

# DESIGN PORTFOLIO

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# FEAR IN THE SILO

During my first semester in Buffalo, I studied the Buffalo Grain Elevators and how they impacted architecture and the Buffalo region. During my studies, I documented "Marine A" grain silo with my fellow classmates.

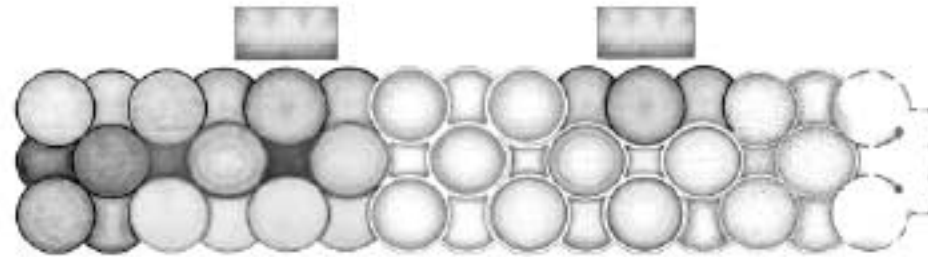
We documented the silos using photo collages and using our combined hand rendering skills. After we documented the silos we created spatial configurations with one specific silo and began to explore different postural models within the silos. These postural models would allow for a person to sit, stand and lay down inside of the silo. Due to my assigned silo being the entry to the silos, I decided to use the conceptual idea of allowing fear and an overwhelming feeling to support the architectural and spacial choices inside of the silo.

Part of our assignment was to include a boat in the silo. I decided to flip the boat upside down and store it so that upon entering, it blocks out the light and creates an eerie and uncomfortable feeling, as if the ship is falling on top of you. The boat would also be used for the circulation through the silo.

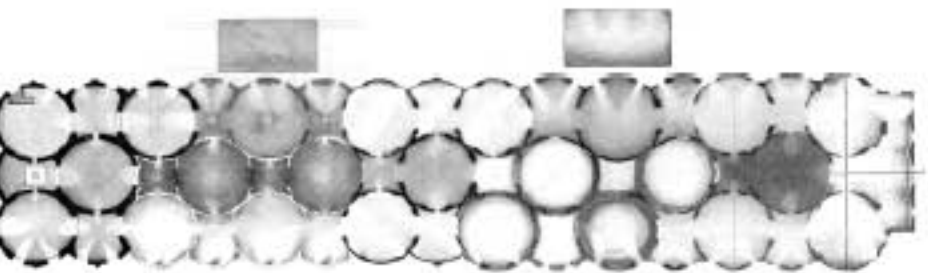
I modeled my ideas for the silo and completed hand renderings using graphite to help display the eerie uncomfortable feelings I wanted to create.



Photo Collage of Marine A Grain Silo



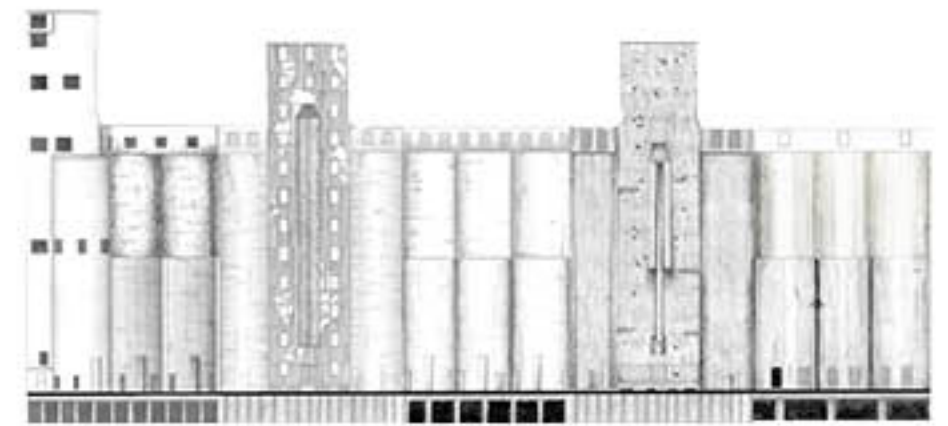
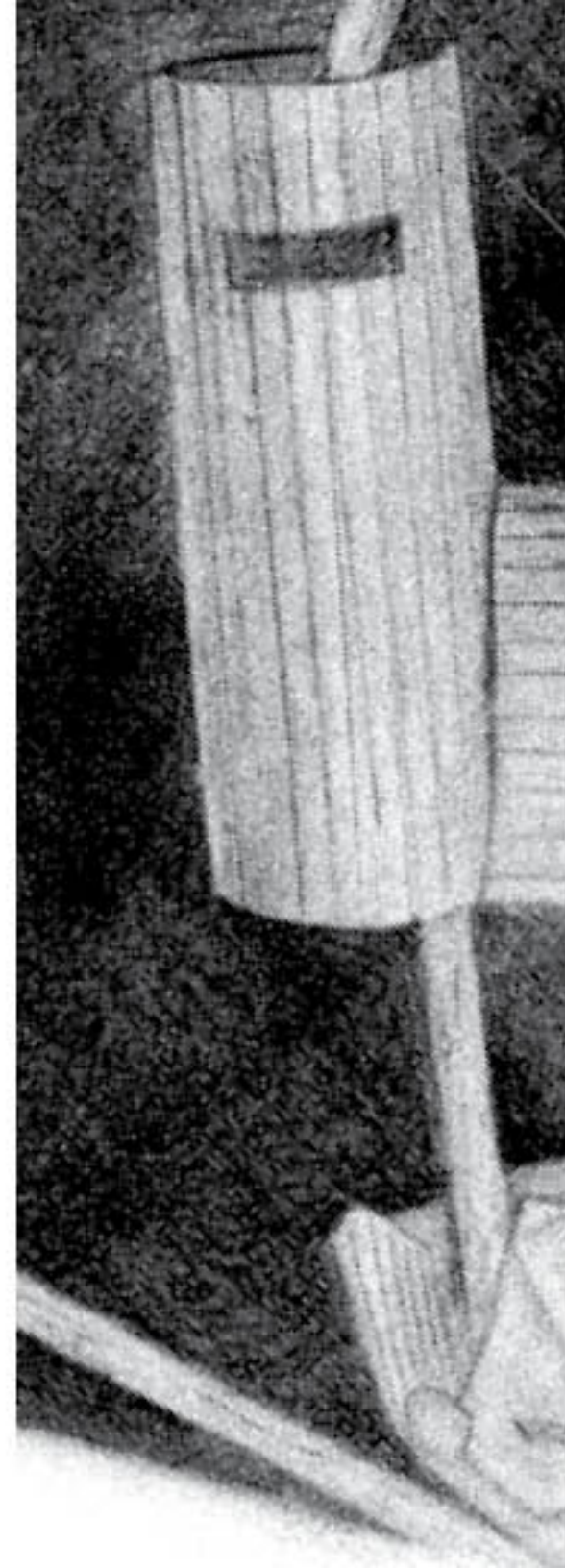
Hand Rendered Reflected Ceiling Plan



