ELEGANCE IN FUNCTIONALISM
UNDERGRADUATE THESIS REPORT

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<table>
<thead>
<tr>
<th>CONTENTS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>THESIS POSITION</td>
<td>1</td>
</tr>
<tr>
<td>PROGRAM AND CONTEXTUAL INFORMATION</td>
<td>6</td>
</tr>
<tr>
<td>DESIGN SOLUTION</td>
<td>17</td>
</tr>
<tr>
<td>SUMMARY</td>
<td>41</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>44</td>
</tr>
</tbody>
</table>
THESIS POSITION
My thesis is, to a certain degree, an attempt to come to grips with the idea of architectural ornamentation and style. I have reservations about the appropriateness of some of the modern styles as they are used in architecture. Is a particular style expressed in a building because it says something about the building, or is it because that style was what the designer of the building was doing at the time? And if a building is designed without any certain notion of style, is it simply void of ornamentation? For my thesis, I am attempting to offer one possible solution to some of these questions. I am, in some ways, developing a personal attitude toward style and ornamentation. I am looking at ornamentation as something which is not applied to a building, but rather something which grows out of the building. To do this, I am focusing on the functional aspects of the building, and designing them in such a way as to allow them to express themselves in a very honest and celebrated way. It is my goal to have these functional details work together to form the ornamentation, and the style of the building. By doing this, I will not be designing a style which can then be applied to any building, but rather, a system by which a building may be designed to reflect its own style, one which is true to that particular building.

"Never put silver spoons, nor table cloths for me; but let your table be clean enough to eat from without cloths...." Mother Ann Lee, founder of the American Shakers
The high performance automobile has always been an inspiration of mine, and is of particular interest related to this study. It is little more than a group of highly refined functional systems which have been combined to create an end product which, in my opinion, is a thing of functional beauty.

The ideas which I am proposing to apply to design are not new ones, of course. This windmill in England is a good example of an object which has been derived from function, yet as a composition is sculptural. Natural laws of balance and motion have been transformed into aesthetic laws of the same.

"Although his 'structural' theme was based on the application of the most recent discoveries in construction techniques and the latest notions of functionalism, he never the less used traditional materials like stone, iron, brick, and wood, and employing them still with methods of the craftsman, sought to make the structure expressive."

Lara Masini on Gaudi. (Masini, 1970, p. 8)
Renzo Piano calls his way of designing "technology culturalised" and disclaims the title "high-tech". He believes that his work reflects the language of our times, and that technology can and should be used to serve humanity rather than to dominate it. (Farrelly, 1987, p.70) Much of his work exemplifies the feel that I am striving for in my work, for similar reasons.

Few buildings display a more dramatic expression of materials and construction techniques than those products of Frei Otto's work with tensile structures.

"Ornament, if organic, was never on the thing, but of it..." Frank LLoyd Wright (Maddex, 1985)
"Form is not the aim of our work, but only the result. Form by itself does not exist."
Mies Van Der Rohe (Carter, 1974)

It is ironic to see the elegant Barcelona chair in the context of the Lake Shore Drive Apartments. It is difficult to believe that they are both products of the same designer.

Fay Jones is a designer who, in my opinion, leaves no stone unturned. His broad range of attention, from site considerations to the smallest detail, has become a source of great inspiration for me.

There seems to be a notion of similar ideas as those which I have been working with beginning to appear in recent works, such as these examples by Tod Williams Billie Tsien and associates. Functional expression develops a unique aesthetic.

(Carter, 1974, p.55)
(Wagner, 1981, p.89)
(Iovine, 1988, p.115)
MASONRY’89

competition

Beyond The Garden

Artist in Residence Center
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INTRODUCTION

RECENT SITE HISTORY

The most recent comprehensive plan for downtown Minneapolis was established in the late 1950's. Two new physical elements were introduced: a strong linear retail area designed by Lawrence Halprin known as Nicollet Mall and the angular Greenway residential district. These were combined with the existing fifteen acre Loring Park to produce a strategy of attracting people to the downtown, and highlighting it as a place to shop, live, work and experience nature.

