The Interaction of Walls and Spaces: Architecture of an Art Studio

Kimberly Paige Brown

Thesis submitted to the faculty of Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of Master of Architecture

Hans C. Rott ____________________________
H. Scott Gartner _________________________
David Dugas _____________________________

April 29, 2008
Blacksburg, Virginia

Keywords: Walls, UVA, Art Studio, Interaction, Spaces
The Interaction of Walls and Spaces: Architecture of an Art Studio

Kimberly Paige Brown

ABSTRACT

The University of Virginia is currently constructing an Arts Studio building in the parking lot of their Architecture School.

The University's original Jeffersonian foundation and its repeated imitation throughout history has told its citizens that this is what the architecture of the University must be, without actually questioning the reasons. Can we design new, exciting buildings that still belong on the campus without designing exactly as Jefferson did two-hundred years ago?

This Thesis is my own design for UVA's Art Studio building. In this design I have used the interaction of walls and spaces to create an environment that leads a visitor through the many stages of an Art School. The visual and physical connections of the processes within the school are intended to inspire the artists within while living in the twenty-first century.

This book is dedicated to my growing family for all of their love and support.
The University of Virginia was built in 1819 by Thomas Jefferson as an “academic village”. The original lawn campus was designed for students and professors to live together in an ideal educational community. The pavillions gave space for classrooms on the first floor, with professor’s housing above. The lawn rooms adjoining the pavillions housed the students, and the hotels on the range were for dining. At the center of the lawn Jefferson placed the Rotunda library, making education, not religion the focal point of his Utopian Dream.

Over time, the University grew and changed as more students were enrolled. When new buildings were needed, the utopian ideal was continued and buildings were constructed in the same Jeffersonian classicism with red brick and white trim. After World War II, the crowding up of central grounds became a large issue as enrollment increased dramatically. Instead of following Jefferson’s vision of an integrated dense community the Board of Visitors developed a sprawling suburban campus. Because the campus is disjointed and expansive, the Jeffersonian style is used to connect the University visually, and reinforce its community qualities.

In recent years, the question of style has become an important issue at the University. Many within the community would like to see new, innovative, contemporary buildings at the University, while others, including the Board of Visitors, feel that Jefferson’s style should unite all of the University’s grounds. While style is an evolutionary process, style can also hinder progress when people cannot see beyond a specific design approach. Progress should occur when there is a good reason for change. Instead, the ideal utopian idea is overriding the current decision about good architecture at the University. Educational institutions ought to represent and support academic progress as well as new progressive architecture. Each building on campus should not lose its uniqueness and importance within the larger University. New, innovative buildings should be just as important as the original Academical Village.
The University’s original foundation and its repeated imitation throughout history has told its citizens that this is what the architecture of the University must be, without actually questioning the reasons. Can we design new, exciting buildings that still belong on the campus without designing exactly as Jefferson did two-hundred years ago?

Thomas Jefferson was very interested in technology and innovation during his time, and he also learned from the great architects of the past. Just as Jefferson modified earlier precedents for his place and time, he would have wanted the architects of today to reinterpret his original designs in a new building type for today. Jefferson was a progressive man, and would have embraced the new ways of construction and integrated them into his designs. The changes in technology and methods should alter the buildings aesthetically as well. While Thomas Jefferson lived in a different time, if he was alive today, he would design to today’s methods and standards.

Buildings should not mimic a style just for the sake of being Jeffersonian. The essence of a building should matter much more than its style. It is time for the utopia to change and become part of the twenty-first century. Buildings can still use the same materials and hold Jefferson’s ideals, but they should use them in a way that is appropriate for today. Architects should be free to design new buildings at the University, and I believe they have the right to challenge the established order.

Thomas Jefferson’s designs used the principles of basic geometries, simplicity, regularity and proportion. His buildings used multiple layers of depth that framed views and helped shape and define spaces. Jefferson was also very concerned with site and a building’s scale, design and location need to be connected to its immediate landscape and surroundings. This does not mean that new designs should directly imitate the previous buildings designed by Jefferson; rather the original buildings can be a point of departure and Jefferson’s principles can still be followed.

It is time for change at the University of Virginia. I do not believe that the entire campus is worthy of Thomas Jefferson’s legacy. Thomas Jefferson built a wonderful, utopian, educational community, but as an educational community, it is time to learn from the foundations and the mistakes, and design using Jefferson’s essence and principles, not his style.
The University is currently constructing an Arts Studio building in the parking lot of their architecture school. The building attempts to mimic Jefferson’s style and looks like every other building on campus. Nothing about the building tells you that it is an Arts School and it is not an inspiring building. This thesis is my own design for UVA’s Art Studio building.