Hand Rendered Floor Plan



Photo Collage of Reflected Ceiling



Hand Rednered Elevation



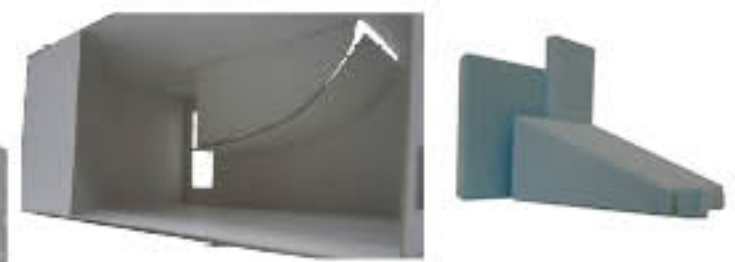
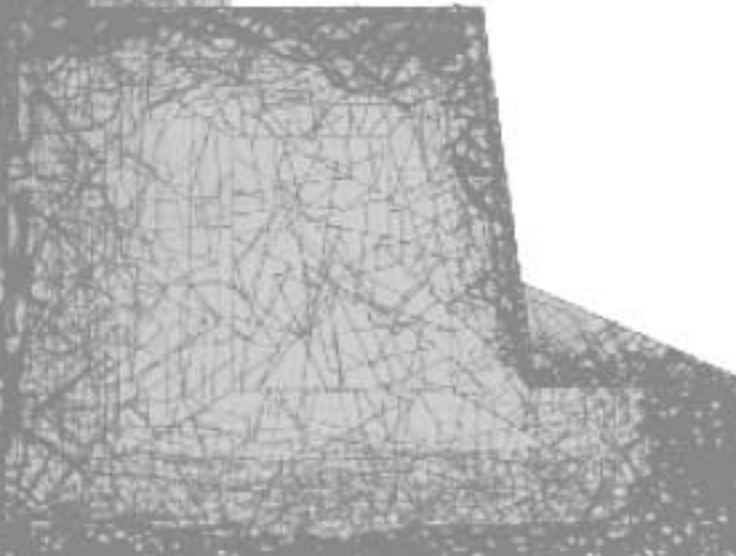
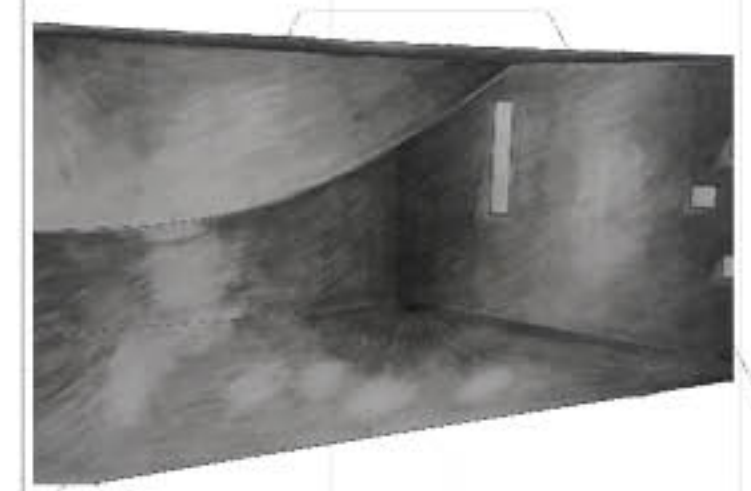
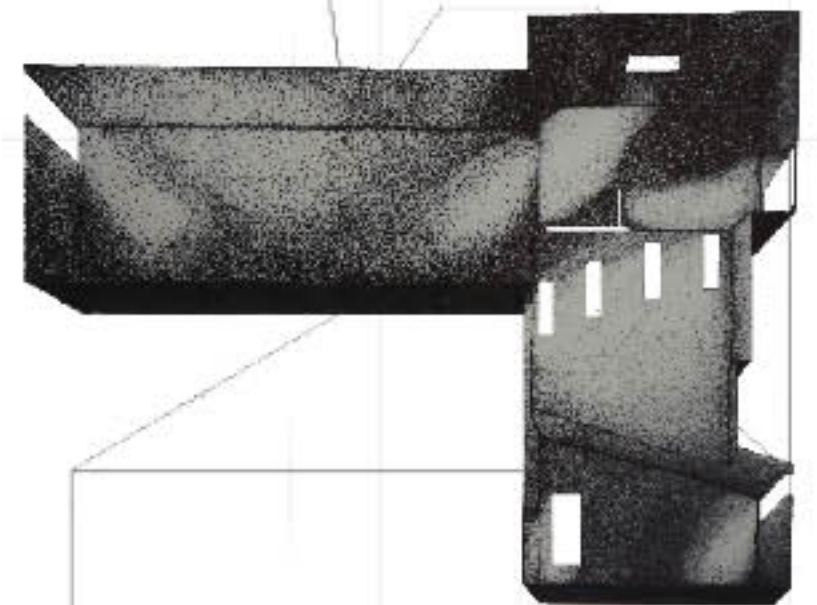
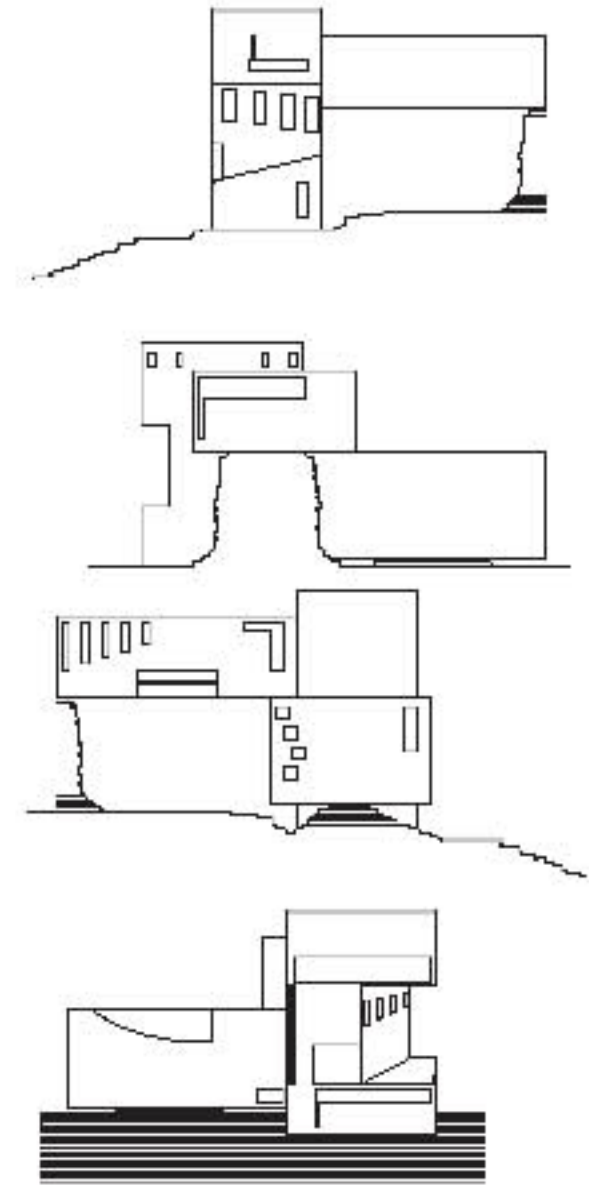
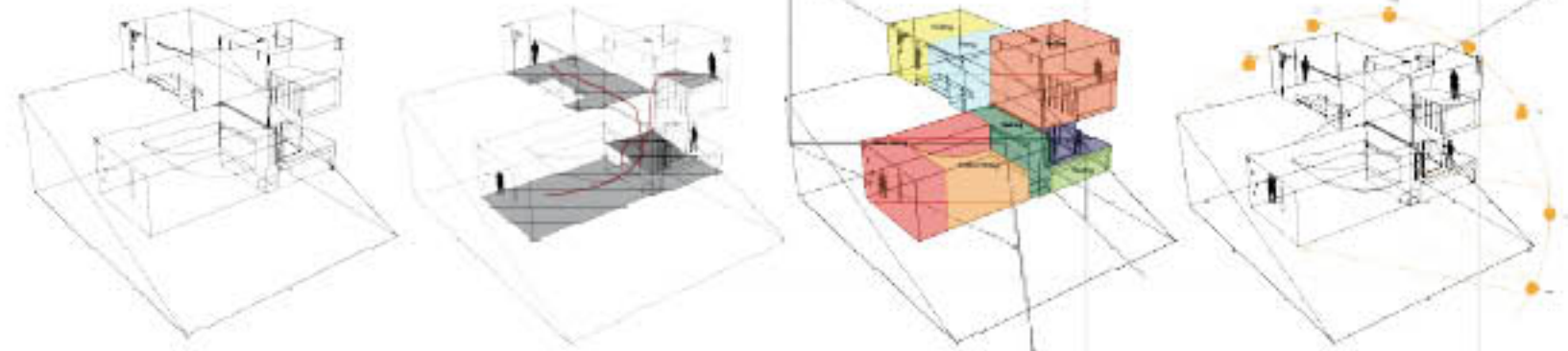
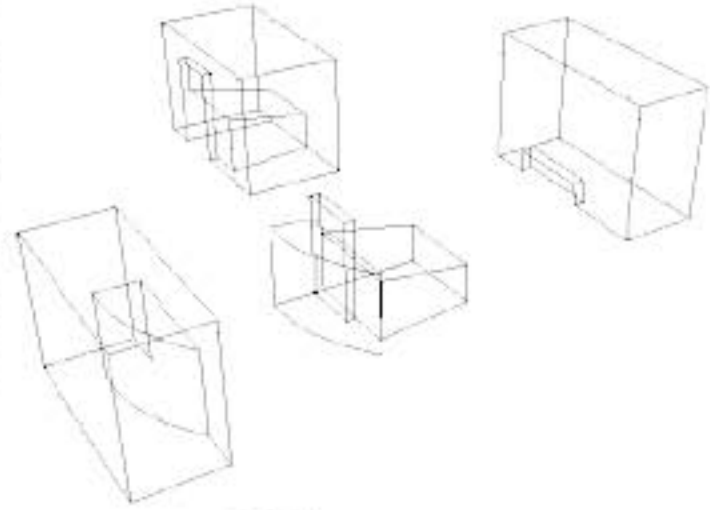
Sectional Silo Model

# THE PLASTER HOUSE

The Plaster House project focused on using different materials and using different media to show form and space. I used foam to mass the lobby of the United States Courthouse in downtown Buffalo, NY. Once I massed this space, I cast plaster around it to create three pieces which could then be configured in a specific way to design a house for myself. This configuration was then wrapped in plaster gauze and penetrated to explore lighting conditions.

Once the form was created, I designed a cliff-like site for the house which would allow for an equal amount of interior and exterior space above and below the house. I showed this in various elevational studies.

I also used different media of drawing to show the spatial conditions of each of the peices of plaster and how they come together to create programmed spaces.



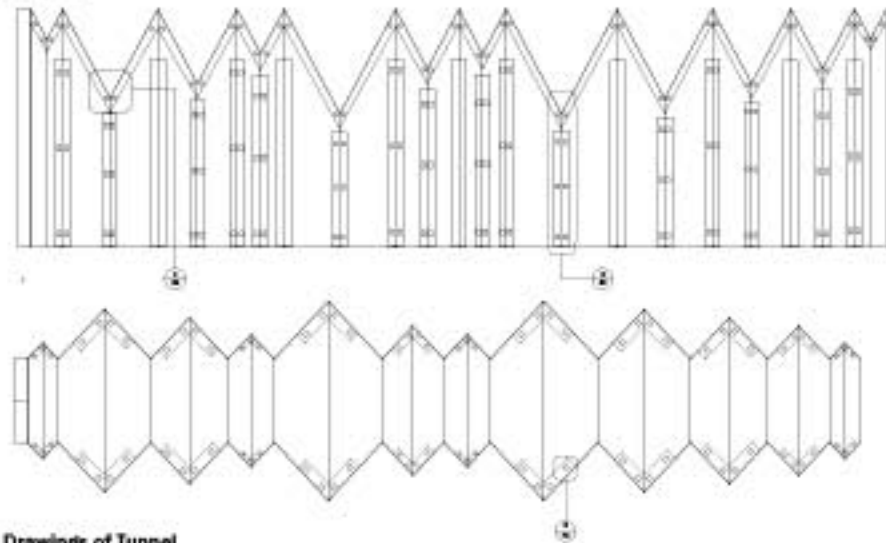
# CARDBOARD TUNNEL

Using the studio space as our site, a group of classmates and myself designed a forty foot tunnel made entirely of cardboard. The tunnel was to be cast around an object in the room. My group chose to cast the door frame and exaggerate the frame to create an expandable and "accordion-like" tunnel.