In the early 1960's, just to the west of this downtown development and just across the street from Olmstead's urban Loring Park, the planning of two major cultural institutions was underway. One was Ralph Rapson’s design for the Guthrie Theatre, one of the country’s finest repertory theatre groups. Simultaneously, Edward Larabee Barnes began to plan an addition to a Guthrie neighbor, the Walker Art Center.

The late 60's brought construction of Interstate I-94 in the same path as Minnesota Highway 12 and two major Minneapolis streets, Lyndale Avenue and Hennepin Avenue, creating a 16 lane thoroughfare separating Loring Park from the Walker/Guthrie complex. This construction took the form of a two-tiered roadway, each of eight lanes, with I-94 and Highway 12 passing through a lower tunnel, Lowry Tunnel, while the city avenues traversed above on grade with the surrounding sidewalks and buildings.

Barnes' work on the early Walker Art Center continued, but complications arose due to extensive settlement and foundation problems inherent in the old building. Finally, the decision was made to level the old building and to replace it with a new facility.

In 1971, the new Walker Art Center opened to the public, featuring cubelike volumes sheathed in a dark violet brick. Internally, a helical plan arranged the exhibition spaces as alternating steps, each overlooking the next in a dynamic composition. The new Walker Art Center also joined with its neighbor, the Guthrie, in sharing a common entrance lobby which houses ticketing counters and a gift shop.
RECENT DEVELOPMENTS

In recent years the staffs and governing bodies of the Walker Art Center and the Minneapolis Park and Recreation Board shared a vision of a large-scale public sculpture garden extending to the north of the Walker/Guthrie complex. Edward Larabee Barnes was again contacted to design the master plan for the Minneapolis Sculpture Garden. Three basic features would distinguish this sculpture garden from others. First, with 7.5 acres, it would be the country's largest urban sculpture garden. Second, some of the sculpture would be temporarily displayed, while others would find permanent homes in the Minneapolis Sculpture Garden. And finally, the garden would have no gates--it would be accessible 24 hours a day, 365 days a year, like any other public park maintained by the Minneapolis Park and Recreation Board.

Barnes saw the garden as part of a mega-block with two major components, the Walker and Guthrie, already in place. As a result, his plan reflects the rectilinear geometry of the buildings. The Minneapolis Sculpture Garden plan is essentially symmetrical with four 100-foot square plazas, separated from each other by north-south and east-west walkways. The plazas are defined by low double walls of carnelian granite which contain evergreens, thus creating the effect of roofless rooms. The walkways are lined with linden trees, between which are located a number of sculptures, including those by Henry Moore, George Segal, Deborah Butterfield, and Isamu Noguchi.

Other major garden features include:

The Irene Hixon Whitney Bridge which spans 16 lanes of traffic on I-94, Highway 12 and Lyndale and Hennepin Avenues. This pedestrian bridge, designed by Siab Armajani, re-establishes the connection between the Walker/Guthrie/Sculpture Garden and Loring Park. It also fulfills a Walker Art Center objective of having several works of utilitarian, as well as aesthetic, character.

The Sage and John Cowles Conservatory forms the west boundary of the Minneapolis Sculpture Garden, linking a parking lot with the Guthrie Theater. The Conservatory is positioned at the west end of the east-west axis, and has become the Garden's dominant architectural feature. The Walker Art Center and the Minneapolis Park and Recreation Board invited the Minnesota Landscape Arboretum to provide the specified personnel necessary to maintain the plantings in the Conservatory's three greenhouses. The tri-partite conservatory is the permanent home of the sculpture, "Standing Glass Fish", by California architect Frank Gehry, and also houses the Regis Gardens, designed in collaboration by San Francisco landscape architect Barbara Stouffer, Solomon and Harvard professor Michael Van Valkenburgh.

