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## WILLIAM BLAIKIE AND Physical Fitness in Late Nineteenth Century America\*

Most Americans think that the concern over our collective lack of exercise began with the jogging boom of the early 1970s. This assumption is off by more than a hundred years. In the late nineteenth century a group of health reformers advocated exercise for Americans. One such reformer was William Blaikie. His book *How to Get Strong and How to Stay So*, published in 1883, told Americans about the health benefits of regular exercise. His methods, which included weight training, became popular among those who were interested in improving their health. This article will examine three aspects of *How to Get Strong*: the techniques and programs of exercise that Blaikie advocated, the health benefits of his programs, and Blaikie's attitudes toward women and exercise. These three facets of *How to Get Strong* reveal its cultural significance as an important book that greatly aided the progress of physical culture in the United States.

William Blaikie was born in New York City on May 24, 1843, to Reverend Alexander and Nancy (King) Blaikie. He prepared for college at the Boston Latin School, graduated from Harvard in 1866 and from Harvard Law School in 1868, where he was one of the two honor men in his class. He served as a pardon clerk in the office of the United States Attorney General from 1869 to 1870, and as an assistant in the New York office of the United States District Attorney from 1870 to 1872. Blaikie established himself in private practice in New York City in 1873. He was twice married, first to Isabella Stuart Briggs in 1872. After Isabella's death, he married Rebecca Wynn Scott in 1891.<sup>1</sup> No biographical record of Blaikie makes mention of his having children with either wife.

Blaikie was always interested in sports and physical fitness. At 17, weighing 133 pounds, he lifted a weight of 1,019 pounds, using George Barker Windship's Health Lift apparatus. In 1866, Blaikie was a member of the Harvard crew which defeated Yale. For ten years he held the amateur long distance walking record, as he covered the 225 mile distance between Boston and New York in four and one-half days. He helped found the Intercollegiate Athletic Games of America in 1873, which was one of the earliest collegiate athletic meets. Blaikie published *How to Get*

*Strong* in 1879. In 1883 he issued a shorter book entitled *Sound Bodies for Our Boys and Girls*, which prescribed safe and simple exercises for school children. He maintained his interest in physical education throughout his life, writing and lecturing frequently on the subject. Blaikie suffered a stroke and died on December 6, 1904.<sup>2</sup>

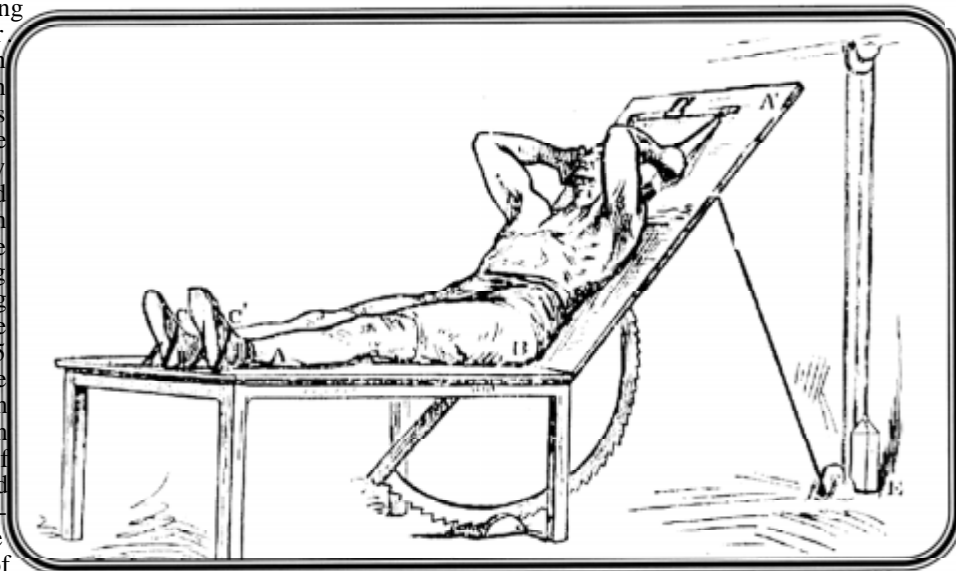
As an active, vital man, Blaikie was concerned by the poor physical health of the average American. He felt that industrialization had led Americans into sedentary occupations, and that the urbanization of society had taken people away from the vigorous healthy life of the farm. As a result, both men and women had suffered; the poor health of Americans was a threat to future generations. He wrote, "A thoroughly erect, well-proportioned man, easy, and graceful in his movements, is far from a frequent sight."<sup>3</sup> What physical work a man or woman might get, he reasoned, such as swinging a smith's hammer or washing clothes, used only part of the body's muscles, thus creating an imbalance. His book was intended to give readers a simple program of exercise they could follow at home and thus restore balance and symmetry to their bodies.