Currently, the art studios at UVA are scattered across campus in temporary sheds. The plan is to make this site the Art Center of campus with the school of architecture, the drama building, the art museum, and now the art studio forming a small quadrant. The Art Center will help encourage interaction between the visual and performing art departments, and will give art students a sense of home on campus.
As an undergraduate architecture student at UVA it was very difficult to locate the school of architecture. I remember wandering around trying to find the building at orientation. Friends would always laugh and say they could never come visit us in studio because they did not know where the building was. The Architecture School, or Campbell Hall, is located off of Rugby Road, hidden behind the Bayley Art Museum and a row of fraternity houses. To gain access to studio we would cut behind the art museum on a small hidden path or walk up the service drive. As you can see, the architecture school is not even visible up this drive, and one has a slight glimpse of the drama building in the distance. My first goal in the design of this building was to create a visual connection between Rugby Road and the Arts Studio up this drive.
In my beginning sketches I played with planes to create a variety of spaces within the Art Studio. The goal was to create a varied section that would give visual connections between the floors of the building. The L-shaped plan helped organize the building in section as well. While layering the floors in plan within a single drawing, I also created a series of models that helped me visualize the spaces within.
In my plane studies I organized the spaces around ten large planes. These planes shifted in plan and in section to define spaces and rooms within. This series of studies shows the first floor plan on the left and the design builds in each plan as more planes are added. Later these planes became walls with thickness and texture and my thesis evolved into the integration of walls and spaces. The next page shows the plane studies in section.
The main entrance to the Arts Studio building is at the top of the service drive, creating a direct visual connection with Rugby Road. The building sits within a hill and there is a twenty-five foot difference in elevation between the two ends of the building. To help mediate this, there is a large set of stairs behind the main entrance, underneath a bridge of offices. The stairs can also be used as an outdoor classroom and align with the architecture school library wing. There is an additional entrance at the lower end of the building where people can enter the first floor from below.

The design is about the interaction of walls and spaces and I have used an arrangement of walls to define the rooms within the building. The dark walls that are seen in plan are three-foot thick concrete walls. These are made of dark, rough concrete. There are also two, three-foot thick, brick walls at the entrances to signify access to the building. Intermediate of the large concrete and brick walls are one-foot white, smooth, concrete walls. Finally, there are glass walls that are laterally supported by glass mullions. While the large walls help arrange the spaces and rooms, the small walls enclose and define the space. The types of walls are also oriented with the site as the west and south facades are enclosed and the north and east facades are mostly glass and are open to the light.

The program of the building includes studio spaces for drawing, painting, print-making, photography, clay and plaster. There is also a wood and metal shop, a digital studio, classrooms, review space and offices. There are two galleries within the building and a professor’s studio where students can see their professors’ working on their own projects. Along with indoor work spaces I have provided several work terraces and balconies for students to use. There are roof terraces that can be accessed at different points, and balconies off of studios where people can take a break, work or spray their drawings.
The arrangement of my plan allows visitors to explore the building and view the different phases of an art school. I have delineated a path within the building with wood paneling on the floors and walls to lead a visitor through the school. However, there are also stairs and doors placed throughout so that everyday inhabitants can make their way through the building with ease and quickly move from one room to the next.

There are two entrances to my building, so the paths start separately but converge later on. From the lower end of the building one’s journey through the building begins with materials as they pass by the wood and metal shops. From the other entrance one experiences the stages of an art studio through learning, while passing professors’ offices, studio spaces and classrooms.
On the first floor, one approaches the building from the right, after crossing a covered outdoor work terrace. Following the wood panelled path, a visitor passes by the wood and metal shops and turns the corner to follow the steps leading upstairs. Here they get a view into the print-making and photography studios. The darkroom and mechanical room are tucked away within the hill as they do not need day light. The large gallery is also located on the first floor, but while following the path within the building, it is the culminating stage of the art school.
The second entrance of the building is located at the top of the drive. Here visitors enter into a small gallery and lobby and can take the stairs leading to the administration offices above. To the right of the gallery is the classroom and the path then continues down a small flight of stairs to the clay and plaster studio with an outdoor work terrace. Here there are stairs leading up from the first floor and this is where the two paths within the building converge. Next, one passes through the three-foot thick wall onto a balcony that overlooks the large gallery. I have cut many doors within the thick concrete walls to give the visitor a sense of the presence and feeling of these substantial walls.