The northern-most sector of the Minneapolis Sculpture Garden is home to another spectacular focal point, the 29-foot high "Spoonbridge and Cherry" fountain designed by Claes Oldenburg and Coosje van Bruggen. The fine spray emitted from the top of the cherry stem has been described by Oldenburg as "not a sprinkle of water, but a haze. It's meant to catch the sunlight and to create an occasional rainbow." The Spoonbridge's aluminum spoon bowl also rests on an earthen island within the linden seed-shaped pond.
THE DESIGN CHALLENGE

An existing twenty-five year agreement between the Walker Art Center and the Minneapolis Park and Recreation Board states that the Minneapolis Sculpture Garden will eventually incorporate the three and one-half acres of parkland directly north of the Garden. This site is presently occupied by a softball diamond, which the City is in the process of re-locating.

The general challenge to competition entrants is to design a facility with consideration for a design curriculum, and a program of outreach activities that would link Minneapolis Sculpture Garden visitors to the Walker Art Center with all its sensory experiences, thereby attracting a new, greatly expanded and varied audience to the Walker exhibitions and programs. This complex can be designed using any combination of brick, stone, marble, concrete block, tile, stucco, plaster, glass block, terra cotta, or terrazzo as building materials.

The specific design challenge will be known as the "Artist in Residence Center". This facility will house a "Resident" designer or artist and ten college-level student interns, all in residence for a six-month period. As you design the physical elements, consider the type of curriculum that would be taught: art, sculpture, architecture, landscape architecture, poetry, music, etc. This Center will be a true multi-use facility because of the large variety of artists who will work and teach there over the coming years. The design should also consider that the Artist in Residence Center will act as the physical embodiment of the Outreach Program for the Walker Art Center and the Guthrie Theater. As such, the building design should be appropriate to public interaction with the artist and interns. The building complex will become another physical element of the mega-block that now includes the Walker Art Center, the Guthrie Theater, and the Minneapolis Sculpture Garden and Conservatory.
THE ARTIST IN RESIDENCE CENTER

According to Martin Friedman, Director of the Walker Art Center, one of the best ways to develop an appreciative audience for design and the arts is to expose your audience to good work.

The Artist In Residence Center will further enhance the Minneapolis Sculpture Garden and Walker Art Center visitors' experience by exposing them to the creative process. If you consider the Minneapolis Sculpture Garden as a casual attraction and the Walker Art Center as the formal exhibition for art, then the Artist In Residence Center will be a showcase for demonstrating the methods of creativity.

What are the designers' and artists' sources of inspiration? How are their ideas synthesized? Why were certain materials chosen for fabrication? How are mental images converted to physical form? And how are the physical forms fabricated? Our new Artist In Residence Center facility will be the physical repository of the answers to these questions and many other investigations into the creation of design and art.

The spatial program of the Artist In Residence Center you design might include, but is not limited to, the following:

- studio space accessible to viewing public
- lecture room with projection facilities
- performance space
- workshop
- storage space with loading dock
- gallery space
- public bathrooms
- reception space (to accommodate sequential bus loads of visitors)
- library
- living quarters for 10 interns and the Resident Artist; kitchen, bathroom, sleeping quarters, solitary study and work space, common room, etc.
- parking for fifteen automobiles and three school buses

To facilitate the dialogue between designer/artist and Garden/Art Center visitors, the Resident designer or artist will inhabit the facility for a period of six months. Also in residence will be up to ten college-level interns, selected by the Resident through portfolio review. The Resident will inhabit, work, instruct, and interact with the public visitors to the Resident Center.

The first Resident will be the 1991 recipient of the AIA/Association of Collegiate Schools of Architecture Topaz Award, given to honor a lifetime of achievement in architectural education. The 1989 recipient was Charles Moore, FAIA. Past recipients include Ralph Rapson and Marcel Breuer. The first ten student interns will be members of the American Institute of Architecture Students organizations from architecture schools across America.

