American schools, placing them in the midst of a late-nineteenth-century nation-wide debate about the best means of training American youth. This "Battle of the Systems" pitted *Turnen* against many other competitors, including Ling's Swedish Gymnastics and a home-grown system of machine exercises developed by Dudley Sargent. *Turnen* ultimately lost this battle in the first decade of the twentieth century, owing in part to its ethnic associations but primarily to its strong emphasis on apparatus work, which was impractical for many schools.⁵⁰

Regardless, *Turnen* was alive and well at the U.S. Military Academy after 1885 and was baked in to the U.S. Army's official physical culture in 1914. Six classes of exercises comprised a typical *Turnen* syllabus for male students: marching; calisthenics; "heavy work" with dumbbells, rings, and other implements; apparatus work; gymnastic games; and some popular physical activities such as track-and-field competitions, swimming, fencing, boxing, and more.⁵¹ This typical syllabus emphasized general body development and progressively more difficult, complex, and active exercises. Finally, formality characterized a *Turnen* session. One instructor,

⁴⁸ Gertrud Pfister, "The Role of German Turners in American Physical Education," *The International Journal of the History of Sport* 26, no. 13 (2009): 1896; Deobald B. Van Dalen and Bruce L. Bennett, *A World History of Physical Education: Cultural, Philosophical, Comparative*, 2nd ed. (Englewood Cliffs: Prentice Hall, Inc., 1971), 96, 399.

⁴⁹ At least 5,000 Turners served in the Union Army, which represented more than 50% of the total Turners in America at the time. Leonard, 298.

⁵⁰ Pfister, 1908-10, 15-16.

⁵¹ *Ibid.*, 1902.

normally led large groups through structured and rhythmical sequences, often using commands.⁵² *Turnen* goals clearly inspired Koehler's emphasis on general health and his principle of doing the greatest good to the greatest number. The 1914 manual's material could have also been pulled directly out of a *Turnen* syllabus as it matched the six typical categories of exercise.⁵³ *Turnen*'s high formality, emphasis on discipline and broad populations, and overt military focus must have appealed to Academy officials and Army officers congenial to physical training alike.

In a time when most of the Regular Army's officers earned their commissions from West Point, Koehler's long tenure as Master of the Sword gave him a unique ability to promulgate his *Turnen*-derived system throughout the Army. Between 1885 and 1900, Koehler instructed every West Point cadet personally.⁵⁴ As the Academy's physical program expanded, especially after 1905, Koehler acquired several assistants, but he retained control over the program's structure and continued delivering instruction personally. By 1919, only two hundred West Point graduates on active duty had not received personal instruction from Koehler, and all of those entered the Academy prior to Koehler's arrival in 1885.⁵⁵ If officers were leading physical training or writing about it after 1889, then their only likely frame of reference was Koehler's example and system. Dissemination through discipleship was an intentional strategy. In the absence of a secondary education program for physical instructors, Koehler believed West Point graduates needed to enter the Army prepared to lead training as local experts.⁵⁶ The Army

⁵² Paula D. Welch, *History of American Physical Education and Sport*, 3rd ed. (Springfield: Charles C. Thomas, 2004), 111; Van Dalen and Bennett, 425.

⁵³ The manual listed ten categories: setting-up exercises (calisthenics), marching and running, work with dumbbells and other implements, climbing, jumping, apparatus work, gymnastic contests, athletics (track-and-field), swimming, and boxing and wrestling. War Department, *Manual of Physical Training*, 6.

⁵⁴ Cutler, 21.

⁵⁵ Herman Koehler Biographical Sketch; 201 File, Headquarters, USMA, 17 February 1919, United States Military Academy Special Collections.

⁵⁶ Herman J. Koehler, "Physical Training in the Army," *Infantry Journal* 1, no. 1 (1904): 11-13; Greenleaf, 64-66.

refused to establish an official physical culture from the top-down before 1914, so Koehler sought to spread one from the bottom-up.

Koehler's disciples, joined by likeminded advocates of systematic training, propagated a consistent physical culture through praxis and print. A boom in gymnasium construction on Army posts in the 1890s provided proponents of systematic training opportunities for practice. Initially funded by profits from post canteen sales, gymnasias enabled all-weather, year-round physical training.⁵⁷ With few exceptions, gymnasias built specifically for systematic training first appeared at the Army's three recruiting depots: Columbus Barracks, Davids Island, and Jefferson Barracks.⁵⁸ These buildings came equipped with all the tools necessary for strengthening the bodies and minds of American soldiers at the turn of the century. Tools ranged from "light work" implements such as dumbbells, barbells, rowing machines, and Indian clubs to technical gymnastic apparatus such as parallel and horizontal bars. A lieutenant or captain at each post was detailed to direct training in these gyms, usually with the assistance of a few non-commissioned officers.⁵⁹

Koehler believed that such "splendidly equipped gymnasiums" removed the "chief obstacle" to systematic physical training. However, there remained the question of how to put these resources to best use.⁶⁰ Junior officers detailed as instructors enjoyed no training apart from

⁵⁷ Palmer, 119-20. Although gym construction boomed in the 1890s, it began a few years earlier. For instance, Major General Nelson Miles wrote enthusiastically about a new gym at Vancouver Barracks (Washington Territory) in 1884. Greenleaf, 65.

⁵⁸ Congress appropriated funds for construction of these gymnasias in June 1890, and also authorized construction of similar buildings at other posts as deemed necessary by the Secretary of War. 67.

⁵⁹ A. B. Donworth, "Gymnasium Training in the Army," *The Journal of the Military Service Institution of the United States* 21 (1897): 509-12; for pictures and diagrams of a sample gym, see *Photographs of Gymnastic Apparatus in United States Army Post Plattsburg, N.Y.: Arranged to List and Plans of Lieut. Herman J. Koehler, U.S.A.* (Providence: Narragansett Machine Company, 1903). Book is available in the United States Military Academy library.

⁶⁰ Koehler, "Physical Training in the Army," 10; Herschel Tupes, "Annual Athletic and Gymnastic Tests for the Army," *Infantry Journal* 2, no. 2 (1905): 103.

what they received as cadets at West Point or as college students elsewhere. Several publications offered some guidance. Koehler's 1892 manual was popular for instance, as was British author Archibald Maclaren's book, *Physical Education*. Koehler attempted to fill this gap in 1904 with his *Manual of Gymnastic Exercises*, but ultimately the Army did not mandate any specific practices or a consistent system. Young officers in control of gymnasium instruction thus enjoyed wide latitude in determining the nature of training at their posts. This was a major responsibility. Koehler charged these young officers with remembering the importance of their charge to lead critical training on which the "success or failure is dependent entirely upon themselves."⁶¹ Many rose to the challenge. Gymnasias created spaces for officers to encounter, experiment with, and lead physical training. Several innovators, some with experience as gym directors and others without, published their systems in print. By 1913, at least four of these systems were available as full manuals: Constantine Chase's *Physical Drill for Foot Troops* (1897), Edmund Butts' *Manual of Physical Drill* (1897), Enoch Garey's *Manual of Physical Drill* (1911), and Merch Stewart's *The Physical Development of the Infantry Soldier* (1913). Their systems differed in some specifics, but the culture each manifested and promulgated was remarkably consistent with Koehler's, including key elements such as the pursuit of the greatest good for the greatest number using progressive, systematic, formal training.

The most influential of these gymnasium instructor-innovators was Edmund "Billy" Butts. An 1890 West Point graduate who had enjoyed Koehler's tutelage, Butts was given charge of gymnastics training at the Columbus Barracks recruiting depot in 1893. He found that physical training did occur at the depot, but that there was no "systematic drill." Instead, soldiers were "'turned loose' in the gymnasium" under the loose supervision of non-commissioned

⁶¹ Herman J. Koehler, *Manual of Gymnastic Exercises: Prepared for Use in Service Gymnasiums* (Washington: Government Printing Office, 1904), 17.

officers. Under these conditions, Butts felt that the “results could not but be more harmful than beneficial.”⁶² Butts quickly set about constructing a regular training program. He also improved the gym building while filling it with equipment purchased using funds from the Post Exchange and elsewhere. Soon, each of the four companies was sweating through thirty-five minute drills five days a week under Butts’ direction. These drills included a variety of activities ranging from calisthenics to dumbbell exercises. In designing his drills, Butts sought to “avoid that constant repetition” that made work “mechanical and tiresome,” while also aiming to engage every soldier’s whole body to promote symmetrical development.⁶³

Butts’ performance earned him recognition among peers and superiors alike. After fifteen months at the Columbus Barracks, the Headquarters Department of the East, encouraged by its adjutant general Colonel Samuel Breck, detailed Butts in 1894 to travel to various posts and establish training programs. Butts spent a few months each at posts throughout the East, Southeast, and Middle West departments doing so.⁶⁴ This experience challenged Butts to craft a standardized system that could be applied in a wide range of conditions. By 1895, Butts had also become something of an expert for his peers. Earlier that year, the Department of the East required that each post place an officer in charge of physical training. Several of these newly appointed officers wrote to Butts seeking advice and guidance.⁶⁵

Butts utilized his knowledge and experience to respond to these requests in two ways. First, he published an article in 1895 in the *Journal of the Military Service Institution of the United States* offering his peers some generic advice. Butts directed physical training instructors

⁶² Edmund L. Butts, "Physical Training of the American Soldier," *The Journal of the Military Service Institution of the United States* 61, no. 75 (1895): 499.

⁶³ *Ibid.*, 500-01.

⁶⁴ "Soldierly Bearing, Health and Athletics," *Outing*, March 1904, 707.

⁶⁵ "Physical Training of the American Soldier," 506.

to secure and improve gym facilities initially, then prepare themselves as athletes and disciplinarian drill instructors, develop a cadre of assistants, and read a good reference manual such as Koehler's *Manual of Calisthenic Exercises*.⁶⁶ Butts also began work on a practical manual that would enable "any officer to give regular and beneficial instruction to his command."⁶⁷

Just three years after being detailed to tour posts and establish training programs, Butts published the first edition of his *Manual of Physical Drill*. The manual was a practical guide, just as Butts intended, designed to "systematize physical training in the army."⁶⁸ The system's foundation was a "simple and progressive" five-exercise-set arrangement without rest between exercises. Butts applied this structure to a wide variety of exercises, though the core drills consisted of calisthenic, rifle, dumbbell, and gymnastic apparatus work. Wall scaling, rope climbing, and other activities with obvious practical military value were also included as "essential to the athletic training." While "athletic games and contests" occupied about twenty percent of the manual's pages, they were relegated to the back of the book, confined to track and field events, and given only as "matters of general interest and information."⁶⁹ As in Koehler's drills, officers led the drills in Butts' system using commands. Butts recommended that those officers drilled their units in thirty-minute sessions at least four times per week. Ideally, whole companies would go through the drill together, though Butts allowed for battalions or even regiments to exercise together if the lead instructor had several officer assistants.⁷⁰ Butts furnished two ten-day example programs, one for units without much gymnastic apparatus

⁶⁶ Ibid., 506-09.

⁶⁷ "Soldierly Bearing, Health and Athletics," 707.

⁶⁸ *Manual of Physical Drill, United States Army* (New York: D. Appleton and Company, 1900), iii.

⁶⁹ Ibid.

⁷⁰ Ibid., 1.

available and one for units with fully equipped gymnasia.⁷¹ However, as in Koehler's manuals and the later 1914 manual, Butts left the specific content of each "thirty minutes' drill" up to instructors.

From its organization and purpose to its recommendations on dress and hygiene, Butts' manual bore Koehler's unmistakable influence. This is not surprising. After all, Koehler instructed Butts during the latter's cadet years. That instruction was the only formal instruction Butts received before becoming an "expert" in the physical training field. Furthermore, Butts sought Koehler's advice when detailed to Columbus Barracks in 1893 and praised Koehler as "one of the best authorities on physical culture in this country and certainly one of the most successful instructors."⁷² Butts' system differed from Koehler's in a few regards. For instance, Butts placed more emphasis on rifle drill than did Koehler, and he was more open to athletic contests held during field days. However, Butts' definition and valuation of fitness, along with the means he thought best to achieve it, generally matched Koehler's. The differences were more a matter of nuance than substance. Prior to 1914, Butts' *Manual of Physical Drill* achieved a level of influence in the Army equal to or at greater than any of Koehler's manuals, but the physical culture it advanced was chiefly Koehler's creation.

Koehler, Butts, and others developed and spread a coherent physical culture that yielded similar proposed systems of exercise, but these cultural producers struggled to get the Army to put that culture into practice. The systematized training throughout the Army was difficult to realize. Gyms may have appeared on posts and recruiting depots may have instituted physical training in the 1890s, but articles in professional journals at the time indicate that commanders often resisted incorporating systematic and formal physical training, or simply knew too little

⁷¹ Ibid., 3-4.

⁷² "Physical Training of the American Soldier," 505.

about it to do much besides permit competitive sports. For instance, Lieutenant Robert Smart, an assistant surgeon, complained about this situation in 1901 when he bemoaned the lack of a “compulsory system of physical exercise” in the Army. Speaking about the drill required at recruiting depots by that time, Smart remarked that what physical drill did exist was “wrong because [it was] unsystematic.”⁷³ Exercise was encouraged, but it was left up to local commanders and neither structured nor ordered. Smart recommended that authorities superior to post commanders make daily exercise compulsory, and then turn that training over to men “instructed specially in this branch of military science” at proposed training centers run by military medical officers.⁷⁴

Three years later, Koehler issued similar complaints in the *Infantry Journal*'s inaugural issue, writing that the “proper physical training of the enlisted man” had been “written about, discussed and talked over for a long time, but as yet, except in a few instances, little of lasting value has been accomplished.”⁷⁵ Koehler rejected reliance on competitive athletics, and advocated instead using the “splendidly equipped gymnasiums” at most posts to execute systematic, supervised physical training.⁷⁶ In 1905, Fort Snelling's Superintendent of Athletics, Major Robert L. Bullard, observed that there was some excitement for sport in the Army, but few commanders arranged training to rationally build better bodies. “The present state of athletics or physical training in the army,” Bullard alleged, was “unsystematic, irregular, and uncertain in the extreme.”⁷⁷ By 1907, little had changed. Koehler again wrote to the *Infantry Journal*

⁷³ Robert Smart, “The Physical Development of the Recruit,” in *Proceedings of the Association of Military Surgeons of the United States at Its Tenth Annual Meeting* (Carlisle: The Association of Military Surgeons, 1901), 572-73.

⁷⁴ *Ibid.*, 575.

⁷⁵ Koehler, “Physical Training in the Army,” 8.

⁷⁶ *Ibid.*, 10.

⁷⁷ Robert L. Bullard and H. S. Hawkins, “Athletics in the Army,” *The Journal of the Military Service Institution of the United States* 37 (1905): 400.

complaining that commanders did not treat physical training with the “degree of seriousness commensurate with its importance.”⁷⁸ According to Koehler, company commanders did not integrate physical training into daily schedules and did not compel most of their men to participate in what little training commanders did schedule. Furthermore, senior commanders “considered their duty ended with the issuance of orders pertaining to the subject.”⁷⁹

The challenge confronting the Army was not one of resources, but of will and organization. By the first decade of the twentieth century, the Army had well-equipped gymnasiums at most posts and was building more. Several manuals were in print that laid out exercise systems specifically for Army use. The Army also had a body of officers able to put those systems into practice, whether they were medical officers or West Point graduates with rudimentary training as instructors. Yet the Army lacked a central authority to control and direct training. Koehler and others pointed to contemporary European practices as a possible model. One example was British Army’s Gymnastic Staff at Aldershot, which was established in 1860 as a central school with a permanent staff to train instructors for every regiment in the British Army.⁸⁰ Establishing such a center for the U.S. Army was problematic, so much that Lieutenant Colonel Greenleaf argued in 1891 that the creation of a permanent organization required an act of Congress. Without a legal basis, he predicted, a permanent organization’s future would be forever in jeopardy, subject to the whims of each new senior Army authority.⁸¹

⁷⁸ Herman J. Koehler, "General Remarks on Physical Training in the Service," *Infantry Journal* 3, no. 4 (1907): 103.

⁷⁹ *Ibid.*

⁸⁰ The Army Gymnastic Staff was renamed the Army Physical Training Staff in 1918, made a corps in 1940, and is known today as the Royal Army Physical Training Corps. For more on this center’s development and structure, see James D. Campbell, *"The Army Isn't All Work": Physical Culture in the Evolution of the British Army, 1860-1920* (Burlington: Ashgate Pub. Co., 2012).

⁸¹ Greenleaf, 74.

Assuming that such a law could be passed, Greenleaf suggested the United States Military Academy (USMA) as a prospective location for such a center. This argument made sense in 1891 purely from an organizational and bureaucratic perspective. A chair at USMA would require few new resources to stand up, and the organization would be well positioned to transmit training practices into the Army through each year's graduating class. Pointing to the United States Naval Academy as an example, Greenleaf argued that the leader of such an organization should be a medical officer well-versed in anatomy, and capable of precisely, efficiently, and safely honing the human body.⁸² Yet West Point did not have a department of physiology and hygiene like Annapolis. Instead, it had a Master of the Sword, Herman Koehler. Despite this, the argument for West Point as the seat of a permanent physical training center made more sense every year. As Koehler's reputation and influence grew, and as his tenure lengthened into seeming permanency, there seemed no better choice. Additionally, Koehler enjoyed the patronage of West Point's superintendents, who advocated for Koehler in the Army's highest echelons. Koehler's 1892 manual was the product of such lobbying, as was the USMA-dominated board that produced the 1914 manual.⁸³ Still, Congressional action or, more realistically, firm commitment and orders from a senior Army leader was necessary to make systematic training a fixture across the Army.

Movement toward such a top-down directive began in the mid-1890s thanks to a trio of senior leader sponsors: Generals Nelson Miles and Franklin Bell, and President Theodore Roosevelt. The directives these three leaders issued did not resolve all existing problems, but they began moving the organization toward a standardized training model. Miles took the initial

⁸² Ibid., 75. Medical officers, citing possession of expert knowledge, typically argued for other medical officers to take charge of physical training. For other examples, see Pilcher, 334-35; Smart, 575.

⁸³ Koehler, *Manual of Calisthenic Exercises*, v; Brigadier General Albert L. Mills, 6 August 1906, Herman Koehler Vertical File, United States Military Academy Special Collections.

steps, first as the commander of the Department of the East between 1894 and 1895, and later as commanding general of the United States Army from 1895 to 1903. In the former position, Miles had a hand in assigning Butts to his educative tour of army posts, requiring athletics officers at each post, directing units within his department to conduct regular physical training, and publishing several pamphlets and circulars on training.⁸⁴ As Commanding General, Miles continued promoting the benefits of physical training as something of a celebrity fitness role model and enthusiast. Perhaps his most notable stunt in this role was his surprise eight-hour, 90-mile horseback ride in July 1903, just a month before his mandatory retirement at age 64. Miles supposedly rode the first 35 miles in record time in temperatures as high as 100 degrees. He arrived in Fort Reno “fresh as the 34-year-old officer who had been his companion,” having definitively proven his fitness by doubling President Theodore Roosevelt’s recent 45-mile Laramie-to-Cheyenne ride, which had been considered “quite a physical feat.”⁸⁵

More meaningful orders came down from one of Miles’ successors as Chief of Staff of the Army, Major General Franklin Bell. An 1878 West Point graduate, Bell is notable for being perhaps the most educated of senior officers in the early twentieth century on physical education. Although he graduated from West Point before Koehler arrived, Bell experimented with the use of gymnastics apparatus to train his troops as a cavalry lieutenant in the 1880s. He later spent a summer studying physical culture and training under Harvard’s Dr. Dudley Sargent, one of the fathers of American physical education.⁸⁶ Bell’s experiences in the Indian Wars and Spanish-American War provoked his continued interest in physical training.⁸⁷

⁸⁴ Palmer, 121.

⁸⁵ “Showing Off His Stamina, Gen. Miles Making Ninety-Mile Horseback Ride,” *Los Angeles Times*, 15 July 1903, 11.

⁸⁶ Michael D. Krause, “History of U.S. Army Soldier Physical Fitness,” in *National Conference on Military Physical Fitness: Proceedings Report*, ed. Lois A. Hale (Washington: U.S. Department of Health and Human Services in cooperation with the National Defense University, 1990), 21.

⁸⁷ East, 42.

Convinced of the need for improving the American soldier's physical fitness, Bell, as the incoming Chief of Staff, is credited for being the driving force behind the issuance of General Order 44 in March 1906.⁸⁸ This order required cavalry, infantry, and field artillery units in the Regular Army to conduct physical training in garrison and in the field. Gymnastics, athletics, bayonet, and "kindred exercises" were required in garrison, while practice marches were required in the field. Furthermore, all company-level units had to conduct one practice march per week at a minimum of at least twelve miles, plus a monthly march of three consecutive days when in an active field training period.⁸⁹

Bell also partnered with President Roosevelt, himself a famed proponent of the strenuous life, in performing fitness "stunts" to promote the value of exercise. For instance, the two competed in the fifteen-mile "Muldoon Challenge" in February 1908, which Bell won.⁹⁰ In November of that year, Roosevelt and Bell appeared together at the War College. Both men delivered messages about the "desirability of officers keeping in fit condition at all times," then Roosevelt invited the General Staff officers and War College students present to join him on a "stroll" that afternoon. Unable to refuse, the 58 officers present followed the president on a "bully tramp" through thick woods, up and down rocky cliffs, and across a chin-deep stream.⁹¹ A month later, Roosevelt issued Executive Order 989, which required an annual physical exam for Marine officers that consisted of a fifty-mile march. No similar presidential order was forthcoming for the Army, however.⁹²

⁸⁸ Krause, 21.

⁸⁹ *General Order, No. 44* (Washington: War Department, 1 March 1906), 1-2.

⁹⁰ East, 43.

⁹¹ "Roosevelt Led 60 on a Bully Tramp," *New York Times*, 8 November 1908.

⁹² East, 43.

Miles, Bell, and Roosevelt made physical training more visible in the Army, and they also made it mandatory in limited ways. What they did not do, however, was specify *how* commanders should conduct physical training. Thus, Koehler and others continued complaining even after General Order 44's issuance that commanders did not take physical training seriously, and that the Army needed to systematize its practices. Pressure mounted, as did interest among senior leaders. Bell's successor as Chief of Staff, Major General Leonard Wood, took the next step by directing the publication in 1914 of the Army's *Manual of Physical Training*. Seeking authors for this training system, the Army turned to its internal expert at the United States Military Academy, just as Lieutenant Colonel Greenleaf had recommended in 1891.

The resulting institutionalized physical culture embodied in the 1914 manual therefore expressed a body of ideas that had accreted over nearly three decades, chiefly birthed and shepherded by Herman Koehler. Four salient elements characterized that culture. First, the culture valued psychological qualities at least as much as physical qualities in defining fitness. Second, the culture prioritized a unit's average capabilities over optimizing any individual's physical capacity. Third, the culture built on an assumption that experts possessing specialized knowledge and training were essential to fitness. Finally, the culture's producers assumed that the Army's recruits were of generally high quality, though in need of refinement. Most of these characteristics reflected the culture's second-generation American physical education heritage. This second generation emerged after the American Civil War and began transitioning to a third generation by 1906. As a result, a divide emerged between physical training practices prevalent in the Army and those in higher education and wider American society.

An analysis of this physical culture should investigate the qualities the culture valued, and each quality's value relative to others. The Army's first institutionalized physical culture

valued a soldier's psychological qualities at least as much as his physical qualities, and it assumed that physical training could address both. As reflected in the 1914 manual, Koehler and others presented the benefits of physical training as a pyramid. Physical qualities formed the pyramid's foundation. None of these qualities were surprising or new: strength, endurance, improved posture and appearance, agility, gracefulness, general health, resilience to disease and injury, and muscular efficiency. However, advocates of systematic training claimed to be able to produce bigger gains faster by leveraging the latest advances in the professionalizing fields of physical education and training for the sole purpose of improving bodies. The application of new methods also addressed the pyramid's second level: confidence, courage, self-reliance, and willpower. Koehler labeled these "psychologic" qualities. For him, intentional development of specific psychologic qualities was the "essential different" between military and civilian physical training, and a key goal for military training.⁹³ The Army's 1914 manual summarized these qualities using one of Koehler's well-worn sayings: they induced "men to dare because of the consciousness to do."⁹⁴

At the top of the pyramid perched an ultimate psychologic quality objective: discipline. The definition of discipline in this physical culture reflected an understanding of what the future battlefield might demand of the soldier, and of how physical training could prepare soldiers for that battlefield. Contemporary theorists of warfare worried over the corrosive effects on command and control created by the need to disperse due to the deadliness of modern weapons technology. If not in close order, how could units sustain the momentum of an attack? How

⁹³ Herman J. Koehler, "Letter from Captain Herman J. Koehler," *American Physical Education Review* 21, no. 3 (1916): 149.

⁹⁴ War Department, 6. Variations on the confidence theme can be found in Edmund L. Butts, "Military Athletics," *Harper's Weekly*, no. 41 (9 January 1897): 41; Merch B. Stewart, *The Physical Development of the Infantry Soldier* (Menasha: George Banta Publishing Company, 1913), 7; Edward L. King, "Athletics for the Physical Betterment of the Enlisted Men in the Army," *Outing*, January 1902, 432.

could soldiers overcome the psychological trauma of combat? Systematic physical training advocates responded with a type of discipline that combined individualist and corporate aspects. Reading Butts's and Koehler's definitions together sheds light on how this combination worked. Butts stressed individuality. "With all the discipline that is instilled [in military training]," Butts cautioned in 1904, "we do not want the American soldier to lose his individuality—that individuality which makes him the greatest soldier in the world."⁹⁵ In contrast, Koehler stressed subordination, as evident in his description of a disciplined soldier as an "interdependent and dependable effective unit, with a direct and definite responsibility to the state."⁹⁶

With its veneer of drill, systematic physical training seemed to encourage Koehler's subordination more than Butts' individuality. The ideal training sessions imagined and depicted in these works always had men in ranks responding in unison to commands issued by forceful, disciplinarian paragons of physical fitness. Yet Koehler's and Butts' positions were closer than they at first appear. Koehler did not seek blind or unthinking obedience, but the "intelligent, voluntary subordination of the individual in an equal degree with every other individual."⁹⁷ Subordination was an individual decision, compatible with American ideals of individuality. Physical training taught men to control their bodies and to respond to commands. Self-control helped men willingly submit themselves to authority and the unit's needs while retaining their individuality, and thus the confidence to act on their own initiative if necessary. Physical training conditioned bodies and minds alike, the combination of which was supposed to enable a bottom-up discipline productive of aggressive team-based action on the battlefield.

⁹⁵ Edmund L. Butts, "Soldierly Bearing, Health and Athletics," *Outing*, March 1904, 707.

⁹⁶ Koehler, "Letter from Captain Herman J. Koehler," 149.

⁹⁷ *Ibid.*, 151.

The logic behind promises of improving psychologic qualities also underwrote promises about making soldiers more moral. Period beliefs closely linked strong bodies and strong minds. Much as training muscles to submit to the will was thought to develop discipline, exercise was thought to strengthen both muscular and moral fibers. Noted psychologist G. Stanley Hall expressed the muscles-morals connection clearly in a paper he delivered in 1894: “You cannot have a firm will without firm muscles; and there is nothing so dangerous for morals as to have the gap between knowing what is right and proper and health and the doing of it, yawn; and it always yawns if the muscles get weak.”⁹⁸ Koehler made similar comments in a draft of the 1914 manual, writing that “it is the physical that determines the destiny of the intellectual.”⁹⁹ Physical trainers were therefore also cultivators of vigorous, moral, and active masculinity.

Moral development helped commend the idea of systematic exercise to otherwise doubt-filled senior officers. Not only did exercise improve discipline and behavior, but it provided a healthy alternative to vice.¹⁰⁰ Many of the authors urging the Army’s adoption of systematic physical training made this argument, sometimes overly simplistically. For example, Lieutenant A. B. Donworth, one of the young officers assigned as a gym superintendent, related his own college experiences in an 1897 article. Donworth wrote that maintenance fees for damaged school property had been on the rise, but after the institution opened a “fine gymnasium,” damages dropped dramatically. The reason, according to Donworth, was that the students were so tired by evening from exercise that the “property remained unmolested.”¹⁰¹ Most advocates,

⁹⁸ G. Stanley Hall, "Some Relations between Physical and Mental Training," in *Report of the Ninth Annual Meeting of the American Association for the Advancement of Physical Education* (New Haven: Press of Clarence H. Ryder, 1894), 31.

⁹⁹ Draft of *Manual of Physical Training*, 2, Herman Koehler Vertical File, United States Military Academy Special Collections.

¹⁰⁰ James E. Pilcher, "The Place of Physical Training in the Military Service," in *The Proceedings of the Fourth Annual Meeting of the Association of Military Surgeons of the United States* (St. Louis: Suxton & Skinner Stationary Co., 1894), 178.

¹⁰¹ Donworth, 513.

like their counterparts in civilian education, made more sophisticated arguments that linked muscle fiber and moral fiber. One of their most commonly invoked analogies was known as the “blacksmith’s arm.” This analogy was based on the observation that the more a blacksmith used his arm muscles, the stronger they became. Physical education advocates reasoned that exercising man’s will by the disciplined and mutual action of mind and matter could similarly strengthen that will.¹⁰² Connections between exercise and moral behavior would only grow more influential as a justification for physical training in the years to come.

A second key feature of the new culture’s definition of fitness was an emphasis on organizations over individuals. In a 1904 article, Koehler asserted that other armies had adopted physical training in the interest of improving whole-army efficiency. Koehler argued that the U.S. Army, like other armies, was “most invariably dependent upon the average man,” so the “standard of physical excellence which may be attained is dependent directly upon the efforts made to develop the average man and the man who is below average.”¹⁰³ The point of physical training was to raise the average level of fitness across an organization, not to maximize individual physical capabilities. As Captain L. S. Upton observed a year later in reflecting on his Spanish-American War experiences, systematic training could ensure “that each man will be developed and made an efficient physical unit in the army machine.” The whole idea of physical training, Upton argued, was to “give all soldiers a proper physical development and sufficient stamina to make them equal to a required military task with the least number of ineffectives.”¹⁰⁴ To make his point, Upton compared two theoretical battalions, one containing the Army’s best sprinters, and the other focused on training their average men. If both ran a mile, the battalion

¹⁰² Park, “Physiologists, Physicians, and Physical Educators: Nineteenth-Century Biology and Exercise, *Hygienic and Educative*,” 139, 144-146, 155.

¹⁰³ Koehler, “Physical Training in the Army,” 10.

¹⁰⁴ L. S. Upton, “Physical Training in the Army,” *Infantry Journal* 2, no. 2 (1905): 110.

focused on its specialist sprinters would lose a larger percentage as fall-outs than the other, making it militarily inferior. Even Butts' bragging about his trainees' muscle growth made his stress on organizations clear—his statistics only highlighted average gains across units.¹⁰⁵

Valuation of an organization's average level of fitness above the individual's capacity also manifested in an injury- and exhaustion-avoidance mindset. "Underdoing is rectifiable; overdoing is often not," cautioned the authors of the Army's 1914 manual, echoing one of Koehler's maxims.¹⁰⁶ Systematic training advocates viewed injury and exhaustion as a double threat. First, because improved unit efficiency was the ultimate goal of training, injuries were counterproductive. Injuries kept men from training and degraded a unit's combat effectiveness. Second, injuries and exhaustion could make soldiers dread physical training. Monotony posed a similar threat. If soldiers dreaded training, they would not participate enthusiastically or focus their efforts, both of which training advocates regarded as key to developing psychologic qualities.¹⁰⁷ Furthermore, dread and dissatisfaction worked against the creation of a team mentality conducive to discipline.

A third key feature of the Army's first official physical culture concerned a physical trainer's qualifications. Systematic physical training was premised on claims of scientific, expert knowledge. Only by precisely applying the specified methods could trainers help soldiers achieve the promised psychologic, physical, and organizational benefits. Such precision was beyond the reach of people unversed in the nuances of a human body's composition, arrangement, and operations. Some training advocates, almost exclusively medical officers,

¹⁰⁵ Butts, "Physical Training of the American Soldier," 502.

¹⁰⁶ War Department, *Manual of Physical Training*, 13.

¹⁰⁷ For examples, see Koehler, *Manual of Calisthenic Exercises*, 2; "General Remarks on Physical Training in the Service," 121; Butts, *Manual of Physical Drill, United States Army*, 2; Enoch B. Garey, *Manual of Physical Drill* (Kansas City: Franklin Hudson Publishing Co., 1911), 54.

argued before 1914 that only physicians possessed such knowledge. Pilcher made this case in his seminal 1892 article on physical training, noting that many of the day's "best teachers of physical training" held medical degrees and that training regulations in the British Army and others required medical officers to supervise gymnastics. Pilcher argued that medical officers were uniquely equipped to obviate the "danger of injury from the abuse of exercise" and to diagnose "defective parts" of soldiers' bodies.¹⁰⁸ However, while many of the period's famed physical educators held medical degrees, not all did. Similarly, not all medical officers had mastered the latest methods of physical training. Finally, given the imbalance between the number of men to be trained and the number of medical officers available, a requirement for all training to be led by medical officers was impractical. Other experts needed to be found or made.

The most efficient and effective system most advocates proposed resembled European establishments, especially the British army's program at Aldershot. This program, created and directed by experts assigned to the British Gymnastic Staff, certified trainers who then returned to their regiments and served as physical training specialists. Ideas for a similar program in the U.S. Army invariably identified West Point as the obvious proponent and Koehler as its director. Though not a physician, Koehler could claim the necessary expert knowledge thanks to the professionalization of physical education. Yet hopes for a similar "post-graduate" course in the U.S. Army had died out by late 1904.¹⁰⁹ Instead, Koehler and his compatriots settled for relying on West Point graduates as local specialists. Educated by Koehler and his staff as cadets, Academy graduates were theoretically equipped to apply a centrally constructed system of training.¹¹⁰ This stopgap solution to the expertise problem worked so long as cadets and

¹⁰⁸ Pilcher, "The Building of the Soldier," 334-35.

¹⁰⁹ Koehler, *Manual of Gymnastic Exercises: Prepared for Use in Service Gymnasiums*, 9.

¹¹⁰ Koehler, "Physical Training in the Army," 11-12.

commanders alike took physical training seriously, and so long as commanders only assigned those men most interested in the work as training officers. However, this solution also had drawbacks. For example, it produced a limited pool of potential trainers that was not easily expandable. Also, potential instructors equipped with the latest knowledge were invariably the youngest officers in a unit, and thus they lacked influence over unit training.

Finally, those responsible for the Army's first official physical culture assumed that the Army's recruits were of a generally high quality, even if they harbored doubts about wider American society. The period's cultural producers tended not to explicitly reinforce the popular perception of the enlisted ranks being peopled by society's dregs. However, the culture's nearly complete focus on improving the rank-and-file's physical fitness and the absence of disciplinary training for officers implies some paternalist assumptions about the qualitative differences between the two populations. For instance, Butts, ever the American fighting man's promoter, observed in 1895 that the Army's human material was "of the highest order." New recruits entered with sufficient foundations of strength and endurance, each "well developed in his uncouth way." Physical trainers, Butts declared, needed to make the most of this raw material to sculpt each soldier into a "magnificent specimen of physical manhood."¹¹¹ A decade later, Captain Guy Palmer delivered a similar assessment of the American soldier. New recruits possessed a solid foundation, though they lacked "grace, agility, and a knowledge of how to use their strength" and displayed unevenly developed bodies. "Latent qualities exist in these men," Palmer observed, but they needed a "course of systematic and wise instruction to bring them out."¹¹² Systematic training advocates generally converged on the idea that to be ready for

¹¹¹ Butts, "Physical Training of the American Soldier," 512.

¹¹² Palmer, 121.

modern war, the American fighting man, though not his officers, needed honing and to be made more efficient.

Yet for all their confidence about the quality of the average recruit, systematic training advocates regularly hinted at their doubts about the quality of men in wider American society. Sometimes these doubts reflected anxieties springing from the period's dominant Darwinian racial theories. Major Henry Kilbourne, an army surgeon, sounded such an alarm in a paper for a panel on military physical training during the 1897 Association of Military Surgeons conference. Alongside presenters proposing systems of training and debating the place of athletics in the Army, Kilbourne warned that the average quality of the American population was decreasing due to racial mixing. The "swarthy, low-browed and stunted people now swarming to our shores" were problematic, he cautioned, because physical training could only enhance what was already naturally available. Perhaps Butts' superior American recruit would become a thing of the past.¹¹³ Other anxieties sprang from the perceived neurasthenia crisis gripping American and western European societies. Koehler himself gave voice to these concerns in a draft of the Army's 1914 manual: the "primitive and simple methods of life" that had cultivated a "physical and moral hardihood" in American men were under threat from modern conveniences on one hand, and urbanization on the other. Koehler estimated that less than 50 percent of men aged 18 to 45 were physically healthy enough to serve as a result.¹¹⁴

Those men most responsible for constructing a physical culture around systematic training assumed they would sculpt generally high-quality raw material, even as they echoed the era's concerns about the suitability of most men for modern war. Rarely did these cultural

¹¹³ Henry S. Kilbourne, "The Physical Proportions of the American Soldier," in *Proceedings of the Seventh Annual Meeting of the Association of Military Surgeons of the United States*, ed. James E. Pilcher (Columbus: Berlin Publishing Co., 1897), 332, quote on 39.

¹¹⁴ "Draft of *Manual of Physical Training*," 2-4.

producers give any written consideration to mass mobilization's implications for their physical training systems. The closest most came was a vague hope that men introduced to physical training in the service would take their fitness knowledge, skills, and enthusiasm out into American society, thereby "pre-conditioning" the next generation of soldiers for service. One of the clearest expressions of this hope is found in then-Captain Merch Stewart's *Physical Development of the Infantry Soldier* (1913). A prolific author, veteran of the Spanish-American War, and future West Point Superintendent, Stewart argued that all able-bodied male citizens between the ages of 18 and 45 were liable for military service, so all were obligated to improve their fitness.¹¹⁵ Yet exhortation could not replace planning for an influx of lower-quality recruits, especially given that the Army included few expert trainers and had only a narrow, fixed pipeline for producing new trainers. Differing perceptions of human material in and out of uniform suggest that this physical culture was geared chiefly toward a small regular army's needs.

Apart from training manuals, nothing more clearly illuminated the outlines and elements of the Army's first official physical culture than did debate over sport's place in the military at the turn of the twentieth century. Additionally, this debate continued influencing the Army's physical culture and physical training practices over the subsequent decades as later chapters will demonstrate. Enthusiasm for sport and systematic physical training grew up together in the decades following the American Civil War. The sporting movement in the U.S. Army chiefly resulted from grassroots interest and organization. Soldiers' interest in athletics coincided with the rise of a sporting craze in late-nineteenth century America. Their interest also coincided with more general reform movements within the military, especially after the Spanish-American War,

¹¹⁵ Stewart, 2-4.

and with social reform movements that painted sport as an alternative to vice.¹¹⁶ The military's sporting germ arguably originated at the academies, a key inflection point being the inaugural Army-Navy football game in 1890, before spreading throughout the larger force. In the 1890s, attitudes toward sport shifted from toleration to a willingness to experiment. Athletics gradually became part of the duty day for some soldiers in this decade. By the 1900s, sport enjoyed "unqualified acceptance" as one of the "essential elements of soldier training," according to historian Steven Pope.¹¹⁷

Linked by one historian as synergistic trends, sport and systematic physical training also represented two different, though related, physical cultures.¹¹⁸ Systematic physical training sought to organize and rationalize training practices from the top-down, and it emphasized average unit performance. Sports arose from a bottom-up popular movement and tended to celebrate the elite individual athlete's performance. Systematic physical training activists such as Koehler and Butts saw both opportunity and peril in sports. On one hand, field days and athletic competitions built esprit de corps, celebrated physical capabilities, and encouraged interest in training among many soldiers. On the other, competition inclined leaders to focus on their star athletes and pushed soldiers to specialize instead of seeking harmonious, balanced development. A few went even further, arguing that sports were "mere play" as opposed to the "serious nature" of a soldier's calling, so therefore the "kindergarten methods" of sport did not advance

¹¹⁶ Jeffery Allen Charlston, "Disorganized and Quasi-Official but Eventually Successful: Sport in the U.S. Military, 1814-1914," *The International Journal of the History of Sport* 19, no. 4 (2002): 76-78.

¹¹⁷ Steven Pope, "An Army of Athletes: Playing Fields, Battlefields, and the American Military Sporting Experience, 1890-1920," *The Journal of Military History* 59, no. 3 (1995): 438-41.

¹¹⁸ On synergy, see Charlston, 76.

training.¹¹⁹ These activists' negotiation of the sports issue clarifies the outlines and contours of their own physical culture.

Two articles paired under the title "Athletics in the Army" in a 1905 edition of the *Journal of the Military Service Institution of the United States* captured the potential and problems nearly all systematic training advocates perceived in sports. In one article, Captain H. Hawkins expressed deep concern about the proliferation of field days and their pernicious effects on soldiers' bodies and command climates alike. Field days, common features of Army life by 1905, set aside a day or more from regular training so that entire units could participate in and observe athletic competitions. Hawkins described this application of athletics as submission to a sporting craze or fad, and argued that commanders were wrong to think of these days as physical training. Only men who could already run well or play a sport participated, and the rest of the unit's men "merely clap their hands at the performances of their representatives."¹²⁰ The elite competitors benefitted little physically from participation, though they risked injury, and the rest did not benefit at all. In the other article, Major Robert Bullard claimed that enthusiasm for sport reflected a deeper concern about physical training and development present in American society at the time. On the whole, Bullard found athletics to be a potentially positive tool for shaping fit bodies necessary for soldiering. However, Bullard took issue with the Army's unsystematic use of athletics that was neither entirely recreational, nor entirely for training. Athletics, he argued, must be "subordinated—better—completely swallowed up in the idea of training" and turned

¹¹⁹ Henry G. Beyer, "Military Physical Training," in *Proceedings of the Seventh Annual Meeting of the Association of Military Surgeons of the United States*, ed. James E. Pilcher (Columbus: Berlin Printing Co., 1897), 266.

¹²⁰ Robert L. Bullard and H. S. Hawkins, "Athletics in the Army," *Journal of the Military Service Institution of the United States* 37, no. 138 (1905): 405. In a response to this set of articles, Lieutenant Colonel A. C. Sharpe characterized field days as the "most irrational feature of our garrison life." A. C. Sharpe, "Comment & Criticism: Athletics in the Army," *Journal of the Military Service Institution of the United States* 38, no. 141 (1906): 538.

from “sport, play and trifling, to training and the serious business of preparation for war.”¹²¹

Both Hawkins and Bullard recognized the need for physical training and the potential role athletics could play in it. Yet both also expressed concern about enthusiasm for sports derailing more serious and constructive means to build better bodies.

Bullard and Hawkins were typical of systematic training advocates at the turn of the century. Linking their ideas to the physical culture made official in 1914 requires an exploration of Butts’ and Koehler’s ideas too, both of whom proved so influential in creating that culture. Over more than a decade of writing, Butts consistently argued in favor of athletic competitions. While inaugurating physical training at Columbus Barracks in 1893, Butts also inaugurated regular post field days. As late as 1905, Butts still hoped for the day when these post field days might culminate in Department or All-Army championships equal in import to the annual Army Rifle Competition.¹²² Butts valued all kinds of field day competitions. However, he advised that the bulk of the events be military in nature, such as wall-scaling or tent-pitching, and involve as many members of a unit as possible.¹²³ Every officer, and especially those young graduates of West Point, had a duty to encourage all kinds of athletic activities according to Butts.

Still, “national sports” such as baseball and football also found favor. Butts listed the benefits of sport in many of his works, including building *esprit de corps*, inspiring soldiers to emulation, and providing an alternative to vice. Butts also saw sport as a way to simultaneously build discipline and individuality. Comparing ball players and skirmishers, Butts contended that both must be “subservient to and united with” the team’s efforts, and yet able to take “quick and

¹²¹ Bullard and Hawkins, "Athletics in the Army," 402.

¹²² Edmund L. Butts, "Physical Training of the American Soldier," *Journal of the Military Service Institution of the United States* 61, no. 75 (1895): 509; "Soldierly Bearing, Health and Athletics," 707.

¹²³ Butts never listed a program of events, but for an example of one that meets Butts' criteria and intent, see Davis, 79-80.

prompt individual action” on which success often depends. “An able player on the ball field will not forget his tactics on a field of battle,” Butts wrote, “and an able captain of a ball team will make an abler captain in the deadlier game of war.”¹²⁴ Given his cadet reputation as a remarkable athlete, his enthusiasm is not surprising. Yet for all of the eloquence Butts invested in celebrating sport, it never figured as more than a complement to the core of his system—systematic, disciplinary gymnastic training. Take the composition of his physical training manual, for instance. Track and field training information earns a chapter, and intercollegiate and amateur track and field records earn a page, but both were appended to the end of the manual and added simply “as matters of general interest and information.”¹²⁵

Tension was also present in Koehler’s consistent opinion of sport. During his tenure as the Academy’s Master of the Sword, intercollegiate athletics blossomed at West Point, led by an interest in football as at so many other institutions of higher education at the time. In fact, Koehler served as head coach of the Army football team from 1897-1900 and remained involved with the team in later years.¹²⁶ Koehler also oversaw the institution of mandatory intramural athletics for all cadets in 1920, a practice that continues in the present day. Yet Koehler also argued against athletics in the army. For instance, in a 1904 article Koehler urged the Army to adopt a system of training that would raise that physical standard of all its members, but remarked that “it is needless to add that competitive athletics do not and can not do this.”¹²⁷ Though a fan of the sort of field days Butts advocated, which Koehler labeled “organization competition,” Koehler also argued against the proliferation of field days on units’ training

¹²⁴ Butts, "Physical Training of the American Soldier," 511.

¹²⁵ Butts also did not author the chapter on track and field competition. Instead, he borrowed the material from a book entitled "Track Athletic in Detail." *Manual of Physical Drill, United States Army*, iii, 136.

¹²⁶ William H. Edwards, *Football Days: Memories of the Game and of the Men Behind the Ball* (New York: Moffat, Yard and Company, 1916), 214-15.

¹²⁷ Koehler, "Physical Training in the Army," 2.

calendars.¹²⁸ Similarly, Koehler worked to advance sport at West Point, but ignored the topic in his 1892 and 1904 manuals, and only briefly covered track and field events in the Army's 1914 manual.

How does one explain the disapproval of sport in the Army voiced by one of the most influential figures in the history of West Point athletics? Features of the systematic physical training culture Koehler fathered are key to unlocking this puzzle. Physical training in the Army was supposed to improve a unit's average fitness and symmetrically develop all soldiers, while simultaneously promoting discipline and other psychologic qualities. In contrast, Koehler believed that competitive athletics targeted small populations of men for specialized development who were generally already fit. Competition also inclined participants to focus on victory over training, which posed increased risks of injury. Competition's seductiveness also threatened to take time and attention away from the serious business of physical training.

A manifesto Koehler wrote in 1909 on the "theory and practice of athletics" at West Point for the Academy's nascent Athletic Council helps explain why he thought West Point was uniquely capable of avoiding these hazards. In this paper, Koehler argued that West Point's physical training goal had always been to develop the "very highest possible standard of general excellence of the mass of its students."¹²⁹ Competitive athletics, he asserted, could support that objective because West Point already had a mandatory systematic training program for all cadets and the Academy's supervisory organizations were dedicated to keeping sport aligned with the developmental mission. In short, *all* cadets developed a foundation of fitness in systematic training, then those that desired additional challenges could try out for competitive sports teams.

¹²⁸ "General Remarks on Physical Training in the Service," 103-04, 15.

¹²⁹ Herman Koehler, *The Theory and Practice of Athletics at the Military Academy* (West Point: Military Academy Printing Office, 1909), 2.

This aligned with his consistent position that competitive athletics, while potentially valuable, should “never be more than an *incident* in the system of training of soldiers.”¹³⁰

Conditions in the Army did not match conditions at West Point, so Koehler doubted that competitive athletics could remain incidental. If all commanders were not dedicated first and foremost to systematic training, and the Army’s highest authorities did not make such training mandatory, then competitive athletics would spin out of control. Koehler’s experiences at the Academy likely reinforced his beliefs. After all, his 1909 manifesto responded directly to competitive athletics having spun out of control at the Academy a few years prior. While the Academy’s Superintendent, Colonel Hugh Scott, had been away on an extended absence in 1908, members of the Army Athletic Association had threatened to cancel the annual Army-Navy football game over a player eligibility dispute with the Naval Academy. For Scott, this was a last straw. The Army Athletic Association, founded in 1892 as a private booster organization that funded competitive athletics and scheduled competitions, had grown too independent and lacked a focus on the Academy’s core educational and developmental mission.¹³¹ Scott responded by establishing his own Athletic Council composed of the commandant, master of the sword, and various officers from the Superintendent’s staff.¹³² This council directed the activities of the newly re-chartered Army Athletic Association, bringing competitive athletics under the tight supervisory control Koehler extolled as one of two key reasons why competitive sport could be part of a cadet’s daily life, but not necessarily a soldier’s.

In their views on sport, emphasis on psychological qualities and group fitness, and links between mental, physical, and moral qualities, the producers responsible for the Army’s first

¹³⁰ Koehler, "Physical Training in the Army," 9.

¹³¹ The Army Athletic Association, renamed in 1903, was originally known as the Army Officers Athletic Association.

¹³² Betros, 168-71.

official physical culture reflected the second generation of American physical education. Capitalizing on the American public's fascination with health, strength, and fitness in the decades following the Civil War, this generation claimed expert knowledge based on physiology, theories of evolution, and traditional practices associated with ethnic groups. Scientific training and knowledge set this generation apart from its forebears, though much of the earlier millenarianism of antebellum health reformers endured. The leading thinkers of physical education's second generation included physicians as well as self-styled physical educators or trainers, much like the population of principals behind the Army's physical culture. Historian Roberta Park has shown that second generation physical education claimed two functions: hygienic and educative. Physical education goals were broad and comprehensive, including physical, mental, and moral development. These ideas match language Koehler and his peers used throughout their works. Second generation physical educators also stressed the need to direct exercise toward specific goals, and to confine exercise within tight limits set by experts who prioritized physical, mental, and moral development over victory in competition.¹³³ Like Koehler, Butts, and other Army training advocates, second generation physical educators endorsed sport, but only as a complement to gymnastics and other types of disciplinary training.¹³⁴ Similarly, physical educators also struggled against the constant threat of sport's popularity overwhelming their serious goals in physical training.

Identifying these common roots is important in light of the eventual divergence between the Army's physical culture and American physical education. Where the Army's

¹³³ Park, 138-43.

¹³⁴ For a concise statement of this position, see Edward Mussey Hartwell, "The Nature of Physical Training, and the Best Means of Securing Its Ends," in *Physical Training: A Full Report of the Papers and Discussions of the Conference Held in Boston in November, 1889*, ed. Isabel C. Barrows (Boston: Press of George H. Ellis, 1890), 20.

institutionalized physical culture remained stable, around 1906 American physical education moved into a third generation that began embracing sport. Many factors propelled this move, such as the increasing influence of social science and psychology over physiology, the pressure of popular culture, the growth of professional and college sports, and the rise of the play movement and child development theory.¹³⁵ The Army's official physical culture proved more resistant to change. Resistance stemmed partly from the decisive influence Koehler and his disciples exercised on policy, and partly from the overlap between military values and practices with the gymnastics and psychologic outcomes touted by second generation physical education. More and more, fitness in American physical education and wider American society meant "normal" social development and a healthy body. In the Army, antebellum and even earlier values endured. Fitness in the Army meant health, strength, resilience, confidence, and discipline, and psychologic qualities were just as important as physical qualities. Fitness also continued to have an organizational component: fitness was an obligation owed to the unit and nation, improving the unit's weakest link remained the top priority, and a fit body was one placed in willing submission to the group's needs.

The 1914 physical training manual makes clear that the Army had come a long way in addressing Greenleaf's 1891 warning that the American soldier was something less than a model of physical perfection. Though Koehler and his compatriots still complained about the implementation of systematic physical training and dangers of the field day, the Army as an institution had decisively embraced their mode of physical training. Such training seemed well-suited to the perceived demands of the modern battlefield. There mass mattered more than quality by 1914, though a higher quality mass trumped lower quality masses. While the scale of

¹³⁵ Park, 167-71.

war grew, loss of the “elbow touch” in combat demanded more of the individual soldier. Discipline seemed critical given the corrosive effects of battle’s enhanced physical and psychological challenges. Yet discipline taken too far and made too strict could also squelch the individual initiative that also seemed necessary when every soldier had essentially become a skirmisher.

Producers of the Army’s physical culture promised to give American soldiers a competitive edge in this environment. By using expert knowledge of the body and mind to construct systems of training, these cultural producers planned to sculpt stronger bodies and minds than had been possible using older, incidental modes of physical training. Though not intended to make individual supermen, the new physical training promised an improved average level of fitness for whole units. Men accustomed to subordinating their bodies to their will, and their will to the unit’s needs, could enter modern battle confident of success, if not survival. Disciplined and enhanced bodies, minds, and morals—such were the assurances of this physical culture. But given the limited capacity to produce certified trainers, the growing divergence from thought and practice in American physical education, and the assumption of building from relatively high-quality human material, how truly ready was this culture for the demands of mass mobilization and modern war?

Chapter 3: The U.S. Army's Battle of the Systems, 1914-1920

World War I is commonly remembered as a machine war or an industrial war, but it was a war of flesh and blood as well. Gradual changes in weapons technology culminated in the Great War, rendering battlefield conditions vastly different from those of a century prior. Machine guns, rifles firing with smokeless powder, and huge concentrations of artillery pieces lobbing high explosives drove soldiers underground and created strangely empty battlefields. In the generation before 1914, most of Europe's leading military thinkers had posited an aggressive offensive mindset as the best way of overcoming the advantages that accrued to the defense through new weapons technology. According to this body of thought, the strategic offensive was necessary to win a war, and this depended upon offensive success at the tactical level. If opposing forces possessed similar technology, then victory would go to the side whose men were stronger, faster, more resilient, and more motivated.¹ Firepower could enable offensive action but man was the determinant for success. European militaries had looked to physical training systems for decades as a way to gain that critical edge in qualitative manpower, and in many cases they expanded those systems during World War I.

The U.S. Army was no different in this regard. Physical training was a major component of every soldier's preparation and Koehler's physical culture initially guided it. Koehler and his system were both regular features of preparedness camps in the summers of 1915 and 1916, for instance. When the Army began mobilizing in 1917, Koehler's *Special Regulations No. 23* equipped leaders to execute physical training even in spartan field conditions. Experience in combat only reinforced the value leaders inside and outside the military placed on physical training. When noted physical educator Luther Gulick returned from a visit to the American

¹ Antulio J. Echevarria, "The 'Cult of the Offensive' Revisited: Confronting Technological Change before the Great War," *Journal of Strategic Studies* 25, no. 1 (2002): 199-202.

Expeditionary Forces in Europe in 1918, he brought a message for his fellow physical educators—physical fitness in war had become more important than ever. Gulick dismissed certain pre-war theories that suggested modern war would be one of machines and that the improved ability to kill from a distance devalued physical strength, speed, and endurance. Nothing, he argued, could be further from the truth. The willingness to do or die counted, but “plain physical capacity” was just as important. Victory went to the man who could endure longer, march further, and fight harder. Gulick declared that even in the land of the machine gun and artillery shell, man’s physical fitness remained the “foundation of all success in war.”² Even as leaders continued to emphasize physical fitness, the means of building up that foundation changed drastically between 1917 and 1918. In that narrow window, an insurgent corps of civilians entered the scene and challenged the physical culture the Army had so recently sanctioned as official after thirty years of development.

