TOWARD A PHILOSOPHY OF ARCHITECTURE
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A CENTER FOR THE PERFORMING ARTS

An Undergraduate Thesis Submittal
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by Terry J. Sorg
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To my parents; for their love and support and especially for their understanding.

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To my anonymous friend--the one who knows.

Finally, to my God, who was there at the beginning.
PREFACE

The roots of this book reach back to the fall of 1985 when I began my thesis inquiry. The essence of that exposition was not to propose any new manifesto or canon for producing architecture at the cutting edge of design. It was more simply to question the philosophy behind the architecture of our day and our rich past. The focus was on the work of Louis Kahn and his rhetoric. The value of this direction lies in the fact that it allows one to see what architecture is really saying, doing, and most important what architecture is really meaning.

This thesis allowed me to assemble a set of values—a system of beliefs. This value system served as a kind of theoretical construct—a methodology if you will. Thus one can use this methodology to speak for the fundamental basis of his/her design, namely, the philosophical basis. The project I proposed was a performing arts center for Fort Wayne, Indiana. The project was intrinsically linked to my thesis inquiry for three solid reasons. First, Louis Kahn has previously designed a theatre for the site. Second, it provided a very interesting polemic for my own developing philosophy. Finally, it was more than just a project, it was a challenge. A challenge whose merits are imbedded in the psychology of designing a theatre that serves its purpose—a house for actors, musicians and dancers; an enchanting atmosphere for spectators, and a cultural center that fits into its context and sutures itself to its neighbor environment.
If I have seen farther than others, it has been by standing, on the shoulders of giants!

--Sir Isaac Newton
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Thesis

The Nature of Reality; The Dawn of a New Paradigm:

Paradigms are as essential to architecture as observation and experiment are to science. The adherence to a specific paradigm is a prerequisite to any problem-solving endeavor. Since reality is so extremely complex, the dealing with it in its totality is impossible. Therefore, the architect must reduce the problem to a workable scale and conduct his experiments under the guide of his leading paradigm. This makes it impossible to avoid bringing a definite belief system into his area of study. No paradigm, however, explains all of the available facts. The relative nature of any paradigm, no matter how advanced, should be clearly recognized and it should not be confused with the truth about reality.

When a paradigm is accepted by an architectural community it becomes the "way of approaching" problems. Along with its acceptance comes the tendency for this "way of thinking" to be mistaken for an accurate description of reality—instead of as a useful map. This confusion between the map and the territory has haunted the architectural profession as well as other fields. For example, the rigid adherence to "modernism" has yielded particularly detrimental consequences to the evolution of many of our cities. The lack of explanatory power of the old model represents only one aspect of its negative role. The paradigm then is more than just a theoretical model for architecture; its philosophy actually shapes the world by its indirect influences on individuals and society. The paradigm associated with "modernism" which is
a ramification of the Newtonian world view has actually manifested itself in a very negative image of human beings.

Since the Industrial Revolution Western Science has become a powerful force in shaping the lives of millions of people. The orientation to a materialistic mechanistic, dehumanized society has transformed the world we live in. If one considers the development of architectural theories and revolutions in architecture one is struck by the number and extent of disagreements among architects concerning the basic nature of problems and approaches to solve them. The problems being referred to here are often debated about concerning their importance and impact such as the issues of "image", "expression", "meaning", etc.

One only need to recall the following models to illustrate the point. Such models as the Mathematical, Biological, Romantic, Linguistic (grammatical-syntax), Expressionistic, Semiotic, Mechanical, Eclecticism, Functionalism, and so forth. Each one of us can associate architects with each of these models. These architects have attempted to define what architecture is, its purpose, and have given us "ways" to approach design. These theories have only suggested a direction, and frequently it is a direction, concerned only with outward appearances or style. However, they have not dictated results or only those results concerned with their "style".

If one recalls the earlier statement concerning accepted paradigms one can realize the far reaching influence that a particular "way of thinking" can have. This influence is felt not only in perceived knowledge but also in the establishment of a norm. Paradigms help define problems and determine acceptable methods for approaching them as well as set standards for their solutions. The fundamentals of architecture then, under the influence of a particular paradigm become defined for its adherants. The emphasis here is on results and ways of achieving them. New discovery and fundamental change can only occur if the existing paradigm is failing resulting in the need for the application of a new one.