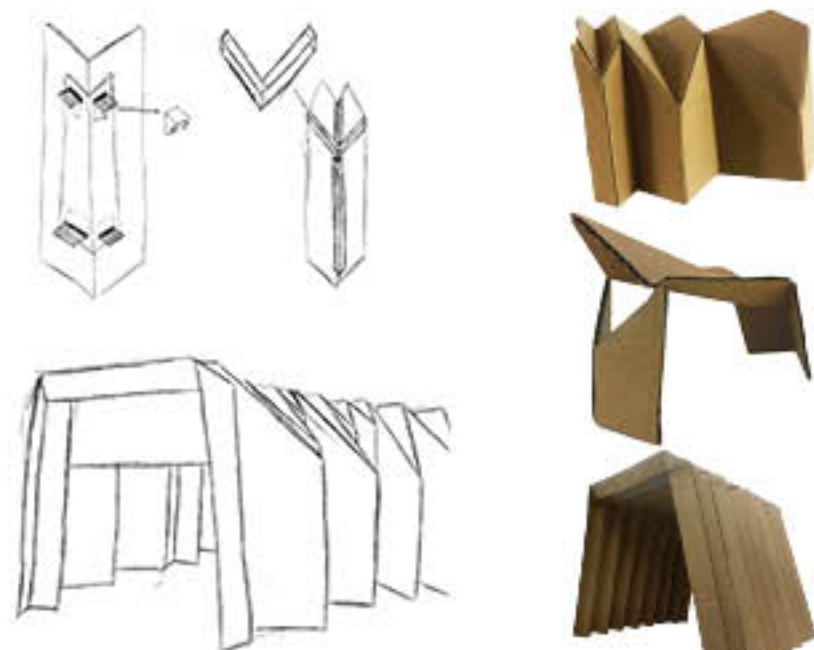
Conceptually, the tunnel acted as a metaphor for the use of our studio space throughout the semester. More intense, productive times of the semester, would cause the studio to get dirty and be cluttered with models, drawings and people. Whereas the studio space right after reviews and before projects is very clean and organized. The tunnel was used to explain these differences in the conditions of the studio by the height and width of the passage of the tunnel. Shorter smaller spaces represented hectic times of chaos and larger more open areas represented clean and organized times of the semester. Both the tunnel and the conceptual diagram would end with the final review state of the studio space.

We studied different methods of cardboard and weak material tunnels, as shown. We also created several diagrams and drawings to show the connections and the technical aspects of the tunnel.

# 1



Drawings of Tunnel

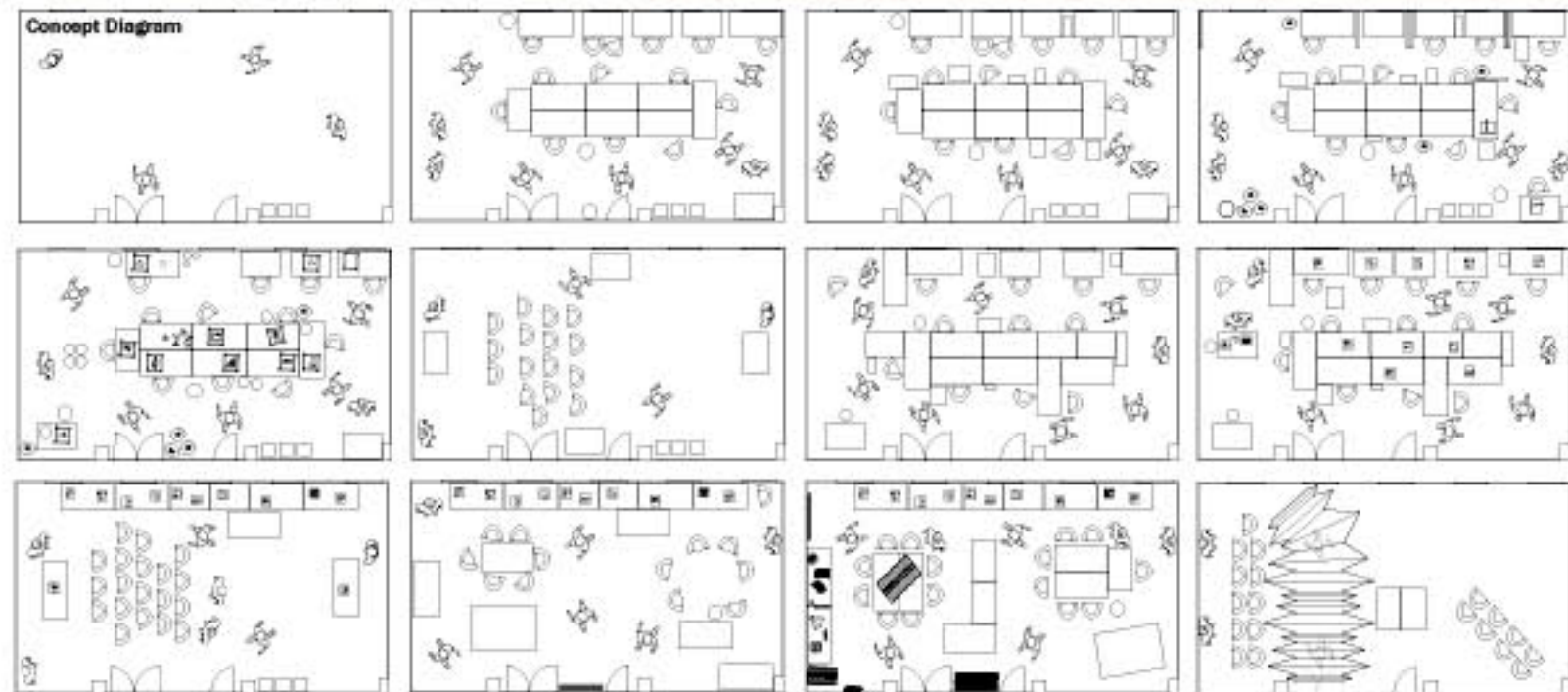


Sketches

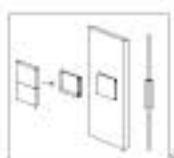
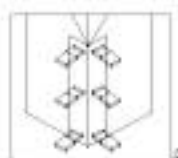
Cardboard Studies



Tunnel in Studio



Connection Diagrams

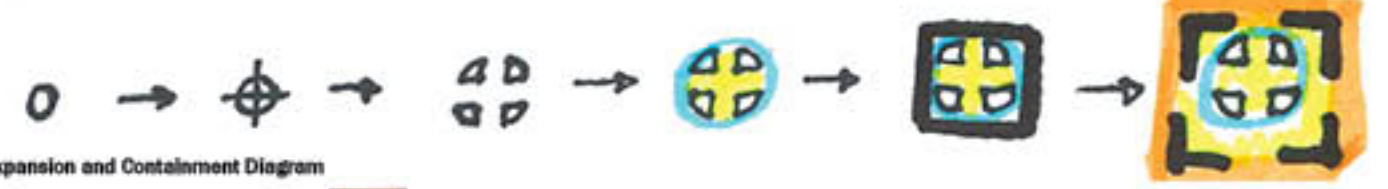
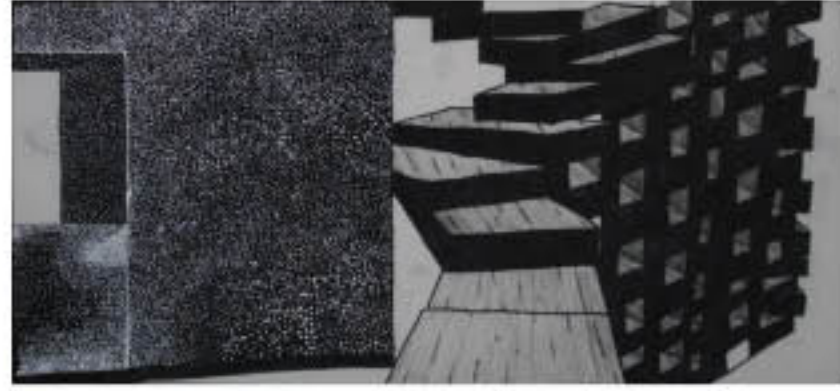


# THE WALL ART GALLERY

Unknowing of what the site or program of the project was, I created a spatial configuration which would start as an artifact, and develop into a designed building. The artifact used ideas of expansion and contraction with a focus on materiality. The usage of different materials such as rocks, foam, plaster and wooden blocks, allowed me to create a model which struggled with expansion and contraction, as the diagram shows. After exploring an artifact, I took the ideas of expansion and contraction to create a building which struggled with the penetration and containment of a series of rooms. This allowed for the formation of a large wall which would act as a container for the entire building while penetrating the surfaces to create spatial configurations inside of the wall.

After the creation of the spatial arrangement, I was given the program of an Art Gallery and was able to utilize the wall as an activated space for the display and for circulation throughout the art gallery. This Gallery was placed in a park in Williamsville, NY.

This semester's work focused heavily on gaining a better understanding of spatial layouts as well as how to graphically display these spaces using a diverse set of media. These media include charcoal, marker, graphite, watercolor, felt tip pen stippling and the layering of materials, as shown in the perspectives to the right.



