THE SCHOOL OF CRAFT

This design thesis is submitted to the faculty of Virginia Polytechnic Institute in partial fulfillment of the requirements for the degree of Master of Architecture.

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ABSTRACT

A certain amount of care is inferred with the thought of craftsmanship. With a decline in craftsmanship in today's society, the care and thoughtfulness inherent in the skill of making objects are gradually being replaced by the "ready-made" and the immediate. In order to reverse this trend we must educate the children, teach them the love of craft and making. The children must learn that care and its resultant lasting product are important.

To help preserve the care for making lasting and significant things, I have chosen as my thesis to design a school of craft where children are to gain such knowledge. My hope is to design a space which is expressive of the ideas of craftsmanship using the knowledge of today's technology.
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It is in the making and craftsmanship that the object is given life.

Anonymous
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INTRODUCTION

Industrialization has allowed products of all kinds to become available with such immediacy that there has resulted a decline in the interest and appreciation of craftsmanship and making. People have become more concerned with the NOW, with INSTANT RESULT, rather than with NURTURING, LASTING and the LONGEVITY of the result. In order to redirect the NOW attitude and the decline of craftsmanship to a love of making, schools where our youth can learn the importance of craftsmanship should be developed. This thesis is entitled SCHOOL OF CRAFT WITH EMPHASIS ON MAKING.

It is through education, especially the education of children, that a difference will be made in the appreciation of craftsmanship. In THE SCHOOL OF CRAFT the children (ages ranging from 10 to 17) can best be taught craftsmanship and making. This school and its own enclosure expresses the idea of craftsmanship through the clarity of its materials, methods of joining and the clear identification of the process from which the built forms evolved.
PROCESS

Architectural process, like growth and learning, knows no single formula. The process develops, recedes (often in frustration) and redevelops in different patterns. It is often past experiences as well as the description and the complexity of the task that enhances the process or learning experience.

This thesis grew first from a development of a two dimensional graphic - "a grid". The grid was meant to symbolize growth and expansion through learning. The central curvilinear lines of the grid represent the path one might take on a journey leading to the desired destination - the circle.

Further development of the concept was investigated through three dimensional grids - "models" designed as a more architectural expression of the idea. The process was reintroduced, acknowledged and began to develop with the introduction of the site for the SCHOOL OF CRAFT.
"To plant or build on an island is to alter a rock in the water into a magical or menacing illusion of someplace that is not just a rock in the water"

Barbara Solomon
Important to the development of this thesis was the selection of a site containing the complexities and limitation which would force certain questions to arise in considering the building/site relationship. For the School of Craft, where children are learning to appreciate making, a dynamic site is important for stimulating an appreciation of the surroundings and the relationships between man and nature.

Set amidst the heavily wooded atmosphere of Rock Creek Park is a small valley sloping to the creek, the site allowed for a building nestled in the slope. It is important that the building become one with the site rather than appearing as an ornament upon the site.

Questions arose regarding Rock Creek as it traversed the lower edge of the site. Should it be crossed as an entrance to the building? Should it remain relatively untouched as a boundary? How would the creek best enhance a sense of place for the school?
THE SITE

The school is located in Rock Creek Park, Washington, D.C. which sits as a large oasis within the city. By placing the project here, isolation provides the students with a place of contemplation away from the distractions of the city. Here the student can concentrate on the work of craftsmanship and making. When necessary, they need travel only a short distance to the stimulating city to visit museums and other places of learning.
"Structure is the giver of light"
Louis Kahn
THE BUILDING FORM

For this project it seemed more appropriate to allow the creek to play a part in creating a place for the school rather than an entrance transition. The site entered from the road above allows the building to terminate at the creek. Rock Creek, with its enrichment of sound and visual effect as it flows across the rocks, works best as a destination rather than as an entrance.