*How to Get Strong* contained a program of prescribed exercise designed to be followed daily. Blaikie advocated the use of small dumbbell weights in performing the routine. Though Blaikie himself had trained with heavy weights, he believed that much benefit could be derived from weights of no more than one-tenth of the user's bodyweight. In fact, most of the exercises he prescribed involved weights of no more than five pounds, though he did acknowledge that some men could use weights in the 50 to 100 pound range. Most of the exercises, such as squats and push-ups, are still

popular with physical fitness teachers.

The program could be done in one-half hour to an hour, depending on the number of repetitions performed. In addition to a thorough weight workout, Blaikie also recommended walking, running, rowing, & swimming. These activities should be undertaken with great vigor, so one could perspire, elevate the heart rate, and cause the lungs to work hard. As he stated, "It must be real work, and no dawdling or time lost."<sup>4</sup>

Blaikie was one



*This illustration from the first edition of Blaikie's How to Get Strong and How to Stay So demonstrates how remarkably advanced resistance training a ready was in the late nineteenth century. This abdominal machine is just one example of the many sorts of machines then available to work muscles in isolation, just as is done in today's modern gyms.*

BLAIKIE CLAIMED IN *SOUND BODIES FOR OUR BOYS AND GIRLS* THAT THIS UNNAMED 190 POUND MAN WAS CAPABLE OF 84 DIPS WITHOUT STOPPING: "AN EXTREMELY HARD PIECE OF WORK." BLAIKIE SAW HIS PHYSIQUE AS NEARLY IDEAL. "... HE HAS SIMPLY MAGNIFICANT BACK ARMS, BEING SIXTEEN INCHES IN GIRTH...ARMS WHICH LOOK WELL EITHER IN ROWING OR EXERCISING COSTUME, THAT IS, WITH NOTHING ON THEM..."



of the first to put forth the idea of weight training to a large audience, although his recommendations were not completely his own. Throughout *How to Get Strong*, Blaikie mentioned the work of Dr.

Dudley Allen Sargent, a Harvard professor who taught previously at Bowdoin College in

Maine from 1873 to 1878. The Sargent

System that Blaikie made famous in *How to Get Strong* was structured around exercises using pulley-weight machines, many of which were Sargent's inventions. The machines could be adjusted to the strength of the individual and focused on the cultivation of specific muscles. The system also involved "mimetic exercises," more than 50 activities designed to imitate the movements of various forms of labor and sport.<sup>5</sup> Appendix Four of *How to Get Strong* contains a table showing the results of four hours of exercise a week for one year for 19 year old men at Bowdoin College. The average subject gained an inch in height and 15 pounds in weight, with significant increases in all body measurements, particularly in the chest and arms.<sup>6</sup>

Sargent moved to Harvard in 1879. His system, publicized by Blaikie, was a turning point for physical education as a profession in the United States. Aided by the prestige of a Harvard position, Sargent was able to give legitimacy to the profession. In part, Sargent's success was a result of his own ability to define clearly what physical education was and why it was necessary, but it was also a function of his concentration on the entire student body, rather than on a few athletes.<sup>7</sup> One of the features of Blaikie's program was its universal message. Where athletics had once been intended only for the wealthy upper classes who could afford to belong to exclusive clubs, *How to Get Strong* offered a chance for middle and working class people to benefit from exercise.

