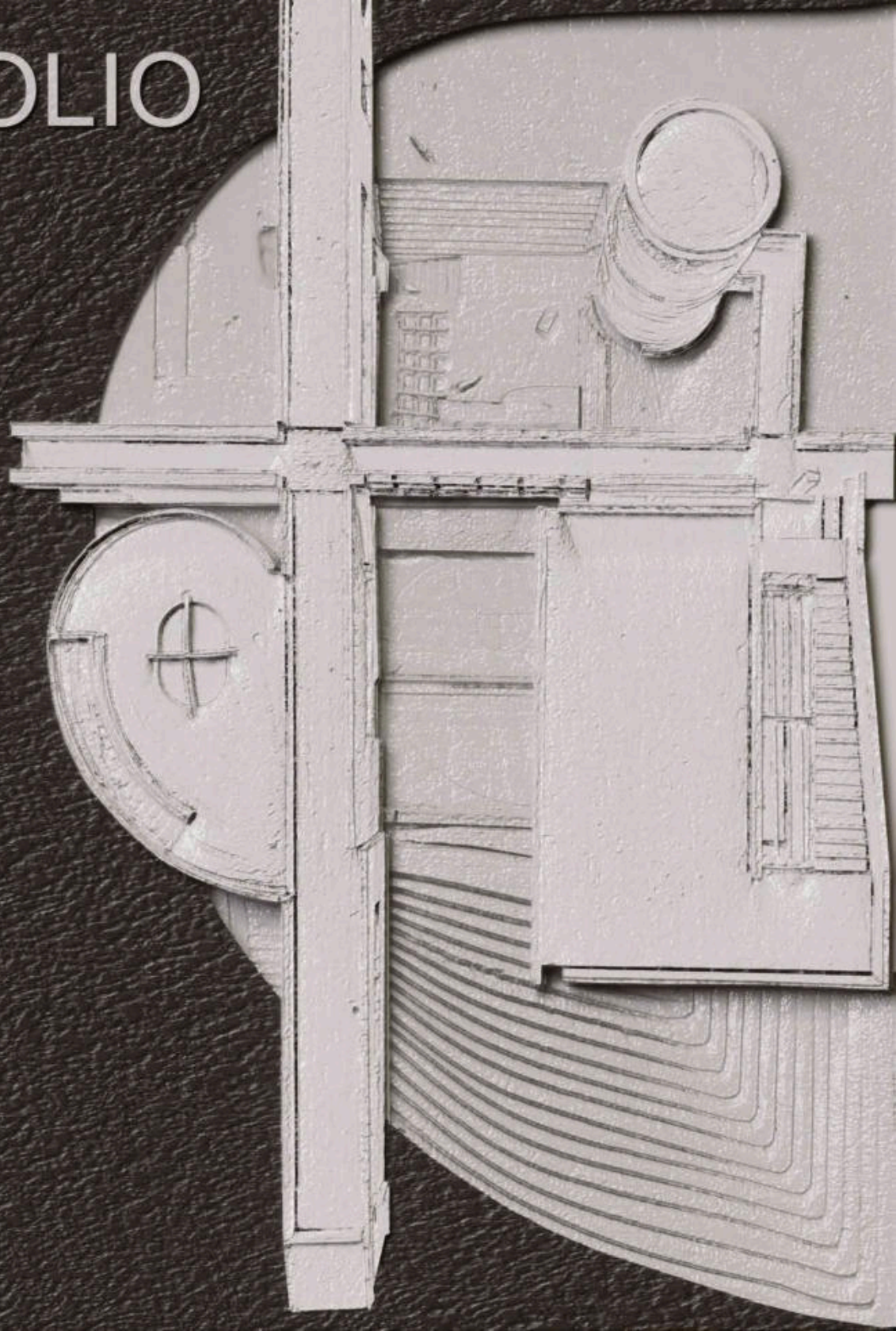
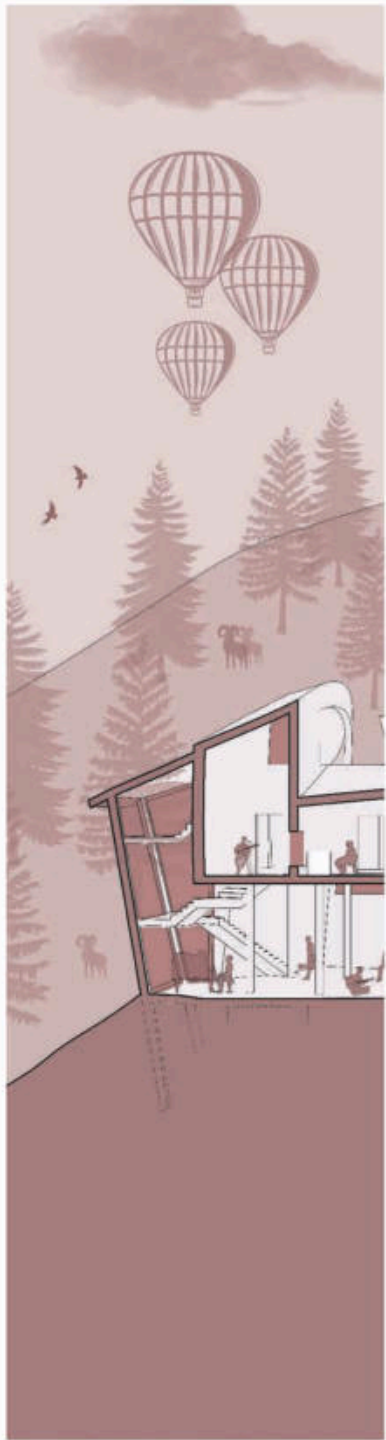