The architecture of the School of Craft should itself express a feeling of craftsmanship to the student and the visitor. The relationship of parts should be clear and carefully crafted. The major building forms express their parts as well as the relationship to the whole. This clarity of the building form allows the parts to have expression. The long sweeping walk leading to the entrance prepares the visitor who is leaving the pulse of the city. Walking through the trees into the great hall the overall clarity of the building is immediately revealed. A place is made for the building by the great sweeping retaining wall on the west and Rock Creek on the east. The path of learning is symbolized by the Great Hall one moves through viewing the work created in the individual studio spaces. The building then, terminates at the exhibit space, nestled by the creek.
Serving as an entrance level this floor is ordered by the west / east axis of the Great Hall. At this upper level the Great Hall takes the form of a suspended bridge. Remaining at a constant elevation, the bridge reveals the drop of the site below. Moving along one can view the studios flanking the hall below, or stop at the two classrooms accessed from the south side. Here, a lecture or a slide show may be in progress.

The north side of the Great Hall offers stairs to access the first floor. These stairs divide and give definition to each studio, and define the five feet drop between each studio by the number of risers for the stairs increasing as one moves farther eastward.
The library can be found at the west end of the ground floor nestled against the curved retaining wall and sitting fifteen feet below the entrance level of the building. Flanking the library to the north is both the student and faculty housing which follow the curve of the retaining wall while stepping down the site. Located along the southern sweep of the retaining wall are the cafeteria, dining and building services areas. This area ends as a hard edge against the creek.

Because the concept of the building embraces a space and a form expressive of making and craftsmanship, the building is designed as a series of parts, separate yet joined. The central spine of the building is the Great Hall. Here, the structure utilizes cast-in-space concrete columns at twelve feet wide. The columns are carved out giving places to sit or hold sculpture. They support the suspended bridge and the visually lighter steel trusses which form the roof of the Great Hall.

Flanking the Hall on the ground floor are the studio spaces. Clean studios, including painting, ceramics and weaving are placed along the north side of the Hall. Woodworking, casting and metal shops are located along the south side of the hall. Each of these studios has an exterior courtyard serving as exterior work places for dustier work.

The Great Hall terminates at the exhibit space, the final destination - a place of completion and display.
SOUTH ELEVATION

Classrooms cantilever at exit corridors creating a porch-like area, which allows for a subtle transition zone between building and the exterior terraces.

Evidence of the interior structure is revealed because the building steps inward towards the Great Hall as it steps down the site, the columns of the final studio are engaged into the block walls. This effect is also seen at the exhibit space where the poured concrete columns are flanked by concrete block forming the enclosure.

NORTH ELEVATION

Once again, the structure is revealed as the building moves inward towards the Great Hall. No cantilevers are seen on this elevation, giving a slightly flatter feel to the elevation as it progresses towards the curving roof of the Great Hall. The datum created by the roof of the studio spaces is maintained. Additionally, a second datum is created by the roof of the studio closet spaces maintaining the same height as the flooring of the suspended bridge within.
The exhibit hall stands as a centerpiece of the east elevation. It is prominent from the park road across Rock Creek. To the north of the exhibit hall, stepping northward down the sloping site lie the living quarters, stepping delicately north then east toward the creek. Apartments are raised above ground level giving them privacy and separation from the public space. Steps and landings to the apartments work as transitional elements along with their functional purpose of entry.

Extending from the central axis along the south side of the east elevation lie the kitchen and cafeteria spaces. Like the apartments this wing curves while terracing downward toward the creek. The exterior work terraces which flank the shops to the south are also seen in this elevation as they step formally at five feet intervals.

The east elevation celebrates the entire site of the school presenting the exhibit hall as the central theme, the great hall clerestory rising above it, and the huge retaining wall restraining and embracing the site proudly beyond.

Because the main portion of the school is nestled into the landscape, only the skylight of the Great Hall and the administration area are revealed at the point of entry. Concrete block, used as enclosure is stepped with glass block allowing for light to filter into the administration area. The retaining wall steps down and around as it makes a place for the building on the site, giving the approaching person a clue that something more lies beyond.
THE GREAT HALL

One of the most important spaces in the school is the Great Hall. It is the "awareness giver" of the purpose of the school. In the hall one is always aware of the activities of craftsmanship and making.

