The less energy they will have, the less they will be able to engage in physical activities. The less they are engaged, the more fatigued they become, and the more fatigued they become, the less they are able to engage. This cycle is self-perpetuating.
AN OFFICE ENVIRONMENT THAT CREATES A BALANCE BETWEEN INTELLIGENCE, WORK AND PHYSICAL WORK IS IMPORTANT TO THE QUALITY OF A PERSON'S WORK LIFE AND LIFE OUTSIDE THE OFFICE. THERE IS A STRONG NEED FOR MORE PRODUCTIVE, INSPIRING ENVIRONMENTS IN WHICH WE WORK DAY-TO-DAY.
Acknowledgements

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Introduction

Can an architectural solution for the office atmosphere create exciting environmental experiences that enhance wellness, promote physical sustainability, and inspire motivation to become or stay healthy?

In Canada and the United States, more people work in offices than in any other work setting. About 42% of the U.S. workforce is office workers. Their occupations are extremely diverse. Of these, roughly 26% are clerical workers, who perform tasks that are more or less procedural in nature. The remaining 74% are commonly categorized as knowledge workers, which include managerial and professional workers (Panko 1992).

The conventional office is a physical environment that accommodates certain work activities of an organization. Typical conventional office activities include filing, planning, designing, supervising, analyzing, deciding, and communicating, all of which are predominantly information processing activities. Conventional offices developed from the need for organizations to coordinate, plan, and administer their activities.

The unconventional office will observe the same various activities as a conventional office, but will add to the dynamics of everyday work. Added activities in the unconventional office will include: participation in the research and trial of fitness/sports related products, observation of various fitness/sports re-
Background

AN UNCONVENTIONAL OFFICE

The unconventional office is developing from the need to create exciting environmental experiences that enhance wellness, promote physical sustainability, and inspire motivation to become or stay healthy. Incorporating these added needs will encourage a better workplace value for the unconventional office. The office facility we know today came into existence as a place from which an enterprise could effectively be controlled. This new unconventional office facility will come into existence as a place for the enterprise to control effectively the products which they are supplying.

The physical office environment directly affects the occupants' life, both at work and outside the office. Sedentary office environments increase ennui and engender poor production rates. An office environment that creates a balance between intellectual work and physical work is important to the quality of a person's work life and life outside the office.

Surveys conducted over the past 20 years indicate that office workers are becoming increasingly negative toward their workplace (Klien 1983; Harris 1991). Psychological research indicates that static office environments increase boredom, restlessness, lack of concentration, and even a reduction in intelligence. "A change in environment stimulates our built-in devices to perceive and
The typical office of today has a building width of about 30-50 ft which consists, internally, of a central corridor with shallow offices on each side. The only difference between these and those of the prewar period are external cladding and fluorescent lighting systems. The main reason for this trend in office design is from the traditional search for daylight. Another reason is habit; creating what people are accustomed to.

The office environment has recently started to be reevaluated by organizations. They are rethinking about the people that it serves, how its value should be assessed, and how its performance should be measured. Other forces that are driving the rethinking of the office environment and its design are: cost, legal accountability, real estate asset management, flexibility, knowledge work, productivity of office workers, changing demographics, alternative accommodation, and the greening of the office.

Long term success for an organization is dependent upon the physical office environment. The setting affects the organization's cost of labor and accommodation, the productivity of its workforce, and the quality of worker it can attract. Organizations are willing to invest more for their people, beginning with the physical setting of the office environment. The ongoing process of improving organizational effectiveness through workplace en-
Research

Precedence Studies

No one will mistake the new Reebok World Headquarters in Canton, Massachusetts, for one of those anonymous data processing cubes that litter suburbia's woody fringes. A drive into the 42-acre Reebok campus, 20 miles south of Boston, reveals a four story, curtain-walled spine, sweeping dramatically across the site. Seattle-based architects NBBJ designed the curve and cant to suggest a fragment borrowed from the bowl of a sports stadium, a visual metaphor intended to create a commanding corporate presence that would awe visitors and inspire employees. NBBJ's well honed, high-tech aesthetic meshed well with Reebok's self-image of technological innovation, and its aggressive efforts

NBBJ designed the curve and cant to suggest a fragment borrowed from the bowl of a sports stadium, a visual metaphor intended to create a commanding corporate presence that would awe visitors and inspire employees.
Norman Foster
1988-1990
The design for ITN's central London headquarters set out to challenge preconceived ideas about the business of gathering and disseminating news. The project also advanced the practice's environmental expertise, reconciled the constraints of a speculative office building with the requirements of its key tenant, and demonstrated that a building can be sensitive to its context and Frei Otto

