ACTIVE ARCHITECTURE

Can Architecture Create a More Exercise-Oriented Culture?
An Urban Exercise Facility

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ACKNOWLEDGEMENTS

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Background

The American people are facing a rapidly growing threat to our health, well-being, and even our ability to function: obesity. The combination of longer work hours, increased use of computers, changing eating habits, and the popularity of sedentary entertainment options are all contributing to this threat.

The facts show that the number of obese children between the ages of 6 and 19 has nearly tripled since 1980. Obesity will soon become the leading cause of premature death in the United States, yet while the food industry spends an estimated $30 billion on advertising, the federal government spends about $10 million attempting to educate people on healthy lifestyle choices.

This degradation of American health has taken place regardless of the fact that the home exercise and diet plan industries have had unmatched success in the past ten years. Similarly, health and physical education have become mandatory in all public schools and many universities, yet there is no sign of these programs having any positive impact.

The passive educational approaches, and the illusion of the get thin quick diet plans and home exercise plans are not working. It is time that we begin to put energy and resources into solving this American health epidemic by being proactive and trying to engage our population in a healthy lifestyle.
Project Brief

Across the nation, the health of our citizens is in decline because of sedentary lifestyles and eating habits. At the same time, cities are becoming lifeless and dead after the traditional working hours as its citizens sit in cars for hours just to get home in time to sit and watch their favorite prime time television shows.

This project, through architectural exploration, will create a solution to both of these dilemmas. The creation of a large urban exercise facility that incorporates commercial and entertainment options as well as a world class indoor exercise component will interact with the citizens of a large metropolitan area to improve their lifestyles and the vitality of their city.
An Urban Exercise Facility...

The need for a change in the sedentary American lifestyle is evident, now the issue is how do we begin to engage people in an active, and healthy lifestyle? This thesis proposes to create a multi-use, urban health and activity facility that will re-examine both the physical deficiencies of current health facilities and the social deficiencies that have traditionally kept people away from these facilities.

This facility will be primarily publicly funded and located in a dense urban environment. The idea is to create an easily accessible environment that is welcoming to all and to create an urban culture of health and activity. In this way, the facility will involve everyone, draw people to the downtown area, and promote a community of health conscious citizens.

The concept for this facility is to create a critical mass of exercise, entertainment, and social interaction that will establish links to existing urban exercise and activity nodes and create an identity of health and activity for the city.

This facility will not only serve as a vehicle for improving the health of the city, but also as a catalyst to reinforce the life and activity in the urban environment. A facility of this magnitude will draw people to the area from other communities for special events and will make the city attractive to its citizens after the traditional work hours of 9 to 5.

By interacting with the people of the city and the existing urban fabric, this project will serve as a catalyst for urban regeneration.
"The number of Americans dying too soon every year from diseases directly linked to being overweight and sedentary will soon surpass tobacco-related deaths."
-Centers for Disease Control and Prevention

"I think there's a level of personal responsibility that needs to be addressed. Most importantly is to look at physical activity. There's an equation of energy in and energy out that can't be ignored."
-Katherine Kim
National Restaurant Association

"The 1999-2000 survey reveals that 31 percent of Americans are obese—a doubling over the past two decades. A trend that has paradoxically occurred while health clubs, home exercise equipment and heavily promoted diet plans have proliferated."
-Margo Wootan
Director of Nutrition Policy at the Center for Science in the Public Interest.
Space Summary

Basketball Courts (3)
Children's Activity Center
Turf Covered Fields (2)
Running Track
Exercise Cells (6)
Nadatorium
Racquetball Courts (10)
Locker Rooms (6)
Retail Spaces (8,000sf each)
Lobby/Assembly/Seating Area
Retail Space
Restaurant / Food Vendors
Administration
Climbing Wall
Free Weights / Aerobics

Total Net Square Footage

Assume 70/30 Ratio

Total Gross Square Footage
18,000 S.F.
8,000 S.F.
40,000 S.F.
NA
5,250 S.F.
35,000 S.F.
8,000 S.F.
36,000 S.F.
10,800 S.F.
10,000 S.F.
30,000 S.F.
30,000 S.F.
20,000 S.F.
3,500 S.F.
30,000 S.F.

284,550 S.F.

400,000 S.F.
The creation of an identity...