The new or radical ways of approach are never just additions to the old. They change basic assumptions, require revision and reformulation of these assumptions, and involve the reconsidering of the values the present system is supporting. This is evident in other fields as well. Consider the revolutions in science from Aristotelian to Newtonian to Einsteinian to what is now again on the cutting edge of change. These are salient examples of this kind of shift.

Sooner or later in the everyday practice of architecture, anomalies occur. When these events occur the existing paradigm is not abandoned until a viable alternative is available and accepted. Architects then begin debating fundamental assumptions, a growing kind of crises occurs, and some professional insecurity may surface as the search for "rules" continues. This scenario depicts the world of architecture today. Modernism, Post-Modernism, and Eclecticism are terms which frame this present condition.
During the transition an overlap occurs between the problems solved by the old and new paradigms. The problem between the competing constructs lies with communication or language. Basic assumptions and definitions are different, objectives may even change, and as a result the nature of important design issues become too ambiguous and solutions to these problems become overly subjective or rhetorical.

The resistance to the new paradigm is ultimately the attitude that makes the shift possible. The paradigm shift does not occur step by step it is more of an instant change or mutation. The new paradigm must rectify the problems of the old. Its aesthetic qualities play a major role such as its simplicity, beauty, or elegance. Once the revolutionary paradigm is accepted the tendency is to regard the old as wrong and the new as an accurate methodology. Nonetheless, the old theories are never really wrong as they applied to the phenomena they could adequately explain. This seems evident in the continued practice of "modern" architecture. In any case paradigms should always be looked upon as models and not as definitive descriptions of reality.

As the economic, socio-political, and ecological situations in the world continue to deteriorate, more and more architects are turning into themselves for answers. There is a growing interest in Post-Modernism, Historicism, Classicism, as well as the Socio-Behavioral ramifications of current trends in design. These along with a cornucopia of other ideas concerning design methods are of critical importance; they indicate an urgent need for revision of or concerning our fundamental concepts in architecture, human nature, and the nature of reality in general. The challenge to the established paradigms in design has become increasingly difficult to ignore. Will chaos precede order again?

The above discussion may seem to be primarily a recording of the sequence of events which occur when a change in the accepted "way of thinking" is initiated. It is precisely that and much more. The central message here is that the world of architecture is approaching a paradigm shift of unprecedented force, one that will change our roles as architects drastically and begin to bridge the gaps which will ultimately reveal the intricate, complex web of interrelatedness and interconnectedness of all things, not just in architecture but in the world as a whole.
Project

The theatre proposed here is of an original design produced by myself. It is indeed a notable fact that the present theatre (Performing Arts Center) existing on the site was designed by Louis I. Kahn. Nonetheless, his design fails in many ways to meet the needs of the community.

The design I propose has manifested itself from a program similar to the one used by Kahn. It is approximately a 45,000 square foot facility built on a 100,000 square foot site located at 303 East Main Street, Fort Wayne, Indiana. The Center for the Performing Arts is to be used for civic theatre, ballet, orchestra, and community seminars. It will seat approximately 850 people which is well suited to the population of Fort Wayne.

The building program discussed later will outline more specifically the spaces occupied within the facility. Not included in the traditional program however, are the ramifications of this particular building type in this particular location. The intention was put forth and efforts made to design a building that was appropriate in this context. The design I propose addresses both sides of the theatre of which one side is a public square and the other a fine arts museum designed by Walter Netsch. The idea of connecting these now separate amenities and further addressing the surrounding community was initiated. The result was a pedestrian link through Freiman Square, across a major thoroughfare and parking lot to the "Landing". The "Landing" is a group of historic buildings situated along both sides of Columbia Street. The activity is diverse and
alive, and night life is abundant. This not only justified but harkened for this kind of connection. In addition, a promenade which exists from the "Landing" to Freiman Square to the present theatre was to be reinforced. The parking areas were softened with vegetation and a direct visual link was established.

Other features of my design include a special outdoor "amphitheatre" of sorts. This pseudo-amphitheatre addresses both Freiman Square at its northeast corner and focuses outward toward several known reference points of the city; those being the great art-deco Lincoln Tower and the historic courthouse.