"Tanzbrunnen" at Cologne

The star-shaped undulating roof over the circular open-air dance floor (Tanzbrunnen) at the Federal Garden Exhibition at Cologne in 1957 has been retained as a permanent feature. The gleaming white roof lends scale to the circular platform surrounded by tall trees and focuses attention on it. With a span of 33m it covers the dance floor consisting of a cantilevered concrete slab of 24m diameter.
The site is located in the downtown district of Indianapolis, bounded by Vermont St. to the north, New York St. to the south, Capitol Ave. to the west, and Illinois St. to the east. Important visual connections from the site and into the site are: from the south at the Indiana State House, the American United Life Building, and from One Capitol North. The site is an existing parking lot for the AUL Building. The urban block provides 202,500 square feet of area and a very interesting skyline. The site provides many interesting opportunities for an office community.
Program
SPACE AND CHARACTER

The project is a "try before you buy" mixed-use office community. The project articulates a sense of athleticism through form, materials, structure, and communications media. The scheme expresses a design orientation that focuses on the experience and health of the user. This investigation of how to build an environment that will increase the motivation for an employee to become or maintain a healthy lifestyle will solve the problem of merging the office and the fitness center into a place of work and health. This will be solved through immersing employees into the research and development of their sports/fitness related products. Transporting the occupant into the experience of being healthy will deliver a design imagery that boosts productivity of the companies work forces.

1.41 SPACE RELATIONSHIPS

Observation of various fitness/sports related products being tested on site, and administering results of on-site testing into the design of fitness/sports related products.
# Space Summary

### 1.0 Offices
- **1.1** Open Office Space (8 x 20,000) 327,784 sq. ft.
- **1.2** Group Conference Rooms (8 x 650) 169,000 sq. ft.
- **1.3** Secretarial and General Offices 5,200 sq. ft.
- **1.4** Utility Rooms; Restrooms 12,800 sq. ft.
- **1.5** Employee Break Rooms 24,384 sq. ft.
- **1.6** Lobby Areas (8 x 1,350) 8,000 sq. ft.
- **1.7** Conference Center 86,400 sq. ft.
- **1.8** Observation Deck 30,000 sq. ft.

### 5.0 Support Spaces
- **5.1** Toilets 11,000 sq. ft.
- **5.2** Drinking Fountain, Telephone and Janitors Closet 14,800 sq. ft.
- **5.3** Storage Areas 6.0 Service Area

### 2.0 Fitness Center
- **2.1** Multi-Sport Gymnasium 153,950 sq. ft.
- **2.2** Racquetball Courts 25,000 sq. ft.
- **2.3** Natatorium 16,000 sq. ft.
- **2.4** Weight Training 20,000 sq. ft.
- **2.5** Cardio Training 6,450 sq. ft.
- **2.6** Health Education Classrooms 6,490 sq. ft.
- **2.7** Administrators Offices 1,000 sq. ft.
- **2.8** Locker Rooms 1,500 sq. ft.
- **2.9** Children's Area 17,600 sq. ft.
- **2.10** Multipurpose Gymnasium 6,450 sq. ft.
- **2.11** Fitness Rooms 9,650 sq. ft.
- **2.12** Climbing Area 13,200 sq. ft.
- **2.13** Tennis Center 6,500 sq. ft.
- **2.14** Fuel Bar Area 5,500 sq. ft.

### 3.0 Retail
- **3.1** Display Areas 134,890 sq. ft.
- **3.2** Checkout Areas 1,080 sq. ft.
- **3.3** Dressing Rooms 5,400 sq. ft.
- **3.4** General Office and Storage 1,000 sq. ft.
- **3.5** Restrooms 4,410 sq. ft.

### 4.0 Café/Restaurants (2 x 7,300)
- **4.1** General Table Seating 12,200 sq. ft.
- **4.2** Kitchen 7,000 sq. ft.

## Total Area
- **Total Area** 839,855 sq. ft.
- **Net Area of Spaces** 670,124 sq. ft.

## Grossage (25% of net)
- **Includes area for entry, atria, corridors, elevators, escalators, fire stairs, wall thickness, etc.**
- **Mechanical Rooms** 25,200 sq. ft.
- **Contiguous to the receiving area.**

## Sum of all of the above
- **839,855 sq. ft.**
Varying office environments prevent boredom, restlessness, lack of concentration, and reduction in intelligence. Creating an office community that immerses the user into an exciting atmosphere incorporating many fitness related activities will help to inspire healthy living.
Preliminary studies

Preliminary concepts emphasized the integration of three programmatic functions thereby creating relationships between office, fitness and retail. Visual connections between the three elements were extremely important to the conceptual development. The place where the three functions come together becomes the culmination or the destination point. Other connections that were significant were within the site and within the building.
THE PROGRAMATIC BOX WAS A STUDY OF ALL OF THE ACTIVITIES THAT WERE TO HAPPEN WITHIN THE BUILDING. THE ACTIVITIES WERE ZONED BY FLOORS IN CONJUNCTION WITH EACH OTHER AND THE OFFICE SPACE ON THE FOURS.

CONCEPT 4-MIDTERM REVIEW

PROGRAMATIC BOX
As the separation of programmatic elements became more evident, the office floor plates were decreased, allowing them to become a tower element. The fracture helps the offices to maintain a visual connection with the city. A glass wall became the connector from the tower to the fitness and retail areas below.
Daylighting studies forced the orientation of the tower to become east-west to minimize heat gains. Interior connections are still important to the design. The juxtaposition of an agrressive tower form and subtle base form creates a ten- tion and playfulness between the elements.