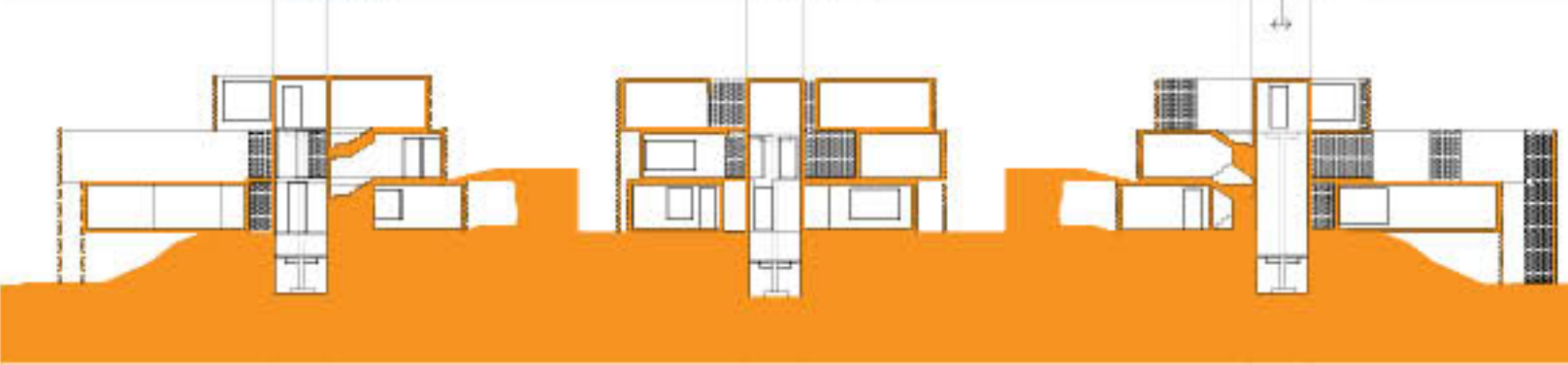
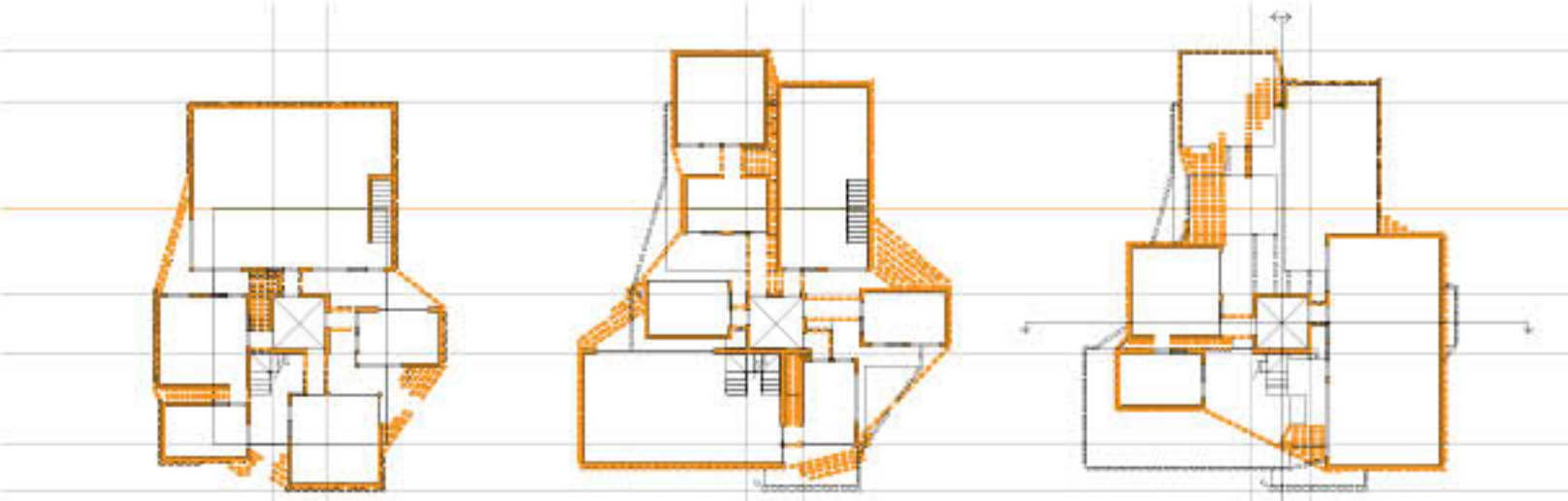
Expansion and Containment Diagram



Art Gallery Model



Conceptual Artifact



# BUFFALO CENTER FOR MENTAL WELLNESS

Summer and Best Streets and Main Street would be used as the site for this mental health center in Buffalo. This center was architecturally designed to respond to each person's individual idea of mental wellness and their comfort with the public and private factors of wellness.