This chapter charts the displacement of Koehler and his compatriots as the Army’s primary producers of physical culture between 1917 and 1920. The relative decline of Koehler’s institutional power within the Army began in 1917 when mobilized civilians serving in the newly created Commission on Training Camp Activities (CTCA) suddenly took charge of recreational athletics and physical training in the Army. This chapter begins with the story of their rise to power and the mechanisms that made possible their dominance. Next, this chapter explores the system these civilian leaders developed. Unfettered by Army’s conventions and existing physical culture and bearing fresh ideas from the world of physical education about what physical training could be, the CTCA’s civilian cadre crafted a new physical culture. This new culture was more

² Luther H. Gulick, "Physical Fitness in the Fighting Armies," *American Physical Education Review* 23, no. 6 (1918): 341-50.

inclusive of varied activities, more focused on combat-oriented functional, and more concerned with efficiently sculpting the individual soldier into an effective fighting machine. Within the context of a perceived crisis engendered by surprisingly high rates of draft rejections for physical and mental inadequacy, such efficiency seemed critical. Finally, this chapter concludes with an examination of efforts to make permanent this new physical culture within the Army.

As conscription began swelling the U.S. Army's ranks in the late summer of 1917, the Army struggled to deliver sufficient physical training to its new recruits. At the beginning of 1917, the Army counted nearly 300,000 men in uniform in either the Regular Army or National Guard. By November 1918, that population exploded to nearly 3.9 million.³ The bodies and minds of those recruits needed strengthening, toughening, and sculpting, but the Army lacked an expansible corps of physical trainers able to meet the demand. Despite the Army's embrace of the physical culture developed by Koehler and his compatriots, it had not invested in a training pipeline to create and certify trainers. Calls for a central school on the Aldershot model had come to naught, and Koehler's alternate proposal for a "post-graduate" course at West Point had withered by 1904.⁴

Instead of a central school, the Army had opted to rely on West Point for the production of its physical trainers. Young West Point graduates, all beneficiaries of Koehler's instruction, assumed various duties at their new units as athletic officers and gymnasium directors. Though this system worked reasonably well in the pre-war Army, it proved wholly inadequate to the

³ Jennifer D. Keene, *Doughboys, the Great War, and the Remaking of America* (Baltimore: Johns Hopkins University Press, 2001), 9.

⁴ Herman J. Koehler, *Manual of Gymnastic Exercises: Prepared for Use in Service Gymnasiums* (Washington: Government Printing Office, 1904), 9.

challenge of mass mobilization.⁵ West Point's accelerated program turned out hundreds of new officers during the war years. Yet their physical training education was curtailed, other duties quickly consumed their time, and they simply numbered too few. Without a central school for physical trainers, the Army could not equip newly enlisted and commissioned citizen-soldiers with the knowledge and skills to lead training. Thus, the Army was incapable of expanding its corps of physical trainers to meet the demands of mobilization.

Similar shortfalls in other areas ranging from logistics management to psychological evaluations challenged the Army's ability to mobilize on such a vast scale. To make up for these shortfalls, the Army, and President Woodrow Wilson's administration more broadly, turned to civilian elites.⁶ One such civilian-led organization, the Commission on Training Camp Activities (CTCA), rapidly assumed responsibility for the care of soldiers' bodies, minds, and morals. Wilson established the CTCA on 17 April 1917, just eleven days after the U.S. entered World War I, and charged it with preventing the spread of venereal disease among soldiers. According to the CTCA, victory would come through "man-power and manhood," so the commission dedicated its efforts to cultivating both.⁷

In part, the CTCA's existence revealed the obligation the Wilson administration felt toward the young men that it drafted into service. America's youth were called in unprecedented numbers for a cause portrayed in highly moralistic terms. Accordingly, those men should be moral warriors and return home bearing only those scars "won in honorable conflict."⁸ The

⁵ George J. Fisher, "Physical Training in the Army," *American Physical Education Review* 23, no. 2 (1918): 65.

⁶ Keene, 24-25.

⁷ For the CTCA's portrayal of its task, purpose, and method see Edward Frank Allen, *Keeping Our Fighters Fit for War and After* (New York: The Century Co., 1918), 3-8, quotation on 16; War Department, *Commission on Training Camp Activities* (Washington: Government Printing Office, 1917), 3-5; Raymond B. Fosdick, "The Commission on Training Camp Activities," *Proceedings of the Academy of Political Science in the City of New York* 7, no. 4 (1918): 163-70.

⁸ Allen, preface.

CTCA's campaign against venereal disease and the immoral influences traditionally associated with military encampments by Americans helped assuage the public's concerns about entrusting its young men to the military.⁹

The CTCA's mission also revealed two other impulses in the Wilson administration's management of the war effort. Efficiency was the first of these. Rumors at the time held that venereal disease ravaged the armies fighting in Europe--supposedly, the Austrian army alone had lost upwards of 67 divisions worth of men to it.¹⁰ Reduction in venereal disease rates therefore seemed an excellent way to minimize wastage. Additionally, the soldiers themselves would be more efficient if content and engaged. The second impulse was toward social engineering on a massive scale. Progressives in the Wilson administration perceived an opportunity to reshape American society using soldiers and their training camps as a vector. Instead of introducing men to vice, military service could teach men healthy alternatives. Soldiers could return home with their bodies "strengthened and more virile," their minds "deepened and enriched by participation in a great, heroic enterprise," and their spirits enhanced by values "which come from a full life lived well and wholesomely."¹¹ After the crusade in Europe, American soldiers could bring the crusade home as the vanguard in a campaign of national uplift.

Both impulses were evident in the ideas and actions of the CTCA's director, Raymond Fosdick, and the man to whom the CTCA answered, Secretary of War Newton Baker. Both were Progressives keen on improving American morals and leveraging social engineering for reform.¹² Fosdick, a city official in New York who had made his name as an investigator of

⁹ Nancy K. Bristow, *Making Men Moral: Social Engineering During the Great War* (New York: New York University Press, 1996), 1-8; War Department, 3-6; Fosdick, 819; on the Progressive-era cultural debate about the identity of American soldiers as either innocent boys or adult men and the moral implications of that identity, see Anni Baker, "The Abolition of the U.S. Army Canteen, 1898-1914," *Journal of Military History* 80, no. 3 (2016).

¹⁰ Bristow, 11.

¹¹ Allen, preface.

¹² Bristow, 4-7.

European and American police systems, first encountered the problem of morality in military training camps in August 1916. That summer, U.S. soldiers deployed to the Mexican border found themselves bored in a hot and desolate land. Alcohol and prostitutes helped fill the dull hours. Alarmed by reports of vice, the War Department dispatched Fosdick as a special agent to study conditions.¹³

Fosdick's report earned him the chairmanship of the CTCA in 1917. He waged his subsequent campaign against venereal disease and vice on many fronts. For instance, the CTCA established in-camp alternatives to vice such as libraries, clubs, and hostess houses. The organization also used repression, such as in their agents' heavy-handed dealings with communities near training camps when rooting out illegal liquor sales and prostitution. The CTCA also sought to improve soldiers through educational programs, singing, sport, and more. Such diverse lines of effort demonstrate that Baker, Fosdick, and their chief subordinates conceived of their mission in broad terms and were willing to pursue their objectives aggressively by many means.

Athletics instantly emerged as a key tool in the CTCA's grand campaign to combat venereal disease, improve efficiency, and remake American society. Sports and exercise fulfilled the CTCA's immediate mission of providing healthy alternatives to vice. Soldiers could spend their energy in exercise and their spare time playing in or spectating at sporting events. Such arguments had long been among the justifications for recreational athletics, gym construction, and systematic physical training in the military. Additionally, sporting events could tie training camps and their local communities together more tightly through wholesome competition, which advanced the CTCA's vision of reshaping society. Athletics also enabled the CTCA's

¹³ Allen, 3-6.

Progressive leadership to pursue what historian Nancy Bristow has identified as one of their prime objectives: cultivation of an active middle-class masculinity to counter the feminization wrought by industrialization and urbanization.¹⁴ Ideally, soldiers would take their new knowledge of and zest for physical activity back to their communities after discharge. Former soldiers were vectors for revitalizing, and re-masculinizing, an enervated American society. Finally, athletics had obvious and direct military relevance. At least three decades of cultural, intellectual, and institutional momentum ensured that many of the Army's leaders were receptive to athletics, even if the Army's official physical culture separated athletics and training. The CTCA, dedicated to "educate the men to be better fighting organisms," capitalized on easy analogies and this moment in claiming that athletics could make men fit to fight and keep them that way.¹⁵

Responsibility for athletics fell to the CTCA's Athletic Division, headed by Princeton's Joseph Raycroft. This division, and Raycroft specifically, ultimately displaced Koehler between 1917 and 1920 as chief producer of official Army physical culture. The CTCA's authority and reach made the displacement possible. Part of that authority derived from the professional credentials Raycroft and others like him brought to bear. A member of the University of Chicago's first graduating class in 1896, Raycroft earned his doctoral degree in medicine from Rush Medical College in 1899. He later returned to Chicago as a full professor and served for twelve years as the university's medical director. In 1911, Raycroft became Princeton's second chairman of health and physical education, a position he retained until retirement in 1936. Among many other accomplishments at Princeton, Raycroft championed expanding the school's intramural athletics. He based his Princeton program partly on arguments that unhealthy students

¹⁴ Bristow, 38-40.

¹⁵ Allen, 40.

lowered the efficiency of the institution as a whole and that healthy bodies were essential for “clear thinking, clean living and efficient citizenship.”¹⁶ He also called on physical educators to design outcome-oriented programs instead of prescribing general programs. For Raycroft, physical education’s ultimate purpose was training the person to “get normal control of himself and to adapt himself to his environment.”¹⁷ At Princeton and in the Army, Raycroft championed a holistic, educational approach to physical training intended to produce positive mental, moral, and physical effects in its subjects.¹⁸ Raycroft’s belief in holistic education belonged to the new school of physical education, which had diverged from the thought and practice informing the Army’s physical culture around 1906.

The Athletic Division differed from benevolent organizations such as the Young Men’s Christian Association (Y.M.C.A.) and Knights of Columbus, which facilitated recreational athletics in camps and overseas, by aggressively interceding in military training.¹⁹ In May 1917, less than a month after the CTCA’s creation, Raycroft laid out his understanding of the problems facing physical training and his proposed solutions in a memorandum for the Army’s General Staff. This memorandum reveals Raycroft’s desire to fundamentally change Army physical training practices. In it, Raycroft asserted that the U.S. Army had to rapidly mold the “raw, untrained material from civil life” into men ready for “technical military training.” In brief, the

¹⁶ Quotation in Joseph E. Raycroft, "Safeguarding the Health of College Students," *Science* 39, no. 1011 (1914): 709, 11; Curriculum Vitae: Joseph Edward Raycroft, 1948, Series 1, Biographical, Box 2, Joseph Edward Raycroft Papers (JERP), Department of Rare Books and Special Collections, Princeton University Library (PUL); Joseph E. Raycroft, "The Educational Value of Athletics in Schools and Colleges," *School and Society* 3, no. 61 (1915): 295-96; Joseph E. Raycroft, "Training Camp Activities," *American Physical Education Review* 23, no. 3 (1918): 143.

¹⁷ "Proceedings of the Society of Directors of Physical Education in Colleges," *American Physical Education Review* 22, no. 4 (1917): 190-92.

¹⁸ Joseph E. Raycroft, Memorandum Concerning Physical Training in the New Army, May 1917, Box 4, JERP, PUL.

¹⁹ For a brief overview of the Y.M.C.A.'s involvement in military athletics, see Steven Pope, "An Army of Athletes: Playing Fields, Battlefields, and the American Military Sporting Experience, 1890-1920," *The Journal of Military History* 59, no. 3 (1995): 442-44.

problem was to bring men up to “a condition of maximum physical and mental efficiency in the shortest space of time.” Raycroft urged a “simple, intensive, uniform” training program to develop the “body control, physical reserve and endurance demanded by modern warfare.”²⁰ According to Raycroft, doing so demanded an increase in scale, more central control, further standardization, and the use of “more varied types of physical activities” beyond the disciplinary exercises Koehler’s culture promoted.²¹ The Athletic Division prided itself on its open-mindedness to any methods, whatever their source that would help them achieve their goals.²² Raycroft and his community of newly empowered civilians were unfettered by Army traditions and many of the assumptions that underwrote the Army’s existing physical culture.

To fulfill this vision, Raycroft initially recommended using the Army’s internal resources to build up a cadre of physical trainers in the British mold through a central Physical and Bayonet School. He envisioned this central school training and certifying instructors in courses ranging from one to four weeks in length. As in Britain and Canada, such a school could grow and shrink its capacity based on demand, yielding an expansible training pipeline.²³ From the beginning, Raycroft attached much importance to training trainers. He stressed that success in physical training depended upon the spirit and expertise shown by instructors. But expecting Koehler and his limited cadre of young West Point graduates to teach all the new conscripts and recruits would be inefficient, not to mention physically impossible. Instead, Raycroft wanted

²⁰ Joseph E. Raycroft, Memorandum Concerning Physical Training in the New Army, May 1917, Box 4, JERP, PUL.

²¹ Ibid.

²² Draft of Efficiency in Army Physical Training, Presented to the Athletic Research Society, Joseph E. Raycroft, pg. 2, 1920, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

²³ Joseph E. Raycroft, Memorandum Concerning Physical Training in the New Army, May 1917, Box 4, JERP, PUL.

experts such as Koehler in a school where they could “teach other men to teach.”²⁴ Raycroft also proposed establishment of a physical training control board in Washington to develop the thought, practice, and systems to be taught at the central training school.²⁵ Though this board never formed, the CTCA’s Athletic Division filled the role, temporarily replacing West Point as the de facto agency for development and promulgation of physical training systems.

Much of Raycroft’s vision for the Army’s future physical training infrastructure reflected his study of programs in use by allied forces. In drafting his May 1917 memorandum, Raycroft had focused his studies on the British and Canadian systems, and even briefly visited a Canadian training camp.²⁶ This was not a new or novel approach. Aldershot had served as a model for physical training advocates within the Army for decades. Civilian physical educators newly interested in military physical training repeatedly pointed to Aldershot as a model too. After all, it demonstrated the feasibility of an expansible central school for trainers, and its course plan reflected lessons learned on the battlefields of World War I.²⁷

Prompted by Raycroft memorandum, the War Department dispatched Koehler to Toronto in June 1917 to study the feasibility of implementing a system like the Canadian Army School of

²⁴ Joseph Raycroft to Raymond Fosdick, 14 June 1917; Fosdick No. 1, box 25; Records of the War Department General & Special Staffs, Commission on Training Camp Activities, Correspondence of the Athletic Division, 1917-1919, Record Group (RG) 165, National Archives at College Park, MD (NACP).

²⁵ Joseph E. Raycroft, Memorandum Concerning Physical Training in the New Army, May 1917, Box 4, JERP, PUL.

²⁶ Joseph E. Raycroft, Memorandum Outlining the Various Steps Taken in the Development of a Program of Physical Training, Boxing, Bayonet Fighting, Athletics, Etc., as a Part of the Training Program of a Soldier, 1917-1920, pg. 3, 1941, Box 4, JERP, PUL; for a description of the Canadian physical training system and its use of boxing in bayonet training, see Percy Hobbs, "Bayonet Fighting and Physical Training," *Infantry Journal* 14, no. 2 (1917).

²⁷ Studies of foreign practices generated much literature in the U.S. For a sample, see Fisher, 69; "Military Training in Foreign Countries," *American Physical Education Review* 22, no. 8 (1917); Army War College, *Notes on Bayonet Training Compiled from Foreign Reports* (Washington: Government Printing Office, 1917); Marc Bellin du Coteau, "The Physical Education of the Fighting Man: Method in Use in the National Military School of St. Cyr, France," *American Physical Education Review* 22, no. 9 (1917); Raycroft, "Training Camp Activities," 145.

Physical and Bayonet Training in the U.S. Army.²⁸ The curriculum Koehler would have encountered differed from his own in many respects, even if both built from a foundation of disciplinary physical exercise. For instance, the Canadian system reflected its British roots by incorporating both formal and recreational athletics into its training program. Bayonet and hand-to-hand fighting figured prominently as well.²⁹ Koehler issued a negative report upon his return that convinced the War Department that it was “not considered possible to establish a course ... on the scale suggested.”³⁰ What exactly Koehler found unfeasible or undesirable is not known. However, Koehler had expressed hostility in the past to turning over any part of Army physical training to civilians, so he may have found it impractical to start up such a school just using the military’s limited pool of uniformed experts given the urgency of mobilization.

Subsequently, the War Department dispatched Koehler to officers’ training camps instead of putting him in a school as Raycroft urged. Koehler spent two to four weeks at these camps giving special instruction to selected candidates.³¹ Graduates of Koehler’s crash course could, in theory, lead exercise sessions in accordance with the May 1917 *Special Regulations No. 23: Field Physical Training of the Soldier*.³² This practice essentially continued the Army’s existing instructor training program, but where Koehler spent four years preparing West Point graduates to lead physical training, he now spent at most four weeks with candidates. Several factors made this scheme ineffective. First, Koehler simply could not train enough officers himself. In training

²⁸ House of Representatives Select Committee on Expenditures in the War Department, *War Expenditures: Hearings before the Select Committee on Expenditures in the War Department* (Washington: Government Printing Office, 1919), 157.

²⁹ James D. Campbell, *"The Army Isn't All Work": Physical Culture in the Evolution of the British Army, 1860-1920* (Burlington: Ashgate Pub. Co., 2012), 63-64, 70-71, 112.

³⁰ Select Committee on Expenditures in the War Department, 157.

³¹ *Ibid.*; Herbert Reed, "'Not a Minute' Koehler Takes the Team," *The Independent* (1917, 14 July).

³² Issued in May 1917, this publication was a stripped-down version of the 1914 *Manual of Physical Training*. Koehler’s disciplinary drill formed this document’s core. Most elements of the 1914 manual that required additional equipment or apparatus were removed, as were the sections dealing with athletics.

at most a few hundred men during each two-to-four week iteration, the scheme did not produce a corps sufficient to meet the needs of the Army's rapidly swelling ranks. Second, other duties tended to consume these officers once they arrived at their units, making them unavailable for service as physical training instructors.³³

The War Department did not initially follow through on Raycroft's recommendations, so the Athletic Division's head shifted his efforts to promote a second scheme. Perceiving that Koehler's assignments to the camps signaled the way forward, Raycroft moved to place his own men in training camps. The Athletic Division would recruit leaders of college athletics and insert them into camps as athletic officers responsible for organizing training and sports. This plan followed the model set by Koehler while capitalizing on a feature common to most Regular Army camps, especially those overseas—athletic councils.³⁴ By 1917, athletic councils had been in operation for about two decades. Army officers on those councils had been charged with organizing and supervising recreational athletic competitions. Raycroft's proposal would put civilians at the head of similar councils that would simultaneously organize training and athletic competitions while educating officers on how to do the same in their regiments, battalions, and companies.

The CTCA could not force commanders to accept these men. To get around this, the CTCA, with Secretary Baker's authorization, wrote to camp commanders offering "the right, if they so desired" to "invite the services of trained athletic coaches" in order to "stimulate and promote the development of a knowledge of the organization and conduct of athletic sports."³⁵

³³ Select Committee on Expenditures in the War Department, 157.

³⁴ Joseph E. Raycroft, Memorandum Outlining the Various Steps Taken in the Development of a Program of Physical Training, Boxing, Bayonet Fighting, Athletics, Etc., as a Part of the Training Program of a Soldier, 1917-1920, pg. 2, 1941, Box 4, JERP, PUL

³⁵ *Ibid.*, 5; Letter, Major General J. Franklin Bell to Colonel Traub, 12 July 1917, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL; Letter, Joseph Raycroft to Colonel Samuel W. Miller, 29 June 1917, Series 3: Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

The Athletic Division reserved responsibility for recruiting and managing these civilians. The program first rolled out at officers' training camps. It proved popular and rapidly expanded to cover all training camps. By November 1917, the CTCA's athletic directors were operating in sixteen National Army and sixteen National Guard cantonments.³⁶ This training cadre reinforced the Athletic Division's institutional control over physical culture production. Over the following two years, they extended Raycroft's influence down to the division level and below, built a school system from the ground up, and used their laboratory of human material to develop a comprehensive system of military physical training.

This influential group initially included physical educators, coaches, and athletic trainers mostly pulled from institutions of American higher education at the outset of the war. The War Department designated these experts as "civilian aides" to camp and division commanders. For the most part, they were enthusiastically welcomed by camp commanders, and most were given the title of "Athletic Director."³⁷ Their duties involved building and leading athletic councils, as well as coordinating the work of Y.M.C.A. and Knights of Columbus physical directors already organizing recreational activities. In August, the CTCA expanded this program by adding boxing experts to serve under the Athletic Directors as special instructors.³⁸ Raycroft prided himself on recruiting men as athletic directors, special instructors, and advisors based purely upon their qualifications in the subject matter. This led to the recruitment of some unorthodox trainers including professional prizefighters, a "Scotchman who had lived in Japan" and there earned a fifth-degree black belt, and a "couple of noted knife fighters" from a lumber camp in Mississippi

³⁶ Meeting of War Department Commission on Training Camp Activities Report, 21 November 1917; Fosdick Letters No. 1; Commission on Training Camp Activities, Correspondence of the Athletic Division, 1917-1919, box 25; RG 165, NACP.

³⁷ Joseph E. Raycroft, Memorandum Outlining the Various Steps Taken in the Development of a Program of Physical Training, Boxing, Bayonet Fighting, Athletics, Etc., as a Part of the Training Program of a Soldier, 1917-1920, pg. 5-6, 1941, Box 4, JERP, PUL.

³⁸ *Ibid.*, 7.

who Raycroft recalled were “very tough guys.”³⁹ Merit-based recruitment reflected Raycroft’s commitment to efficiency. Yet it occasionally cut against the Progressive morality project, such as when rough-and-tumble instructors failed to model the honorable masculine ideal the CTCA sought to cultivate.⁴⁰ However, the use of these instructors demonstrated Raycroft’s functional, combat-oriented definition of fitness that would characterize the physical culture he helped craft.

Inserting civilians into military organizations triggered a running debate about whether the athletic directors should remain civilians or receive a commission, and even deploy with their divisions. In part this debate reflected negotiations over the athletic director’s role. The CTCA’s initial pitch to camp commanders emphasized the athletic director’s responsibility for organizing and promoting *sport*. Yet clearly Raycroft and others in the CTCA imagined a larger role for their directors. In this regard, the title “athletic director” was somewhat misleading; one Athletic Division inspector observed in 1918 that most of a director’s work, and the “most important part” of that work, was in physical training.⁴¹ Were these civilians really just supposed to promote sports, or did their duties blend recreation and training?

Civilian status had several benefits. For instance, a civilian aide could more easily get the ear of a general than could a captain or major on staff because they retained a unique expert status in their area of proficiency instead of appearing as just one more officer among many others.⁴² Many senior leaders therefore believed that civilians potentially push the Athletic Division’s agenda more effectively by generating more traction with decision-makers at the division level and below. After the war, Raycroft’s former executive officer, John Griffith,

³⁹ Letter, Joseph Raycroft to James A. Babbitt, 9 December 1942, Series 1, Personal Correspondence - Professional Career, Box 1, JERP, PUL.

⁴⁰ Keene, 41.

⁴¹ Report of Fred W. Marvel, (Temporary) Inspector of Athletics, to Joseph E. Raycroft, M.D., 1918, Series 3, Box 4, JERP, PUL.

⁴² Fisher, 66.

recalled that Raycroft's civilian status opened generals' doors, which helped him convince key leaders of the value of physical training.⁴³ Secretary Baker also viewed civilian status as an asset, at least at first. As he observed in June 1917, civilians not only enjoyed the potential of better access to senior officers, but they could also build closer relationships with soldiers than could officers.⁴⁴ Again, close relationships could help athletic directors advance the Athletic Division's agenda and spread its emerging physical culture.

Civilian status also imposed liabilities, though. Some of these were trivial or merely annoying. For instance, Fort Gordon's athletic director, Thomas Browne, complained about receiving extra scrutiny from sentries, being unable to purchase clothing from the quartermaster, and difficulties in securing memberships at a nearby country club. Other liabilities posed a greater threat to the Athletic Division's mission: Browne also reported that some officers resented being instructed by a civilian, and many objected to him inspecting their physical training programs.⁴⁵ Commissioned athletic directors could, in theory, more effectively institutionalize and police their systems of exercise and athletics by their own authority.

Despite the advantages that Raycroft apparently enjoyed as a civilian, he argued for commissions for his athletic directors as early as May 1917. Raycroft believed his directors deserved the pay, privileges, and respect that came with a commission. He also believed that commissions increased the likelihood of keeping his directors in the Army on a permanent basis, thereby enhancing their long-term influence on physical training policies after the war.⁴⁶ Finally,

⁴³ Raycroft's association with President Wilson, both of whom were Princeton men, probably helped too. Letter, John L. Griffith to George A. Barton, 19 April 1944, Series 1, Personal Correspondence - Professional Career, Box 1, JERP, PUL.

⁴⁴ Letter, Newton Baker to Raymond Fosdick, 21 June 1917, 1917, Series 3, Box 4, JERP, PUL.

⁴⁵ Thomas Browne to Joseph Raycroft, 16 June 1918; Commission on Training Camp Activities, Correspondence of the Athletic Division, 1917-1919, box 8; RG 165, NACP.

⁴⁶ Letter, Joseph Raycroft to Raymond Fosdick, 26 May 1917, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

Raycroft believed that his division's responsibilities extended beyond recreational athletics. Commissioned physical trainers could make claiming a stake in basic military training easier. Raycroft's and Fosdick's exertions convinced Baker to reverse his position and authorize some commissions in December 1917.⁴⁷ In January 1918, fourteen athletic directors received commissions as captains and were assigned duties as "physical training officers."⁴⁸ More would follow in 1918, and a few these physical training officers even deployed to Europe with their divisions.

Commissions won physical training officers some new power in military units. They also helped resolve occasionally fractious relationships between the YMCA's physical directors and the CTCA's representatives. In camps, directors from both organizations found that they shared overlapping areas of responsibility and that their relationships were not well defined. This led to conflict on occasion, as when one YMCA regional secretary suggested to a camp physical director that he organize athletics at his camp so as to impede the CTCA's newly arrived athletic director from participating.⁴⁹ Conflicts led to a series of letters and meetings between the top leaders of both organizations in late 1917. These exchanges produced an agreement between the two organizations that required directors in the various camps to develop harmonious working relationships. The agreement implied a superior position for the CTCA's athletic directors, who were responsible for coordinating athletics for commanding officers. Yet the agreement forbade the athletic directors from issuing orders to their YMCA counterparts.⁵⁰ Relationships between

⁴⁷ Raymond Fosdick to Joseph Raycroft, 14 December 1917; Fosdick Letters No. 1; Commission on Training Camp Activities, Correspondence of the Athletic Division, 1917-1919, box 25; RG 165, NACP.

⁴⁸ John Biddle, Memorandum for the Adjutant General of the Army, Subject: Commission for Athletic Directors, 26 January 1918, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

⁴⁹ Joseph Raycroft to J. S. Tichenor, Undated; folder 45; Commission on Training Camp Activities, Correspondence of the Athletic Division, 1917-1919, box 35; RG 165, NACP.

⁵⁰ Memorandum Regarding the Relationship in Camps That Should Exist between Y.M.C.A Directors and War Department Athletic Directors, 18 January 1918; folder 45; Commission on Training Camp Activities, Correspondence of the Athletic Division, 1917-1919, box 35; RG 165, NACP.

directors became more vertical and formal as the CTCA's representatives gained commissions. The debates between these organizations are further evidence of the role the CTCA perceived for itself in military training. Unlike the YMCA, which worked chiefly to improve soldier morale, the CTCA viewed itself as a part of the War Department responsible for the "military efficiency of the soldiers."⁵¹ In following this logic, the CTCA's Athletic Division positioned itself as the preeminent authority on physical training and athletics by early 1918.

CTCA athletic directors and physical training officers, plus their YMCA physical director compatriots, entered service sharing many common ideas. Over time, these ideas gelled into a coherent physical culture. For the most part, this was a bottom-up process that resembled, in Raycroft's words, a "great laboratory experiment in the development of human material."⁵² Physical educators and athletic coaches applied their knowledge and experience to improving soldiers in each camp's unique conditions. As these volunteers and their military counterparts hashed out practices at the local level, they shared their experiences through organs such as the U.S. Army War College and the *American Physical Education Review* journal.⁵³ The CTCA's Athletic Division also served as a central clearing house for information. Camp athletic directors remained in regular communication with the Athletic Division's office in Washington, D.C., and the Athletic Division issued weekly bulletins to their men in the field that included policy guidance and highlighted best practices.⁵⁴ In the spring of 1918, the CTCA began holding

⁵¹ Report of Fred W. Marvel, (Temporary) Inspector of Athletics, to Joseph E. Raycroft, M.D., 1918, pg. 8, Series 3, Box 4, JERP, PUL.

⁵² Joseph E. Raycroft, Suggestions for Colleges from the Army Experience in Physical Training, pg. 14 December 1918, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

⁵³ Fisher, 66; For an example of sharing diverse experiences, see "Extracts from Occasional Letters from Physical Directors in Army Camps to Dr. George J. Fisher, Director, War Work Council, Young Men's Christian Association," *American Physical Education Review* 22, no. 9 (1917): 558-66.

⁵⁴ Draft of History of War Department Commission on Training Camp Activities Athletic Division, April 1917 - January 1919, pg. 17, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL; Draft of Efficiency in Army Physical Training, Presented to the Athletic Research Society, pg. 3, 1920, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

regional conferences for their camp athletic directors and boxing instructors. These conferences were intended to give directors opportunities to discuss common problems and develop solutions.⁵⁵

Raycroft sought to standardize these practices as they cohered into a training system over time. This was one of his top priorities from the moment he assumed leadership of the Athletic Division.⁵⁶ Initially, Raycroft envisioned a central school fulfilling this role. When the War Department declined to build a central school, Raycroft moved to meet the emergency demand with trainers by bringing on civilian experts, but he never gave up on the concept of a central school. In April 1918, the Athletic Division once again proposed an Aldershot-like central bayonet and physical trainer school, along with expanded duties for physical training officers. Raycroft grounded his argument in a review of the Athletic Division's accomplishments to date, and in an awareness that the military would eventually assume responsibility for the services civilians had until then provided. Baker approved the recommendations. In July, he directed the Athletic Division to coordinate with the General Staff's Instruction Branch to develop the plans further.⁵⁷ Coordination bore fruit that September in the form of *Training Circular No. 19: Organization of Physical and Bayonet Training*. Among other items, the circular suggested that units form Physical Training Boards under commanding officers to supervise and coordinate athletic and physical training activities. The boards included a chairman, who was a staff officer directly responsible to the commander for physical training, the physical training officer, and

⁵⁵ Joseph E. Raycroft, Memorandum Outlining the Various Steps Taken in the Development of a Program of Physical Training, Boxing, Bayonet Fighting, Athletics, Etc., as a Part of the Training Program of a Soldier, 1917-1920, pg. 10-11, 1941, Box 4, JERP, PUL.

⁵⁶ Report of Fred W. Marvel, (Temporary) Inspector of Athletics, to Joseph E. Raycroft, M.D., 1918, pg. 4, Series 3, Box 4, JERP, PUL; Fisher, 69.

⁵⁷ Joseph E. Raycroft, Memorandum Outlining the Various Steps Taken in the Development of a Program of Physical Training, Boxing, Bayonet Fighting, Athletics, Etc., as a Part of the Training Program of a Soldier, 1917-1920, pg. 11-13, 1941, Box 4, JERP, PUL.; Raycroft, "Training Camp Activities," 147.

selected physical and bayonet training officers, advisers, and instructors.⁵⁸ These were precisely the organizations Raycroft had advocated in his April arguments. Functionally, they combined recreational and physical training activities under one body. The boards also consolidated the power of the Athletic Division's officers and directors within camps and units.

Another pathway to standardization had emerged organically by the summer of 1918. Since late 1917, many camps and divisions had formed schools under their Athletic Directors for the creation of physical and bayonet trainers.⁵⁹ In the summer of 1918, Raycroft capitalized on these smaller schools to take concrete steps toward building a central school for the entire Army. In June, Raycroft received authorization to put into operation a test school at Rich Field, Texas. The school's ostensible purpose was to improve the physical capabilities of air crew. Every aviation field and ground school detailed three men to attend. Officers and civilians detailed by the Athletic Division conducted the training under the advisement of the War College's Training Committee.⁶⁰ In August, the General Staff's War Plans Division's Training and Instruction Branch authorized a wider "coordination course of physical training."⁶¹ Raycroft selected Camp Gordon's school, run by Captain Thomas Brown, to host this course. Camp Gordon's school had become a robust operation since late 1917. Staffed by more than thirty training officers, the school educated both physical training officers for units at Camp Gordon and classes of non-commissioned officers. Attendees of these latter courses numbered at least 1,500 and were

⁵⁸ War Plans Division, *Training Circular No. 19: Organization of Physical and Bayonet Training* (Washington: War Department, 1918), 8.

⁵⁹ Raycroft claimed that such schools had trained "tens of thousands" of commissioned and non-commissioned officers in his system by November 1918. Draft of Efficiency in Army Physical Training, Presented to the Athletic Research Society, pg. 3, 1920, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

⁶⁰ Joseph E. Raycroft, Memorandum Outlining the Various Steps Taken in the Development of a Program of Physical Training, Boxing, Bayonet Fighting, Athletics, Etc., as a Part of the Training Program of a Soldier, 1917-1920, pg. 14, 1941, Box 4, JERP, PUL.

⁶¹ *Ibid.*, 14-15.

intended to pass on the Athletic Division's nascent system to the recruits who would soon come under their charge.⁶²

After fifteen months of effort, the Athletic Division had a central school, though it was ostensibly temporary. The division's physical directors, hand-to-hand fighting specialists, and boxing instructors were the first to attend. Raycroft later recalled that this temporary school represented a major step toward standardizing Army physical training along the lines of the Athletic Division's emerging system.⁶³ Not only did it increase the likelihood of the Army opening a permanent central school, but its graduates received a special certification and returned to duty with recommendations for commissions in the Reserve Corps, further institutionalizing the Athletic Division's system and its associated physical culture.

Movement toward centralization and standardization of physical training under Raycroft's model continued even as the war drew to a close and the CTCA demobilized. As part of that demobilization in 1919, the CTCA recommended establishment of a permanent course in physical instruction. The General Staff's War Plans Division concurred and directed that the emergency course at Camp Gordon transfer to Camp Benning.⁶⁴ Raycroft believed that the Benning school marked a "great step upward" in promoting a "comprehensive standardized physical ... athletic and bayonet training" throughout the Army on a "permanent basis."⁶⁵

Veterans of Raycroft's Athletic Division staffed the new school, including senior instructor

⁶² Joseph E. Raycroft, *Suggestions for Colleges from the Army Experience in Physical Training*, pg. 4 December 1918, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

⁶³ Joseph Raycroft to Johnny Griffiths, 14 December 1918, Commission on Training Camp Activities, Correspondence of the Athletic Division, 1917-1919, box 1; RG 165, NACP.

⁶⁴ "Physical and Bayonet Training (Editorial)," *Infantry Journal* 16, no. 6 (1919): 515; Whitfield B. East, *A Historical Review and Analysis of Army Physical Readiness Training and Assessment* (Ft. Leavenworth: Combat Studies Institute Press, 2013), 70.

⁶⁵ Memorandum, Joseph Raycroft to Captain Brosius, George V. Blake, and Lt. Brook Leman, 30 August 1919, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

Major John Griffith, who was Raycroft's former executive officer.⁶⁶ Five officers each from the Infantry, Cavalry, Field Artillery, Coast Artillery, and Engineers attended the Benning school's first class between 8 and 30 September 1919. The purpose of this class was twofold. First, it was a testbed for Raycroft's forthcoming manual, which many anticipated would replace the 1914 *Manual of Physical Training*.⁶⁷ Indeed, the course's content matched Raycroft's later manual exactly. Second, its officer graduates were supposed to establish similar courses at their service schools that would propagate the physical culture developed at Benning's central school.

Between 1917 and 1919, Raycroft and his civilian compatriots rapidly displaced Koehler as the Army's primary producers of physical culture. Beginning with a broad charter to improve the minds, morals, and muscles of America's soldiers, the CTCA's Athletic Division leveraged its influence and access at the highest levels of the War Department to reshape physical training in the Army. Koehler stayed active throughout this period and his ideas and practices remained relevant. For instance, elements of Koehler's earlier manuals were reprinted for use in 1917, and Koehler himself moved from camp to camp conducting training with all the vitality and energy he had always displayed. Yet Koehler could not be everywhere. In place of the old Turner and his West Point disciples, civilian educators and coaches flooded in with their philosophies of fitness from the physical education community. Over time, their ideas coalesced through an institutional framework of conferences and schools that were built from the ground-up, but that fulfilled Raycroft's original vision of a central proponent office. Civilian ascendancy had major consequences for the Army's physical culture, but what ideas informed the work of those

⁶⁶ Notably, one of the first three instructors assigned was Koehler's cousin, Captain Carl Brosius. Joseph E. Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps* (Washington: United States Infantry Association, 1920), ix; for a full instructor roster, see J. C. Drain, "New Physical and Bayonet Training Course," *Infantry Journal* 16, no. 6 (1919): 475.

⁶⁷ "Physical and Bayonet Training (Editorial)," 515-16.

civilians, what sort of physical culture did they sculpt, and how did that culture differ from Koehler's?

Context is key to understanding this new physical culture, here termed Raycroft's culture in acknowledgement of his central role in conceiving, shaping, packaging, and promoting it. First, the men who created it came into the Army in a time of acute emergency with orders to address that emergency. Second, they revered efficiency—maximum gain toward a specific outcome in minimum time with minimum waste. Third, the producers of Raycroft's culture approached their duties from the perspective of *educators*, not merely trainers. Finally, Raycroft and his partners understood their mission to be part of a broader enterprise concerned with the morality and masculinity of young American men.

In the first case, the War Department called Raycroft and his team to service after the U.S. entered World War I and charged them with preparing for combat an army growing more massive by the day. The CTCA's civilians understood themselves as belonging to a world where "everything is necessarily subordinated to the need of creating an efficient fighting force."⁶⁸ That force was preparing to embark on a difficult and dangerous task. Shortly, its troops would enter the war in Europe alongside and against veteran forces with years of experience. Raycroft viewed physical training as a way to make up for that lack of experience. He and his colleagues hoped that an effectively leveraged, comprehensive system of exercise could put American recruits near the level of German veterans in terms of mental and physical preparedness, and "fighting spirit."⁶⁹ Thus the men of the CTCA were not much concerned with the need for instilling iron discipline or controlling regulars. Their understanding, or perhaps imagination, of

⁶⁸ War Department, *Commission on Training Camp Activities* (1917), 3-4.

⁶⁹ Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps*, vi, viii.

the modern battlefield and combat was grittier than that held by pre-war regular officers. Officers such as Edmund Butts who promoted physical fitness prior to 1917 emphasized unit fitness. In contrast, CTCA leaders focused on the individual fighting man. This was reflected in *Training Circular No. 19*'s stated purpose: the "development of the greatest possible individual efficiency and power in offensive combat."⁷⁰ A battalion's average marching speed was less important in this construct than the individual soldier's grit, aggressiveness, and close combat skills.

Reverence for efficiency appeared frequently in the texts and practices produced by the CTCA's physical training experts. In a presentation delivered to the Athletic Research Society shortly after the war, Raycroft fingered three elements of efficiency that guided his approach to developing a military physical training system: a clear conception of the work's purpose; suitability of the means and methods of administering work to achieve that purpose; and standards of measurement toward the ultimate purpose. In that same speech, Raycroft rejected as too general the promotion of overall strength, vigor, and discipline that he understood to be the purpose of pre-war physical training in the Army. Physical training needed more focus. Raycroft wanted its purpose to be the advancement of a soldier's basic military training and his physical education.⁷¹ Physical training could do more than strengthen muscles and minds; it could make soldiers ready for combat.⁷² This was the basis of Raycroft's repeated assertion that one differentiate between *exercise* and *training* when developing a military physical training system. Exercise of the sake of exercise was inefficient. Instead, everything needed to contribute to building a competent, lethal soldier. However, Raycroft and his compatriots do not appear to

⁷⁰ War Plans Division, 8.

⁷¹ Joseph E. Raycroft, Draft of Efficiency in Army Physical Training, Presented to the Athletic Research Society, pg. 1, 1920, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

⁷² Joseph E. Raycroft, Suggestions for Colleges from the Army Experience in Physical Training, pg. 8, December 1918, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

have made any significant efforts to compile data on actual physical requirements for combat or to determine what specifically soldier needed to be able to do. In reflecting later on their process of creating a training system, Raycroft laid out broad objectives, but never mentioned specific requirements such as being able to move a given load over a given distance.⁷³

Raycroft defined physical fitness for such a soldier in his 1920 manual using four categories that aligned with his training system's broad objectives. First, fit soldiers demonstrated excellent bearing. They were poised, neat, alert, well disciplined, and precise in their movements. Second, fit soldiers possessed physical and mental control. They were coordinated and could respond to commands and changing situations rapidly. Control of body and mind blessed soldiers with "initiative, persistence, shiftiness, resourcefulness, willingness to give and take punishment, nerve, strength, and endurance." Third, fit soldiers could fight unarmed and with a bayonet. Raycroft specifically defined fitness here as a soldier's ability to "acquit himself creditably in a three-round bout with a skilled boxer of his own weight." Finally, fit soldiers could demonstrate achievement of minimum standards in a test that involved running, jumping, climbing, throwing, and negotiating obstacles.⁷⁴ Mental health also appeared occasionally in Raycroft's definition of fitness. He believed that sports and training toughened minds, provided an outlet, and prevented soldiers from "getting stale" or giving in to the anxiety of combat, which was a route to shell shock.⁷⁵

Raycroft's rejection of exercise for its own sake and his desire to align means in physical training with desired outcomes reflected his background as a physical educator. Raycroft shared

⁷³ Joseph E. Raycroft, Draft of Efficiency in Army Physical Training, Presented to the Athletic Research Society, pg. 23-25, 1920, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL. In examining Raycroft's and the CTCA's files, I have found no evidence for a comprehensive effort to quantify and measure physiological performance requirements in the U.S. Army prior to 1942. More research may yet bring such data to light.

⁷⁴ Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps*, 1-2.

⁷⁵ Raycroft, "Training Camp Activities," 144-45.

this background and its attendant perspectives with the Athletic Division's other experts. In fact, Raycroft believed that the purposes of civilian and military physical education were very similar, except in some of their specific outcomes. Likewise, the problems both military and educational institutions faced were "fundamentally the same." That problem was, in short, how to leverage physical activities to prepare a person for success by developing crucial qualities, whether physical or not.⁷⁶ Koehler and other early advocates of physical training in the Army had voiced similar ideas, but the qualities sought by these two generations differed. Koehler's generation focused more on the group and the individual's role in that group, while Raycroft's focused more on the individual himself. Physical educators of Raycroft's generation were also willing to use a much wider range of physical activity in pursuit of their outcomes. For instance, the Athletic Division promoted activities once appreciated purely for the recreational value, such as sports, as valued augmentations to the soldier's "formal training."⁷⁷ This willingness reflected the heritage of the playground movement and physical education's embrace of sport, both trends that had manifested after civilian and military physical education diverged around the turn of the century.

Raycroft and his compatriots also demonstrated an awareness of their role in a larger social engineering enterprise when crafting their system. The CTCA was dedicated to cultivating an active middle-class masculinity in the men of the American Expeditionary Forces (AEF). In turn, the AEF represented America in the world. An article published in the *Independent* in 1917 captured this prevailing perspective: the AEF was a model for the world of "a composite, human standard of our national ideals."⁷⁸ Soldiers needed to be masculine, morally wholesome, and

⁷⁶ Joseph E. Raycroft, Draft of Efficiency in Army Physical Training, Presented to the Athletic Research Society, pg. 2, 1920, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

⁷⁷ Joseph E. Raycroft, Suggestions for Colleges from the Army Experience in Physical Training, pg. 2, December 1918, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

⁷⁸ Hilton Howell Railey, "Your Boy in Camp," *The Independent*, 11 August, 1917.

physically fit to meet this standard. Yet those responsible for getting soldiers up to such a standard shared a considerably dimmer view of the quality of American men entering the service than had Koehler and Butts. Based on high draft rejection rates and personal observation in camps, Raycroft found that many were “awkward” for not having had a chance to play and undergo athletic training as children.⁷⁹ The consequences were social, moral, and physical. Such a perspective contrasted with Butts’ late-nineteenth century assertions that recruits were high-quality raw material merely in need of refinement and sculpting. The Athletic Division perceived a gap they needed to bridge using physical activity. Their charge was to turn “narrow-chested clerks,” “lean-visaged philosophers,” and the “book-keeper and the street-car motorman” into soldiers ready for the modern battlefield. Their tools were exercise, sports, and teaching men how to “get bumped, and not to mind it.”⁸⁰ The drive to cultivate a more physical and active masculinity in new recruits influenced the structure of Raycroft’s system and pervaded the physical culture his system exemplified.

The clearest expression of Raycroft’s system is in his 1920 book, *Mass Physical Training*, and in the September 1919 operations of the Camp Benning Physical and Bayonet Training Course. In writing his book, Raycroft surveyed the programs of instruction fashioned by the various divisional and camp schools that had grown up under the Athletic Division’s supervision since 1917. Regular communication with the Athletic Division headquarters and cross-talk in various channels between athletic directors and physical training officers had ensured that these programs were relatively consistent. Raycroft combined these programs into a single system and tested that system during the Benning school’s first class. He regarded the result as the “first detailed and comprehensive scheme of Physical Training to be adopted by the

⁷⁹ Raycroft, "Training Camp Activities," 144.

⁸⁰ Allen, 42.

army.”⁸¹ The War Department originally intended to publish Raycroft’s book as an official document. However, post-war budget cuts and downsizing forced the manual into private publication.⁸² Despite its private publication, the General Staff’s War Plans Division under Major General William Haan approved the book and directed that its “contents form the basis for the training and instruction of the military service of the United States in the subjects included.”⁸³

Mass Physical Training’s body of subjects was much broader than that of its 1914 predecessor, the *Manual of Physical Training*. Raycroft’s system covered six broad categories of activity: physical drill, group games, drills in personal contact, individual efficiency tests, mass athletics and competitive games, and bayonet training. In contrast, the 1914 manual ostensibly embraced ten subjects, but five of those fit within the rubric of Raycroft’s “physical drill.” Three other subjects received minimal coverage: running, athletics, and boxing and wrestling. Setting-up exercises and gymnastic exercises with and without apparatus formed the basis of Koehler’s program. Functional training for individual combat characterized Raycroft’s. Exploration of each subject in detail supports this characterization.

Physical drill was the first subject Raycroft addressed. This comprised Koehler’s setting-up drills and other routines from Koehler’s earlier system. In fact, Raycroft simply adapted his drill from Koehler’s manuals.⁸⁴ Adaptation was not easy or direct, though. At least one CTCA athletic director had found Koehler’s physical drill to be a mixed bag. “He has a mass of material both good and bad,” this director observed, but instructors tended to pick the bad more often than

⁸¹ Letter, Joseph Raycroft to John G. Hibben, 13 November 1919, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

⁸² Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps*, iii-iv.

⁸³ *Ibid.*, iv.

⁸⁴ *Ibid.*, 4.

the good and failed to redeem the drill with expertise as could Koehler.⁸⁵ Raycroft and his partner therefore had to simplify and modify Koehler's drill to meet their goal, which was to enable someone besides the system's creator to conduct effective training. One of Raycroft's greatest deviations from the pre-existing system was in the emphasis he placed on physical drill. In Koehler's system, the setting-up drills were central to the entire physical culture. In contrast, Raycroft considered physical drill a useful only for disciplinary training and education in body control, not for exercise.⁸⁶ Recruits might benefit from improved posture and responsiveness to commands, but ultimately physical drill was merely "kindergarten work."⁸⁷

Mass Physical Training's second subject concerned a wide variety of group games. All games were selected for simplicity of organization and their popularity in addition to their educational value. Raycroft intended ten of the simplest for use in regular drill periods. Examples of these include relay races, tug-of-war, and a mass participation version of red-rover called "Over the Top." *Mass Physical Training* covered another eighty-three games in its later chapters, many of which instructors could also adapt to drill periods, though most filled supervised athletic periods and leisure time. Additionally, group games included a series of skirmishing and quickening exercises. Many of these were taken directly from French and British practices: bear crawl, goose steps, standing long jumps, and more. Movement on the modern battlefield demanded that soldiers run while stooped forward, crawl, dash, and dive. Skirmishing drills strengthened the muscles needed for such unusual activities. Quickenings exercises also prepared men to react rapidly to commands. For instance, an instructor might yell "out of my sight" in the

⁸⁵ Thomas Browne to Joseph Raycroft, 19 May 1918; Commission on Training Camp Activities, Correspondence of the Athletic Division, 1917-1919, box 8; RG 165, NACP.

⁸⁶ Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps*, vii.

⁸⁷ Joseph E. Raycroft, Suggestions for Colleges from the Army Experience in Physical Training, pg. 9, December 1918, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

eponymously named game to prompt his men to drop whatever they carried and scurry for the nearest tree or hole. Raycroft advised that any men remaining visible in this game be singled out and made to “feel conspicuous.”⁸⁸

Raycroft gave two explanations for including group games in their many forms. First, he considered them useful for making soldiers combat-ready, but even more useful for their utility in developing mental qualities. Games, skirmishing drills, and quickening exercises presented soldiers with rapidly changing conditions, whether due to competition or in response to the instructor’s commands. Soldiers had to perceive such changes, make decisions, adapt, and respond rapidly. Physical exercise thus achieved mental effects by training “concentration of attention, quick thinking and instant execution.”⁸⁹ Morale building and mental health also justified group games. Raycroft asserted that in the Athletic Division’s wartime experience, its directors found that such games were more effective than anything else in “preventing discontent and homesickness” during training or after returning from the front lines.⁹⁰

After the setting-up drill and group games sections, *Mass Physical Training* diverged sharply from its 1914 predecessor with more than fifty pages on personal contact drills. Many activities fell under the personal contact rubric, including wrestling, hand-to-hand fighting, and boxing. Again, this training was intended to develop mental as well as physical qualities, specifically: aggressiveness, personal grit, mental and physical alertness, confidence, and the “ability and willingness to carry on in spite of punishment.”⁹¹ Treatment of hand-to-hand combat training in the Raycroft and Koehler manuals highlights differences between their physical cultures. In the 1914 manual, boxing and wrestling made a brief appearance, but were “not

⁸⁸ Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps*, 45.

⁸⁹ *Ibid.*, vii, quote on 40.

⁹⁰ *Ibid.*, 34.

⁹¹ *Ibid.*, vii-viii.

recommended as an obligatory part of the enlisted man's training."⁹² Koehler encouraged boxing and wrestling for their value in strengthening muscles and self-confidence, but he did not consider them a key element of physical training.

In contrast, Raycroft dedicated nearly half his manual to physical contact and combat training. A gritty individual warrior paradigm characterized his treatment of the subject. The "spirit of hand-to-hand fighting," Raycroft wrote, "is that of grim, watchful determination." Raycroft advised that aggressiveness and determination were keys to success, and that "principles of sportsmanship and consideration" for the opponent had "no place in the practical application of this work."⁹³ Like Koehler, Raycroft valued the physical and mental benefits of combat training. However, he also appreciated the functional benefits of the skills themselves. This physical culture valued an individual soldier's ability to control a prisoner and strike, strangle, or trip an enemy combatant. Each manual's imagery made these differences obvious. Koehler's depicted gymnastic contests between opponents in gym clothes. Raycroft's featured combatants apparently locked in mortal combat.

Later in the manual, Raycroft continued his emphasis on aggressiveness and the gritty realities of combat with a chapter on bayonet training. Raycroft considered this "invaluable in the basic training" of all soldiers, regardless of branch or duty, chiefly because it developed confidence, determination, and a "fighting spirit."⁹⁴ The Army had trained its soldiers in bayonet fighting for years. However, Raycroft's manual was the first instance of bayonet training featuring as a component of physical training. This fact highlights the functional fitness focus in Raycroft's physical culture. Discipline and obedience were not enough—soldiers had to be ready

⁹² War Department, *Manual of Physical Training for Use in the United States Army* (New York: Military Publishing Co., 1914), 9.

⁹³ Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps*, 71.

⁹⁴ *Ibid.*, viii.

to kill. *Mass Physical Training* drove this point home repeatedly. “In a bayonet assault,” Raycroft wrote, “all ranks go forward to kill or be killed, and only those who have developed skill and strength by constant training will be able to kill.”⁹⁵ Even if few soldiers ever found themselves in true bayonet combat, the spirit of the bayonet held value culturally, much like General Pershing’s emphasis on rifle marksmanship and open warfare.⁹⁶

Beyond combat training, individual efficiency tests, mass athletics, and competitive games also differentiated Raycroft’s system from Koehler’s. Each of these deserves an extended individual analysis, which will come shortly, but it is important to note here how each fit into the larger program. Inclusion of individual efficiency tests reflected the backgrounds of the Athletic Division’s personnel in civilian physical education, where such tests had become popular. Raycroft believed that testing benefitted both individuals and units. By setting standards, testing could inspire efforts in soldiers to meet or exceed those standards. Testing also gave officers a snapshot of unit fitness levels and called to attention to those “inefficient men” in need of “special attention and work.”⁹⁷ As with testing, the inclusion of athletics reflected importation of the zeitgeist in civilian physical education. Within Koehler’s physical culture, athletics had value chiefly as a recreational activity, but they posed a danger to physical training. In contrast, Raycroft’s physical culture integrated recreational athletics and military physical training. Whether used in training or as a leisure activity, Raycroft valued athletics for their social function in developing group loyalty, teamwork, and leadership as much as for their

⁹⁵ Ibid., 110.

⁹⁶ High valuation of the bayonet was not a feature exclusive to U.S. military culture. Practically all western-style armies embraced the bayonet before World War I. As historian Hew Strachan has observed, the bayonet was representative of an acknowledgement that morale was of “increasing and legitimate importance” on modern battlefields. According to Strachan, technology “did not remove the need for men to cope, but, but increasing the pressures loaded on them, intensified the search for palliatives.” Bayonet training cultivated an aggressive spirit and the individual soldier’s confidence, and was therefore useful to improving an organizations moral forces. Hew Strachan, “Training, Morale and Modern War,” *Journal of Contemporary History* 41, no. 2 (2006): 218.

⁹⁷ Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps*, viii.

development of other qualities, as in group games.⁹⁸ Thus Raycroft spent nearly half his manual on the topic of athletics while Koehler dedicated a single chapter to warning about the potential evils of athletics and giving an introduction to track and field events.

