KARL PIETSCH

Selected Works



Karl Pietsch

khpietsc@syr.edu
+1 (267) 315-3582
http:issuu.com/karl_pietsch

Education

Syracuse University School of Architecture GPA 3.88
Deans List 2019 - 2024

2022 Syracuse University Architecture Abroad | Florence
- Louis Jay Masters Scholarship
- Abroad Academic Excellence SU Grant

2022 Syracuse University Architecture Abroad | New York City
- New York City Internship Program

2024 James A. Britton Memorial Award | Collaborative Research Prize
- Directed Research award with Professor Iman Fayyad

Relevant Professional Experience

2023 Wholstenholme Associates
- Conducted site visits and produced comprehensive documentation for renovation plans.
- Attended various client meetings and implemented design changes.
- Collaborated to produce drawing sets for client and contractor meetings.
- Attended historical review board meetings for proposed interventions.

2014-2023 Pietsch Landscaping LLC
- Prepared foundation and installation of hard-scape material.
- Constructed retaining walls.
- Responsible for various material removal, disposal, and pick up.
- Trimmed plants and installed plant material on site.
- Maintained and operated mowing schedule.
- Designed and produced drawings of concrete patio and deck for clients.

2022 USA Architects
- Created and edited Revit Models, integrated and linked MEP and structural models.
- Produced renders for client reviews of new buildings and renovations .
- Produced CD submittals and corrected red lined drawings.
- Surveyed sites for as-built models and produced as-built models in Revit.

2022 Bureau V
- Assembled product list for lighting and furniture specifications.
- Researched and compiled list of local services for product installation.
- Project research and analysis of comparable projects for new project acquisition.
- Designed sculptural ceiling for performance space.
- Drafted skylight details, bathroom elevations, and facade drawings/ models in Autocad

Skills

Modeling
- Rhino 6 - 7, Revit, Autocad, Physical Model Making, Wood Working, Welding, Casting

Visualization
- Adobe Illustrator, Photoshop, Indesign , Acrobat, Premier Pro, After Affects, Bluebeam Revu

Other
- Enscape, V-Ray, Lands Design, Climate consultant for Rhino, Film Photography, Painting

Chosen Curriculum

2022 Cities at Risk

Researched environmental, social and economic issues facing the community of Manhattan between Central Park and Time Square. From this research, diagrammatic maps were produced to visualized undeserved areas and potential interventions were proposed. At the end of this process, we presented our findings and research to the Time Square Alliance community group.

2022 Architecture and Fascism in Italy

Traveled to several cities in Italy to observe
Investigated the social, political, economical, and aesthetic impetus of Italian Fascist architects and their projects. Within each of these works the we analyzed how architectural elements were employed to create these desired affects.

2023 Woodworking and Mixed Media Research

Worked with a variety of woods and materials to produce a physical object within a given deadline. Each unique project required different design strategies, tools, machines and processes to resolve design challenges associated with physically producing something. Each project brief had a unique set of tools required to be used which in turn required different design strategies to be employed.

2023 Postcolonial Spaces

Investigated and analyzed the ways in which architecture is used as a tool in the processes of materialization of historical massacres such as. For each event we analyzed multimedia sources including but not limited to essays, art works, film, interviews and photographs to construct critical group discussions and understand architectures roll as a tool that can be employed to help or harm the communities affected.

2023 Analog Photography and Dark Room Printing

Here we explored the elements that make photographs either successful or unsuccessful through the decisions made when taking the photograph and afterwards in the darkroom. Projects in this course focused on how little decisions made in framing, focus, lighting for example have a huge impact on the narrative you are trying to create with each photo. My focus in this course was on shaping experiences the built and unbuilt environment is through perspectival photographs.

Competitions

2022 Young Architects Competitions (YAC) Meditation Mine
- Worked with 3 peers to organize, coordinate, and produce design competition submission.

Publications

2022 Cities at Risk 2

Combined publication of research of climate resilient strategies for the neighborhoods below Central Park

2024 A Postcolonial History of Fascist Architecture

An investigation into how architecture and its tools are used to uphold and construct colonial identities in both domestic and foreign spaces.



CONTENTS

01 FIRE HOUSE 7

02 PROJECTIVE SYSTEMS

03 MUSTANG RESTORATION

04 INTERSECTED SPACES

05 PHOTOGRAPHY

06 PUBLIC PURISM

07 WOOD WORKING

08 GIARDINI DI RIFLESSIONE

FIRE HOUSE 7

01

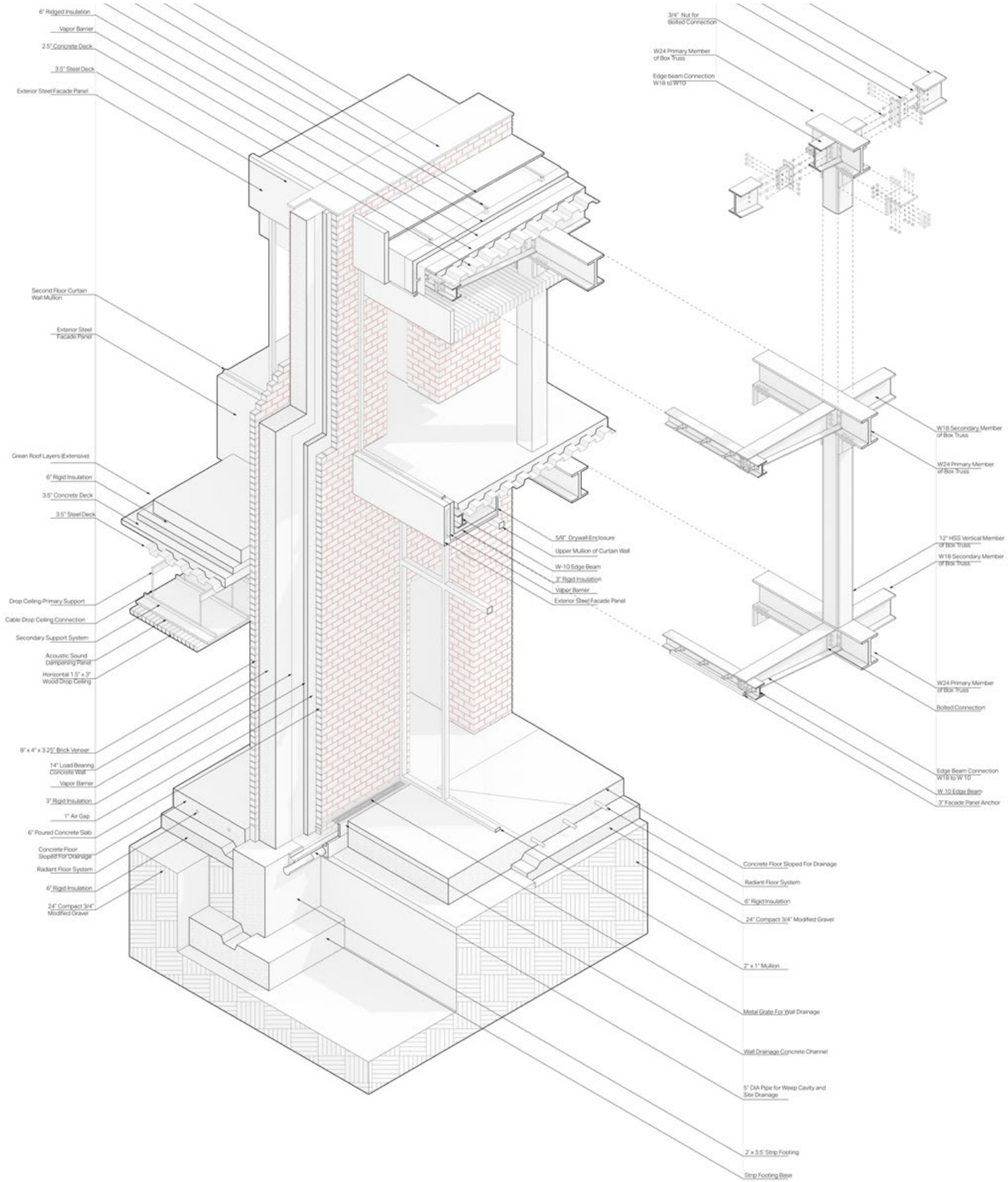
Year: 2023
Project: Fire House
Location: Columbus, Indiana

Fire House 7 aims to situate itself in the larger modernist context of Columbus, and within that, the context of many architecturally significant local brick buildings such as Fire Station 4 by Robert Venturi, Harry Weese First Baptist Church, IM Pei's Cleo Rogers Memorial Library, SOM's City Hall, and Deborah Berke's Bank whose work was of great influence in this project.

Through iterations of study models, the formal language of the wall was decided on as the main organizing element. This element functions as something more than a wall and is used to contain circulation, storage, training equipment, and program serving as the infrastructure to an infrastructural program.

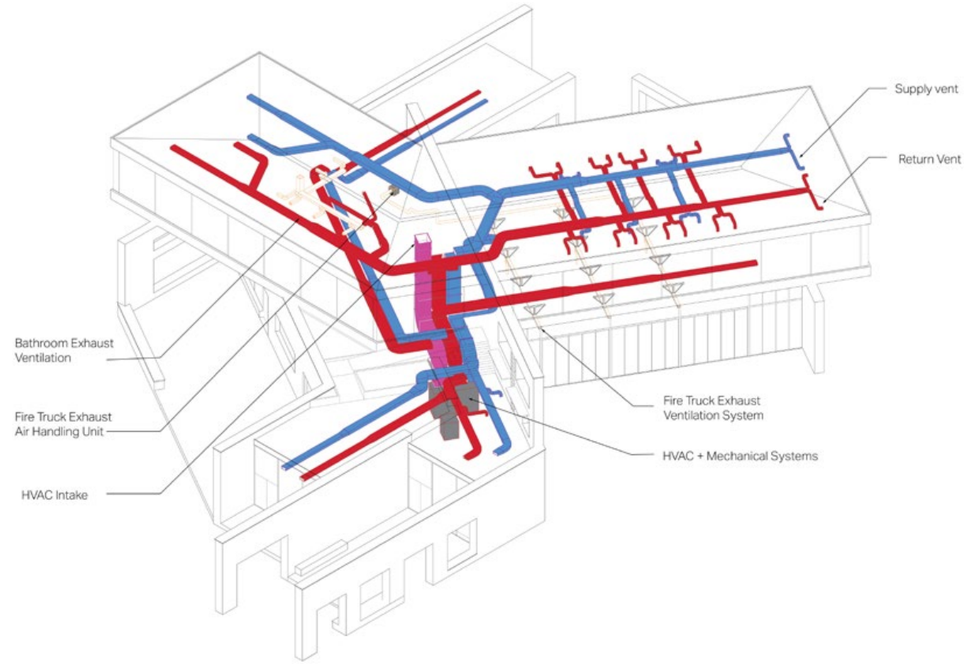
Ultimately, these main walls serve to split the live/ work spaces so both are divided, but easily accessible for rapid response times. This creates a healthy separation between the two vastly different programs without harming response times. In visiting local fire stations and talking with fire fighters their biggest requests were for access to natural light, outdoor spaces, and better separation of work/ life without compromising response times. These qualities are commonly overlooked in most firehouse designs in favor of efficiency and cost benefits at the expense of firefighters health. As such, this project was all about creating a hyper efficient box that required constant negotiation and massaging of program and layout to create a balanced project of both wellness and efficiency.





Detail Isometric
Scale: 1" = 3/4"

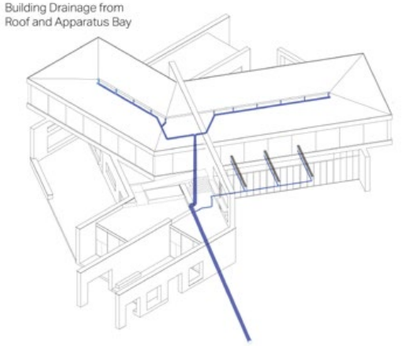
Wall connection detail chunk



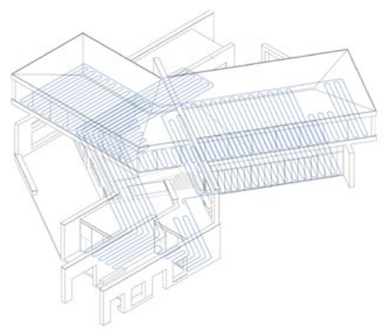
After meeting with structural and facade consultants, a detailed chunk model was developed to show how all of these elements combined to create enclosure. It also highlights how all of these systems connect, interact with the main element of the wall.

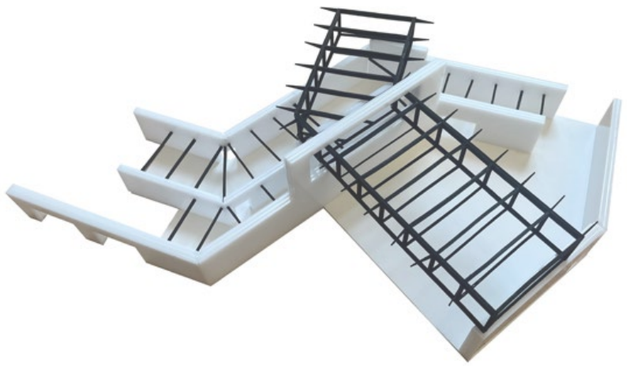
Other systems such as HVAC, radiant floor heating, and drainage for the roof and apparatus bays were also modeled to ensure that all systems worked together.

Building Drainage from Roof and Apparatus Bay



Radiant Floor Heating and Cooling System





The 5 large brick walls were the main elements that not only contained program to make for more efficient use of space. It also served as the main structure as seen in the structural model and the exploded isometric.

This conceptual model was made to show both the relationship between the formal elements of wall and upper volumes as well as separations of work and living program. It was created to be completely disassembled and reassembled during critique to reveal only the walls .



