The Sacred Way
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Abstract

The real task of architecture begins once functional and behavioral needs have been satisfied. Its essence is to give poetic form to the pragmatic. My work is only interested in the discovery, not the recovery of ideas; the invention, not classification. In working this way the search is for the essential and lasting principles in architecture, the origins of which must lie in the psychological experience of a building which is physically realized in the mind through one's senses. Thus architecture's manifestation begins as a set of intended experiences which begin to write a narrative or fable for a building. In writing a fable rather than a theoretical essay something basic has been found; fables remain immutable long after theories have disappeared. The invention of these writings is central to the work and not merely literary accessory, for it is this narrative that gives a building its *ritual of experience*, and it is to the support of these rituals that most of my work addresses itself. Thus the poetic form begins in the composition of experiences; the narrative.
Acknowledgements

This thesis represents an initial discovery of what my architecture may be and how my education as an architect to this point begins to formulate how I go about design. This investigation of the experience of architecture brought much difficult struggle and personal reward. It is a milestone in my life as an architect which would never have been realized without the influence of many people. To them I dedicate this thesis.

To my committee for their poignant criticism, guidance and commitment as educators.

To for her constant reassurance, genuine friendship and companionship.

To my family, especially my Mother and Father for their unwavering support and understanding. Without their faith in me I would never have realized this work.
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Introduction

\textit{rit·u·al} \textit{n. 2.b.} any practice done or regularly repeated in a precise manner so as to satisfy one's sense of fitness and often felt to have a symbolic or quasi-symbolic significance
An architect is a composer of experiences. It is this control of experiences which allows a building to have a certain inherent ritual and identity. The primary senses of sight, feel, smell, touch and sound are the tools with which the architect builds. To experience these in the prescribed sequence, magnitude, combinations and hierarchies is to experience a building as a whole. The narrative of a ritual is created in the composition of architectural acts.

"There is in all of us a deep need for ritual, for ceremony, procession, magical garments, and gestures. I believe it is an archetypal search in which we all partake."

- Emilio Ambasz

The task is to design a place for God's Word, a holy place which is known to be so through the experience of its architecture. The ritual of such a building is twofold for it is founded in a religious narrative yet includes the same architectural tools which create ritual in any other building. The home or dwelling, for example, contains many rituals which can be strengthened or weakened by the architectural acts of the designer. Regardless of the particular building use, rituals are carried out by its inhabitants. The successful building caters to these rituals, and thereby makes them stronger.
The importance of axis in Christian architecture is founded in the many symbolic and psychological aspects of the church. The building itself has been understood as the sacred connection between man's mortal earth and the divine afterlife which can only be reached through one's faith in God. This faith in God is manifested and strengthened through worship which takes place here, in such a sacred environment. The building therefore becomes a connection between earth and heaven, a passage or gate which occurs at the end of one's earthbound journey. In this same manner it is seen as a beginning of a new life. The axis is a symbol of this journey which mortally ends at the altar where earth and heaven meet. The altar portrays the hope of what is to come. This must be taken into account in its design. Therefore, all the ritual and ceremony that takes place in a church is directed down this axis, toward the altar, in God's presence. Even when worshipping as a congregation, all prayers are directed forward to the altar. Prayers ascend here while the Word of God descends. Architecturally the axis can be controlled by many different elements.

The Narrative

Once one has a strong narrative of the fable which is valid in a poetic and symbolic sense, it is yours and it cannot be taken away. Therefore much of the task is dedicated to the composition of ideas. Once this is accomplished the building can begin to take form. However, it is the concise ideas that one holds dear, not the building, for the ideas can be carried out through an infinite number of architectural acts. In a sense, finding the best architectural tools to support the ideas is the struggle that is architecture.

First the narrative must be composed.

All photographs were taken on location by the author during the study abroad program. Clockwise from the top image: Roofless Cathedral, San Galgano, Italy
La Villette, Paris, France
La Tourette, Eaveux, France
Olympic Stadium, Berlin, Germany
The sketches are reproductions of diagrams originally created by Rudolf Schwarz.
For Christianity architecture has become an opening and passage; accompanying and strengthening the progress of the way. Life is a journey through our mortal world and the religious building represents the connection between man's earthbound trek and the eternity of God's abode beyond. In the natural sense our world ends within itself, in the spiritual sense it is open. The church becomes the gate which houses the eternal gap which can only be pursued through spiritual openness. It is faith that gives man the courage to endure this journey.