To the museum side I have designed a series of pedestrian paths that respond to the form of the museum, the scale of the pedestrian, and a series of axes existing on the site. This smaller scale outdoor space created by these converging paths is terminated by a small fountain which emphasizes the order of the plan. The theatre itself wanted to respond to the different interfaces it made with its surroundings. Thus a series of lobby areas were created along the museum side to further depict the connection with the outdoors and the museum.

There are several other features which grew out of the initial development. The notion of responding to the surroundings was the main thrust and these features are manifestations of this philosophy. These include a main entry on axis with the vehicular approach from Main Street which is also aligned with Barr Street. An outdoor entry court defined by a free-standing colonnade, a re-routed vehicular network, and also tree plantings emphasize this approach. These aspects respond to the building forms and outdoor space which they pass through and help to shape.
Site - Program

The theatre site situated in the midst of Fort Wayne core presented some interesting possibilities. First, a need to link the theatre, the art museum, and the public square (Freiman Square) together was rather important. Second, to further suture the communities amenities together an important visual as well as physical link was directed toward the historic "Landing". Third, to emphasize the prominence of the cultural center it was placed on axis with an existing street and entry—this brought it closer to the square and required that connection to be carefully designed. Fourth, adapting to an existing pedestrian and vehicular network was essential—since these paths could not be easily altered. Finally, the theatre wanted to respond to the existing urban fabric and thus it was oriented in the orthogonal block manner.

The program for the theatre has three main spaces; the stage, the auditorium, and the lobby-display areas. The other functional spaces include a large workshop and storage area, worker and staff offices, two rehearsal rooms, men and women dressing rooms, costume shops, administrative offices, box office, coat check and lounge area.

<table>
<thead>
<tr>
<th>Uses:</th>
<th>Civic Theatre, Fort Wayne Ballet, Indiana Chamber Orchestra, and Community seminars.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site:</td>
<td>100,000 square feet</td>
</tr>
<tr>
<td>Building:</td>
<td>45,000 square feet ±</td>
</tr>
<tr>
<td>Seating capacity:</td>
<td>800 ±</td>
</tr>
<tr>
<td>Stage:</td>
<td>Proscenium with asbestos curtain and orchestra pit.</td>
</tr>
<tr>
<td>Materials:</td>
<td>precast concrete, solid masonry, wood finishes.</td>
</tr>
<tr>
<td>Primary Elements:</td>
<td>Stage, auditorium, lobby-gallery areas.</td>
</tr>
</tbody>
</table>
Schematics

The layout for the theatre was not too difficult once the orientation and main entry was fixed. There is a major separation between public and private spaces within any theatre. The plan is a conventional layout with side entries into the main seating chamber being light traps. The stage has a traditional proscenium opening and the dimensions of all the performance spaces follow the guidelines as outlined by the Association of British Theatre Technicians. The arced row seating called for special attention of sight lines and seating positions. The acoustics are controlled by operable ceiling panels and are to be positioned according to consultants directions. The control room and spotlight station are located in specified areas with a series of catwalks providing additional lighting spots.

The original scheme developed from a straight row seating layout to a curved row situation to facilitate better views and to respond to the exterior form. As the first schemata were sketched the worker and performance spaces were positioned to the North of the site along the highest part of the theatre—the stage. The public spaces are positioned around the main auditorium and open up to the South forming perimeter circulation and outdoor views.
Beginning Concepts

I would like to explain here the initial concepts for orienting the theatre in its specific place and why. I have already discussed the context to an extent and need to mention the six major concepts that positioned the building and began to dictate its form. These concepts are taken from Christopher Alexander's book—A Pattern Language. They outline, for one, the essential considerations needed to locate a specific building and link it with its surrounding community in order that they all become one—an interacting unit. The patterns I used are the following: "Activity Nodes", "Main Gateways", "Shielded Parking", "Building Complex", "Circulation Realms", and "Main Building". In addition to these were various others from the book which aided my design of the theatre. Each concept is discussed in more detail in the following pages.
Activity Nodes

There are four main points that need to be emphasized by this concept of "Activity Nodes". First, the notion of establishing a visual link between the "Landing", the public square (Freiman Square), the proposed theatre, the museum, and supporting parking areas. The second notion was an actual physical connector to reinforce the visual link. Third, the need to reinforce the existing pedestrian and vehicular networks was desirable. And finally, the notion of creating a clear system of these paths of people and cars that supported the synergy among the separate elements and allowed them to become a whole complex. See graphic.