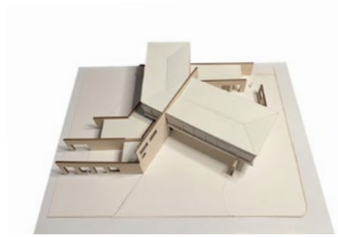
01



02



03



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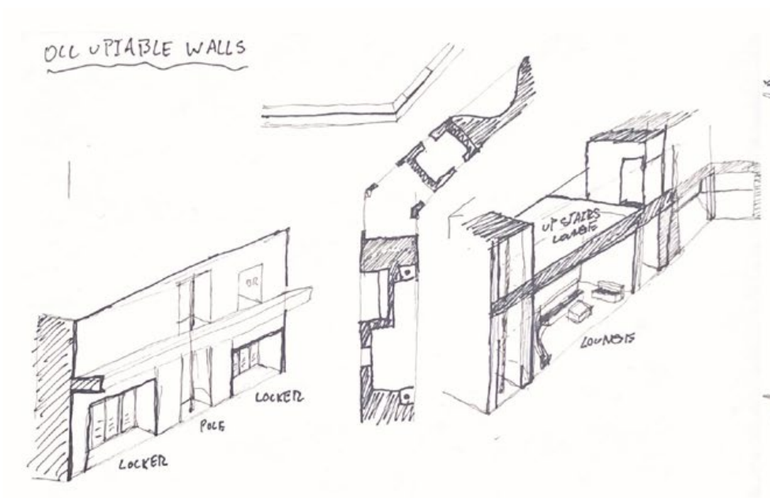
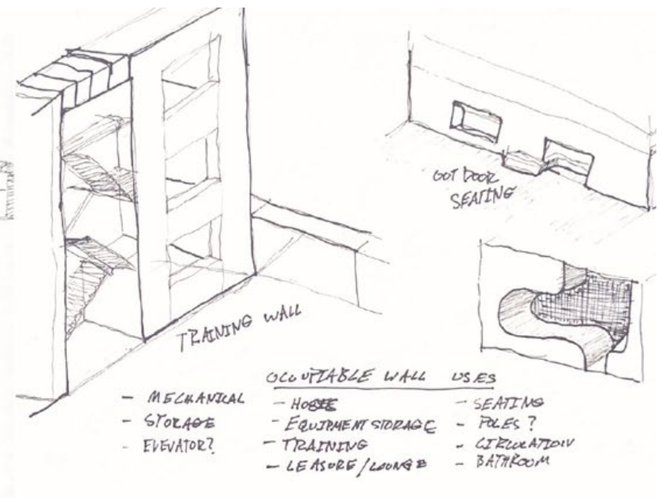
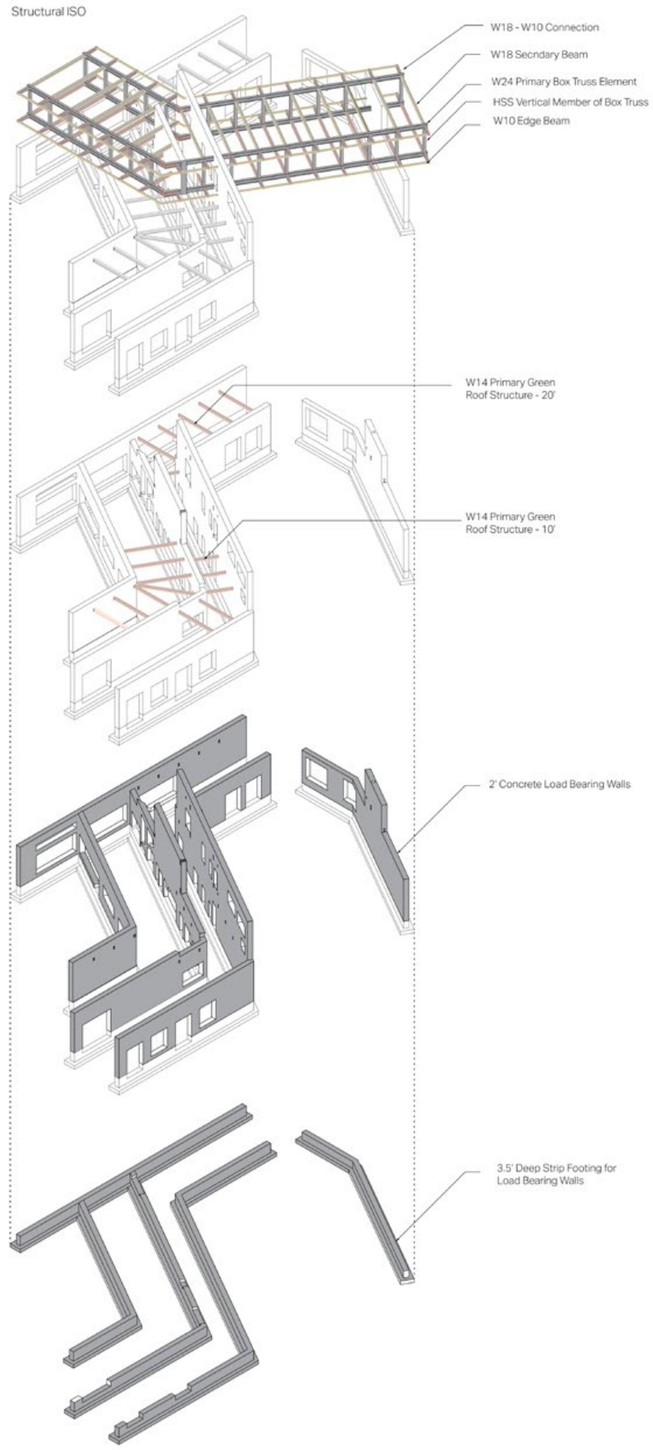
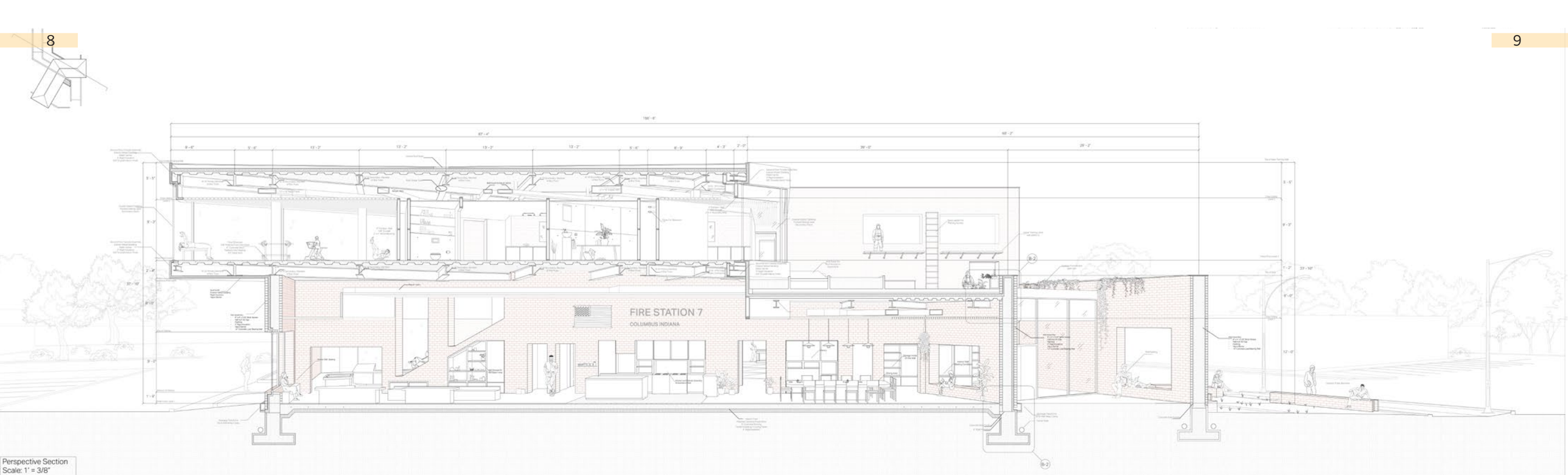


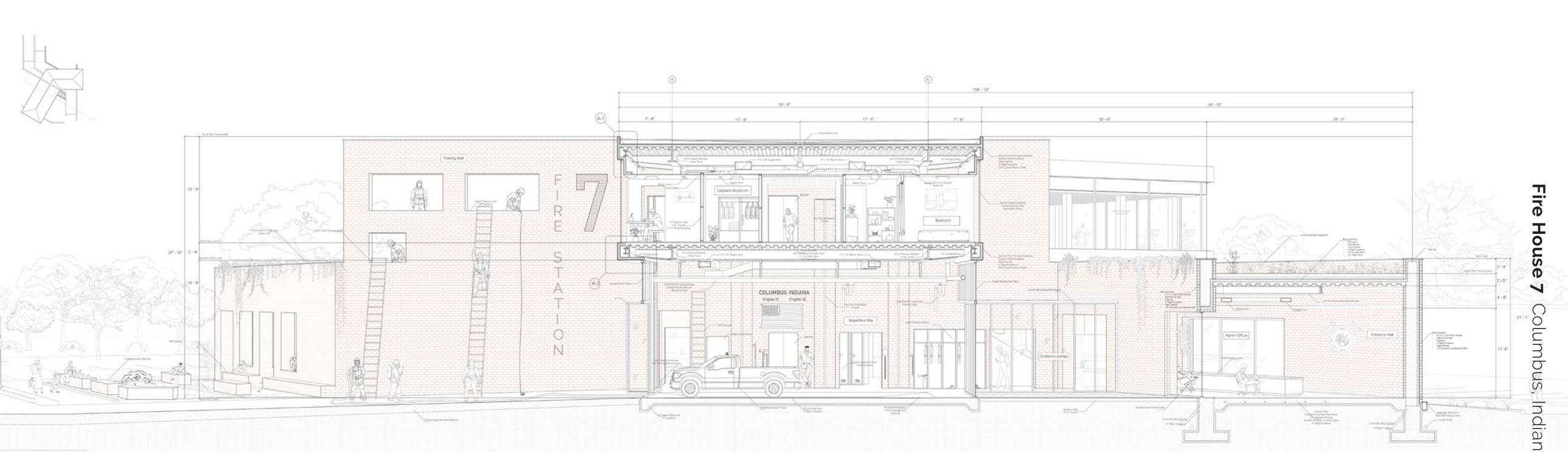




exploded structural drawing



Perspective Section
Scale: 1' = 3/8"



Perspective Section
Scale: 1' = 3/8"

Fire House 7 Columbus, Indiana

PROJECTIVE SYSTEMS

02

Year: 2024
Project: Thesis Installation
Location: Syracuse, New York

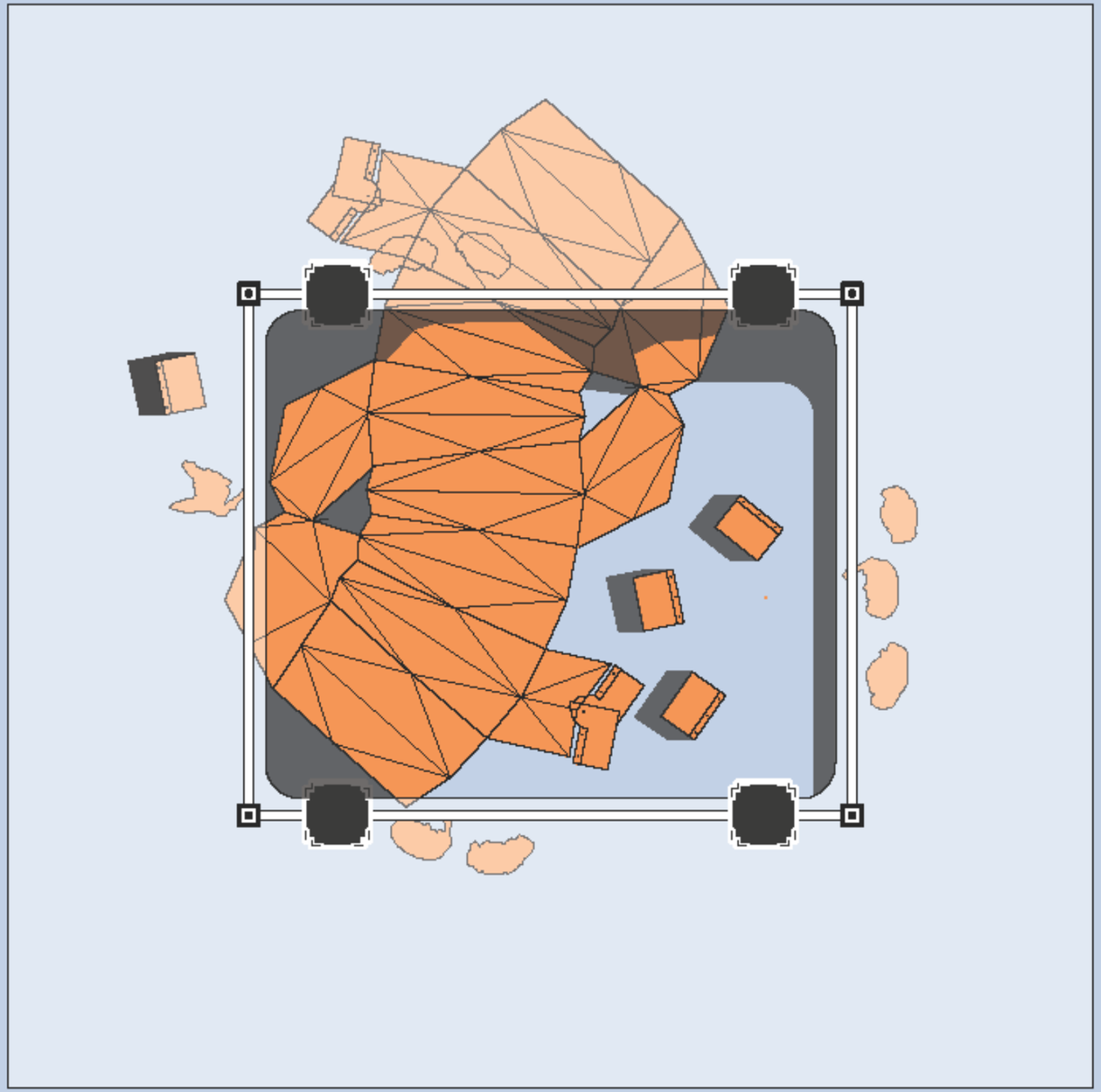
This project is the final phase of our Directed Research class which focused on the idea of creating design intelligence through replicable non-typical forms.