"It is only out of sacred reality that sacred building can grow. What begets sacred works is not the life of the world but the life of faith - the faith, however, of our own time."

- Rudolf Schwarz

The site of such a building becomes important in view of these ideas, for where should such a gateway exist? Ideally God's holy dwelling begins at an outermost edge of the world. Realistically, how do we find such a place? Le Corbusier found such places for both Ronchamp and his monastery La Tourette. It is on sites such as these that the architecture has no context other than that of nature, the connection between nature and the heavens.

The church resides in the rolling hills found east of Blacksburg's downtown. It is here that the faithful can truly find passage from man's earth to the heavens above. In fact, the church sets forth a linear progression (physically, spiritually and psychologically) from earth to heaven.

The church is set into the hillside in such a manner that the entrance actually penetrates through the earth on one side of the hill and fol-
The road meanders northward towards Brush Mountain approximately one mile. The area is rich with contour. At a point the road rides along a ridge with a sharp decline to the northeast and a much more gradual decline to the west, though it is not in full view due to trees and low vegetation. The traveler descends into the deep ravine where he leaves his car facing the ridge he just came across and facing into the hillside. The worshipper approaches a somewhat dark entrance into the side of the hill which succumbs to the rampant vegetation. Here the body is abandoned and souls only can enter. The portal gives one an uneasy feeling, only the committed may continue. It is a commitment made alone, only two people may enter at a time. Through the doors the traveler senses a transition to the dark earth.

"We may well compare the depths of the earth to the universe."

- R. S. He is relieved when after a short distance shafts of light shower down from above at long intervals and bright light gleams from the end of the tunnel. The light pulls him forward. Each set of shafts have different characteristics of light, for the earth above becomes less and less as he approaches the end of his solemn passage. The weight of the earth is always experienced. The tunnel then explodes.
into a large space where light and the view from beyond are experienced. Here people have gathered for social exchanges, all having made the personal journey before. The space is surrounded by a circular glass wall so that the people exist in a ring, inviolable, without beginning or end. A feeling of bond, cohesion and embrace fills the group as they focus their energies together before entering the sanctuary. It is like a pond with both inlet and outlet. The linear indications still exist and his commitment to the path ahead still exists. Again he makes this personal commitment to continue along the axis at which point he is in bright light with full view of his relationship with the land. It is here that he no longer stands upon the land but moves above it as the contour falls away into the valley ahead. Entering through a transparent door into the sanctuary he finds that all along his journey he has been on the aisle. The sanctuary is longitudinal which stresses the idea of passage with pews on either side. The space is covered with a trussed roof which overhangs the edge of the space allowing one to realize his height above the landscape but continuing to pull ones eyes forward to the backlit altar at the end of the aisle. The view through the glass beyond the altar is of the outspread valley with a mountain in the background defining the horizon.

"...the vanishing point is the infinitely distant union of all parallel ways, horizon flees in front of us."

- R.S.

This valley lies in the sun as he gazes westerly, chasing the sun. In the morning hours the sun brings vibrant colors to the landscape. The sacred land unfolding before him finds its roots in the
The worshipper feels this ending of his earthbound journey and the beginning of a new journey which lies beyond. The altar of the earth represents the connection between the two worlds, where earth meets heaven and time meets eternity, man can tread no further. Very little takes place between priest and people, here almost everything is between these two and God.

"The altar is center and threshold: it belongs to the realm of earth in which we can walk and belongs to the realm of light which we cannot enter (on three sides it faces the world, the fourth heaven) thus it becomes the place where earth and heaven kiss. The true beginning of the sacred way." - R. S.