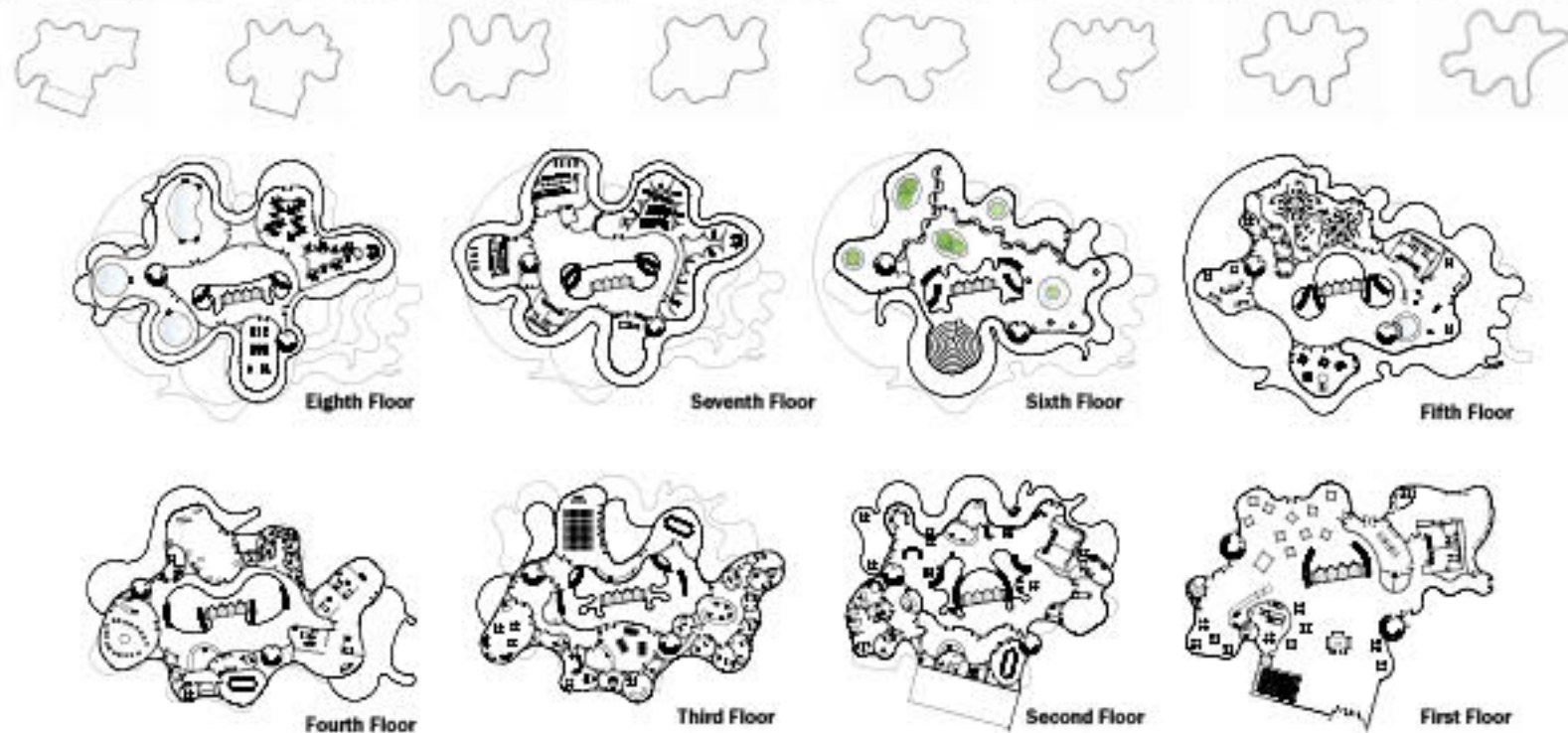
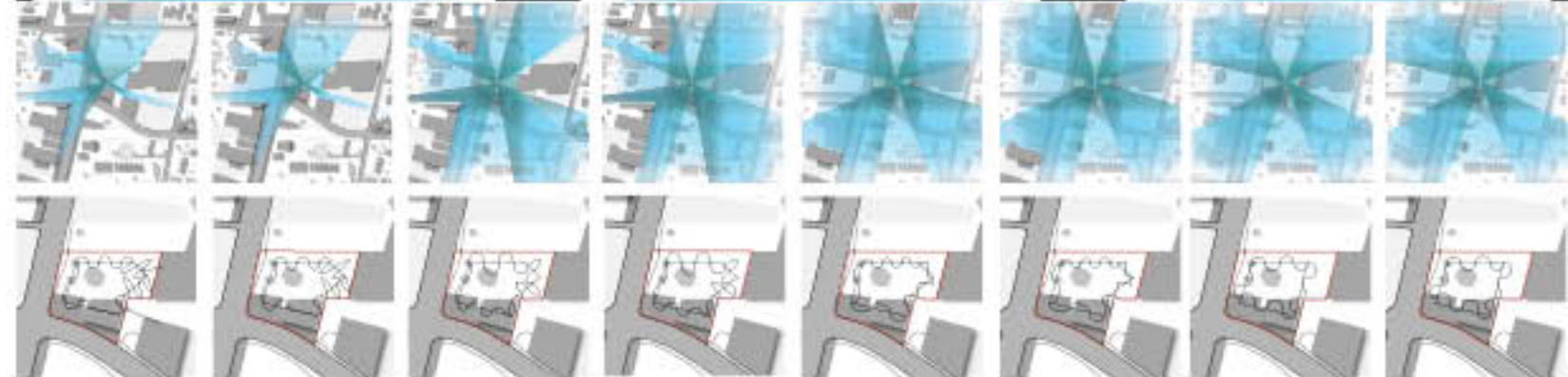
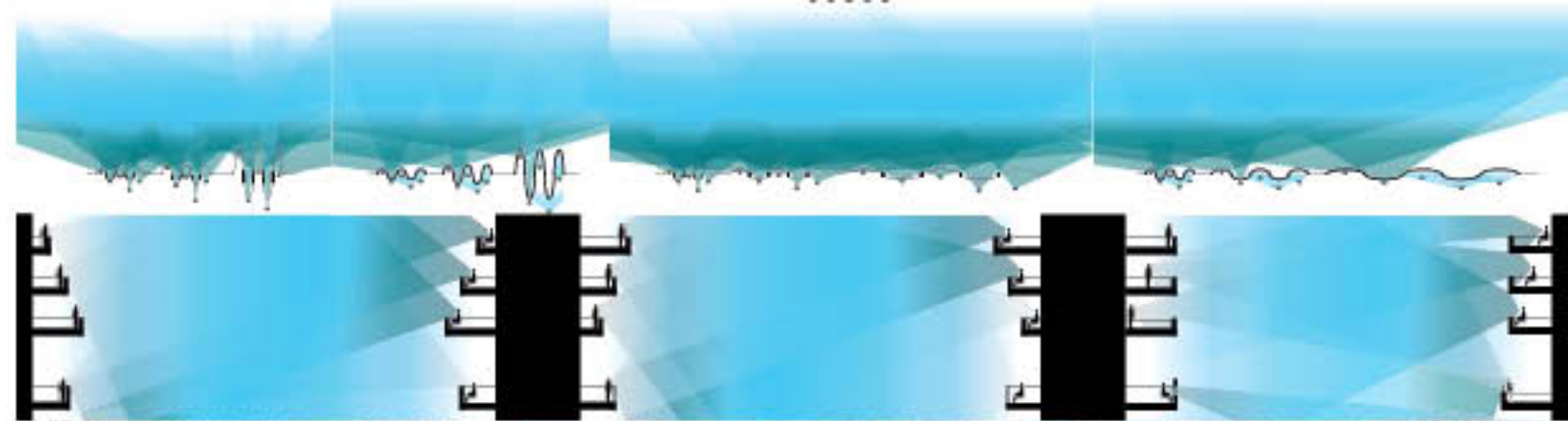
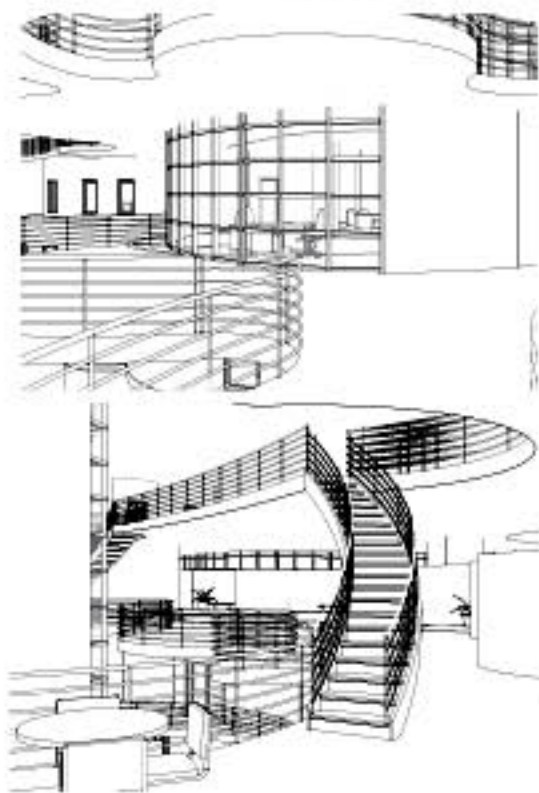
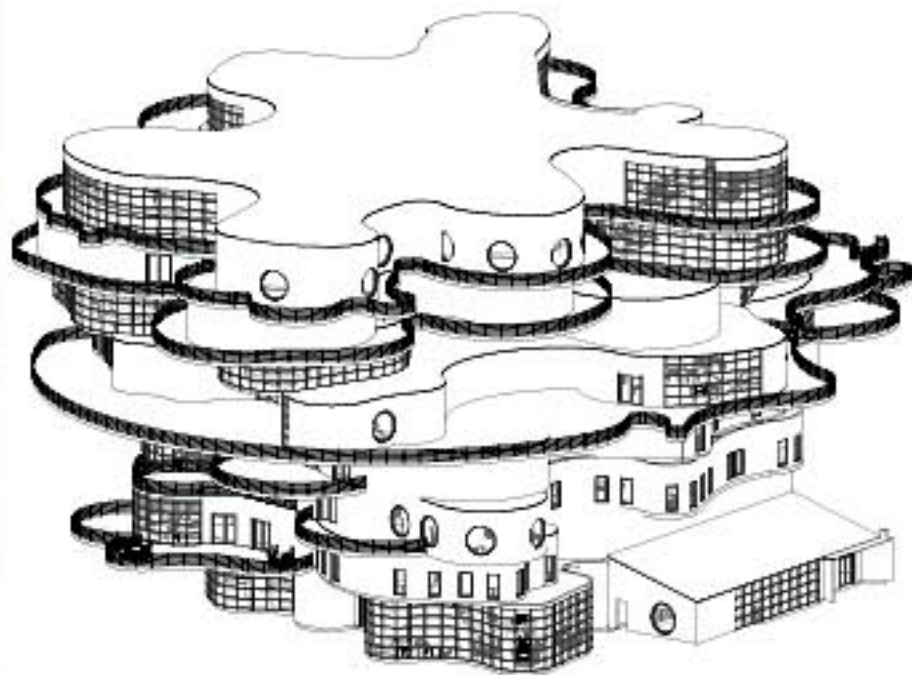
Using different curves, I was able to create the diagram on the next page. The diagrams were then used to show the views outward along these different curves. Also, these curves were explored at different heights, different lengths and with different materiality along the balconies. These views (using the curves) were then studied to create the programs on each floor. The curves were normalized to create the floorplates for each floor.

I was able to create an eight-story tower which had more public programs toward the bottom and less public and more private programs toward the top.

Doing this allowed for those who were more comfortable being alone to be left to themselves while allowing moments for those who are more comfortable being around large crowds to do that.

The programs which this building had were a market, a doctor's office, a physical therapy suite, an aquatic therapy pool, a fitness center and offices which would support it.

This semester's work focused on preliminary studies of structure and systems, as well.



# ALLEN ARCHITECTURE PRACTICE

Using the corner of Allen Street and Franklin Street as my site, I designed an architecture firm which would focus on offering a consistency between individual and group work. The office allowed for each person working to have their own personal office while having plenty of open space for group discussions and collaboration between individuals.

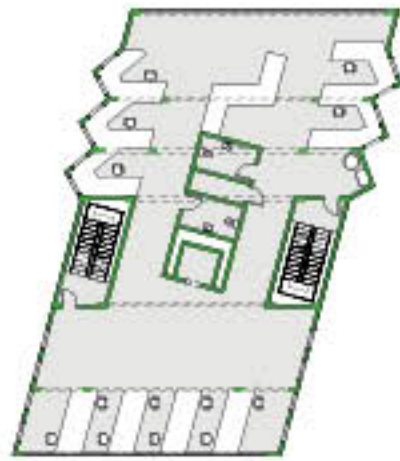
The cantilevered structure would allow for the public to engage themselves with the space. Being on the corner of a busy street in Buffalo's Allentown district would allow for the building to be used by and programmed for the public, as well as those who work in the architecture firm. The first floor would have a Cafe and exhibition space to allow for public displays of the drawings created in the firm.

The Allen Architecture Practice would focus on drawing to create senses of space. Although the building would have some smaller spaces for modeling, the emphasis would be on drawing to show space.

This semester's studio focused on the incorporation of architectural systems and structure. I worked to design systems of egress, HVAC and structure which allowed the building to serve it's function while allowing for functional and successful systems.