As a final point about the structure of *Mass Physical Training*, Raycroft left the construction of daily and weekly programs up to individual instructors, much as Koehler had done. This freedom allowed instructors to meet the specific needs of the groups being trained and to adapt that training to local conditions. Simplicity and enabling physical training anywhere under any circumstances were central design principles, after all. However, Raycroft did give some guidance on the apportionment of time within a daily drill based on wartime best practices. In this guidance, Raycroft advised spending well over half of an hour-long session in combat-oriented activities: boxing, hand-to-hand fighting, physical efficiency tests, bayonet fighting, and skirmishing exercises. In contrast, the setting up drill occupied as little as ten minutes.⁹⁹ Again, this highlighted the differences between Koehler's and Raycroft's physical cultures. The former revered disciplinary drill, while the latter valued combat-centric functional fitness.

Three elements of Raycroft's system especially characterized the physical culture that the CTCA's Athletic Division produced: boxing, athletics integration, and individual efficiency testing. Each element was a vital component of the larger system to which Raycroft and his compatriots attached great significance. Each also differentiated Raycroft's system from Koehler's. Moreover, the definitions and valuations of fitness in Raycroft's physical culture become more visible when these three elements come under close inspection.

Of the three, boxing was perhaps the Athletic Division's signature initiative. Following the British example, pugilism figured prominently in Raycroft's system and in the CTCA's

⁹⁸ Ibid.

⁹⁹ Ibid., 3.

publicity campaigns because Raycroft and others regarded it as having an “intimate connection with bayonet fighting.”¹⁰⁰ Parts of this connection were very direct: the “long point” bayonet attack corresponded with a “left lead” in boxing, as did a rifle butt strike with a “right-hand counter.” Bayonet fighting was merely “boxing with a gun in your hands,” according to the Athletic Division’s boxing training film.¹⁰¹ Other parts of the connection were less direct, but still key to Raycroft’s definition of martial physical fitness, such as developing the quality of aggression.¹⁰² More than most sports, boxing cultivated quickness, self-confidence, self-control, and toughness in participants. The CTCA’s rules even specifically promoted aggressive offense and penalized defensive strategies.¹⁰³

The Athletic Division recruited boxing experts as special instructors, partly to capitalize on star power to popularize their work. Between the instructor corps and the special sub-committee to study boxing formed in 1917, the Athletic Division collected many of the biggest names in the sport at the time, including James Corbett, Norman Selby (Kid McCoy), Robert Edgren, Richard Melligan, and Michael Donovan.¹⁰⁴ Raycroft later wondered at the “galaxy of world’s champions” that his corps of instructors represented.¹⁰⁵ In keeping with his dedication to efficiency and his combat-centric, functional definition of fitness, Raycroft repeatedly focused this corps on their primary mission of making “‘head up and eyes open’ two-fisted fighting

¹⁰⁰ Quote on War Department, *Commission on Training Camp Activities* (1917), 13; see also Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps*, 84; Joseph E. Raycroft, Memorandum Outlining the Various Steps Taken in the Development of a Program of Physical Training, Boxing, Bayonet Fighting, Athletics, Etc., as a Part of the Training Program of a Soldier, 1917-1920, pg. 7, 1941, Box 4, JERP, PUL.

¹⁰¹ Allen, 55-56.

¹⁰² Raycroft, "Training Camp Activities," 146.

¹⁰³ "Defence Opposed in Boxing Rules for Army Camps," *New York Tribune*, 23 June, 1918; War Department Commission on Training Camp Activities, *Rules for Boxing* (Washington: Government Printing Office, 1918).

¹⁰⁴ War Department, *Commission on Training Camp Activities* (1917), 13.

¹⁰⁵ Hiram A. Jones, "The Revised Preparedness Bill: The Status of the Physical Preparedness Legislation," *Journal of Health and Physical Education* 12, no. 2 (1941).

men.”¹⁰⁶ Mass instruction was key, not the creation of individual ring stars. Instructors were to stress aggressiveness, simplicity, effectiveness, and a willingness to give and take punishment. Soldiers did not need anything fancy, just the six standard blows and the appropriate attitude. “A straight left,” advised an Athletic Division memo, “well delivered and backed up by aggressive American determination, is a Boche eliminant in nine cases out of ten.”¹⁰⁷

Incorporating boxing into the Athletic Division’s physical training program posed some challenges, though. One was a concern about high injury rates, which would cut against the CTCA’s emphasis on efficiency. The Athletic Division took several steps to reduce this risk. Centrally developed standards dictated instruction, and only trained personnel were authorized to deliver and supervise boxing instruction. The CTCA’s special boxing instructors were assigned to each camp under the athletic directors to supervise training. Through intensive small group sessions, camp instructors trained and certified enlisted assistant instructors selected from the ranks. These assistant instructors in turn trained their fellow soldiers. Most soldiers would have experienced mass training, where whole companies or battalions at a time learned the fundamentals of stance, movement, and punching.¹⁰⁸ Bouts were encouraged both to give men a real fighting experience and to increase the popularity of the training, but matches were only allowed under strict supervision. Furthermore, the Athletic Division created a film to communicate the importance of boxing and to further standardize training. Linkage between bayonet fighting and boxing was the film’s central thrust, but it also demonstrated basic boxing techniques.¹⁰⁹

¹⁰⁶ War Department, *Outline of Plan for Military Training in Public Schools of the United States* (Washington: Government Printing Office, 1916), 1.

¹⁰⁷ *Ibid.*

¹⁰⁸ Joseph E. Raycroft, Memorandum Outlining the Various Steps Taken in the Development of a Program of Physical Training, Boxing, Bayonet Fighting, Athletics, Etc., as a Part of the Training Program of a Soldier, 1917-1920, pgs. 7-8, 1941, Box 4, JERP, PUL.

¹⁰⁹ *Ibid.*, 8.

Boxing posed another potential problem for the CTCA in light of the form of masculinity the commission promoted. The CTCA promised to make men tougher, but also more wholesome. In contrast, boxing was illegal in most states and the prize-fighter experts brought on as instructors were hardly paragons of moral righteousness.¹¹⁰ The commission's public messaging revealed sensitivity to this tension. For instance, its 1918 book *Keeping our Fighters Fit for War and After* featured an enthusiastic clergyman who declared it "worth a ten-dollar bill to see a man who can take a blow in the face without getting mad" after watching a bout.¹¹¹ The book included a similar vignette directed at soldiers' mothers and wives who feared brutalization of their men through boxing. "If you feel that jabbing six inches of cold steel into Germans will make brutes" of your men, the author asked, "what would you think about him if he refused to do it?" The author assured female readers that the bravery, tenderness, loyalty, and other qualities they taught and inspired in their men were still present, but that those men had to kill their foes to protect the innocent. Army training did not make men brutes with a "lust for blood," but rather equipped honorable men with the skills and moral fiber they needed to fight for the "righteousness of the cause."¹¹² This rhetoric, combined with the focus on efficiency in making fighting soldiers, justified boxing in the commission's broader effort to form better men in the progressive mold. The CTCA's boxing program fashioned manly warriors—crusaders—who could and would kill in battle, but who possessed the character to control and precisely direct that violence.

Boxing underscored core elements of Raycroft's physical culture. Within this culture, fitness was defined functionally in light of World War I's combat and European battlefields.

¹¹⁰ J. V. Fitzgerald, "See a Revival of Boxing as Army Takes up Sport," *The Washington Post*, 5 November, 1917.

¹¹¹ Quotation in Allen, 53-54.

¹¹² *Ibid.*, 57-58.

Like Koehler's culture, Raycroft's conceived of fitness more broadly than simply a measure of physical capacity. Both attached mental and moral elements to fitness, though each culture valued variations of those elements differently. Discipline and obedience were important in both cultures, as evidenced by Raycroft's inclusion of Koehler's disciplinary drill. However, Raycroft and his compatriots prioritized qualities such as toughness and aggression that did not feature in Koehler's definition of fitness.

As with boxing, the integration of athletics in Raycroft's system also underscored core elements of his physical culture. Initially, the CTCA's athletic program sought to encourage the "largest possible number of soldiers" to participate regularly in "some form of athletics" during leisure hours, though the program favored those "hard competitive sports that develop the fighting instinct."¹¹³ The perceived value of athletics among athletic directors and military commanders alike quickly pushed athletics into formal training periods too. Sports were not new to the Army in 1920, but Raycroft incorporated them into a formal physical training program in a way Koehler had not. Army leaders had long tolerated sports as a diversion for troops. When sport exploded in popularity both inside and outside the military in the 1890s, officers argued that competitions had value in physically fitting men to war while molding character.¹¹⁴ Yet official physical training barely addressed sport. Training and athletics thus proceeded on related but separate tracks.

Differences between the 1914 and 1920 manuals illustrate this difference well. In the 1914 manual, athletics appeared in a single, slim chapter. That chapter led with a word of advice: "in order to meet the requirements of the service," military athletics should "have nothing in

¹¹³ War Department, 12.

¹¹⁴ Pope, 436-40; Wanda Ellen Wakefield, *Playing to Win: Sports and the American Military, 1898-1945* (Albany: State University of New York Press, 1997), 6-9; Donald J. Mrozek, *Sport and American Mentality, 1880-1910* (Knoxville: University of Tennessee Press, 1983), 51-59.

common with competitive athletics.”¹¹⁵ Koehler was not opposed to athletics, but he thought their presence was likely to undermine or challenge the physical training mission. Thus, Koehler advised eliminating any events that “have nothing to commend them from a military point of view.”¹¹⁶ The only events that met his criteria were distance running and various jumps. Other activities might have a place in field days, which he recommended holding no more than once a year, or as pure recreation, but they had no place in physical training.¹¹⁷ In contrast, Raycroft dedicated nearly half of his manual to athletics. This included chapters on conducting meets and contests, as well as a chapter on the “strategy and tactics” of football, baseball, basketball, and other games. The Camp Benning school’s curriculum also reflected the emphasis on athletics. Of its 145 instruction hours, just under thirteen were spent on disciplinary gymnastics, while 25 and a half were committed to mass athletics and “highly organized games” such as football and baseball.¹¹⁸

Raycroft and his compatriots frequently cited the perceived value of athletics for soldiers. Raycroft believed that play and games were “immensely important in the making of an efficient man” because they developed valuable mental, moral, social, and physical qualities.¹¹⁹ Sports were also thought to cultivate group loyalty and *esprit de corps*.¹²⁰ Linkages between combat and sports skills also frequently appeared in justifications and statements. Soccer, baseball, and football were often cited in this regard. For instance, soccer was thought to teach a short gait and

¹¹⁵ War Department, *Manual of Physical Training for Use in the United States Army*, 309.

¹¹⁶ *Ibid.*

¹¹⁷ *Ibid.*, 309-13; Herman J. Koehler, "General Remarks on Physical Training in the Service," *Infantry Journal* 3, no. 4 (1907): 103-04.

¹¹⁸ Drain, 475.

¹¹⁹ Quote in Raycroft, "Training Camp Activities," 143; see also "Raycroft Tells of Sports in the Army," *The Sporting Goods Dealer*, 1918.

¹²⁰ Joseph E. Raycroft, Memorandum Outlining the Various Steps Taken in the Development of a Program of Physical Training, Boxing, Bayonet Fighting, Athletics, Etc., as a Part of the Training Program of a Soldier, 1917-1920, pg. 6, 1941, Box 4, JERP, PUL.

balance useful when negotiating no-man's land, while throwing a baseball seemed to have an obvious correlation with throwing a grenade.¹²¹ In short, the Athletic Division's members held that nothing "coordinated the personal faculties needed in warfare" like organized athletics.¹²²

Integrating athletics reflected the educational mission Raycroft and his partners pursued. Koehler had also repeatedly described physical training as primarily educational, though he more commonly used the term "training." For Koehler, there was one best way of strengthening bodies and minds, improving unit capabilities, and instilling discipline and obedience—his disciplinary gymnastics.¹²³ Raycroft and his partners seem to have conceived of their educational ends, ways, and means differently. Their ends were grounded in an individual's functional combat fitness.

These men also agreed that there was more than one way to achieve those ends. In a talk given to college administrators and physical educators in 1918, Raycroft criticized the Army's approach, which followed Koehler's thoughts and mirrored trends in late nineteenth-century college and university physical education. Specifically, Raycroft criticized an old false dichotomy between recreation and training, the latter defined as disciplinary or hygienic exercise. In his opinion, recreation and training could be combined in an educational mission. In the military's case, Raycroft believed that sports in combination with basic soldier training could prepare men to react to changing situations and respond under fire. Simultaneously, sports could develop crucial battlefield qualities such as strength, endurance, leadership, and confidence.¹²⁴ Many of these qualities differed from those that the Army's earlier physical culture sought to develop. The Army's greatest mistake in the past, Raycroft asserted, had been its tendency to

¹²¹ Allen, 52-53.

¹²² *Ibid.*, 47-48.

¹²³ Koehler, "General Remarks on Physical Training in the Service," 103-05.

¹²⁴ Joseph E. Raycroft, *Suggestions for Colleges from the Army Experience in Physical Training*, pgs. 8-10, December 1918, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

commit to a single form of activity, such as disciplinary drill or gymnasium work, as the basis of its system. Raycroft believed a comprehensive, inclusive system was superior. By combining the educational strengths of various activities, a more efficient and effective system became possible. Raycroft had faith that sports would not displace physical training as Koehler had feared, but that they could supplement and augment formal military training.¹²⁵

One final element of Raycroft's system that characterized his physical culture and differentiated it from Koehler's deserves attention—individual efficiency testing. *Mass Physical Training* proposed a simple test of five events executed monthly that measured attainment of baseline standards in combat-focused physical activity. Soldiers sprinted one hundred yards, executed a running broad jump, climbed an eight-foot smooth fence, threw a hand grenade thirty yards into a ten-foot square box, and negotiated a simple obstacle course in less than thirty seconds involving hurdles, barbed wire entanglements, plank bridges, and smooth walls.¹²⁶ Testing progressed through three grades. Each grade used an identical course, but soldiers in the third grade performed without equipment while soldiers in the second and first grades performed with a rifle and with a rifle and light equipment respectively. Achievement of first grade status also required that soldiers prove ability with the bayonet, in hand-to-hand combat, and in boxing. No specific standards defined a passing score in these latter three events, but Raycroft advised weighting most heavily the display of "fighting spirit, determination, and willingness and ability to give and take punishment." The combatives events functioned not only as motivational and confidence-building tools, but also as filters to help identify and possibly eliminate those unwilling to apply violence or endure it. According to Raycroft, testing in general identified men

¹²⁵ Ibid., 11; Raycroft, "Training Camp Activities," 147.

¹²⁶ Obstacle courses were a new feature in U.S. Army physical training. The idea for them had largely been borrowed from contemporary British training practices intended to deliver realistic combat training.

requiring remedial training, gave commanders an objective appreciation of unit fitness, and built *esprit de corps* through competition between units over pass rates.¹²⁷

Unlike earlier Army physical tests, Raycroft's was specifically designed to align with his perception of real battlefield demands.¹²⁸ Testing was designed to measure the effectiveness of the object sought by Raycroft in physical training, namely the fitting of a soldier to combat through the use of physical activity. Raycroft and his compatriots identified key qualities for soldiers, in this case "strength, speed, skill, endurance," and the ability to "creditably" acquit oneself in close combat.¹²⁹ Through experimentation and study at various camps, the Athletic Division's members crafted a test to measure those qualities directly. Ultimately, testing implied that fitness was measurable and defined it in terms of individual combat efficiency.

Boxing, integrated athletics, and individual efficiency tests, together with the structural differences between Raycroft's and Koehler's systems, illuminate a different physical culture. This culture bubbled up as a collaboration between like-minded civilian physical educators and athletic coaches with guidance and coordination provided by the CTCA's Athletic Division, and Raycroft specifically. During the war years, this culture displaced Koehler's in the Army. It defined fitness in more functional, combat-oriented terms than had Koehler's and evinced a willingness to leverage a wider variety of activities in pursuit of fitness. In a key departure from its predecessor, Raycroft's culture also emphasized maximizing individual combat efficiency over general unit capability. In 1914, the fit soldier was disciplined, obedient, self-confident, and

¹²⁷ Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps*, 142-48.

¹²⁸ Koehler had used an intensive program body and performance measurements of his own creation at West Point since the mid-1880s. In 1906 President Theodore Roosevelt mandated a three-day, ninety-mile horseback-riding test for all field grade officers. East, 42-43; The riding test fell into disuse just prior to World War I and the Army discarded it formally after the war. "Physical Fitness," *The Military Engineer* 14, no. 75 (1922): 163.

¹²⁹ Joseph E. Raycroft, *Draft of Efficiency in Army Physical Training*, Presented to the Athletic Research Society, pg. 4, 1920, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

capable of above-average feats of strength and endurance. In 1918, the fit soldier exhibited additional characteristics. He could also take and give punishment, fight barehanded and with bayonet, react to rapidly changing conditions, and play a number of all-American sports. This culture reflected the conditions in which it developed. Its creators sought to efficiently prepare conscripts for combat with hardened veterans, often without the lavish gymnasiums and apparatus collections that Regular Army posts had accrued since the last decade of the nineteenth century. Its creators also pursued a project of social engineering of greater ambition and scope than Koehler and his compatriots had imagined.

Though Raycroft's physical culture had displaced Koehler's during the war years, its continued dominance was not a foregone conclusion. The suddenness of its success posed one challenge to the durability of Raycroft's culture. In contrast with Koehler's slow and steady rise to almost complete control of Army physical culture, Raycroft's was sudden, temporary, and occasioned by an emergency. Raycroft's culture *did* become dominant, and it *did* determine Army policy from late 1917 through late 1919 at least. Two pieces of War Department guidance, *Special Regulations No. 23* (1917) and *Training Circular No. 19* (1918), show this clearly. Where the former advanced Koehler's system wholesale, the latter decisively broke with the Army's older physical culture, which was organized around unit fitness, in asserting that the purpose of physical training was to develop "in each individual soldier the highest attainable physical efficiency, confidence and power in offensive combat."¹³⁰ Despite its dominance, Raycroft's physical culture did not fully penetrate the Army's institutions and its larger culture because it was mostly developed and implemented by outsiders.

¹³⁰ War Plans Division, 7.

Following the Armistice, the CTCA's leadership had to work quickly and aggressively to sustain the programs it developed during the war.¹³¹ Raycroft began demobilization work in earnest in June 1918, having spent the months since November in France with Fosdick at the Secretary of War's direction. As part of this demobilization work, Raycroft tried to transfer parts of the Athletic Division's program to permanent organizations within the War Department. For example, Raycroft collaborated in the creation of the General Staff's Education and Recreation branch. He also urged the establishment of a central instructor school, which he realized in September at Camp Benning, and the transfer of control for *all* athletic and physical training activities at camps to the physical training officers educated at that school.¹³²

Raycroft's strategy to earn permanence for and official adoption of his physical culture within the Army had three main components: a certified instructor corps, a central school, and his manual. The instructor corps's members would serve as physical training officers in camps, divisions, and service schools. Physical training officers would ensure adherence to centrally developed physical training policy, educate others on the conduct of physical training, and control leisure-time athletics and competitions.¹³³ In short, they would continue the work that the Athletic Division's athletic directors had performed between 1917 and 1919, but as commissioned officers. Koehler and others of his generation desired an instructor corps such as this, but they had to settle for young West Point graduates performing additional duties and for unit athletic councils lacking a coordinating agency. A central school was necessary to create and certify this instructor corps. Raycroft intended for the school at Camp Benning to become a

¹³¹ Raymond B. Fosdick, Memorandum Concerning Suggestions for Demobilizing the Work of the Commission on Training Camp Activities, 25 November 1918, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

¹³² Joseph E. Raycroft, Memorandum Outlining the Various Steps Taken in the Development of a Program of Physical Training, Boxing, Bayonet Fighting, Athletics, Etc., as a Part of the Training Program of a Soldier, 1917-1920, pgs. 18-19, 1941, Box 4, JERP, PUL

¹³³ Ibid.

permanent fixture beyond its first iteration in September 1919. The school would give the Army an expansible training pipeline and a means to rapidly propagate new policies through the force. Raycroft's *Mass Physical Training* manual would be the school's cornerstone document. The Army already had a standardized training program in the form of its 1914 *Manual of Physical Training*, but Raycroft wanted to replace it with his own. The old methods were outdated, he believed. His system combined the latest in physical education thought with lessons learned in the crucible of combat. A corps of school-trained instructors could make this a reality over time.

Raycroft's strategy had to overcome several obstacles. First, all of this had to be achieved within the context of shrinking budgets. The CTCA had capitalized on massive government expenditures to build out its physical training and athletic programs beyond the scope of anything achieved by its predecessors. Against this backdrop, the Camp Benning school's continued existence was never a given. Also, most of Raycroft's men left the service after 1919. A cadre of trainers, mostly those certified at the Camp Gordon school and given commissions, remained at Benning and in some units. Yet most of Raycroft's athletic directors were civilians or reserve officers. Their service was no longer needed after the war emergency, so they returned to civilian life. Creation of a new training cadre of commissioned officers through the Camp Benning school was thus a vital necessity. Additionally, shrinking budgets pushed Raycroft's manual into private publication. As a result, it was not issued widely by the War Department and, despite the General Staff's full endorsement, it did not appear as official as had 1914's *Manual of Physical Training*.

Finally, and perhaps most importantly, Raycroft had to overcome the Army's existing physical culture. Despite Raycroft's culture having displaced Koehler's in policy and in training camp practices, Koehler's culture persisted during the war. Koehler himself provided instruction

in camps and in Europe. His manual remained in publication, and the Army directed its use in the form of *Special Regulations No. 23* in 1917 before the Athletic Division had taken charge. Regular Army officers, most of them West Point graduates, were more likely than any other officer to remain in the service after the war. Nearly all of these had been Koehler's pupils at one time or another, and they had grown up in an Army that equated physical training with Koehler's disciplinary drill. A 1919 book on physical training authored by one of those officers, Colonel William Waldron, illustrated the persistence of Koehler's culture. Waldron, who simply copied the 1914 manual's disciplinary drill chapter and marketed it for civilian use, claimed that the setting-up drill was the "basis upon which the entire system of physical training in the United States Army is founded—the system employed in the physical training of the vast army of over two million men who went to France in 1918 and fought the Nation's battles."¹³⁴ Ignoring the Athletic Division's system, Waldron credited Koehler's setting-up drill for all of the physical improvements civilians observed in their returning soldiers.

The permanence of Raycroft's physical culture in the Army was clearly not a foregone conclusion in 1920. That culture was the product of a particular time and of the men who fashioned it. The wartime emergency opened a window of opportunity for new cultural producers to reimagine Army physical training. Combining the latest thought from the worlds of physical education and college athletics with the practices of seasoned Allied militaries, civilian leaders such as Joseph Raycroft and his athletic directors crafted a new training system. Their system responded to the needs of a newly mobilized army of citizen-soldiers rapidly preparing to face veteran opponents. Pursuit of efficiency, a hallmark of Progressivism, informed their efforts. Efficiency demanded matching means to ends while maximizing gains and minimizing waste. In

¹³⁴ William H. Waldron, *Army Physical Training* (New York: H. Holt and Company, 1919), iii.

this new physical culture, the individual soldier's fighting ability displaced general unit condition as the chief aim sought.

As a consequence, the system they crafted and the physical culture it reflected emphasized the individual in combat conditions. Where discipline and obedience characterized Koehler's culture, Raycroft's stressed grit, aggressiveness, and a functional definition of fitness. This new culture also embraced a wider spectrum of physical activities as means by which to achieve those qualities. Sports and bayonet training became core components of physical training, both intended to augment and supplement disciplinary drill instead of existing in separate spheres of work. Such inclusiveness reflected both the drive for efficiency and the influence of college athletics and the playground movement on civilian physical education. Whether such a culture developed in wartime for an army mobilizing on an unprecedented scale would be valued after the war remained an open question in the era of downsizing and normalization that followed demobilization.

Chapter 4: Reversion, Disaggregation, and “Prehabilitation,” 1919-1940

Standing before the National Convention of the American Physical Education Association (APEA) in Chicago on April 11, 1919, Colonel F. J. Morrow claimed that the recent war had made “evident that one of the leading considerations in military preparedness is the matter of physical power and vigor.”¹ Advancing a linkage between service and citizenship, Morrow also asserted that any effort to improve such qualities had to begin by targeting American boys, but that no plan for military training of civilians could succeed unless it “incidentally produces results which are of solid benefit to the individual and to the community under peace conditions as well as under war conditions.”² Earlier that year, Dr. A. D. Browne made a similar appeal to adjust civilian physical education to meet the needs of military preparedness. Modern warfare demanded much of the soldiers fighting it. “Men are now required to drag themselves over many yards of rough ground without raising the body,” Browne observed, and men who had “never had occasion to raise their own weight off the ground” found it necessary to “climb out of trenches, over seven-foot walls, vault, leap and jump over obstacles.”³ Morrow’s and Browne’s pieces were representative of the many articles produced by commentators on physical fitness and combat in the decade following World War I. Nearly all shared a few consistent themes: fitness was a necessity in war, American men were less physically suited for service than once thought, military training proved more successful than civilian training in sculpting men, and national preparedness required a fit citizenry.

The U.S. Army’s experience in WWI ushered in major changes in its physical culture. First, systematic training came to be accepted within the military as a crucial element of basic

¹ F. J. Morrow, "Military Preparedness," *American Physical Education Review* 24, no. 5 (1919): 280.

² Ibid.

³ A. D. Browne, "Physical Education in the Light of the Present National Situation," *American Physical Education Review* 24, no. 2 (1919): 74.

soldier and unit training. The value of such training became unquestionable. Second, civilian educators achieved temporary dominance of physical training theory and practice during the emergency. These disruptors had reoriented military physical training on producing capable individual warriors and integrated a wide range of activities. During and after the war, this system was widely hailed as a smashing success. Yet its survival after the war was not a sure thing. While civilians departed the service, Army officers content in their success and facing budget restrictions returned to the physical culture they knew best—Koehler's. Meanwhile, the focus of discourse on physical training within the Army shifted to the question of *who* should exercise. The answer, in an age of mass mobilization and industrial warfare, was not only the soldier but the citizen.

This chapter analyzes change during the interwar years in the Army's physical culture, chiefly characterized by the Raycroft alternative's diminishing influence, and explains the causes of this change. Additionally, this chapter investigates the Army physical culture's deployment elsewhere in citizen-shaping projects designed to prehabilitate potential future soldiers in schools and programs such as the Citizens' Military Training Camps and the Civilian Conservation Corps. Prehabilitation efforts undertaken by military and civilian leaders geared to prepare the nation for the next war reflected lessons learned from World War I about the anticipated need for and demands of total mobilization in future wars. Such efforts also revealed impulses to address the perceived shocking physical shortcomings of American boys and men revealed by the draft. In contrast, change in Army physical training practices reflected the power of institutional and cultural inertia, not experience or a judgment of the relative efficacy of competing exercise systems.

In the late summer of 1919, a cadre of Raycroft's physical training veterans assembled in Camp Benning. Among this cadre were many of Raycroft's top instructors who had earned commissions during the war, including Raycroft's former executive officer and the future first Big Ten commissioner of athletics, Major John Griffiths, and Herman Koehler's cousin, Captain Carl Brosius.⁴ These men assembled at the behest of the General Staff's Training and Instruction Branch to open a special school for physical and bayonet training. Raycroft's advocacy during the CTCA's demobilization over the previous year had proven persuasive. The Training and Instruction Branch's leadership became convinced that making the wartime physical training system permanent would improve both the physical condition of the Army's enlisted population and morale throughout the force.⁵

The Physical and Bayonet Training Course had a two-fold purpose. First, the course helped Raycroft validate his comprehensive training system, itself a product of the wartime collaboration between athletic directors under the Athletic Division's leadership. Raycroft was busy in the late summer assembling the treatise that would become his 1920 book *Mass Physical Training*.⁶ Benning's special course followed the outline of Raycroft's later book precisely and furnished many of the photographs used as illustrations. Second, the course sought to propagate and perpetuate Raycroft's system within the Army. Thus, three or four officers from each of the Army's five service schools comprised the student body.⁷ Ideally, these new physical instructors

⁴ Joseph E. Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps* (Washington: United States Infantry Association, 1920), ix; full instructor roster in J. C. Drain, "New Physical and Bayonet Training Course," *Infantry Journal* 16, no. 6 (1919): 475.

⁵ Joseph E. Raycroft, Memorandum Outlining the Various Steps Taken in the Development of a Program of Physical Training, Boxing, Bayonet Fighting, Athletics, Etc., as a Part of the Training Program of a Soldier, 1917-1920, pp. 18-19, box 4, folder 8, Joseph Edward Raycroft Papers (JERP), Department of Rare Books and Special Collections, Princeton University Library (PUL).

⁶ Letter, Joseph Raycroft to John G. Hibben, 13 November 1919, Series 3, Physical Education During Wartime, 1917-1944, Box 4, JERP, PUL.

⁷ The service schools represented the Infantry, Cavalry, Field Artillery, Coast Artillery, and Engineer branches.

would return to their service schools and train the next generation of young officers as a part of each school's coursework.⁸ The course was not exactly the permanent instructor course on the Aldershot model for which Raycroft and his compatriots had hoped. However, it held promise as another step toward displacing Koehler's system in practice. After all, trends between 1917 and 1919 had moved toward centralized schools for physical trainers, so the Camp Benning course could have been seen as another step along that same path.

The functional training approach characteristic of Raycroft's system fundamentally informed the Benning course's program of instruction. Major J. C. Drain, the course director, defined functional development as physical and mental improvement, or the "development of initiative and spirit," through participation in "carefully prepared games and athletic exercises."⁹ According to Drain, this approach stood in contrast with the earlier Army physical culture that pursued corrective, physical development, and recreational goals, but failed to combine practices synergistically for total physical development. Drain's concept matched Raycroft's earliest proposals from May 1917. At that time, Raycroft observed a need to bring new recruits to a "maximum physical and mental efficiency in the shortest time possible."¹⁰ His solution was a comprehensive system that incorporated a variety of both mandatory and voluntary activities. In short, Raycroft sought to pull together the Army's disparate strands concerning exercise activities under the control of experts who could achieve better, quicker results than had previously been possible.

⁸ Memorandum from Major General Charles S. Farnsworth to the Chief of the Training and Instruction Branch, General Staff, 25 September 1919, Box 4, JERP, PUL.

⁹ Drain, 474.

¹⁰ Joseph E. Raycroft, Memorandum Concerning Physical Training in the New Army, May 1917, Box 4, JERP, PUL.

The variety of activities under an athletic director's purview during the war and the range of subjects covered in the Benning course illustrate the Raycroft school's concept of functional training. As discussed in the previous chapter, the CTCA athletic directors assumed wide responsibilities in the divisions and camps to which they were assigned. They advised commanders on issues related to physical training, developed local training programs, led exercise periods, trained uniformed instructors, supervised boxing programs, and participated in planning and executing bayonet training. Along with partners from the YMCA and other organizations, athletic directors also coordinated recreational athletic leagues and events, and even planned large competitions that often drew spectators from local communities.

The Benning course prepared uniformed officer instructors to perform a similarly wide range of functions. Students received 145 hours of instruction over three and a half weeks. More than 28 were dedicated to bayonet training, which had featured prominently as a component of Raycroft's comprehensive system during the war. The rest of the hours were spread fairly evenly between subjects that included quickening and skirmishing exercises, boxing and wrestling, hand-to-hand fighting, setting-up exercises, mass athletics, physical efficiency tests, "highly organized games" that included football and baseball, and more.¹¹ This distribution of time and emphasis highlights the Raycroft school's desire to incorporate athletics into a physical training program. This approach differed from Koehler's, which had largely separated physical training and athletics into two related but distinct activities. The inclusion of combat activities such as bayonet training and wrestling also differed from Koehler's physical culture in similar ways. Had the highest hopes of the Benning course been realized, Raycroft's instructors would have been better prepared to direct and integrate a wider variety of activities than Koehler's West Point

¹¹ Drain, 475-76.

graduates had been. As Drain promised, the U.S. Army could look forward to beginning the next war with the “splendid physical opportunities” of the German army, but with the additional benefits of “complete physical and mental training” provided by a variety of games and exercises.¹² The school’s instructors and others anticipated the course and its associated manual becoming official Army practice. The *Infantry Journal*’s editor, for instance, commended a report from the school as indicative of the future of physical training.¹³

Those high hopes were soon dashed. Graduates of the course’s first class returned to their service schools but made only a limited impact. A second iteration took place in March 1920, this time pulling five officers from each department. The War Plans Division of the General Staff anticipated that graduates of this special course would establish similar schools in their own departments.¹⁴ Such schools do not appear to have become regular fixtures. Raycroft’s system did not spread. Postwar consolidations and budget cuts closed the new physical and bayonet training school before it could produce many more certified trainers.¹⁵ Dreams for a comprehensive trainings system did not survive the era of normalization.¹⁶ Shutting off the inflow of new instructors proved fatal for the consolidation of Raycroft’s system in Army practice. Most of the instructors trained at Camp Gordon and elsewhere during the war were reservists or emergency officers who departed the shrinking interwar army. Without new, uniformed officers trained to replace them, physical training policy largely fell to regular officers brought up under Koehler at West Point and untutored in Raycroft’s system.

¹² *Ibid.*, 484.

¹³ "Physical and Bayonet Training (Editorial)," *Infantry Journal* 16, no. 6 (1919): 515-16.

¹⁴ Office of the Chief of Staff, Resume of Important Papers in the Day's Work, January 23, 1920, Box 4, JERP, PUL.

¹⁵ Whitfield B. East, *A Historical Review and Analysis of Army Physical Readiness Training and Assessment* (Ft. Leavenworth: Combat Studies Institute Press, 2013), 199.

¹⁶ Joseph E. Raycroft, Memorandum Outlining the Various Steps Taken in the Development of a Program of Physical Training, Boxing, Bayonet Fighting, Athletics, Etc., as a Part of the Training Program of a Soldier, 1917-1920, pp. 18-19, box 4, folder 8, JERP, PUL.

Camp Benning's Infantry School provided one exception to the gradual passing of Raycroft's system and its training apparatus. There, Major General Charles Farnsworth, the school's first commandant and a physical training enthusiast, promoted the Physical and Bayonet Training School.¹⁷ When the grand scheme for training officers of other branches withered, Farnsworth turned his attention to the infantry officers over which he had control. Having originally organized Drain's Department of Physical and Bayonet Training, Farnsworth kept Drain and his instructors employed over the following year with courses for infantry school students that matched the program of instruction provided in September 1919. Farnsworth imagined this program expanding to offer four six-week courses annually at Camp Benning between October and June. In the summer months, Farnsworth intended to disperse his instructors throughout the northern military districts to assist in instruction and to inspect their physical training programs. Instructors were to make similar trips throughout the southern districts between each course iteration in the winter and spring.¹⁸

Farnsworth struggled to realize this dream in the face of fiscal constraints. In letters between Farnsworth and Raycroft, the former identified two problems. First, the War Department frequently turned down, without comment, requests for funds to dispatch instructors on assistance and inspection trips to regional departments. Camp Benning's physical plant seemed to be the most critical problem, however. The frequency of rain during the planned primary instruction period between October and June was of special concern, so Farnsworth sought a large indoor assembly building where training could proceed regardless of weather conditions. Costs proved prohibitive. Given the small appropriations Congress allocated to the Infantry School in 1920 and forecasts of continued resource economization, Farnsworth believed

¹⁷ Drain, 475.

¹⁸ Letter, Major General Charles Farnsworth to Joseph Raycroft, 5 March 1920, Box 4, JERP, PUL.

the funds required for construction would not be available for several years. On Raycroft's suggestion, Farnsworth secured several steel and canvas hangars that partly addressed the indoor training space issue. Filling those buildings with exercise and sporting equipment was another matter entirely, and one still unresolved by mid-1922. Raycroft proved instrumental through the mid-1920s in helping furnish the Infantry School's gymnasium by securing funds from those raised during World War I.¹⁹ Ultimately, the Department of Physical and Bayonet Training secured sufficient manpower and facilities to propagate much of Raycroft's system in the infantry branch through the 1920s, but the courses failed to decisively shift the Army's physical culture.

The survival of Raycroft's system at the Infantry School made sense. The infantry branch had taken an intense interest in physical training issues since the 1880s. These appeared far more frequently in the branch's professional publications, such as the *Infantry Journal*, than in those of other branches. Furthermore, infantry officers took seriously the 1922 *Training Regulations 10-5*'s insistence that athletics and physical training were key elements in every military training program.²⁰ The Infantry School's leadership saw itself filling a void in physical instruction left by Koehler's retirement from USMA in 1923, but physical training at the Infantry School adhered to a gradually diminishing version of Raycroft's model that included competitive sports, calisthenics, and apparatus work. Even if time constraints reduced the hours devoted to topics such as wrestling and baseball, the training philosophy remained true to Raycroft's comprehensive concept: exercise was not for strength alone, but for its "military value, its hygienic or health value, its educational value, mental and physical, for its recreational value, for

¹⁹ Series of correspondence between Farnsworth, Raycroft, and later CPT Braun between MAR 1920 and SEP 1923, Box 4, Series 3, JERP, PUL.

²⁰ A. W. Bjornstad, "Athletic Policy of Infantry School," *Infantry Journal* 26, no. 1 (1925): 44.

its moral value, and for its social value.”²¹ However, the persistence of Raycroft’s philosophy and system in the Infantry School’s curriculum through the 1920s proved insufficient for sustaining Raycroft’s ideas in the wider Army physical culture.

Trends in Army physical training during the interwar years moved toward disaggregation and were abetted by organizational forgetting and complacency. Raycroft’s system was notable for its comprehensiveness. Calisthenic drills, athletics, close-combat work, and other varieties of functional fitness came together under physical training. In the pre-war Army, soldiers participated in all of these activities, but the activities were understood to be separate but complementary. Thus, Koehler’s manuals paid little attention to athletics, military sport developed haphazardly in a quasi-official status without a central proponent, and bayonet training appeared in separate manuals and occurred in hours outside the periods designated for physical training.²² These same features reemerged in Army physical training, and the Army’s physical culture, during the interwar years.

A visible manifestation of these trends appeared in the form of 1928’s *Training Regulations 115-5*. This manual was the first official Army physical training guide published since Koehler’s 1914 *Manual of Physical Training*. Raycroft’s 1920 *Mass Physical Training* had not achieved the impact hoped for by its author. Major General William Haan, Chief of the General Staff’s War Plans Division, had endorsed the Raycroft’s work, recommended its use in institutions providing physical training, and anticipated that it would “form the basis for the

²¹ G. J. Braun, "Physical Training at Infantry School," *Infantry Journal* 25, no. 2 (1924): 149.

²² On the haphazard development of military sport, see Jeffery Allen Charlston, "Disorganized and Quasi-Official but Eventually Successful: Sport in the U.S. Military, 1814-1914," *The International Journal of the History of Sport* 19, no. 4 (2002): 70-71.

training and instruction” of the Army “in the subjects included.”²³ Yet in an effort to save both time and money, the War Department decided to publish Raycroft’s book privately. The manual thus failed to achieve official status within the Army. Mentions of *Mass Physical Training* disappeared from military professional journals by the mid-1920s and the authors of *Training Regulations 115-5* made no reference to its privately published predecessor. Indeed, someone reading the Army’s official physical training manuals solely might never have an inkling of the Army physical culture’s wartime interregnum.

Training Regulations 115-5 might have ignored *Mass Physical Training*, but the manual exhibited a strong historical continuity with Koehler’s culture. Published on 10 September 1928 upon the authority of Chief of Staff Charles Summerall, *Training Regulations 115-5* explicitly superseded the 1914 *Manual of Physical Training*. Its preparation occurred under the direction of West Point’s superintendent, Brigadier General Merch Stewart.²⁴ Koehler had retired in 1923 and passed away in 1927, but the famous Master of the Sword’s influence remained significant in several respects. First, Koehler had directed all aspects of physical training at the Academy for nearly four decades. He had molded the institution’s physical culture and those men who took up his work after 1923. Institutional memories and culture virtually guaranteed that the Academy would look to its own heritage and practices, both inseparable from Koehler, when updating the Army’s physical training regulations. Second, Koehler exerted significant influence on key individuals such as Stewart, who was an 1896 Academy graduate and former student of Koehler’s.²⁵

²³ Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps*, iii-iv.

²⁴ East, 70. Stewart served as superintendent between 1926 and 1927. Though he departed the office before *TR 115-5* was published, Stewart had supervised the regulations’ development during his tenure.

²⁵ Michael J. Reagor, "Herman J. Koehler: The Father of West Point Physical Education," *Assembly* 51, no. 3 (1993): 49.

Stewart made his outlook on physical training clear in his 1913 book entitled *The Physical Development of the Infantry Soldier*. In it, Stewart championed the importance of systematic exercise for the infantry soldier. “War,” he noted, “is truly a struggle between life and death and, in war, death is caused equally as frequently by sickness and incapacity as by the bullets of the enemy.”²⁶ Because the infantryman was an “independent fighting element” that bore a heavy “burden of combat and march,” he had to be fitted to carry on “when every muscle in his body cries out for rest.”²⁷ Much like Koehler, Stewart connected physical fitness with other qualities such as will and discipline, then declared that exercise could develop all of them. Stewart’s concept of discipline aligned with Koehler’s; it was both the subordination of the body to man’s control and the subordination of the man to the team’s needs.²⁸ Development of physical fitness, discipline, and other qualities occurred in three stages according to Stewart: strength and endurance first, then ease and grace, and finally self-confidence “which comes of a knowledge of his strength and capacity.”²⁹ This progression paralleled Koehler’s pyramidal structure. Although Stewart did not advance a system of physical training, he directed readers to other manuals then in publication, all of which Koehler either authored or influenced. Stewart also revealed Koehler’s inspiration in quoting the Master of the Sword and proposing categories of exercise that matched those found in Koehler’s 1896 and 1904 manuals.³⁰ Notably, Stewart also included functional fitness activities such as rushing, crawling, and aiming exercises, though these were included for the general physical development of infantry soldiers and did not appear in *Training Regulations 115-5*. Responsibility for restating the Army’s official physical culture

²⁶ Merch B. Stewart, *The Physical Development of the Infantry Soldier* (Menasha: George Banta Publishing Company, 1913), 2.

²⁷ *Ibid.*, 4.

²⁸ Merch B. Stewart, "A Thirty-Minute Talk: Military Discipline," *Infantry Journal* 16, no. 6 (1919): 492.

²⁹ Stewart, *The Physical Development of the Infantry Soldier*, 6-7.

³⁰ These included setting-up exercises, gymnastics, calisthenics, rifle drills, and limited use of games as a supplement to make drill more interesting. *Ibid.*, 24-27.

thus fell to a disciple of Koehler's leading an organization that was a bastion of Koehler's thought and practice even after the man's departure.

Comparing 1928's *Training Regulations 115-5* and the 1914 *Manual of Physical Training* further reveals the direct lineage shared by both, along with Koehler's posthumous influence. Little separates the two works in terms of format, organization, objectives sought, areas of emphasis, and recommended activities. Many of the demonstration photographs even appear to be unchanged. Like Koehler and Stewart before them, the authors of *Training Regulations 115-5* offered a multi-level hierarchy of objectives sought through physical training. Physical fitness, according to these authors, was the recruit's baseline requirement that enabled him to execute all of his other duties. Through systematic exercise, the recruit could develop health, strength, and vigor. Learning to employ those physical qualities "to the best advantages for himself and for the mass for which he is a member" also developed "self-reliance, confidence, self-control, the courage to dare," alertness, precision, and enthusiasm.³¹ These intangibles translated into the Koehler culture's ultimate quality of discipline. Physical training in this mode therefore possessed a "disciplinary value" that was "at least the equal to is physiological or military value."³²

Further examples of physical culture continuities are evident in the methods employed to achieve physical fitness. The authors of *Training Regulations 115-5* covered activities ranging from gymnastics, jumping, and climbing to rifle exercises, group games, and dumb-bell routines.

³¹ War Department, *Training Regulations No. 115-5: Physical Training* (Washington: Government Printing Office, 1928), 1-2.

³² *Ibid.*, 2.

They also advocated inclusion of boxing, wrestling, and bayonet drills in a training program.³³ Yet the importance of all these diverse activities paled in comparison to the value accorded to traditional setting-up exercises. Unlike Raycroft's dismissal of the setting-up exercises as kindergarten work, *Training Regulations 115-5* asserted that the drills formed the "foundation upon which the entire course of physical training in the service is based" and that "their importance hardly can be overestimated."³⁴ The new regulations recommended that setting-up drills comprise a third of every morning's physical training period, but its authors dedicated nearly two-thirds of the basic manual's contents to the precise explication of each movement and its associated commands. As had their forebears, the soldiers of the 1930s were to flex, bend, thrust, hop, swing, and squat their way to fitness in mass formation and in response to commands.

A single addition to these "disciplinary physical training exercises" set the 1928 model apart from its 1914 predecessor: mass commands. Pioneered in an officer's training camp in early 1917, mass commands required the men in formation to collectively give commands. Instructors issued a prompt for each exercise, then the men in formation responded with the preparatory command and cadence. The authors of *Training Regulations 115-5* contended that this practice had "practically revolutionized the old method of recruit instruction, both as to the time required and the efficiency obtained."³⁵ With mass commands, the "volume and smash" of the combined voices "literally impel[led] every man to extend himself to the limit in performing

³³ *Training Regulations 115-5* was divided into two parts. The first and most commonly used part represented a basic program that units could implement anywhere, even without additional equipment. Activities covered included setting-up drills, marching, running, and group games. The second part was designed for use by trained instructors with access to equipment and included activities such as rifle and dumbbell exercises, and gymnastic drills requiring an apparatus.

³⁴ War Department, *Training Regulations No. 115-5: Physical Training*, 3.

³⁵ *Ibid.*, 49.

the movements snappily and precisely.”³⁶ The value attached to these mass commands helps illustrate key features of the physical culture the *Training Regulations 115-5*’s authors propagated. Mass commands did not make the exercises themselves more strenuous, for instance. Instead, their value derived from enhancing the disciplinary quality of the drill and enhancing self-confidence. Soldiers felt a part of the whole organization, practiced precision and issuance of clear commands, and learned self-reliance and “assertiveness.”³⁷

Other elements of continuity in the Army’s official physical culture included an emphasis on average unit fitness over maximal individual capacity, and a general wariness about the value of athletics as a part of the formal training program. The former is visible in the methods advocated, the disciplinary objectives sought, and the repeated goal of subordinating the individual to the unit. For instance, the authors of *Training Regulations 115-5* summoned the inspiration of Koehler and Butts in asserting that athletics should have “an applicable value” and be “educational” instead of “spectacular” because it was the “ability of the average of the mass that determines the efficiency of a fighting machine.”³⁸ Concerning athletics, *Training Regulations 115-5* staked out a position more friendly to athletics than had its 1914 predecessor, which had included in its athletics chapter as many warnings about the potential evils of sport as it did instructions. The authors of *Training Regulations 115-5* contended that use of mass athletics in the Army was “most desirable” on the grounds of both fitness and morale, which was in line with the Army’s World War I experience and the contemporaneous flourishing of sport at the U.S. Military Academy.³⁹ However, the manual downplayed games such as football and baseball as a component of formal physical training. Instead, it stressed mass games and

³⁶ Ibid.

³⁷ Ibid., 50.

³⁸ Ibid., 56.

³⁹ Ibid., 55-56.

individual contests such as relay races, cane wrestling, and other school-yard competitions that had featured in the 1914 manual. This was a far cry from the prominent place sport occupied in Raycroft's manual, even if they shared an emphasis on the educational value of athletics.⁴⁰

A few other matters differentiated the 1928 and 1914 manuals. For instance, running (or double-timing) appeared for the first time in Army physical training as a beneficial activity. *Training Regulations 115-5*'s characterization of running as being "invaluable in the development of endurance and organic vigor" diverged from the *Manual of Physical Training*'s claim about the extreme risk of injury associated with running and a concomitant warning that instructors "exercise the utmost care in its application."⁴¹ The running addition probably does not reflect the influence of Raycroft's culture, though. Running was not a major component of *Mass Physical Training* and even Koehler had come around to the practice, claiming in his 1919 book that, so long as care was taken with "green" men, no exercise could "develop condition, vigor and endurance, lung and leg power in general" as quickly.⁴² *Training Regulations 115-5* also suggested two hour-long training sessions per day, the latter consisting of bayonet or other combatives training and mass athletics, instead of the single 45-minute drill suggested in the *Manual of Physical Training*. However, these differences did not represent a significant variance between the physical cultures each manual represented and promoted. Their definitions of physical fitness remained largely the same, as did the methods recommended to attain fitness.

Training Regulations 115-5 guided the Army's systematic physical training practices and philosophy for eight years before the fourth chapter of the 1936 *Basic Field Manual's* (BFM)

⁴⁰ Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps*, 149.

⁴¹ War Department, *Training Regulations No. 115-5: Physical Training*, 3; War Department, *Manual of Physical Training for Use in the United States Army* (New York: Military Publishing Co., 1914), 310-11.

⁴² Herman J. Koehler, *Koehler's West Point Manual of Disciplinary Physical Training* (New York: E. P. Dutton & Co., 1919).

first volume superseded it.⁴³ In reality, the *BFM* chapter was no more than a reprint of *Training Regulation 115-5*'s first part. The definition of fitness advanced by the new manual remained unchanged, as did the prescribed practices and model programs. In its official expression, the Army's physical culture of the 1930s stagnated once it reverted to the Koehler mode. More change came five years later with the publication of *Field Manual (FM) 21-20* in 1941. The new FM superseded both the 1936 *BFM* and part two of 1928's *Training Regulations 115-5*.⁴⁴ An in-depth analysis of the 1941 manual will follow in the next chapter, but there are three important points of note here. First, *FM 21-20* slightly modified the Army's definition of fitness, but only in replacing the discipline capstone with a generic quality of "physical efficiency for military effectiveness."⁴⁵ Second, *FM 21-20* continued to disaggregate physical activities in that sports and combative training did not qualify for coverage. Disciplinary drills in mass formation continued to dominate training practices. Finally, *FM 21-20* exhibited a turn toward a more functional fitness-based physical culture with the inclusion of obstacle courses and survival swimming. This turn echoed a similar cultural shift around 1917 when the Army began seriously preparing for war. Yet at root, the new manual reflected the culture Koehler began fashioning nearly six decades earlier. Significantly, as historian Whitfield East observes, *FM 21-20* would guide Army physical training for the next seventy years.⁴⁶

Though sports largely disappeared from manuals in the interwar period, they did not disappear from Army life or from the Army's physical culture. The Inter-Allied Games of 1919, held in Paris, were perhaps the most dramatic representation of the importance Americans

⁴³ War Department, *Basic Field Manual, Volume 1, Chapter 4: Physical Training* (Washington: Government Printing Office, 1936).

⁴⁴ War Department, *FM 21-20: Basic Field Manual - Physical Training* (Washington: Government Printing Office, 1941), 1.

⁴⁵ *Ibid.*, 2.

⁴⁶ East, 72.

attached to sport in the military at the time. Pulling together nearly 1,500 athletes from eighteen Allied nations and, on opening day, more than 30,000 spectators, the games both cemented the place of sport in the U.S. military and helped spread the cause of the “sporting life” to other nations recovering from the trauma of World War I.⁴⁷ Reaffirming the place of sport beyond the spectacular displays of an Olympiad, Fort Benning completed construction of its Doughboy Memorial Stadium in 1925. During a speech dedicating America’s latest living memorial, Major General R. H. Allen declared that physical training and athletics had been recognized as “vital parts of all military training” and that neglect of either represented a “vital blow” struck at an army’s “efficiency as a fighting machine.”⁴⁸ Summoning long-standing assumptions about the holistic development potential of physical training and sport, Allen declared that the playing field cultivated qualities key to past and future success: action, teamwork, fighting spirit, the will to win, tenacity, and steadfastness.⁴⁹

Athletic competitions remained a regular feature of military life in the U.S. Army in the interwar period, even if not on the Inter-Allied Games’ grand scale. Historian Wanda Wakefield’s survey of the accounts of retired officers who served as junior officers prior to World War II confirms this. Many recalled the great personal and professional importance they attached to sports. One, Lieutenant General Hobart Gay, even chose to remain in the army after World War I because he earned a spot on the Army’s prestigious polo team.⁵⁰ Another, General Robert Porter, found that young officers *had* to involve themselves in sports if they wanted to

⁴⁷ Steven Pope, "An Army of Athletes: Playing Fields, Battlefields, and the American Military Sporting Experience, 1890-1920," *The Journal of Military History* 59, no. 3 (1995): 453.

⁴⁸ This represented a notable break from the debates over the faddishness of sport and physical training in the Army that had been active less than two decades earlier. R. H. Allen, "Athletics and the Infantry Spirit," *Infantry Journal* 28, no. 1 (1926): 24.

⁴⁹ *Ibid.*, 26.

⁵⁰ Wanda Ellen Wakefield, *Playing to Win: Sports and the American Military, 1898-1945* (Albany: State University of New York Press, 1997), 62.

establish control and discipline in their units. “If he [the young lieutenant] was nothing but a bookworm,” Porter recalled, “he would have trouble getting through to some of these people [the enlisted men in the regiment].”⁵¹ Officers valued athletics for a variety of reasons. Sports kept officers physically fit, taught them lessons for their professional lives about leadership, built relationships between military personnel and local civilian communities, developed *esprit de corps*, and reinforced expectations of masculine behavior predicated on strength, aggressiveness, and competitiveness.⁵² Sports were significant in the enlisted man’s military experience too. Apart from regular periods of mass athletics, most units maintained competitive athletic teams. Post and unit newspapers along with more widely available military publications such as the *Army and Navy Journal* and *Infantry Journal* consistently dedicated considerable space to covering the records and exploits of these teams.

Athletics also continued growing in popularity and importance at West Point during the interwar period. This growth occurred most explosively between 1919 and 1922 under the Academy’s dashing young superintendent, Brigadier General Douglas MacArthur. A long-time sports enthusiast himself, MacArthur believed that sports were crucial to the preparation of junior officers, especially in developing “the coordination of mental and physical effort, an appreciation of the principle of cooperation, the development of hardihood and courage, and the inculcation of an aggressive and determined spirit.”⁵³ Along with the Academic Board, MacArthur oversaw a curriculum reorganization that instituted a mandatory intramural program for all cadets on top of the foundational training all Fourth Class cadets received through Koehler’s system. All cadets learned to play baseball, football, basketball, soccer, lacrosse, track, tennis, golf, and hockey in

⁵¹ Quote in *ibid.*, 63.

⁵² *Ibid.*, 62-78.

⁵³ United States Military Academy, *Annual Report of the Superintendent* (West Point: United States Military Academy Press, 1922), 10.

six-week periods that culminated in intramural competitions. Cadets received grades for their participation and performance that contributed to their all-important class ranking, thereby formally incorporating sport as a requisite and essential element of officer education. MacArthur also expanded the Academy's intercollegiate athletics program by adding several teams and taking controversial steps toward recruiting athletes. Even Koehler endorsed the Academy's growing embrace of athletics as an adjunct to individual physical training, arguing that "participation in athletic competition is the best school for leadership, self-discipline and team work."⁵⁴ As before, however, Koehler qualified his support on the basis of his belief that the Academy was more capable than other institutions of resisting the evils often associated with intercollegiate athletics.

However, athletics did not become an integral part of physical training in the wider Army as they had at West Point. Echoing elements of the official physical culture existing before World War I, the two activities were generally considered to be associated and complementary, but they were not effectively integrated. Allen gave voice to this in his 1925 stadium dedication speech when he noted that "official recognition" had long been given to disciplinary drill while athletics had "subsisted solely through the interest of its devotees."⁵⁵ While Raycroft explicitly recognized and encouraged the relationship between physical training and athletics, the Army's physical training policies in the interwar period did not. *Training Regulation 115-5* and the 1936 *Basic Field Manual* recommended that leaders dedicate some time to mass athletics, which could include competitive athletics, but these manuals were primarily concerned with other forms of training. Athletics came under the purview of athletic officers, who were not necessarily the

⁵⁴ Herman J. Koehler, "Competitive Athletics at the United States Military Academy," *The Pointer* (1923, 29 September): 11.