In this project the goal was to create something at pavilion scale through the processes of curved crease folding and origami. Within this, there is a focus on the individual panel and more specifically maximizing the 4'x8' standard sheet size. Testing quickly insured to find a panel design that was formally interesting, structural, adaptable for both roof and wall use, could house seating and could be folded to either create linear or radial patterns. After much iteration the panels seen on the next page were created and gave us all of the aforementioned qualities

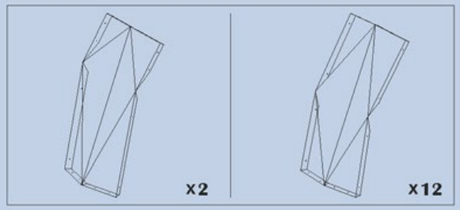
The material chosen was HDPE from which everything would be created. Our installation in particular was to be designed without end and the pavilion served as a full scale mock up. Our panel design and assembly allowed for this to be as large or as small as required by program.

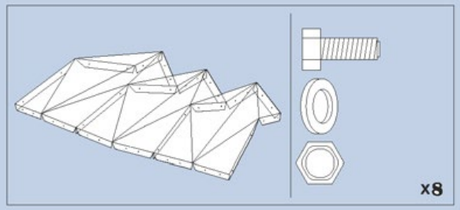
Under the guidance of Professor Iman Fayyad, this project along with the other two in our class, was awarded the Britton A. Memorial Award for best group project

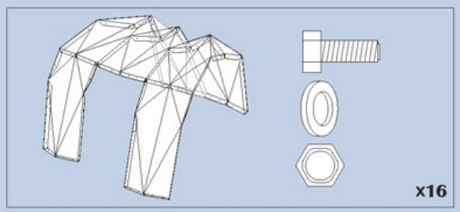
Created in collaboration with Sarah Fellingham, Dairus Polillio, Adrian Suciu, and Oscar Cheng.

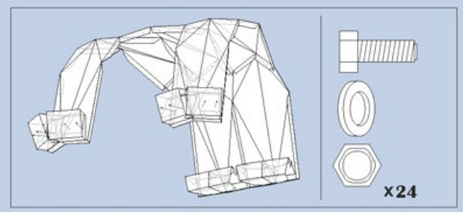


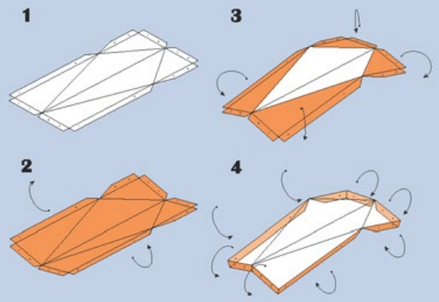
Assembly

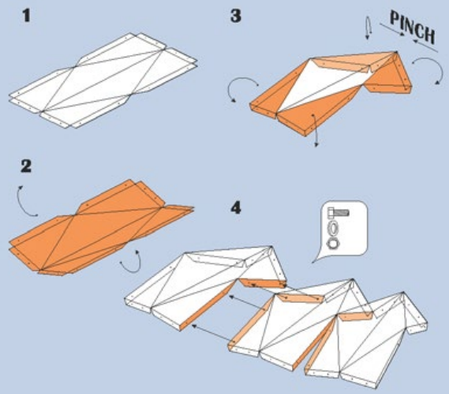


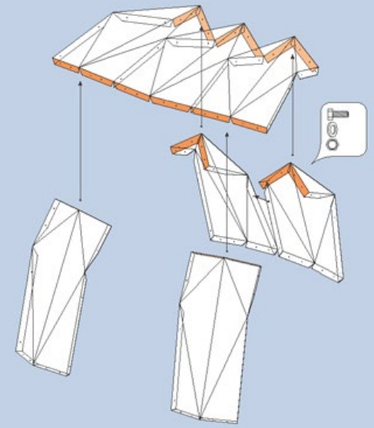


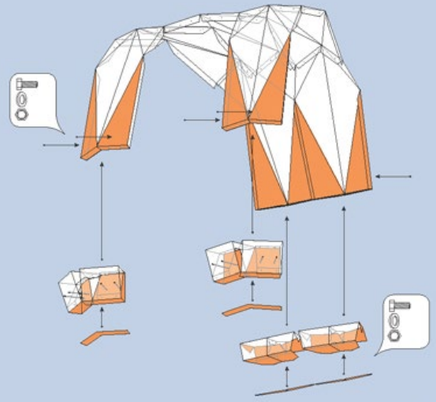












01 ..... 02 ..... 03 04













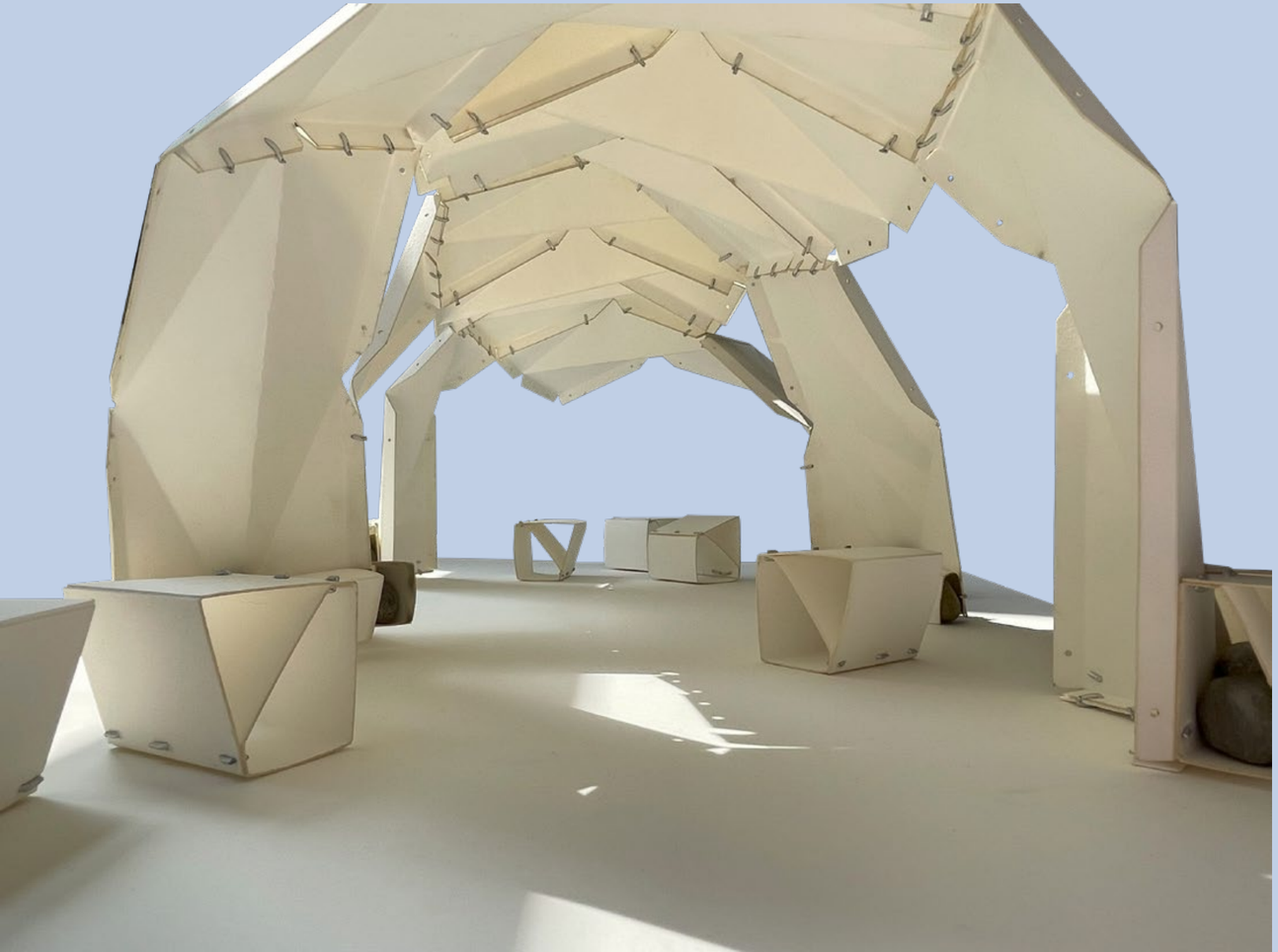
Projective Systens Syracuse, New York

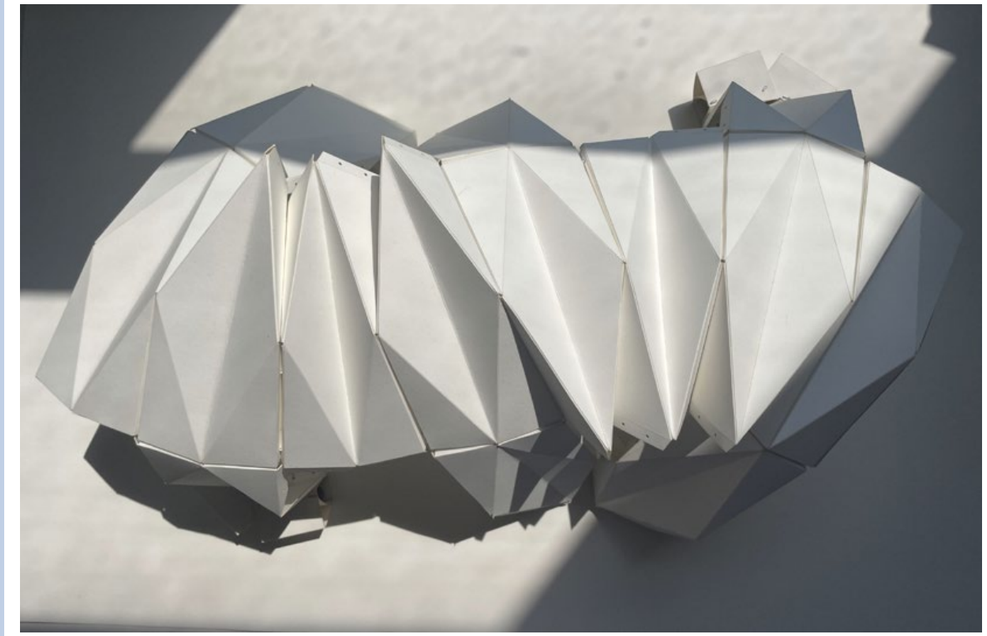
Final Model

This model was constructed at 1" = 1' in order to study the constructibility of our proposed design and seating options. In the spirit of studying how it would actually be assembled, no glue was used and instead aluminum wire was used to simulate a bolted connection.

It was also created to identify potential structural issues prior to construction such as sagging roof panels, areas that required more fasteners, and issues of how it would meet the ground