PORTFOLIO



Salomon Alcantar



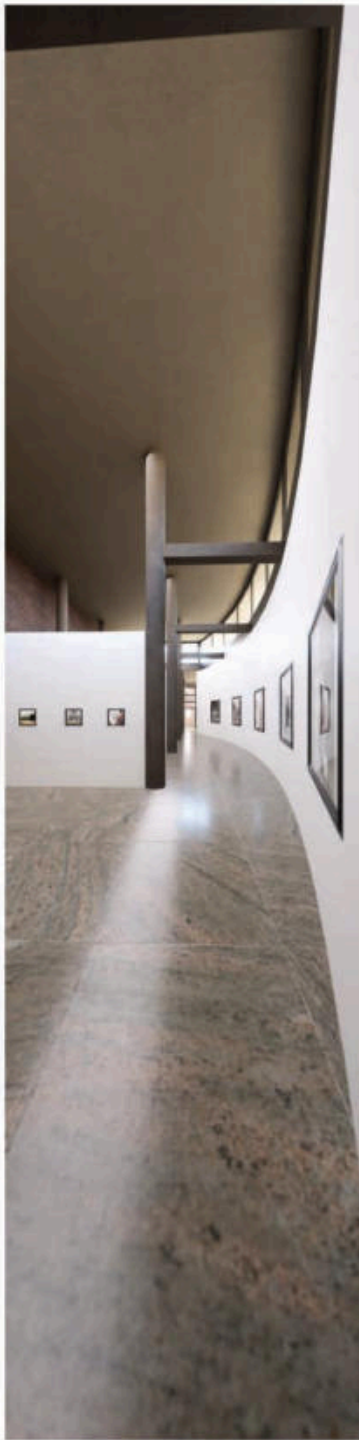
Sound
Hut

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Semi-Detached
Duplex

13-24



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Tea
House

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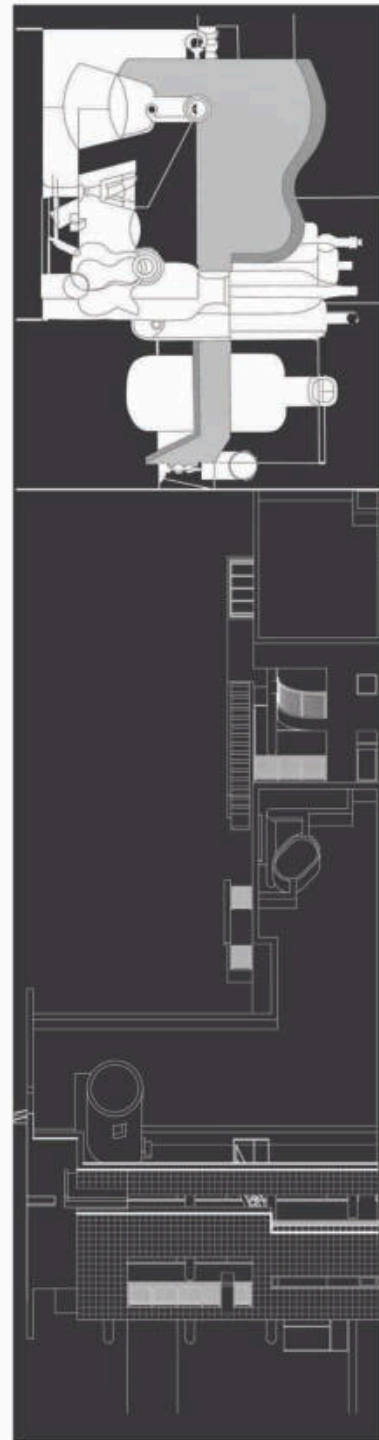
Architecture
Office

45-52