The city of Louisville, Kentucky has spent millions of dollars in the last ten years creating outdoor, exercise oriented facilities along the waterfront of the downtown area. Louisville Slugger Stadium, The Waterfront Park Development Projects, and a world-class multi-million dollar extreme sports park are all within a few blocks of one another on the eastern end of the downtown area.

Situated adjacent to the Stadium and the Great Lawn portion of Waterfront Park is a vacant lot that is currently used as surface parking. This site is ideal for the proposed thesis. The location provides ample opportunities for linking to the city’s existing outdoor activity spaces and is in a highly visible location.

Visibility from two major interstates and ample parking provided by a garage half a block away and multiple locations for surface parking, facilitate vehicular access. Pedestrian access is already reinforced by the surrounding park and jogging trails.

The city has already begun to establish a sports and activity oriented identity for its downtown. The inclusion of this facility will bring these separate elements together, linking them with one another and the city and will then firmly declare the downtown area as an active and energetic place.
Louisville, Kentucky
Sports, Entertainment, Culture

Though it contains restaurants, offices, and retail spaces, this facility is still primarily an exercise facility. For this reason, the bulk of the research for this project involved sports related facilities. I found that the greatest resource was to focus on the design of arenas and stadiums.

The arena is traditionally a space that encourages observance as opposed to action, but this is changing. The new concepts for creating stadiums involve the user on many levels and are flexible in order to accommodate social activities beyond just observing a sports event.

These are the things that were learned by studying these sports venues: how to engage and keep people entertained, the importance of flexibility and variety, and the importance of engaging the community at all times and on many levels.
Various Schemes...

Many different schemes were explored to test ideas of massing, site connections, visibility and scale issues.

Site Connections

This scheme investigated the idea of drawing cues from surrounding landforms and visual axes.
Contrasts of Massing

In this exploration, office and retail space was modeled as solid and angular while the activity spaces were organic and flowing.

Visibility

Elements of solid and void were examined as well as experiments into how to create focal points of activity at varying scales.
Elevated Scheme

This concept represents the first attempt at taking the knowledge gained from the previous explorations and combining them with more defined spaces and square footages.
Pedestrian Axis

With this concept the final design began to take shape. The axis found in this design and the basic spatial arrangement can be found in the final design.
Final Design Concept

The final concept of this design incorporated the previously mentioned goals of visibility, accessibility and multiple uses by creating a very strong axis through the facility that accomplished multiple objectives.

The activity spaces were pushed towards the perimeter of the site. This creates two layers of visibility. The spaces have a street level presence along the perimeter in addition to visibility along the major pedestrian corridor that cuts through the site on the interior.

The commercial spaces are pulled towards the inner perimeter of the building. This causes people who wish to use these amenities to be directed into the heart of the building where they view all of the exercise facilities and hopefully become more comfortable around these activities.

The central heart of the building is a service space that acts as a supply and circulation core to serve all of the commercial spaces surrounding it.

The massing of the building incorporates a 1-2 type of scheme. Each major activity space is separated by a smaller mass that breaks down the scale and serves as a location for fire egress, vertical circulation and HVAC. These spaces all surround the pedestrian axis that separates the activity spaces from the commercial spaces.
Exercise and Commercial Zones

Circulation and Service Zones

Zoning Diagram
Northeast Entry

Northeast Entry Above

Structural Systems

Northeast Entry
Reflections

This project has been a very valuable experience. Never before have I attempted to tackle such a large project or had such a hard time comprehending a project's scale and scope.

I am very satisfied with the basic concepts and premise of this project. I feel that the original goals and desires I had at the very conception of the idea of this thesis have been realized and that a building of this size and concept would accomplish what I desire it too.

As with any project I have undertaken during my education, I feel that there is so much work left to do. The plans were never fully realized and I am not as happy with the final building execution and image as I would have hoped. I would like for the final design to have represented more of the freedom and exploration of the earlier concepts.

As a learning experience, this process has been very successful. In taking on such a large and complex program, I have learned the value of process and planning. Given a project of this scale again, I think I would be much more successful and prepared and that makes me feel that this thesis has been a success. I may not have a final product that I am completely happy with, but I learned much that will assist me in any future projects.
Thanks

This project represents the culmination of my education at Ball State University and as such, I feel it necessary to thank the people who have made all of this possible.

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