⁵⁵ Allen, 24.

same individuals leading comprehensive unit physical training.⁵⁶ With the demise of the Physical and Bayonet Training School, no centralized institution certified individuals in the management of a comprehensive physical training program. Army policies also tended to regard athletics more in terms of recreation than training.⁵⁷ So while athletics remained a vital part of the Army's physical culture, that culture drifted toward disaggregation. Raycroft and his team pulled together physical training, athletics, combat sports, and more into a single program oriented on maximizing the individual's combat efficiency. In the interwar years this comprehensive program fractured. The bonds between physical training, sport, and activities such as bayonet training weakened. The Raycroft interregnum in the history of the Army's physical culture closed by the mid-1920s.

While systematic training in the Army reverted to its roots in Koehler's physical culture, other changes in the Army's physical culture were afoot. Unlike in earlier periods, this change is best understood by considering first what officers *were not* discussing—namely, the basic value of physical training. Between the last quarter of the nineteenth century and America's entry into World War I, professional military journals regularly featured articles or letters to the editor concerning physical training. Some reflected doubt in the force at large as to the desirability of regular, systematic training. Most made a positive case for training, often while positing a regimen or program. All implicitly or explicitly took a position on the value of exercise. After World War I, articles on physical training largely disappeared, even from the *Infantry Journal*, as the subject became more accepted and less controversial. Major General Allen's 1925 dedication speech for the Doughboy Memorial Stadium at Fort Benning illustrated the widespread

⁵⁶ War Department, *Army Regulations No. 850-120: Athletics* (Washington: War Department, 1928).

⁵⁷ Wakefield, 54.

acceptance in the Army: regarding physical training and athletics as “fundamental elements of all military training” was “no new doctrine,” Allen asserted, and they did not belong among the “many fads that have sprung up in our service like mushroom growths.”⁵⁸ This directly contradicted the common accusation of a generation before that physical training was a dangerous fad best avoided. Though officers wrote less about whether or not to exercise, or even how to exercise, they did not forget physical training. Instead, they turned their attention to *who* should exercise and leveled a finger at the young American male. After World War I, a discourse of declension manifested concerning the American population’s physical fitness. In the process, physical fitness became closely associated with a concept of citizenship defined by obligations. The Army’s physical culture became a part of this discourse as both a means and end of fitness.

The discourse of declension concerning American men took root in draft rejection rates that many people, both within and outside the military, perceived as being alarmingly high. A thorough statistical analysis of draft rejections appeared in print in 1920 that was authored by Charles Davenport and Albert Love under the Surgeon General’s supervision.⁵⁹ Both men had worked for the office of the Surgeon General during World War I compiling anthropometric data on draftees. Using this data, which local draft boards and camp physicians collected on more than 2.5 million men enlisted during the war, Davenport and Love found that approximately 46% of the recorded population presented a defect of some kind.⁶⁰ The report’s authors divided the defects into eleven groups ranging from “mechanical” defects involving bones, joints, hands, and feet to “nervous and mental defects” and venereal disease. Recognizing that not all defects were

⁵⁸ Allen, 24.

⁵⁹ For the full analysis, see Albert G. Love and Charles B. Davenport, *Defects Found in Drafted Men* (Washington: Government Printing Office, 1920); for a summary of key findings, see Albert G. Love and Charles B. Davenport, "Defects Found in Drafted Men," *Scientific Monthly* 10, no. 1 (1920): 5-25; Albert G. Love and Charles B. Davenport, "Defects Found in Drafted Men, II," *Scientific Monthly* 10, no. 2 (1920): 125-41.

⁶⁰ Love and Davenport, "Defects Found in Drafted Men," 7.

equally important, Davenport and Love also broke the defects down into the five categories established by draft and military officials during the war, two of which prevented the draftee from serving in the military.⁶¹ Counting only those totally rejected, and not those qualified for limited duties, Davenport and Love found that about 12% of all men examined were rejected for military service.⁶²

Much larger figures concerning draft rejections circulated as early as 1918 and continued influencing the discourse on the topic through the interwar period. Most of these pegged the rejection rate at about one-third of men drafted.⁶³ Extrapolating from these rates, commentators alleged a serious problem in American society that bordered on crisis. The most immediate concern was of a military nature. A great power needed to be able to field armies numbering in the millions to successfully fight industrial-era wars. The vast majority of those soldiers would be conscripts, and conscripts represented a broad cross-section of the nation's manpower. Nearly all men were liable for service and therefore obligated to maintain a baseline of physical fitness. However, commentators also linked defects disqualifying men from military service to the capability of the nation's labor force and the individual's ability to live a full life.⁶⁴

A guilt-laden sense of crisis appeared to be particularly acute in the civilian physical education community. Thomas Storey expressed these sentiments in an address to the American Physical Education Association in April 1919 when he claimed that the war had "heartlessly, relentlessly and with calculating accuracy" revealed the quality of America's peacetime physical

⁶¹ Defects rendering men unsuitable for service were included in categories Vg, which were rejected by local draft boards, and D. Men sufficiently fit for immediate service fell in category A, while men eligible for service after remedial action fell in category B. Category C included men who were only deemed capable of limited military service, such as in clerical positions. *Ibid.*, 8-10.

⁶² *Ibid.*, 11.

⁶³ Paula D. Welch, *History of American Physical Education and Sport*, 3rd ed. (Springfield: Charles C. Thomas, 2004), 172.

⁶⁴ Willard S. Small, "The Nation's Need of Physical Education," *American Journal of Public Health* 8, no. 11 (1918): 830.

education.⁶⁵ Noting the “army of young men” rejected for service, and using the 30% rejection rate, Storey harangued the American educational system for failing to teach hygiene and make students’ bodies fit for the “supreme obligation of citizenship.”⁶⁶ The University of Minnesota’s John Sundwall advanced a similar argument about how the wartime experience demolished the myth of an American composed of a “superhealthy, superstrong, and superactive and vigorous people.”⁶⁷ Sundwall, like Storey and others, laid much of the blame on the American educational system and urged colleges and universities to “accept their share of responsibility” and to “do their part in the physical regeneration of America.”⁶⁸ Dudley Sargent, one of the venerable old fathers of physical education, lent his voice to the chorus too. In Sargent’s opinion, schools had not done enough to develop in American youth the “physical, mental, and moral qualities” that make good soldiers. Echoing concerns that drove the development of physical training in the Army and university a generation earlier, Sargent argued that physical educators had a duty to offset the deleterious effects of urbanization, industrialization, and undesirable immigration.⁶⁹

The authors mentioned above represent a small sampling of the many who expressed concerns about the educational system having failed American youth and the nation. One common theme in most criticisms addressed the narrowness of pre-war physical education in terms of both populations and subjects. According to statistics from the draft, some regions of the country produced more defective men than others. Statistical imbalances could be found between socio-economic classes as well. Thus, many educators called for making physical

⁶⁵ Thomas A. Storey, "War-Time Revelations in Physical Education," *American Physical Education Review* 25, no. 2 (1920): 47.

⁶⁶ *Ibid.*

⁶⁷ John Sundwall, "Health Education and Activities in Colleges and Universities," *American Physical Education Review* 26, no. 4 (1921): 164.

⁶⁸ *Ibid.*, 165.

⁶⁹ Dudley A. Sargent, "Taking Account of Stock," *American Physical Education Review* 27, no. 2 (1922): 49-50.

education more accessible to all and, if possible, mandatory. For instance, George Fisher argued during the Athletic Research Council's annual meeting in December 1919 that the physical education community had to capitalize on the "tide of popular sentiment" for physical preparedness. Harnessed, such a tide could bring compulsory training to all school children, and even to the workplace.⁷⁰ This movement gathered steam. States "vied with each other," in the words of one commentator, to pass physical education legislation.⁷¹ By 1934, thirty-seven states had mandated physical education as part of their students' general education.⁷² Many educators also argued that physical education curricula could be broadened on the grounds that many men were rejected for issues such as venereal disease or other problems that could be reduced or eliminated through hygiene instruction.

Another point of agreement shared by most critics of physical education was that the military succeeded where civilian institutions had failed. The YMCA's James McCurdy, who spent time overseas with troops during the war supervising and directing recreational activities, wrote that "no man could have observed the Army ... without having a deep impression of, and an overwhelming pride in, the deeds of valor of the American soldier."⁷³ McCurdy credited much of this to the Army's ability to cultivate "physical efficiency" in its troops. In this, McCurdy believed that the Army "did a marvelous piece of work."⁷⁴ Similarly, Fisher claimed that the U.S. Army deserved credit for producing between three and four million soldiers who were "in better condition than any similar number of men have ever been at one time in the

⁷⁰ George J. Fisher, "Points of Emphasis in a Post-War Program of Physical Training," *American Physical Education Review* 24, no. 3 (1919): 126.

⁷¹ F. W. Maroney, "Physical Education Looks Ahead," *Journal of Health and Physical Education* 5, no. 8 (1933): 4.

⁷² Marilyn J. Gibbs and Claudius W. Griffin, "Physical Fitness," in *Handbook of American Popular Culture*, ed. M. Thomas Inge (New York: Greenwood Press, 1989), 931; Maroney, 4.

⁷³ James Huff McCurdy, "Physical Efficiency as a National Asset," *American Physical Education Review* 25, no. 3 (1920): 101.

⁷⁴ *Ibid.*

United States.”⁷⁵ Such sentiment existed in the popular imagination too. One ditty making the rounds in the nation’s newspapers in 1921 promised that the Army not only functioned as a melting pot for ethnically diverse American youth, but that it built *men*:

Have you heard of our Army’s slogan? We shout it—THE ARMY BUILDS MEN! / We care not for features, they’re all of God’s creatures, they go to the ‘melting pot.’ Then / watch for the change that comes o’er them, / Are these the young lads whom you knew? / They are hearty and hale, each a red-blooded male, / That’s what our Army can do. / Deep-chested, square-shouldered and active, / Erect and with twinkling glance, / Straightforward and true, we return them to you, / These boys but needed the chance.⁷⁶

Reciprocal relationships between civilian physical education and Army physical training are especially evident in this immediate postwar period. In 1917, the Army had called on civilian educators to help expand, improve, and man the institution’s physical training system. In doing so, Raycroft and his peers advanced a concept of using multiple activities, ranging from hygiene training and recreational athletics to disciplinary drill and boxing, to achieve higher-order educational outcomes. A few short years later, civilian educators looked to the Army as a guide and inspiration. They perceived that the Army had achieved a remarkable success in rapidly building healthy young men. As soon as the war concluded, civilian educators began to discuss the ways in which they could apply the Army’s model to improve childhood education. Given the distress over draft rejections, qualification for military service also became something of a standard for physical education outcomes. Wartime experience and Army successes also contributed to a renewed emphasis on training for citizenship within the physical education community.

Lessons civilian educators borrowed from the Army’s wartime physical training program included pedagogical methods and philosophies of education. For instance, systems developed to

⁷⁵ Fisher, 126.

⁷⁶ "The Army Builds Men," *Infantry Journal* 18, no. 1 (1921): 80-81.

rapidly train large numbers of new recruits yielded new pedagogical methods useful in primary and secondary schools. The boxing training program crafted by the Commission on Training Camp Activities' (CTCA) special boxing instructors was a particularly useful case study. Indeed, many schools derived from this boxing programs new systems of mass instruction to teach the fundamentals of other sports to large bodies of students.⁷⁷

Not all attempts to align physical education with military needs were as widely embraced. A more controversial movement sought to replace physical education with military training, usually consisting of marching drill and the manual of arms, in schools. During the war, some schools moved to this model in an effort to better prepare their pupils for service. After the war, some colleges continued permitting military drill in place of physical education requirements. Some high schools did the same.⁷⁸ In the minds of most physical educators, drill could not possibly replace the many activities needed to promote holistic growth and development of their students.⁷⁹ For instance, James McCurdy opposed drill on the basis of it being too narrow a program that failed to address the problems identified through draft rejections, many of which required a health and hygiene program to remedy. McCurdy also believed that drill did not promote all-round individual improvement or the cultivation of "vigor" needed to meet the demands of modern war.⁸⁰ Military authorities also opposed drill in school. Secretary of War Newton Baker did so explicitly in 1918, arguing that school-time drill contributed very little to the nation's military strength.⁸¹ Echoing McCurdy, Colonel F. J. Morrow, a General Staff officer

⁷⁷ Deobald B. Van Dalen and Bruce L. Bennett, *A World History of Physical Education: Cultural, Philosophical, Comparative*, 2nd ed. (Englewood Cliffs: Prentice Hall, Inc., 1971), 468.

⁷⁸ *Ibid.*, 460-61.

⁷⁹ *Ibid.*, 461.

⁸⁰ McCurdy, 105.

⁸¹ This was a joint statement also approved by the Navy Department, U.S. Civil Service Commission, Department of the Interior, and the Commissioner of Education. "The Need in the Army and Navy," *American Physical Education Review* 23, no. 4 (1918): 251.

responsible for education and special training, argued that drill alone could not “provide an adequate course of physical training.”⁸² Military training could supplement physical training, but it was not a replacement. The position of senior military officials on this issue highlights how much the Army’s physical culture had changed since the 1880s. Then, senior officers opposed systematic exercise and sport as wasteful—even dangerous—fads, and considered incidental training through drill and duty sufficient. By 1920, senior leaders had at least embraced the utility of systematic physical training, even if their conceptual horizons for such activities remained fixed along Koehler’s lines.⁸³

Debates over drill in the world of civilian physical education point beyond pedagogical practices to another common subject in the post-war discourse: the prevailing philosophy of education. A report authored by Raycroft in 1918 entitled *Suggestions for Colleges from the Army Experience of Physical Training* illuminated this subject’s core elements. In it, Raycroft recalled that he and his team approached the physical training problem with open minds, seeking only “those things which would give results in training recruits.”⁸⁴ The basis for such a search had to be “straight thinking” that discriminated between “*exercise and training or education.*”⁸⁵ This differentiation was also key to making improvements in college physical education, according to Raycroft. What he meant was that too often Army officers and college faculty members alike regarded physical training as either purely for exercise or purely for recreation, and thereby lost sight of the educational value possible with the proper utilization of physical training activities.

⁸² Morrow, 280-81.

⁸³ Early advocates of systematic physical training had long urged this line of thinking within the Army. For instance, Koehler wrote in vehement opposition to the use of military drill in schools as early as 1896. Herman J. Koehler, "Military Drill Vs. Gymnastics," *Mind and Body* 3, no. 28 (1896): 79-80.

⁸⁴ Joseph E. Raycroft, *Suggestions for Colleges from the Army Experience in Physical Training*, 26 December 1918, Box 4, JERP, PUL.

⁸⁵ *Ibid.*, 8.

Instead, Raycroft sought deeper development of character and of physical and mental attributes, and of attributes defined differently, through the application of a broader range of means in new ways.⁸⁶ He expressly advocated using intercollegiate athletics rather than abolishing them, for instance.⁸⁷ These ideas reflected the powerful influence in this period of educational developmentalism, which sought to facilitate a student's holistic growth in order to make them creative and critical individuals.⁸⁸ Raycroft's critique, which was similar to those delivered by many of his contemporaries, was a standard critique because new ways and means could nearly always be identified and integrated. For instance, the National Education Association's James Rogers delivered a similar critique more than a decade later, this time directed at the educators of the post-war decade. According to Rogers, too much stress had been placed on health education, and he hoped educators could remedy this by integrating many other activities residing under the big tent of physical education.⁸⁹ What is notable here in respect to the reciprocal relationship between civilian and Army physical cultures is that the two moved in opposite directions in the interwar years. While civilian educators looked to the wartime experience and saw cause to expand, enlarge, and integrate activities, the disaggregation of activities came to characterize the Army's interwar physical culture.

Preparation for citizenship was another point of initial convergence, and some later divergence, between Army leaders and civilian physical educators. Citizenship, at this time and in this discourse, was defined by military authors and physical educators largely in terms of the

⁸⁶ Ibid., 10-11.

⁸⁷ Ibid., 11-14; the popularity of intercollegiate athletics, which was already growing rapidly, exploded after World War I. For more, see Van Dalen and Bennett, 430, 45-53.

⁸⁸ Van Dalen and Bennett, 431-32.

⁸⁹ James Edward Rogers, "Trends in Physical Education," *Journal of Health and Physical Education* 2, no. 8 (1931): 19, 47.

obligation for military service.⁹⁰ Therefore, citizenship was in part predicated on fitness. In turn, fitness meant a baseline of strength and endurance, along with an absence of health-related disorders and deformations. These ideas stemmed from wartime mobilization efforts and the postwar concerns over high draft rejection rates. Educators and military leaders alike in the immediate postwar years came to count the population's physical fitness as a leading consideration in national preparedness, and all contended that improving the population's health and fitness could not wait for the emergency of a future war.⁹¹ Furthermore, as successful as the military may have been in building men, there were limits to what the military could do with the material it was given, especially in a time constrained environment. Real improvement had to come through the education system. As Morrow reasoned, no efforts directed toward promoting the "average citizen's" fitness could be successful "unless they begin with the boys and youth of the country, in order to mold them during the plastic period of life ..."⁹²

The prominence of this "prehabilitation" in the physical fitness discourse within the Army denoted one of the most significant changes in Army physical culture in the interwar years. Content with the sufficiency of training in the military, Army leaders turned their attentions outward. Discussion in professional journals centered less on *how* soldiers should exercise. Instead, the matter of *who* should exercise arose most frequently. As demonstrated above, the "who" were young American men and boys, all of whom were theoretically liable to render military service with little forewarning. Civilian educators agreed for a time. However, by the 1930s educators rarely made explicit connections between military service and citizenship, or

⁹⁰ This reflected traditional conceptions of citizenship that closely associated citizenship with military duty. Mass armies reinforced and amplified this connection. Derek Heater, *A Brief History of Citizenship* (Edinburgh: Edinburgh University Press, 2004), 4-5; Keith Faulks, *Citizenship* (New York: Routledge, 2000), 169.

⁹¹ Morrow, 280; Storey, 47, 51; Sundwall, 104; McCurdy, 101-05; Welch, 172-73.

⁹² Morrow, 280.

between military fitness standards and expectations for physical education. For educators, preparation for good citizenship increasingly meant social development and the “health of the entire personality.”⁹³ Participation in a democratic society required social skills, a capacity for “self-expression and self-realization,” education to make the best use of increasing amounts of leisure time, and the vigor and health to be happy and productive in a vocation.⁹⁴ Military writers agreed with much of this, though they emphasized discipline and stuck to an explicit, direct, and close linkage between preparedness for service and citizenship.

One of the best sites to observe this tight linkage in the military’s concept of citizenship, and physical training’s place in it, was the Citizens’ Military Training Camps (CMTC) program. Comprised of three progressive, month-long summer training courses held at several military posts across the United States and run by active-duty service members, CMTC was designed to improve the nation’s military preparedness while teaching attendees to be better citizens. Specifically, the CMTC was supposed to bring together a diverse lot of boys and young men, develop them “physically, mentally, and morally,” equip them with some basic military training, and “teach Americanism in its true sense.”⁹⁵ Those few who completed all three courses could become eligible for a commission in the Reserves. CMTC was a direct outgrowth of the pre-World War I preparedness movement. Its leaders traced their heritage directly to the “Plattsburg Camps,” which had grown into a system of Officers’ Candidate Schools that operated between May 1917 and November 1918. Though technically created by the 1916 National Defense Act,

⁹³ Thomas D. Wood, "Schools Hold Health Key for All Future Citizens," *Journal of Health and Physical Education* 1, no. 3 (1930): 3.

⁹⁴ Quote in R. J. Francis, "Toward a Philosophy of Physical Education," *Journal of Health and Physical Education* 10, no. 4 (1939): 216-17; interest in European physical education systems ran high in the 1930s, especially as they related to nationalist efforts to mold young citizens Charles Edward Merriam, *The Making of Citizens: A Comparative Study of Methods of Civic Training* (Chicago: University of Chicago Press, 1931), 328-29; Maroney, 45; Van Dalen and Bennett, 479.

⁹⁵ P. S. Bond et al., *The Red, White and Blue Manual: A Text Book for the Citizens' Military Training Camp*, Vol. One: Red Course (Baltimore: Johns Hopkins Press, 1921), 1.

CMTC was not implemented until 1921. It remained in operation until 1940.⁹⁶ Twelve camps comprised the CMTC system in its first year of operation, and together they graduated a class of nearly ten thousand.⁹⁷ At its peak in 1927, the CMTC operated fifty-three camps and graduated more than 38,000 candidates.⁹⁸

CMTC was a weak substitute for the universal military training program advocated by many officers and by groups such as the influential Military Training Camps Association, but it afforded the military an opportunity to perform some prehabilitation.⁹⁹ In the Red Course, the first of the three courses and the only one completed by the vast majority of candidates, the program of instruction covered basic infantry training. However, physical training was often cited as among the most prominent subjects. Authorities believed that physical training in the camps served a dual purpose. First, improving every candidates' fitness prepared them for service and corrected deficiencies that might otherwise "impair their worth as citizens of the nation."¹⁰⁰ Second, fit candidates would carry back to their communities the "right standards of physical life."¹⁰¹ This latter argument was common in the rhetorical toolkit of systematic training advocates in the military.

Perceived need for prehabilitation justified the emphasis placed on physical training in the CMTC program. In the Red Course manual, the chapter on physical training opened with an

⁹⁶ Very little scholarship exists on the CMTC. For one of the only manuscripts on the subject, see Donald M. Kingston, *Forgotten Summers: The Story of the Citizens' Military Training Camps, 1921-1940* (San Francisco: Two Decades, 1995), 1-5.

⁹⁷ Generally speaking, each camp was aligned with an Army Corps Area. The initial camps were held at Camp Devens, Fort Snelling, Plattsburg, the Presidio, Camp Lewis, Camp Meade, Camp Jackson, Camp Knox, Camp Grant, Camp Pike, Fort Logan, and Camp Travis. *Ibid.*, 14-16.

⁹⁸ *Ibid.*, 107.

⁹⁹ On the campaign for universal compulsory military training, see John Garry Clifford, *The Citizen Soldiers: The Plattsburg Training Camp Movement, 1913-1920* (Lexington: The University Press of Kentucky, 1972), 193.

¹⁰⁰ George Wheeler Hinman, "Citizens Military Training Camps," *Infantry Journal* 18, no. 6 (1921): 581.

¹⁰¹ *Ibid.*

infographic map of the United States in which each state's shade corresponded to its percentage of drafted men who had passed entrance examinations. Some basic analysis accompanied the map, pointing out differences such as the relatively better health of rural populations, native-born youth, and the Midwestern states over their counterparts.¹⁰² Though the manual's authors did not use the language of crisis when discussing draft rejection rates, they did make a point about the cost of wastage using a bit of napkin math--a population of 100,000 native-born youth would yield 3,500 more soldiers than an equivalent population of foreign-born youth, and a 3,500-man regiment "stopped the last German drive on the Marne."¹⁰³ Colonel P. S. Bond, one of CMTC textbook's lead authors, also penned a small book in 1920 making a case for universal military training. The CMTC textbook echoed many of the ideas and much of the language in this earlier book. In it, Bond made an even larger claim for the value of military prehabilitation: the nation's "wealth...strength and...happiness" rested on the health and vigor of its citizens.¹⁰⁴ Physical training and health education for military service therefore laid a foundation for America's social, political, and economic health.

Promoters of prehabilitation made compelling rhetorical cases for their cause, though the precise nature of the deficiencies to be rectified through prehabilitation were not always clear. After all, many of the defects that had disqualified men from service were not remediable by way of exercise. A close examination of the draft statistics reveals that at least 47% of all defects identified concerned sense organs, "disease-groups" such as tuberculosis and venereal disease, developmental and metabolic complications, nervous and mental issues, and diseases of the nose,

¹⁰² Bond et al., 1-2.

¹⁰³ Ibid., 2.

¹⁰⁴ P. S. Bond, *Your Boy & the Other in Universal Training: The Nation's School for Citizenship* (Washington: Press of the Military Engineer, 1920), 92.

throat, skin, or teeth.¹⁰⁵ Even defects of the “mechanical sort,” which comprised the plurality of defects at 39%, often had little to do with a lack of proper exercise.¹⁰⁶ The problem seemed be chiefly one of health and hygiene. Accordingly, much of the CMTC health program addressed these issues. For instance, attendees received examinations to identify problems that might otherwise have gone undiagnosed, and also received treatment.¹⁰⁷ The CMTC curriculum included preventative health training on issues ranging from basic oral hygiene to venereal disease. Daily life in the camps taught healthy habits such as smoking cessation, eating in moderation, and keeping to a regular sleeping routine.¹⁰⁸

If wellbeing issues constituted the primary problem and a major focus of the CMTC curriculum, the emphasis placed on physical training might seem perplexing. However, recalling the definition of and value placed on physical fitness within the Army’s prevailing physical culture explains the desire to sculpt young attendees through exercise. Since at least the 1880s, advocates of systematic training claimed several functions for exercise. First, it strengthened and improved bodies. In this, there were assumed corollaries with the remediation of physical defects, even if the linkages were not made explicit. Second, training developed qualities beyond the physical. Koehler’s and Raycroft’s cultures converged on this, even if they differed on the qualities to be improved and the means to do so. Physical training was therefore a tool that could be instrumental in achieving prehabilitation’s broader goal of making better citizens. Part of the CMTC’s mission was to develop young men “physically, mentally, and morally.”¹⁰⁹ Physical training could address all three.

¹⁰⁵ Love and Davenport, "Defects Found in Drafted Men," 7-8.

¹⁰⁶ About 218 of every 1,000 men examined revealed defects in this category. Of these, about 90 involved deformed or injured appendages, or hernias. *Ibid.*, 8.

¹⁰⁷ Bond, 100-01; the emphasis on health education was also in keeping with trends in civilian physical education. See Rogers, 18-19, 47.

¹⁰⁸ Bond et al., 4-5.

¹⁰⁹ *Ibid.*, 1.

The system of physical training created for the CMTC largely mirrored practices in the Regular Army, though it differed on time allocation and some points of emphasis. Similarities included twice-daily sessions most days, one in the morning and one in the afternoon. As in the Army, morning sessions concentrated on calisthenic exercises and longer afternoon sessions afforded time for games or applied physical training. Morning calisthenics in the CMTC system simply combined the basic setting-up drill from Koehler's earlier manuals executed in formation with, if the instructor wished, quick-time marching. This corresponded with the "Recruit Course" in the Army, which was an introductory series of exercises designed to prepare soldiers' bodies for more advanced exercises.¹¹⁰ Though the morning calisthenics were intended to "accomplish an all-round development in which each muscle is properly developed," the CMTC curriculum allotted only twenty minutes to morning drill.¹¹¹ In reality, only minimal gains in muscular strength and endurance could be expected from such sessions. However, the stated object of physical training included three other goals that physical training simultaneously addressed: building mental alertness, filling candidates with "enthusiasm," and providing discipline.¹¹² These latter goals accorded with the goal of training candidates for good citizenship, which CMTC authorities associated with discipline and "habits of obedience, dependability, [and] respect for proper authority."¹¹³ Koehler had sought for decades to inculcate these qualities in soldiers and cadets. As he had often asserted, and as the authors of the CMTC textbook continued to assert, physical training was a means to those ends.¹¹⁴

¹¹⁰ For the series of exercises used by the CMTC, see *ibid.*, 1-22; among the existing manuals, the CMTC's routine most closely resembled that found in War Department, *Special Regulations, No. 23: Field Physical Training of the Soldier* (Washington: Government Printing Office, 1917); Raycroft's manual also included a similar system, though it had been borrowed from Koehler's earlier work. See Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps*, 8-33.

¹¹¹ H. W. Fleet, "Citizens' Military Training Camps," *Infantry Journal* 32, no. 5 (1928): 497-98.

¹¹² Bond et al., 2.

¹¹³ Bond, 26.

¹¹⁴ Bond et al., 22.

Afternoon sessions of mass athletics and group games competitions differed sharply from the practices of the Army's earlier physical culture. However, this unabashed embrace of sport aligned with Army life in the interwar years. A plethora of stadia, gymnasiums, and playing fields sprouted at U.S. Army bases in the 1920s and 1930s. Sports featured prominently in the daily lives of most soldiers.¹¹⁵ Daily life in the CMTC was no different. In contrast to the twenty-five minutes allotted for calisthenics, the CMTC schedule included at least three hours of athletics daily when not on the range conducting target practice.¹¹⁶ Off-duty recreational events offered even more opportunities to compete. According to the recollections compiled by historian Donald Kington, athletics were a highlight of many CMTC candidates' time in the camps—more candidates recalled their time on the playing field than in the morning drill formation.¹¹⁷ The CMTC's leadership also seems to have viewed sports as an effective tool for marketing the program to potential candidates. For example, the vast majority of illustrations in Bond's promotional book *Your Boy & the Other in Universal Training* featured uniformed individuals playing sports or posing with sports paraphernalia.

Diversity characterized the opportunities available in these afternoon sessions. Many activities recommended were of the variety organized by the CTCA's wartime athletic directors. In fact, the CMTC textbook even directed instructors to use Raycroft's *Mass Physical Training* section on group games.¹¹⁸ Such activities included variations on tag, relay races, and ball-throwing games. Mass athletics were even more popular than these group games. Units within each camp organized teams for baseball, volleyball, and other games that competed against one another in tournaments and, on occasion, against local civilian teams. Among these team sports,

¹¹⁵ Wakefield, 78.

¹¹⁶ Fleet, 498.

¹¹⁷ Kington, 115-17.

¹¹⁸ Bond et al., Part VIII, 1.

none was more beloved than baseball. Sports involving one-on-one competition were also available. Many former candidates recalled boxing being the most popular of these, though more enjoyed spectating than fighting. The emphasis placed on athletics within the CMTC program was apparent in the large amount of space sports occupied in camp yearbooks and the numerous medals and awards distributed at graduation to recognize accomplishments on the playing field.¹¹⁹

Athletics were a significant part of the lived experience of military life for soldiers and CMTC candidates alike in the interwar years. However, there seems to have been comparatively greater importance attached to athletics in the CMTC system as measured by time allotted and emphasis placed relative to other forms of physical training. The privileged place of sport in the Army's premiere prehabilitation program deserves some explanation, especially given the concurrent disaggregation of training activities occurring in the Army's physical culture. One explanation has to do with timing. Movement toward creation of the CMTC began in the immediate aftermath of WWI. Its creators drafted much of the program's curriculum in 1920 and 1921 when Raycroft's training system still existed in institutional memory—*Mass Physical Training* was published in 1920 and the Physical and Bayonet Training Course at Benning had recently graduated two classes of instructors. Clearly the CMTC's creators knew of Raycroft's new manual because they cited it as a reference in their own text.¹²⁰ In its conceptual integration of athletics and other activities into a comprehensive system of training, the CMTC curriculum reflected the Army's prevailing physical culture at the time of its creation.

¹¹⁹ For several years, Babe Ruth even contributed autographed balls and bats to the best player at each camp. Kington, 115-17.

¹²⁰ Bond et al., Part VIII, 1.

Objectives sought by the CMTC program also provide an explanation. Recruitment was an immediate concern. As noted above, the CMTC's promoters used sports as a means to entice young men into the program. The prominence of sport also helped smooth concerns some parents may have held about sending their sons to military training. As one officer familiar with the program observed, one of CMTC's goals was to assure the American public that "military training does not mean militarism."¹²¹ More significant was the CMTC's core mission to provide training in citizenship. The desired product was a good citizen, not a disciplined soldier prepared to either kill or sacrifice. Given prevailing ideas in military physical training and civilian physical education, sports were considered better able to cultivate the desired characteristics of a citizen than was drill, bayonet training, or gymnastics. Sports could make physical activity attractive in a way that drill could not. Athletics were more likely to encourage healthy life-long habits, even after candidates returned home. Also, physical educators maintained that sports developed qualities beyond the physical. Through participation in organized athletics, candidates might also learn social skills and how to put their leisure time to wise use. According to this line of argument, "the man who goes in for sane, healthful and clean recreation is always a good citizen" because he "works the same as he plays—fair, clean and above-board."¹²²

The CMTC program was not the only citizen-making initiative of the interwar years, however. The Great Depression created more grounds beyond WWI draft statistics for concern about the health and vitality of young American men by the mid-1930s. The effects of the Great Depression were devastating for many Americans. Malnutrition and sickness took a heavy toll on the many unemployed families. The effects were so severe that even when given work through

¹²¹ Fleet, 499.

¹²² Bond, 97.

New Deal programs and other sources, many men had difficulty performing that work.¹²³

Perceiving simultaneous economic, masculinity, and ecological crises, President Franklin Roosevelt created the Civilian Conservation Corps (CCC) by signing Executive Order 6101 on April 5, 1933.¹²⁴ Over the following nine years, more than 2.9 million single and unemployed young men in the CCC would plant trees, build roads, fight fires, construct bridges and dams, and stock streams.¹²⁵

Although explicitly formed as a civilian agency sensitive to the period's dominant mood of antimilitarism, the CCC became an unintentional site for martial prehabilitation. The War Department took a lead role in organizing and administrating CCC camps, especially in 1933. The Roosevelt administration tasked the War Department with inducting hundreds of thousands of CCC enrollees, screening them for medical conditions, and moving them to camps. Initially, Regular Army personnel also served as the leadership cadre for these camps. By July of 1933, more than three-thousand officers and five-thousand enlisted men of the Regular Army served in these capacities.¹²⁶ Subsequent concerns about this mission's impact on military readiness led to a sharp reduction in direct military involvement. Within two years, officers of the Organized Reserve Corps acting in a civilian capacity had mostly assumed duties as camp commanders and CCC enrollees themselves took over the roles once held by Army non-commissioned officers and enlisted men.¹²⁷ Despite the War Department's declining involvement, the CCC bore many

¹²³ Christina S. Jarvis, *The Male Body at War: American Masculinity During World War II* (DeKalb: Northern Illinois University Press, 2004), 19.

¹²⁴ James J. McEntee, *Now They Are Men: The Story of the Ccc* (Washington: National Home Library Foundation, 1940), 1-7.

¹²⁵ Jarvis, 20.

¹²⁶ A typical camp leadership cadre included two Regular Army officers, one acting as commander and the other as a deputy, plus two non-commissioned officers and four or five enlisted men. Charles E. Heller, "The U.S. Army, the Civilian Conservation Corps, and Leadership for World War II, 1933-1942," *Armed Forces & Society* 36, no. 3 (2010): 442-44.

¹²⁷ *Ibid.*, 444.

marks of military influence. For instance, enrollees learned to maintain a neat uniform and clean living areas, and to live in a regimented organization. The model of masculinity endorsed by the CCC was also highly compatible with military service.

At root, the CCC was, to borrow a term from Christina Jarvis, a “man-building agency.”¹²⁸ Because manhood included several ideals, man-building proceeded along multiple lines of effort. First, man-building taught the value of productive work and equipped men with the skills necessary to find such work in order to realize a bread-winner ideal. As the organization’s second director remarked, when an enrollee planted 25,000 trees, he “feels like a man.”¹²⁹ Second, man-building taught proper social behavior and instilled desirable character traits. The goal in this regard was to fashion better citizens and prepare men to become husbands and fathers. Traits targeted for cultivation included strong work habits, discipline, a love of clean living, self-reliance, tolerance, and attachment to family and religion.¹³⁰ Third, man-building involved health interventions and self-care education. For example, enrollees received immunizations and physical exams in addition to being taught good dental hygiene practices, how to avoid venereal disease, and other useful lessons. This emphasis on health education aligned well with concurrent trends in civilian physical education. Finally, man-building involved building up and sculpting men’s bodies. The CCC celebrated changes in enrollees’ physical appearances time and again through both text and photographs. Where more than 75% of enrollees entered the CCC at weights below Army standards, only 4% left a year later at substandard weights.¹³¹ A year of hard work, clean living, and good eating sent men back into

¹²⁸ Jarvis, 21.

¹²⁹ McEntee, 18.

¹³⁰ Jarvis, 23; McEntee, 60-61.

¹³¹ McEntee, 58.

society with “more weight on their bones, more strength in their backs and arms, and more hair on their chests.”¹³²

Man-building in the CCC contributed to the project of prehabilitation desired by physical training advocates in the Army, even if direct Army influence on the CCC waned rapidly after 1933. As a site of prehabilitation, the CCC was less explicitly designed to prepare young men for military service when compared with the CMTC. Yet the CCC did seek to improve the physical, mental, and moral fitness of potential future soldiers along lines advocated by Army officers in prehabilitation programs. The CCC’s physical culture differed from the Army’s in the interwar period in that it put less emphasis on cultivating discipline and obedience. Instead of the hour of drill and physical training soldiers were supposed to experience on a daily basis, CCC enrollees performed for only fifteen minutes.¹³³ CCC enrollees were strongly encouraged to participate in afternoon athletics, however, much like CMTC attendees. This, combined with the strenuousness of their work, hardened bodies and imparted lifetime fitness skills.¹³⁴ Health education and character development similarly seemed to promise a way to raise more men to basic enlistment standards, thereby reducing draft rejection rates in a potential future conflict.

Continuity chiefly characterized the Army’s physical culture in the interwar period, but it was continuity with the original Koehler school instead of the theory and practice the CTCA’s Athletic Division fashioned during WWI. Wartime experience confirmed the value and utility of both systematic physical training and athletics. No longer were Army officers questioning whether or not soldiers should exercise. No more accusations of dangerous faddishness turned up

¹³² Ibid., 27.

¹³³ Ibid., 37.

¹³⁴ For more on the daily life of a CCC enrollee, see John A. Salmond, *The Civilian Conservation Corps, 1933-1942: A New Deal Case Study* (Durham: Duke University Press, 1967), 135-44.

in the discourse about physical fitness within military circles. In fact, discussion about physical training largely disappeared altogether from professional journals within five years of the armistice. Physical training did not disappear, though.

Physical training remained a part of the daily experience for most soldiers, but the form it took looked backward to pre-war practices. The movement toward aggregation central to Raycroft's physical culture reversed course. A central school at Camp Benning run mostly by former members of the defunct CTCA Athletic Division kept their theory and practice alive through 1919. The school proved unable to survive the harsh budgetary environment found in the interwar era of normalization and antimilitarism. Even Raycroft's book, *Mass Physical Training*, succumbed to these pressures and failed to achieve official standing within Army doctrine. Though the Infantry School continued promoting an integrated system of physical training through the 1920s, neither it nor the Physical and Bayonet Training Course exercised sufficient influence to fundamentally change the Army's physical culture. Instead, control of that culture's central texts reverted back to West Point where Koehler's influence persisted even after his retirement in 1923. The resulting physical training regulations of 1928 hearkened back to the 1914 *Manual of Physical Training* in a remarkable example of organizational forgetting. As a consequence, emphasis returned to drill and discipline. Athletics remained a major part of most soldiers' lives, but athletics were no longer so integrated with drill and other activities into a coherent, overarching training system. In place of the individual warrior, the disciplined cog in a military machine once again became the Army physical culture's ideal product.

Prehabilitation was one significant change in the Army's physical culture and the discourse surrounding it. The importance of prehabilitation was grounded in anxieties about the fitness of American men created by unexpectedly high rates of draft rejections between 1917 and

1918. It was further fueled by perceptions in the military and the civilian physical education community that the military had succeeded in sculpting fit bodies and minds where the educational system had failed. Warfare in an age of industrialization and mass conscription meant that states needed to be able to marshal the highest possible percentage of their male populations. Especially within the military, citizenship came to be defined chiefly by the obligations one owed, including military service. Because every male citizen was theoretically liable for combat duty on relatively short notice, every male citizen had a duty to become fit and healthy. Although calls for universal military training withered on the vine in the years immediately following WWI, other sites for prehabilitation emerged. One, the CMTC, was directly connected to preparation for military service. Another, the CCC, was less explicitly militarized, though it touched the lives of many more men and ultimately served as an unintentional agent for paramilitary training in the 1930s. The Army's physical culture influenced physical training in both. However, both emphasized athletics at the expense of more formal training in the interest of developing qualities associated with good citizenship and instilling a lifetime interest in healthy activity.

At the close of the interwar period, those men most responsible for shaping the Army's physical culture had jettisoned or forgotten most of the lessons learned through experience in WWI. Many military and civilian authorities had turned more attention to building up the bodies of American men in both real terms and symbolically, especially after the Great Depression's ravages. Yet as war once again loomed in 1940, concern resurfaced about the adequacy of Army physical training and the Army's organizational capacity for the production of trainers. That year, Brigadier General Lewis Hershey, director of the Selective Service, warned Regular Army officers to be prepared for an influx of draftees of lower physical quality than of the recruits they

had been used to receiving.¹³⁵ The question was whether, in the event of a mass mobilization, Army physical training could prepare these men for the demands of expeditionary warfare on the modern battlefield.

¹³⁵ The article's purpose appears to have been to reassure officers about the quality of the new draftees, but the authors had to acknowledge lower standards in doing so. Lewis B. Hershey and Thomas M. Watlington, "The Man Selected for Service," *Infantry Journal* 47, no. 6 (1940): 533.

Chapter 5: Physical Cultures for Total War, 1936-1946

While American soldiers and marines ground down their Japanese opponents on Guadalcanal, and mere days before the first American troops landed in North Africa, John B. Kelly insisted that Americans would have to “toughen up physically” if they expected to defeat their Axis enemies.¹ Speaking at an Institute on Physical Fitness at Columbia’s Teachers College, the former Olympic rower and current director of physical fitness in the Federal Security Agency’s Defense, Health, and Welfare Division promised that his forthcoming program would make America’s youth fit for combat and industrial work. Kelly asserted that such a program was long overdue, delayed by public complacency and Congressmen who “haven’t been able to see their shoes for years.”² World War II’s unprecedented scale and near-absolute nature demanded the extensive mobilization of whole peoples and economies. Quantity of manpower, materiel, and production mattered a great deal in determining the war’s outcome, but quantity alone was not sufficient for victory. As historian Peter Mansoor writes, the “relative quality” of forces was “crucial to the ultimate outcome.”³ Systematic physical training appeared to be a way of addressing both the war’s quantitative and qualitative demands—better physical education and training made a greater proportion of the population fit to fight, and physical fitness improved the efficiency and effectiveness of military forces.

American military and civilian leaders perceived many problems and challenges in the realm of physical fitness, however. Fears about the quality of America’s raw human material

¹ "Kelly Says Nation Must Toughen Up," *New York Times*, 6 November 1942.

² *Ibid.*

³ Peter R. Mansoor, *The GI Offensive in Europe: The Triumph of American Infantry Divisions, 1941–1945* (Lawrence: University Press of Kansas, 2002), 2; This argument is a relatively recent reaction in the historiography to arguments made by John Ellis and others that Allied superiority in terms of manpower, materiel, and production alone determined victory. See also Richard Overy, *Why the Allies Won* (New York: W.W. Norton, 1997); Williamson Murray and Allan R. Millett, *A War to Be Won: Fighting the Second World War* (Cambridge: Harvard University Press, 2000).

extant since the late 19th century, which were seemingly confirmed by high draft rejection rates in World War I, received additional support when millions of men fell short of Selective Service standards in the early 1940s following the physical ravages of the Great Depression. When Kelly bluntly stated that “everybody is too soft,” he gave voice to concerns shared by many American officers.⁴ Inside the Army, acceptance of systematic physical training was nearly total, but its form had changed little since Koehler’s days at West Point. As the previous chapter demonstrated, the Army’s physical culture and associated training system largely reverted to the old Turner model in the interwar years. No central school had survived that could have researched new systems or produced expert trainers. In short, the Army’s physical training challenges resembled those it faced during mobilization for WWI: a huge influx of personnel deemed to be of lower quality because of state-determined physical defects or poor physical fitness, a system best suited for maintaining minimum unit fitness and instilling discipline, and lack of an expansible instructor corps.

This chapter explores the ways in which the Army’s physical culture changed during World War II in response to that conflict’s conditions and demands as understood chiefly by a cadre of physical training reformers in the Special Services Division of the Army Service Forces. These reformers reoriented physical training on practical preparation for likely combat requirements, such as lifting heavy objects and moving rapidly over broken terrain, and producing measurable physiological outcomes. Additionally, mobilizing an army of millions inevitably depressed average recruit fitness levels. Thus, mobilization also spurred renewed calls for prehabilitation and for re-engineering physical training to rapidly make recruits combat-ready. After examining the mini-crisis produced by mobilization, this chapter turns to focus on

⁴ "President Asks Fitness Training, Picks John B. Kelly, Olympic Sculler, to Devise 'Physical Preparedness' Program for Nation's Manhood," *New York Times*, 13 September 1940.

the men most responsible for wartime physical training. Although uniformed officers owned physical training to a greater degree than they had during World War I, civilian outsiders once again took the lead in re-engineering the Army's training system. These civilians applied scientific methods and empirical data, along with some of the latest trends in physical education, to craft a system geared more than ever toward generating physiological outcomes alone. Finally, this chapter considers the significance of women's entry into military service through the Women's Army Auxiliary Corps on the Army's physical culture. Their entrance, and the separate physical training system designed to meet their perceived needs, revealed that the Army's physical culture was fundamentally rooted in traditional visions of gender.

With war clearly looming in Europe, American political and military leaders in the late 1930s increasingly turned their attention to planning for mobilization. Their efforts culminated in the passage of the Selective Training and Service Act in September 1940, which established the first peacetime draft in the history of the United States. Physical standards were an important screening component in the induction processes. In the Army, responsibility for determining those physical standards resided with the Surgeon General's office. The Surgeon General's staff drew on experiences acquired during World War I and subsequent planning for mass mobilization to craft Mobilization Regulations (MR) 1-9, "Standards of Physical Examination During Mobilization."⁵ Issued on 31 August 1940, these regulations governed physical evaluations by draft boards until DSS Form 220 refined them in December 1941. MR 1-9 established very high physical requirements because they were based on plans for an Army that was much smaller than that required by World War II.

⁵ William B. Foster et al., *Physical Standards in World War II* (Washington: Office of the Surgeon General, Department of the Army, 1967), 2.

High standards generated shocking shortcomings once inductions began. Initially, responsibility for overseeing inductions fell to the Selective Service System, which Congress authorized on 16 September 1940, but local boards conducted the initial examinations. Men found fit for service then underwent examination by Army medical boards to receive a final determination of physical qualification. This system evolved between 1940 and 1945 to minimize the redundancy in dual examinations and to bring Army and Navy standards closer together, but the two-part process held throughout the war years.⁶ Between November 1940 and August 1945, this system examined an estimated 17,954,500 for induction into military service.⁷ The American public was stunned to learn that, prior to the U.S. entering the war in December 1941, rejection rates ran as high as fifty percent. Of the approximately two million men examined in 1941, nearly a million were rejected, and 45% of those were rejected for physical and/or mental defects.⁸ Though few sounding the alarm over national physical fitness made note of it, “physical defects” and “mental deficiency” were capacious categories. Many conditions ranging from musculoskeletal or cardiovascular defects to varicose veins or hemorrhoids could disqualify a man physically.

Debate raged in the public press about the significance of these figures to the nation’s health. Some government officials were prone to stoke fears of national physical unpreparedness, echoing the post-World War I crisis engendered by draft rejection rates of around thirty percent. For instance, the Selective Service System’s director, Brigadier General Lewis B. Hershey,

⁶ In late December 1941, new regulations made local induction procedures more uniform. Local boards began using DSS Form 220, a “List of Defects,” in lieu of the MR 1-9 standards. Local boards made determinations just on “easily detectable defects disqualifying for general service” and Army reception centers conducted more detailed examinations involving physical profiling, blood typing, and immunizations. *Ibid.*, 11-14.

⁷ *Ibid.*, 16.

⁸ Leonard G. Rowntree, “National Program for Physical Fitness,” *Journal of American Medical Association* 125, no. 12 (1944): 821; Hiram A. Jones, “Report on National Fitness: A Program through Schools and Colleges,” *Journal of Health and Physical Education* 13, no. 3 (1942): 133.

declared that the rejection of approximately forty-five percent of the first 2,000,000 men examined for induction was “an indictment of America,” and a “condition of which we nationally should be thoroughly ashamed.”⁹ Other voices, especially those in the medical and physical education communities, were more skeptical. Many skeptics pointed to the fact that American physical standards used for induction examinations in the early 1940s far exceeded those of 1917-18 and those used by other nations.¹⁰ Critics also observed that detecting instruments had grown more effective since 1917, so the screen’s filter was finer than ever.¹¹ Hershey acknowledged these factors but argued that Americans still had cause for concern. Even accepting the higher physical standards of 1940, Hershey claimed that “the fact remains that while we may be no worse now than twenty-four years ago, we seem certainly to be no better.”¹²

The armed forces’ voracious appetite for more and more men between 1940 and 1945 constantly pressured the Surgeon General’s Office and Selective Service System to revise standards, examination procedures, and other elements of the induction process. Induction of “limited service” men was among the first steps taken in this direction. This policy took effect on 1 August 1942 and permitted induction of men with physical defects in twenty categories ranging from men with 20/400 vision that could be correct to 20/40 with glasses, to those with the loss of one or both external ears.¹³ The limited service policy acknowledged that not all men rejected earlier were incapable of rendering military service. As one commentator put it, “only a

⁹ Michael M. Davis, "How Healthy Are We?," *New York Times*, 22 February 1942.

¹⁰ "Health of the Youth of the Nation (Editorial)," *Journal of American Medical Association* 114, no. 5 (1940): 414-15; "U.S. Army Standards Put above Reich's," *New York Times*, 16 November 1941.

¹¹ John H. Shaw, "American Physical Fitness," *The Phi Delta Kappan* 24, no. 7 (1942): 285; "The Nation's Health," *New York Times*, 12 October 1941; for a general treatment of the public discourse, see Christina S. Jarvis, *The Male Body at War: American Masculinity During World War II* (DeKalb: Northern Illinois University Press, 2004), 60-62; on the response of physical educators to accusations of pre-war failures on behalf of schools to address remedial defects, see Deobald B. Van Dalen and Bruce L. Bennett, *A World History of Physical Education: Cultural, Philosophical, Comparative*, 2nd ed. (Englewood Cliffs: Prentice Hall, Inc., 1971), 484-85.

¹² Davis, "How Healthy Are We?"

¹³ Foster et al., *Physical Standards in World War II*, 19-20.

small proportion of the rejected men were like jalopies which can only wheeze along a little longer before they stop for good.” Instead, he maintained, most were “like cars in which the radiator is leaky, or the rubber worn off the tires in spots, or the battery low, or the valves pitted and noisy, or one of the sparkplugs cracked.”¹⁴

Personnel policies further refined service classifications throughout the war years in acknowledgement of there being more than a binary categorization of ability. For example, Lieutenant General Leslie McNair of the Army Ground Forces (AGF) championed a physical profile system beginning in 1943 that rated men in six elements of physical conditioning.¹⁵ Reception centers began employing this physical profile system experimentally in February 1944 and it was fully operational by June 1944. Under this system, physical examinations of men produced ratings in each element between a high of one and a low of four. McNair intended to use measures of physical hardiness as signs of fighting capacity, then make these physical measures the primary criterion of assignment in the Army as a way of improving the quality of combat troops. The AGF staff coded every enlisted job in the ground forces and related service branches based on physical requirements to set minimum physical standards for each duty position in each type of unit. For instance, a basic standard existed for all buglers, but buglers in an infantry unit were held to more stringent physical requirements than buglers in a field artillery unit. However, these standards were not based on quantified measures of combat’s physical demands, but on estimates generated by the AGF staff.¹⁶ The physical rates also did not

¹⁴ Davis, "How Healthy Are We?"

¹⁵ The six elements included general stamina, upper extremities, lower extremities, hearing, vision, and emotional stability. Physical ratings appeared as a six-digit code. The highest physical grade would thus be a 111111. A man whose hearing qualified him only for limited service but was otherwise healthy would receive a rating of 111311. Robert R. Palmer, "Manpower for the Army: How the Physical Profile System Affected the Infantry," *Infantry Journal* 41, no. 6 (1947): 38-45.

¹⁶ Robert R. Palmer, I. Wiley Bell, and William R. Keast, *The Army Ground Forces: The Procurement and Training of Ground Combat Troops* (Washington, D.C.: Center of Military History, 1991), 66-69.

correspond strongly with conditioning. They were instead based on criteria that screened for physical defects.

The federal government also launched efforts to rehabilitate some men. The pilot rehabilitation program, announced in October 1941, paid physicians and dentists to remediate physical defects found in 200,000 men identified by local draft boards.¹⁷ The program did not survive beyond 1942 due to a mounting shortage of civilian physicians, but the Army continued its efforts through the rest of the war years by inducting limited service men and rehabilitating them in the service. This growing recognition of various degrees of ability in the armed forces' personnel procurement policies, and within the Army's manpower allocation system, is notable in relation to the Army's physical culture. A similar recognition of difference did not exist in systematic physical training policy and practice.

Fears about the nation's health also prompted wider government prehabilitation and publicity programs. These programs began small in October 1940 when President Franklin Roosevelt appointed John B. Kelly, a famous rower and Olympic medalist in the 1920 and 1924 games, to head the Civilian Defense Physical Fitness Program. Kelly initially struggled to make headway without funding or a staff, but his situation improved in August 1941 when Director of Civilian Defense Fiorello LaGuardia appointed Kelly the Assistant Director of Civilian Defense in Charge of Physical Fitness.¹⁸ Kelly built two coordination committees by mid-1942, one for schools and colleges and another to target recreational groups. A second element of Kelly's program, the Sports Board, used celebrities such as Jesse Owens to promote physical fitness

¹⁷ "Army to Build up Health of 200,000 Dropped in Draft," *New York Times*, 11 October 1941. The rehabilitation policy had a precedent in registrants with correctable defects being rejected for service in 1917-1918 being classified as "remediable." Foster et al., *Physical Standards in World War II*, 17-19.

¹⁸ William L. Hughes, "The Civilian Defense Physical Fitness Program," *Journal of Health and Physical Education* 13, no. 2 (1942): 71.

initiatives.¹⁹ On 29 April 1943, Kelly's influence grew further when Roosevelt established the National Committee on Physical Fitness under the Federal Security Agency.²⁰ Kelly's organizations in every incarnation were centers intended to stimulate state and local efforts, develop and distribute information and suggested programs, and popularize physical fitness. None of these organizations had much direct control over actual training programs, nor did they influence the Army's physical culture. However, they helped push the issues of physical fitness and national health to the forefront of national consciousness and participated in the wartime militarization of physical education in American schools.²¹ These efforts enhanced the influence, limited as it may have been, of military prehabilitation programs such as the Victory Corps and Universal Military Training, both subjects of the next chapter. Prehabilitation campaigns also contributed to postwar concerns about the nation's health in a competitive world.

Statistics frequently cited by Kelly's committees and Selective Service leaders had little to do with the average American man's muscular strength and endurance or his cardiovascular health, however. The most common problems encountered in examinations were "static" medical issues involving psychological health, dental defects, venereal disease, illiteracy, and hernias.²² Critics, especially in the physical education field, pointed this out in the public discourse. For instance, one educator argued that "physical unfitness" was really a misnomer and that a new term such as "militarily unfit" might be more appropriate because, as an example, a man with a "malocclusion can hardly be termed, by any stretch of the imagination, physically unfit."²³ Yet

¹⁹ Ibid., 73; "National Physical Fitness Program: A Statement by the Board of Directors," *Journal of Health and Physical Education* 12, no. 10 (1941): 548.

