

Elizabeth DeLuca

Instructor Jean Von Bargen

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Exercise with a New Vision

Routine exercise is not a very old trend. In fact, because it is still at its early stages, we have a long way to go in order to perfect the exercise facility as a building type. A large number of recreation centers were built in the late seventies by firms that did not understand the needs of sports. Because sports architecture was a new building type, it was perceived in the architectural community less as a specialty than as an oxymoron. Due to the growing needs and specificities of different sports, many of these concrete boxes are being torn down and rebuilt. Due to more information obtained through experience, we currently have a better idea about how these buildings should function, and the exercise facility as a building type is getting better. Although, America's current state of obesity is one of the many reasons to believe this morphology, or building type, still has a way to go.

In spite of the fact that routine exercise is a new trend, concern for physical fitness dates back thousands of years ago to 3000 B.C. in Crete when the earliest evidence of organized physical education activity occurred. Centuries later, physical conditioning of the youth facilitated the rise of the Persian Empires. All boys were removed from their homes at age six and trained by the state on survival skills and the development of strength and endurance. Physical education of ancient times reached its summit in the city-states of Greece. The first Olympic Games were recorded in 776 B.C. in the valley of Olympia in northeastern Greece. Three hundred years later, the Greek physicians Herodotus and Hippocrates established a link between exercise and hygiene. In about 400 B.C. Hippocrates wrote: "Eating alone will not keep a man well; he must also take exercise. For food and exercise, while possessing opposite qualities, yet work together to produce health" (Stencel, 849). The modern physical fitness era began in Northern Europe early in the nineteenth century. Friedrich Ludwig Jahn founded the first gymnastics society in Berlin in 1811.¹

The first organized fitness programs in the United States came to be in the early nineteenth century. In 1806, New York physician Shadrach Ricketson stated in his book *Means of Preserving Health and Preventing Diseases*, that "a certain proportion of exercise is not much less essential to a healthy or vigorous constitution than drink, food and sleep." In 1823, Harvard University Professors George Bancroft and J.G. Cogswell established Round Hill School in Boston and incorporated physical education into the curriculum. Catherine Beecher founded the Hartford Female Academy in 1824. She used a set of light exercises she had developed, called calisthenics, accompanied with music to improve the physical condition of young American

women. In 1825, Charles Follen, a Harvard instructor in German, introduced German gymnastics to the university. U.S. interest in gymnastics coincided with the nation's first steps towards industrialization. "Health reformers worried about the health of those living in towns and cities because of the comparative lack of physical activity in their daily lives... They noticed that the young men in the cities often lacked the vigor of the farm workers" (Stencel, 849). In the 1830's, Sylvester Graham, a Presbyterian minister, lectured widely on the benefits of vegetarianism and temperance. Above all, he urged Americans to avoid sedentary habits. In 1842, Horace Mann wrote several reports supporting the idea that physical education is as competent as any other subject taught in school, and should be a required part of any students curriculum. By 1850, the nation's first law requiring the teaching of physiology and hygiene in public schools was implemented. Exercise equipment designed to be used at home first appeared in the 1860's. By the end of the nineteenth century, exercise-conscious Americans could choose from an assortment of home-gym equipment. Equipment included rowing machines and various strength-building systems including those using wires and pulleys, rubber bands, ropes, rings and dumbbells. Bicycling became a popular pastime in the late 1880's. Finally, the second half of the nineteenth century witnessed a rise of interscholastic and intercollegiate sports, including football, rowing, and baseball.²