Physical model constructed in collaboration with Sarah Fellingham



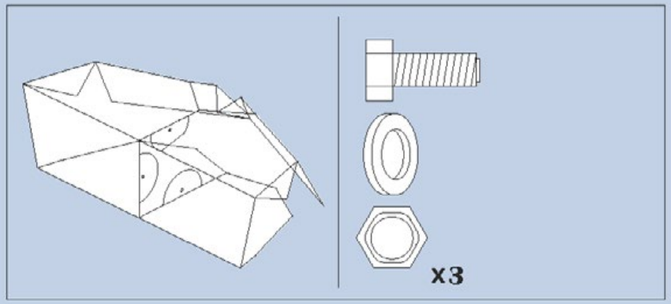


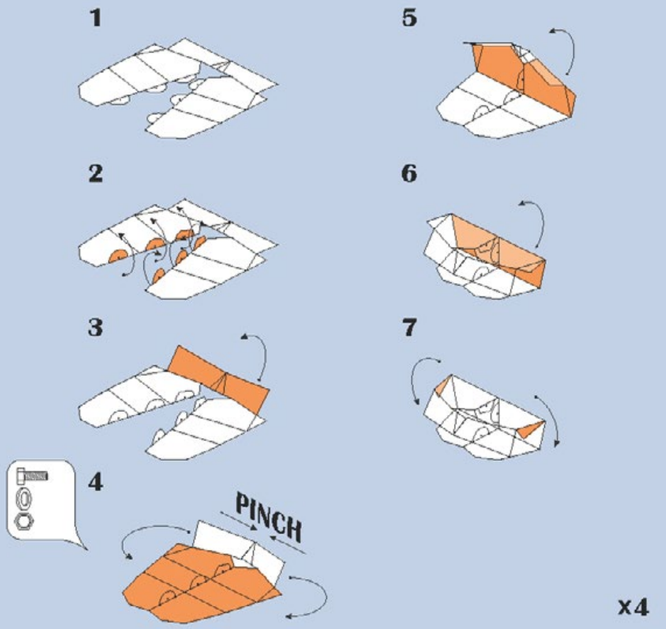


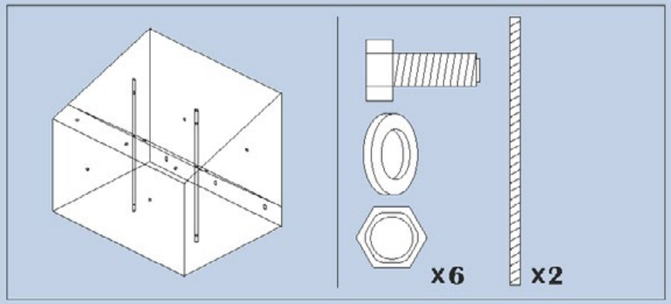


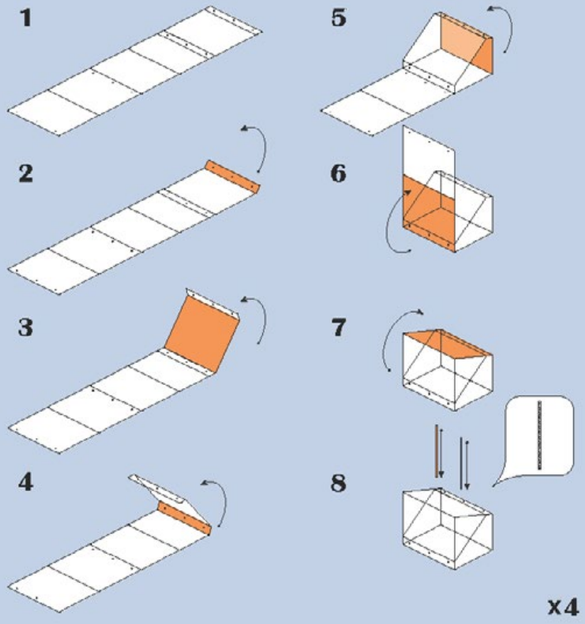


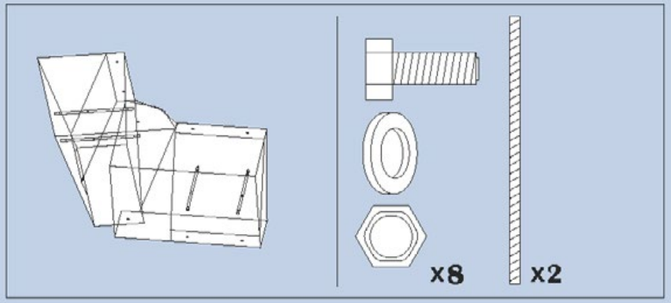
Seat Assembly

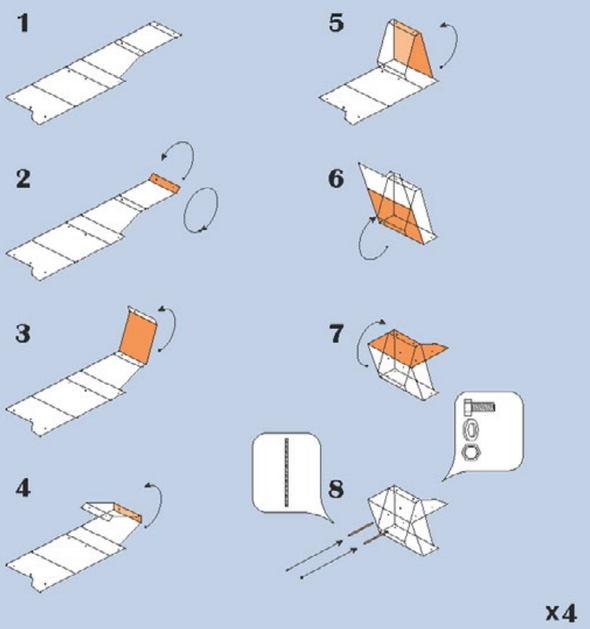


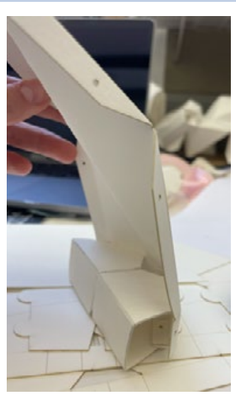














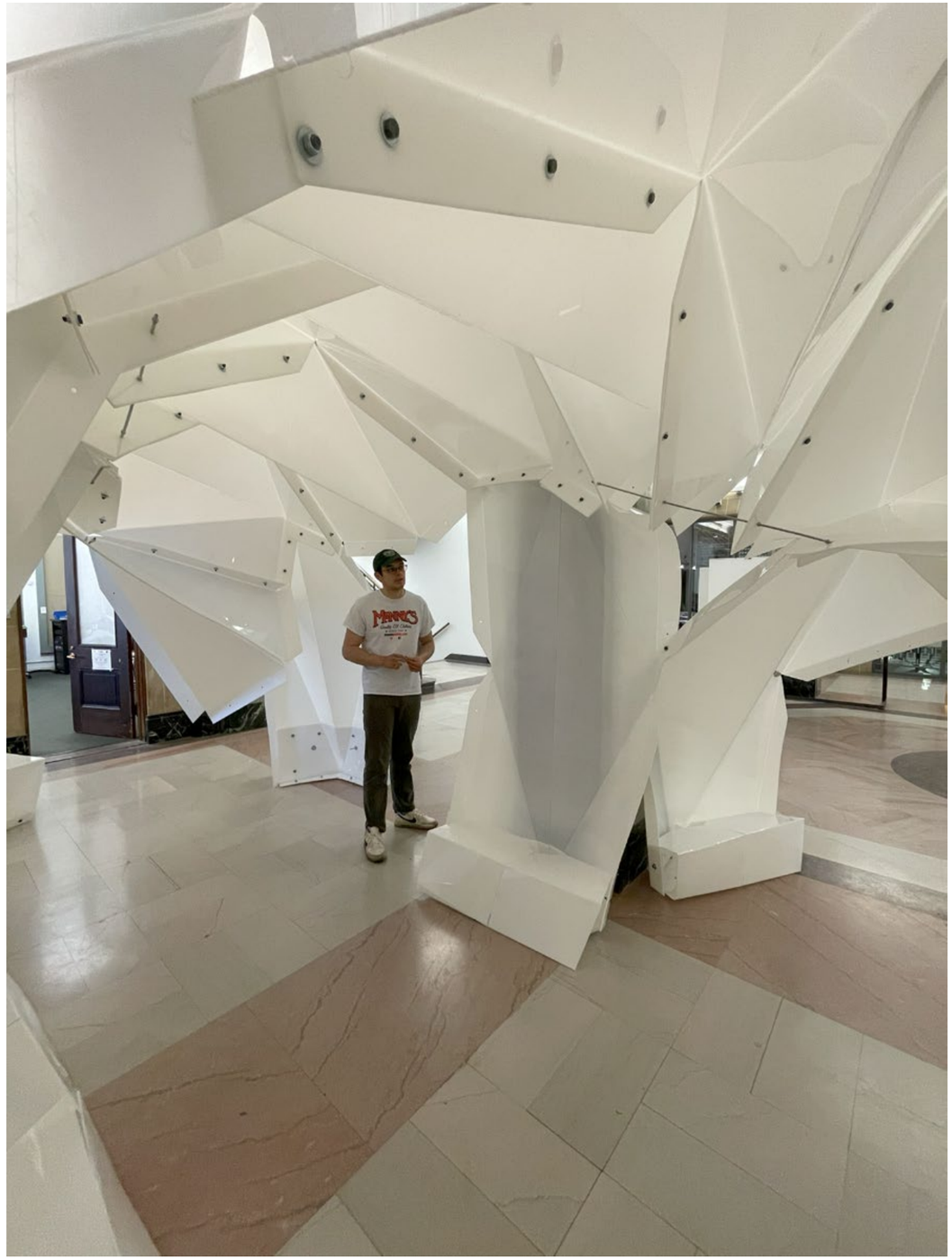


Final Pavilion





Final Pavilion







1966 MUSTANG RESTORATION

03

Year: 2020- 2024
Project: Personal Project
Location: Pennsylvania

This is an on going personal project that has only been underway for just about 3 years, in which every single component from the break lights to the engine and transmission, to the entire uni-body structure. Due to its life in the high salt environment of New York State of the past 55 years the only structure that could be saved is the roof, dashboard, and rear speaker shelf. This means that all of the major structure is being replaced, welded, and improved on through the addition of frame rail connectors and torque boxes. Every part of the car is being fully disassembled and restored down to the hardware and the seals. All of the restoration has been done by myself and my father.

As it currently stands, it is around 50% complete. The transmission, shifter, steering box, radio, pedal assembly, heater box, rear end , and many other small components have been rebuilt and refinished in preparation for the structure to be completed and painted. Once all of this is done its onto body work, paint, then reassembly.

It is an ongoing project that constantly and continually allows me to learn new skills and forces me to think in different ways. It is also constantly forcing me to problem solve as most everything has to be modified to properly fit due to poor sheet metal molds and manufacturing from overseas manufacturers.











Before and after images of the rebuilding and restoration of the original 4-speed ,manual transmission and Hurst super shifter. The transmission was completely disassembled, refinished, and rebuilt with new seals.









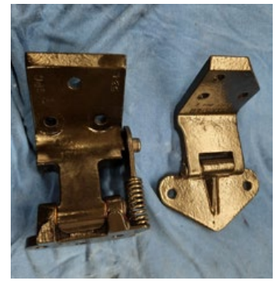




The restoration process of the heater core, original core was punctured and all internal mechanisms were ceased. All pieces were de-rusted and painted to prevent further corrosion. It was completely reassembled with all new hoses and is ready for installation back into the car. Every single component is being completely rebuilt and refinished.























To the left are a few snapshots of the major steps in the rebuilding of the structure of the car. As mentioned the only part of the vehicle that was saved is the roof, dash board, and rear package tray seen in the third image down. It was then sandblasted, repaired, and then reattached and straightened to fit the new frame and floor pan. Currently all of the frame rails are welded on and I am moving onto the rear quarter-panels and trunk next.









Fit, fitment and installation of new front frame rails, torque boxes, side cowl panel, and fire wall panel. All of which have been modified to fit both the new floor pan and the existing structure from the original car













INTERSECTED SPACES

04

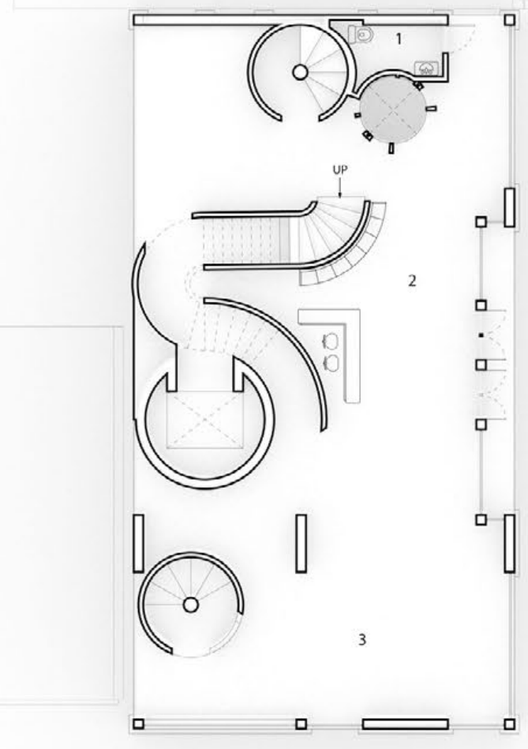
Year: 2020
Project: Voter Rights Museum
Location: New York, New York

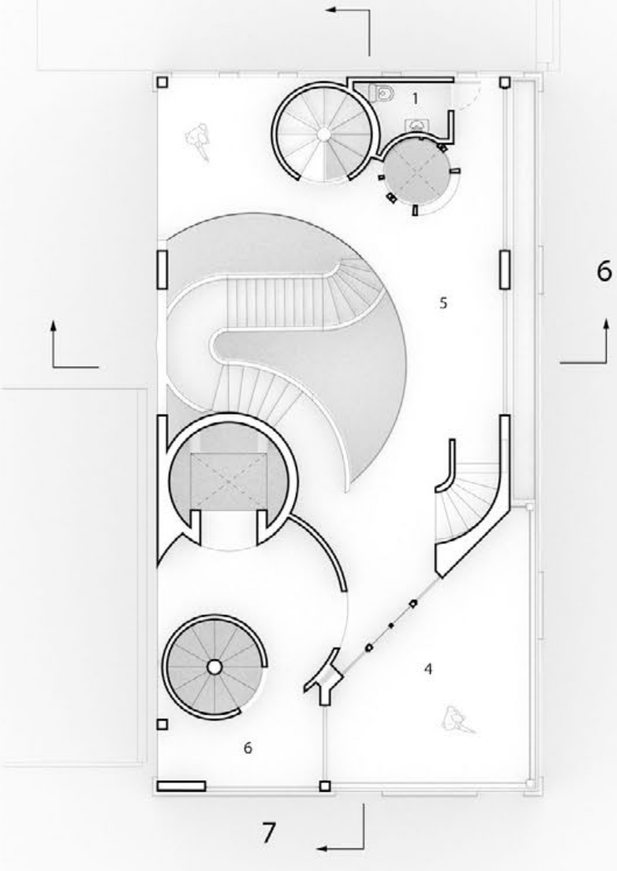
The process of creation of this buildings form was one that was very unique where it was created though extruding 2D elevations/ plans and intersecting them. From these iterations, the form was rationalized into floors, and the process soon began of rationalizing these forms into inhabitable spaces.

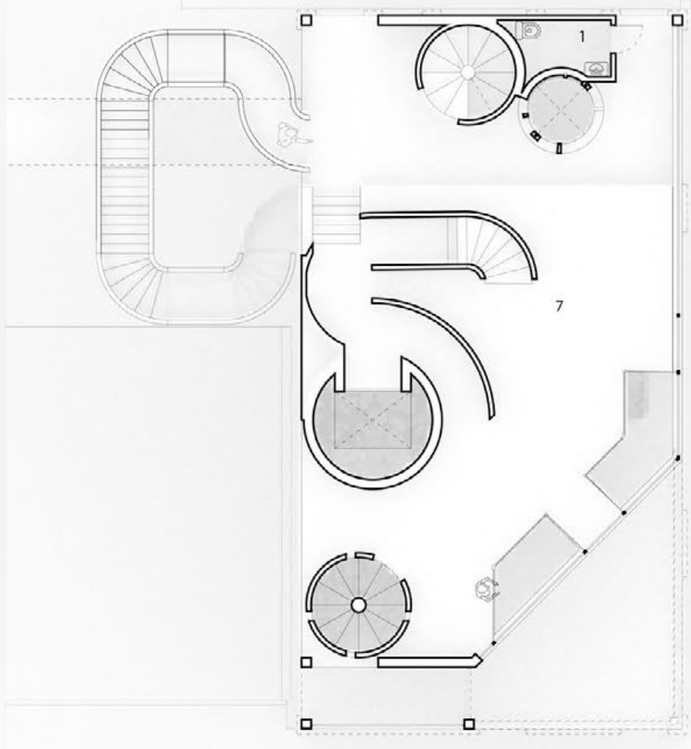
Curvilinear forms were then added, connecting the floors though sculptural staircases and cylindrical volumes that house elevators and fire stairs. These forms punch through the rectilinear building form too interconnect each level both visually and physically through circulation. These interconnects between the various levels of gallery spaces allow for a continuous flow between gallery spaces.