At the completion of their six-month term, a new Resident, from a design or fine art discipline, different from the preceding, will inhabit the Resident Center with ten students for their six-month tenure, followed every six months by a new Resident and student interns.
Minneapolis Sculpture Garden w/ Site & Wayzata Boulevard in Background (looking N)

Cowles Conservatory, Design Site in Background (looking NW)

The Walker Art Center (looking SE)
Irene Hixon Whitney
Bridge & “Spoonbridge and Cherry”
(looking SE)

Lyndale Avenue
(looking S)

Minneapolis Sculpture Garden
DESIGN SOLUTION
CONCEPTUAL SITE

The main plaza space in my proposal stems from a feeling that the layout of the existing site commanded an extension of the axial and sequential pattern being set up, as well as a focus at the end to complete the entire garden space.

In addition, a secondary plaza was created to the north east corner of the site to allow for an outlet at the intersection. The intent is to create a sense of place at the crossing of two paths.

Between the two plazas which have been created, the building stands as a transition between the busy space toward the street, and the more quiet space toward the garden.

The intent of the skewed grid placed over the main cross axis is to dissolve some of the notions of the rigid, predictable geometry of the existing garden. It better allows for places to wander and discover.

A PERSON ENTERS THE BUILDING INTO A SPACE WHICH IS SUPPORTED ON THE INSIDE WITH PILASTERS SYMBOLIZING HIS LACK OF COMPLETE UNDERSTANDING. HE THEN MOVES THROUGH THE SPINE OF THE BUILDING IN WHICH HE WEAVES IN AND OUT OF THE WORK SPACES, EXPERIENCING BOTH SIDES OF THE WALL. HE THEN EMERGES IN THE GALLERY, WHICH IS SUPPORTED ON THE INSIDE BY FLYING BUTTRESSES, SYMBOLIZING AN ENHANCED UNDERSTANDING OF ART AND THE PROCESS OF CREATING IT. FINALLY, HE MOVES OUT TO THE GARDEN.
TRUSS DETAIL
SUMMARY
As noted in my thesis statement, this study has been one of exploration of architectural style, in particular, how process can dictate and relate to style. However, it has gone beyond that. This study has given me an opportunity to discover the positive aspects of the ideas which I set out to explore, as well as some of the problem areas, or areas that need further development.

This study allowed me to realize many of the goals which I set for myself. It has given me an opportunity to work with details, and the very small parts of the building, which I have learned are so very important. It has also given me an opportunity to explore materials to a greater degree than I have in the past, and to understand how their proper selection and use can be critical to creating a successful design. And, most important, it has given me an ability to begin to focus my own personal feelings and beliefs toward design and architecture as a whole.

Conversely, this study has pointed out some of the shortcomings of the ideas which I have been exploring. Most notably, I realize that I have not focused enough effort to the human aspect of architecture. I realize that designs conceived in the process that I have been developing are in possible danger of becoming objects rather than architecture. I do not view these things as dark areas of the process, but rather as areas which need further refinement. The first four years of my study of design had been so focused on the human aspects that, unfortunately, the functional aspects were often overlooked. The means by which to create these wonderful human spaces were many
times very abstract, and seen almost as limiting rather than contributory. These things, for the most part, are why I chose the topic which I have to explore in my thesis studies. In light of this, the shortcomings of my thesis would have been almost predictable.

It is often said that thesis is not an end, but rather a beginning. As for myself, I believe that it is neither beginning nor end. I feel as though this thesis has been merely one of a series of steps symbolizing an increased awareness of a new aspect of architecture. The next step of this series will be to realize a harmony between these notions of humanity and functionalism in a greater degree than I have in this project. I do not know what the next step after that will be, but I am confident that when I reach that point, I will be prepared to go beyond, and to continue to explore new ideas throughout my professional career.
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