Helped by sales of Blaikie's book, Sargent's system soon expanded beyond Harvard. By 1885, his pulley weight machines and mimetic exercises had been adopted by nearly 50 colleges and clubs. The demand for instructors of his method compelled Sargent to organize a teacher-training program at Harvard in 1884. In 1887, Sargent began his Harvard Summer School of Physical Education, which became a center for the continuing education of teachers. By 1902, Sargent could report a total of 270 colleges giving physical education a place in their programs; 300 city school systems requiring physical education of their students; 500 YMCA gymnasiums with 80,000 members, and more than 100 gymnasiums connected with athletic clubs, hospitals, military bases, and miscellaneous institutions.<sup>8</sup>

The generation of physical educators headed by Sargent believed they had a scientific system of physical education that distinguished itself from simple gymnastics or physical training. Because of the popularity of *How to Get Strong*, the pioneers of physical education were able to get their message to a more receptive audience. There is no way to know if physical education would have made such great strides without Blaikie's book. What is certain is that the book gave legitimacy to the profession.

A second culturally revealing facet of *How to Get Strong* is the preventative nature of Blaikie's philosophy. Due to modern medical research, it is common knowledge today that exercise can help prevent the onset of certain diseases and illnesses. This was not the case in Blaikie's time. In fact, there was a school of thought which theorized that complete inactivity was the best way to prevent disease. Blaikie believed that the exercises he endorsed had preventative powers, and that his system could aid those already ill. Two illnesses in particular that Blaikie addressed were consumption (pulmonary tuberculosis) and neurasthenia. In 1880, these were two of the most common afflictions in America. The former was a physical disease that attacked the lungs. The latter was an illness that affected the mind and nervous system.

By nearly all accounts, the best treatment for consumption for those who could afford it was to get out of the city or village, or sometimes even away from the farm, and head for the mountains. Exercise and mountain air (especially if tinged with balsam and other evergreen scents) were thought to be the best way to heal a damaged set of lungs. "If a consumptive were to 'live in the saddle,' and sleep out of doors, taking care to keep the feet dry and warm, and to live upon good nourishing food, in short, to rough it," wrote the editors of *The Household* in 1882, "he would recover his health in a few months, even if the disease had made considerable progress."<sup>9</sup>

Fresh air did seem to be the remedy of choice for those who could get it. Those who did not have the option of escaping into the wilderness were seemingly out of luck. In the 1860s, preventative measures advocated by health reformers began to gain a wider audience. One such reformer, Dioclesian (Dio) Lewis, published a book in 1864 entitled *Weak Lungs and How to Make Them Strong*, which he developed in the course of treating his tubercular wife. Lewis wrote:

The highest medical authorities of this country have expressed the opinion that tubercular disease of the various tissues is justly charged with one-third of the deaths among the youths and the adults of the civilized peoples. The seat of this tubercular disease is, in great part, in the lungs . . . Had the talent and time which have been given to the treatment of consumption been bestowed upon its cause and prevention, the percentage of mortality from this dreaded disease would have been greatly reduced.<sup>10</sup>

Lewis believed that if an individual's organs were cramped together, he or she was much more likely to become afflicted with disease. He attributed "those numberless diseases of the lungs and heart, including that depopulating disease, consumption, to a contracted chest, which lessens the space for the play of those organs contained within it." Lewis argued that exercise would help Americans fend off disease, declaring, "As the size of the chest is increased by these exercises so is the size of the lungs augmented, respiration perfected, and a susceptibility to those insidious diseases lessened."<sup>11</sup> Lewis advocated a system of gymnastics and calisthenics to increase chest size. He was a pioneer in the preaching of exercise to a large audience, and his work influenced Blaikie.