²⁰ Executive Office of the Committee on Physical Fitness, "Civilian Physical Fitness," *Journal of Health and Physical Education* 14 (1943): 518.

²¹ Jarvis, *The Male Body at War: American Masculinity During World War II*, 66-69; Whitfield B. East, *A Historical Review and Analysis of Army Physical Readiness Training and Assessment* (Ft. Leavenworth: Combat Studies Institute Press, 2013), 80, 97.

²² Rowntree, "National Program for Physical Fitness," 822-23.

²³ Shaw, "American Physical Fitness," 285.

Kelly, Colonel Leonard Rowntree of the Selective Service, Hershey, and others spun the issue as one remediable by exercise. Rowntree observed that “many of the registrants were found to be pampered, soft, flabby and in need of conditioning.”²⁴ Similarly, Lieutenant Colonel Theodore Bank, who largely assumed responsibility for Army physical training policy in 1941, argued on the basis of physical efficiency test results that the “lack of strength, endurance, agility, and coordination” in America’s newest soldiers was “shocking.”²⁵ Bank also asserted that the Army had been “sadly handicapped” in preparing troops for combat “because of the physical weakness of the incoming men.”²⁶

Comments such as these delivered in government publications, the press, and professional physical education journals fostered the impression of a nation grown weak and soft. In reality, there was some truth to the allegations when comparing new recruits to the volunteers selected under a regime of high standards in the interwar years. Critics may have been correct that the nation itself was at least as healthy, if not more so, than it had been in 1917. But the Army faced an enormous influx of new inductees. Between 1940 and 1945 the service grew from a force numbering about 270,000 to one numbering more than 8,250,000. The sheer quantity of incoming manpower necessarily meant a decline in that manpower’s quality.²⁷ With that in mind, we turn to examine how well equipped the Army’s physical culture was to prepare millions of new soldiers for the rigorous demands of modern mechanized warfare, and how the experience of preparing those men changed the Army’s physical culture.

²⁴ Rowntree, "National Program for Physical Fitness," 825.

²⁵ Theodore P. Bank, "The Army Physical Conditioning Program," *Journal of Health and Physical Education* 14, no. 4 (1943): 197.

²⁶ *Ibid.*

²⁷ Eli Ginzberg et al., *The Ineffective Soldier: Lessons for Management and the Nation - the Lost Divisions* (New York: Columbia University, 1959), 26-28.

Initially, the physical training component of mobilization training was supposed to follow interwar policy established in the 1936 *Basic Field Manual's* (*BFM*) fourth chapter. In it, the Koehler culture appeared in full force. The 1936 *BFM* chapter on physical training was little more than a reprinted portion of the 1928 *Training Regulations 115-5*, which itself manifested only marginal changes from the Army's original 1914 manual. But in the decade following 1936, Army physical training policy transformed. Policy transformation is important to the history of the Army's physical culture because policy both represented and shaped the Army's physical culture. Koehler's culture and its emphasis on discipline, morals, and obedience gave way during World War II to a comprehensive training program predicated on scientific experimentation, empirical data, and physiological improvement. Tracing this transformation begins with an examination of the Army's evolving policies. Unpacking vital elements of the physical culture that emerged in World War II follows, to include investigating changing definitions of fitness, evolving approaches to program development, preparation of physical training leadership, the ever-contentious place of sport, and the rise of efficiency testing.

Spring of 1941 brought the first evolution in policy with an updated version of the *Basic Field Manual* on physical training, this time with the designator *FM 21-20*. Increased attention paid in the manual to turning average recruits into trained soldiers indicates how the demands of mobilization prompted *FM 21-20's* issuance. Responsibility for updating the policy fell to the United States Military Academy (USMA), signaling that institution's continued dominance over the Army's physical culture. Prepared under the direction of USMA's Superintendent, Brigadier General Robert Eichelberger, *FM 21-20* presented a program only slightly different from its predecessor's. Its purpose centered on producing "a state of health and general physical fitness" that permitted a soldier to "perform the arduous duties required of him." The "ultimate goal" of

physical training was thus the “physical efficiency which is essential to military effectiveness.”²⁸ This simple statement highlighted the increasing acceptance of systematic physical training in the Army. In the 1880s, many officers regarded physical training dubiously as a fad of questionable value and staying power. By 1941, physical training had come to be seen as an essential prerequisite in the process of transformation from civilian to soldier.²⁹

The authors of *FM 21-20* graphically depicted physical efficiency as resting upon multiple layers of other qualities, skills, and activities. Disciplinary and setting-up exercises comprised the base layer. These were intended to prepare soldiers “mentally and physically” for training in basic skills such as marching, running, jumping, climbing, crawling, carrying, and throwing.³⁰ Training to become proficient

in those basic skills was supposed to be productive of endurance and agility, which comprised the next layer. Physical improvement and the awareness of it cultivated less tangible qualities such as confidence, courage, alertness, initiative, pride, and discipline underlying physical efficiency for military effectiveness.³¹

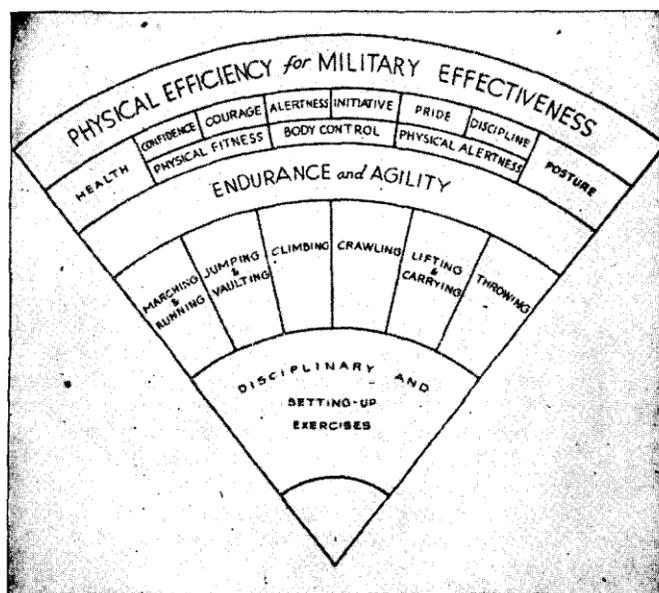


Figure 1: FM 21-20 (1941) Diagram of Fitness

Though graphically depicted for the first time and slightly re-worded, this physical efficiency concept was not substantially different from the pyramidal construct Koehler used in the 1880s.

²⁸ War Department, *Field Manual 21-20: Basic Field Manual - Physical Training* (Washington: Government Printing Office, 1941), 1.

²⁹ *Ibid.*, 3.

³⁰ *Ibid.*, 2.

³¹ *Ibid.*

Keeping with Koehler's prioritization of psychological outcomes derived from physical exercise, the authors of *FM 21-20* promised that the development of such qualities was "a certainty" that might "equal, if not surpass, the purely physiological value of the training."³²

In pursuit of developing physical efficiency for military effectiveness in new recruits, the authors of *FM 21-20* made several small changes to the Army's interwar training policy. First, they added "disciplinary exercises" as a precursor to the old setting-up exercises. Practicing facings, rests, hand salutes, mark time marching, the position of attention, and the starting positions of setting-up exercises all fell under this header. Disciplinary exercises had "no particular value in physical development" but were still of "great importance in instilling in the men that sense of discipline which is necessary for the efficient conduct of the physical training instruction."³³ Second, the authors of *FM 21-20* urged commanders to construct obstacle courses for practicing basic skills such as running, jumping, vaulting, climbing, and crawling. The recommended course included a hurdle, four-foot fence vault, panel dodge, seven-foot wall climb, low crawl, six-foot ditch broad jump, and a balance-beam. This bore a remarkable resemblance to the course recommended by Joseph Raycroft, the Commission on Training Camp Activities's Athletic Division director in WWI, as both a "group game" and physical efficiency test.³⁴ As had Raycroft, *FM 21-20*'s authors recommended progression in obstacle course usage that began with technique and worked up to timed runs under light combat loads.³⁵

In addition to disciplinary exercises and obstacle courses, the authors of *FM 21-20* recommended physical efficiency tests with minimum standards for average men. Commanders

³² Ibid., 2-3.

³³ Ibid., 36.

³⁴ Joseph E. Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps* (Washington: United States Infantry Association, 1920), 38, 142-47; East, *A Historical Review and Analysis of Army Physical Readiness Training and Assessment*, 86-87.

³⁵ *FM 21-20: Basic Field Manual - Physical Training* (1941), 44-45.

could use these tests at regular intervals to determine the “condition and aptitude” of their soldiers, then design a physical training program based on the men’s strengths and weaknesses.³⁶ The recommended test battery included a 100-yard dash, running high jumps, broad jumps, and push-ups. Fourteen other test options with minimum standards ranging from baseball throws to half-mile runs also appeared in *FM 21-20*. Like the obstacle course, physical efficiency tests featured in Raycroft’s program but not in the 1936 *BFM*. However, Raycroft’s test battery was more explicitly oriented on practical combat skills. In addition to a 100-yard sprint and running broad jump, Raycroft had included fence climbs, obstacle races, grenade throws, bayonet drills, hand-to-hand fighting, boxing, and a smattering of athletic events.³⁷

Finally, the authors of *FM 21-20* added a major chapter on swimming and life-saving techniques. Swimming had been a staple of West Point’s physical training regimen since Edward Farrow’s 1882 program and featured in the Army’s original 1914 manual, but swimming instruction had disappeared in the World War I-era training systems and in the post-war manuals. Citing the prevalence of “sub-marine attacks on troops ships” and “battles over flooded areas, and across streams and canals,” the authors of *FM 21-20* argued that swimming had become a crucial skill all soldiers should possess.³⁸ The 1941 manual established three general swimming goals: the ability to ford streams, participate in landing operations, and survive emergencies in the water. Soldiers met these goals by practicing six recommended activities: fundamental strokes, short distance swimming with arms or legs alone, short distance swimming under light combat load, fundamentals of water safety, life-saving skills, and “elementary experience” in competitive swimming.³⁹ As with obstacles, the principle of progression was to be observed in

³⁶ *Ibid.*, 5.

³⁷ Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps*, 148.

³⁸ *FM 21-20: Basic Field Manual - Physical Training* (1941), 96.

³⁹ *Ibid.*, 97.

swimming instruction. Soldiers first learned basic techniques, then the distance to be crossed gradually increased along with the amount of clothing and equipment that the soldier wore.

While the official Army physical culture changed little through 1941, more substantive change began in early 1942. Impetus for this evolution originated from two organizations: The War Department's Joint Army and Navy Committee on Welfare and Recreation, and the Army Special Service's Athletic and Recreation Branch. The former was established in February 1941, nearly ten months before the United States entered World War II, to plan welfare and recreation activities for the services and to coordinate those activities with civil agencies. The committee resembled the Commission on Training Camp Activities from World War I in some ways. However, its mission was not to take direct charge of activities, but rather to study issues and advise the services on provision of activities. From its inception, the committee looked with interest on the services' physical training programs.⁴⁰ Its first initiative in this area was an appraisal of the physical fitness program in use at the Naval Training Station in Norfolk, Virginia. A special survey team of six physical education experts conducted the study, including Joseph Raycroft as the committee's chairman.⁴¹

Between 19 and 24 January 1942, the team held conferences with the Naval Training Station's leadership and physical training instructors, inspected documents and facilities, and observed operations. The station's program had begun in May 1941 with the induction of twenty men trained in physical education. This initial group later developed an exercise and intramural

⁴⁰ Francis Keppel to Prof. A. A. Esslinger, 6 May 1942; Joint Army and Navy Committee on Welfare and Recreation, General Subject Files, 1941-1942, box 10; Joint Boards and Committees, Record Group (RG) 225, National Archives Building, College Park, MD (NACP).

⁴¹ Committee members included Frank Lloyd, Charles McCloy, T. Nelson Metcalf, Carl Schott, Seward Staley, and Joseph Raycroft. Report of the Special Survey Committee Made to the Chief, Bureau of Navigation, Navy Department, Subject: The Physical Fitness Program at the Naval Training Station at Norfolk, Virginia, 31 March 1942; Joint Army and Navy Committee on Welfare and Recreation, General Subject Files, 1941-1942, box 10; RG 225, NACP.

athletics program and systematized it for use in the Navy's service schools. In July, the training station established a physical instructor school intended to certify physical instructors in the new system through a six-week course. Initially, classes of twenty men formed every two weeks. In January 1942 the quota increased to fifty students per class with classes forming weekly.⁴² The special survey committee examined this Norfolk system in light of the Navy's need for men possessing not just health, strength, and endurance, but also "mental alertness, discrimination, initiative, determination and other like qualities."⁴³ Two months later, the committee issued an extensive report. Among the many recommendations was counsel to incorporate required athletic sports, recreational athletic sports, and systematic physical training into a comprehensive program. The latter included calisthenics, running, obstacle and apparatus work, "self-defense activities," group games, relay races, combative contests, tumbling, and life-saving.⁴⁴ Additionally, the committee recommended an enhanced testing program to assess fitness and the appointment of a Director of Physical training with an expert staff to organize and direct a physical training program for the entire Navy.⁴⁵

These features are significant because the basic structure of the recommended Norfolk program also undergirded updates in Army policy in late 1942. For instance, the supplementary mandatory and recreational athletic programs became major features in the Army's suggested system of daily physical training. So too did the diverse offering of calisthenics, grass drills, and guerrilla drills in regular conditioning periods. Later, the Army also introduced a more sophisticated testing regime along the lines recommended by the Norfolk survey group.

⁴² Report of the Special Survey Committee Made to the Chief, Bureau of Navigation, Navy Department, Subject: The Physical Fitness Program at the Naval Training Station at Norfolk, Virginia, 31 March 1942, p. 2; Physical Fitness Program Survey of Special Survey Committee; Joint Army and Navy Committee on Welfare and Recreation, General Subject Files, 1941-1942, box 10; Joint Boards and Committees, RG 225, NACP.

⁴³ *Ibid.*, 5;

⁴⁴ *Ibid.*, 17-21.

⁴⁵ *Ibid.*, 53.

Transmission of thought and practice occurred chiefly through the Joint Army and Navy Committee on Welfare and Recreation. Following its study of the Navy program at Norfolk, the committee consulted with the Army Air Forces (AAF) in developing their program, then opened communications with the Army to assist the Army Ground Forces. This collaboration appears to have begun between March and April 1942 when the Joint Army and Navy Committee transmitted a copy of the Norfolk report to the Army's Special Services Branch.⁴⁶

Of the joint board's members, the University of Iowa's Charles H. McCloy was especially influential in changing Army physical training policy. Born in 1886, McCloy studied at Marietta College, the Johns Hopkins Medical School, and Columbia University, earning his Ph.D. at the latter in 1932. Before becoming a professor of physical education at the University of Iowa in 1930, McCloy taught physical education and served in the YMCA throughout China and the United States. McCloy built a strong reputation in the physical education community through his contributions to the scientific measurement movement in the 1920s and 1930s.⁴⁷ This movement sought to enhance physical education's standing and respectability by producing a scientific body of knowledge derived from carefully constructed and validated experimentation and measurement. McCloy brought this empirical research methodology to his work with American military forces during World War II, first as a member of the Norfolk study team and later in 1942 as a lead technical advisor to the Army.⁴⁸

⁴⁶ Francis Keppel to Prof. A. A. Esslinger, 6 May 1942; Joint Army and Navy Committee on Welfare and Recreation, General Subject Files, 1941-1942, box 10; Joint Boards and Committees, RG 225, NACP.

⁴⁷ Eleanor B. English, "Charles H. McCloy: The Research Professor of Physical Education," *Journal of Physical Education, Recreation & Dance* 54, no. 4 (1983): 16.

⁴⁸ Francis Keppel to Prof. Philip O. Badger, 8 April 1942; Joint Army and Navy Committee on Welfare and Recreation, General Subject Files, 1941-1942, box 10; Joint Boards and Committees, RG 225, NACP; Francis Keppel to Brig. General F. H. Osborn, 7 April 1942; Physical Fitness Program Survey of Special Survey Committee; Joint Army and Navy Committee on Welfare and Recreation, General Subject Files, 1941-1942, box 10; Joint Boards and Committees, RG 225, NACP.

McCloy's efforts and those of other joint board members dovetailed with a concurrent movement inside the Army advocating physical training policy reform. This movement originated within the Special Services Division, spurred by concerns about the "combat physical condition" of ground troops.⁴⁹ The Special Services Division was a component of the Army Service Forces (ASF), a new organization officially created in the War Department on 9 March 1942 as a counterpart to the Army Ground Forces, though the Special Services Division itself had existed since 1941.⁵⁰ The ASF's mission required it to "provide services and supplies to meet military requirements" and to relieve the fighting arms of "the distraction and effort required by supply, procurement, and general housekeeping duties."⁵¹ While the ASF's chief function was the purchase, storage, and distribution of supplies, it also assumed responsibility over many other functions such as pre-military training, manpower mobilization, and the direction of morale, welfare, and recreation activities. The latter fell under the purview of the ASF's Special Services Division (SSD).

Stimulus for investigation and reform of Army physical training came chiefly from Lieutenant Colonel Theodore "Ted" Bank, the SSD's Athletic and Recreation Branch chief. Bank was a decorated combat veteran who had enlisted in the Army in 1916 at age 18, fought along the Mexican border and in France, received a wound in combat, and was awarded the French Croix de Guerre for his bravery.⁵² After World War I, Bank attended the University of Michigan where he was the football team's starting quarterback in 1920 and 1921. Bank

⁴⁹ Brig. General F. H. Osborn, Memorandum, Subject: Physical Conditioning and Physical Efficiency Tests, 13 April 1942; Joint Army and Navy Committee on Welfare and Recreation, General Subject Files, 1941-1942, box 10; Joint Boards and Committees, RG 225, NACP.

⁵⁰ The Special Services Division is also sometimes referred to as the Special Services Branch. "Division" will be used in this paper for the sake of consistency. John D. Millet, *The Organization and Role of the Army Service Forces* (Washington, DC: Center of Military History, 1998), 348.

⁵¹ *Ibid.*, 36-38.

⁵² East, *A Historical Review and Analysis of Army Physical Readiness Training and Assessment*, 111.

subsequently enjoyed a successful career as a football coach at Tulane University and the University of Idaho but remained in the Army Reserves. In February 1941, the Army ordered Bank back to service as a Captain.⁵³ By the time his early 1942 plans for testing the physical fitness of ground troops gained traction, Bank had been promoted to Lieutenant Colonel. Within two years he achieved the rank of Colonel.

In the spring of 1942 concerns about the physical fitness of American soldiers came to Bank's attention. Explaining why soldiers lacked fitness was Bank's first concern. Whether this was a case of recruits coming in to the service below standards, as Kelly's committees, Rowntree, and Hershey claimed, or a problem with retrogression after basic training seems to have been unclear. Bank, in partnership with the Joint Army and Navy Committee on Welfare and Recreation, intended to answer this question by testing a cross-section of ground troops' physical condition. Bank proposed testing newly inducted men, soldiers in an infantry division who had recently arrived from a replacement training center, veteran infantrymen and field artillerymen from eight different divisions, veterans in two armored regiments, and veterans from three different parachute battalions. Ten exercises ranging from chin-ups to zig-zag runs comprised the test battery, along with measures of height, weight, chest expansion, and abdominal girth.⁵⁴ Bank received permission to conduct the tests from Army Ground Forces in mid-April 1942 and brought in three other men to form his team: statistician Abram Jaffre of the Special Service's Research Division, Arthur A. Esslinger of Stanford University's Department of

⁵³ *Ibid.*, 88-89.

⁵⁴ Brig. General F. H. Osborn, Memorandum, Subject: Physical Conditioning and Physical Efficiency Tests, 13 April 1942; Joint Army and Navy Committee on Welfare and Recreation, General Subject Files, 1941-1942, box 10; Joint Boards and Committees, RG 225, NACP.

Physical Education, and Charles McCloy of the joint board.⁵⁵ Making use of his experience in scientific measurement, McCloy served as the experiment's general director.⁵⁶

Findings produced by this team informed a major revision to Army physical training policy. Between 10 May and 4 June, Bank and his fellows visited eleven Army installations across the country and administered tests to more than five-thousand troops. McCloy completed a preliminary statistical analysis by the end of June and shortly thereafter proposed test standards.⁵⁷ Ownership of responsibility for revising physical training policy was unclear, however. In April, the joint board had recommended that this revision take the form of a manual to be used by the Special Services Branch School when training its athletic officers.⁵⁸ Bank disagreed, arguing that responsibility for the manual should fall to the Chief of the Special Service instead of to the school, and that the manual should be published as a technical manual for general use.⁵⁹ Bank's argument ultimately carried the day.

The discussion of ownership is significant because it reveals that the Army still lacked a central proponent for physical training policy. Koehler had long urged the creation of such a center and suggested that the U.S. Military Academy (USMA) could fill the role. Raycroft had likewise advocated a center, but his was modeled on Britain's Aldershot. Raycroft's dream withered in the interwar years and responsibility drifted back to the USMA by default. Mass mobilization in the early 1940s again exposed the need for a center external to the USMA, but

⁵⁵ Francis Keppel to Mr. Harper, 17 April 1942; Joint Army and Navy Committee on Welfare and Recreation, General Subject Files, 1941-1942, box 10; Joint Boards and Committees, RG 225, NACP.

⁵⁶ Francis Keppel to Mr. Harper, 17 April 1942, and Francis Keppel to Prof. A. A. Esslinger, 6 May 1942; Joint Army and Navy Committee on Welfare and Recreation, General Subject Files, 1941-1942, box 10; Joint Boards and Committees, RG 225, NACP.

⁵⁷ Charles McCloy to Francis Keppel, 25 June 1942; Joint Army and Navy Committee on Welfare and Recreation, General Subject Files, 1941-1942, box 10; Joint Boards and Committees, RG 225, NACP.

⁵⁸ Francis Keppel to Lt. Col. Leon T. David, 17 April 1942; Joint Army and Navy Committee on Welfare and Recreation, General Subject Files, 1941-1942, box 10; Joint Boards and Committees, RG 225, NACP.

⁵⁹ Theodore P. Bank to Francis Keppel, undated; Joint Army and Navy Committee on Welfare and Recreation, General Subject Files, 1941-1942, box 10; Joint Boards and Committees, RG 225, NACP.

ownership of physical training policy remained uncertain. After his exposure to this confusion, McCloy pulled no punches in evaluating the consequences: physical training in the Army was “a terrible mess” and in need of someone at the top to “get the thing straightened out.” McCloy perceived “a lot of jealousies” and “ambitious strivings for position” that resulted in ground troops “really getting nothing.”⁶⁰

Resolution of the central proponent problem, at least during the war years, came in November 1942 with the publication of *Training Circular (TC) 87*. The circular aimed to precisely address the needs of Army Ground Forces troops that the summer’s testing and data collection efforts had uncovered. *TC 87* was grounded in empirical data and brought some cutting-edge ideas about physical training to bear on the specific problem of readying troops for combat. As historian Whitfield East observes, *TC 87* and its “outcome-based” program made *FM 21-20* and its “process-based” program look outdated, even though the field manual was little more than a year old.⁶¹ With *TC 87*, Bank and the ASF’s Special Service Division asserted their control over Army physical training policy, and ultimately over the official physical culture.

Work continued on the system and the policies codifying it throughout the war. In May 1944, Bank and his team published *War Department (WD) Pamphlet 21-9* as an “illustrated amplification” of *TC 87*.⁶² The pamphlet added some commentary about *TC 87*’s history and the necessity of physical training, plus illustrations of a variety of activities, but it did not

⁶⁰ Charles McCloy to Francis Keppel, 25 June 1942; Joint Army and Navy Committee on Welfare and Recreation, General Subject Files, 1941-1942, box 10; Joint Boards and Committees, RG 225, NACP.

⁶¹ East, *A Historical Review and Analysis of Army Physical Readiness Training and Assessment*, 90. A decade later, Army officers responsible for physical training policy agreed. They hailed *TC 87* as a “radical departure from a century of formalism.” Annex F – Training Literature and Training Aids, p. 1, enclosed in Physical Training Research and Development Studies – A Study of the Adequacy of the Present Army Physical Conditioning Program (Adequacy Study), October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; Records of the United States Continental Army Command, RG 546, NACP.

⁶² War Department, *War Department Pamphlet No. 21-9: Physical Conditioning*, (Washington: Government Printing Office, 1944), cover page.

substantively alter any part of *TC 87*'s system. When *WD Pamphlet 21-9* entered circulation, its creators were already at work revising 1941's *FM 21-20*. Publication of the new FM, which superseded the old *FM 21-20*, *TC 87*, and *WD Pamphlet 21-9*, came in January 1946.⁶³ The new manual represented a fuller expression of the *TC 87* system, though it also reflected more of the USMA's influence than did its wartime predecessors. Taken together, the three documents published between 1942 and 1946 modified the Army's existing physical culture in many ways. Features of the evolving physical culture included: a revised definition of fitness; an orientation on the components of fitness that make a soldier-combat ready reminiscent of Raycroft's WWI-era physical culture; an emphasis on scientifically determined and measurable outcomes; an integration of training and athletic activities; and leadership by a corps of trained amateurs.

Many of these features followed from the revised definition of fitness advanced by McCloy, Esslinger, and Bank. As noted above, "physical efficiency for military effectiveness" was the goal of the system presented in 1941's *FM 21-20*. Physical efficiency sat atop layers of qualities such as health, confidence, courage, and alertness. Those qualities derived from bodily endurance and agility that practice of basic physical skills such as marching, jumping, climbing, and crawling built. Below it all lay a foundation of disciplinary and setting-up exercises.⁶⁴ 1942's revised concept situated physical fitness as a component of "total military fitness," a composite of technical, mental, emotional, and physical fitness. Technical fitness referred to basic tactical training and the ability to employ arms and equipment. Mental and emotional fitness, or morale, involved a sense of mission, a will to fight, and healthy habits of thinking.⁶⁵ Physical fitness, according to the authors of *WD Pamphlet 21-9*, was "evidenced by a body which can retain

⁶³ War Department, *Field Manual 21-20: Physical Training* (Washington: U.S. Government Printing Office, 1946), I.

⁶⁴ *FM 21-20: Basic Field Manual - Physical Training* (1941), 2.

⁶⁵ *War Department Pamphlet No. 21-9: Physical Conditioning*, 2.

normal responses to stimuli in the face of fatigue and exhaustion” and continue to “function effectively” under the many stresses placed on it by the “routine and emergency tasks of war.”⁶⁶ Such bodies manifested five elements: freedom from disease and defect, strength, endurance (both muscular and cardio-respiratory), agility, and coordination.⁶⁷ Physical fitness in turn complemented the other elements of total military efficiency, entwining physical and mental health.

Combat framed this new definition of fitness. Each element related to battlefield or combat support tasks, whether it be lifting heavy objects, persisting through fatigue, or manifesting sufficient speed, agility, coordination, and flexibility to “handle oneself in tactical operations.”⁶⁸ This physical culture did not concern itself much with discipline and obedience, reflecting contemporary thought in the physical education profession and Army officers’ experiences leading conscripted citizen-soldiers in World War I, but rather aimed to optimize the individual soldier’s physical capacity. Indeed, *TC 87* and *WD Pamphlet 21-9* explicitly concentrated on cultivating and measuring the individual soldier’s physical capabilities. While 1946’s *FM 21-20* revived a few reminders about the need to improve the mass’s total military fitness and to measure a unit’s quality by the “over-all picture” derived from the condition of *all* its members, it retained an emphasis on individual optimization.⁶⁹

Notably, this new definition of fitness only included measurable physiological outcomes. The earlier Koehler-based definition of fitness included qualities such as confidence, courage, discipline, and alertness as components of physical efficiency. By 1946, these qualities, along with basic military skills such as swimming, running, and jumping, were recognized as “valuable

⁶⁶ Ibid.

⁶⁷ *Field Manual 21-20: Physical Training* (1946), 2-3.

⁶⁸ Bank, "The Army Physical Conditioning Program," 195.

⁶⁹ *Field Manual 21-20: Physical Training* (1946), 4.

products” of a good physical training, but no longer as fundamental elements of fitness.⁷⁰ This change generated massive repercussions within the Army’s physical culture. Among these, the greatest was liberation of physical training from a dual mission of developing both discipline and physical capacity. This created opportunities for new fitness activities, both in the system as a whole and in the daily program. The authors of *WD Pamphlet 21-9* called for instructors to abandon the old “extreme formalism” that made the “chief objective” of physical training “discipline rather than physical fitness.” Instead, the authors charged instructors with selecting conditioning exercises and conducting them “so that they impart the utmost physiological benefit.” Insistence on accuracy and precision was only valuable if they assisted soldiers in deriving the “maximum physical benefit from the exercises.”⁷¹ Soldiers undergoing physical training must have appreciated the change. Instead of repetitive execution of the same old setting-up exercises, they were supposed to experience a varied program of work intended to deliver bigger physiological results faster than ever before.

Empirical evidence supported claims of improved results under the new program. Between the time Bank’s team collected its data in the summer of 1942 and *TC 87*’s publication in November of that year, four infantry companies piloted the *TC 87* program over a six-week period. Two companies used the new system under close supervision while the other two functioned as an experimental control group using “traditional calisthenics, jogging and obstacle-course running.”⁷² The companies tested the strength, agility, endurance, and coordination of their soldiers at the beginning and end of this six-week period.⁷³ The results showed an

⁷⁰ Ibid.

⁷¹ *War Department Pamphlet No. 21-9: Physical Conditioning*, 15.

⁷² Ibid., 6.

⁷³ The test battery consisted of pullups, pushups, situps, broad-jumps, 20 second Burpee drills, a 75-yard “pick-a-back” run, a 300-yard run, and a “dodging run.” Ibid.

improvement of only 3.5% in “total physical fitness” among the control groups, but an increase of 23.25% in those following the *TC 87* system.⁷⁴ Differences in outcomes were especially evident in the events of most obvious combat relevance such as the pick-a-back and dodging runs.

While the definition of fitness underwent substantial change around 1942, other elements in the Army’s physical culture displayed continuity. For instance, the need for physical fitness in warfare communicated by physical training advocates remained consistent despite technological change. As did early proponents of physical training such as Herman Koehler, Edmund Butts, and James Pilcher, the WWII-era authors connected military physical training to the practices of the ancient Greeks and Romans. Like their turn-of-the-century predecessors, the new authors also evinced some Social Darwinist belief in the strength of a people being dependent upon the strength of its military aged males, and of the pernicious effects of “soft luxurious living” on that strength.⁷⁵ Channeling many of their predecessors’ concerns about weak men and the widespread fear of the American man’s declension as revealed in draft rejection rates, the new authors assumed that the Army’s raw material was of a less-than-perfect quality. For instance, *WD Pamphlet 21-9*’s authors asserted that physical fitness testing had revealed “clearly the declining strength, endurance, agility, and coordination of the past two or three generations” owing to the “weakening influence of our modern machine civilization.”⁷⁶ Opinions shared by the propagators of Army training policy changed little by 1946, as shown by *FM 21-20*’s warning that “few recruits” would enter the service “physically fit for the arduous duties ahead of them.”⁷⁷

⁷⁴ *Ibid.*

⁷⁵ *Ibid.*, 1.

⁷⁶ *Ibid.*, 2.

⁷⁷ *Field Manual 21-20: Physical Training* (1946), 3.

“Modern machine civilization” may have reduced the average American man’s fitness in the opinion of this physical culture’s producers, but they also believed that mechanization had “accentuated rather than minimized” the importance of physical fitness in war.⁷⁸ Authors of the Army’s new manuals directly connected advances in the “strength, speed, power and endurance” of military machines to the physical demands placed on soldiers. Every technical improvement demanded a corresponding improvement in the quality of the humans operating the machines.⁷⁹ This argument echoed those made by proponents of the offensive in the years prior to World War I who asserted, in the words of historian Antulio Echevarria, “that the human element must be strong enough to provide a vigorous complement to the newfound power of military technology.”⁸⁰ Bank and his team gave several explanations for such an association. First, mechanized warfare increased the tempo of combat, putting a premium on endurance. Second, most fighting still occurred between infantry troops. The “grueling ordeal” of war still involved making assaults, running and crawling, jumping in and out of “fox holes, craters, and trenches,” and “lifting and carrying heavy objects.”⁸¹ Bank also often employed as rhetorical devices emergency situations that might confront even tank operators and pilots—tanks break down and planes crash behind enemy lines.⁸² Finally, the new producers recognized a tight linkage between

⁷⁸ *Ibid.*, 1.

⁷⁹ *War Department Pamphlet No. 21-9: Physical Conditioning*, 1. Historians writing after the war endorsed this view. For instance, authors of one book in the Army’s official history asserted that “the mobile tactics and open formations of World War II demanded the greatest possible physical vigor and mental alertness in individual combat soldiers and required strong powers of leadership in commanders, even in units as small as the squad. The intelligence, skill, and stamina of semi-isolated riflemen and small-unit commanders were to determine not only individual survival on the battlefield but also in many cases the outcome of battle.” Palmer, Bell, and Keast, *The Army Ground Forces: The Procurement and Training of Ground Combat Troops*, 3.

⁸⁰ Antulio J. Echevarria, “The ‘Cult of the Offensive’ Revisited: Confronting Technological Change before the Great War,” *Journal of Strategic Studies* 25, no. 1 (2002): 201.

⁸¹ *Field Manual 21-20: Physical Training* (1946), 1.

⁸² Bank, “The Army Physical Conditioning Program,” 195.

physical fitness, mental health, and morale. Troops in better physical condition were better equipped to withstand the stresses of war, and thus better equipped to sustain their will to fight.⁸³

The perceived gap between declining fitness and increasing physical demands was a core feature of the Army's official physical culture between 1942 and 1946. The training system that the culture produced reflected this perceived gap. Bank openly blamed America's physical educators for the weak bodies entering service in the 1940s. Their shortcomings "handicapped" the Army in its efforts to make new recruits combat-ready.⁸⁴ Bank, McCloy, Esslinger and their team envisioned overcoming this handicap with a more efficient training program. They also assumed that achieving the "total conditioning of all the men" required many different types of activities because no single one could adequately develop all components of fitness.⁸⁵ As a result, their training program integrated many activities into a comprehensive training program based on empirical research intended to produce specific, measurable physiological outcomes.

Measurement itself was not a wholly new or novel feature of the Army's physical culture, but the characteristics measured in 1942 differed from those measured in earlier decades. For instance, Koehler collected data on members of the U.S. Military Academy Corps of Cadets since 1885. Koehler's measures focused on anthropometric features such as height, weight, and waist size. Koehler also assessed strength by using pull ups, dips, grip tests, and weighted back and leg lifts.⁸⁶ No absolute standards existed against which these measures could be compared. Instead, Koehler used data to track change over time for individuals and groups. Koehler's methods aligned with trends in physical education at the turn of the century. Dudley Sargent, a

⁸³ *Field Manual 21-20: Physical Training* (1946), 2.

⁸⁴ "The Army Physical Conditioning Program," 197.

⁸⁵ *War Department Pamphlet No. 21-9: Physical Conditioning*, 5.

⁸⁶ Herman J. Koehler, "The Physical Training of Cadets, 1802-1902," in *The Centennial of the United States Military Academy at West Point, New York, 1802-1902* (Washington: Government Printing Office, 1904), 901-02.

pioneer of physical education and testing alike, similarly tracked anthropometric data such as height and chest girth and measured strength with simple tests such as the vertical jump.⁸⁷

Testing and measurement recommendations did not appear in the Army's original physical training manual in 1914, but Raycroft championed individual efficiency tests beginning in 1917 to identify "weak and inefficient men."⁸⁸ Raycroft established minimum standards for his 100-yard sprint, running broad jump, 8-foot wall climb, hand grenade throw, and standard obstacle course tests. Again, this comported with contemporary trends, this time emphasizing "physical efficiency" and "motor ability" over anthropometric measures.⁸⁹ Testing disappeared from the Army's system in the interwar years but resurfaced in the 1941 edition of *FM 21-20*. Meanwhile, interest in research-based test batteries increased in the civilian physical education world. Charles McCloy made one of the most significant contributions to this movement by publishing a widely-used test battery in 1934 to measure athletic power that focused on general motor ability and strength.⁹⁰ The differences between Koehler's measurements and McCloy's are noteworthy. The former measured body shape and size in the interest of promoting symmetrical development. The latter measured physical capabilities and charted performance on a graduated scale built upon empirical research. This change is evidence of how the Army's physical culture transformed over time to stress physiological outcomes such as strength, endurance, and efficiency over physical appearance and the moral qualities assumed to be connected with it. Turning to the quantification of fitness and standardizing, then policing normalized "fit bodies" also mirrored trends in U.S. government advisory state actions since the early 20th century that

⁸⁷ Sargent's vertical jump test is still used today and commonly known as the "Sargent jump." Institute of Medicine, *Fitness Measures and Health Outcomes in Youth* (Washington, DC: The National Academies Press, 2012), 24; Carolyn de la Pena, "Dudley Allen Sargent: Health Machines and the Energized Male Body," *Iron Game History* 8, no. 2 (2003): 11-16.

⁸⁸ Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers' Training Corps*, viii.

⁸⁹ *Fitness Measures and Health Outcomes in Youth*, 24.

⁹⁰ *Ibid.*, 25.

were designed to encourage citizens to become healthier.⁹¹ In turn, differences in measures and objectives influenced the character and composition of physical training systems.

Between 1942 and 1946, the test batteries recommended in published training manuals changed very little. Both *TC 87* and *War Department Pamphlet 21-9* proposed the same seven-event battery that four companies had piloted in 1942: pullups, 20-seconds of Burpees, squat jumps, pushups, a 100-yard “pick-a-back” run, situps, and a 300-yard run.⁹² *FM 21-20* recommended the same battery, but without the Burpees and pick-a-back run. *FM 21-20* also offered an indoor test battery that was identical to its outdoor battery except that a shuttle run and 60-second squat thrust test replaced the 300-yard run.⁹³ This battery differed from Raycroft’s in that it did not feature events that measured skills. For instance, Raycroft included a grenade throw and an obstacle course run. Instead, in line with McCloy’s scientific measurement work, the World War II-era batteries were designed strictly to measure various elements of physical fitness such as strength, agility, coordination, and endurance. These batteries also aligned with tests used by many physical educators, so “valid standards” were available by which soldiers might be evaluated and by which point scales might be formed.⁹⁴ Uniformity was essential to this testing regime because a lack of consistency compromised the value of collected data. Thus, extensive instructions accompanied each event and several paragraphs urged the use of impartial judges, a consistent order of events, and other methods of controlling variables external to the soldier’s physical capabilities.⁹⁵ However, the manual’s authors lacked the authority to mandate

⁹¹ Rachel Louise Moran, *Governing Bodies: American Politics and the Shaping of the Modern Physique* (Philadelphia: University of Pennsylvania Press, 2018), 5-7.

⁹² *War Department Pamphlet No. 21-9: Physical Conditioning*, 71.

⁹³ *Field Manual 21-20: Physical Training* (1946), 333.

⁹⁴ *War Department Pamphlet No. 21-9: Physical Conditioning*, 71.

⁹⁵ *Field Manual 21-20: Physical Training* (1946), 340-41.

use of a standard test battery. The best they could do was strongly recommend their battery and provide some criteria for selecting a different battery if desired.

Physical efficiency testing yielded a bevy of benefits according to the authors of *War Department Pamphlet 21-9*. Among these benefits was a tendency toward intensification of training programs when definitive measurements enabled commanders to compare the condition of their units with others.⁹⁶ Here the pamphlet's authors likened physical directors to physicians. As the latter diagnosed patients before prescribing a course of treatment, the former could use measurements to tailor programs to the "physical assets and liabilities" a unit's men possessed.⁹⁷ As the testing regime demonstrates, the system inaugurated in 1942 by *TC 87* provided Army leaders with many tools to leverage when crafting a tailored course of treatment.

These tools were more diverse and more practical in terms of ease of use than those available in all previous systems except for Raycroft's. For instance, the original 1914 manual put ten categories of activities at an instructor's disposal, but one differed little from the setting-up exercises except for the addition of weights, four others required gymnastic apparatus and advanced skills, and one was athletics (about which little was said and little expected in terms of systematic training).⁹⁸ In contrast, *TC 87*'s seven activity categories were more diverse and easier to execute in austere environments: calisthenics, guerrilla exercises, grass drills, combatives, running, relays, and marching.⁹⁹ To these *FM 21-20* (1946) added log and rifle exercises, a "strength course" using machines units could manufacture, and obstacle and

⁹⁶ Other alleged benefits included the instructor's reception of feedback about the efficacy of his program, the pointing out of specific deficiencies among a unit's men, provision of motivation to improve, and the ability to measure the effectiveness of different training programs. *War Department Pamphlet No. 21-9: Physical Conditioning*, 69.

⁹⁷ *Ibid.*

⁹⁸ War Department, *Manual of Physical Training for Use in the United States Army* (New York: Military Publishing Co., 1914), 6.

⁹⁹ No difference existed between *TC 87* (1942) and *War Department Pamphlet 21-9* (1944), except for the additional of some supplemental guerrilla exercises. The latter was a graphic amplification of the former's system.

confidence courses. No activity in *TC 87* required additional equipment or apparatus, which increased the likelihood of instructors actually using all of the manual's tools.

Following from framing fitness in terms of combat, the activities presented in *TC 87* held obvious practical utility for soldiers preparing to fight on the modern battlefield. Movement toward these more functional activities echoed similar wartime trends between 1917 and the early 1920s.¹⁰⁰ Calisthenic exercises executed in formation, in response to commands, and with an emphasis on precision still formed the core of the program. However, these exercises were generally more dynamic than their setting-up drill ancestors.¹⁰¹ Also, unlike Koehler with his setting-up exercises, the authors of the World War II-era program did not claim that the calisthenic drill alone was sufficient to get men in to fighting trim. Instead, calisthenics merely formed a foundation upon which other activities built.

Those other activities were numerous. Among them, two new exercise categories featured prominently in the system: guerrilla exercises and grass drills. The former ostensibly were "designed to prepare and train soldiers for guerrilla warfare," though the actual connection to guerrilla warfare is unclear.¹⁰² However, the drills did develop agility, coordination, and endurance by making men move in new and different ways. For instance, duck waddles, crouch runs, and various crawls built muscles and skills needed to move under fire. "Double exercises" such as fireman's and cross carries both cultivated components of physical fitness and prepared men to move casualties. Grass drills, borrowed from football conditioning programs, similarly

¹⁰⁰ Movement toward functional fitness activities also seems to have bubbled up from below in the Army during World War II. For examples, see "Steeplechase for Soldiers," *Infantry Journal* 49, no. 1 (1941): 46-47; Avery Ashwood, "Building Brawn," *Infantry Journal* 53, no. 2 (1943): 47-50.

¹⁰¹ The calisthenic program as of 1944 included sets of the high jumper, Burpee, squad bender, rowers, push-up, sit-up, side bender, bank twist, squat jump, trunk twister, stationary run, eight-count push-up, straddle pull-up, mountain climber, woodchopper, and bridge exercises. In 1946, *FM 21-20* added a four-exercise warm-up drill and, for variety, a second twelve-exercise conditioning drill.

¹⁰² *War Department Pamphlet No. 21-9: Physical Conditioning*, 7.

cultivated endurance and agility while teaching practical skills such as dodging, transitioning from the prone to standing and vice-versa, and moving between positions of cover.¹⁰³ Running and swimming, two other major exercise categories in the *TC 87* system, were similarly justified by appeals to battlefield demands instead of discipline-building. On bayonet training, the new system departed from Raycroft's. In fact, Bank specifically excluded bayonet drill from the Army's physical training program.¹⁰⁴ Although Bank did not explain this decision, the focus he and his co-authors placed on purely physical conditioning likely reduced the value of bayonet drill, which had been primarily intended to develop psychological qualities and specific skills.

Guidance provided in *TC 87* and *WD Pamphlet 21-9* on combining activities into a comprehensive training program exceeded that given in any previous manual. Apart from the strict order and composition of the calisthenic drill, physical training directors could tailor a program to meet their unit's needs. Bank, McCloy, and their team advanced three principles that should guide the construction of such a program: periodization, progression, and overload. The first was a familiar feature in the official Army approach to systematic training. Periodization's specificity and structure in the 1942 system was new, however. For example, the 1914 manual offered different setting-up drills for the "recruit" and "trained" soldier but did not explain the difference between these categories or give much guidance on modifying the program beyond employing a different setting-up drill.¹⁰⁵ In contrast, *TC 87*'s authors identified three stages in a conditioning program. They also gave specific advice on how to approach training in each phase in such a way as to put most men in good condition within twelve weeks. In the first stage, dubbed the "toughening phase," men spent one or two weeks mastering good form between

¹⁰³ *Ibid.*, 7-8, 47-50.

¹⁰⁴ Bank, "The Army Physical Conditioning Program," 195.

¹⁰⁵ War Department, *Manual of Physical Training for Use in the United States Army* (1914), 30.

liberal rest periods to remedy muscle soreness. In the second phase, which lasted between six and eight weeks, rapid physiological adaptation brought big fitness gains, though those gains plateaued at the end of the phase. In the final “sustaining phase,” little improvement was thought possible, so instructors were supposed to spend most of their time and effort maintaining men at their “peak of physical condition.”¹⁰⁶

Similarly, the principles of progression and overload were not novel. Yet their precise articulation and the detail of the accompanying guidance signaled the *TC 87* system’s greater sophistication and its application of current practices from the physical education and athletic training fields. While both the 1914 manual and Raycroft’s *Mass Physical Training* urged progressive fitness development, neither went beyond advising instructors to tailor their daily routines to the condition and needs of their charges, or to make each day’s work “dovetail into the next.”¹⁰⁷ In contrast, *TC 87* gave specific guidance on increasing intensity and load over time across a training program and within each activity type. The manual’s authors also defined the “overload principle,” referring to the fact that muscles developed proportional to the demands placed on them. Unlike warnings against “overdoing” found in Koehler’s manuals, *TC 87*’s authors asserted that there was “no easy road to the attainment of excellent physical condition” and that exercises had to be strenuous and repeated “until it hurts.”¹⁰⁸ For example, instructors might increase the number of repetitions conducted or reduce rest periods as a means of progressively overloading the troops under their care.

¹⁰⁶ *War Department Pamphlet No. 21-9: Physical Conditioning*, 62.

¹⁰⁷ Quote in *Manual of Physical Training for Use in the United States Army*; Raycroft similarly urged progression without giving any detail. See Raycroft, *Mass Physical Training for Use in the Army and the Reserve Officers’ Training Corps*, 3.

¹⁰⁸ *War Department Pamphlet No. 21-9: Physical Conditioning*, 61.

Unit trainers received much more specific direction on incorporating periodization, progression, and overload into their programs than had their pre-1942 predecessors. *TC 87* contained a twelve-week model schedule that allotted minutes to various activities on a day-by-day and week-by-week basis. With the exception of the calisthenic drills, instructors could select which exercises to do in each activity category with reference to the manual's insights into the relative intensity of exercises and how to best increase intensity over time.¹⁰⁹ The quality and quantity of program construction guidance continued growing in the 1946 version of *FM 21-20*. In it, McCloy, Bank, and company expanded on earlier ideas, gave more specific examples of how to leverage progression, addressed the problem of maintaining physical fitness in combat areas, and offered a second model schedule for a unit's maintenance phase.¹¹⁰

In addition to reflecting movement in the Army's physical culture toward a more scientific basis and the influence of McCloy and his fellow physical education professionals, the high level of detail also helped offset the lack of a qualified physical trainer corps. The qualified instructor issue runs as a thread of continuity throughout the evolution of the Army's systematic training-based physical culture. Koehler had put forward West Point as an Aldershot alternative, but no "post-graduate" program ever materialized. Raycroft maneuvered between 1917 and 1920 to establish a school that would certify physical trainers, but his pilot program fell victim to interwar budget reductions. In contrast, Bank seems to have simply accepted this state of affairs. Writing in 1943, Bank characterized the Army physical training program as "decentralized." Physical training specialists simply did not exist. Even if they did, not even 10,000 would be enough to meet the needs of the growing Army by Banks' calculations.¹¹¹ Thus ownership by

¹⁰⁹ *Ibid.*, 63-68.

¹¹⁰ *Field Manual 21-20: Physical Training* (1946), 31-44.

¹¹¹ Bank, "The Army Physical Conditioning Program," 195.

commanders and amateur-led training were by necessity features of the Army's physical culture in the World War II-era.

As Bank noted, Army policy as expressed in *FM 21-10* and elsewhere made commanders responsible for the fitness of their men. Usually this responsibility devolved to company commanders.¹¹² Most officers had little experience in planning and executing a physical training program beyond their physical education as youth, participation in athletics, and exposure to the subject during their commissioning training. West Point graduates would have been relatively advanced amateurs in this area, as Koehler had originally intended them to be. All would have undergone rigorous training and most would have led training sessions during their cadet careers, even if they had not planned a program. Similarly, Reserve Officer Training Corps (ROTC) cadets would also have participated in a physical training program, though likely not in one as comprehensive as the Academy's. Enlisted men converted to officers by way of Officer Candidate Schools (OCS), which commissioned more than 150,000 between 1942 and 1945 in the Army Ground Forces alone, received only rudimentary training.¹¹³ The curriculum governing these schools' operations provided only general training geared to produce competent platoon leaders within, at most, seventeen weeks. Physical drill, which candidates executed daily, was a part of that curriculum. Typically, physical drill training involved little more than a few candidates from each platoon in an OCS class leading drill daily using *FM 21-20* as a reference and receiving critiques on their performance from peers.¹¹⁴ OCS, ROTC, and the USMA all provided experience in physical training as session leaders or participants, but none qualified men to build programs from scratch. The 1942-46 manuals, with their detailed guidance and

¹¹² Ibid.

¹¹³ Palmer, Bell, and Keast, *The Army Ground Forces: The Procurement and Training of Ground Combat Troops*, 326.

¹¹⁴ Ibid., 338.

user-friendly system, were thus keystones in the Army's physical culture. They were crucial both to the provision of consistent, effective, and efficient training across the Army, and to the propagation of the Army's physical culture.

While physical training was a commander's responsibility in the Army's World War II-era physical culture, and while minimally trained amateur officers planned and executed most of that training, some specialists were available to assist. These specialists came from the Special Service, which was organized under the Army Service Forces described earlier. The Special Service held responsibilities that had been divided between the Morale Branch and Commission on Training Camp Activities (CTCA) in 1917-1918. Specifically, the Special Service was responsible for "thoroughly planned and systematically promoted" initiatives to sustain good morale and a healthy sense of duty in Army commands.¹¹⁵ The Special Service's diverse portfolio ranged from library management and theater performances to soldier publications, educational activities, and athletics. The Service's Athletic and Recreation Branch, headed by Bank, provided trained athletic officers and enlisted assistants to field army, corps, division, and often regimental headquarters staffs.¹¹⁶ By 1944, Special Service companies extended these services to forward echelons by supplementing organic Special Service staff with additional technicians and equipment.¹¹⁷ Whether assigned to headquarters staffs or Special Service companies, Athletic Officers and technicians usually possessed both a background in athletics

¹¹⁵ The Morale Branch had been a General Staff agency responsible for studying, devising, and implementing "psychological measures among the troops to produce and maintain good morale" in 1918. The Commission on Training Camp Activities (CTCA) had responsibility for providing the actual facilities and staff for recreation and welfare. The Morale Branch dissolved shortly after WWI, but some of its functions continued under the G-1. In March 1941, the Special Services Branch stood up under the G-1, combining the responsibilities of both the Morale Branch and CTCA. The Special Services Branch was later renamed the Special Service in 1942 and realigned under the new Army Service Force. War Department, *Technical Manual 21-205: Special Service Officer* (Washington: United States Government Printing Office, 1942), 3.

¹¹⁶ *Ibid.*, 15-17; Bank, "The Army Physical Conditioning Program," 195.

¹¹⁷ War Department, *Field Manual 28-105: The Special Service Company* (Washington: United States Government Printing Office, 1944), 1-3.

and training in implementing the Army's physical training system. The Special Service companies in particular were capable of taking charge of a physical training program in the field and executing it in line with *TC 87*.¹¹⁸ Essentially, these Special Service officers were uniformed versions of the CTCA's Athletic Directors, similarly able and willing to "give help and leadership" to officers responsible for physical training.¹¹⁹

That the Army's only body of physical training specialists actually had the specified mission of planning, developing, stimulating, and supervising athletic events illuminates a key feature of the Army's World War II-era physical culture: the entwinement of athletics and systematic training. The contentious place of sport represents a thread of continuity in the Army's physical culture stretching back to the earliest days of systematic training in the late 19th century. Characterized as a movement from "indifference to obsession" by one historian of sport and the military, sport originated as a potentially dangerous distractor but assumed a central role in the Army's physical culture by 1942.¹²⁰ Historian Wanda Wakefield even posits that sports and athletics were "intended to permeate the lives of the off-duty soldier or sailor" during World War II.¹²¹ According to Wakefield, ubiquitous sport served four functions: a distraction for soldiers, an assurance to civilians and soldiers alike that America fielded an army of citizen-soldiers, a tool for identifying and selecting the "best men" in the military's hierarchy, and a means of entertaining large populations.¹²² Bank would have added a fifth—building and sculpting soldiers' minds and bodies in a way that enhanced work done by systematic training.

¹¹⁸ *Ibid.*, 5.

¹¹⁹ "The Army Physical Conditioning Program," 195.

¹²⁰ Jeffery Allen Charlston, "From Indifference to Obsession: Origins of Athletic Programs in the United States Military, 1865-1935," PhD diss., (George Washington University 2000).

¹²¹ Wanda Ellen Wakefield, *Playing to Win: Sports and the American Military, 1898-1945* (Albany: State University of New York Press, 1997), 110.

¹²² *Ibid.*

Bank envisioned athletics and systematic physical training as coequal parts of a larger “total physical conditioning program” for the Army. Bank held that adding sport enabled the physical training program to “contribute substantially to mental and emotional fitness.”¹²³ A strict definition of physical fitness that sought bodies capable of retaining “normal responses to stimuli” and functioning “effectively” under great stress had concentrated the physical training program on generating physiological outcomes that were empirically measurable.¹²⁴ However, earlier beliefs in the ability of exercise to develop less measurable mental, emotional, and character traits had not disappeared. They just migrated to the domain of sport. Thus, sport was considered an amplifying adjunct in pursuit of physical fitness, but a critical line of effort in developing the “mental and emotional” components of “total military fitness.”¹²⁵ Neither systematic training nor athletics could replace the other, but together they were synergistic. Bank’s explanation of the Army’s physical training program to civilian educators illustrated his concept of exercise-sport harmony. Where he pitched the value of exercise in terms of raw performance on a test battery, Bank framed athletics’ value as a crucial “morale-building” activity and as a way of training soldiers “in the elements of combat.”¹²⁶ The “intangible benefits” of sport included characteristics familiar from earlier formations of the Army’s physical culture: comfort with bodily contact, confidence, aggressiveness, initiative, determination, and teamwork.¹²⁷ Furthermore, Bank and his team believed that sport’s popularity helped cultivate soldier interest in the physical training program. Soldiers would “gladly engage”

¹²³ Bank, “The Army Physical Conditioning Program,” 195.

¹²⁴ *War Department Pamphlet No. 21-9: Physical Conditioning*, 2.

¹²⁵ *Ibid.*

¹²⁶ “The Army Physical Conditioning Program,” 238.