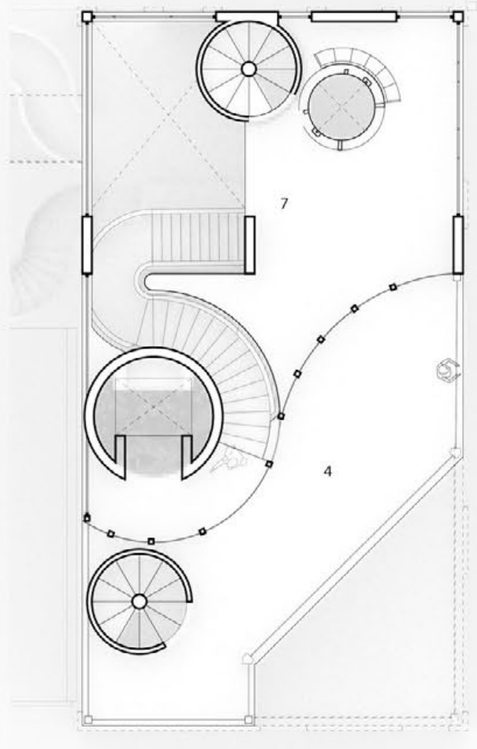
The Voters Rights Museum was designed to house a voting center that can be used as an event space, which focused on dividing publicly accessible voting/ event spaces and the private museum spaces.