Throughout *How to Get Strong*, for example, Blaikie mentioned that most Americans, men and women, did not have a sufficiently large chest cavity. Illness would be much

less common, he argued, if Americans would do his prescribed weight exercises to build up their chests. He quotes a doctor on the subject, stating:

An addition of three inches to the circumference of the chest implies that the lungs, instead of counting 250 cubic inches of air, are now capable of receiving 300 cubic inches within their cells; the value of this augmented lung accommodation will be readily admitted the possession of enough lung tissue to admit forty or fifty additional cubic inches of air will amply suffice to turn the scale on the side of recovery. It assists a patient to tide over the critical stage of his disease.<sup>12</sup>

Blaikie designed his chest exercises to stretch the muscles and cartilage of the rib cage, as well as enlarge the muscles of the chest. Blaikie also designed his exercises to fight another common illness of the time, neurasthenia. In simple terms, neurasthenia can be defined as an emotional and psychic disorder that is characterized by easy fatigability and often by lack of motivation, feelings of inadequacy and psychosomatic symptoms. More often referred to as "nervousness," neurasthenia was first described as stemming from an overworked brain strained by business, literary or professional pursuits. Blaikie believed that such brain strain could be avoided through exercise.

Today neurasthenia is more likely to be called stress, and the potential dangers of an over-stressed lifestyle are well-documented. Stress management is a feature of contemporary wellness programs. Exercise is now recognized as one way to release stress. In Blaikie's time, however, much less was known about stress and its effects. Some respected authorities, through their writings on the subject, even perpetuated the idea that stress was not necessarily to be avoided; rather, it was an indication of success and modernity.

The popular and professional theorist of neurasthenia was New York City neurologist George M. Beard. In *American Nervousness: Its Causes and Consequences* (1881), Beard stated that neurasthenia was a by-product of socioeconomic progress beyond hand and field labor to more advanced societies with a large number of intellectuals or "brain workers."<sup>13</sup> He and other neurologists developed a theory of mental and physical health and disease which depended on theories of bodily energy. Beard assumed people had a certain amount of "nerve force" or nervous energy. When the supply of nerve force was too heavily taxed by the demands upon it, or when the available nerve force was not properly used, nervousness was the result. Beard theorized that wasted nervous energy led to a state he called "dissipation." Dissipation eventually led to "decadence"—the death and decay of nerve centers in the individual, and the death and decay of civilization at the social level. The end result of the process of dissipation, or of any unwise use of nerve force, was neurasthenia.<sup>14</sup>

Neurasthenia was thus seen as a sign of modern life. It was not a negative phenomenon, but an indication of the superiority of American culture. Beard wrote that Roman Catholic cultures were relatively free from it, as were such "primitive" groups as African-American, African, American Indian, Asian, and South American peoples. He alleged that Catholic cultures lacked the individualism, intellectual challenge, and social intercourse characteristic of Protestant peoples. He thought other civilizations were childlike, composed of peoples "who have never matured in the higher ranges of intellect . . . living not from science or ideas, but for the senses and emotions."<sup>15</sup>

Beard went so far as to analyze ancient cultures and their tendency toward nervousness. He wrote in *American Nervousness*, "The Greeks were certainly civilized, but they

were not nervous, and in the Greek language there is no word for that term." Ancient cultures could not have experienced nervousness, Beard believed, for while only civilized peoples can become neurasthenic, "civilization alone does not cause nervousness." Neurasthenia resulted directly from modernity. Beard explained the five elements that distinguished the modern from the ancient. These elements were the periodical press, steam power, the telegraph, the sciences, and the mental activity of women. Beard explained, "When civilization, plus these five factors, invades any nation, it must carry nervousness and nervous disease along with it."<sup>16</sup>

Nervousness appealed to the middle and upper classes, as it became a mark of distinction and refinement. It supposedly struck only the brain—workers, not those who performed physical labor. It attacked those, such as artists and literary types, with the most "refined" sensitivities. Neurasthenia afflicted those—such as doctors, bankers, and lawyers—whose mental activity fueled the nation's economic machine. The disease became a marker of status and social acceptability. It was seemingly as much an ideology as an illness—an indication of urban middle-class and wealthy arrogance and status aspiration while at the same time an expression of hostility toward the working class and farm.<sup>17</sup>

The remedy most often prescribed for cases of neurasthenia was Dr. S. Weir Mitchell's rest cure. Mitchell was another of the early theorists in the study of neurasthenia, and he agreed with Beard that brain-work occupations could lead to complete nervous collapse. In a book written a few years before Beard's *American Nervousness*, Mitchell stated, "The wearing, incessant care of overwork, of business anxiety, and the like, produce directly diseases of the nervous system, and are also the fertile parents of dyspepsia, consumption, and maladies of the heart."<sup>18</sup> Mitchell's therapy called for the patient to remove himself completely from the conditions causing his nervousness, if the condition could be diagnosed in time. Mitchell wrote:

Happy it be if not too late in discovering that complete and prolonged cessation from work is the one thing needful. Not a week of holiday, or a month, but probably a year or more of utter idleness may be absolutely essential. Only this will answer in cases so extreme as that I have tried to depict, and even this will not always ensure a return to a state of active working health.<sup>19</sup>

Obviously, only a middle or upper-class patient could afford to leave work for a year to recover from the effects of nervousness. And what would happen after the patient went back to work? If the conditions of the brain-work had not changed, it seemed likely that nervousness could easily set in again. What potential or actual neurasthenia sufferers really needed was a remedy that would allow them to deal with their malady while continuing with their daily lives.

The system Blaikie put forth in *How to Get Strong* offered such a remedy. Blaikie, in fact, directed some of his comments at those most likely to be affected by nervousness. He was certainly aware of Beard's work, and he mentioned Mitchell specifically several times. Blaikie disagreed with both men, arguing that prevention through exercise could reduce the risk of neurasthenia, and that all men who used their brains at work needed strong bodies to succeed. He wrote, "All professional biography teaches that to win lasting distinction in sedentary, in-doors occupations, which tax the brain and the nervous system, extraordinary toughness of body must accompany extraordinary mental powers."<sup>20</sup> A sound mind and a sound body were the ingredients for success in modern times.

Considering his education and social status, it is not

surprising that Blaikie bought into the elitism of neurasthenia. He said only those in mentally stressful occupations needed exercise to prevent nervousness. Blaikie prescribed exercise for physical laborers as well, but only so they could provide muscular balance to their physique, and make themselves strong for their jobs. Although exercises were obviously more practical than Mitchell's rest cure, Blaikie nonetheless never seemed to consider that working-class men could suffer from stress as well. Low wages, inadequate housing, poor sanitary conditions, and exhausting physical labor were all conditions that working-class people of the time had to face. These conditions could cause stress as readily as brain-work. How to *Get Strong* primarily reflected the middle and upper-class concerns of the late nineteenth century. Working-class people were seemingly on their own.

Blaikie made a third cultural statement, in his discussions of women and exercise. He was a strong advocate of exercise for women, as he fully believed that women could derive the same benefits as men. He felt that urbanization and industrialization had robbed women of their vigor, **just** as they had men. Blaikie wrote:

The shop-girl, the factory operative, the clerk in the store, the bookkeeper, the seamstress, the milliner, the telegraph operator, are all confined, for many hours a day, with exercise for but a few of the muscles, and with the trunk held altogether too long in one position, and that too often a contracted and unhealthy one.<sup>21</sup>

Mothers who worked in the home could benefit from exercise as well. Blaikie wrote of a mother's duties, "She is constantly called to perform little duties, both expected and unexpected, which cannot fail to tell on a person not strong."<sup>22</sup> Thus, by adhering to a program of exercise such as the one Blaikie prescribed, a woman could prepare herself for any activities she might face in life.

Blaikie felt that exercise could provide more than physical benefits for women. Much as exercise could help fight overworked brains in men, it could aid women in their struggle to keep their nerves in order. Blaikie best summed up his philosophy toward women and exercise when he wrote that exercise was:

The key to sanity and mental power: to self-respect and high purpose; to sound health and vigorous enduring health . . . let every intelligent girl and woman in the land bear in mind that, from every point of view, a vigorous and healthy body, kept toned up by rational, systematic, daily exercise, is one of the very greatest blessings which can be had in the world.<sup>23</sup>

If Blaikie did not have an egalitarian view of exercise as it pertained to social class, he did have such a view as it pertained to gender.