Main Gateways

This pattern dictates a distinct gate at the main entry to the complex to mark and support this point of transition. The feeling of transition is further reinforced by the sequence from the street to the parking areas in terms of auto circulation. The pedestrian paths that meet the public square and theatre site have been emphasized as well. First, the overhead pedestrian path creates the needed link between the landing and the square with the theatre. The points of interface have been reinforced. Second, the existing pedestrian paths have been emphasized by creating new tree-lined paths with focal points. Finally, the gateways to the parking areas are linked with the main gateways in the complex in a very subtle but distinct manner.
Building Complex

The soul of the building is the stage and it stands out as the highest form of the theatre complex. The various functions supporting this main feature step down to meet the pedestrian at a different scale. To the West on the Freiman Square side the theatre opens out with the amphitheatre which follows a series of enclosures around the perimeter of the building to the main entry. The main entry is accentuated by an outdoor room which is dependant on a free standing colonnade for its definition. To the museum side the scale of the building also steps down to a series of lobby spaces which open out to the pedestrian network linking it to the museum. These forms and gestures are made as a response to the context.

Shielded Parking

The parking areas have been properly shielded from the pedestrian paths and the main building complex. This is accomplished by the use of tree-lined walks and the use of berms. These elements create the sense of enclosure and separation. Although the parking areas are separate entities they maintain their links in sensitive ways to the vehicular and pedestrian networks.
Circulation Realms

The system of realms existing needed to be supported and further connected to allow for a clear understanding of the overall movement through the complex. These realms consist of the pedestrian pathways and gathering nodes as well as the vehicular pathways and parking areas. The circulation realms were an important aspect in orienting the main building on the site. See diagrams.

Main Building

After analyzing the various patterns discussed previously and responding to the pedestrian and vehicular networks as well as the surrounding building types there was really no trouble in placing the theatre where it wanted to be. It was a response to the forces present in the entire complex. The connections were emphasized and the correct paths reinforced.
Design Development

The organization of the main building was developed from a clear separation of public and private functions on the inside and a response to the contextual constraints on the exterior. There is of course a high degree of formal articulation strictly related to the program. Nonetheless, the theatre as a whole had to relate to the townscape—representing the idea of community at a larger scale.

The layout of the complex and the disposition of its parts are determined largely by siting considerations. The view to the square was a vital interface and required a subtle yet strong connection. As the theatre developed it became more curvaceous and less angular—being as sensitive as possible to the programmatic requirements and the local landscape. The form became more and more pronounced and it is not difficult to see its relationship to the surroundings.
Design as Product

The following illustrations display the scheme for the final proposal. The implications behind the design, the philosophy, the methodology, has been discussed for you. These drawings and photographs show the design up to its present stage of development. There are undoubtedly technical problems that require attention, but it has reached a developed stage. The refinement and additional details are strictly a matter of time.
AXONOMETRIC SHOWING EAST SIDE
Conclusions

The first and most important point that needs to be said in conclusion is that this thesis journey has been undoubtedly an exciting and learning experience. The association with Dan Woodfin and his experience with A Pattern Language cannot go unemphasized in regard to the design of this project. Through this means I have addressed the conditions by which we might propose rules for environmental design--it has helped me to further myself in the continuum toward my own philosophy of architecture. I have asked myself, "Upon what basis should we base rules for design and against what criteria might we judge them. I explored the conditions under which patterns might constitute design knowledge as it is maintained that our patterned behavior is inescapable for designers. Through this proposal the acceptance of patterns as ideas within a context of usefulness and as tools for the enhancement of participatory design processes has been established.

I learned that patterns are not just personal idiosyncracies. There is indeed personal patterning but only in addition to socio-cultural and universal patterning. The relationship between these ideas can be dealt with in a hierarchical manner and be utilized through design.

My search for universals will continue as well as my lifelong philosophical quest for "truth"--yet I believe the patterned approach to design is a major step forward in design research and practice as long as we recognize the limitations. We must put faith in the user's ability to understand environmental problems and their creative resolution--design patterns are valuable tools that we must utilize towards this goal.
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Basic theatre forms

Properly proportioned proscenium arch—nearly square.

Grease, grid, fly tower, fly gallery, stage, auditorium, and stage.