Here the people have gathered as a whole to worship. The light has drawn them to this destination, for it alone gives all things existence. Here the congregation is an organized body which beholds the light as one; inviolable, and all having made the previous passage. All eyes gather together to the center and share the meaning. The openness found at this end of the axis allows prayers to escape and the eternal Word to descend. Physically the path has ended yet spiritually it has just begun.
Plan

The beginning of much design is the plan. Many, but of course not all, of the tools an architect has at his fingertips facilitate the structuring of the plan. It is the root and foundation of much design. If someone were allowed to study one drawing of a building in order to understand it, that one drawing would most certainly be the plan. The reason lies in the fact that the plan not only shows interior spatial features between the lines, but also shows structure and gravity through the lines themselves. The trained eye can decipher much of a building's design through this one drawing. As a design tool the plan allows for spacial organization in which hierarchies can exist. It also shows spacial characteristics such as the heaviness of certain walls, where doors allow for circulation and openings allow for light and air. Perhaps Le Corbusier put it best when he said simply, “Le plan est le générateur. Le plan porte en lui l'essence de la sensation.” In much of his work the grid is utilized to enable a continuous rational landscape by measuring out space and setting the boundaries of the composition. The plan always tells much of the narrative.

The Diagram

The narrative has been executed and the ideas are found valid. The architect must now design the structure which will allow the experiences to exist. The diagram is the tool which allows the initial design to begin to blossom.

The diagram has at its root at least four geometrical ground-plan forms; the square, the triangle, the circle and the amorphous figure. Through the possibilities of many transformations that can occur to these figures a diagram can quickly become quite complex. Transformations include addition, penetration, buckling, breaking, accentuation of the perspective and distortion. The basic elements used in this thesis are the square, the circle and the triangle and transformations of these forms.

Reconstructed plan of the Forum Romanum, from Antichità Romane, by Piranesi.
Initially the plan was studied in relationship to the narrative and what opportunities these ground-forms allowed. The building is given a longitudinal form to enhance the idea of the path with its ultimate goal. In these studies the square was manipulated into the rectangle in which the axis becomes more prominent. Axis was always essential to the idea of the path. Through addition the path encounters spaces on either side which immediately enlarges the space yet still allows for the continuation of the axis beyond. The circle is encountered as part of the larger social gathering space, sometimes being added to or subtracted from. The only curve is encountered as part of the circle. The circle is symbolic of a space which gathers all its strength into one point: its center. The triangle is only realized in the elevation of the roof and its trusses in the sanctuary. These are the only vertical elements in the building which are not supporting the earth, it happens where man ascends and the heavens descend.

The passage was also investigated as being nonlinear, as a buckling and segmentation of the linear. It was when the contour of the site and its inherent possibilities were taken into account that the linear and horizontal could be found more valid. For on a site such as this, the worshipper could maintain a linear path and elevation yet experience the building below, upon and above ground. The symbolic journey from earth to the heavens.
diagram
n. 2: a graphic design that explains rather than represents: a drawing that shows arrangement and relations (as of parts to a whole, relative values, origins and development, chronological fluctuations, distribution)
Originally, the thought of the design focused on a church. It was to be a little jewel in the hills outside of town. However, it was found that to incorporate the function of an elementary school into the building would give it a useful purpose all week long. This had a certain appeal for I had a personal experience of such a place during my grade-school years. The program then called for much more space, especially in supplying space for the classrooms, cafeteria and administrative offices. The narrative did not change in the least, for many of the rituals of attending school coincide with those of attending church. In fact, the classroom and the sanctuary have quite similar purposes though the sanctuary has its much more symbolic and religious overtones. The classrooms are then thought of as a microcosm of the larger sanctuary, a place for the children to learn. While the sanctuary is the space where groups of families learn at all levels, together, as a whole, the significant lessons of life through religion. The scale then became quite large for the amount of detail I wanted to give the church building would give it a useful purpose all week long. This had a certain appeal for I had a personal

The Project

The diagram takes the design to a new level of understanding, one which begins to formulate the characteristics of the spaces. The use of the grid allows the diagram to have certain boundaries and a single spacial cube as its essential design unit. The use of this unit as a building block quickly brings the project to a level at which an important design question has to be asked: should the three-dimensional grid be a literal characteristic of the building or should it be the underlying design tool used to understand the spaces? Either answer could be upheld, yet the latter was chosen. The struggle then is the jump from the literal to the figurative. The answer lies in changing the scale of the investigation; specifically, details and sketches of certain places in the building. This level of the design relies heavily on the narrative and the distinct experiences which the architect is trying to compose.
When the expanded use of the building was taken into account, the circle began to represent not only a gathering pool for worshippers on Sundays, but also an intersection in the layout at which point the traveler had to make a choice. Thus, the children follow the same path going to school as do the worshippers going to church until this point at which the student changes direction to reach the intended classroom. Therefore, the circle has become the center of circulation through which all people using the building, for whatever purpose, must pass. It is the intersection of two major axes. It was also to be the first space in which the visitor experienced direct outside light with a view of his position in relation to the earth; at this point he has exited the tunnel and realized that he is now on earth whereas before he was beneath earth. The cylindrical space becomes the anchor for the building and holds it on the hillside.