1	Restroom	5	Archive
2	Lobby	6	Archive office
3	Polling PLace	7	Exhibition Gallery
4	Terrace	8	Gallery Office

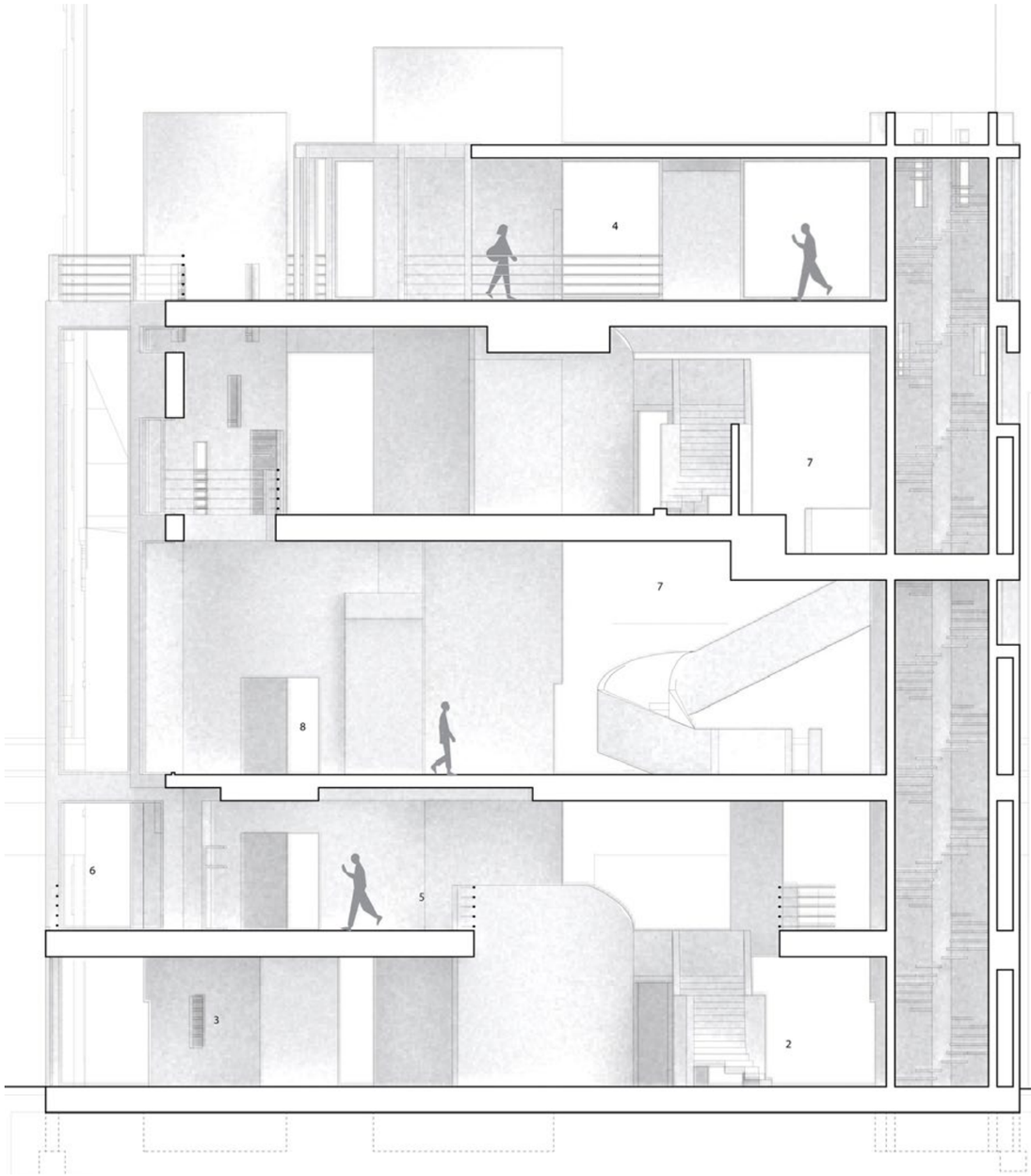




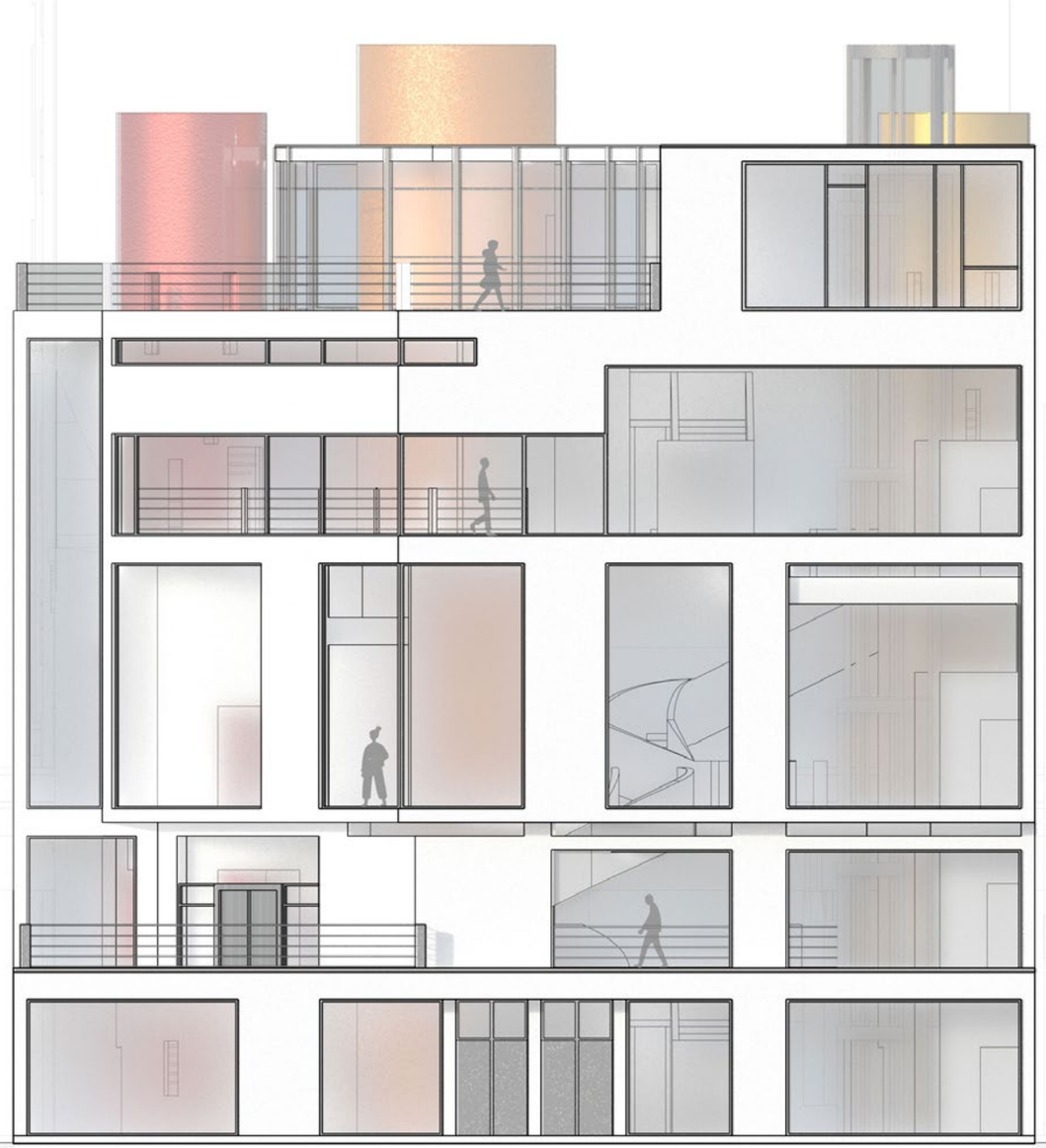




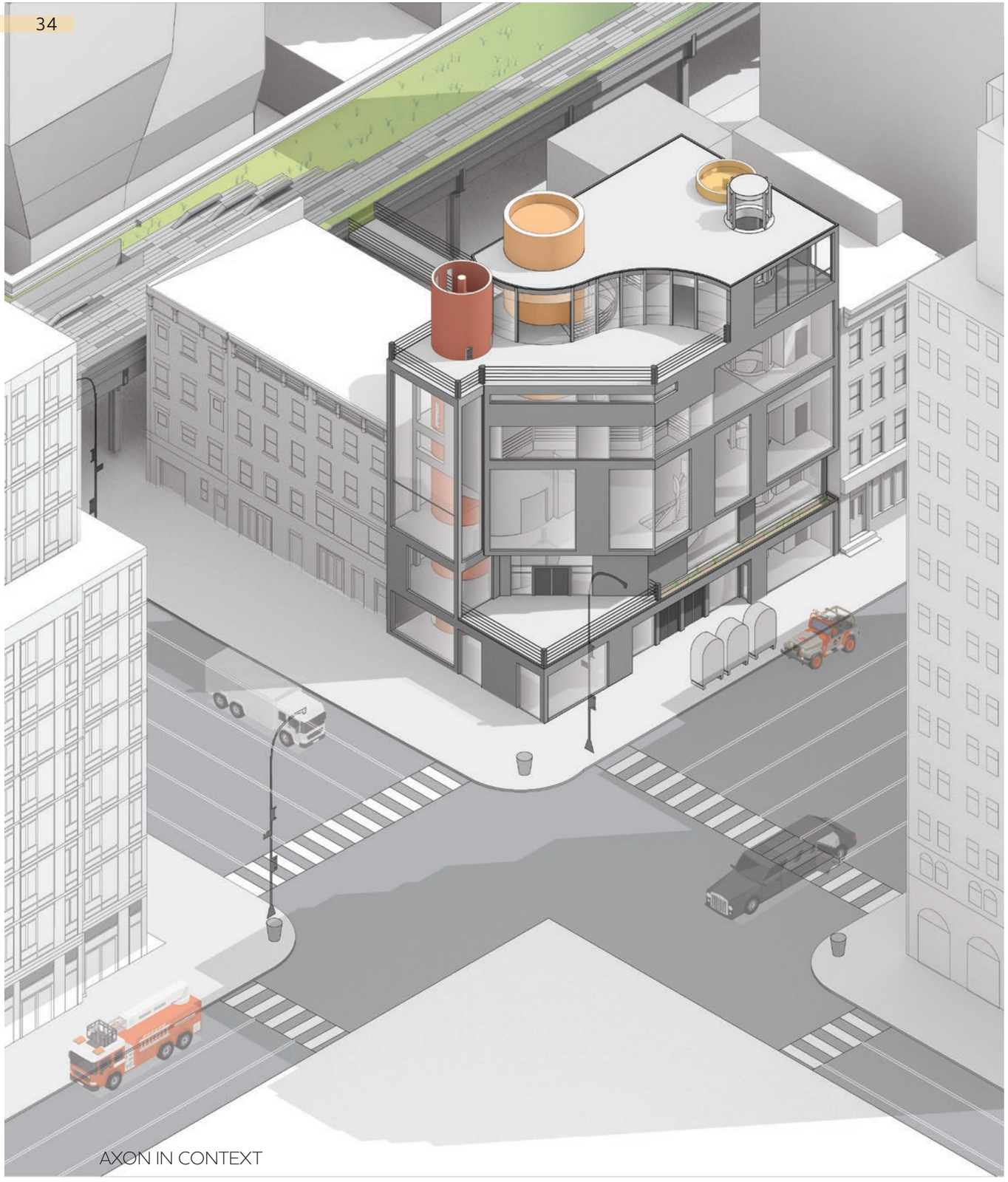
Southern section through gallery spaces



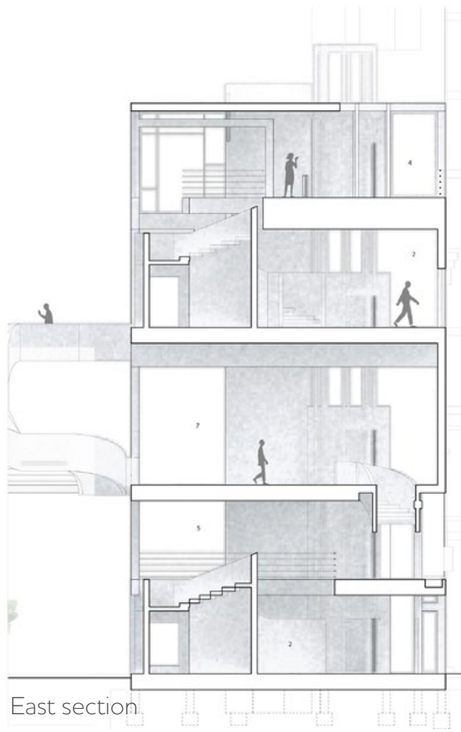
Southern section through gallery spaces



Southern elevation



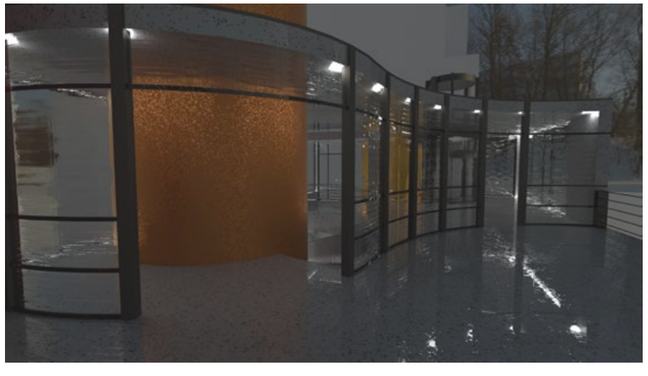
AXON IN CONTEXT



East section

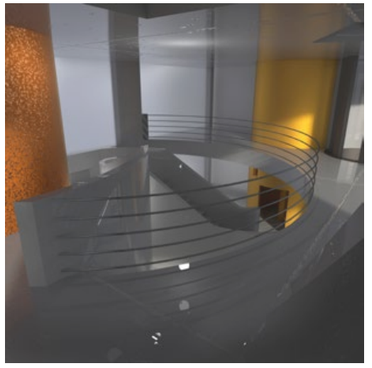


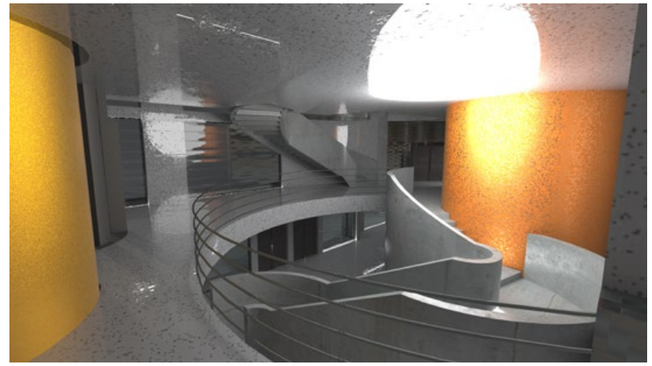
East Elevation





Interior and exterior perspectives





Intersected Spaces New York, New York

FILM PHOTOGRAPHY

05

Year: 2022-2024
Project: Personal Project
Location: Various Locations

These photographs are a few select film photographs from close to 50 rolls of film. The processes of film photography have re-framed the way in which I see both architecture and the world itself. It has forced me to be more intentional with each shot and explore how perspective greatly influences readings of space. I have also began developing my own film and producing darkroom prints. This process and the time it takes, has been a craft that I have grown to appreciate a lot and will continue to expand on.



















PUBLIC PURISM

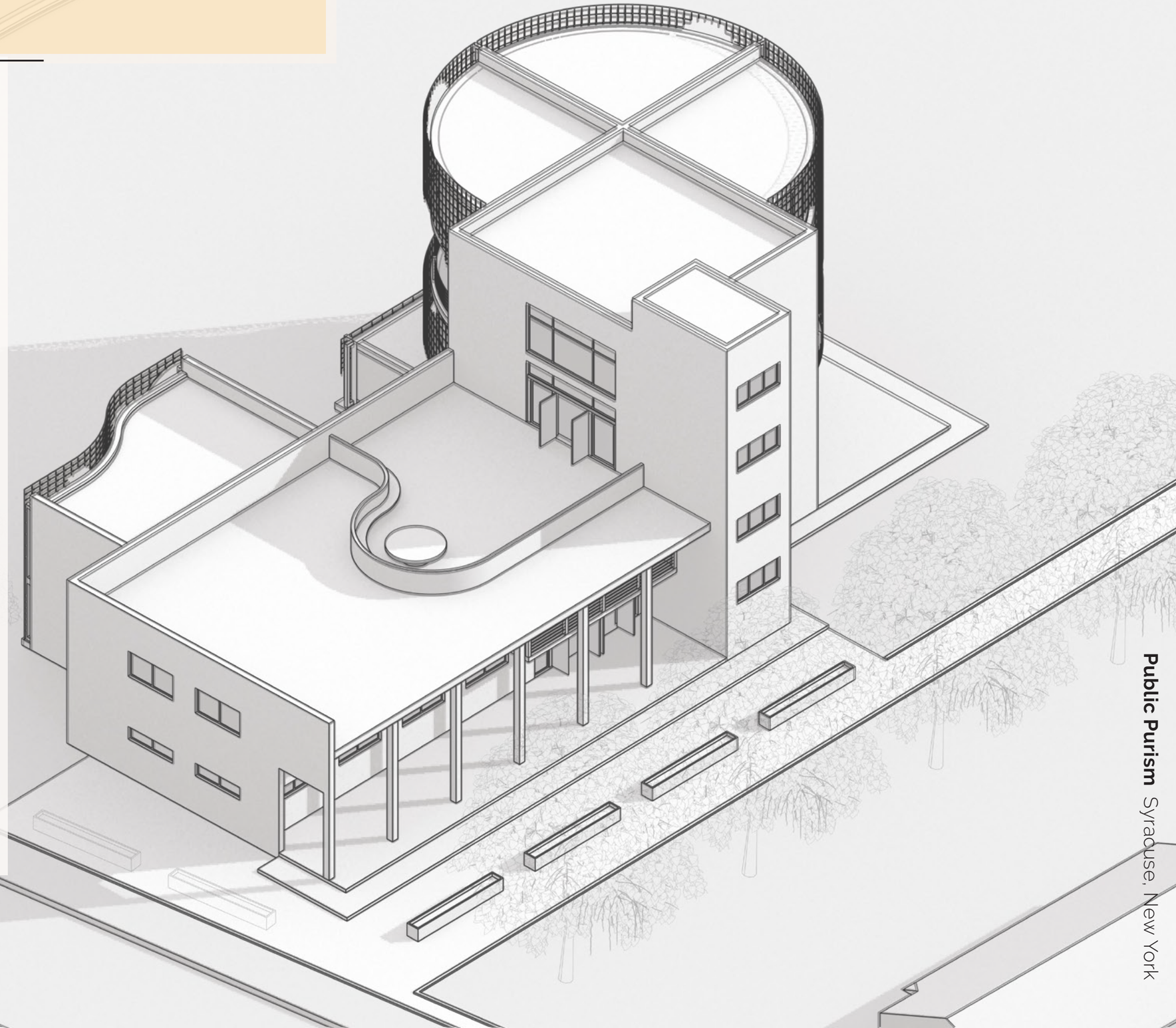
06

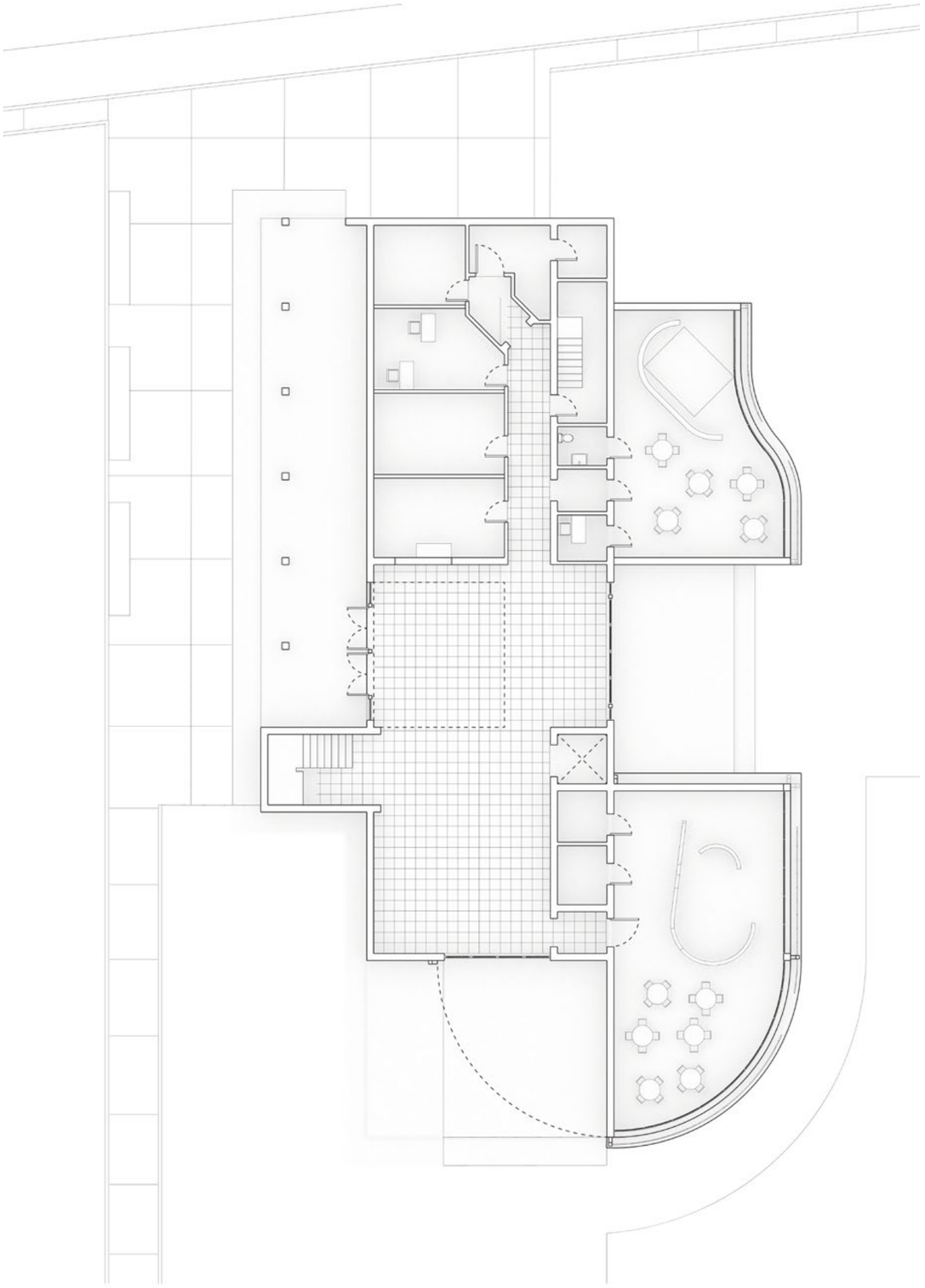
Year: 2020
Project: Head Start School
Location: Syracuse, New York

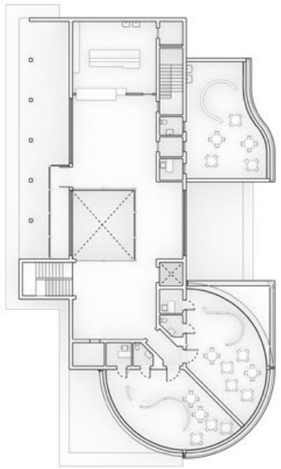
Public Purism is a head start school located in the Southern portion of Syracuse, which has been long forgotten and underdeveloped due to social and economic divisions created by I-81's implementation. The project and program are situated here to help underprivileged children and families with preschool programs and after school care. Located on the corner of a park, its aim is hopefully to facilitate community interaction and provide a safe, productive learning environment to children. The balance between the buildings public and very private programs was negotiated through formal divisions, where the rectilinear forms serve as the public side and the curvilinear forms house the private spaces for the children.

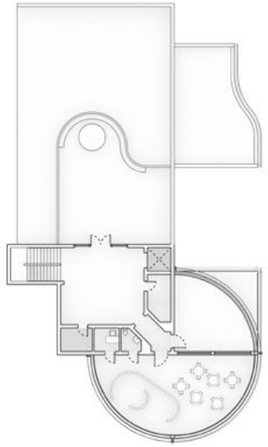
The building's formal relationships were conceived from a collage of purist paintings created by mixing the works of Amédée Ozenfant and Charles Jeanneret (Le Corbusier). The main bar houses an underlying grid system that organizes the spaces, which are broken within the curvilinear forms. These forms house the main program, the head start classrooms, where the students of this would spend most of their time.

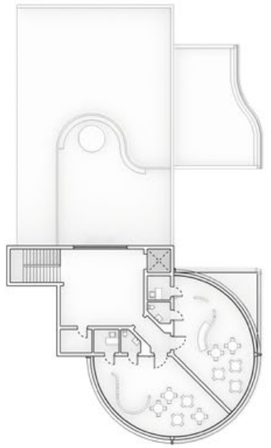
In the design of these elements it was important to have large amounts of natural light, fun spaces for children, and a connection to nature to improve learning. These two curvilinear forms feature a facade screen designed to diffuse sunlight into the classrooms while maintaining the visual connection to nature These classrooms are divided into two sections, one side housing the desks and the learning environment, and the other side with an organic seating/ storage space for reading and other activities allows for engaging interactions.