Editor of *Physical Culture* and many other magazines, "Professor" Bernarr MacFadden emerged as one of the most ardent proponents of health and fitness in early twentieth-century America. *Physical Culture* celebrated the human body as a magnificent artwork, sculpted and finished until it deserved admiration. In the 1930's film actor Douglas Fairbanks contributed much to linking the athletic image to the popular American notion of personal satisfaction, self expression, and joy. In addition, nutrition reformers used popular media such as cartoons and colorful posters to interest Americans in improving the diets of school children. Despite this effort, by 1953, almost 57 percent of U.S. school-children failed six simple fitness tests which led President Dwight D. Eisenhower to create the President's Council on Youth and Fitness in 1956 to help design and implement physical fitness programs in the nation's schools. It was renamed the President's Council on Physical Fitness and Sports in 1968. From the 1960's through the 1980's a physical fitness boom swept the nation. In 1966, Kenneth A. Cooper published *Aerobics*, a best seller credited with inspiring the fitness craze. In 1977, James Fixx's *The Complete Book of Running* celebrated the physical and spiritual rewards of jogging. In 1982, Jane Fonda's first exercise video was released. After all this fitness commotion, the President's Council on Physical Fitness and Sports issued a report that the nation had attained no general fitness gains between 1965 and 1975. Since then, things have only gone downhill in the overall physical condition of Americans.³

Two-thirds of Americans are officially overweight. Among those who are overweight, fifty percent are obese and 4.7% are morbidly obese. Among children, five percent were overweight

twenty years ago, compared to fifteen percent today, and another fifteen percent headed that way. The American Obesity Association estimates that 127 million people in the United States are overweight, 60 million are obese, and 9 million are severely obese. Overall, one out of every three Americans is obese, twice as many as three decades ago, and enough for the Centers for Disease Control and Prevention to declare obesity as an epidemic. The total medical tab for illnesses related to obesity is \$117 billion a year, and climbing. Poor diet and physical inactivity could soon overtake tobacco as the leading cause of preventable death.⁴

Being overweight is associated with 400,000 deaths per year and is linked to 41 different health conditions including heart failure, high blood pressure which increases the risk of more serious diseases, health complaints like insomnia or chronic fatigue that reduce the quality of life, type 2 diabetes, colon, breast, and endometrial cancers, and many others. Highly obese women are twelve times more likely to have diabetes or knee replacement surgery, and five times more likely to have high blood pressure than women who are at a normal weight. They are also more likely to have a history of heart failure, gall bladder removal, pulmonary embolism, chronic fatigue and insomnia. Men in the highest weight categories are eight times more likely to have diabetes, and six times more likely to have a knee replaced or have high blood pressure than are their normal-weight peers. Highly obese men also experience more heart failure, fatigue, pulmonary embolism and insomnia. In addition to the many health conditions related to obesity, is the psychological pain of those stigmatized by being overweight.

The enlargement of America is everywhere. The Puget Sound ferries in Washington have increased the width of their seats from eighteen to twenty inches to allow room for people with larger butts. In Colorado, an ambulance company has retrofitted its vehicles with a winch and a plus-size compartment to handle patients weighing up to half a ton. Finally, an Indiana manufacturer of caskets now offers a double-oversize model at thirty-eight inches wide, compared with a standard 24 inches. For the first time in history, the Worldwatch Institute reports, there are as many overfed, overweight people in the world as those who are underfed and underweight.⁵

The rising rates of obesity reflect human ingenuity that has led to three car-households, the movement of jobs from farms and mines to offices, and oversized portions of cheap over-processed, unhealthy food. Twenty five percent of the vegetables eaten in the US are French fries. Bad food is cheap, heavily promoted, and engineered to taste good. Healthy food is hard to get, not promoted, and expensive. In the early '70's we ate 136 pounds of flour and cereal products per capita, compared to 200 pounds today. Adult women are now eating 335 more calories per day than they did in 1971, while adult men have upped their daily intake by 168 calories. The average child in the U.S. will watch nearly 10,000 commercials touting food or beverages each year.

This obesity epidemic is as much about too much food as it is about too little exercise. One in four Americans doesn't get any exercise at all. Less than a third get the recommended minimum of thirty minutes per day, most days of the week. This is all that's needed to lower the risk of chronic disease. Suburban sprawl and lack of pedestrian-friendly streets have kids being driven instead of walking to school. In addition, most schools have cut back on physical education.