At ground level the hall is strong and solid with several level changes. The rhythm of the level change, along with the directional changes of ramps and stairs, gives emphasis to the difference in studio spaces. The large circular windows between stair and studio serve to bring the spaces back together while introducing borrowed light to the spaces.

The parts of the wall are defined by their obligations. That which is structure is cast in concrete. That which creates enclosure is concrete block. These elements are joined with transition pieces of glass block. The structural columns are four feet thick, lending a strong transition from the hall into the studios. Along the hall the great columns display student work while also supporting the bridge and the second floor. At the upper level the hall is light, constructed of steel with wood block flooring separated by glass block flooring at transition places. Looking through the glass block reveals the structure below.

Above the bridge the northern side of the roof reaches upward in a curve to bring in the desired south light.
LONGITUDINAL SECTION

The building rhythm is expressed by the longitudinal section as it marches down the site. A datum is formed by the suspended bridge as well as the ceiling height which remain at a constant, allowing one to be aware of the changing site while moving through the building.

CROSS SECTION

The cross section through the studios reveals the concrete block making the enclosure. The large circular openings allow for awareness of the sloping site. The circular openings follow the terracing of the site at 5' intervals allowing one to view all three openings at once. Above the circular opening the walls are stepped to emphasize the enclosure, not structure.
EXHIBIT SPACE

The exhibit space is the final destination. It is where the craft is displayed and terminates the Great Hall. Because the roof is maintained as a constant datum from entrance through the exhibit hall as the site slopes downward, the ceiling height is 45' once the exhibit area is reached. This consistency of roof height allows for three levels of exhibition within the circular space. The perimeter features ramps connecting the three levels. The display areas at each level are flat floor spaces allowing the viewer to observe the work on non-ramping floors. The central area of the exhibit space opens the full three-story height, serving as a grand space for the display of large objects and providing a monumental scale sufficient to terminate the Great Hall. Partitions between the ramps and the central space provide display surfaces and screen harmful ultraviolet light when necessary. A section through the exhibit space repeats the idea of utilizing concrete as primary structure and concrete block for non-structural enclosure and partitions.
"I will never tire of recommending the custom, practiced by the best architects, of preparing not only drawings and sketches, but also, models of wood and any other material. These enable us to examine the work as a whole and the individual dimensions of all parts before continuing further."

Leon Battista Alberti, 1486
SECTION MODEL

Top left - Great Hall, bridge and clerestory.

Top center - Truss system at bridge and elevated walk.

Top right - Interior of studio space showing block wall and viewing area from bridge above.

Bottom right - South elevation showing classroom area above and ramp area below.

Bottom center - North elevation showing stairs to upper level.

Bottom left - column in studio space showing slit to allow for passage of light from exterior.
The site model is constructed of cypress cherry and basswood. The trees are oak spheres set on basswood stems.
SITE MODEL DETAIL

Top left - Exhibit Hall showing the skylight which aligns with the Great Hall clerestory.

Top center - North apartment wing showing the stepping stones across Rock Creek.

Top right - Segment of apartment wing and entrance steps.

Bottom right - North side studios showing protruding closet forms.

Bottom center - South side terraces.

Bottom left - South side studios with cantilevering studio forms.
SUMMARY

Craftsmanship is a source of a valuable ingredient of civilization. It has a deep spiritual value of a somewhat mystical kind. Craftsmanship cannot be predetermined. It is workmanship using technique and depending on judgment, dexterity and a caring by the maker. It is a risk-making where care counts for more than judgment. What is at risk is the aesthetic richness, delicacy and subtlety.

Craftsmanship appeals both to physical and psychological conditions. Both conditions respond to the intellectual nature of man.

The nurturing of this idea is hoped to be instilled in the youth who attend this SCHOOL OF CRAFT WITH EMPHASIS ON MAKING.
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