This view contradicted the accepted medical dicta of the day. Most experts, including Beard and Mitchell, took a dim view of the inherent nature of women's mental health. They believed neurasthenia in women was a result of American women's urban condition. "Debilitated" was the term most often used to describe American women's inherently weakened condition. Nervousness in women in the home was far from a positive cultural attribute. It indicated that American women had fallen behind men in the evolutionary development of the human race, and that more vigorous, non-neurasthenic immigrant and working-class women were outstripping American women.<sup>24</sup>

Treatment for nervousness differed between men and women, Neurasthenia was considered a form of nervous exhaustion, and most experts believed that while women needed rest and quiet so that they might passively build up

their reserves of nerve force, men needed to actively and vigorously build up theirs. Blaikie, with his support of exercise for neurasthenic women, was certainly out of the mainstream in this regard. Those men who did not want to undergo a rest cure usually went on some sort of extended vacation in the country, where they breathed fresh air and recreated at manly tasks, such as riding and taking vigorous hikes. Women, conversely, were almost invariably subjected to the rest cure and the theories of its originator, Dr. Mitchell. Mitchell, like most neurologists of his day, believed that women were not only naturally frail, but that their pursuit of higher education, becoming more common at the time, was destroying their health. Women were simply not up to the same level of brain work as men.<sup>25</sup>

In the Mitchell Rest Cure, the most widely known treatment for neurasthenic women, the patient was prescribed bed rest for a neurasthenic month or longer, was not allowed visitors or permitted to read and write, and was spoon-fed a diet of milk by a nurse. Mitchell stated clearly that he wanted to infantilize his patients, since they needed to turn their wills over to him to effect a cure.<sup>26</sup> His regimen of rest, quiet, and seclusion is a reflection of the paternalism of the time that sought to enforce male ideas of proper feminine behavior and exclude women from public spheres of activity. Many women found Blaikie's methods preferable. With his advocacy of exercise for women as a way to treat one of the most widespread illnesses of the day, Blaikie set himself apart from the accepted ideology of the time.

Blaikie closed *How to Get Strong* by writing, "All else that is needed is a good degree of the steadiness and perseverance which are generally inseparable from everything worth accomplishing." Much of the book was devoted to encouraging such dedication to fitness. At times, it reads like a motivational text, as Blaikie constantly emphasized to his readers the importance of a healthy lifestyle. If they used Blaikie's advice, nineteenth century readers probably did improve their health, which was his main intent in writing the book.

Intentionally or not, he also provided social commentary on the times. More than just an exercise manual, *How to Get Strong* also made important cultural statements. Blaikie's comments on the nature and uses of exercise, the health concerns of the time, and class and gender issues, provide insight into American culture in the 1880s.

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10. Dio Lewis, *Weak Lungs and How To Make Them Strong*. (New York: Harper & Brothers, 1864). 11.

11. *Ibid.*, 265.

12. Blaikie, *How to Get Strong*, 149.

1. Allen Johnson, editor. *Dictionary of American Biography* (1955), Volume One: 322.

2. *Who Was Who in America* (1966). 103: New York Times, 7 December 1904, p. 9.

3. William Blaikie, *How to Get Strong and How to Stay So* (New York: Harper and Brothers, 1879), 10-11.

4. *Ibid.*, 275.

5. James C. Whorton, *Crusaders for Fitness: The History of American Health Reformers* (Princeton, NJ: Princeton University Press, 1982), 283.

6. Blaikie, *How to Get Strong*, 292.

7. Harvey Green, *Fit for America: Health, Fitness, Sport and American Society* (New York: Pantheon Books, 1986), 202.

8. Whorton, *Crusaders*. 284-85.

9. As quoted in Green, *Fit for America*, 128.

13. Green, *Fit for America*, 138.

14. Tom Lutz, *American Nervousness 1903: An Anecdotal History* (New York: 1991), 3-4.

15. As quoted in Green, *Fit for America*, 139.

16. As quoted in Lutz, *Nervousness*, 4.

17. Green, *Fit for America*, 139.

18. S. Weir Mitchell. *Wear and Tear, or Hints for the Overworked* (New York: 1874), 51.

19. *Ibid.*, 57-58.

20. Blaikie, *How To Get Strong*, 90.

21. *Ibid.*, 58.

22. *Ibid.*, 59.

23. *Ibid.*, 72-73.

24. Green. *Fit for America*, 140.

25. As quoted in Whorton, *Crusaders*, 150.

26. Lutz, *Nervousness*, 31.