¹²⁷ *Ibid.*, 238-39.

in purely conditioning activities, according to *FM 21-20*'s authors, if "they know they will be able to play speedball, soccer, touch football, or push ball afterwards."¹²⁸

Training Circular 87's system and that of its successor, *FM 21-20*, operationalized the balanced value placed on systematic exercise and sport. Both manuals' recommended programs began with a heavy emphasis on basic calisthenics and conditioning exercises. But by the twelfth week of the program, games occupied more than 55% of the total time allotted to physical training weekly under *War Department Pamphlet 21-9*, and 38% under *FM 21-20*.¹²⁹ Not all of these games were of the popular spectator sport variety owing to the need of justifying games "in terms of the contribution they make to physical conditioning."¹³⁰ Many were, however, and the training system also strongly encouraged participation in recreational athletics outside of programmed training time.

Bank's insistence that athletics serve the masses instead of the elite few was also consistent with earlier formulations of sport's value in the Army physical culture, if not always in actual practice. In fact, Bank made "Athletics for All" an explicit goal for his division of the Special Service and for the physical training program.¹³¹ While Athletic Officers were supposed to organize some competitive teams, mostly for the purposes of building *esprit d'corps* and providing men with heroic examples, they were chiefly charged with maximizing participation. This emphasis increased throughout the war as illustrated by the September 1944 revision of the Special Service Officer technical manual, *TM 21-205*. That manual dropped the assumption that all men were familiar with athletics. Instead, it urged Athletic Officers to conceive of their

¹²⁸ *Field Manual 21-20: Physical Training* (1946), 187.

¹²⁹ *War Department Pamphlet No. 21-9: Physical Conditioning*, 66; *Field Manual 21-20: Physical Training* (1946), 39.

¹³⁰ *Field Manual 21-20: Physical Training* (1946), 187-88.

¹³¹ "The Army Physical Conditioning Program," 238.

mission more broadly: to welcome newcomers to sport, to offer alternative activities to the major sports, and to incentivize participation with prizes.¹³²

None of the features of the Army's World War II-era physical culture discussed to this point were revolutionary. However, one new development did require a fundamental reevaluation of fitness definitions and practices—the inclusion of women. The creation of the Women's Army Auxiliary Corps (WAAC) in May 1941, renamed the Women's Army Corps (WAC) in July 1943 when the WAC became a part of the Regular Army, prompted questions about physical training. For instance, how should fitness for women be defined? How should women exercise? To what ends should women's minds and bodies be sculpted? Should the answers to these questions be different from those given for men? The solution, a wholly separate physical training system, illuminates the balancing act involved in leveraging women's service without severely destabilizing gender roles. The separate system also reveals that the Army's physical culture was fundamentally rooted in traditional visions of gender.

The process of crafting a training program for the WAAC's new inductees generally started with men's basic courses, then substituted "practical courses" designed to address likely duties in place of men's "combat courses."¹³³ Physical training was one area where this trend did not hold. Out of concern expressed by the WAAC staff that men's physical training might be harmful to women, the WAAC's leadership opted to craft a different system from the ground-up. The nature and character of such a system proved to be contentious topics.¹³⁴ Physical cultures

¹³² Wakefield cites trophies, beer, and cigarettes as among the most common prizes used to incentivize participation and victory. Wakefield, *Playing to Win: Sports and the American Military, 1898-1945*, 86-87.

¹³³ Examples of "practical courses" included Army administration, dealing with required reports and correspondence, Army mess, dealing with mess supplies and reports, and "Explanation of the Allied Cause." Mattie E. Treadwell, *The Women's Army Corps* (Washington, DC: Center of Military History, 1991), 635-38.

¹³⁴ *Ibid.*, 638-39.

help explain the prickly quality of this debate. After all, members of the WAAC staff and leadership were not just debating the most efficient and effective way to improve the physical capacity of their organization's members. They were also struggling over the very definition of fitness, along with its purpose and value. Physical training in the U.S. Army had pursued objectives beyond simple physical conditioning since its inception. Character traits, moral qualities, and a man's identity as a soldier and member of a unit were widely regarded as valid physical training outcomes. Civilian physical educators had also sought to use exercise and sport as a means of socialization and of educating the whole person through the body. Similar entanglements and intersections informed the creation of the WAAC's physical training system.

Fort Des Moines' parade ground was the primary workshop on which a series of trainers constructed a distinct physical culture for the WAAC. Credit for the first comprehensive effort to define both a culture and associated system belongs to Catherine Van Rensselaer. Appointed the WAAC's director of physical education in 1942, Van Rensselaer brought to bear professional credentials and more than twenty years of experience as a civilian physical educator.¹³⁵ Her task was to craft a physical training system, implement it with the WAAC's first few officer training classes at Fort Des Moines, then hand the program off to graduates who would staff the school's physical training section. Assisted by three other civilian instructors, Van Rensselaer developed an exercise regimen comprised chiefly of rhythmic exercises in the Danish gymnastics mode complemented by a smattering of games and sports.¹³⁶ According to Van Rensselaer, nothing in

¹³⁵ Van Rensselaer's background included training at Russell Sage College, a progressive upstate New York college founded in 1916 to advance women's independence through liberal arts education and preparation for specific professional careers, teaching experience at the Central School for Hygiene and Physical Education and at the American Woman's Association in New York. "Physical Training Planned for WAAC," *New York Times*, 1 July 1942.

¹³⁶ The three assistant instructors were Mary Loomis from Syracuse University, Angela Kitzinger from Russell Sage, and Mary Foster from Stephens College. Public Relations Office, "The Physical Training Program of the W.A.A.C.," *Journal of Health and Physical Education* 14, no. 4 (1943): 209.

her system was “strikingly new.”¹³⁷ Very little differentiated these exercises from the old setting-up drill or even the new calisthenic drill in terms of format. Instructors led formations of inductees through a series of bodyweight exercises executed in response to commands. However, the exercises were not especially vigorous.

Many inductees who experienced Van Rensselear’s system were critical of it. Historian and WAC officer Mattie Treadwell divided criticisms into two categories. One body of criticism held that exercises were “positively harmful to women over the age of 18.”¹³⁸ A second body of criticism charged Van Rensselear’s system with not being strenuous enough. Many of the voices advancing the latter position, characterized by Treadwell as the “strength-building school,” belonged to newly commissioned officers with backgrounds in physical education.¹³⁹ Chief among them was Captain Donna Niles, a former physical educator at Northwestern who boasted a Master’s degree from Columbia and additional education from the University of Wisconsin and Northwestern.¹⁴⁰ After graduating from the WAAC school in its first officer class in August 1942, Niles became chief of the school’s physical training section and, six months later, director of the WAC’s Well-Being Division. Owing to Niles’s power, the strength-building school’s influence on the WAC’s physical culture remained dominant throughout the war years.

Behind the disagreements over how women should exercise lay a fundamental disagreement over the nature of and need for physical fitness in the WAAC, though both the early and later cultural producers approached fitness along primarily functional lines. Van Rensselear conceived of a woman’s duties in the narrowest sense. Assuming that most of the work expected of a woman would “be the desk variety of job,” Van Rensselear rejected strength

¹³⁷ Ibid.

¹³⁸ Treadwell, *The Women's Army Corps*, 639.

¹³⁹ Ibid.

¹⁴⁰ "The Physical Training Program of the W.A.A.C.," 240.

training. Instead, she aimed to “keep them fit” for their duties.¹⁴¹ The exact nature of that “fitness” is unclear, but recreation, endurance, flexibility, and mental well-being seem to have been key components. Niles similarly approached fitness from a functional perspective, but she set the bar above desk work to account for more rigorous requirements and the possibility of emergencies.¹⁴² According to Niles, the nation was engaged in a total war and such a war demanded that women replace men so the latter could join the fighting ranks. Women had to be ready to take on most non-combat military duties “alone and unaided” at any time. A woman who “lacks strength, who tires easily, whose mind and body do not work in swift accord, and who is constantly prey to illness and moods” could not fulfill these obligations.¹⁴³ A fit female soldier in Nile’s schema was not an “Amazon,” but she had the physiological foundation needed to accomplish any job, appeared competent, possessed “mental, emotional, and physical stability,” and took ownership of her physical development.¹⁴⁴

Niles’ made known her concept of fitness in vivid, clear terms in *FM 35-20*, a physical training manual published in 1943 for the Women’s Army Corps. From page one, the manual argued that women must be fit to “perform a soldier’s noncombat duties.”¹⁴⁵ Therefore, a fit woman needed a “strong body and steady nerves,” plus an “appearance” that gave “assurance” in her ability.¹⁴⁶ Ultimately, a WAC member’s fitness was contingent on three constituent areas: physical, mental, and appearance. In the physical realm, strong bodies exhibited the qualities of

¹⁴¹ *Ibid.*, 209.

¹⁴² Donna I. Niles, “Physical Fitness and the W.A.C.,” *Journal of Health and Physical Education* 14, no. 8: 410.

¹⁴³ War Department, *W.A.C. Field Manual: Physical Training* (Washington: United States Government Printing Office, 1943), 4.

¹⁴⁴ Niles, “Physical Fitness and the W.A.C.,” 410; *W.A.C. Field Manual: Physical Training*, 1; The divide between these conceptions of fitness generally mirrored a similar divide in the civilian world over women’s fitness value of strenuous exercise. Treadwell, *The Women’s Army Corps*, 639-40.

¹⁴⁵ *W.A.C. Field Manual: Physical Training*, 1.

¹⁴⁶ *Ibid.*, 6.

strength, stamina, coordination, and stability.¹⁴⁷ These corresponded closely with *WD Pamphlet 21-9*'s constituents of men's physical fitness, though the WAC's quality of stability emphasized daily performance and presence to a greater degree than did *WD Pamphlet 21-9*'s "freedom from disease and physical defects."¹⁴⁸ Training these physiological characteristics by way of systematic exercise was also supposed to cultivate muscular tone, stability, "efficient elimination," resistance to illness and deprivation, improved posture, stamina, and general well-being.¹⁴⁹ Thus physical exercise simultaneously addressed mental health by relieving tension and generally toughening women to meet the daily grind of office work and light labor.

Foregrounding appearance, the third constituent of WAC fitness, represented a break from trends in the wider Army physical culture and contributed to the distinctiveness of the WAC's. For men, appearance was a minor consideration and a by-product of exercise by 1942. Physical fitness was supposed to make them capable of marching long distance, driving vehicles over rough terrain, making assaults, fighting in hand-to-hand, carrying heavy objects, and maneuvering across broken terrain.¹⁵⁰ *WD Pamphlet 21-9* briefly addressed posture, justifying its importance as giving "the impression of strength, control, confidence and vitality," but made little other mention of appearance.¹⁵¹ However, appearance was front and center for women. According to the WAC's physical training manual's authors, *being* fit was not enough—women also had to *appear* fit and capable. Appearing fit and capable required clear complexions, healthy facial coloration, no excess fat, toned muscles, poise, and grace without reliance on "synthetic

¹⁴⁷ *Ibid.*, 8.

¹⁴⁸ Stability was defined as the ability to "be on the job all day, every day, as long as you are needed." Reliability, "regular" elimination, and "normal and easy" menstruation were all desired qualities. *Ibid.*

¹⁴⁹ *Ibid.*, 12-14.

¹⁵⁰ *War Department Pamphlet No. 21-9: Physical Conditioning*, 1.

¹⁵¹ This is a change from the Army's Koehler-era physical culture, which had sought appearance-based outcomes such as symmetry and posture to a greater extent. *Ibid.*, 11.

beauty” products.¹⁵² “The Army will judge you by your appearance,” advised the manual’s authors, because “a smart, soldierly carriage usually means smart, soldierly performance.”¹⁵³ In short, they needed to be Hollywood starlets, or at least models of middle-class, college respectability.

FM 35-20 summarized WAC physical fitness with a cautionary message accompanied by photographs: “don’t be a Josephine Jerk.”¹⁵⁴ Josephine Jerk was the “limp number in every outfit” who dove into her daily exercises with “the crisp vitality of a damp mop.” Her joints were “all limber in the wrong places” and she was built unlike other women in that her body had “a posture all its own.” Because of weak muscles and bones, Josephine counted on “her girdle to hold her up” and could not sustain effort in a tough activity such as mopping for more than ten minutes. Josephine Jerks were downright dangerous because they “hinder[ed], rather than help[ed], the war effort.”¹⁵⁵ Here were all the features of WAC physical fitness on display in a negative example. Josephine lacked strength, stamina, coordination, and stability of both mental and physical varieties. Her mental well-being was simply not suited to enduring the long-haul of a total war. On top of it all, Josephine *appeared* comically incompetent more often than not.

Similar to the Army’s *TC 87* system, the WAC system divided physical training in to two categories: systematic conditioning exercise and recreation. Unlike in the Army’s system introduced by *TC 87*, the two activities were not valued equally in the WAC. Niles characterized the former as the “vitamins” of the system and the latter as the “dessert.”¹⁵⁶ Niles conceived of her mission as bringing “huge numbers of women” to fitness by the “quickest and most direct

¹⁵² *W.A.C. Field Manual: Physical Training*, 10, 14.

¹⁵³ *Ibid.*, 24.

¹⁵⁴ *Ibid.*, 83.

¹⁵⁵ *Ibid.*

¹⁵⁶ Niles, “Physical Fitness and the W.A.C.,” 409.

means.”¹⁵⁷ Sports did not meet these criteria because she believed few women had much knowledge of or experience in athletics, thus they were unlikely to get much exercise out of play. Furthermore, the non-physical qualities sport was supposed to develop in men such as aggression and leadership held little value in the WAC’s physical culture.¹⁵⁸ Harkening back to the Koehler-era, the producers of the WAC’s culture accordingly viewed sport mostly as a site for recreation and incidental development, but not as a crucial tool for developing fitness.

Three phases dictated the type and amount of exercise under the WAC system: basic, specialist, and field training. In the basic and specialist training phases, which might last as little as five weeks, the system was supposed to introduce women to the essentials of physical conditioning and “throw the responsibility for maintaining physical fitness squarely up to each woman.”¹⁵⁹ Between forty minutes and one hour daily were to be spent in training and recreation, totaling five hours per week. In this time women learned the four basic cadence series, which were sets of warmup exercises, began mastering levels of the strength progression series, executed a foot-strengthening exercise, and played various games to develop agility, balance, and coordination. The strength progressions comprised the bulk of a daily training period. Each series targeted a different area of the body: shoulders and arms, abdominal, back and neck, and legs. Seven progressively more difficult exercises made up each series, culminating in four exercises: full-dips (push-ups), sit-ups, wing lifts, and running.¹⁶⁰ With the exception of wing lifts, these culminating exercises were all basic exercises every male recruit was expected to be able to execute in the *TC 87* system. A WAC spent nearly her entire period of

¹⁵⁷ Ibid., 408.

¹⁵⁸ Ibid., 409.

¹⁵⁹ Basic and specialist training referred to the initial entry training women underwent. First came a common basic training period, then the more duty-specific specialist training. *W.A.C. Field Manual: Physical Training*, 117.

¹⁶⁰ Ibid., 123.

service after initial entry training in the field training phase of physical conditioning. Here, officers were supposed to ensure that women spent fifteen minutes daily on conditioning exercises, chiefly composed of the cadence series and strength progressions. This aligned with the daily fifteen minutes of calisthenics required of men, though the *TC 87* system also called for 35-45 more minutes every day of rigorous athletics and games.¹⁶¹ Tension release activities, unarmed self-defense, and functional swimming were also recommended as part of the WAC physical training system, especially during the field training phase, but they were largely optional except for in deploying units.

Notably, the WAC system put the onus for physical fitness on the individual to a much greater degree than did its Army counterpart. While the *TC 87* system in both its 1942 and 1946 forms sought to optimize the individual's physical capabilities to a much greater extent than did the preceding Koehler-culture's systems, neither fingered the individual soldier as responsible for his own fitness. The manuals discussed ways to get men to buy in to the training program and participate, but commanders and physical training instructors held responsibility for their men's interest and for the overall fitness of their units.¹⁶² This was a thread of continuity that ran back to the earliest days of systematic physical training in the Army—fitness ultimately mattered because it made units more efficient and effective in battle, even if the relative value of the individual's warrior qualities changed over time. In contrast, the WAC system's authors never wrote on the importance of unit fitness. Instead, what mattered was the individual woman's readiness to take over a man's non-combat job. Though company commanders and school cadre bore responsibility for training programs, every individual woman was “responsible for her own

¹⁶¹ *Ibid.*, 118; *War Department Pamphlet No. 21-9: Physical Conditioning*, 62.

¹⁶² *War Department Pamphlet No. 21-9: Physical Conditioning*, 12-15; *Field Manual 21-20: Physical Training* (1946), 9-12.

physical fitness” in the “final analysis.”¹⁶³ Echoing the hopes of the Army’s earliest systematic training advocates and of World War I-era social reformers, Niles and the WAC organization hoped that their charges would go on owning their physical fitness after their terms of service. Women might take their new knowledge, training routines, and appreciation for the benefits of exercise home to their families to become “more useful and happier member[s] of tomorrow’s world.”¹⁶⁴ Niles went further, expressing a dream that the WACs might totally change America’s cultural views on women’s physical fitness.¹⁶⁵ In doing so, Niles indicated the great gap between the physical culture she wanted to construct and the civilian lives of most Americans.

The degree to which women actually took ownership of their physical fitness, or at least sought to maximize their physiological capacities, is not clear. Some WACs certainly realized Niles’ best hopes. However, the value of physical fitness in the WAC’s passive culture at the unit-level does not seem to have aligned in most cases with the official physical culture. Many WAC company-level officers complained that the exercises were “too strenuous” and not as valuable as recreational activities for desk-bound workers.¹⁶⁶ Company commanders also complained bitterly about the requirement for 15-minute daily drills, mostly citing difficulties with finding suitable training spaces. When the Army’s Military Training Division mandated physical tests every three months to enforce training, complaints came from as high as the WAC’s director, Colonel Oveta Culp Hobby. Such complaints alleged that men had no similar requirement for regular testing, that standards were too high, that women’s bodies were not suited to perform these exercises supposedly designed for men, and that women simply did not

¹⁶³ *W.A.C. Field Manual: Physical Training*, 114.

¹⁶⁴ *Ibid.*, 130.

¹⁶⁵ Niles, “Physical Fitness and the W.A.C.,” 450.

¹⁶⁶ Treadwell, *The Women's Army Corps*, 640.

need strenuous training to execute their duties.¹⁶⁷ A poll of WAC company commanders found 95% opposed to a systematic training program, preferring recreational sports to strength-building calisthenics.¹⁶⁸ Niles and some allies in the Surgeon General's Office continued pushing systematic training and ultimately won the debate. Through the end of World War II, the Military Training Division continued requiring daily calisthenics and regular testing.¹⁶⁹

Ultimately, the WAC's official physical culture and the system of exercise supporting it represented a fundamentally gendered project. While the system was ostensibly designed to prepare women specifically for their duties, job requirements alone were insufficient to explain the need for a totally separate system of exercise. After all, many more men than women served in the same rear-echelon support roles that the WAC was meant to take on. More than 1.7 million men served in the Army Service Forces at the ASF's peak strength.¹⁷⁰ Adding to this the number of men in the Army Ground and Army Air Forces serving in support roles with a marginal likelihood, at best, of seeing combat, takes the total above one-third of the Army's total strength in World War II. Yet no similarly duty-specific system emerged for this population. Instead, the Army's physical culture treated every man as a potential combatant, and so officially maintained a single system of exercise that was historically centered on the infantryman.

A better explanation for the existence of an alternate physical culture for women comes from historian Leisa Meyer. In her book *Creating GI Jane*, Meyer argues that the creation of the

¹⁶⁷ The Military Training Division test about which Culp and others complained was a four-event test, using the dip, sit-up, and wing-lift exercises from the WAC strength progressions, plus a squat-thrust event. For a "Good" rating, a woman of 50 had to do 3-8 dips in a minute, 28-48 sit-ups in a minute, 69-85 wing-lifts in a minute, and 15-18 squat thrusts in 30 seconds. Standards for younger women were higher. *Ibid.*, 664-65.

¹⁶⁸ *Ibid.*, 666.

¹⁶⁹ *Ibid.*

¹⁷⁰ Director of the Service, Supply, and Procurement Division, *Logistics in World War II: Final Report of the Army Service Forces* (Washington, D.C.: Center of Military History, 1993 [1948]), 29.

WAAC crystallized public fears about undermining the “established sex/gender system.”¹⁷¹ Difficulties in constructing the new category of “female soldier” in American society provoked grave concerns about military service depriving women of their femininity, turning them into victims, or encouraging sexual deviance. These anxieties manifested in a slander campaign against the WAC spread by word of mouth and the mainstream press in 1943 and 1944.¹⁷² Meyer argues that the WAC’s leadership, and especially Colonel Hobby, developed a strategy of attempting to comprehensively control the construction of the “female soldier” in order to safeguard both the organization and individual women. Respectability and minimization of fears over sexual, gender, race, or class hierarchy subversion were central narrative elements of that strategy.¹⁷³ The WAC’s physical culture and the internal disagreements over its systemization, especially discontent over Niles’ emphasis on strength-building and strenuous work, support Meyer’s conclusions. Physical training was meant to literally sculpt female soldiers in line with a desired model—respectable, capable, and feminine. Stressing individual ownership and meeting the individual woman’s needs elided concerns about the organization forcibly reshaping women along undesirable lines. Underscoring training for desk work reassured audiences that women would not be masculinized in preparation for combat. Even Hobby’s resistance to strenuous exercise and testing—“Are they trying to make Amazons of our women?”—reflected a concern with keeping the female soldier feminine.¹⁷⁴

Simply in its existence, the separate WAC physical culture and its associated training system revealed the degree to which the wider Army’s physical culture was gendered. Building

¹⁷¹ Leisa D. Meyer, *Creating GI Jane: Sexuality and Power in the Women's Army Corps During World War II* (New York: Columbia University Press, 1996), 2.

¹⁷² *Ibid.*, 34-35.

¹⁷³ *Ibid.*, 8.

¹⁷⁴ Colonel Hobby's quote in Treadwell, *The Women's Army Corps*, 665.

men had been a central element in the discourse around systematic physical training in the Army since the earliest advocates and cultural producers began beating their drums. Much of the impetus for physical training had emerged from fears about the ability of modern man to meet the evolving demands of the modern battlefield. Early advocates framed many of the expected benefits of systematic physical training in terms of improving American society by way of improving men's bodies, minds, and characters.¹⁷⁵ Thus, when women's entrance in the military posed questions about definitions of fitness, the means of pursuing it, and the ends toward which minds and bodies should be sculpted, the answers required a separate physical culture.

Such a response highlights one of this work's central themes, which is that much more was always at stake in physical training than simply maximizing the physical capacity of individual bodies. In this case, physical training helped reinforce gender hierarchies and define the idea of a "female soldier."¹⁷⁶ The gendered nature of the Army's physical culture in 1942 has ramifications today. Since women entered the Army, ideas about fitness and exercise were framed in terms of what men and women could or should do, not what soldiers could or should do. This mode of thinking buttresses perceptions of women as second-class or less-capable soldiers. Such perceptions are an obstacle to the integration of women into combat arms roles. Though the Army's physical culture has propped up this obstacle since 1942, the culture's present movement toward strictly duty-defined fitness standards may be a powerful means of reducing that obstacle's stature in the future.

¹⁷⁵ According to Christina Jarvis, American institutions shaped male bodies to "re-masculinize" the nation during WWII and to produce a "powerful male 'body politic'" to portray the United States' power and status. Improving American manhood by way of martial physical training thus remained very relevant in the 1940s. Jarvis, *The Male Body at War: American Masculinity During World War II*, 4-5, 65.

¹⁷⁶ This finding harmonizes with similar conclusions drawn by historian Wanda Wakefield about the role of sport in the Army during WWII. She argues that the Army's sporting culture created a hierarchy in which the "strongest and most courageous" athletes were valorized and those uninterested or less talented in athletics were disadvantaged. See Wakefield, *Playing to Win: Sports and the American Military, 1898-1945*, 110.

Beyond questions about the place of women, the Army's physical culture changed during World War II in significant ways. However, even that significant change was characterized more by steady evolution than sudden revolution, unlike developments between 1917 and 1920. Many changes aligned with existing trends, or at least had precedents in earlier periods. For instance, definitions of fitness became more oriented on combat efficiency. Likewise, the system of exercises created to develop that fitness became more combat-oriented. The Army's physical culture moved in a similar direction during World War I under the guidance of Raycroft and his CTCA team. Sport's contentious place and value in the Army's physical culture also followed a familiar trajectory toward a more formal, entrenched role in developing "total fitness," if not physical fitness. However, some irony exists in the fact that parties responsible first and foremost for athletics, such as Colonel Bank of the SSD's Athletic and Recreation Branch, assumed control of systematic training when athletics had once been considered an adjunct to, and possible distraction from, physical training in Koehler's original formulation. Still, many of the basic concepts that had framed sport's value in those early days continued to do so in the 1940s: maximum participation, emphasis on the average many rather than the elite few, and development of non-physical characteristics and qualities.

A familiar sense of crisis at the intersection between perceived masculine decline and growing combat demands continued informing the way the physical culture's producers viewed their challenge. Bank's judgment that World War II-era recruits were "not physically fit" and that they manifested a "shocking" lack of strength, coordination, agility, and endurance echoed 19th century warnings about masculine decline in American and European societies.¹⁷⁷ However,

¹⁷⁷ Bank, "The Army Physical Conditioning Program," 196.

this time Bank and others like him read revelations about the high rates of rejection in both world wars' drafts as validations of such concerns. A familiar sense of crisis produced a familiar mission—to rapidly bring vast classes of low-quality recruits and conscripts up to a standard of fitness sufficient for competition against veteran opponents in mechanized combat in a conflict approaching absolute war, even if relatively few soldiers would engage in combat.

More significant change came in the form of an increasingly scientific approach to defining, building, and measuring physical fitness. Studies conducted by McCloy, Bank, and their team leveraged empirical research to produce a precise definition of physical fitness based on five purely physiological factors: freedom from disease, strength, endurance, agility, and coordination.¹⁷⁸ This culture's producers reoriented physical training to "impart the utmost physiological benefit", largely omitting immeasurable qualities such as general health, self-reliance, and courage.¹⁷⁹ Cultivation of such qualities did not completely vanish from the list of systematic training's promised outcomes, but it was a task mostly left to sport. As in World War I, outsiders drove this change. Uniformed officers owned physical training policy to a much greater degree than they did in World War I. However, some like Bank were just called to temporary service and the people most responsible for crafting the new training system were civilian experts. Men like Charles McCloy brought the latest methods and ideas in civilian physical education to bear on the problem of military fitness as they understood it and a reformulation of the Army's official physical culture resulted.

Ultimately, cultural change during World War II resembled the type and pace of change observed during World War I, though the relative magnitude of change from the respective pre-war cultures was smaller. The next chapter examines the degree to which post-war cultural

¹⁷⁸ *War Department Pamphlet No. 21-9: Physical Conditioning*, 2-5.

¹⁷⁹ *Ibid.*, 15.

reversion would prove consistent too, along with probing the degree to which the Army's physical culture adapted to expectations of war in a nuclear world.

Chapter 6: Hard Bodies for a Cold War: Conditioning and Prehabilitation, 1945-1958

Sixty-five men with a stake or interest in physical training converged on Georgia's Fort Benning in April 1958 to evaluate the state of the Army's physical culture and discuss its future. Ranging in rank from Second Lieutenant to Colonel, most conferees represented Army service schools, field units, and the military medical community. Additional notables included Lieutenant Colonel Frank Kobes, West Point's Director of Physical Education, and a civilian contingent that included, among others, Dr. G. Ott Romney from the newly formed President's Council on Youth Fitness, Dr. Ray Duncan from the American Association for Health, Physical Education, and Recreation.¹

Such a gathering was historic and unprecedented in the Army's seven-decade-long history of systematic physical training. Brigadier General Stanley Larsen, the United States Army Infantry School's (USAIS) assistant commandant, framed the convocation's purpose and objectives in a short welcoming statement. He told those gathered that he and others at the school were "very much disturbed" by the idea "apparent in countless public statements, articles in the press, and occasionally through some official action" that the ground soldier was "obsolete."² Larsen rejected the notion that "we may push a button and some wonderful machine will win a war for us." Instead, he argued that regardless of the type of weapons possessed or their destructive power, the "final decision still rests with the ground soldier."³ Problematically, however, evidence seemed to suggest that fitness among the American populace was on the decline. The "era of exertion and hardship" of America's forefathers and given way, Larsen alleged, to "an age of ease and comfort" enabled by technology and consumerism.⁴ Larsen thus

¹ *Physical Fitness Seminar Report* (Fort Benning: United States Army Infantry School, 1958), 38-40.

² *Ibid.*, 4.

³ *Ibid.*

⁴ *Ibid.*

charged the conferees with finding ways to improve the soldier to match improvements in technology and organization, and to reverse the perceived deterioration of the Army's and possibly the nation's manpower.

In his articulation of the problem, Larsen called upon narratives that recurred often in the history of the Army's physical culture stretching back to the inception of systematic physical training. Larsen asserted the continuing preeminence of the individual soldier in the face of new technologies that seemingly rendered the soldier insignificant. He argued that scientific study and systematic training could improve the Army's human materiel to match and complement its inanimate implements of war. He found a disturbing intersection between these battlefield demands and a declining state of fitness, toughness, and ruggedness among the nation's potential soldiery.

As with previous discussions of physical fitness, a specific historical context informed Larsen's return to familiar narratives in 1958. The Army's search for relevance on the imagined battlefield of the future formed one major component of that context. This search precipitated soul-searching over organization, doctrine, and tactics throughout the force and culminated in the adoption of a new structure for infantry and airborne divisions, dubbed the pentomic concept, in the mid-1950s. New battlefield demands suggested the need for a new type of soldier and the need for physical training to sculpt that soldier, as had also happened in the late 19th century. Simultaneously, a new wave of concern crested in American culture over the fitness of the nation's youth. First, the Army's performance early in the Korean War and narratives about disappointing American prisoner of war behavior later in the war seemingly revealed inadequacies among the soldiery. Soon after, the 1955 Kraus-Weber report seemingly revealed dire inadequacies among American youth as a whole.

As had the earliest advocates of physical conditioning, the dominant producers of the Army's physical culture advanced systematic training as a solution to perceived problems and challenges, but they modified the existing culture to fit their contemporary context. Physical culture producers generally maintained the culture's evolutionary trajectory as set in 1942, despite more revolutionary technological, organizational, and doctrinal change initiated by the Army in the mid-1950s.⁵ For instance, the culture continued tilting toward emphasis on individual over unit fitness. Familiar tensions also persisted in areas such as the place of sport, the definition of fitness, the inclusion of explicit combat skills in physical training programs, and the need for centralized specialist training. In the midst of cultural change, responsibility for training, doctrine, and policy within the Army frequently changed hands. Tracing those transfers of ownership matters because control meant power to influence, even dictate, aspects of the Army's official physical culture to suit the needs and fit the perspectives of the owning parties. Finally, the Army remained committed to prehabilitation, but the character of prehabilitation projects changed over time. Concerns about the decline of American fitness in a general sense informed the Army physical culture's evolution, and they kept the attention of military and political leaders on the bodies of the nation's youth. Were those bodies strong enough to win the Cold War? This chapter explores change between 1945 and 1958 in the Army's official physical culture, in the ownership of the policies that shaped that official culture, and in the character of prehabilitation projects.

Perceiving change over time in the Army's official physical culture during this period requires an understanding of the broader military and political context. Having just concluded

⁵ For an overview of some of those changes, see Brian McAllister Linn, *Elvis's Army: Cold War GIs and the Atomic Battlefield* (Cambridge: Harvard University Press, 2016), 2-4, 84-85, 130-31.

World War II with new wonder weapons capable of destroying whole cities, many Americans in the government and public began doubting the need for maintaining large conventional forces. Nuclear bombs seemed to limit the Army's utility in war, or even as a tool of national policy.⁶ The size of the ground forces contracted accordingly from a wartime high of approximately eight-million to 591,000 in 1950. Naturally, most senior Army leaders disagreed. Convinced that ground forces remained relevant, Army doctrine writers retained through the 1950s an emphasis on maneuver, decisive engagements, destruction of enemy forces, and the offense in general.⁷ Selling the Army's relevance to lawmakers and the public and staking out claims to resources in fierce inter-service, bureaucratic competition largely defined the Army's history in the 1950s. Eventually these activities involved organizational and doctrinal changes aimed at restructuring ground forces around nuclear weapons. Claims of significance also tended to cite the soldier's centrality in warfare. Good soldiers were fit soldiers according to after action reviews from World War II and anecdotal recollections alike.⁸ Although unit physical training tended to become less rigorous between 1945 and 1950, Army authorities at least continued paying lip service to the necessity of conditioning soldiers physically for combat.

Into this environment came the 1946 edition of *Field Manual (FM) 21-20: Physical Training*, assembled under the direction of the Office of the Surgeon General. Superseding the 1941 manual of the same title, as well as the wartime *Training Circular (TC) 87* and *War Department Pamphlet No. (WD Pam.) 21-9*, the new *FM 21-20* elucidated the Army's official physical culture at the dawn of the Cold War era. The new edition of *FM 21-20* was an odd

⁶ Ingo Trauschweizer, *The Cold War U.S. Army: Building Deterrence for Limited War* (Lawrence: University Press of Kansas, 2008), 18-19.

⁷ *Ibid.*, 19, 22.

⁸ Whitfield B. East, *A Historical Review and Analysis of Army Physical Readiness Training and Assessment* (Ft. Leavenworth: Combat Studies Institute Press, 2013), 102-04; for one anecdotal example of many, see Charles B. MacDonald, "The Qualities of a Soldier," *Army Information Digest* 5, no. 12 (1950): 8.

document in several regards. On one hand, the majority of the manual recapitulated the work of Charles McCloy, Theodore Bank, and company as presented in *TC 87* and *WD Pam. 21-9*. For instance, the authors of the 1946 manual used the same definition of fitness as a factor of total military fitness and comprised of five components. Likewise, they provided the same rationale for the value of fitness in an age of mechanization.⁹ *FM 21-20* also advanced a training program similar in terms of scope and organization, plus an identical testing regime based on the data collected by Bank's team in 1942. This is not surprising given that Bank, McCloy, and their partners were engaged in crafting the new *FM 21-20* through the end of the war.

On the other hand, *FM 21-20* recommended additional activities that had not been part of physical training doctrine or policy for years. Some, like boxing and hand-to-hand fighting techniques, are understandable in light of past wartime tendencies to incorporate practical close combat skills into physical training. The reappearance of tumbling is more puzzling. Cartwheeling and back somersaults last appeared in 1928's *Training Regulations 115-5*. Even then they were a relic of the earlier Koehler-culture. Gymnastics' temporary return illuminates the enduring influence of the Army's original systematic training culture and of West Point's physical education department. The return may also be indicative of difficulties in forming coherent policies when responsibility for those policies did not consistently belong to a body of subject matter experts. Bank, McCloy, and company had crafted a training system during the war based on their research. However, responsibility for the new *FM 21-20* formally belonged to the Office of the Surgeon General, which had not been involved with physical training during the

⁹ War Department, *Field Manual 21-20: Physical Training* (Washington: U.S. Government Printing Office, 1946), 1-4; War Department, *War Department Pamphlet No. 21-9: Physical Conditioning* (Washington: Government Printing Office, 1944), 1-5.

war and did not utilize specialized physical educators.¹⁰ The result was an amalgamation of old and new activities.

Despite these additional activities, the actual training system contained in *FM 21-20* was essentially the same as the system Bank and McCloy created. In fact, none of the additional practices received time allotments in either the recommended 12-week introductory schedule or the maintenance program.¹¹ Drill Number One, known as the “Army Dozen,” and its lesser known brother, Drill Number Two, remained the foundational set of conditioning exercises. Guerrilla exercises, grass drills, rifle and log exercises, and running added interest-sustaining alternatives and supplements. Likewise, *FM 21-20* followed the gospel of overload and progression. McCloy, Bank, and their team introduced these concepts from the world of physical education in *TC 87*. The former referred to the need for muscles and bodily systems to work near their limits in order to grow. In other words, strenuous exercise had to continue “until it hurts.”¹² Programs obeying to the latter principle intensified work over time, beginning from a moderate foundation. This system recommended structuring programs over three phases: toughening for 1-2 weeks, slow improvement for 6-10 weeks, and sustaining or maintaining beyond that.¹³

The definition of fitness advanced in 1946’s *FM 21-20* adhered strictly to the WWII model and, unlike some of the recommended methods, showed no signs of reverting to the Koehler-culture’s model. In the WWII model, physical fitness included five specific, measurable physiological components: freedom from disease or anatomical defect, strength, endurance

¹⁰ Annex F – Training Literature and Training Aids, p. 1, enclosed in Physical Training Research and Development Studies – A Study of the Adequacy of the Present Army Physical Conditioning Program (Adequacy Study), October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; Records of the United States Continental Army Command, Record Group 546 (RG 546), National Archives Building, College Park, MD (NACP).

¹¹ *Field Manual 21-20: Physical Training* (1946), 36-38, 43.

¹² *War Department Pamphlet No. 21-9: Physical Conditioning*, 61.

¹³ *Field Manual 21-20: Physical Training* (1946), 33-34.

(muscular and cardio-respiratory), agility, and coordination.¹⁴ Such a narrow and explicit focus on these factors differed significantly from the abstract qualities and traits such as smartness, activity, precision, self-respect, neatness, and grace sought by earlier physical cultures. According to the 1946 manual, outcomes such as development of basic military skills, self-confidence, and a will to win remained likely and valuable by-products of physical training, but not goals in and of themselves.¹⁵ Where earlier cultures had emphasized unit discipline as a product of physical training, this culture concentrated on the physiological components of fitness belonging to the individual soldier. One place where this concentration on the individual soldier is most explicit and visible is the manual's rejection of "extreme formalism" in training, which produced discipline. Instead of discipline, the culture promulgated in the 1946 *FM 21-20* prioritized "the utmost physiological benefit."¹⁶

Stagnation in the Army's physical culture set in between 1946 and 1950. This mostly resulted from the Office of the Surgeon General's ownership of physical training policy and doctrine through 1950. Without a body of specialists and experts focused on physical training, the Office of the Surgeon General was unlikely to innovate new practices or integrate developments from the world of civilian physical education. The 1950 revision of *FM 21-20* demonstrates stagnation. That manual changed practically nothing from its 1946 predecessor except for removing hand-to-hand fighting techniques, wrestling, and tumbling, and adding a chapter on "mass games."¹⁷ The addition of mass games is also indicative of a general trend at the unit level between 1945 and 1950 toward preferring recreational athletics over strenuous

¹⁴ Ibid., 2-3.

¹⁵ Ibid., 4.

¹⁶ Ibid., 12.

¹⁷ For a description of "mass games," which were differentiated from organized athletics by their ease of organization and minimal equipment requirements, see Department of the Army, *Field Manual 21-20: Physical Training* (Washington: U.S. Government Printing Office, 1950), 227.

conditioning. As one later analyst put it, the “recreational tail” was “allowed to wag the physical conditioning dog.”¹⁸ A general postwar malaise as units hemorrhaged many of their best veterans and shifted to a peacetime footing was at least partly responsible for this trend. However, it was also partly the result of deliberate policy decisions that originated in an August 1944 conference called to develop plans for an Army athletic program in support of the post-war demobilization period. Representatives of the Special Services Division’s Athletic Branch and several civilian sports authorities recommended that programs be put into place that were chiefly designed to help commanders maintain a “high state of morale.” Furthermore, they recommended that “purely military instruction” be reduced to the bare minimum necessary and that as much of the training day as possible be devoted to “comprehensive educational, athletic and recreational programs.”¹⁹ This preference for recreational athletics over conditioning persisted throughout the Army until the Korean War.²⁰

Ironically, a central school existed at the time that could have helped counteract stagnation: The Physical Training School (PTS). The PTS and its successors eventually took the lead in guiding the evolution of the Army’s official physical culture, but its influence up to 1950 was minimal. Originally located in Lexington, Virginia, the PTS had prepared Special Service personnel to organize athletic activities and implement physical training during the war. Between January and February of 1946, the school moved along with its fourteen faculty members to

¹⁸ Memorandum, Subject: A Study of the Adequacy of the Present Army Physical Conditioning Program, p. 3, 6 October 1955, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

¹⁹ Quoted in *Staff Study: Institute of Physical Fitness* (Ft. Benning: United States Army, 1970), Appendix I to Annex B - 1944 Conference on Physical Training.

²⁰ This corresponds well with a general “postwar lethargy” in the 8th Army between 1945 and 1949 that historian Thomas Hanson found in his study. See Thomas E. Hanson, *Combat Ready? The Eighth U.S. Army on the Eve of the Korean War* (College Station: Texas A&M University Press, 2010), 14-15.

Camp Lee, Virginia and under the aegis of the Quartermaster School.²¹ At this point, the school's mission was twofold. First, it trained nearly 1,200 officers annually as "Physical Training and Athletic Directors" capable of "organizing and administering efficient programs" in their units with a concentration on organized athletics similar to the Special Service officers of World War II. Second, it trained an equally sized pool of enlisted men as "instructors and assistants" to Physical Training and Athletic Director officers.²² The PTS's leadership conceived of their mission narrowly. They did not provide input on physical training doctrine or policy revisions, nor did they conduct research. Between 1946 and 1952, the PTS concentrated exclusively on training Athletic Officers and their assistants.

The school's mission began broadening with the Army Ground Forces (AGF) assumption of responsibility for the PTS from the Army Service Force in September 1946. Shortly thereafter, AGF directed another move because winterizing Camp Lee's facilities proved prohibitively expensive. AGF briefly considered Fort Benning for the school's new home but settled on Fort Bragg because better facilities were available there.²³ Along with the move, AGF reoriented the PTS on training and conditioning for combat over recreation. Additionally, the AGF expanded the PTS's mission by assigning it responsibility for collecting and maintaining data pertaining to the "methods of unit physical training and conditioning," for preparing material on conditioning for Mobilization Training Programs, and for preparing students specifically to supervise unit

²¹ Colonel S. M. Prouty to the Quartermaster General, Subject: Establishment of Course for Directors of Physical Training and Athletics at the Quartermaster School, 30 November 1945; School Organization – Physical Training School, 1946-1953; General Orders and Organization Planning Files (GOOPF), 09/05/1946 – 07/28/1966; Fort Bragg, North Carolina/Physical Training School (PTS), box 1; United States Continental Army Command, RG 546, NACP.

²² Table of Distribution, Physical Training School; GOOPF, 09/05/1946 – 07/28/1966; PTS, box 1; United States Continental Army Command, RG 546, NACP.

²³ General Jacob L. Devers to Major General Thomas B. Larkin, 20 September 1947; Physical Training and Athletic Director's Course, Schools Division – 1947; Army Field Forces HQs, General Staff, G-3 Section, Training Group, Schools Division, Classified Decimal File, 1942-48, box 150; HQ Army Ground Forces, RG 337, NACP.

conditioning programs.²⁴ The school had yet to gain control of physical training doctrine and policy, which the Office of the Surgeon General still owned. However, AGF's changes positioned the PTS to potentially become the Army's repository of specialized knowledge on the subject of physical training and conditioning and thus the Army's chief physical culture producer.

A catalyst for change in some aspects of the Army's stagnating physical culture arrived with intervention on the Korean peninsula. Combat in Korea's rugged terrain demanded that soldiers be well conditioned.²⁵ In this environment, an awareness manifested among combat commanders and top Army leaders of a gap between battle demands and the American's soldier's physical capability. American setbacks on the battlefield, discipline problems throughout the force, and prisoner of war behavior interpreted as inappropriate came to be attributed inside and outside the army to soft soldiers drawn from unworthy youth.²⁶ Perhaps the most disturbing reports of all in the ideologically charged Cold War environment concerned American prisoners of war. Numbering more than seven-thousand total, these prisoners suffered a mortality rate of 38%. This far exceeded the rate of prisoner deaths in previous American wars. Furthermore, approximately a third were found to have collaborated with their captors. Few escaped, few resisted, and twenty-one even chose to remain in North Korea after the war.²⁷

²⁴ Ransom to Colonel Hendrix, 29 October 1947; Physical Training and Athletic Director's Course, Schools Division – 1947; Army Field Forces HQs, General Staff, G-3 Section, Training Group, Schools Division, Classified Decimal File, 1942-48, box 150; HQ Army Ground Forces, RG 337, NACP.

²⁵ In one example of many, I Corps' Major General John "Iron Mike" O'Daniel ranked physical conditioning as a top priority alongside maintaining offensive mindedness and discipline in a September 1951 meeting with his subordinate commanders. HQ, I Corps, Corps and Army Unit Commanders Meeting, June 9, 13 June 1952; Folder 3 - I U.S. Corps Commanders Notes, 1951-1953; Box 1 - Correspondence, 1943-1953: North Africa, Italy, Korea; Lt. Gen. John W. O'Daniel Papers; Citadel Museum and Archives, Charleston SC.

²⁶ Linn, 69-72; Shelly McKenzie, *Getting Physical: The Rise of Fitness Culture in America* (Lawrence: University Press of Kansas, 2013), 44.

²⁷ Charles S. Young, *Name, Rank, and Serial Number: Exploiting Korea War POWs at Home and Abroad* (Oxford: Oxford University Press, 2014), 3-5; McKenzie, 44-46.

In trying to rationalize early failures and ugly reports, an explanatory narrative developed among government officials, military leaders, and veterans' organizations that chiefly assigned blame to junior soldiers and leaders at the regimental level and below.²⁸ According to that narrative, the young generation fighting in Korea had been ruined by a high standard of living and pampered into failure. Young soldiers were soft, deficient in grit and ingenuity, and so lacking in character as to be susceptible to "brainwashing."²⁹ This narrative differed slightly among analysts who treated the young generation more fairly and who instead stressed failure to properly train for war.³⁰ But whether America's "soft" youth or poor training were to blame, explanations nearly always involved critiques of physical fitness. This interpretation of the Korean War experience became a hallmark of arguments for the importance of physical training. For instance, when the authors of the 1957 *Field Manual (FM) 21-20: Physical Training* urged units to develop "vigorous and continuous" training programs, they pointed to the "alarming number of casualties" in Korea that they attributed to "the inability of the U.S. soldiers to physically withstand the rigors of combat over rugged terrain and under unfavorable climatic conditions."³¹ Four decades later, the authors of 1998's *FM 21-20* still referenced American failures in July 1950 as a reason to prepare soldiers for the physical demands of war.³²

Complaints that filtered back to the Infantry School from the front through 1952 suggested that commanders "deplore[d] the physical condition" of men arriving in theater.³³

²⁸ Hanson, 5.

²⁹ McKenzie, 46; on the general political culture of the period characterized by an "excessive preoccupation" with masculinity and a "hard/soft dichotomy," see Kyle A. Cuordileone, "'Politics in an Age of Anxiety': Cold War Political Culture and the Crisis in American Masculinity, 1949-1960," *Journal of American History* 87, no. 2 (2000): 515-45.

³⁰ East, 119.

³¹ Department of the Army, *Field Manual 21-20: Physical Training* (Washington, DC, 1957), 10.

³² *Field Manual 21-20: Physical Fitness Training* (Washington, D.C.: Headquarters, Department of the Army, 1998), iii.

³³ *Infantry Instructors' Conference Report, 16-21 June 1952* (Fort Benning: The Infantry School, 1952), 36.

Furthermore, a study of World War II physical training programs released by the American Association of Health, Physical Education, and Recreation (AAHPER) in 1951 even challenged memories of high-quality training between 1941 and 1945. Zeroing in on a lack of command emphasis, the study's authors found that commanders had offered "much 'lip service'" to the importance of conditioning but little supervision or direction. By and large, company commanders, who were usually inadequately prepared to organize a physical training program, had been "free to carry on whatever activities they desired." The result was a program inferior to the Navy's and Army Air Force's in many ways.³⁴ Once again, wartime experience resurrected concerns about declining national fitness and insufficiently rigorous conditioning practices while turning attention back to combat-oriented physical training. As a result, Army leaders and physical culture producers alike sought explanations for physical failings. Was the physical training program itself inadequate, or was it just improperly implemented?

Publication of the latest edition of *FM 21-20* in November 1950 seems to have fueled dissatisfaction with the program. The new manual, still the Office of the Surgeon General's responsibility, remained virtually unchanged from the 1946 version with two exceptions. First, its authors cut the sections on hand-to-hand fighting and wrestling techniques along with the anomalous tumbling chapter. Second, the 1950 edition included a new chapter on "mass games" such as kick-ball and recommended a "prominent place" for them in any training program.³⁵ These games were different from organized athletics in that they could be played with large numbers, required no advance organization, and needed very little equipment. Few required

³⁴ Annex G – Command Emphasis, p. 3, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP. See also *Staff Study: Institute of Physical Fitness*, Appendix II to Annex B.

³⁵ *Field Manual 21-20: Physical Training* (1950), 227.

vigorous activity either. The manual perfectly captured major trends in the Army's physical culture between 1945 and 1950: stagnation, a growing preference for recreational activities over conditioning, and the declining significance of combat-oriented training. Its release four months after American forces entered combat in Korea helped throw questions about the adequacy of the Army's physical training program into sharp relief.

In the near term, the Army leadership responded by doubling-down on their support for the existing physical training system and stressing to commanders the importance of conditioning in the Army's physical culture. This move is most visible in the issuance of the highly directive *Training Circular No. 27 (TC 27)* in August 1951. The circular addressed concerns that *FM 21-20* might not provide "adequate guidance and direction" for properly structuring a three-phase conditioning program.³⁶ Issued over Army Chief of Staff J. Lawton Collins's signature, *TC 27* enunciated the Army's physical training mission, policy, doctrine, and tenets of its official culture—but it did not change anything. *TC 27* declared conditioning the key task in the service's "physical training mission." The circular's authors identified three mission objectives. First, to "indoctrinate all personnel regardless of branch of service or present duty assignment" with the need for and importance of a "high standard of physical fitness and good posture." Second, development of the "highest possible degree of physical fitness" in each individual soldier to adequately prepare him for his duties. Finally, to produce signal outcomes of a "well-conducted physical training program" such as self-confidence and the will to win, but especially the five physiological components of physical fitness.³⁷ Ultimately, the circular

³⁶ Annex F – Training Literature and Training Aids, p. 1, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

³⁷ Training Circular No. 27, Physical Training, 31 August 1951, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

reiterated commanders' responsibility for physical training, focused attention on systematic conditioning, and mandated adherence to existing policy.³⁸

Beyond the immediate reaction, Army Field Forces also began evaluating the physical training program by initiating studies based on complaints from the field.³⁹ The Office of the Chief of Army Field Forces (OCAFF) turned to its specialists at Fort Bragg's Physical Training School (PTS), who had already undertaken preliminary research, to conduct the study in April 1952.⁴⁰ Most of the complaints studied concerned the physical fitness test as prescribed in *FM 21-20*. Commanders in the field provided numerous criticisms: scoring the test involved too much "subjective judgment," the test did not measure "combat related physical skills," men lacked motivation to complete multiple repetitions in some events, and the scoring table did not "accurately indicate physical capabilities and stamina" of personnel.⁴¹ Several of these complaints reflected long-standing tensions within the Army's physical culture. For example, what should be the correct balance between developing combat skills and foundational physical, mental, and character qualities in a training system? On this specific issue, the complaints and study exposed the continuation of a historical divide between commanders in the field and physical training experts. Since the 1880s, commanders had tended to favor activities with

³⁸ Specifically, *TC 27* called attention to *FM 21-20's* chapters 1-4 and 16. These chapters covered the definition of fitness, program planning, the set conditioning drills, and posture training. Exceptions to mandatory use of set drills with supplementary exercises such as guerrilla exercises were given to units finished with the unit training phase, those in post-cycle training, in stand-by status, overseas commands, and those units not engaged in field exercises of maneuvers who "have attained a high degree of individual physical fitness" already. Those units could enter a sustaining phase that emphasized "highly competitive intracompany and intercompany athletics" so long as a "short intense warm-up" using one of the set drills preceded each period. *Ibid.*

³⁹ Army Ground Forces (AGF), referenced earlier, became the Army Field Forces in 1948.

⁴⁰ Annex A – Authorization for Research Project, enclosed in Staff Study – The Army Physical Fitness Testing Program, August 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁴¹ Memorandum, The Army Physical Fitness Testing Program, p. 1, enclosed in Staff Study – The Army Physical Fitness Testing Program, August 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

obvious combat relevance. The latter typically preferred activities geared more toward enhancing specific physiological characteristics in accordance with their concept of fitness.

Conduct of the study involved a large amount of data processing. Between 8,000 and 10,000 cards representing individual performances on conditioning tests required tabulation.⁴² Interpreting and analyzing the information contained in the resulting mountain of IBM punch cards represented the largest data-driven analysis of fitness practices in the Army's history. In addition to the PTS's new responsibility for developing physical training policy and doctrine, this research project catalyzed an expansion of the school's purpose and capabilities. Devers and his AGF staff had started recasting the PTS as the hub of the Army's official physical culture in 1946. The testing study furthered that reformulation. However, such an outcome was not initially intended as evidenced by OCAFF's refusal to authorize new funds and personnel for the school.⁴³ Conditions began changing when complications made completion of the study by its 31 August 1952 deadline impossible. Initial screening of cards identified discrepancies, which required units to administer additional rounds of testing and data reporting. Accepted and corrected cards had to be punched on IBM cards that were in turn outsourced for tabulation and

⁴² Different numbers are given in various documents. For the 8,000-range estimate, see Tab D, Annex A – Total Number of Cases Used to Determine Tables, enclosed in Staff Study – The Army Physical Fitness Testing Program, August 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP. The 10,000-result upper estimate comes from Memorandum – Projects Deemed Necessary by the Physical Training Department in Order to Fulfill the Mission of the Department; Research & Development Administrative Files – 1954; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP. A wide variety of units produced these cards. OCAFF directed each training center and training division to test four companies each three times. The first two tests, conducted in the second and fourteenth weeks of training, used the existing assessment test. The third used a new “Physical Achievement Test” designed to measure skills and conditioning in events more closely aligned with combat requirements, such as a five-second rope climb and a 150-yard man carry. Additional data came from PTS classes, the Airborne School, Ranger Training Centers, and various units.

⁴³ Colonel T. J. Smith to the Commandant, Physical Training School Fort Bragg, North Carolina, Subject: Research in Physical Fitness Tests, 29 April 1952, enclosed in Staff Study – The Army Physical Fitness Testing Program, August 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

analysis.⁴⁴ The sheer amount of data processing required and the expertise needed to do it correctly eventually justified the creation of a short-lived Research and Analysis Department at the school in the summer of 1953.⁴⁵

Disruption arrived in August 1953. Less than a month after the U.S. signed an armistice in Korea, the Army decided to shutter the Physical Training School and reactivate it in a severely truncated form under the Ground General School at Fort Riley on 1 January 1954.⁴⁶ A PTS staff study had narrowly averted such a fate in 1949 by arguing that the school had too much value as a professional physical training nucleus, as a crucial interface with the civilian physical education community, and as a more economical alternative to decentralized training.⁴⁷ Similar arguments bolstered by concerns over the impact on ongoing projects such as the testing study, *FM 21-20* revisions, and a training aid film failed to buy the PTS even a few extra months of life in 1953.⁴⁸ Officially, a desire to seek “economy of manpower and funds” drove the decision to

⁴⁴ Annex A – History of Study, enclosed in Staff Study – The Army Physical Fitness Testing Program, August 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁴⁵ Captain Harold S. Tavzel to Commanding General, Third Army, 21 July 1953; School Organization – Physical Training School, 1946-53; General Orders and Organization Planning Files, 09/05/1946 – 07/28/1966; Fort Bragg, North Carolina/Physical Training School, box 1; United States Continental Army Command, RG 546, NACP.