Third Floor



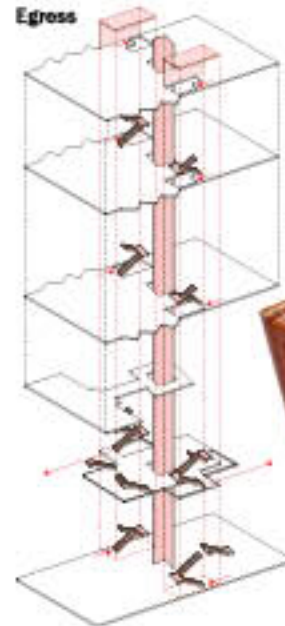
Second Floor



First Floor



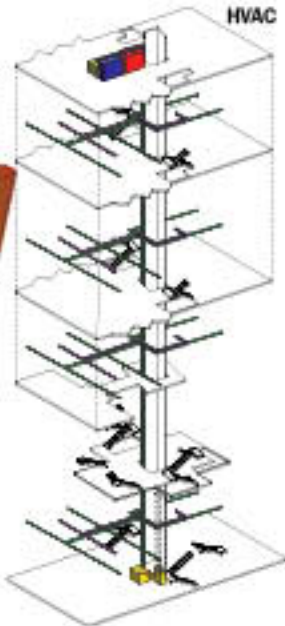
Basement



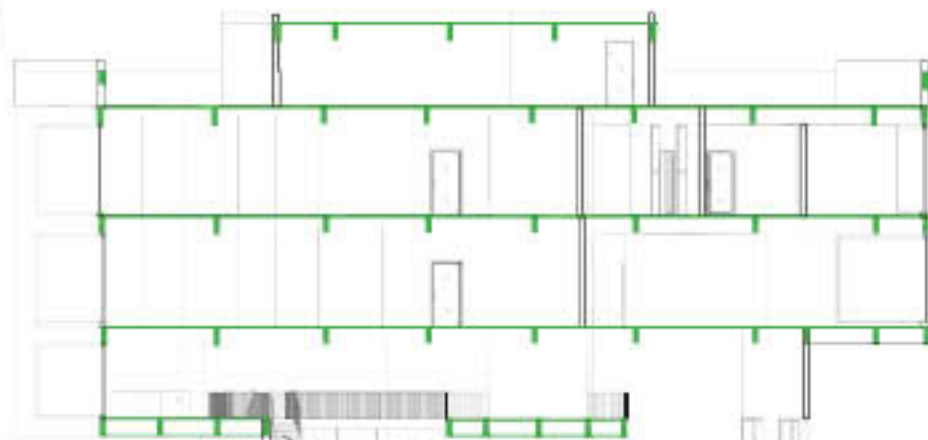
Structural Model



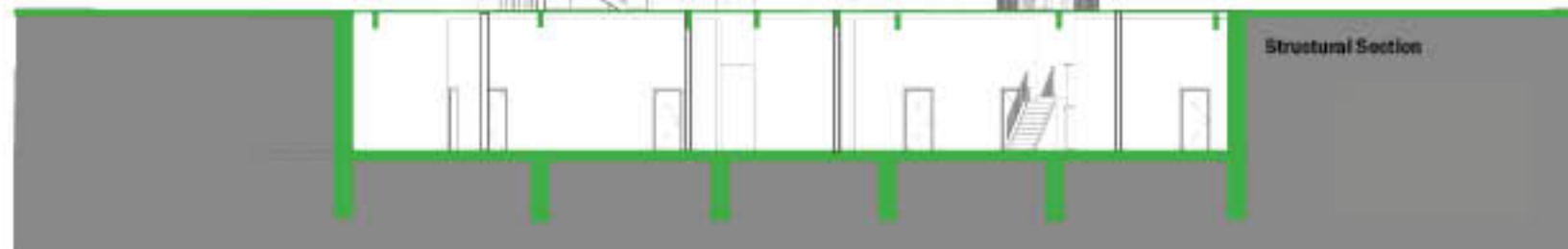
Structural Model



Structural Axonometric



Structural Section



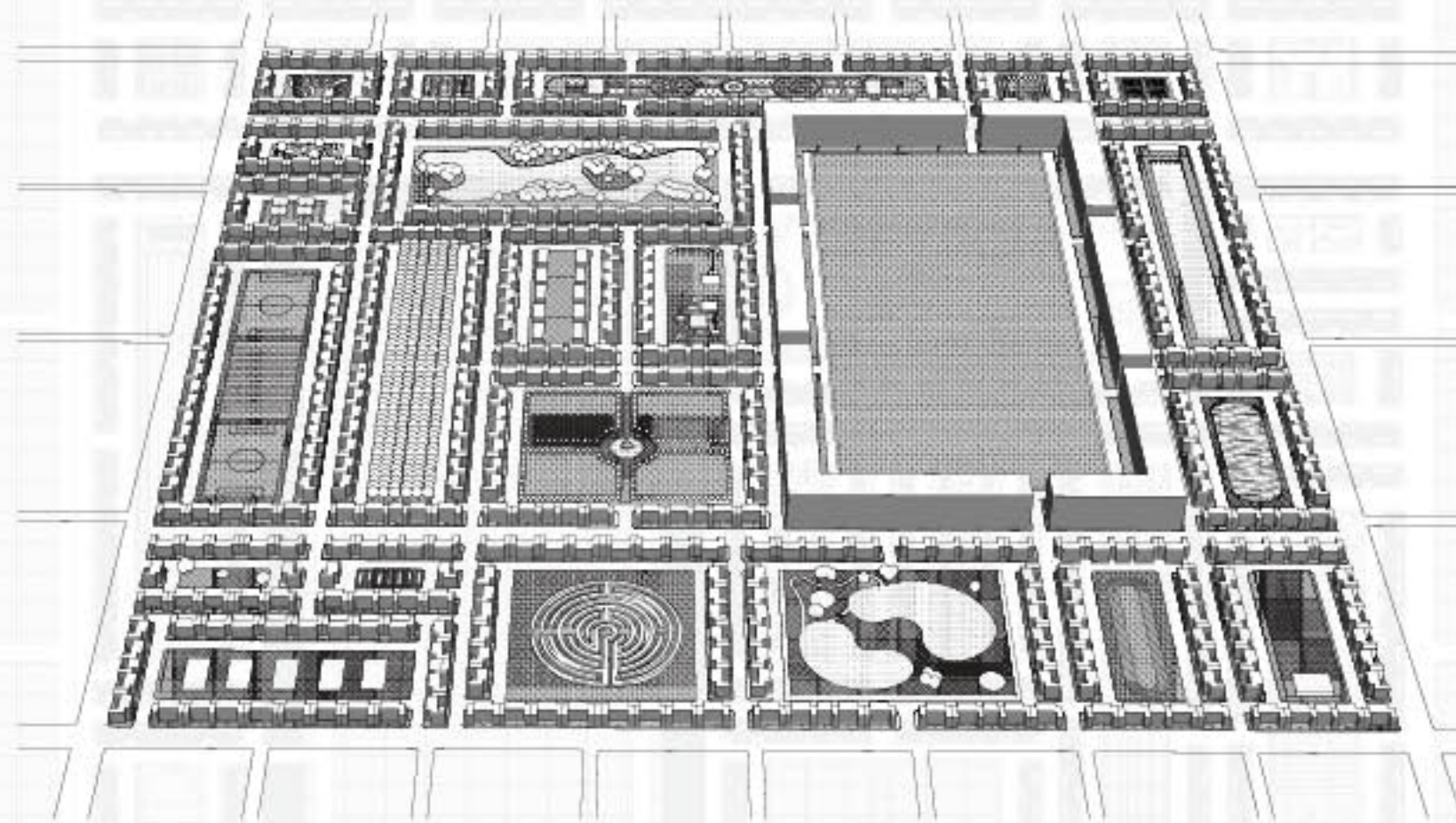
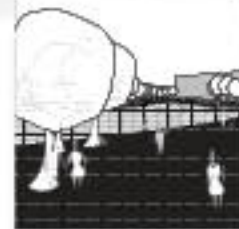
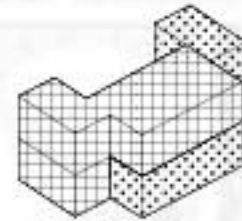
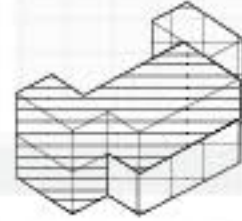
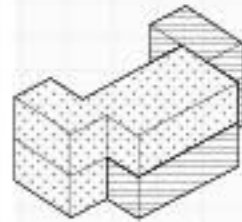
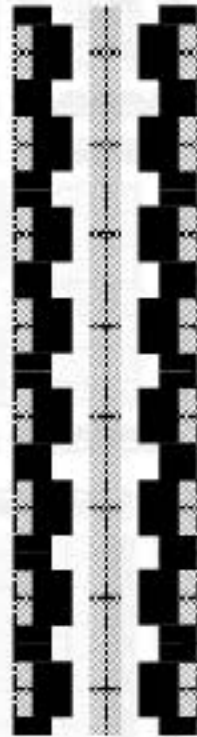


## 24 GREENS

This project uses a housing typology which has a strong focus on green space. Each residential unit has a shared garden space as well as a shared patio space with their neighbors. The green space is shared with one neighbor and the patio space is shared with a neighbor on the opposite side. This allows the homeowner to have equal but opposing connections with their neighbor to the left and to the right.

Each unit interlocks with another unit, as well. One unit has a first floor garage and a first floor living area with an addition bonus room above the garage. The unit opposing this unit has a first floor garage with a second floor living area and second floor bonus room. This interlocking technique is shown in the diagrams on this page.

These units band together in rows to create a modular system of green squares. Each unit faces the square on the garage and patio side. There are no private garden square facing a public green square. Each green square develops its own personality by taking on a unique program. This allows the homes on each square to be given an address based on the program in their green square. Each public green square is accessible to every unit in the city.