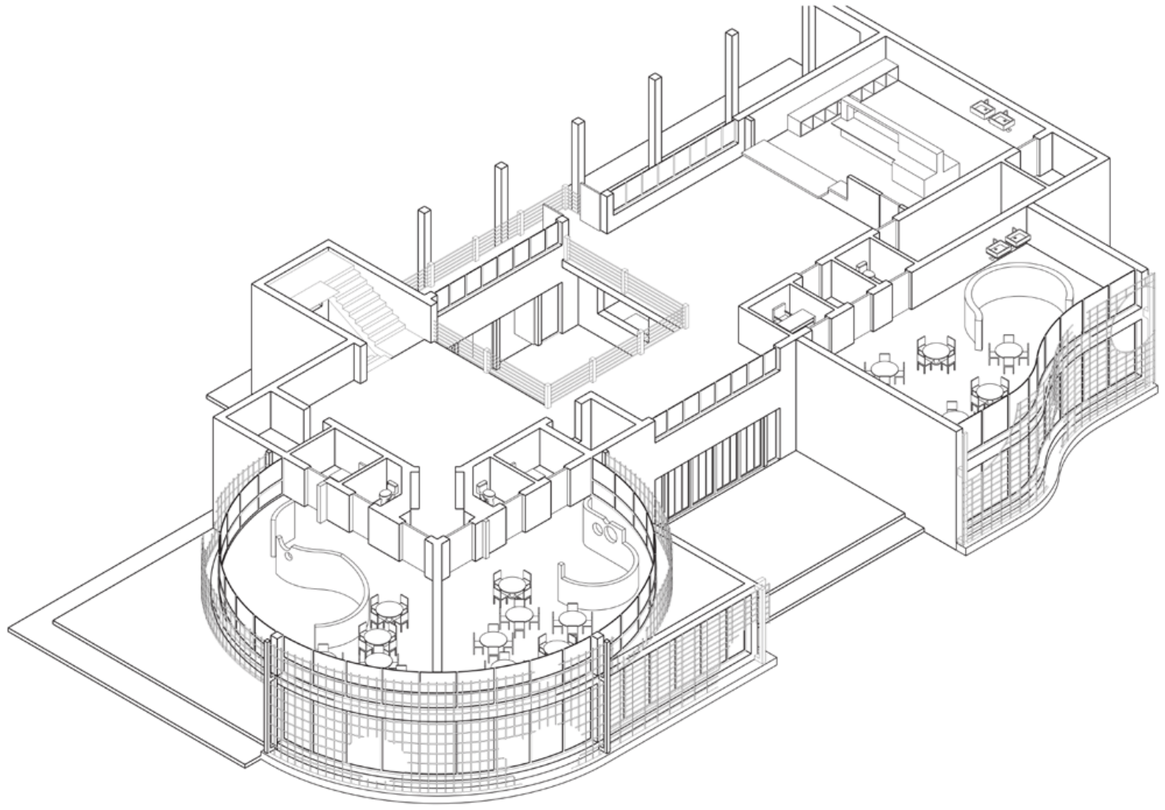




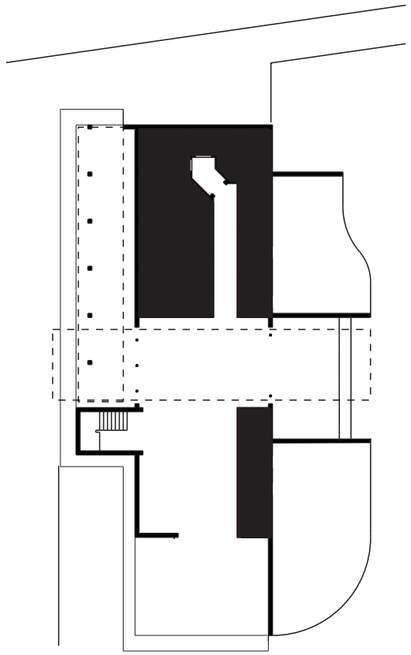




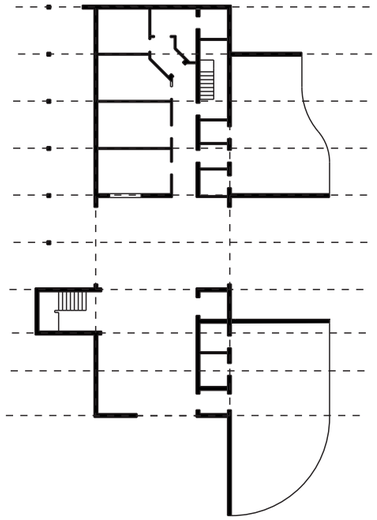




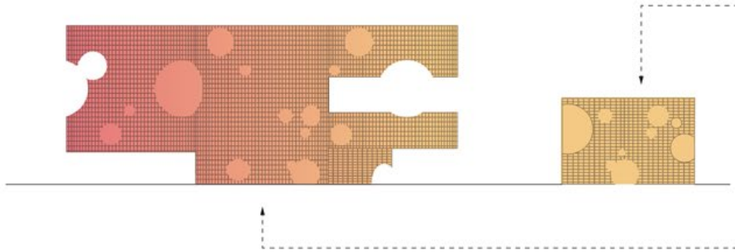
Public Purism Syracuse, New York



Entry

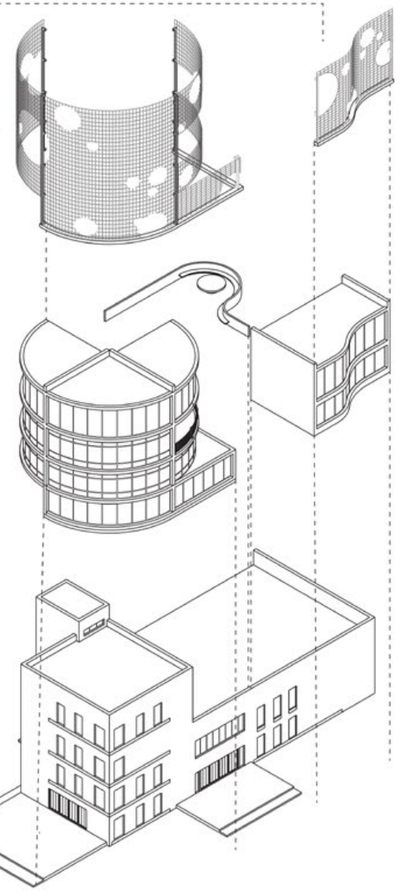


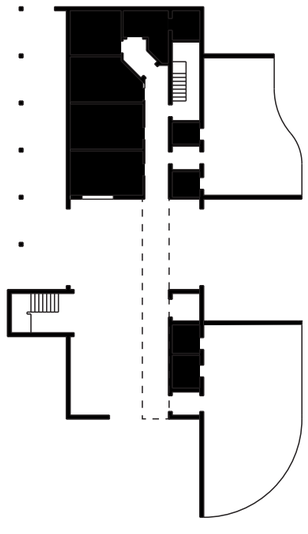
Form Organization



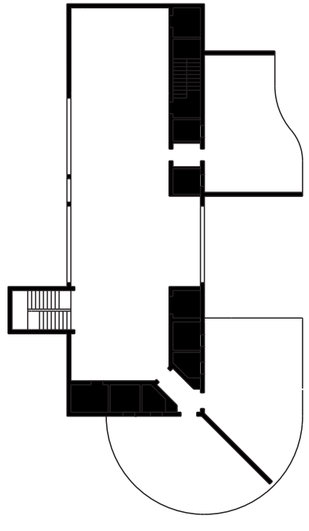






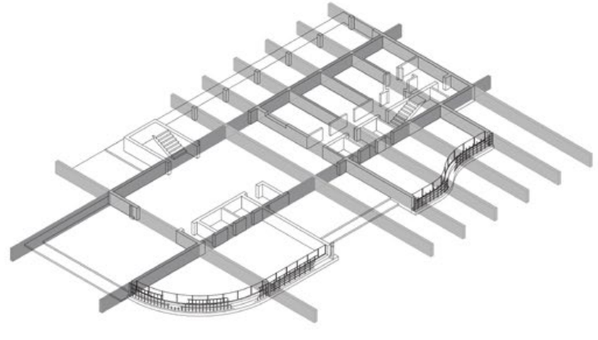


Circulation



Attachment





WOOD WORKING

07

Year: 2023
Project: Personal Work
Location: Syracuse, New York

These projects are all from my first semester doing wood working and all projects were completed in 2 week time periods. The processes and tools involved in creating these projects slowly developed and got more complex with every project.

The process of wood working was something I quickly fell in love with as it is something that is constantly new and different, which requires taking into account many different variables that I previously had not seriously considered. Things as simple as grain direction are became extremely important when doing joinery.

The most interesting thing about wood working is the large variety of processes that are available and need to be employed case by case to both solve problems and produce a tangible object. Each of the projects in this section have required different tools and ways of thinking to execute which culminated in the final end table topper made of ash from the trees at my house, seen to the right.

It is a process that has made me have great appreciation for the processes and problem solving required to make a well made object.



01 ..... 02 ..... 03 ..... 04 ..... 05 ..... 06 07





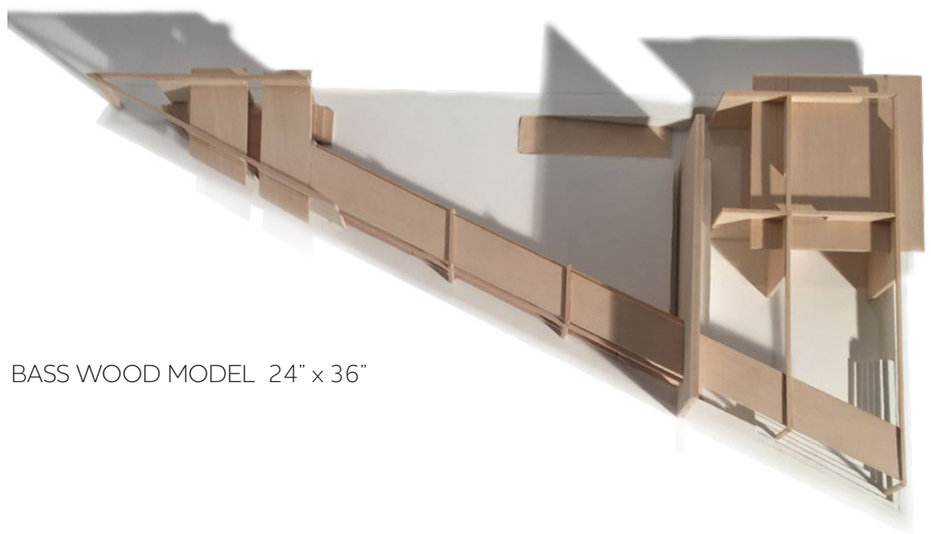








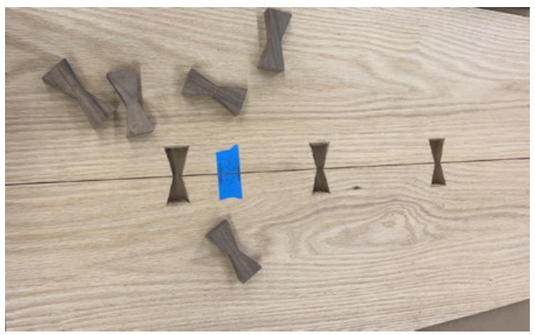




BASS WOOD MODEL 24" x 36"







BOW-TIED TABLE LEGS -Cut with hand tools



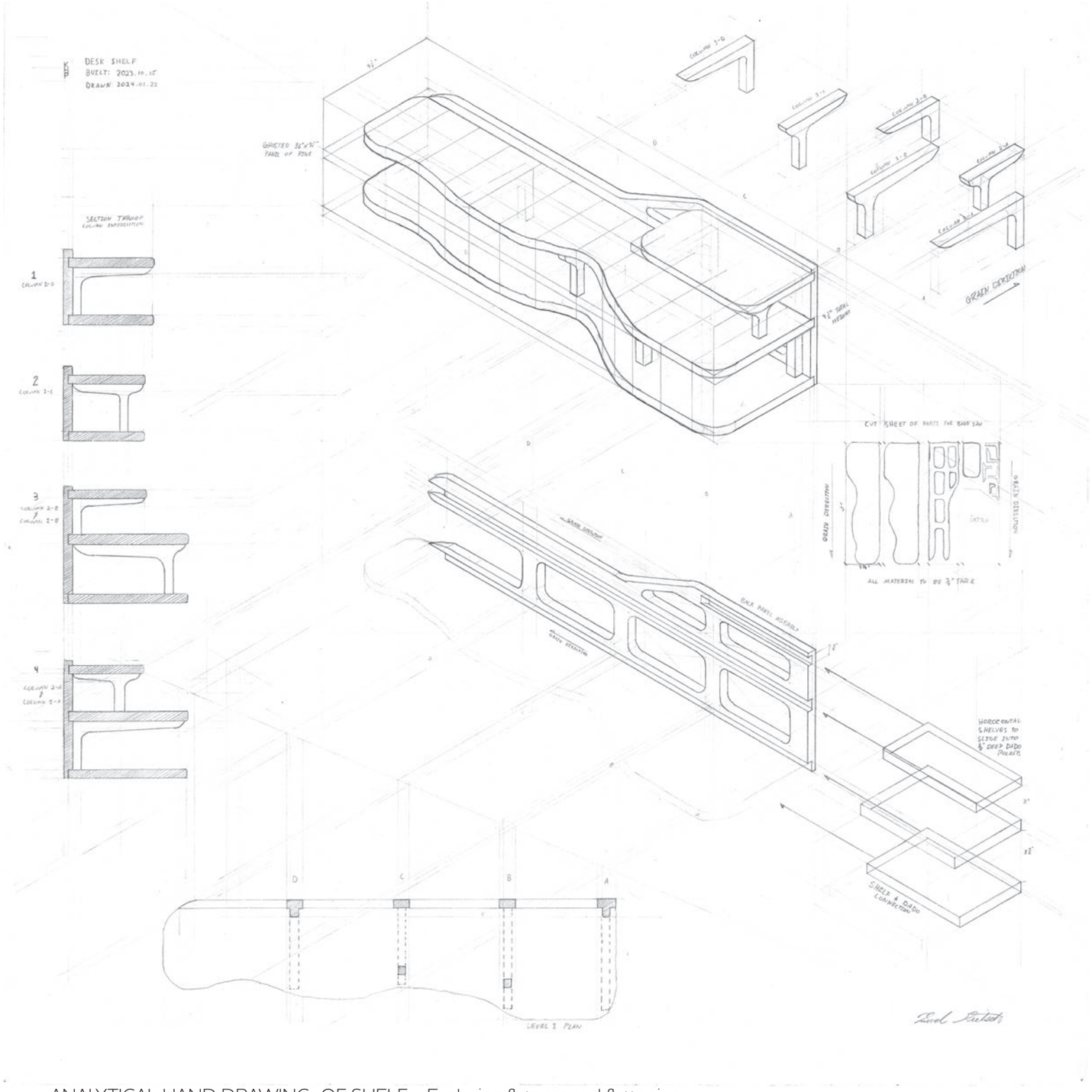
STOP SIGN END TABLE

This project was designed around a found object, a top sign, which proved quite difficult to design around the octagonal shape. All wood elements are hand cut with pull saws and chisels.

NORMAN - ORGANIC FORM

This project was to create an organic form from a 4 foot 6"x 3/4" board through the process of laminating layers and then shaping it into a smooth form. The challenge was mapping out the form to make the most of the material. The production process of this was very interesting its ability to potentially be scaled up into occupiable forms like chairs, benches, etc.