Concept 5: Post Midterm Review

Fractured Tower 2

1.6 Conceptual Plan showing fractured

2.6 Conceptual Plan showing fractured
AN IDEA OF THE OFFICE TOWER CRADLING THE FITNESS CENTER ALLOWED THE FRACTURE TO BREAK INWARD. THE MAIN SLICE THROUGH THE BUILDING IS DIRECTLY ON AXIS WITH MONUMENT, CIRCLE, ESCHABLING A RELATIONSHIP WITH THE CITY.
An undulating atrium connector became a new way of thinking about how to visually connect the office tower with the fitness center. The connector becomes more fluid, allowing an expressive element as the link between fitness and work. Studies of sun shading become a focus of this investigation.
The solution to providing visual cues from the office tower into the fitness center was achieved through a tensile roof connector that metaphorically represents a tendon between two muscles. The tensile roof connector establishes an arena metaphor, encapsulating a large volume of space as a freestanding element. Immersed into the experience of this space, the user is fully engaged in the journey from entry to destination.
The unconventional solution to the problem of sedentary environments. The unique office provides and internal connection fitness and health activities, inspiring the employee to become a healthy lifestyle.
Final Design
AN UNCONVENTIONAL OFFICE

The design of the Unconventional Office is a dramatic mix of massive proportions of red brick contrasted with dark blue aluminum mullions and sleek tinted glass. A tensile roof canopy soars 300 ft. above providing shade for the 327,784 sq. ft. of office space, 134,890 sq. ft. of retail space, a 153,950 sq. ft. fitness center, two large 11,000 sq. ft. outdoor observation and eating garden terraces, and two 7,300 sq. ft. cafes below.
The canopy made of teflon coated fabric and supported by 300 ft. tall truss-columns encapsulates a large volume of air much like that of the RCA dome just a few blocks away. Metaphorically the tensile roof structure represents a tendon connecting two mucles together.
Connections within and the total experience of place are the main concepts for the Unconventional Office. A "retail alley" is one connector of the retail space and the fitness center. The elevator cores are pulled outside of the building as the second way to connect all three elements, allowing the experience of place to happen from arrival to destination. The third connector is the roof canopy.
The retail area is located on the north part of the site separated by a retail alley that provides seating and green spaces within the building. The fitness center is located to the south of the site to maximize street exposure. A large skylight allows natural light to enter into the multi-purpose gymnasium and also allows views from the offices into the gymnasium.
The cafes are located on the fourth floor overlooking the cardio and weight training areas. Large observation/eating areas are also located on this level overlooking the city on the south side and the fitness center on the north side. The office tower hovers above the fitness center, a constant reminder of health and fitness for the employees of the Unconventional Office.
The multi-sport gymnasium is the main feature of the Unconventional Office. It is a 4 story volume, flanked by a running track, fitness areas, and balconies for observation. The gymnasium is capped off with a large skylight that allows filtered natural light to flood the interior space. The skylight also provides means for views from the office tower above into the gymnasium providing visual cues of health and wellness.
THE MAIN FUNCTION OF THE NORTH TERRACE IS FOR EMPLOYEES TO USE FOR OBSERVATION OF VARIOUS FITNESS RELATED ACTIVITIES CONTAINED WITHIN THE FITNESS CENTER. IT IS ALSO FOR RELAXATION OR CONTEMPLATION. THE MAIN FUNCTION FOR THE SOUTH TERRACE IS FOR OUTDOOR DINNING AND OBSERVATION INTO THE CITY. EMPLOYEES WILL USE THE SOUTH TERRACE FOR ENJOYING LUNCH BREAKS.
“A landscape should never be seen as static. Something dynamic is always happening. As soon as the wind blows, the trees will also move. The sun moves. The shadows and clouds move. We move, along with animals and machines. All these moments are experienced by a structure as it stands silently yet alive within the landscape.”

-Santiago Calatrava
I believe that I try to present my architecture to appear to move or to contain the qualities of movement. I have been studying movement in architecture since the beginning of my architectural education. Movement is a very important part of all of our lives. I am aware that many of us do not get enough movement in our daily lives to feel happy and healthy.

Although this thesis is presented in final form, it is by no means final. I feel I have done a superb job at interconnecting spaces to enhance motivation and to provide visibility of others exercising. The idea of providing metaphors and visual cues allows for the building to feel more like an arena for athletic activities. Conceptually I feel that this project is strong.

Design elements that could have been further pursued were: possibility for the tensile structure to become double skin glass system to provide views into the city, the design of the facade as an extension of the activities within, the expression of double height spaces, the exploration of entry possibility on the southwest corner, and the establishment of hierarchy by the use of asymmetry.
These sources have been used for the purpose of compiling precedence studies, developing and understanding the design issues, and exploring responses to the design issues.