# BUFFALO ADVOCACY CENTER

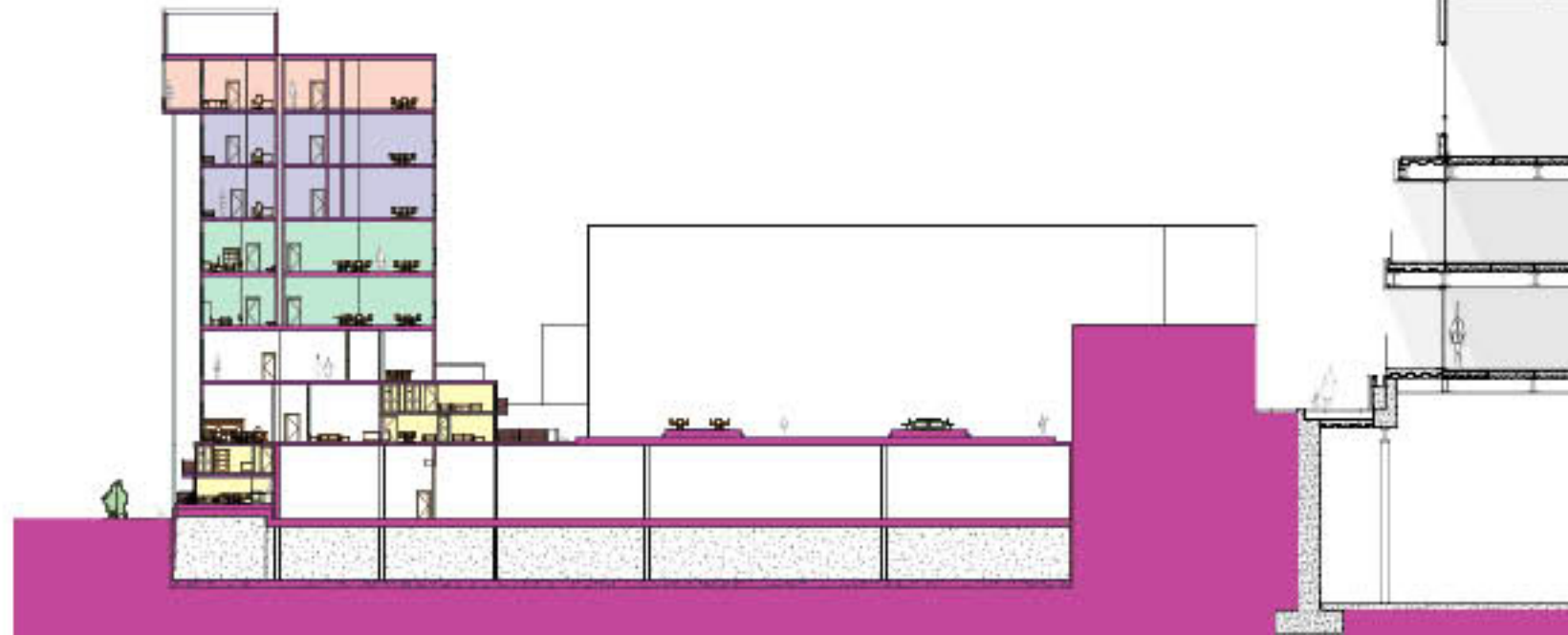
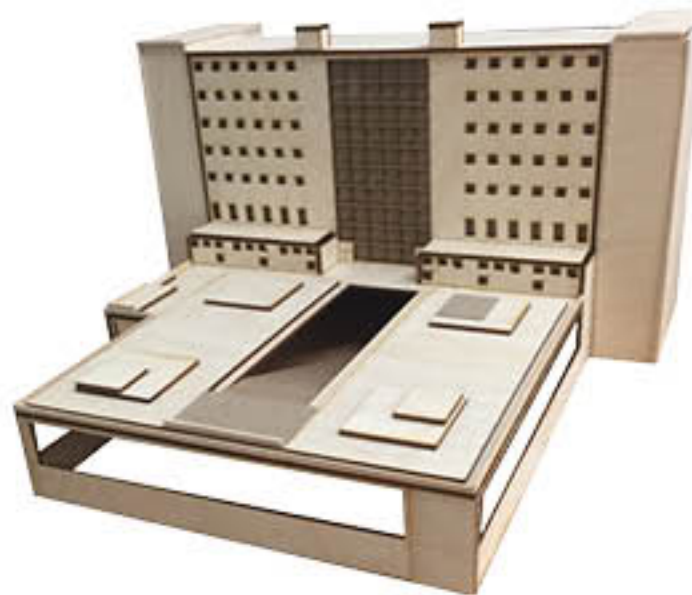
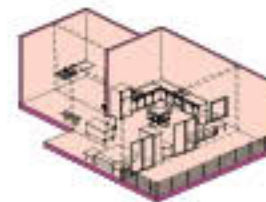
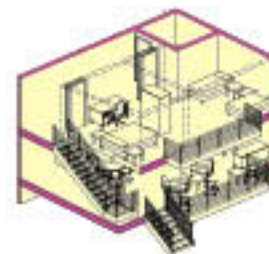
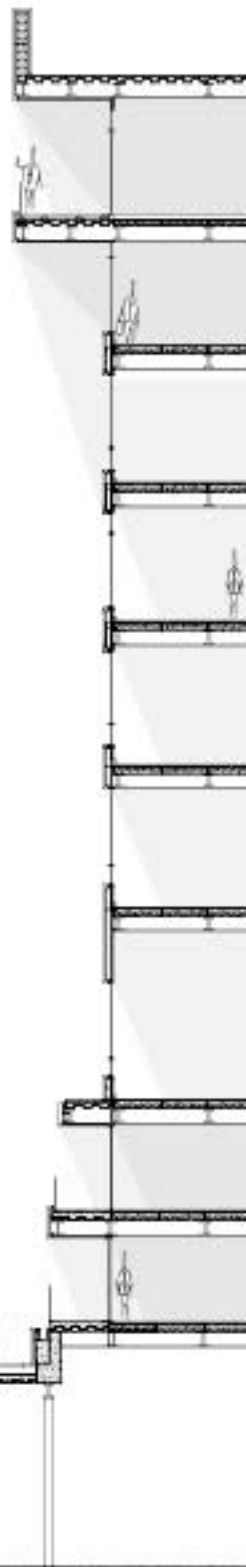
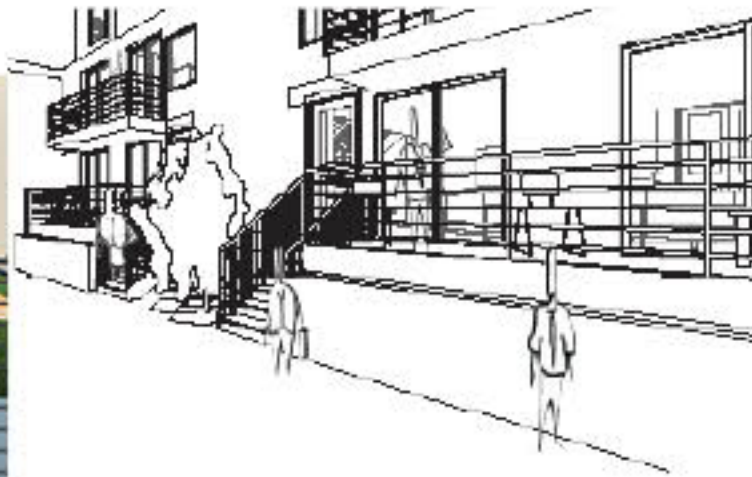
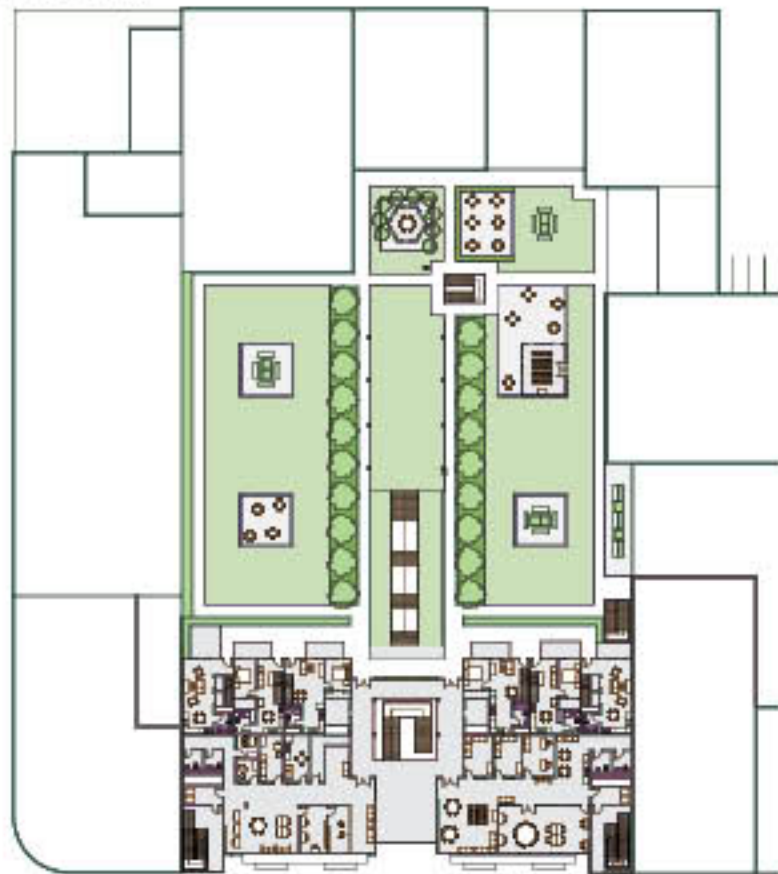
The Buffalo Advocacy Center is a mixed use residential building for people who are new to the Buffalo Area. This building houses people from a weekend to eighteen months while they familiarize themselves to the cultures and environment of Buffalo. The building has meeting rooms, seminar spaces and office rental for the residents to take advantage of. Buffalo's small businesses and other organizations could use the building for their conferences, seminars or presentations, as well.

The project began by studying different needs for housing in the Buffalo area and developed into create a space for Buffalonians and travelers alike to share in the cultures of Buffalo.

The BAC has a large green space which is for public use and would be used for summer time seminars and different events from within the building.

During this semester I used many rendering and skills as well as started to really develop my own architectural style. I also expanded my knowledge of structure and construction of a functional building.

4



# UNITED STATES TRAVELS

Between my Junior and Seniors years of architecture school, I traveled the United States exploring different significant pieces of architecture, art and landscape. I spent 35 days on a bus touring over 40 cities and 22 states.