ANALYTICAL HAND DRAWING OF SHELF - Exploring flatness and flattening



DESK SHELF INTERIOR



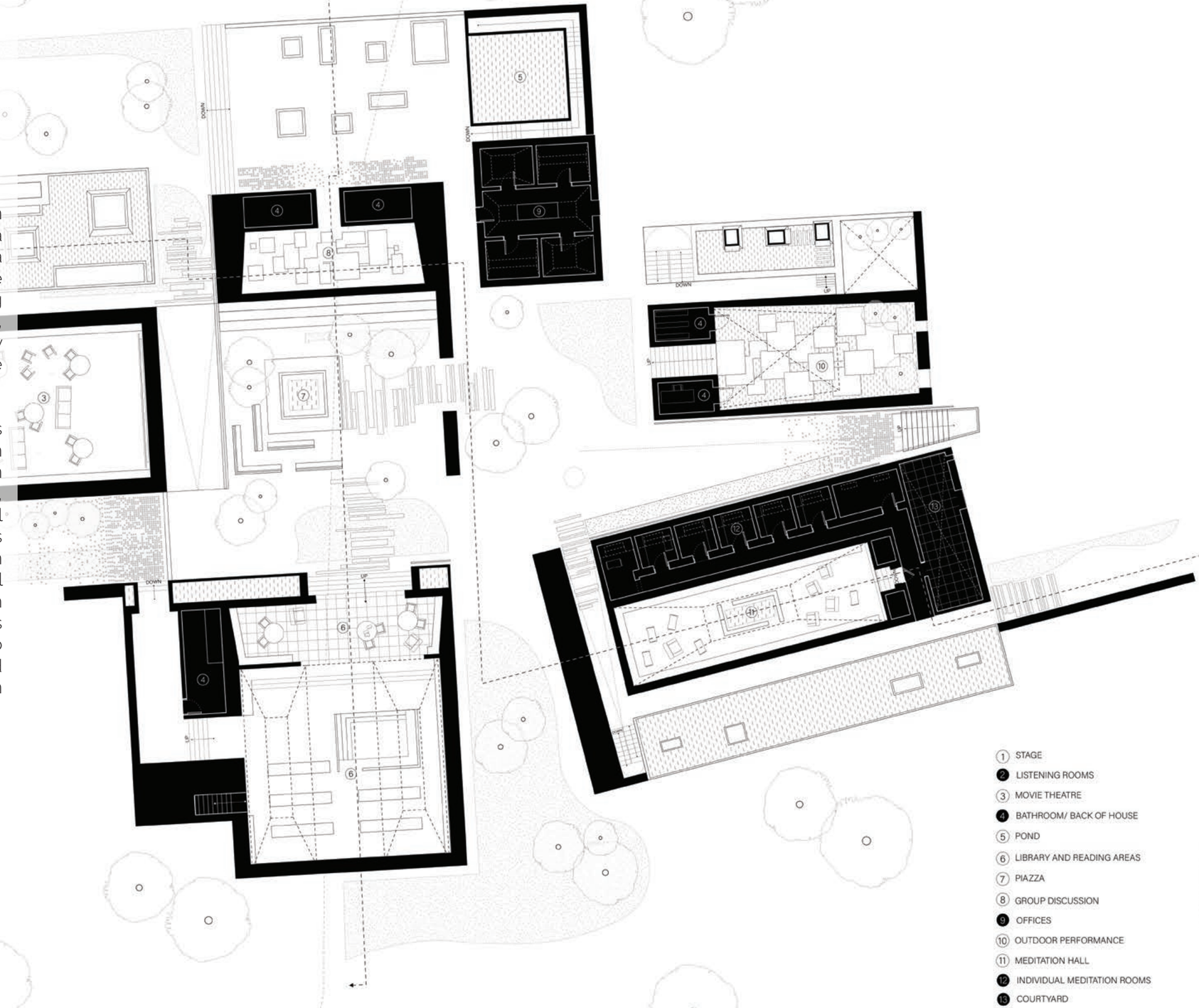
GIARDINI DI RIFLESIONE

08

Year: 2022
Project: Center for Migrants
Location: Selinunte, Sicily

This project was done in complete collaboration with Arpitha Cunigal and Halie Lestre. Girdini di Rilfessione is a secondary migrant reception center situated in Selinunte, a coastal town on the Southern portion of Sicily. It is a space for those who have experienced the traumas of migrating to a new land and may now come to feel, reflect, grieve, and express themselves. The blocks are interconnected by garden spaces with paths designed to weather over time and show one's presence on the site.

The use of stereotomic forms were chosen to create spaces for people to experience private, safe spaces which are in stark contrast to the first reception centers. The program on site is divided into three groups: performance, mental health, and reflection. One axis on site accommodates mental health and performance spaces while a tilted axis contains reflection spaces. Traveling from the top of the site down to the ocean, programs gradually shift from more social to individual until you reach the small individual reflection space. These final two spaces of reflection house the Axis Block, which is the center point of vectors leading back to the countries where most migrants of Sicily travel from, and the final Reflection Block that overlooks the Mediterranean Sea by which many have traveled.





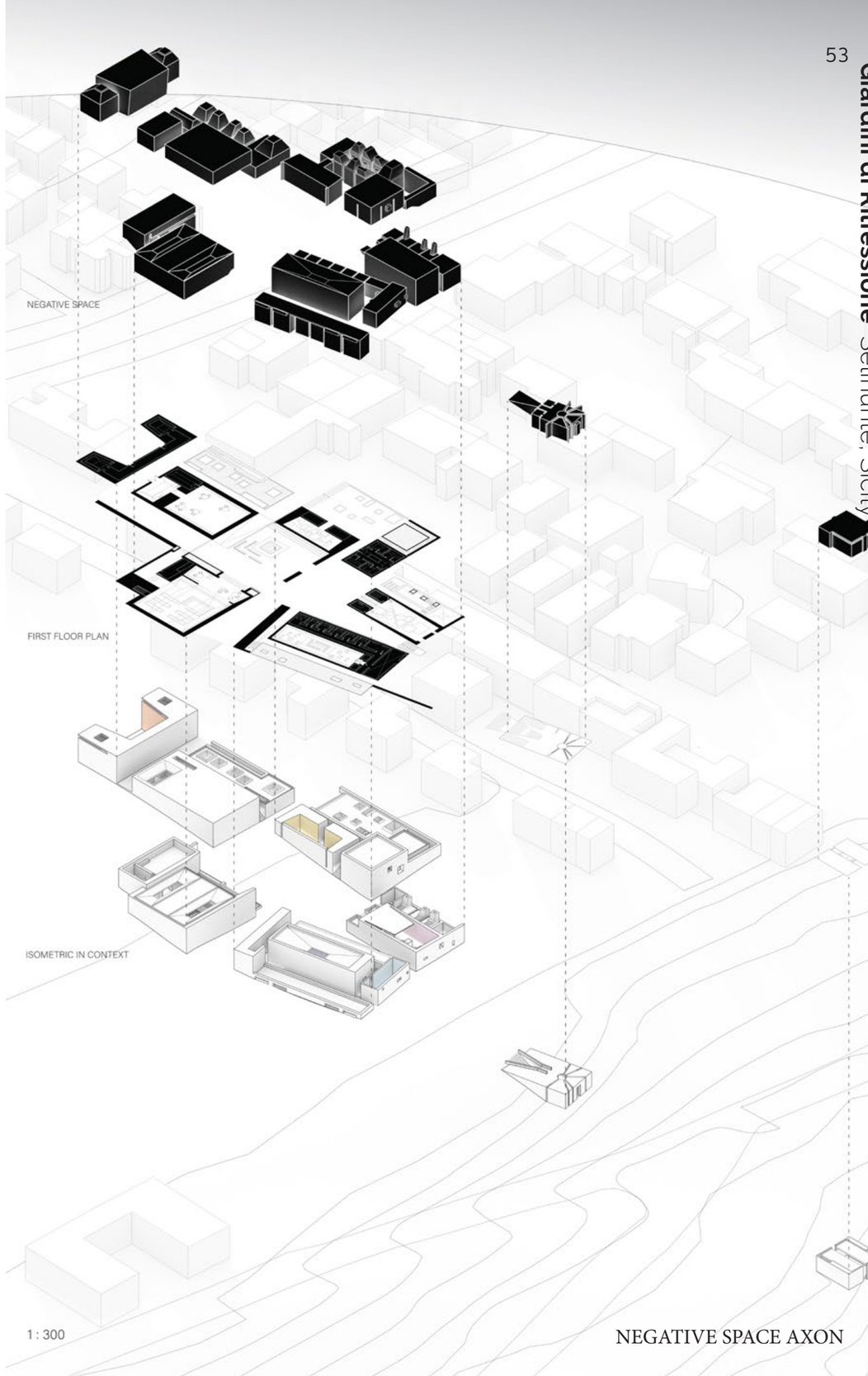
TILE WEATHERING STUDIES



MATERIAL AND SPACE STUDIES

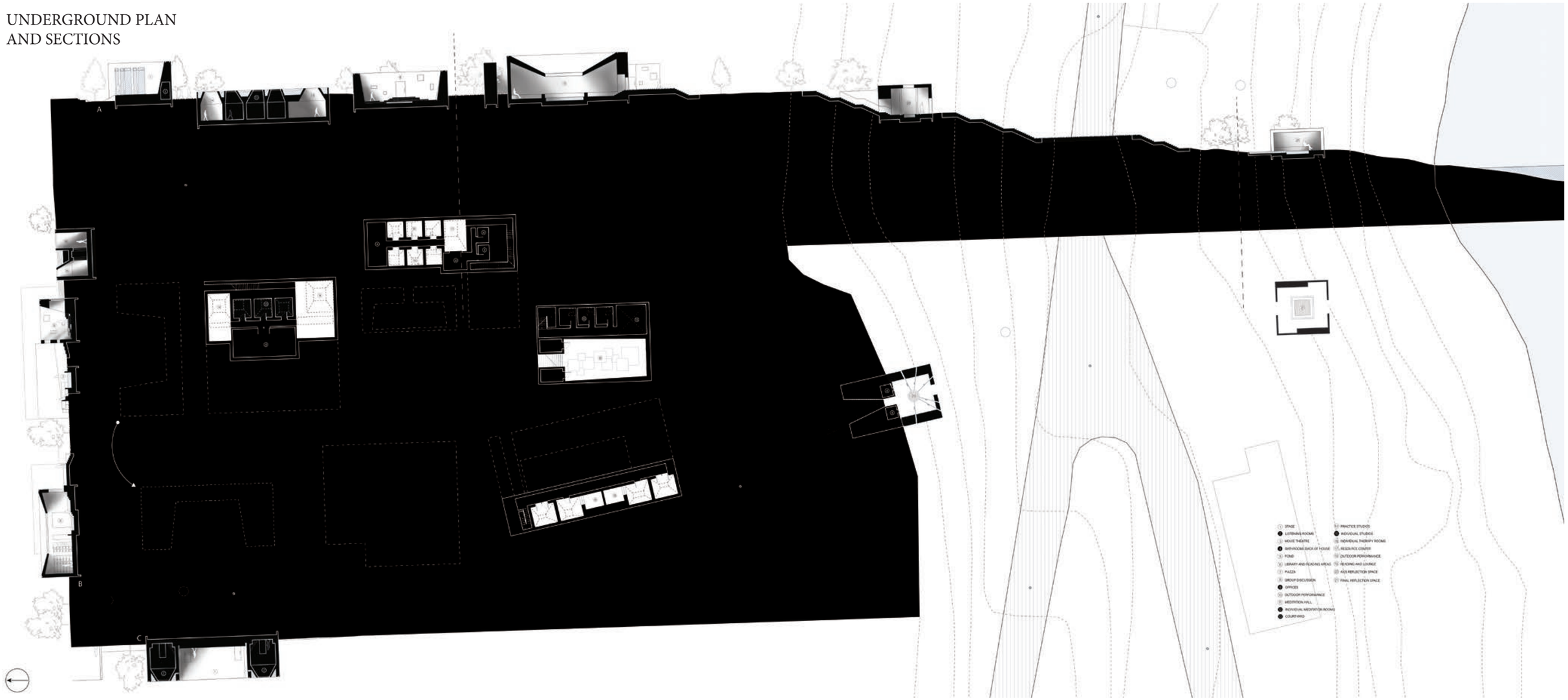


LIGHT CONDITION STUDIES



NEGATIVE SPACE AXON

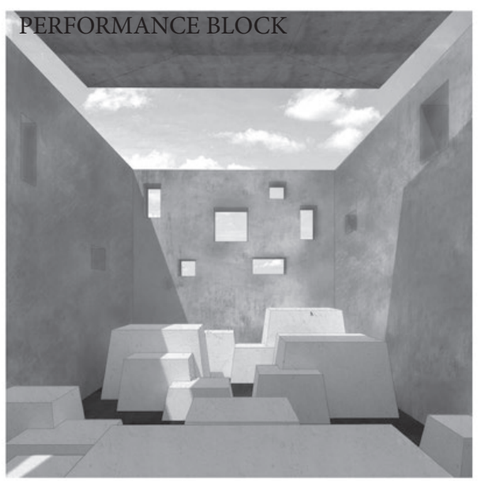
UNDERGROUND PLAN
AND SECTIONS



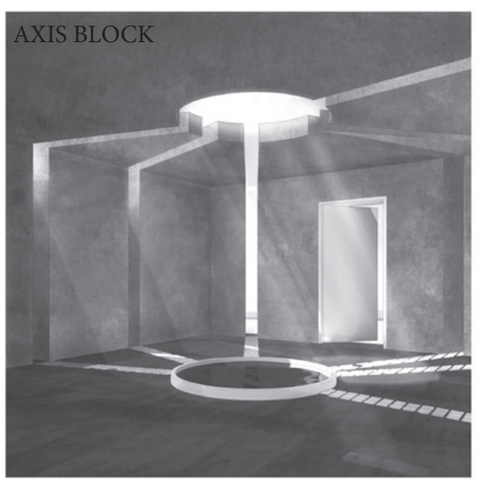
COURTYARD



PERFORMANCE BLOCK



AXIS BLOCK



REFLECTION BLOCK





PHYSICAL CAST SECTION
MODEL, PHOTOGRAPHED
WITH DEEP BLUE STUDIO





THANK YOU

khpietsc@syr.edu
(267)- 315-3582