As the obesity epidemic sweeps the country, it is becoming more crucial that something is done about the large number of inactive Americans. A start can be analyzing how to better attract Americans to physical activity. Recreation centers are increasingly being reconfigured, gutted, and even replaced by ubiquitous multipurpose buildings that have come to dominate the sports facility industry over the past 10 years. The main reason is because the old spaces, for the most part, no longer work. Many of these structures are huge, monolithic concrete boxes built in the seventies. At that time, the emphasis in recreation was not about quality, but rather about providing space. Little was known about the specificity of what a sports facility should entail, so generic spaces were created which clearly no longer work. Virtually all were single sex facilities. The biggest failure in these buildings is that there is no sense of place and nothing to attract people to the building. Rather they are more like sweatshops which embody the old-fashioned view of athletics as work, not as fun or recreation. Although, many new facilities are being built due to the inadequacies of old facilities, the sports facility as a morphological type, still has not been perfected. This is clearly shown by the rising trend of fat inactive American's.⁶

A Time/ ABC News poll conducted in May 2004 found that 58% of Americans would like to lose weight, 36% are following a particular diet plan, 74% favor warning labels on high-fat and high sugar foods, 61% favor a law requiring restaurants to list calories and fat for all menu items, 41% favor a tax on high-fat and high-sugar foods, and 53% think that the federal government does too little about the obesity problem. However, only 26% in the poll exercise at least three times a week. People want to loose weight, but they're just plain lazy. Successful weight loss results from a combination of motivation, physical activity, and caloric restriction. According to the statistics above, there is obviously a measure of dissatisfaction with the established exercise facility. In order to get people to want to be physically active, we need to motivate people to want to go to their gym and work-out. To achieve this objective requires a different approach to that which currently prevails. It is human nature to only want to take part in fun and enjoyable activities, if we can come up with methods of exercise that people find more pleasurable they will be much more likely to participate.⁷

We all know there are many benefits in exercise some of which include enhanced mental and physical physique, better overall cognitive performance and decrease in the many diseases related to being overweight or obese. Part of the reward, however, stems not from the activity itself but from the context in which it takes place. A recreational event is enhanced or devalued

by the nature of the environment in which the activity is located. The quality of the built environment, the space it affords, its design, layout, interest, cleanliness and safety, its capacity to excite or relax, to provide sounds and smells, all will have an impact upon the quality of the recreational experience. If there was an option between walking or running through an innovative space versus on a treadmill, few would choose the treadmill if the experience could be enhanced.⁸

Accommodating the urban population's need for indoor recreation requires adequate provision of a range of facilities, set within a physical environment that is amenable to the types of pleasurable experience that most people wish to associate with recreation. Recreational exercise, like many social activities, is prone to fashions – short-term, high-interest activities which grow quickly in popularity, sustain a short peak, but decay with almost equal rapidity. How does one measure hidden demand in such a way as to also take into account forward planning? People are unreliable when asked directly about facilities they may wish to see – they may subscribe to views which they actually do not hold, express interests which cannot be effectively fulfilled because of other constraints, or simply overlook things they actually would like to do. Usage can be created through provision, even when there is no expressed wish amongst the population to engage in a particular activity.⁹

This is where it's time for designers to become innovative and help to revive the exercise facility as a morphological type that is more conducive to the general population. There are several key factors about the current facility that need to be invigorated. First off, extending the appeal of fitness centers may occur through the provision of new forms of facility such as cycle tracks and fitness trails versus stair masters, treadmills, and stationary bikes. Secondly, extending the diversity of environments that lie within an exercise facility through the creation of more dynamic and adventurous space may also increase the popular demand for this type of building. People shape their recreational habits according to the opportunities they see around them. Changing the fundamental program of the current facility with much less emphasis upon conventional spatial strategies and a willingness to tolerate mixed spatial patterns will create a more dynamic and exploratory atmosphere. Doing this requires a will to experiment, to be flexible, and to learn from experience. Then, perhaps, we will begin to create a more conducive indoor work-out environment that will increase the number of active Americans and intern decrease the number of unhealthy, inactive, obese ones.

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