The classrooms represented a space which philosophically shared some of the same goals as the sanctuary. However, they do not represent the connection between earth and heaven as does the sanctuary. The sanctuary is to be the only space which exists above ground. The traveler experiences being below ground, on ground and above ground without changing actual elevation. The highest point reached relative to the earth is the altar. The classroom exist on the ground and step down the gradual contour toward the valley, while at the same time embracing and holding secure the sanctuary between the two sets.

Once the hierarchy of different spaces was considered, the study was directed toward this understanding of the spaces and their individual relationships to the land. To this effect, the building was studied as a series of platforms, a ruin of sorts, where no walls existed, just the platform of the floor spaces and the ground. This exercise validated much of the hierarchical thoughts that the narrative had set forth.

The basic plan had been found, but the elevations of the different spaces needed much investigation. The tool became the three-
dimensional cube. Vertical space was now being considered. This endeavor resulted in an entire building that was designed diagrammatically and existed as such in a very literal way.
The Project
The project was now at a crossroads. The use of the three-dimensional grid had successfully organized the spaces of the building but it was also beginning to create a literal grid-like image of the building. To carry out such a literal design the material and connections of the grid would have to be controlled precisely. The decision was made to have the grid influence the design rather than exist literally. The answer was in the smaller scale investigation of spaces within the building. The tunnel was studied first.

The Tunnel
In order for the experience of the building to be realized on a human scale, the parts of the building were investigated. The tunnel represented one of the most significant parts of the building for it was one of the first experiences on has when following the passage to the sanctuary. In addition, it represented one of the most architecturally challenging parts of the building. The structure needed to be found valid while architecturally it had to contain all the intended human experiences.
The Anteroom

Upon exiting the tunnel, a grand space with much light is encountered which allows people to gather as a group. Thus the experience changes from one of a singular commitment to one in which the power of a gathering of individuals can be realized. It is necessary that a transition occurs between these two environments. In this space the ceiling rises to the surface of the earth (now only twenty feet above) and allows direct sunlight to filter in through an axial opening supported by a forest of columns. The walls have moved outward to gradually invite the traveler into the group space. This space is also a point of decision; whether to continue straight along the axis to the sanctuary or to turn either way to access the building’s others facilities. The space is the last experience that is underground. This is displayed through the form of the columns carrying weight and the proportions of the ceiling height. Reversely, the space separates the people into small two-party groups upon exiting the building through the tunnel.
The Entrance

The sole experience of the entrance to the building, and more specifically the tunnel, is to give a feeling that one is entering through a portal into the depths of the earth. To achieve this the entrance doors are somewhat uninviting so that one must make the commitment to enter. It exists as the surface of a grand and sweeping retaining wall which holds the earth back yet seems to be challenged by the rampant earth and vegetation which sit upon it and overhang the edges. Directly in front of the entrance is a paved area which allows for worshippers or students to arrive and depart. It creates a horizontal facade which can only be penetrated through the doors in the center.
The Project
The Sanctuary

Exiting the circular space where people can gather as a group, the individual can enter the sanctuary. A bridge is crossed leading to the transparent sanctuary doors. This bridge signifies the departure from being on earth to being above it. All barriers are glass as one enters in the sanctuary. Once inside, the space explodes horizontally revealing an orthogonal pew plan with the aisle continuing forward. The roof is supported by a scissor truss system which celebrates the vertical release experienced beyond the earth. The roof slopes steeply to either side and rests on supports which exist beyond the edge of the floor platform. Thus one can see the relationship to the land but visual attention is still straight ahead. Ultimately, the earthbound journey ends at the altar which is raised slightly above the pews. Here the worshippers focus their attention to the altar, where heaven and earth kiss, to worship God.
The Project
The Project
Bibliography


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