⁴⁶ The Ground General School was organized in 1946 and outlived the PTS by only two years, closing in 1955. The school’s mission included basic training for all officers, running an officer candidate school, and providing some instruction for intelligence officers. At the General School, the new Physical Training Department shrank to a mere two training officers, a single civilian physical education instructor, and two enlisted mathematical-statistical research assistants. Lt. Col. L. E. Barber to Commanding General, Fifth Army, Subject: Establishment of Physical Training Department at the Army General School, 28 October 1953; School Organization – Physical Training School, 1946-53; General Orders and Organization Planning Files, 09/05/1946 – 07/28/1966; Fort Bragg, North Carolina/Physical Training School, box 1; United States Continental Army Command, RG 546, NACP.

⁴⁷ Lt. Col. Earl F. Klinck, Study for Continuation of Physical Training and Athletic Directors Course, undated; School Organization – Physical Training School, 1946-53; General Orders and Organization Planning Files, 09/05/1946 – 07/28/1966; Fort Bragg, North Carolina/Physical Training School, box 1; United States Continental Army Command, RG 546, NACP.

⁴⁸ Staff Studies of Problems 1-4, 31 August 1953; School Organization – Physical Training School, 1946-53; General Orders and Organization Planning Files, 09/05/1946 – 07/28/1966; Fort Bragg, North Carolina/Physical Training School, box 1; United States Continental Army Command, RG 546, NACP.

close the school.⁴⁹ That the school's forecasted budget was a mere \$300,000 for 1954 and its leadership offered to slash that in half speaks to the Army's austerity under the Eisenhower administration.⁵⁰ Two years later analysts studying the physical training program suggested a cultural explanation as well. According to them, the move signaled a return to "recreational type" activities reminiscent of trends after both world wars but at odds with the school's intensifying systematic training association and its focus on conditioning.⁵¹

Closure of the PTS had the potential to substantially alter the Army physical culture's evolution. Perhaps the greatest potential impact followed from the erasure of institutional knowledge and expertise built since 1942. During World War II, the team led by Bank, McCloy, and Esslinger had reengineered physical training to be grounded in scientific, empirical study and to produce specific, measurable outcomes. After the 1946-1950 doldrums period, the PTS staff had begun reviving this approach. Their methods when studying tests and in revising training policy make this apparent. When the PTS officially closed on 1 January 1954 these projects were still ongoing and so transferred to the new General School section.⁵² However, none of the experts transferred with their projects except for a single civilian training instructor,

⁴⁹ Circular No. 72, Physical Training Proficiency, 19 August 1953; Research & Development Administration Files – 1954; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁵⁰ Captain Harold S. Tavzel to Commandant, Physical Training School, Subject: Staff Study—Problem 1, 25 August 1953; School Organization – Physical Training School, 1946-53; General Orders and Organization Planning Files, 09/05/1946 – 07/28/1966; Fort Bragg, North Carolina/Physical Training School, box 1; United States Continental Army Command, RG 546, NACP.

⁵¹ A Study of the Adequacy of the Present Army Physical Conditioning Program, 6 October 1955, enclosed in Adequacy Study, p. 2, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁵² Memorandum – Projects Deemed Necessary by the Physical Training Department in Order to Fulfill the Mission of the Department; Research & Development Administrative Files – 1954; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

Mr. James Dawson.⁵³ Potential for a return to the doldrums without a central body of expertise was real. Similarly, closure of the PTS eliminated the Army's sole mechanism for training and certifying specialists in advocating, planning, and executing physical training in accordance with published doctrine. Without these specialists, efforts to align unit programs with the official Army physical culture and administer them optimally would suffer.

Damage from a loss of expertise was partially averted in the fall of 1954 when the rump General School's Physical Training Department, including Mr. Dawson, once again packed up and moved, this time to the U.S. Army Infantry School (USAIS) at Fort Benning. Infantry branch members had long been among the most vocal advocates of systematic physical training. Infantry officers wrote extensively about physical training in service journals around the turn of the century. An infantry-centric conception of combat demands had tended in most periods to dominate discourse within the Army's physical culture. After WWI, the USAIS had been home to the short-lived Physical and Bayonet Training Course administered by former members of Raycroft's organization. Thus, the seriousness with which the USAIS leadership took its renewed ownership of physical training doctrine and policy is unsurprising. The school delegated responsibility for monitoring and implementing physical training Army-wide to its Combat Conditioning Committee under its Ranger Department. Five functions defined the committee's mission: preparing and delivering training at the USAIS, preparing materials for non-resident instruction, preparing staff studies for the Army, authoring Department of the Army physical training publications, and conducting continual evaluation, research, and development of the

⁵³ James Dawson became the sole human continuity between the PTS and its later reincarnation at the US Army Infantry School, working consecutively at Forts Bragg, Riley, and Benning. Lt. Col. L. E. Barber to Commandant, Army General School, Subject: Establishment of Physical Training Department at the Army General School, 28 October 1953; School Organization – Physical Training School, 1946-53; General Orders and Organization Planning Files, 09/05/1946 – 07/28/1966; Fort Bragg, North Carolina/Physical Training School, box 1; United States Continental Army Command, RG 546, NACP.

physical training program.⁵⁴ Though the committee lacked the PTS's robust staffing, its resources were superior to the General School department's and it enjoyed the active support of the influential USAIS. Because of the infantry's understanding of combat and its relationship to physical fitness, USAIS's ownership of policy and doctrine also helped tilt the Army's physical culture away from recreation and back toward conditioning and combat applications.

Transfer of personnel and responsibility to the USAIS coincided with a convergence of concern throughout the Army and in wider American society over the fitness of the nation's soldiers and citizens. In the summer of 1955, the infamous Kraus-Weber report reached President Dwight Eisenhower's attention courtesy of John Kelly, the former chairman of the WWII Committee on Physical Fitness who worried that America was becoming a "nation of weaklings."⁵⁵ More will be said of the Kraus-Weber report later. However, its central claim was that American youth compared very unfavorably with their European peers in measures of strength and flexibility. Eisenhower's concern spurred several government and private initiatives to address the nation's apparently flagging fitness levels. Echoing the president's alarm, incoming Army Chief of Staff General Matthew Ridgway expressed his suspicion in August 1955 that the Army was "not conducting a realistic physical conditioning program" and that insufficient emphasis was being placed on "soldierly posture and correct dietary habits."⁵⁶ Ridgway therefore directed the Continental Army Command (CONARC) to study the adequacy of the existing physical training program and its execution in the field. CONARC in turn assigned responsibility for the study to the Infantry School. Simultaneously, CONARC also

⁵⁴ *Physical Fitness Seminar Report*, 25.

⁵⁵ John B. Kelly, "Are We Becoming a Nation of Weaklings?," *American Magazine* 161, March (1956).

⁵⁶ Col. James H. Kellers to Commanding General, Continental Army Command, Subject: Physical Conditioning Program, 13 August 1955, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

directed its six Army Commands to conduct similar studies and forward their results to the USAIS.⁵⁷ Issued in October 1955 along with the long-delayed physical fitness test report, the resulting study was a sweeping reassessment of the Army's physical culture.

In the end, USAIS researchers returned a full-throated affirmation of the Army's official physical culture as it existed in 1955. With the exception of "certain modifications," researchers determined that the existing physical training program and physical fitness test were "adequate for the attainment of proper physical condition."⁵⁸ Findings related in the study's final report reinforced central tenets of the existing culture. Conditioning came before all other activities, for instance. Measurable physiological outcomes were valued most while traits such as self-confidence and discipline stayed preferable byproducts, unlike in the culture's earliest form. Sport remained a crucial part of the culture, but also secondary and supplementary to systematic training. Proper training required specialist instructors versed in the system, or at least competent amateurs able and willing to follow a program set down by experts. Conditioning could not be left up to individuals because expecting them to build and adhere to a rigorous, progressive program was "unrealistic and ineffective."⁵⁹ Instead, conditioning had to be a unit activity under

⁵⁷ Lt. Col. Samuel J. Chilk to Commanding Generals, First, Second, Third, Fourth, Fifth, and Sixth Armies, Subject: Physical Conditioning Program, 29 August 1955, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁵⁸ Those "certain modifications" primarily concerned increasing physical conditioning time allotments in the Specialized Assignment Phase of a soldier's training, adjusting the physical fitness test scoring tables based on new research, updating training literature, revising service school programs to provide more instruction on developing and leading physical training programs, and adopting the new physical achievement test for combat units. The study does not appear to have sought or used quantitative measures of physical demands in combat. Proper physical condition remained an absolute measure of physiological performance capacity, not a relative measure of an individual's ability to function effectively on the battlefield. Headquarters, the Infantry School to Commanding General, Continental Army Command, Subject: Physical Conditioning Program, Conclusions, p. 1, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁵⁹ Annex A – The Physical Training Program, p. 2, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

the direction of trained specialists. Finally, the findings stressed maximizing the individual soldier's physical condition over unit fitness or discipline.⁶⁰ As with the valuation of outcomes, this focus on the individual reflected continuity with programs developed during WWI and WWII, but a break from the original culture that Koehler dominated.

Not all was well with the Army's physical training program, however. The report's authors did not dismiss concerns about Americans' fitness or reports of dissatisfaction from the field. In allocating blame for perceived problems, the USAIS researchers fingered the population making many of the complaints. "The major barrier to the attainment of sound physical condition throughout the Army," they concluded "is the lack of continued command interest."⁶¹ While the authors acknowledged some underlying causes for deteriorating fitness such as a tendency during peace time to "fail to realize the need for a high state of physical fitness" and a "growing national tendency to avoid muscular activity both in our work and recreation," they argued that commanders bore ultimate responsibility.⁶²

USAIS researchers expanded their case against unit commanders in blunt terms throughout the lengthy report. Physical training was a command responsibility according to Army doctrine and policy.⁶³ Yet too often commanders failed to prioritize training, organize it in

⁶⁰ A Study of the Adequacy of the Present Army Physical Conditioning Program, 6 October 1955, pp. 1-5, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁶¹ Headquarters, the Infantry School to Commanding General, Continental Army Command, Subject: Physical Conditioning Program, Conclusions, p. 1, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁶² A Study of the Adequacy of the Present Army Physical Conditioning Program, 6 October 1955, p. 7, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁶³ *Field Manual 21-20: Physical Training*, 3.; Training Circular No. 27, Physical Training, 31 August 1951, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

a productive way, or hold their trainers accountable for proper implementation. As a result, unit programs were often too easy and did not follow the core doctrinal principles of progression and overload. Consistency across a unit program was often problematic. For example, commanders might run a vigorous conditioning program for three months, then almost completely ignore it for the rest of the year.⁶⁴ Competing requirements had a tendency to impinge on training time, which was already inadequate according to the report's authors and remained so according to 60% of officers surveyed in 1958.⁶⁵ Physical training sessions also regularly departed from doctrine. Instructors, whose lesson plans were apparently rarely subject to inspection, tended to improperly arrange activities. For example, they might schedule an hour of guerrilla exercises when ten minutes was the recommended maximum, or spend a whole week doing nothing but Drill One followed by a week on the obstacle course and so forth.⁶⁶ At the level of unit commanders and their staffs, insufficient knowledge and training exacerbated the problem of insufficient command emphasis according to the USAIS researchers. Guidance and planning had to be "based on scientific knowledge" and come from "technically trained leaders," but senior commanders often left physical training completely up to company commanders who often lacked "the proper concept of physical conditioning."⁶⁷ Graduates of the recently shuttered PTS could have offset commanders' unfamiliarity with the program, but researchers found that the

⁶⁴ Annex G – Command Emphasis, p. 2, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁶⁵ *Physical Fitness Seminar Report*, 11.

⁶⁶ Annex G – Command Emphasis, pp. 1-2, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁶⁷ Annex A – The Physical Training Program, pp. 4-5, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

graduates were rarely utilized appropriately.⁶⁸ The quickest fix according to the study's authors was to sell commanders on the physical training program and convince them of its necessity "despite the fact that, like taking medicine, it is somewhat disagreeable."⁶⁹ Unit commanders who insisted "on superior care for the mechanical implements of war" and who knew entering battle with "rusted, dilapidated equipment" would be "suicidal" had to be convinced of the need to place equal emphasis on their human implements of war.⁷⁰

The problem was not so much about buy-in to the need for physical fitness, but that many officers did not buy in to the Army's conditioning program due to skepticism or ignorance. Skepticism arose from what the authors called an "improper" or "inadequate concept of physical conditioning." Many commanders simply did not know the principles underlying an effective program. Others confessed faith in the old alternative to systematic conditioning—the belief that "ordinary tactical training activities" provided sufficient exercise.⁷¹ This latter concept might have seemed especially attractive because commanders faced so many competing demands when building their training calendars, according to the study. Accomplishing two objectives with one event would be appealing. Researchers also found that senior commanders rarely inspected their subordinates' physical training programs. This sent a message that physical training was less important than other competing demands and allowed company commanders to deviate from the

⁶⁸ Annex H – Physical Training Leadership, p. 2, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁶⁹ A Study of the Adequacy of the Present Army Physical Conditioning Program, 6 October 1955, p. 5-6, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁷⁰ Annex A – The Physical Training Program, p. 5, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁷¹ Annex B – Activities Comprising the Physical Training Program, p. 3, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

standardized conditioning program without correction.⁷² On top of all this, existing Army regulations did not require the conduct or documentation of standardized physical fitness tests, so few mechanisms existed to enforce compliance.

Researchers recommended numerous solutions to these problems. The most straightforward was to simply insist on command emphasis from the top down. Several others involved improving training and access to specialist knowledge, such as increasing time spent in advanced courses on teaching officers to develop and supervise conditioning programs. But perhaps the most powerful approach was to force officers to invest *personally* in their own physical fitness. To accomplish this, researchers counseled that raters and indorsing officers should comment on an officer's "physical condition for combat service" when completing his annual evaluation. Such a comment would become part of an officer's permanent record.⁷³ This requirement took effect a year later through a revision of *Army Regulation 623-105*.⁷⁴ Likely as a result of this study, the Army issued *Army Regulations 600-160: Maintenance of Physical Fitness and Detecting and Correcting Physical Abnormalities Among Officers* two months later on Chief of Staff Maxwell Taylor's authority. Although concerned chiefly with "physical or mental abnormality" that might disqualify an officer for "full military duty," the regulation required officers to exercise and commanders to examine their subordinates. Being "physically incapable of performing the duties of his office, rank, grade, or rating" exposed an officer to risk

⁷² Annex G – Command Emphasis, pp. 1-3, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁷³ A Study of the Adequacy of the Present Army Physical Conditioning Program, 6 October 1955, p. 12, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁷⁴ United States Army Infantry School, *Infantry Instructors' Conference Report, 17-21 June 1957* (Fort Benning, 1957), 132.

of separation from the service for physical disability.⁷⁵ Although the regulations stopped short of requiring officers to participate in a systematic conditioning program, they mandated weekly exercise and reemphasized the significance of fitness to individual officers. Officer fitness as a vector for stressing fitness throughout the force echoed turn-of-the-century initiatives from President Theodore Roosevelt and General Franklin Bell, though this time disciplinary measures and regulations took precedence over inspiration and exhortation.

While command emphasis could do much to align unit practices with the Army's official physical culture, researchers argued that trained specialists were also necessary to advise commanders, design unit programs, and inspect organizations for compliance. Thus, closure of the PTS in 1953 received heavy criticism in the 1955 study.⁷⁶ In the short term, the Army could leverage its existing specialist corps certified by the PTS before its closure if units took time to identify them and assign them appropriate additional duties. But this was not a long-term solution. Once again, producers of the Army's physical culture argued that a central school was necessary. USAIS could build cultural continuity and develop doctrine and policy, but the probability of disconnect between policy and practice remained high without certified instructors to implement policy or officers qualified to plan and supervise unit programs.⁷⁷ In lieu of a PTS-style central school, the study's authors offered a compromise in the form of Army Area physical

⁷⁵ Specifically, the regulation required officers to spend one half day per work week, exclusive of Sundays and holidays, in physical exercise. The nature of that exercise was not prescribed. Department of the Army, *Army Regulations 600-160: Maintenance of Physical Fitness and Detecting and Correcting Physical Abnormalities among Officers* (Washington, 1955), 1-3. The regulation also reflected a growing concern about the health of Army officers, especially their heart health, in encouraging them to take full advantage of their annual leave and to act to correct medical issues. These moves coincided with a growing awareness in America about the dangers of cholesterol that culminated in the "first cholesterol scare" of 1961. Harvey Levenstein, *Paradox of Plenty: A Social History of Eating in Modern America* (New York: Oxford University Press, 1993), 135-36.

⁷⁶ A Study of the Adequacy of the Present Army Physical Conditioning Program, 6 October 1955, pp. 9-10, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁷⁷ *Ibid.*, 10.

training courses. Pointing to a one-week course operated by Fifth Army at Fort Riley and another at Fort Belvoir's Engineer School, researchers suggested that such courses could at least prepare unit personnel to lead physical training sessions.⁷⁸ Yet such schools would eventually run out of trained staff without a central school and they did not prepare leaders for program development and supervision. The central school argument failed to gain traction, however. Comprehensive, skill identifier-granting training for specialists by a central agency would not return until the creation of the Army's Master Fitness Trainer program in 1983.⁷⁹

Physical fitness testing remained a point of dissatisfaction in the field in 1955. In response, the study's authors reasserted the need for testing, though they stopped short of recommending that tests be mandatory. They also recommended actions to address complaints. First, researchers completed the long-delayed study initiated in 1953 that had been plagued by data tabulation challenges and disrupted by moves between Forts Bragg, Riley, and Benning. An updated set of scoring tables resulted that established more realistic expectations, particularly in the 300-yard run event.⁸⁰ Second, researchers responded to the "discontent of combat unit commanders" who felt that a "test better related to combat skills" was necessary with something new—the Physical Achievement Test (PAT).⁸¹ Five events made up the PAT: a 5-second rope climb, a 75-yard dash, a triple broad jump, a 150-yard man carry, and a one-mile run. The first four events were to be administered on a single testing day with mile run conducted the

⁷⁸ Annex H – Physical Training Leadership, p. 2, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁷⁹ East, 158.

⁸⁰ For a full explanation of changes, see Annex C – Physical Fitness Testing, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁸¹ The PAT had been under study since at least 1952. A Study of the Adequacy of the Present Army Physical Conditioning Program, 6 October 1955, p. 6, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

following day or within four days if delayed by weather. Except for the man carry and rope climb, the PAT's events came from the extended battery that Drs. Charles McCloy and Arthur Esslinger tested in 1942. The climb and carry events were borrowed from the British Battle Physical Training Test.⁸² In addition to the basic components of physical fitness, the test was designed to measure combat related skills. Its creators at the USAIS promised commanders of combat units that they could, "with some degree of confidence," be sure that soldiers were well conditioned if they scored above average on both the standard fitness test and PAT.⁸³ The PAT entered policy in 1957. It reflected an infantry-centric focus that had long been a dominant strain in the Army's physical culture and only intensified under the USAIS's influence.

A final noteworthy element in the snapshot of physical culture that the 1955 adequacy study provides was the introduction of weight control as a concern to be addressed as part of a physical conditioning program. Sculpting appropriately sized and shaped bodies had been part of the Army's physical culture since its inception. Early cultural producers such as Herman Koehler and Edmund Butts had celebrated the masculine, disciplined, uniformed body in their writings. Koehler was especially concerned with sculpting balanced bodies in the late 19th century mode, measuring cadets under his charge to track their progress. Height and weight standards were part of induction exams during both World Wars, though cases of underweight recruits were most prevalent during the world wars. Height and weight standards remained a part of induction exams during the 1950s too. However, the discourse around physical training policy and doctrine had rarely touched on the problem of *overweight* service members.

⁸² Annex C – Physical Fitness Testing, enclosed in Adequacy Study, October 1955, p. 7; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁸³ Physical training policy at this time did not stipulate any mandatory consequences for failing tests. The tests were explicitly intended to be assessment tools for commanders and thus did not include anything punitive. *Infantry Instructors' Conference Report, 17-21 June 1957*, 134.

Conceiving of obesity as a problem that physical conditioning programs should address gained traction in the 1950s. Ridgway specifically expressed concern about “correct dietary habits” in initiating the 1955 study, for instance.⁸⁴ Discourse about such weighty concerns also appeared in service journals. In one example, Major Albert Lockhart’s 1956 *Infantry Journal Quarterly* article “Overweight in Grade” offered advice to the “large segment of the Army engaged in sedentary duties” on a “chairborne tour” about how to lose weight and avoid a negative evaluation per *AR 600-160*. Writing as Major Pear Shape, a self-confessed “Fatso,” Lockhart related the trials and tribulations of an officer desirous of fitness but hamstrung by a packed schedule and competing demands. After an encounter with a general who informed him that “there’s a weight limit for jeeps,” Pear Shape found sensible ways to get fit, which he shared with his readers: train on your own schedule, seek competition, eat sensibly, stick with consistent and moderate exercise, and consult a doctor in case of concern.⁸⁵ Escalating concern over weight put the Army at the front end of an American dieting movement in which men increasingly participated in the 1950s. Since the 1890s, dieting and slim bodies had come to be seen as a sort of moral compensation for consumerism or a way to display virtue. Overweight bodies became associated with ever more issues in the 1950s: psychological problems, heart disease risk, “softness,” and feminization.⁸⁶ Physical training in the U.S. Army had always included moral and gendered aspects, so weight control made for a natural supporting activity.

⁸⁴ Col. James H. Kellers to Commanding General, Continental Army Command, Subject: Physical Conditioning Program, 13 August 1955, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁸⁵ Albert E. Lockhart, “Overweight in Grade,” *Infantry School Quarterly* 46, no. 3 (1956): 75-79.

⁸⁶ Peter N. Stearns, *Fat History: Bodies and Beauty in the Modern West* (New York: New York University Press, 2002), 51-53, 60, 72, 100-22; Rachel Louise Moran, *Governing Bodies: American Politics and the Shaping of the Modern Physique* (Philadelphia: University of Pennsylvania Press, 2018), 87; Jesse Berrett, “Feeding the Organization Man: Diet and Masculinity in Postwar America,” *Journal of Social History* 30, no. 4 (1997): 805-25; the first major cholesterol scare did not come until 1961, but reports linking cholesterol, obesity, and heart disease had been appearing since 1950. Levenstein, 135-37.

Some harsh words, self-motivation, and a “custom-made conditioning program” of his own design might have been thought sufficient to remedy Major Pear Shape’s condition, but the average soldier with whom the Army’s physical culture had long been most concerned could not be entrusted with such responsibility. The 1955 adequacy study’s authors accordingly recommended that the Army systematically identify and correct obesity in the force. Their prescription was highly individualized and premised on a nuanced reading of the obesity problem. Noting that “true obesity” was “not too common” and difficult even for a physician to determine, the researchers recommended thorough evaluations of soldiers thought to be obese rather than simply relying on the height-weight tables.⁸⁷ Assessing body structure came first in such an evaluation. Some soldiers might be “heavy muscled, heavy boned,” and without excess body fat despite breaking standards. Others of a lighter build might be within the weight table standard but possess “relaxed musculature and disposition of fat” and were therefore not to be “considered as normal in the true sense of the word.”⁸⁸ Next, evaluators considered the soldier’s obesity history, disabilities, and eating, drinking, and exercise habits. Only after a full evaluation were commanders to prescribe a remedial program targeting the roots of the problem without endangering the soldier by demanding too much strenuous exercise too quickly.

Several existing programs were endorsed by researchers as models, such as one in Fourth Army that involved coordination between commanders and installation surgeons. Another developed by XVIII Airborne Corps in 1953 received an explicit recommendation for Army-wide adoption. The Airborne Corps’ program required commanders to send over-weight soldiers to the hospital for evaluation, then enter them into a weight reduction program supervised by the

⁸⁷ Annex E – Diet and Overweight, p. 1, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁸⁸ Ibid.

unit's medical officer. Every month, commanders reported to the commanding general the number of pounds lost by each soldier on their weight reduction programs.⁸⁹ The report's authors declared that "the smaller the waistline, the longer the life-line" and that the "degree of overweight" was "directly proportional to an individual's efficiency, namely his physical stamina and mental alertness."⁹⁰ In doing so, they made a case for a soldier's weight to matter like his strength, endurance, agility, and coordination. Surveilling and slashing excess fat became one more tool for strengthening a commander's "control over the physical state of his command."⁹¹ Within a decade, the Army endorsed this concept by institutionalizing a weight control program and linking weight to measures of soldier and unit fitness.⁹²

While experts studied the physical training program's adequacy and the next revision cycle continued for *FM 21-20*, the Army initiated a major restructuring of its combat divisions. Labeled the pentomic concept, the restructuring was supposed to give the Army a modernized face-lift and prepare it to fight on either an atomic battlefield or in response to limited aggression.⁹³ Army Chief of Staff General Maxwell Taylor (1955-1959) in particular viewed the restructuring as a means of improving the Army's relevance vis-à-vis the nuclear-capable Air Force and Navy. Historian Brian Linn has argued that the pentomic concept may also have been a scheme by Taylor to maintain or grow the number of Army divisions without additional

⁸⁹ Tab A, Annex E – Weight Control Program of XVIII Airborne Corps, pp. 1-2, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁹⁰ *Ibid.*, 1

⁹¹ Annex E – Diet and Overweight, p. 4, enclosed in Adequacy Study, October 1955; Research and Development Project Case Files – 1955; R&D Case Files; U.S. Army Schools, Infantry School, Fort Benning, Georgia, box 67; United States Continental Army Command, RG 546, NACP.

⁹² The Army Weight Control Program (AWCP) became official policy in October 1963 through publication of *Army Regulations 600-7*. The AWCP strongly resembled the XVIII Airborne Corps' program recommended in the 1955 adequacy study. For more on the 1963 AWCP program, see East, 131-32.

⁹³ The pentomic concept grew out of a 1955 "Pentana" study by CONARC. The pentomic experiment was problematic and short-lived. A second round of reorganization began in 1960 and culminated in the Reorganization Objectives Army Divisions (ROAD) in 1963. Trauschweizer, 58-59; Linn, 84.

manpower.⁹⁴ Whatever the motivation, the pentomic division created essentially by Taylor's fiat in October 1956 replaced traditional regimental combat teams with five battle groups in Army divisions. Each battlegroup contained four or five maneuver companies, each comprised of five platoons.⁹⁵ Theoretical research and highly controlled exercises informed this organization. Generally, Army thinkers concluded that nuclear weapons did not revolutionize the battlefield. Maneuver and conventional fighting remained necessary. As the authors of one widely circulated text for mid-career officers asserted, "no weapon, or system of weapons, can ever be a complete substitute for combat units. 'War without men,' 'pushbutton war'—all false shibboleths purporting to wage war without manpower—receive no support from atomic tactics."⁹⁶ However, using nuclear weapons and minimizing the effects of enemy weapons required new approaches to maneuver and organization. The Army emphasized three concepts in its adaptations to "atomic tactics": dispersion, flexibility, and mobility. Dispersion on a nonlinear battlefield to deny the enemy quality targets, flexibility to sustain losses and still operate effectively in chaos, and mobility to rapidly mass and disperse.⁹⁷

If this was the future of general war between nuclear powers, then the soldier's physical fitness remained valuable according to the Army's top officers. Ridgway repeatedly predicted that wars would still be won by men instead of machines, even in the face of unimaginably powerful weapons.⁹⁸ So long as armies met in conflict and war did not escalate to an exchange of

⁹⁴ Brian McAllister Linn, *Echo of Battle: The Army's Way of War* (Cambridge: Harvard University Press, 2007), 178.

⁹⁵ Battlegroup headquarters also contained a heavy mortar battery, plus reconnaissance, signals intelligence, maintenance, and medical assets. Battlegroups remained reliant on the division for combat and combat service support, however. Richard W. Kedzior, *Evolution and Endurance: The U.S. Army Division in the Twentieth Century* (Arlington: RAND, 2000), 25-26; Linn, *Elvis's Army: Cold War GIs and the Atomic Battlefield*, 87-89.

⁹⁶ G. C. Reinhardt and W. R. Kintner, *Atomic Weapons in Land Combat*, 2nd ed. (Harrisburg: The Military Service Publishing Company, 1954), 72.

⁹⁷ Kedzior, 25.

⁹⁸ Trauschweizer, 33.

strategic nuclear weapons that would deny all parties victory, soldiers would still need to maneuver as part of units to defeat enemy forces and seize terrain. If anything, the atomic battlefield might demand *more* in terms of physical endurance. The Infantry School's assistant commandant, Brigadier General Carl Fritzsche, made this case in a 1955 article. Fritzsche argued that soldiers and their leaders had to be prepared to "operate independently and at great distance" from bases and other units. They would also need to be able to operate for "extended periods under conditions unknown in the past," which in turn demanded the "confidence necessary for success" that came through good health and physical conditioning.⁹⁹ Furthermore, Fritzsche predicted that tactical nuclear weapons would accelerate the pace of hostilities, denying commanders the time to recondition men who had "grown soft."¹⁰⁰ Members of the Infantry School's staff studying the pentomic concept buttressed Fritzsche's prediction. By 1958, the school's combat conditioning committee had concluded that the pentomic soldier would have to "move farther, faster, oftener" than his predecessor, yet retain a "reserve of strength from which to destroy or pursue enemy forces."¹⁰¹ A 1958 survey of Army units reflected similar sentiments in the field. Of 83 units surveyed, leaders in 75% of them felt that the pentomic concept increased physical requirements.¹⁰² Physical fitness in this imagined future conflict remained imperative, and its development could not wait until that war commenced.

In this period of organizational and doctrinal ferment the USAIS-owned revision of *FM 21-20* went into print, two years after the 1955 adequacy study and following more than four

⁹⁹ Carl F. Fritzsche, "Physical Fitness--a Must!," *Army Information Digest* 10, no. 7 (1955): 41-42.

¹⁰⁰ *Ibid.*, 41. Labeling soldiers "soft" carried meaning beyond battlefield endurance. It also suggested effeminacy, indolence, a lack of rugged individualism, and weakness in both mental and moral dimensions. See Berrett, 805-25; Cuordileone, 515-45; Kyle A. Cuordileone, *Manhood and American Political Culture in the Cold War* (New York: Routledge, 2005), 124-45.

¹⁰¹ *Physical Fitness Seminar Report*, 20.

¹⁰² Simon A. McNeely, "Physical Fitness in the Pentomic Age," *Journal of Health-Physical Education-Recreation* 29, no. 6 (1958): 21-22.

years of delays. Breaking from previous practices, a new technical manual, *TM 21-200*, accompanied the field manual. Commanders and staff officers responsible for planning, preparing, supervising, and inspecting physical training programs comprised the field manual's target audience. *FM 21-20* covered subjects such as program planning and construction for various types of units, human physiology, and fitness evaluations. In contrast, *TM 21-200* targeted instructors with detailed information about executing particular exercises.¹⁰³ Except for a formal weight control program, the new manuals converted into doctrine many features of the physical culture expressed in the 1955 adequacy study. The 1957 *FM 21-20* and its associated technical manual reflected a physical culture premised on conditioning, focused on individual fitness over unit fitness, rooted in empirical research, and oriented on preparation for infantry combat.

Historical awareness helped inform this physical culture. Not only did Army physical training have a relevant history according to the manual's authors, but it was subject to historiographical interpretation. In relating a brief history of physical training between 1885 and 1957, the specialists at the PTS and at USAIS who authored the manual identified trends and turning points, criticizing some and praising others. Their critiques and praises provide more insight into the physical culture they belonged to and helped shape in the 1950s. Their history began with the U.S. Military Academy's hiring of Herman Koehler in response to a perceived glut of physical deficiencies among the men enlisted to fight the Civil War. Every conditioning initiative through WWI was, in their words, Koehler's "personal endeavor."¹⁰⁴ Between 1914 and 1957, the manual's authors identified a boom-and-bust cycle. During WWI, WWII, and the

¹⁰³ *TM 21-200*'s material was essentially just the middle chapters of earlier field manuals. *FM 21-20* expanded on guidance in earlier field manuals about how to construct a program and evaluate fitness. The new field manual also added synopsis of the human body's structure and functions.

¹⁰⁴ *Field Manual 21-20: Physical Training* (1957), 8.

Korean War commanders specifically and the Army in general awoke to the need for rigorous conditioning through combat experience and encounters with an American populace made soft by “leisure living.” After each war, the Army drifted into complacency and prioritized recreation over conditioning.¹⁰⁵ The authors characterized the need for individual soldier fitness as constant, perhaps even growing, throughout this period despite mechanization and technological advances. Sports also featured prominently in this short history. When praised, sport was employed as a “supplement to the conditioning of soldiers” as in WWI. When criticized, it competed with and eclipsed systematic conditioning. Other subjects for criticism included the old-fashioned brand of “formal calisthenics” that returned between the world wars, the dangerous practice of letting inexperienced commanders design their own programs, the inadequate corps of specialists available to support mobilizations for both world wars, and repeated failure to sustain “vigorous and continuous” programs at the unit level.¹⁰⁶ On the other hand, the use of military and civilian specialists to craft a “modern program” during WWII earned praise, though the work of Raycroft and his team between 1917 and 1920 went unmentioned. The 1957 manual’s authors identified strongly with the WWII-era specialists responsible for the third watershed in the history of the Army’s physical culture—creating the first doctrine that “could be scientifically justified by testing procedure.”¹⁰⁷

Claiming to be heirs to this “new physical training concept,” the manual’s authors launched into the most technical treatment of physical training to appear in doctrine yet. Based on the premise that the human body, “like weapons and machines” must be “understood before proper techniques and care can be employed in conditioning it,” nearly a quarter of *FM 21-20*’s

¹⁰⁵ Ibid., 8-11.

¹⁰⁶ Ibid., 9-11.

¹⁰⁷ Ibid., 9.

pages were dedicated to a synopsis of body structure and functions.¹⁰⁸ Readers could learn about anatomical terms (median plan, medial, lateral, superior, inferior, etc.), the body's major bones, types of joints, muscle actions, major muscles, the functioning of the cardio-respiratory system, and more.¹⁰⁹ Beyond the principles of overload and progression that had propelled the training system since 1942, the manual introduced a slew of new technical terms such as hypertrophy, crest loads, and stroke volume.¹¹⁰ One of the promises underlying this highly scientific approach to conditioning was that the system could build bodies better and quicker than could incidental or improvised training. Efficiency and effectiveness were especially valuable given the average recruit's level of fitness, which was assumed to be very poor. Just as their predecessors had six decades earlier, these new advocates of systematic training guaranteed a rational and rapid path to making ready for battle bodies that had grown soft in civilized life. However, the manual's highly technical treatise was something new, and it seems to have served two purposes. First, it was an educational tool meant to bridge the gap between a commander's responsibility for and ignorance of his soldier's physical conditions. Second, its content would have been daunting for lay readers, so the technical treatise reinforced the expertise of its authors and thereby may have helped sell the system to commanders. After all, could the average commander come up with something better if the human body was so complex?

Selling the program would have been an important consideration given the 1955 adequacy study's finding that the system was sufficient, but that a lack of command emphasis compromised it. As observed before, top Army leaders and physical training advocates alike agreed in the 1950s that physical training was extremely relevant for the atomic battlefield of the

¹⁰⁸ Ibid., 12.

¹⁰⁹ Ibid., 12-36.

¹¹⁰ Ibid., 39, 41, 45.

future. Given the Korean War example and expectations of future conflicts, commanders would not have time to bring their units up to sufficient levels of fitness before entering combat. Conditioning programs therefore had to be consistent and continuous. The authors of *FM 21-20* worked to communicate this need and to make it easy for commanders to establish such programs. Dividing the program across a field and technical manual is one example of this effort. Another can be found in the definitions of fitness each manual offered readers. Where the technical manual retained the five WWII-era components of physical fitness, the field manual simply located physical fitness as a constituent of total military fitness and made a case for its importance.¹¹¹ In short, why should a commander care about conditioning? Because it prepared troops to meet the demands of combat, improved an individual's sense of well-being, cultivated an appropriate soldierly appearance, and enhanced soldiers' mental and emotional fitness, and thus unit morale.¹¹² After making the case to commanders that they should care, the manual provided them example programs and guidance for crafting their own to meet a wide range of needs. Individual and unit training both received coverage. So too did programs for specialists and staff personnel that had often been trusted to develop and maintain their own fitness—a practice proven to be “unrealistic and fallacious.”¹¹³

Another aspect of the Army's official physical culture of the period that the 1957 system reflected was its orientation on conditioning for infantry combat. Though notable throughout both the field manual and technical manual, this orientation is especially visible in several areas: the place of sport within the training system, the technical manual's revised depiction of fitness, and the Physical Achievement Test's (PAT) addition. In regards to sport, the manuals' authors

¹¹¹ Department of the Army, *Technical Manual 21-200: Physical Conditioning* (Washington: U.S. Government Printing Office, 1957), 5-7, 13-15; *Field Manual 21-20: Physical Training* (1957), 5-7.

¹¹² *Field Manual 21-20: Physical Training* (1957), 5-7.

¹¹³ *Ibid.*, 133.

pushed back against the eminence of recreational athletics in the force. In the 1950's, inter-unit, inter-post, and Army-wide competitions boomed. The athletically gifted and the many conscripted athletes were often placed on special duty and on traveling teams, denying them training as soldiers and corrupting unit training in many cases.¹¹⁴ Stewards of the Army's official physical culture premised on systematic training and conditioning acknowledged the value of sport in building esprit de corps and as a "laboratory" for character development.¹¹⁵ The manual even included new information about organizing leagues and tournaments in off-duty hours. However, the manual's authors maintained that athletics should be tightly controlled. Sports should "supplement the more vigorous conditioning type activities, rather than replace them."¹¹⁶ The primary purpose of physical training remained conditioning for combat, not recreation.

A new visual depiction of fitness in the technical manual helped explain the renewed drive to reign in athletics. In it, a triangular formulation returned. A "combat ready" condition capped this new pyramid. Basic military skills and traits, such as aggressiveness and confidence, comprised the two sides supporting combat readiness. Bodily characteristics such as strength, endurance, agility, and coordination formed the foundation atop which everything else was built.¹¹⁷ The Army's chief physical culture producers regarded athletics as insufficient for conditioning, and they framed combat readiness in terms of being able to

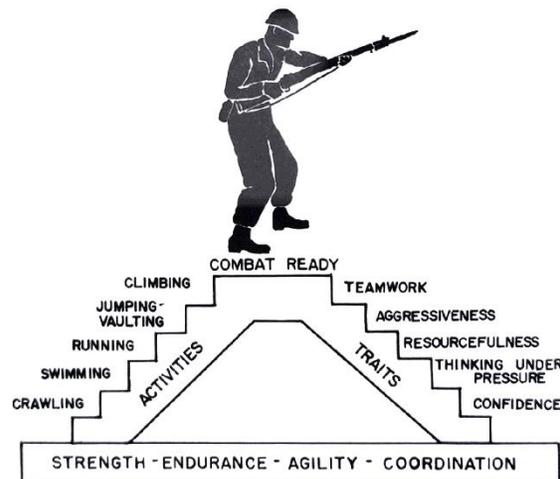


Figure 2: "Developing and Maintaining the Will to Win" from *Technical Manual 21-200* (1957)

¹¹⁴ Linn, *Elvis's Army: Cold War GIs and the Atomic Battlefield*, 294-97.

¹¹⁵ *Field Manual 21-20: Physical Training* (1957), 146.

¹¹⁶ *Ibid.*, 72.

¹¹⁷ *Technical Manual 21-200: Physical Conditioning*, 13-15.

maneuver dismounted on the battlefield. Evaluating such combat readiness could be accomplished through the PAT. First proposed in the 1955 adequacy study, this battery tested skills such as rope climbing and partner carries in addition to raw physical fitness.¹¹⁸ To a degree, the PAT was a concession to commanders who were unconvinced that the regular physical fitness test measured a soldier's preparation for combat.¹¹⁹ However, it also centered the definition of fitness in the Army's physical culture on readiness for infantry combat. Rope climbing, dashes, and mile runs were hardly relevant to tank or gun crews. This orientation represented less a change and more an intensification of a long-term trend favoring infantry-centric fitness and exercise concepts in the Army's training system. A widely-held traditional conception of the infantry soldier as the Army's basic element enabled the infantry branch to bolster this trend as the branch gained organizational dominance over physical training policy and doctrine in this period.¹²⁰

A final continuing trend of note within the Army's physical culture was the progressive elevation of the individual over the unit as the locus of concern. Contrasting the 1957 *FM 21-20* with its predecessors a few generations removed underscores this trend. The Army's first official manual, the 1914 *Manual of Physical Training*, encapsulated Koehler's physical culture and concentrated on unit readiness. The expressed goal of the system that manual delineated was ostensibly the "development of the physical attributes of every individual to the fullest extent of his possibilities."¹²¹ However, the purpose of such development was to form the soldier into a more effective cog in a larger machine. Discipline, precision, and subordination were highly

¹¹⁸ As a reminder, the PAT's five-event battery included a 5-second rope climb, a 75-yard dash, a triple broad jump, a 150-yard man carry, and a one-mile run. Both the traditional physical fitness test and the PAT remained completely optional, except for two mandatory fitness tests during a new soldier's basic training phase.

¹¹⁹ *Infantry Instructors' Conference Report, 17-21 June 1957*, 133.

¹²⁰ James E. Reilly and Robert M. Garrison, "Our Physical Unfitness," *Infantry* 49, no. 2 (1959): 20.

¹²¹ War Department, *Manual of Physical Training for Use in the United States Army* (New York: Military Publishing Co., 1914), 5.

prized. As Koehler himself wrote, soldiers needed a spirit that reached “out beyond the individual” to make him “think of himself only in connection with the obligations” that the nation laid upon him. Physical training pursued physical and psychological objectives to render the soldier a “disciplined, interdependent and dependable” component of a larger unit.¹²²

Unit readiness was certainly still an element of the physical culture as of 1957. That year’s *FM 21-20* stressed improvement of the average soldier over concentration on the elite few, for instance.¹²³ Yet measurable individual fitness loomed larger than ever before. According to the field manual, commanders should care about fitness chiefly because it made the soldier better prepared for combat, not because it made for a more disciplined unit. The technical manual’s continued use of the five physiological components of fitness introduced in 1942 prioritized individual readiness over unit readiness, as did the fitness tests. Similarly, its caution against extreme formalism was premised on formality’s tendency to stifle a soldier’s spirit and interest, and thereby his physical development.¹²⁴ Individual health considerations such as proper diet and weight control also moved toward the foreground. Raycroft and his team had similarly articulated a greater focus on individual fitness in the culture and system they crafted between 1917 and 1920. Though submerged in the interwar years, the individual returned to the spotlight in 1942 and grew more prominent through 1957 and beyond.¹²⁵ In part, concentration on the individual resulted from a more scientific approach to physical training that lent itself to measuring and maximizing a single body’s capabilities. The move also aligned with tactical developments. Supreme valuation of discipline and unit effectiveness derived from the demands

¹²² Herman J. Koehler, "Letter from Captain Herman J. Koehler," *American Physical Education Review* 21, no. 3 (1916): 148-49.

¹²³ *Field Manual 21-20: Physical Training* (1957), 7.

¹²⁴ *Technical Manual 21-200: Physical Conditioning*, 44.

¹²⁵ This finding coincides with and reinforces historian Whitfield East's argument that Army physical readiness training shifted away from "program readiness" to individual readiness, though the WWI program foreshadowed such a shift. East, 124.

of linear warfare that informed military thinking up to World War I. However, dispersed formations and individual movement techniques became more important as new weapons made the battlefield deadlier. By World War II, small unit success depended far more on the *individual's* ability to move and fight under fire than it had in the late nineteenth century. Commensurately, the individual gained significance within the Army's physical culture.

Less than a year after the publication of the new *FM 21-20* the USAIS convened a physical fitness seminar at Fort Benning to evaluate the suitability of Army physical training doctrine in preparing soldiers for the future atomic battlefield. Attendees included senior officers from field units and Army headquarters, representatives from various service schools, members of West Point's office of physical education, civilian physical education specialists, and those USAIS officers most responsible for crafting training doctrine and policy. Objectives of the seminar included evaluating how civilian fitness affected the Army, determining relationships between physical fitness and total military fitness, determining the level of fitness needed under the new pentomic concept, and considering the best means for measuring fitness.¹²⁶ Opening remarks by Brigadier General Stanley Larsen, the USAIS assistant commandant, made clear that the whole official Army physical culture was under consideration. In asking "what should we be fit for," "how do we attain fitness," and "how do we measure fitness," Larsen asked attendees to grapple with the meaning, value, and methods of achieving fitness.¹²⁷

Few revelations emerged from the briefings and committee reports. Most reaffirmed core beliefs within the culture or were predictable given extant trends. Four prominent ideas captured in the final report help refine our understanding of the Army's official physical culture as it existed at the dawn of an anticipated era of nuclear warfare, though. First, the attendees agreed

¹²⁶ *Physical Fitness Seminar Report*, i.

¹²⁷ *Ibid.*, 5.

that individual physical fitness was more important than ever despite technological advances and increasing mechanization. Briefers repeatedly asserted that victory on the battlefield might come down to relative advantages in foot mobility, the soldier's ability to "outmove and outfight" his opponent in adverse conditions, and characteristics such as self-confidence, aggressiveness, and a will to win.¹²⁸ Furthermore, *everyone* needed to be fit to fight because Korean War experience and the pentomic concept suggested that the "rear area" had "been eliminated" in modern war.¹²⁹ These assertions were reminiscent of others made by systematic training's original late nineteenth century advocates. They had also argued that an army's human element must be made stronger to complement or overcome the power of emerging technologies.¹³⁰

Second, seminar attendees agreed that the current training system as expressed in *FM 21-20* and *TM 21-200* was fundamentally sound and needed no revision. A survey of organizations in the field revealed that units agreed—95% responded that the existing literature was "excellent" or "good."¹³¹ Yet not all was well. Those same surveys revealed that as many as 72% of units felt that their programs were inadequate for mobilization or combat training. A sampling of responses from a survey of individual officers produced a similar finding. Insufficient time allotted to training was most commonly cited as the reason for unsatisfactory programs.¹³² The cultural producers at USAIS recognized this gap between doctrine and implementation, the third prominent idea, as had their predecessors in the 1955 adequacy study. In the words of Lieutenant Colonel James Reilly of the combat conditioning committee: "without effective implementation,

¹²⁸ See for instance *ibid.*, 18, 20.

¹²⁹ *Ibid.*, 32, 34.

¹³⁰ Antulio J. Echevarria, "The 'Cult of the Offensive' Revisited: Confronting Technological Change before the Great War," *Journal of Strategic Studies* 25, no. 1 (2002): 201.

¹³¹ USAIS conducted this survey. The school sent one hundred questionnaires to division and Army headquarters, which in turn distributed copies to subordinate units. Of the 100 questionnaires sent, 83 were returned. *Physical Fitness Seminar Report*, 11.

¹³² *Ibid.*, 11-12.

strong command support and equally strong command supervision the program will fail in achievement of mission and objectives.”¹³³ Recommendations for remediation once again included more command emphasis, more “positive control” through supervision and inspections, and specialist training for instructors and program managers.¹³⁴

Finally, seminar attendees agreed that the “Nation must be awakened to the necessity of youth fitness.” American youth, specifically young men, needed to be “conditioned to meet all demands of citizenship.”¹³⁵ These demands were manifold but invariably included possible military service. In their recurrent concern about asymmetries between the demands of war and the American youth’s ability to meet them, Army leaders once more turned their attention externally to prehabilitation. Conditions had changed since the readiness camps and Citizens’ Military Training Camps (CMTC), however. Examining the development of federal prehabilitation programs since the interwar CMTCs will show how fears of totalitarianism and militarism, especially in the early Cold War years, reduced the appeal and utility of martial physical training for youth. Over time, the government had to devise new means and methods for sculpting young American bodies for battle.

Perceiving change over time in prehabilitation programs requires rewinding to 1941. Prehabilitation was not a new concept then, but American entry in to World War II heightened the perceived need for it. Afterward, Cold War anxieties ensured that prehabilitation retained a place in American political discourse, especially because many cultural elites and political

¹³³ Ibid., 26.

¹³⁴ Specifically, the conferees recommended a central school like the defunct Physical Training School for training program managers and division- or post-level schools for producing unit instructors. Ibid., 31-33.

¹³⁵ Ibid., 30.

leaders intuited a growing “muscle gap” and dangers inherent in a “depleted manhood.”¹³⁶ Interwar initiatives such as the CMTCs and Civilian Conservation Corps (CCC) had been martial in character, the former intentionally so and the latter an unintentional site of military prehabilitation in that it salvaged men’s bodies and disciplined them. Both had also been citizen- and man-building agencies.¹³⁷ World War II and post-war era efforts initially followed similar paths, but they encountered more limits than had their predecessors. Examining how these efforts changed over time and the boundaries each encountered reveals some constraints on federal power to control and shape citizens’ bodies. Such an examination also shows that while civilian physical educators easily and decisively influenced the Army’s physical culture at key points in its development, the Army possessed only a limited ability to influence wider American society’s physical culture.

The urge to prehabilitate Americans had surged as the country moved toward war in 1940. Of the first two-million men examined for induction through the Selective Service, boards rejected approximately 45% for physical or mental issues. While the Selective Service’s director, Brigadier General Lewis B. Hershey, scolded Americans over their softness for which they “should be thoroughly ashamed,” the presumed condition of Axis bodies also heightened anxieties.¹³⁸ Militaristic German, Italian, and Japanese cultures had spawned youth training programs that appeared to discipline, harden, and toughen future soldiers. In fact, some explanations in America and Britain for early German and Japanese successes hinged on perceptions of superior soldiers conditioned for modern combat. Preparing America’s youth for

¹³⁶ Jeffrey Montez de Oca, “‘As Our Muscles Get Softer, Our Missile Race Becomes Harder’: Cultural Citizenship and the “Muscle Gap”,” *Journal of Historical Sociology* 18, no. 3 (2005): 149.

¹³⁷ Christina S. Jarvis, *The Male Body at War: American Masculinity During World War II* (DeKalb: Northern Illinois University Press, 2004), 21.

¹³⁸ Michael M. Davis, “How Healthy Are We?,” *New York Times*, 22 February 1942.

tomorrow's battlefield or factory thus seemed necessary. The U.S. government encouraged this idea of "crisis" spurred by the "deplorable conditions in physical fitness which imperil our Nation."¹³⁹ John Kelly's physical fitness organizations and his "Hale America" campaign were key sources for federal endorsement of the crisis narrative. From its origins in late 1940 to its sponsorship by the Federal Security Agency in 1943 and beyond, Kelly's organization gradually acquired more resources and influence to advance its mission of promoting fitness. Kelly's initiatives were always voluntary and advisory, but they sustained national attention on the bodies and minds of American citizens, especially young men of military age.¹⁴⁰

The federal government's main prehabilitation effort emerged in September 1942—the Victory Corps. A joint effort of the Federal Security Agency (FSA), Office of Education, and armed forces, the Victory Corps aimed to prepare teenagers "for service tomorrow in the armed forces by preparing for service in the high school today."¹⁴¹ Leaders in each sponsoring agency, such as the FSA's Paul McNutt, expected the Victory Corps to turn high school students into a

¹³⁹ U.S. Office of Civilian Defense Physical Fitness Committee, *Report on National Fitness: A Program through Schools and Colleges*, by Hiram A. Jones, Anne Schley Duggan, and August H. Pritzlaff, February 1942; Records of the Physical Fitness Committee, General Records, 1942-45, box 10; Records of the Community War Services, RG 215, NACP.

¹⁴⁰ See chapter five for a more thorough discussion of John Kelly's organization. Many physical educators from the American Association for Health, Physical Education, and Recreation eagerly participated and explained the goals of the program in their own publications. For contemporary explanations of this evolving organization's purpose, see "National Physical Fitness Program: A Statement by the Board of Directors," *Journal of Health and Physical Education* 12, no. 10 (1941): 547-48; Executive Office of the Committee on Physical Fitness, "Civilian Physical Fitness," *Journal of Health and Physical Education* 14, no. 10 (1943): 518. Several grassroots efforts also tapped into the groundswell of interest in prehabilitation. The authors of several new books advised boys on how to condition themselves for military service. Full "community physical fitness programs" crafted by physical educators aimed to improve citizenry's health generally. See Francois D'Eliscu, *How to Prepare for Military Fitness* (New York: W. W. Norton & Co., 1943); Charles Ward Crampton, *Fighting Fitness: A Premilitary Training Guide* (New York: McGraw-Hill Book Company, Inc., 1944); Arthur H. Steinhaus et al., *How to Keep Fit and Like It: A Manual for Civilians and a Plan for a Community Approach to Physical Fitness* (Chicago: Consolidated Book Publishers, Inc., 1943). See also Physical Fitness Can Make the Difference in the Shops, Homes, Offices, Classrooms, Stores, Armed Forces, Just Living: A Community Plan for Physical Education, 8 October 1941; Com. On Physical Fitness, 1941, file 848; Records of the Physical Fitness Committee, General Records, 1942-45, box 1; Records of the Community War Services, RG 215, NACP.

¹⁴¹ Ethel Percy Andrus, "High School Victory Corps," *Journal of Educational Sociology* 16, no. 4 (1942): 231.

trained reserve.¹⁴² Interested students enrolled first as general members and later transitioned into one of five special service divisions if they met certain qualifications. Each division aligned with either a branch of military service, community service, or wartime industry.¹⁴³ Students could display their membership by wearing special Victory Corps caps, which they had to make themselves, or arm bands emblazoned with patches for their aligned division. Regardless of division, the Victory Corps pushed training in areas such as citizenship education, competence in science and mathematics, community service, and more. However, one of the program's most "basic objectives[s]" was to "make the greatest possible number of pupils physically fit to carry on as members of the armed forces or as efficient workers."¹⁴⁴ The Victory Corps responded to physical educators' requests for guidance by defining the citizen's obligation to contribute in total war as the rationale for youth fitness, then suggesting a prehabilitation system. That system found full expression in the 1942 manual *Physical Fitness Through Physical Education*.¹⁴⁵

The Victory Corps' system could be characterized as physical training rather than education because of its orientation on directly preparing young bodies for military or industrial service. According to military authorities, whatever physical educators had been doing in schools before 1942 was inadequate and in need of reform. Colonel Theodore Bank bluntly and frequently delivered this message. In one 1942 talk to midwestern educators, Bank told conference attendees that schools had "done a poor job of conditioning the youth of American during the last 20 years" and left educators with the impression that they had produced too many

¹⁴² Richard M. Ugland, "'Education for Victory': The High School Victory Corps and Curricular Adaptation During World War II," *History of Education Quarterly* 19, no. 4 (1979): 435, 38.

¹⁴³ The five included the Air Service, Land Service, Sea Service, Production Service, and Community Service divisions.

¹⁴⁴ *High-School Victory Corps, Pamphlet Number 1* (Washington: U.S. Government Printing Office, 1942), 7.