Some significant buildings and landscapes I visited were Farnsworth House by Mies van der Rohe, Falling Water by Frank Lloyd Wright, Trinity Church by H.H. Richardson, The Highline, Central Park, Glass Pavilion by SAANA, Milwaukee Art Museum by Santiago Calatrava, PPG by Philip Johnson, Exeter Library by Louis Kahn, Paley Park, Kogod Courtyard by Norman Foster and the Brooklyn Bridge.

On my tour around the US I also stopped at many colleges and universities which are well known for their schools of architecture. These include Harvard, Yale, Columbia, Princeton, University of Pennsylvania, Ohio States University, University of Virginia, Cooper Union, Cornell, Illinois Institute of Technology, University of Cincinnati and Syracuse University.

Each day I recording my architectural findings by sketching buildings. I sketched full detailed buildings, interiors and landscapes as well as small spacial vignettes which focused on timing, spacial understanding and form.

# 5



Louis Sullivan's Jewel Box Bank  
Sidney, OH



Louis Sullivan's Jewel Box Bank  
Owatonna, MN



Louis Sullivan's Jewel Box Bank  
Newark, OH



Louis Sullivan's Jewel Box Bank  
Grinnell, IO

Frank Gehry's Center for Visual Arts  
Toledo, OH



5 Minute Sketch



One Minute Sketch



Thirty Second Sketch



Tod William's and Billie Tsien's Barnes Foundation  
Interior Lobby  
Philadelphia, PA



Eliel Saarinen's First Christian Church  
Interior and Exterior Views  
Columbus, IN



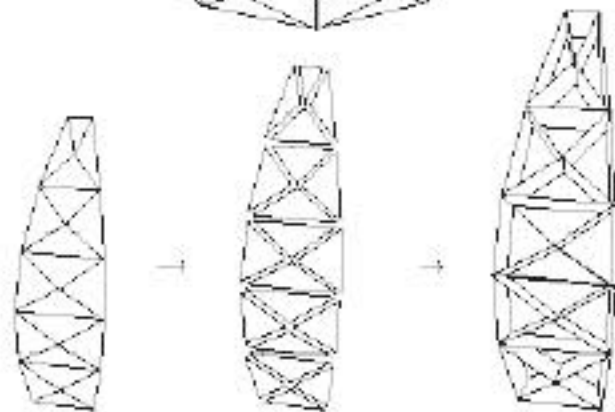
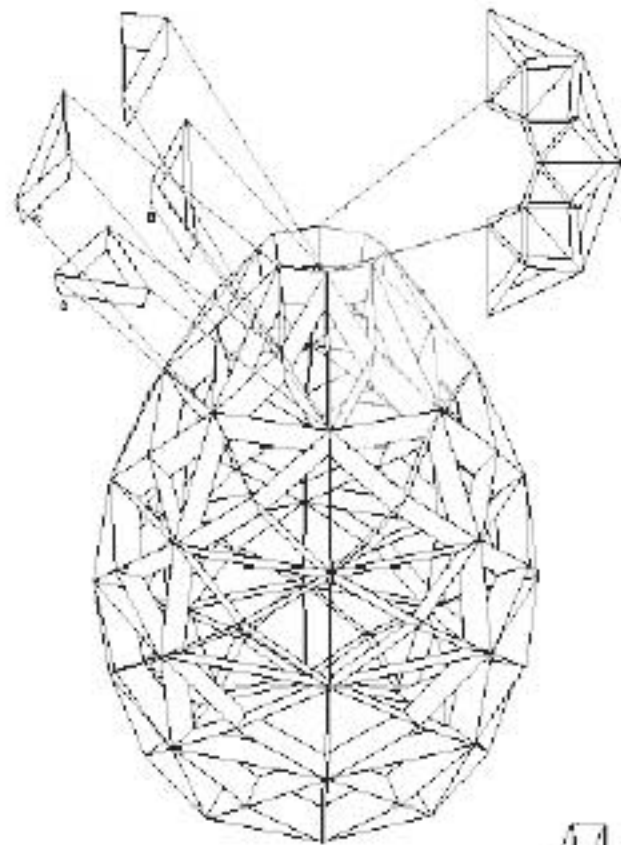
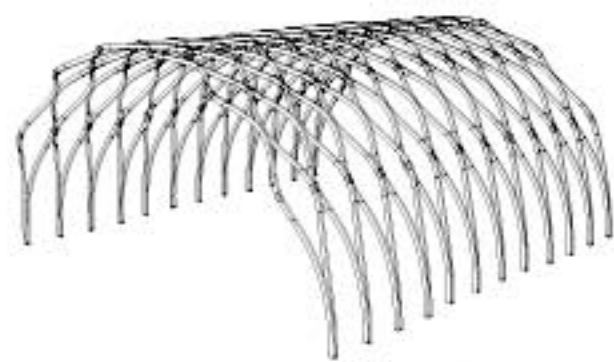
Alvar Aalto's Baker House at MIT  
Exterior View  
Cambridge, MA

## MEDIA

Throughout my entire undergraduate years, I took a Media Course every semester which focused on the fundamentals and understandings of drawings and how those drawings can relate to modeling.

I started by developing skills by taking plans and sections by hand my freshmen and sophomore years. As the years progressed I began to use programs like AutoCAD, Rhino and Grasshopper to create complex forms which were used to create diverse geometric patterns. These patterns were used to create real life bridges and a modular egg which is shown on the page.

# 5

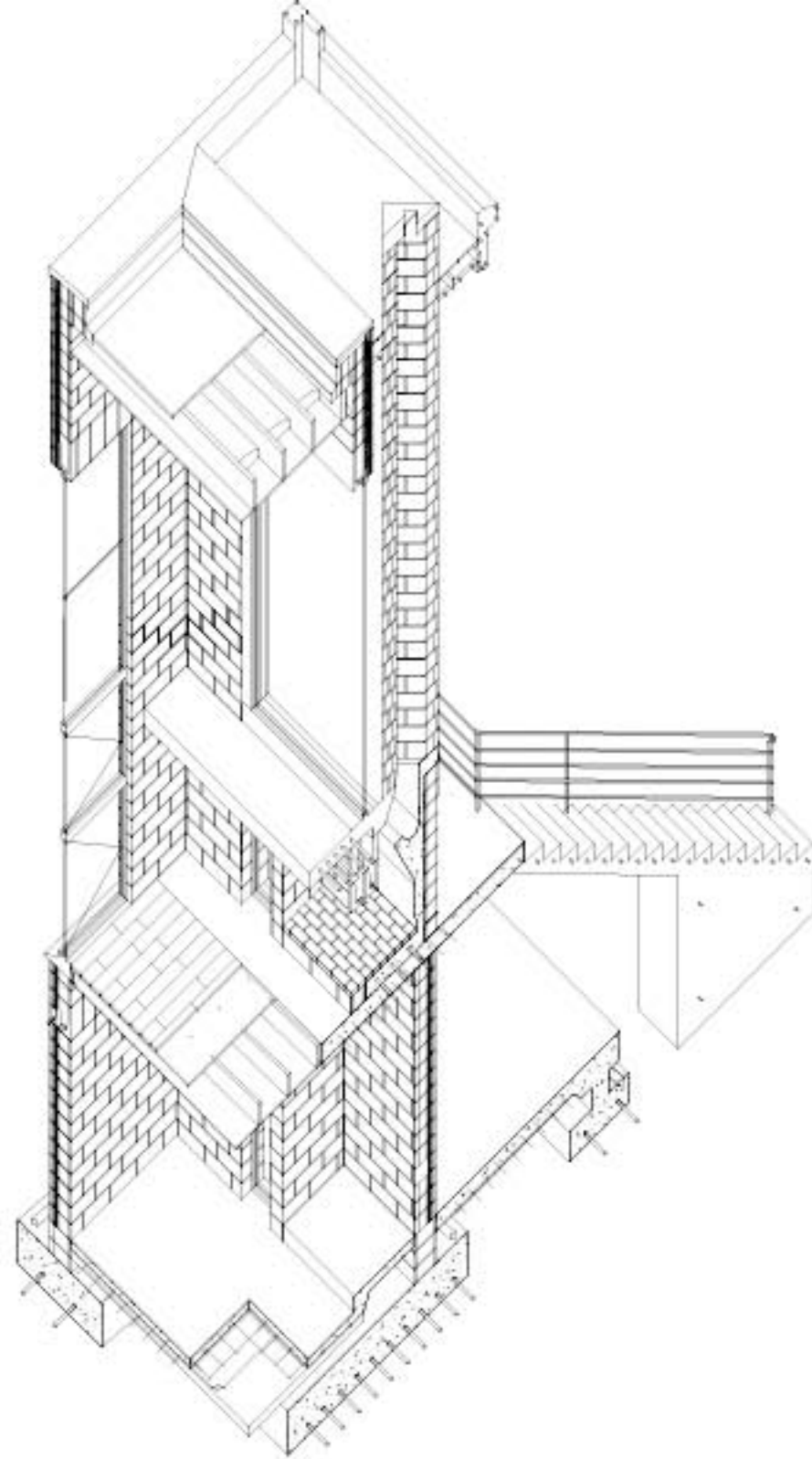


## CONSTRUCTION

I also have worked with construction systems and have developed an understanding of how a building comes together. In my junior year, I studied the Croffeed House in Charleston, SC by Clark and Menefee Architects. The house being built modularly with Concrete Masonry Units was used to understand how concrete construction works with rebar, roof construction, foundation construction, fireplace construction and window construction.

Through my studies on construction and the Croffeed House I was able to establish a better understanding of how a building comes together in the context of an actual built environment.

# 5



**Brandon Hake**

Undergraduate  
University at Buffalo