In this plan, you can also see the large set of stairs leading from the top of the site down to the lower terrace. The stairs can be used as an outdoor classroom that is shaded by the bridge of offices above.
To the left of the third floor plan is the office and administration wing. There are stairs leading up from the professors’ offices to the professors’ studio space above.

The right side of the plan shows the drawing studios. The studios are accessed by a flight of stairs leading from the balcony, overlooking the gallery below. There are two drawing studios, and the stairs towards the back of the second drawing studio lead upstairs to the painting studio. The studios receive northern light and overlook the mountains in the distance.
To the left of the fourth floor plan is the professors’ studio. Students and visitors can pass through this space to see the professors’ personal projects. Professors also have access to a roof terrace above the office wing.

The painting studio is to the far right of the fourth floor plan. From here one can ascend a small flight of stairs above the flat files to gain access to a roof terrace above the drawing studio. The painting studio is connected to the digital studio where students can record and alter their artwork. The next stage within the art school is the review room where professors critique the students’ work. There is an additional roof terrace off of the review room as well. The concluding step of the art school is the decent back down to the gallery below on the first floor where students’ work is finally displayed.
The roof plan shows the various levels of the building. There are three roof terraces above the Art Studio as well as many balconies and work terraces below. The roofs are sloped so that water drains into pipes within the three-foot thick concrete walls.
The arrangement of the walls allows for the interaction of spaces as one can work in one area and view other rooms. There is a visual connection of the processes within the school as each stage can connect with the others artistically as well. The drawing studio is opened to the gallery below and the stairs in the background lead from the review room down the gallery as the final phase of an art school.

The concrete walls within the building are engaging and not only can you walk through them and experience their size, but in places they become benches to sit on or display tables in galleries and review rooms. Here the right wall of the drawing studio becomes a bench on the balcony.
In this section the digital studio is connected to the painting and drawing studios visually and artistically. The review room also has a view down to the gallery and lobby as this wall becomes a bench as well.
These sections show the bridge of offices above the stairs connecting the top of the site with the lower work terrace below. This work terrace also becomes a drive for any deliveries being made to the wood shop.
West-East Sections
It is clear in this section how the different spaces can interact with each other. There are views from the roof terrace to the gallery, from the gallery to the clay and plaster studio, and from there down to the wood and metal shops. There are also views down into the print-making and photography studios while one ascends the stairs on the left.
The Art Studio has many glass walls to create the visual interaction between spaces. The walls have glass mullions that help support and frame the glass. The glass rests vertically on the concrete slab below and a two inch topper is added to hold the glass in place. Then a horizontal glass mullion is added on top of this to continue the visual frame around the glass.
The concrete stairs are notched to let the glass railings fit within the stairs. The glass sheets are inserted on a diagonal creating perpendicular lines to the stairs. A bolt is then secured through the glass within the concrete stair to give the railings lateral support.
These interior perspectives show the connection between the gallery below and the drawing studio above with the stairs leading between the two. The space is very open and encourages students to think about the different stages that their work will go through. The contrasting thickness of the concrete walls and the thin delicate glass railings and walls beyond is also clearly present.
Here are views of the outdoor classroom located within the steps, underneath the bridge of offices. To create this classroom I continued the use of concrete walls on a smaller scale to make ledges within the steps for chairs and desks. Professors can hold classes and artists can work freely in this adaptable environment.
This visual connection between the Art Studio and Rugby road will now give a presence to the arts center at UVA. Before the Art Studio it was hard to locate the entrance to the buildings hidden behind these fraternities. This direct linear connection will help students and visitors find their way to the Art Studio and the school of architecture.
Exterior Perspectives
These perspectives show the brick walls marking the entrances of the building. They also help demonstrate the open glass façades facing north and east and the dense concrete and brick walls to the west and south.
The large walls within the Art Studio interact to define the spaces inside the building as the spaces interact visually as well. To carry on this theme of interaction in my thesis, the next step would be to continue the interaction of the building with the site beyond. This complex of buildings is to be the Art Center of UVA and needs to be integrated together as a whole. What happens in the space between the Arts Studio and the drama building? Should it be left as an open green field? What’s to come of the fraternities in front of the Art Studio and architecture school? Maybe these buildings can be bought by the University and added to the Arts Center as small galleries or extra studios.

This has been a challenging project that has helped me become more passionate and concerned about the state of architecture at local universities. Architects should be free to design new buildings at these universities, and I believe they have the right to challenge the established order.
WORKS CITED

All photographs and drawings by Author unless otherwise noted.

Topography Map on Page 4 from
www.albemarle.org/gds/gisdata/Elevation/topos/05_foot/dwg