¹⁴⁵ The manual was produced by the Federal Security Agency and U.S. Office of Education, with considerable input from the armed forces.

recruits who were “puny,” and that the military needed more “with the muscles of a blacksmith, the agility of an acrobat and the stamina of a marathon runner.”¹⁴⁶ The Victory Corps program aimed to remedy this situation with a holistic approach to fitness that encompassed conditioning, healthy lifestyle choices, medical intervention to remediate physical defects, and cultivation of character traits such as a “spirit of aggressive attack” and a willingness to “take physical punishment without flinching.”¹⁴⁷ Although most youth of both sexes could participate in the Victory Corps, the program concentrated on producing “strong and rugged boys who [could] become excellent soldiers or sailors promptly after entering the armed services.”¹⁴⁸

Participation in the Victory Corps’ training program would have introduced healthy boys to the Army’s World War II-era physical culture. The Victory Corps’ system embraced both athletics, specifically the “vigorous and rugged” over the “recreational” varieties, and conditioning activities. As in the Army’s physical culture, the value of athletics was located mostly in the development of certain character traits such as the “spirit of competition” and the “will to win.”¹⁴⁹ Conditioning activities occupied a vast majority of the manual’s pages concerning activities for boys. These concentrated on muscular endurance, strength, and agility, plus developing skills such as grenade throwing and basic drill. The Army’s *Training Circular* 87 directly influenced the Victory Corps’ prescribed running, relay, conditioning, grass drill, and “ranger” exercises.¹⁵⁰ Indeed, most exercises came straight from the Army system. A year later, a related manual written for colleges and universities extended this physical training and

¹⁴⁶ “More Tarzans, Fewer Softies Needed for War,” *Chicago Daily Tribune*, 17 November 1942; Bank regularly delivered this message in other forums too. For instance, see Theodore P. Bank, “The Army Physical Conditioning Program,” *Journal of Health and Physical Education* 14, no. 4 (1943).

¹⁴⁷ *Physical Fitness through Physical Education* (Washington: US Government Printing Office, 1942), 4.

¹⁴⁸ Of secondary interest were those destined for industrial work and girls responsible for maintaining the homefront. *Ibid.*, 25.

¹⁴⁹ *Ibid.*, 26.

¹⁵⁰ *Ibid.*, 30-46; Bank, 197.

acculturation system to the older brothers of prospective Victory Corps members too.¹⁵¹ The Victory Corps physical training system left a mark on high school physical education during and after the war. For instance, the Victory Corps' physical training manual informed some revisions to instruction in schools, and the government's emphasis on fitness resulted in both more hours dedicated to and increased enrollment in physical education classes.¹⁵² But the Victory Corps did not fundamentally modify physical education thought or practice to the degree that civilian educators had altered the Army's physical culture in the past.

In its close alignment with the Army's physical culture and intended intervention in America's schools, the Victory Corps represented the most direct and comprehensive federal attempt at creating a martial prehabilitation program to date. Yet despite the unusual pressures arising from the nation's great struggle in World War II and anxieties about American unfitness, the Victory Corps floundered. Within a year, surveys revealed that only 22% of eligible students were enrolled. Most enrollees remained general members or participated in the community service division. Of this population, the three armed forces-aligned divisions each claimed less than 2% of total membership.¹⁵³ No federal funding proved forthcoming. The Office of Education considered the whole program a "dead duck" by the summer of 1944.¹⁵⁴ Postmortems emerged as early as 1943: some students considered the program childish; others preferred making immediate contributions to the war effort through community service; school administrators had too much pressing work and too little incentive to reform curricula that

¹⁵¹ U.S. Office of Education Committee on Wartime Physical Fitness for Colleges and Universities, *Handbook on Physical Fitness for Students in Colleges and Universities* (Washington: U.S. Government Printing Office, 1943).

¹⁵² Deobald B. Van Dalen and Bruce L. Bennett, *A World History of Physical Education: Cultural, Philosophical, Comparative*, 2nd ed. (Englewood Cliffs: Prentice Hall, Inc., 1971), 481-82; Rosalind Cassidy and Hilda Clute Kozman, "Trends in State Wartime Physical Fitness Programs," *Journal of Health and Physical Education* 14, no. 7 (1943): 357, 92-93.

¹⁵³ Uglund, 439.

¹⁵⁴ *Ibid.*, 441.

already seemed sufficient; and finally, many educators and administrators feared the “Great Intrusion of the Federal Government” into education.¹⁵⁵ The latter concern dovetailed with fears of militarism spurred by an organization to which comparisons with the Hitler Youth tended to adhere. Noted author E.B. White gave voice to this discomfort in arguing that “war itself is a Nazifying process,” so dressing students in uniforms seemed “somehow a symbol of defeat, not victory.”¹⁵⁶ Even with the unusual demands on society imposed by fighting World War II and anxieties about national fitness, Americans rejected a prehabilitation program premised explicitly on preparation for military service.

Universal Military Training (UMT), the next major federal prehabilitation effort, came into being even as the Victory Corps withered and World War II ground toward a conclusion. President Franklin Roosevelt first publicly urged a program of mandatory training in a speech to Congress in January 1945, though his was more an idea than a plan at the time.¹⁵⁷ After Roosevelt’s death in April, his successor, Harry Truman, took up the message. Between 1945 and 1948, and again between 1950 and 1952, Truman and his allies waged a campaign in Congress and with the public to create a compulsory service program. Such a program would require nearly all young men to spend a year undergoing military training after graduating from high school. Advocates of UMT, many of whom such as Henry Stimson and Robert Patterson were Plattsburgers or members of the interwar Military Training Camps Association, advanced two general arguments about its value. First, the possibility of conflict with the Soviet Union demanded constant preparedness to avoid a disastrous opening campaign in a future war.

¹⁵⁵ Stewart Atkinson, "What Holds Back the Victory Corps?," *The Clearing House* 18, no. 3 (1943): 137-39.

¹⁵⁶ E. B. White, "Victory Corps," *Bulletin of the American Association of University Professors (1915-1955)* 29, no. 2 (1943): 300.

¹⁵⁷ Michael J. Hogan, *A Cross of Iron: Harry S. Truman and the Origins of the National Security State, 1945-1954* (Cambridge: Cambridge University Press, 1998), 122.

Universal training could improve preparedness and create a large reserve without incurring enormous expenses.¹⁵⁸ A second argument highlighted social benefits for American society in general and young men specifically. Training could impart useful skills, improve health, develop discipline and morality, and deepen citizens' commitment to their civic duties. In the words of historian Michael Hogan, young men would emerge from the "democratic crucible" of UMT with "bodies hardened, skills honed, minds steeped in republican virtue, and values attuned to the defense of democracy in a dangerous, Darwinian world."¹⁵⁹ This narrative was especially prevalent in the 1945-48 campaign.

Physical fitness was among the expected social benefits of UMT most often mentioned by advocates. Military officers frequently cited the need to enhance the conditioning of potential soldiers, usually with reference to past high inductee rejection rates. As it had since the late nineteenth-century when the U.S. Army discovered systematic physical training, convergence between the deep mobilization required to fight modern wars and the tacit obligation of citizens to be prepared for such service helped fuel the focus on fitness. Truman similarly emphasized improving the physical standards of the nation's manpower in his messages to Congress beginning in 1945.¹⁶⁰ In fact, Truman envisioned even greater possibilities for improving the nation's physical standards than did military leaders. Where the Army only wanted young men who met standards for induction, Truman wanted to induct nearly every eighteen year-old male in order to remediate mental and physical defects. Truman had been shocked as an officer in a National Guard field artillery regiment and later as a U.S. Senator to discover just how many

¹⁵⁸ John Sager, "Universal Military Training and the Struggle to Define American Identity During the Cold War," *Federal History Journal*, no. 5 (2013): 57.

¹⁵⁹ Hogan, 125.

¹⁶⁰ William A. Taylor, *Every Citizen a Soldier: The Campaign for Universal Military Training after World War II* (College Station: Texas A&M University Press, 2014), 99-100.

Americans were physically unfit or lacked access to health care or physical education. Thus, he resolved to act in order to help Americans “make the greatest machine—the machine that God made—work as he intended.”¹⁶¹ Teaching the nation’s youth “what it means to take care of this temple which God gave us” was among Truman’s top priorities in UMT.¹⁶²

Despite the Truman administration’s efforts, UMT floundered in Congress amongst opposition spurred by concerns over costs, militarization, and the injustice of mandatory military service. UMT became a dead issue in 1948 after a 1947 blue-ribbon commission and an experimental Army UMT failed to meaningfully advance Truman’s agenda in the legislative branch.¹⁶³ The Korean War reenergized UMT in 1950, this time focused more on military need and less on civic improvement. An absence of public support and incoming president Dwight Eisenhower’s antipathy to the program culminated in a March 1952 vote of 236-132 against UMT in the House.¹⁶⁴ Outside Congress, educators comprised one of the groups most vocally opposed to UMT. One 1947 survey of professional groups revealed that as many as 75% of members were against any program of compulsory training.¹⁶⁵

Many physical educators likewise opposed UMT despite their relatively greater embrace of prehabilitation through the Victory Corps system, their profession’s history of involvement with the Army’s physical training program, and their acceptance of partial responsibility for so many rejected inductees. Some sense of the reasons for this opposition can be gleaned from a 1945 series of articles published in the *Journal of Health and Physical Education*. In them,

¹⁶¹ Harry S. Truman, "Remarks at the National Health Assembly Dinner," accessed 27 May, 2016. <http://www.trumanlibrary.org/publicpapers/index.php?pid=1612>.

¹⁶² Quote from President Truman's 1947 guidance to his Advisory Commission on Universal Training located in Taylor, 121.

¹⁶³ Beyond generating some positive publicity, the experimental units did not generate much popular demand for the program, motivated too few attendees to enlist, and failed to “produce moral paragons.” Linn, *Elvis's Army: Cold War GIs and the Atomic Battlefield*, 31.

¹⁶⁴ Sager, 58-59, 73.

¹⁶⁵ *Ibid.*, 64.

authors took issue with the implicit assumption that one year of exposure to the Army's physical culture could fix all the nation's shortcomings in fitness. According to these authors, money for UMT could be better spent on increasing access, improving and adding facilities, and hiring more faculty to enhance physical education in primary and secondary schools.¹⁶⁶ Others expressed wariness about militarism and linked UMT to compulsory service in the German military, echoing similar critiques of the Victory Corps. New York University's Jay Nash captured this when he contended that America should not "experiment with the beginnings of a nationalized youth movement." Instead, he reasoned, the nation should foster fitness, discipline, and citizenship in local communities to preserve the "grass roots of democracy."¹⁶⁷ Americans rejected a martial prehabilitation program even with Cold War tensions, recurring anxiety about American society's physical decline, Korea's sharp reminder about the continuing need for fitness in modern war, and a political culture that still defined citizenship reciprocally based on obligations. The Victory Corps and proposed UMT program alike felt too militaristic and seemed to pose too many threats to American liberties by way of control over young bodies.

Still, interest in prehabilitation of some kind persisted into the 1950s. The reasons for this interest were both general and specific. Generally speaking, some consequences of material affluence and suburbanization overlapped with Cold War fears to create a moment of cultural anxiety that one scholar has dubbed the "muscle gap."¹⁶⁸ Historians have shown that Americans in the early Cold War period understood the consumerism, abundance, and easy, sheltered nature of suburban life as both symbols of American success and as vectors for the effeminization of the

¹⁶⁶ See for instance Charles F. Mourin, "Postwar Physical Education or Military Training?," *Journal of Health and Physical Education* 16, no. 4 (1945): 180, 220, 22; Harold K. Jack, "A Suggested Plan for Military Service," *Journal of Health and Physical Education* 19, no. 4 (1945): 181.

¹⁶⁷ Jay B. Nash, "Is Compulsory Military Training the Answer? No!," *Journal of Health and Physical Education* 16, no. 2 (1945): 65.

¹⁶⁸ Montez de Oca, 147-48.

nation's youth.¹⁶⁹ John Kelly, the famous Philadelphian who raised concerns about men in World War II, certainly thought as much. In a 1956 article, Kelly pondered whether America was becoming a nation of weaklings. His response was a resounding "yes." "Already today's youngsters are softer, weaker, and flabbier than the youngsters of certain foreign countries," Kelly asserted, "and it is obvious that they are growing still softer every year."¹⁷⁰ These allegations of "softness" carried multiple meanings. In one sense, weak youth meant weak soldiers, which constituted a real problem when the nation contemplated a possible future war with the Soviet Union. In another, "softness" suggested potential for Communist penetration and subversion.¹⁷¹ "Muscle gap" anxieties had coalesced to such an extent by 1960 that president-elect John Kennedy explicitly declared the nation's "growing softness" and "increasing lack of physical fitness" a "menace to our national security."¹⁷²

A few specific episodes that punctuated general cultural anxieties about softness and lack of fitness also sustained federal interest in prehabilitation. For example, the Korean War once again set off hand-wringing and soul-searching about the state of the union's body politic. Of four-million men examined for draft registration between 1948 and 1955, approximately 52% were rejected on the basis of physical or mental issues.¹⁷³ Those who donned Army fatigues hardly seemed a match for their supposedly hardier forebears. Commanders in Korea bemoaned the poor condition of new troops arriving in theater.¹⁷⁴ Army commanders and national political leaders alike tended to attribute high rates of collaboration and death among the prisoner of war population, upward trends in courts martials, and an uptick in desertions to the soft new

¹⁶⁹ McKenzie, 2-3, 41; Montez de Oca, 149; Marc Richards, "The Cold War's "Soft" Recruits," *Peace Review* 10, no. 3 (1998): 435.

¹⁷⁰ Kelly, 28.

¹⁷¹ Moran, 87; Richards, 437-38; Montez de Oca, 150.

¹⁷² Quoted in Richards, 436.

¹⁷³ McKenzie, 44.

¹⁷⁴ *Infantry Instructors' Conference Report, 16-21 June 1952*, 36.

generation.¹⁷⁵ On the fields of friendlier strife, Soviet athletes performed well in the 1952 Helsinki Olympic Games, then demolished the U.S. team at both the 1956 Winter and 1960 Summer Olympics.¹⁷⁶ Amidst this, the highly publicized Kraus-Weber report that exploded into America's consciousness in 1955 seemed to lend scientific credence to existing beliefs about the nation's unfit fitness. Hans Kraus, a sports medicine professor, and Sonja Weber, a posture expert, tested American youth in the 1940s and 1950s using a six-event battery. Kraus and Weber compared the results to those of Austrian, Italian, and Swiss children and found a concerning gap. Across the board, Americans performed far worse than their European peers. Sixty percent of Americans failed at least one test. Thirty-six percent failed at least one strength test compared to a European failure rate of only about one percent.¹⁷⁷

The Kraus-Weber report ultimately spurred federal action. At a White House luncheon in the summer of 1955 attended by dozens of sports celebrities, the same man who prodded Roosevelt to action in 1940 resumed his efforts with Eisenhower. John Kelly brought Kraus and Weber before luncheon's attendees, who watched with mounting concern as the report's authors detailed their findings. Eisenhower was purportedly shocked. According to one reporter, the presentation convinced the President that the fitness problem was "even more alarming than he had imagined."¹⁷⁸ Eisenhower's mind supposedly went to his World War II experience, and specifically to his memory of draftee rejection rates.¹⁷⁹ For Eisenhower, youth fitness had become an issue of national security. The subsequent federal response developed between 1955 and 1956 through a series of conferences held at the nation's military academies, foregrounding

¹⁷⁵ McKenzie, 44-45.

¹⁷⁶ Richards, 437.

¹⁷⁷ Moran, 88-89.

¹⁷⁸ Robert H. Boyle, "The Report That Shocked the President," *Sports Illustrated*, 1955, 30.

¹⁷⁹ *Ibid.*, 73.

the project's martial implications.¹⁸⁰ A consensus emerged from these meetings that the federal response had to avoid any whiff of totalitarianism.¹⁸¹ This reflected a desire to maintain contrast with the Soviet Union's regimentation and to elide the taint of militarism.

Executive Order 10673 inaugurated this new prehabilitation effort, a Cabinet-level body titled the President's Council on Youth Fitness (PCYF), in July 1956. The PCYF did not intervene in America's schools, nor did it promulgate a compulsory program, directly sponsor activities, or fund research. Instead, it was essentially a "public relations firm for the notion of fitness." Shane MacCarthy, the PCYF's director, described the council as "a catalyst, a stimulator, a coordinator, a persuader, an urger, an idea-dropper, a direction-pointer."¹⁸² The PCYF and its full-time staff of four partnered with media outlets, the Ad Council, voluntary organizations such as the Boy Scouts, and local community organizations such as schools and churches. By leveraging its social and political capital, the PCYF attempted to popularize physical activity, defined broadly and liberally, and to inform and arouse the American public to the issue of youth fitness. Typical activities to which the PCYF committed itself included publishing informational pamphlets, providing staff for television interviews, sponsoring annual Youth Fitness Weeks, and encouraging the adoption of fitness as a theme for state, local, and private organizations' events.¹⁸³

The PCYF labeled the product it marketed as "total fitness." Dr. G. Ott Romney, the PCYF's Deputy Executive Director, defined this concept to attendees at the 1958 USAIS physical fitness symposium as a combination of physical, mental, emotional, and social fitness

¹⁸⁰ Moran, 90-94.

¹⁸¹ McKenzie, 24; Moran, 87.

¹⁸² McKenzie, 23.

¹⁸³ For a more comprehensive overview of the PCYF's activities, see *ibid.*, 24-40; Moran, 90-98.

remarkably well-aligned with the Army's own "total military fitness" concept.¹⁸⁴ But as a prehabilitation effort, the PCYF represented an indirect approach. As Romney told the seminar's gathered officers, the PCYF was "not born to implement the Defense program," but any improvement of youth fitness was "bound to improve the preparedness of youth for military service."¹⁸⁵ Improving preparedness did not require young men to don uniforms or sweat through the Army's daily dozen exercises. Instead, it encouraged activity, sport, and education to build a foundation that would prepare boys to "take basic training in stride" and to "accept the rigors [of service] with a grin instead of a whimper." According to Romney, the PCYF was not in the business of crafting proto-soldiers, but it wanted to ensure that the military would not have to "cuddle and coddle carload lots of softies."¹⁸⁶ This approach characterized by its advisory, non-compulsory, civilian nature and commitment to the general improvement of the population's health proved more durable, widely influential, and popularly acceptable than earlier efforts. In fact, the PCYF is still active today as the President's Council on Sports, Fitness, and Nutrition, having undergone several changes and expansion during subsequent administrations.¹⁸⁷

Mid-century prehabilitation programs hold many lessons for those seeking to address today's fears about the woeful state of America's youth and its potential soldiery. First, Americans have proven consistently resistant to overtly martial initiatives. Though relatively more tolerant in times of emergency such as World War II, American society consistently displayed deep suspicion of compulsory, nationally organized, and regimented programs. Second, martial concerns offered persuasive arguments for the *need* of youth physical fitness, but

¹⁸⁴ *Physical Fitness Seminar Report*, 6-7.

¹⁸⁵ *Ibid.*, 6.

¹⁸⁶ *Ibid.*, 8.

¹⁸⁷ For more on Kennedy's Council on Physical Fitness and Lyndon Johnson's Council on Physical Fitness and Sports, during which the greatest changes to this program occurred, see Moran, 98-111.

prehabilitation programs oriented on preparing youth for military service specifically have enjoyed only limited reach and lifespans. Finally, the most successful programs have leveraged what historian Rachel Moran calls “advisory state” methods to sell, counsel, and inform Americans on the how and why of physical fitness.¹⁸⁸ These programs did not just target future soldiers, nor did they train youth directly for military service. Instead, they aimed to cultivate a broad awareness of and desire for healthy lifestyles and physical fitness in American society.

As they had since the 1880s, Army leaders’ interpretations of developments in warfare and American society contextualized the development of the Army’s physical culture between 1945 and 1958. Many of these interpretations are familiar from earlier periods in a general sense, even if the details differed. One of the most significant concerned technological advances. When contemplating the nature of a potential conventional conflict featuring the use of atomic weapons and mechanized forces, Army leaders held to the trope of improving human resources to match or complement the capabilities of new military technology. In the face of weapons able to level entire cities and whose yields were measured by the kilo- and mega-ton, the soldier needed to be able to “move farther, faster, oftener” than his predecessor while retaining “a reserve of strength from which to destroy or pursue enemy forces.”¹⁸⁹ Creators and interpreters of the Army’s pentomic concept and its physical training program alike agreed on this point. In addition to theoretical future scenarios, experience in the Korean War also informed these views. That conflict demanded a high degree of fitness from front-line combatants and support troops alike. Both groups had to operate over rugged terrain against tenacious opponents. Even those nominally behind the front had to be fit to fight because rear areas proved susceptible to attack,

¹⁸⁸ On the “advisory state,” see *ibid.*, 2-9.

¹⁸⁹ *Physical Fitness Seminar Report*, 20.

especially in the war's fluid early months. Furthermore, the Korean War pointed to psychological and ideological considerations in Cold War conflict that physical training might be able to help address.

Another significant and familiar interpretation concerned the intersection between a need for fitness that was perceived to be increasing and the seeming decline of American men. Generalized fears about the deleterious effects of urbanization, industrialization, mechanization, and closure of the frontier had motivated the earliest systematic training advocates. Concerns about technology's harmful consequences on the human body persisted. As the USAIS combat conditioning committee's chairman put it: "Ironically, the important breakthroughs which we have achieved in weapons and equipment, and which magnify our combat capabilities, also reduce our capabilities by contributing to the softening and deterioration of the soldier."¹⁹⁰ Between 1945 and 1958, evidence accumulated suggestive to many that the bodies of America's military aged males left much to be desired. High draft rejection rates on physical grounds during World War II alarmed the nation. A lack of conditioning allegedly claimed lives in Korea and rendered servicemen pliant in imprisonment, susceptible to persuasion and brainwashing. Finally, the Kraus-Weber report raised concerns about the physical "unfitness" of America's next generation of soldiers. Advocates of systematic training, those men most responsible for crafting Army policy, doctrine, and physical culture, sounded alarms over these perceived shortcomings repeatedly between 1945 and 1958. The presumed physical unfitness of American youth and of the recruit helped shape the Army's physical culture and stimulate its leaders' interest in prehabilitation to close the "muscle gap." That approach to prehabilitation changed significantly over the 1940s and 1950's, however. Where the Army once took the lead in martial

¹⁹⁰ Reilly and Garrison, 21.

prehabilitation programs, it receded to the background in advisory state efforts following World War II. Though preparation for military service still motivated federal prehabilitation efforts to a large degree through the 1950s, broader and less explicitly martial health goals took priority. These made programs more publicly palatable, especially in the Cold War environment.

Finally, developments within the Army's physical culture in response to interpretations of context and transitions between wartime and peacetime followed some familiar patterns. For instance, the relative importance of recreation and conditioning in practice fluctuated with the former taking priority in peacetime. Similarly, the Army's willingness to fund centralized schools for physical training specialists waned in the years following both World War II and Korea. Yet within the official physical culture, consistency rather than fluctuation characterized development. Creators of Army physical training policy and doctrine during this period consciously identified with the more scientific "new physical training concept" pioneered during World War II. Applying research methods and empirical data, specialists sought to create a system that could improve specific physiological characteristics effectively, efficiently, and safely. That system reflected a valuation of conditioning above all else. Though the official physical culture still accommodated beliefs about sculpting minds and spirits by way of exercise and sport, those outcomes remained ancillary to physical development as they had since 1942. Additionally, the individual soldier's fitness continued accumulating attention within the official culture, though the most important individual remained the average man, not the elite athlete. With the growing focus on the individual also came a concern for health issues such as weight control. Lastly, the official physical culture also remained centered on infantry combat during the period. By and large, this had been the case since 1885, though explicit orientation on combat

intensified during wartime. By the mid-1950s, the Infantry School's ownership of policy and doctrine sustained such a focus.

Conclusion: Fashioning that “Certain Strength of Body and Soul,” 1885-1958

Herman Koehler is widely regarded as the father of physical education at West Point. He is arguably the Army’s father of systematic physical training as well. Though best known at the Academy for his setting-up drill and gymnastic exercises, Koehler aimed for goals beyond simple muscular and cardiovascular improvement. Koehler sketched this higher calling in a remarkable 1916 letter to the Society of Directors of Physical Education in Colleges. In war, he wrote, “physical fitness is the factor upon which, more than any other, the efficiency of a fighting machine depends.” After fitness came “men, money, and materiel,” but most importantly “morale” because it alone could “determine and bring out the full and true value of these ... physical components.”¹ Elaborating on this body-mind-soul synergy, Koehler contended that “mere physical endurance, hardihood and force, will accomplish but little as compared to physical fitness plus the development of those mental qualities that guide and control this force intelligently.”² The importance afforded the soldier’s quality in Koehler’s concept of war harmonizes with deep-rooted cultural beliefs in the American military tradition that situate man as the “dominant instrument on the battlefield.”³ Under this schema, improving the Army’s manpower was and remains imperative for success in war. Koehler regarded physical training as a key tool for cultivating a superior soldiery, but not just because it could produce soldiers capable of marching further or lifting heavier loads. Rather, his mission in physical training was multi-faceted and educative. This approach is the historical basis of the Army’s official physical culture. Physical training could build bodies, shape minds, sculpt character, forge units, and

¹ Herman J. Koehler, "Letter from Captain Herman J. Koehler," *American Physical Education Review* 21, no. 3 (1916): 148.

² *Ibid.*, 150.

³ Lewis shows that this deep-rooted cultural belief has been at odds since World War II with another trend-- the substitution of technology for manpower. Adrian R. Lewis, *The American Culture of War: The History of U.S. Military Force from World War II to Operation Enduring Freedom*, 2nd ed. (New York: Routledge, 2012), 41.

make better citizens. A related and similarly complex understanding of fitness and exercise still informs the Army's physical culture today.

This project set out to answer several questions about the development of the Army's official physical culture between 1885 and 1958: in whose interests were bodies shaped? To what ends were they shaped? How did the shaping of bodies contribute to man-, soldier-, and citizen-making projects? Technological developments in the late nineteenth century spurred reengagement with these questions, as did the proliferation of nuclear weapons in the mid-1950s. For the most part, the Army's answers to these questions changed over time in response to wartime experiences and trends in civilian physical education. Emphasis gradually shifted as a result of American experiences in the world wars from turning out disciplined human machine cogs to fashioning individual warriors, for example. The relative balance between valuations of impalpable character objectives and quantifiable physiological performance measures similarly shifted over time from the former to the latter. Likewise, the relative importance of combat-related functional fitness grew during wartime and when physical training policy came under the Infantry's control, but it generally declined in peacetime. Projects of man-, soldier-, and citizen-making remained interrelated throughout, but their outward expressions in the form of prehabilitation programs morphed in response to resource constraints, popular acceptance, and expectations of a citizen's obligation to potential military service. In studying these changes over time, three punctuated periods in the physical culture's evolution become evident: Koehler's disciplinary era, the combat-readiness interregnum of 1917-1919, and the scientific measurement school's rise after 1942. Ultimately, the Army's physical culture proved sufficient for adapting men to modern war. However, the cultural inertia it acquired coupled with repeated failures to sustain evolutionary progress in peacetime produced spasmodic change and forced those

responsible for physical training during World War I, World War II, and the Korean War to re-learn old lessons.

A specific historical context in the late nineteenth century informed the initial construction of a physical culture in the U.S. Army centered on systematic training. Understanding the foundations of that culture and explaining many patterns and dynamics it manifested later hinge on understanding its original context. In short, its essence emerged from changing battlefield demands wrought by new developments in military technologies and turn-of-the-century intersections between social, intellectual, and cultural anxieties. Those anxieties were many and varied. For instance, urbanization and industrialization moved larger percentages of the nation's population into environments and working conditions perceived by many at the time to be less healthy than rural alternatives. American men trapped in sedentary clerical jobs or mind-numbing factory work increasingly found achievement of Victorian manliness difficult. An insidious feminization by way of a "regime of sugary benignity" built on, among other factors, stronger mother-child bonds, growing numbers of women teachers, and fathers working outside the home further threatened claims to robust masculinity.⁴ With the closure of the frontier in 1890, the Turnerian remedy of frontier settlement vanished as a means for revitalizing softening, overcivilized, and neurasthenic American men. Popular conceptions of manhood in decline boded ill in a world interpreted through a Social Darwinist framework. Soft men heralded trouble in the ongoing struggle for survival between embodied nations and races. Warfare represented the supreme distillation of such a struggle, and trends in that field driven by technological

⁴ "Regime of sugary benignity in G. Stanley Hall, "Feminization in School and Home," *The World's Work* 16 (1908): 10238; see also Gail Bederman, *Manliness & Civilization: A Cultural History of Gender and Race in the United States, 1880-1917* (Chicago: University of Chicago Press, 1995), 12-14; E. Anthony Rotundo, *American Manhood: Transformations in Masculinity from the Revolution to the Modern Era* (New York: Basic Books, 1993), 248-50; Michael S. Kimmel, *Manhood in America: A Cultural History*, 3rd ed. (New York: Oxford University Press, 2012), 87-89.

advances suggested that future conflict would demand more of combatants. Smokeless powder, quick-firing artillery, rifling, high explosive, and other late nineteenth-century developments created larger deadly zones, emptier battlefields, and the need for more dispersion on the battlefield. Western experience in and study of wars between 1860 and 1914 generated transnational solutions to evolving battlefield problems that emphasized moral forces, the offensive, national will, and enhanced human materiel.⁵ In this schema, disciplined and resilient soldiers able to overcome the challenges of dispersed operations on empty battlefields and deliver superior moral force at a critical point formed the basis of a successful army.

In its quest to close the gap between the mounting demands of combat and American manhood's perceived decline, the U.S. Army discovered systematic physical training. Precedents for martial, systematic physical training existed in most European armies by the mid-nineteenth century. The German model as captured in Turner gymnastics proved especially influential after 1885 owing to the U.S. Military Academy's Herman Koehler. However, early advocates of "scientific" physical training within the Army thought, wrote, and acted within a uniquely American cultural context. Muscular Christianity had advanced the idea of regeneration through bodily improvement since at least the 1850s. Exercise and sports crazes swept the nation repeatedly in the century's latter half. Crucially, an impulse toward professionalization in the field of physical education also arose in the midst of these fads, movements, and obsessions. Led by pioneers such as William Anderson, Edward Hitchcock, Tait McKenzie, James McCurdy, Edward Hartwell, and Dudley Sargent, this emerging professional community forged a belief that exercise could simultaneously cultivate a person's physical, mental, and moral qualities. Grounded in this wider culture, advocates in the Army perceived in systematic physical training

⁵ Michael Howard, "Men against Fire: The Doctrine of the Offensive in 1914," in *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, ed. Peter Paret (Princeton: Princeton University Press, 1986), 515.

great promise as a rational and efficient means of improving human materiel. Exercise could make soldiers more disciplined, moral, manly, fit, and ultimately more likely to triumph in battle.

The Army's first official physical culture centered on systematic training took shape between 1880 and 1914 within this broader cultural context. No individual could make a stronger claim to that culture's paternity than Herman Koehler. Hired by the U.S. Military Academy (USMA) in 1885 as Master of the Sword, Koehler led a comprehensive reform of the Academy's meager training program. Until his retirement in 1923, Koehler dominated physical training at the Academy. His influence grew rapidly in the wider Army as well. Because the Army never established a formal doctrine production or specialist training agency equivalent to Britain's Aldershot, West Point became the default center for physical culture production. Koehler parlayed his work at the USMA into written form, such as his 1892 and 1904 manuals and multiple authoritative articles in publications such as the *Infantry Journal*. Other officers, nearly all former students of Koehler's such as Edmund Butts and Enoch Gary, also produced manuals, spread the systematic training gospel, and published journal articles in this period. However, none achieved a degree of influence rivaling Koehler's, none promoted ideas or systems that differed from his in any significant way and all bore the Master of the Sword's imprint. Koehler's ideas and system reflected his Turner roots. He sought whole body improvement for a broad population and to create disciplined soldiers chiefly through calisthenics, limited "heavy work," gymnastic games, and apparatus work. The culture he crafted highly valued expert knowledge, equally prioritized development of physical and psychologic qualities, and emphasized unit fitness over optimizing individuals. Sport held an uneasy place within this culture, esteemed for its popularity and as a laboratory for character development but viewed with suspicion for its tendency to warp physical training around the cultivation of the elite few.

Koehler may have been responsible for giving the Army's physical culture its shape, but institutionalizing that culture depended upon others too. A gymnasium building spree authorized in the 1890s by Congress helped remedy the lack of facilities and apparatus on most Army posts. Many of Koehler's apostles, all young graduates of the USMA, took charge of these facilities and of unit training. Yet as late as 1905, one post's Superintendent of Athletics still complained that physical training was "unsystematic, irregular, and uncertain in the extreme."⁶ Koehler and others identified a lack of command interest and emphasis as the chief culprit. Top-down directives from and the personal interest of successive Chiefs of Staff Nelson Miles, Franklin Bell, and Leonard Wood addressed this issue between 1895 and 1914. All three were also notable physical fitness enthusiasts. Bell and Wood in particular advanced the cause of physical training through their popularizing partnerships with President Theodore Roosevelt. Ultimately, the most important step toward institutionalizing this developing physical culture came in 1914 with the *Manual of Physical Training*'s publication. For the first time in its history, the Army had an official physical training system. This system expressed and shaped the organization's physical culture, and it was entirely Koehler's creation.

Shortly after the Army institutionalized Koehler's culture, America's 1917 entry into World War I and the massive mobilization it entailed created conditions in which an alternate physical culture flourished for a time. Lacking an expansible instructor corps or central training school, the Army could not create a sufficient number of physical training specialists to make millions of men ready for combat. Into this gap stepped civilian physical educators and athletic coaches recruited and led by the Commission on Training Camp Activities' (CTCA) Joseph Raycroft. These Athletic Directors worked under the broad CTCA mandate to mentally, morally,

⁶ Robert L. Bullard and H. S. Hawkins, "Athletics in the Army," *The Journal of the Military Service Institution of the United States* 37 (1905): 400.

and physically strengthen men called into service so that America might earn victory on the basis of its "man-power and manhood," then return its citizen-soldiers better for their experiences.⁷ Mostly practitioners of the "new school of physical education" perceptible by 1906, Raycroft's team organized athletic competitions and councils in camps and divisions while crafting original physical training programs. These civilians, some of whom earned temporary commissions, brought their educative backgrounds to bear on the problem of training soldiers, motivated by a widely shared reverence for efficiency and interpretations of modern combat.

Chiefly through Raycroft's efforts, the ideas and practices advanced by the Athletic Directors cohered into a training system and a physical culture. This new culture proved more inclusive of varied activities, more focused on functional fitness as defined by combat demands, and more concerned with sculpting individuals into efficient fighting machines. Ironically, these civilians produced a grittier, more combat-oriented physical culture than had their uniformed forebears. Where the soldier of 1914 was disciplined, obedient, self-confident, and capable of above-average feats of strength and endurance, the fit soldier of 1918 was also supposed to be able to give and take punishment, fight barehanded and with bayonet, react to rapidly changing conditions, and play several all-American sports. By the end of the war, Raycroft's culture seemed poised to eclipse Koehler's as the Army's official physical culture, but this did not come to pass. His Athletic Directors returned to civilian life in 1919. His central school withered and died by late 1919 due to post-war budget reductions. His 1920 book *Mass Physical Training* went in to private publication instead of gaining sanction as official Army doctrine. Without doctrinal entrenchment, a school, or a cadre, Raycroft's culture withered.

⁷ Edward Frank Allen, *Keeping Our Fighters Fit for War and After*, ed. Raymond B. Fosdick (New York: The Century Co., 1918), 16.

Koehler's physical culture regained power as Raycroft's faded. Cultural continuity with the pre-war years returned in a remarkable case of organizational forgetting as career officers reasserted their influence. Koehler himself had educated many of these men, and most spent their entire professional lives wholly within the physical culture Koehler had produced. Meanwhile, responsibility for updating physical training policy and doctrine reverted back to West Point. There, Koehler's influence remained strong even after his retirement in 1923 owing to organizational practices and the institutional leaders he had trained. As a result, 1928's *Training Regulations 115-5*, 1936's *Basic Field Manual*, and 1941's *Field Manual 21-20* all reflected Koehler's culture. An emphasis on subordinating the body to man's control and the subordinating the man to the team's needs returned to replace the war-time accent on sculpting individual warriors. The almost complete failure to learn from its experiences in physical training during World War I represented a major failure for the Army. Once more, the organization's official physical culture asserted a "disciplinary value" in physical training that was "at least the equal to is physiological or military value."⁸ Yet in this era of "normalization," two changes bear mention. First, systematic physical training had achieved nearly complete acceptance within the Army. Second, sport's popularity exploded in the interwar Army even as the official physical culture walked back endorsements of athletics. Later systematic training advocates came to see this is as a problem.

As America inclined toward war in 1940 and began mobilizing, the Army encountered a physical fitness problem set reminiscent of 1917's. Passage of the Selective Training and Service Act in September 1940 compelled millions of men to stand before medical boards between 1940 and 1945. Depending upon the year, anywhere from a third to a half of these men would be

⁸ War Department, *Training Regulations No. 115-5: Physical Training* (Washington: Government Printing Office, 1928), 2.

rejected. Resultant lamentations over the declining quality of America's manpower belied the later "Greatest Generation" moniker. Once again, the Army faced the challenge of turning a huge influx of lower quality personnel into a fighting force capable of overcoming a veteran foe. Once again, the Army initially had to do this with a system best suited for maintaining minimum unit fitness and instilling discipline, and without an expansible instructor corps. As in World War I, the Army brought in civilian physical education and athletic coaching experts. However, this time many donned uniforms immediately and much of the work happened "in-house" instead of being out-sourced to a civilian agency like the earlier CTCA.

Outside experts, most notably Theodore Bank and Charles McCloy, reshaped the Army's official physical culture as had their WWI-era predecessors. Similar to cultural changes wrought between 1917 and 1919, WWII-era cultural change stressed individual soldier readiness over formality and discipline. However, the new system inaugurated by 1942's *Training Circular 87* was predicated more on empirical data-based research and concentrated even more exclusively on physiological performance measures. Sport occupied a greater role in in this official physical culture than it had in the interwar version, but traditional concepts still framed its use: maximum participation, emphasis on the average many rather than the elite few, and development of non-physical characteristics and qualities. But even in this new formulation, physical training was meant to do much more than build strong bodies. For instance, the Army's physical culture had always included a gendering function, an impulse to build better *men*. Women's large-scale entry into military service during the war revealed the continued existence of this gendering function. Despite the fact that many men and women performed similar duties, Army and Women's Army Corps leaders opted to construct for women a completely separate physical culture and associated training system. Within this culture, physical fitness came to be defined mostly by an

ability to fulfill explicitly non-combat jobs and to look good doing it. Fit bodies were necessary, but they were to be distinctly feminine bodies too.

After 1945, the Army's official physical culture largely stayed true to the trajectory that Bank, McCloy, and their team first traced. The combat-ready individual continued receiving priority over the disciplined machine-cog of Koehler's culture. Outcomes such as basic military skills competencies, self-confidence, and a will to win remained likely and valuable by-products of physical training, but not goals in and of themselves. Fitness continued to be defined by cultural producers largely in terms centered on infantry combat. These latter-day cultural producers of the 1950s considered themselves inheritors of the "new physical training concept" inaugurated in 1942, which they claimed was the first system "scientifically justified by testing procedure."⁹ This culture proved durable despite post-war drawdowns, shocks from the Korean War, and attempts to reconceptualize the Army as a relevant player on a potential atomic

Beyond 1958, the Army's official physical culture has continued evolving in response to familiar stimuli. For instance, trends in civilian physical education, fitness research, and athletic training remained influential. This influence is evident in the greater significance running and exertion recovering activities assumed within the Army's physical culture in the 1970s and 1980s, which mirrored an aerobic exercise boom initiated in large part by Dr. Kenneth Cooper's 1968 book *Aerobics*. Another familiar stimulus involves changing interpretations held by the agencies most responsible for physical training doctrine and policy of wartime demands on humans. Experiences in wars featuring intensive ground combat such as Korea and Vietnam tended to incline the official physical culture toward a focus on individual combat readiness. In contrast, less demanding periods and a fascination with technology during the 1980s and 1990s

⁹ Department of the Army, *Field Manual 21-20: Physical Training*, (Washington, 1957), 9.

oriented the Army's physical culture more on general, corporate fitness. In recent years high-performance athlete training programs and systems such as CrossFit and P90X have exerted a powerful influence, especially since about 2003 as a result of demanding combat operations in Iraq, Afghanistan, and elsewhere. Elite units such as the 75th Ranger Regiment, conceiving of ideally fit soldiers as "combat tactical athletes," have been the vanguard for this change.¹⁰ Values, assumptions, and practices gestating in these units are now altering the wider physical culture as evidenced by a new combat-oriented, five-event fitness test announced in mid-2018 and intended for Army-wide implementation.

Another key stimulus in the continuing evolution of the Army's physical culture derives from leadership. Although the Army's original discovery of systematic physical training largely resulted from junior officer advocacy, subsequent change in the *official* physical culture has principally been top-down. Especially between 1914 and 1958, the individuals and agencies controlling policy and doctrine have also been the chief cultural producers. Originally, the most influential cultural producers were charismatic individuals who carried the cause of systematic training forward almost single-handedly. Herman Koehler, Edmund Butts, and Joseph Raycroft all fit this mold. Since 1942, durable agencies capable of sustained scientific research have taken the lead. The Army's official physical culture tended to reflect the orientations of these agencies. Individual combat readiness in an infantry-centric framework largely defined the Army's physical culture when the U.S. Army Infantry School (USAIS) held the lead after 1954. When the new Training and Doctrine Command (TRADOC) gradually assumed control of physical training policy and doctrine following its 1973 creation and the subsequent 1982 founding of the

¹⁰ For an excellent overview of doctrinal and policy developments since 1958, see Whitfield B. East, *A Historical Review and Analysis of Army Physical Readiness Training and Assessment* (Ft. Leavenworth: Combat Studies Institute Press, 2013).

U.S. Army Physical Fitness School (USAPFS), the culture shifted toward a more generic, health-based concept of fitness.¹¹ The pendulum swung back toward infantry-centric fitness in the 1990s when streamlining initiatives in response to budget constraints moved many USAPFS personnel back to the U.S. Army Infantry Center at Ft. Benning. In 2007 the USAPFS headquarters downsized and moved once again, this time to Ft. Jackson. There, a close association with TRADOC's Initial Military Training mission, the active leadership of senior officers such as Lieutenant General Mark Hertling, and the enduring demands of America's Global War on Terror have increasingly oriented the Army's official physical culture on basic functional fitness for combat readiness.¹²

Studying the Army's official, systematic-training-based physical culture from its birth to maturity reveals that the dominant definition of fitness within the Army has been and remains layered, constructed, changeable, and heavily influenced by American society.¹³ Since cadets began sweating under Koehler's tutelage in 1885, more has been at stake in physical training than simply improving an individual's strength or endurance. Fitness at that time included elements such as symmetry and power, partly because muscle fiber was thought to be indicative of moral fiber, along with many other less quantifiable components. Fit soldiers were also masculine, disciplined, confident, selfless, efficient parts in a larger machine, and resistant to the pernicious effects of over-civilization in the modern world. During America's first great crusade in Europe between 1917 and 1918, fitness accumulated new meanings that reflected Progressives' worldviews and the demands of trench warfare. Later, scientific study yielded

¹¹ Ibid., 142.

¹² Ibid., 188.

¹³ Historian Shelly McKenzie arrives at a similar conclusion in her study of American fitness culture since the 1950s. See Shelly McKenzie, *Getting Physical: The Rise of Fitness Culture in America* (Lawrence: University Press of Kansas, 2013), 178.

normalized measures of fitness in a physiological sense, yet the cultural definition of fitness retained immeasurable constituents such as teamwork, aggressiveness, confidence, a tough masculinity, and resistance to political subversion. Physical training remains a venue for the cultivation of mental toughness and a laboratory for character and leadership development today. As close readings of the ever-evolving definition of fitness within this culture reveal, that definition did not always correspond directly with the realities of combat. More influential were the ways in which cultural producers *imagined* combat and perceived the needs of nation's young male population. Fitness within the Army's official physical culture morphed over time, but it was always a malleable concept capable of sustaining many layers of meaning.

Part of the reason that fitness remains such a malleable concept is that there is no objective, quantifiable standard of fitness for combat. In fact, such a standard may be impossible to define. None of the systems of exercise developed between 1885 and 1958 were premised on actual measures of soldiers' battle performance or on remediating specific reasons for physical failures in combat. McCloy's and Esslinger's work during World War II came closest to delivering a quantifiable definition of fitness. But even that work proceeded from a generalized list of tasks imagined to be necessary on the battlefield, such as jumping in and out of trenches or carrying heavy objects, and analysis of what could be expected of an average trained man in related and controlled tasks. Studies of combat motivation and soldier performance along with historical works in the face of battle vein frequently highlight the intense physical demands of

war and the interconnectedness of physical and mental stamina.¹⁴ However, they are also consistently vague on the specific physical demands soldiers face. Most soldiers' recollections and scholarly studies never go beyond meditations on the sheer exhaustion and fatigue native to battle. A specific and quantified definition of fitness may be an impossibility. Too many factors are at play in combat, and too little data collection is possible. Superior battlefield fitness is also an eternally relative concept measurable only between combatants. The unquantifiability of fitness is significant to the Army's physical culture because it leaves much up to interpretation, values, beliefs, and reasoning by analogy. The application of science may yield practices that can render a body capable of lifting more weight or moving faster, but there is no such precision or certainty possible in making a person combat-ready.

For all the change in the Army's physical culture during the period under study, some enduring threads of continuity connected the culture of 1958 to that of 1885. For instance, physical training always existed at the intersection between soldier-, citizen-, and man-making projects. This was especially true in the early twentieth century when obligations largely defined citizenship, when industrial warfare demanded that states be able to field and maintain large conscript armies, and when Social Darwinist thinking measured the health of the nation by the qualities of its men. The interaction of these projects also turned attention within the Army outward onto wider American society. Advocates of systematic training regularly trumpeted the anticipated enrichment of society anticipated when men returned home who had been taught the

¹⁴ For an entry to this literature, see Anthony Kellett, *Combat Motivation: The Behavior of Soldiers in Battle* (Boston: Kluwer, Nijhoff Publishing, 1982); John Ellis, *Sharp End: The Fighting Man in World War II* (New York: Scribner's, 1980); Samuel A. Stouffer et al., *The American Soldier: Combat and Its Aftermath*, vol. II (New York: John Wiley & Sons, 1949); J. Glenn Gray, *The Warriors: Reflections on Men in Battle* (Lincoln: University of Nebraska Press, 1998); Gerald F. Linderman, *The World within War: America's Combat Experience in World War II* (Boston: Harvard University Press, 1999); Richard Holmes, *Acts of War: The Behavior of Men in Battle* (London: Weidenfeld & Nicholson, 2003); S. L. A. Marshall, *Men against Fire: The Problem of Battle Command* (Norman: University of Oklahoma Press, 2000); Rune Henrikson, "Warriors in Combat--What Makes People Actively Fight in Combat?," *The Journal of Strategic Studies* 30, no. 2 (2007).

value of fitness and means of achieving it. But if the nation needed conscription to fight a modern industrial war, then returning healthy men was not enough. Men also needed to be made fit before entering the service so as to improve the overall quality of the nation's potential soldiery and make basic military training more efficient. In this military context in which every young man existed in a yet-to-be-mobilized reserve, and in a social context in which soldiering was crucial to citizenship and the masculine ideal, it was only right to prehabilitate men for service. The urge to sculpt young Americans into better potential soldiers, better citizens, and better men became an enduring feature of the Army's official physical culture, informing commonly understood valuations of fitness within the Army and systems designed to achieve it. The American public's physical fitness, or more appropriately the lack thereof, remains a national security concern today. If called upon to fight war demanding mass mobilization today, Americans would no doubt adapt. Yet that process of adaptation would not be easy and the population capable of shouldering the demands of combat training is far smaller than it was in the early and mid-twentieth century.¹⁵

Urges within the Army's official physical culture to improve men reveal another thread of continuity: a tendency to foster and reinforce traditional gender norms. Because cultural producers understood the task of building men and building soldiers to be one and the same, women had no place within the culture. In this sense, women's 1942 arrival in the force threatened the Army's man-building mission even as the Army's physical culture threatened women's femininity. Thus, women required a different physical training system and culture, even though many men and women served in similar or even identical duty positions during World War II and beyond. Separate physical cultures, and the specific character of each,

¹⁵ Lewis, *The American Culture of War*, 35.

reinforced the notion that women were not real soldiers. Even when the Army's physical training system became gender-integrated and duty position-neutral in 1980, female performance requirements on two of the three new Army Physical Fitness Test events were significantly lower than male requirements.¹⁶ Although designed to account for physiological differences between men and women, different gender-based standards buttress conceptions of male superiority and arguments against gender-integrating combat arms units. If the Army wants to take gender integration seriously, then it must define fit *soldiers*, not fit men and women. The recently proposed gender-neutral physical readiness test may help move the Army's physical culture in this direction if implemented.

A final observation about cultural continuity concerns agents of change. Specifically, organizational outsiders propelled the most significant changes within the Army's official physical culture between 1885 and 1958. Herman Koehler, the driving force behind production of a physical culture predicated on systematic training, arrived at West Point as a young, barely-tested Turnverein teacher and only earned an officer's commission after fourteen years of service. Joseph Raycroft and his hastily recruited team of civilian educators and coaches led a major reform of the Army's physical culture during World War I, even though many of those changes did not survive the interwar years. During World War II, Theodore Bank, Charles McCloy, and Arthur Esslinger dramatically altered the Army's official physical culture by ushering in a data-driven "new physical training concept" rooted in scientific research. In each case, un-aculturated outsiders arrived in a time of need, bringing with them some of the latest ideas and practices from the world of physical education, and were empowered by Army

¹⁶ As of June 2018, this disparity remained in the Army Physical Fitness Test (APFT) requirements. As an example, a 22-year-old male soldier needs to complete 40 pushups in two minutes and run two miles in less than 16:36 to achieve a passing score. A 22-year-old female soldier needs to complete 17 40 pushups in two minutes and run two miles in less than 19:36.

authorities to make changes. Between these revolutionary periods the Army's physical culture tended to stagnate, especially when lacking an agency responsible for sustained research and development. Cultural influence also typically flowed unidirectionally from the civilian to military spheres.

Historicizing the roots of the Army's official physical culture is a valuable exercise for the Army as an organization. This study reveals that many present-day problems are not novel and that others have tried to address similar issues in the past. For instance, the challenge of generating leader buy-in and command emphasis for the Army's official training system is not new. Koehler complained about it in 1907, as did attendees at the Infantry School's physical fitness seminar in 1958. Similarly, lamentations about declining American fitness framed by many commentators as a national security concern are not unique to the 21st century.¹⁷ Recurring alarms about the pernicious effects of technology, urbanization, and sedentary lifestyles have in fact spurred physical training initiatives inside and outside the Army for well over a century. While this project offers no simple lessons or cookie-cutter solutions to such intractable problems, historical awareness may help today's policy-makers approach issues with wisdom and sensitize them to possibilities, tendencies, and limitations. For example, policy-makers should give serious thought to who owns physical training research capabilities, doctrine, and policy. The Army's official physical culture has always bent toward the parochial interests and proclivities of that owning agency. Also, leaders should be attuned to the notion that effecting real change in physical readiness across the force requires *cultural* change. Publishing a new

¹⁷ Present-day examples include: Mission: Readiness, Council for a Strong America, <https://www.strongnation.org/missionreadiness> (accessed 10 August 2018); "Citadel-led study reveals threat to U.S. military readiness due to unfit recruits," <https://today.citadel.edu/citadel-led-study-reveals-threat-to-u-s-military-readiness-due-to-unfit-recruits/> (accessed 10 August 2018); and "Unfit to Serve," <https://www.cdc.gov/physicalactivity/downloads/unfit-to-serve.pdf> (accessed 10 August 2018).

system of exercises is not enough. Nor is scientific reasoning on physiological grounds alone. People must be convinced to adopt new or modified definitions of fitness and to realign their values and beliefs accordingly. Such a task is never easy because so many different factors are bound up in a physical culture, ranging from gender norms and professional identity to body image and conceptions of citizenship.

Writing in 1892 during the dawning years of the Army's systematic training-rooted physical culture, Captain James Pilcher observed that the necessity for "individual action has again arisen." Pilcher posited a historical pendulum action of sorts. Where "individual strength and personal prowess" had been crucial characteristics for a warrior in the "days of Lysander and Scylla," gunpowder later "dethroned individuality in combat" and gave way to the methods of "hurling great masses of men against the enemy." Yet according to Pilcher, cutting-edge technological advances in his day denied soldiers "elbow-touch" encouragement and necessitated dispersion and individual action. "Duelling, although on a modified and vastly extended scale," he wrote, "has once more taken the chief place in the machinery of war." These new developments rendered more than ever the "culture of the soldier's physique ... indispensable."¹⁸ Pilcher, like all his peers who first advanced the cause of systematic training in the Army, believed he could enhance human performance to a degree never before known by applying science, rational exercise, and a modern, detailed knowledge of the body. Pilcher's generation inaugurated the Army's body-sculpting movement that continues today. Their efforts and the efforts of those who followed were influenced by more than a simple "detailed knowledge," however. Broad and shifting cultural, political, scientific, technological, social, and military contexts both informed and constrained the imaginations of these advocates, as they still do. War

¹⁸ James E. Pilcher, "The Building of the Soldier," *The United Service* 7, no. 4 (1892): 323.

is an intensely physical activity. Participation in ground combat is perhaps man's supreme test of physical stamina, mental toughness, and character. Despite the promises of the most ardent technophiles, technology has not changed these fundamental facts. Nor is it likely to do so in the future. Where there is war, there will be a need for strong bodies to prosecute it. Much is bound up in those bodies—interleaved mental, spiritual, moral, and physical characteristics. How might those bodies be best sculpted in pursuit of virtue, victory, and civic need? Answering these questions will remain a process fraught by and freighted with layers of meaning that transcend the battlefield.

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Appendix

	Callisthenics / Setting-Up Exercises	Marching	Running	Rifle Drill	Barbell/ Dumbbell/ Indian Club	Gymnastic Apparatus Work	Gymnastic Contests or Tumbling	Mass Athletics (not popular sports)	Popular Sports	Swimming	Boxing/Wrestling/ Combatives	Grass/ Skirmishing/ Guerrilla Drills	Physical Efficiency/F itness Testing	Log Exercises	Obstacle Course	"Strength Course"
1892 - Koehler's <i>Manual of Calisthenic Exercises</i>	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
1900 - Butts' <i>Manual of Physical Drill</i>	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
1904 - Koehler's <i>Manual of Gymnastic Exercises</i>	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
1914 - War Department <i>Manual of Physical Training</i>	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
1917 - War Department <i>Special Regulations, No. 23: Field Physical Training of the Soldier</i>	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
1919 - Koehler's <i>West Point Manual of Disciplinary Physical Training</i>	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
1920 - Raycroft's <i>Mass Physical Training for Use in The Army and the Reserve Officers' Training Corps</i>	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
1928 - War Department <i>Training Regulations No. 115-5: Physical Training</i>	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
1936 - War Department <i>Basic Field Manual, Volume 1, Chapter 4: Physical Training</i>	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
1941 - War Department <i>FM 21-20: Basic Field Manual - Physical Training</i>	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
1942 - War Department <i>Training Circular No. 87</i>	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
1946 - War Department <i>Field Manual 21-20: Physical Training</i>	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
1950 - Department of the Army <i>Field Manual 21-20: Physical Training</i>	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
1957 - Department of the Army <i>Field Manual 21-20: Physical Training and Technical Manual 21-200: Physical Conditioning</i>	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green

Figure 3: Composite Table of Activities by Manual