Archeological
Site

53-58



Precedent
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Form to
Fabrication

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Sound Hut

Second Year Studio

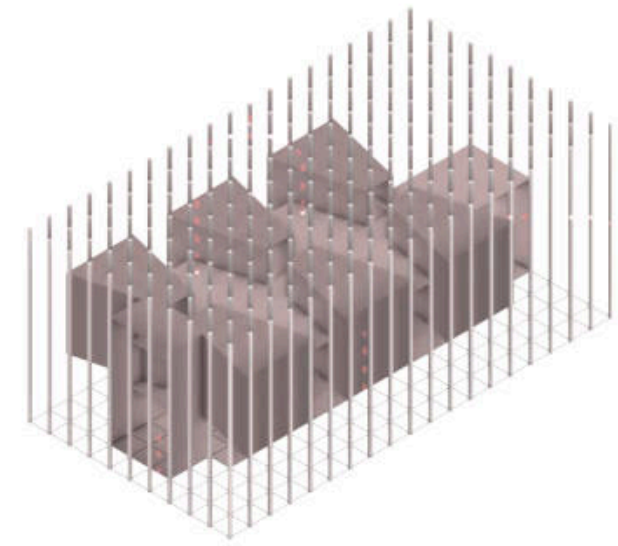
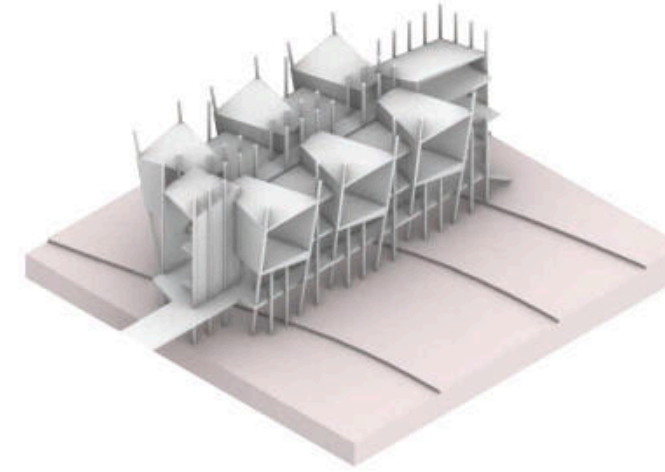
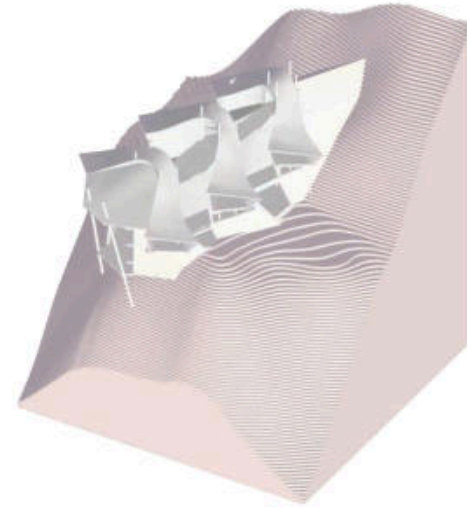
Spring 2022

Spatial Adaptations

Collaboration:

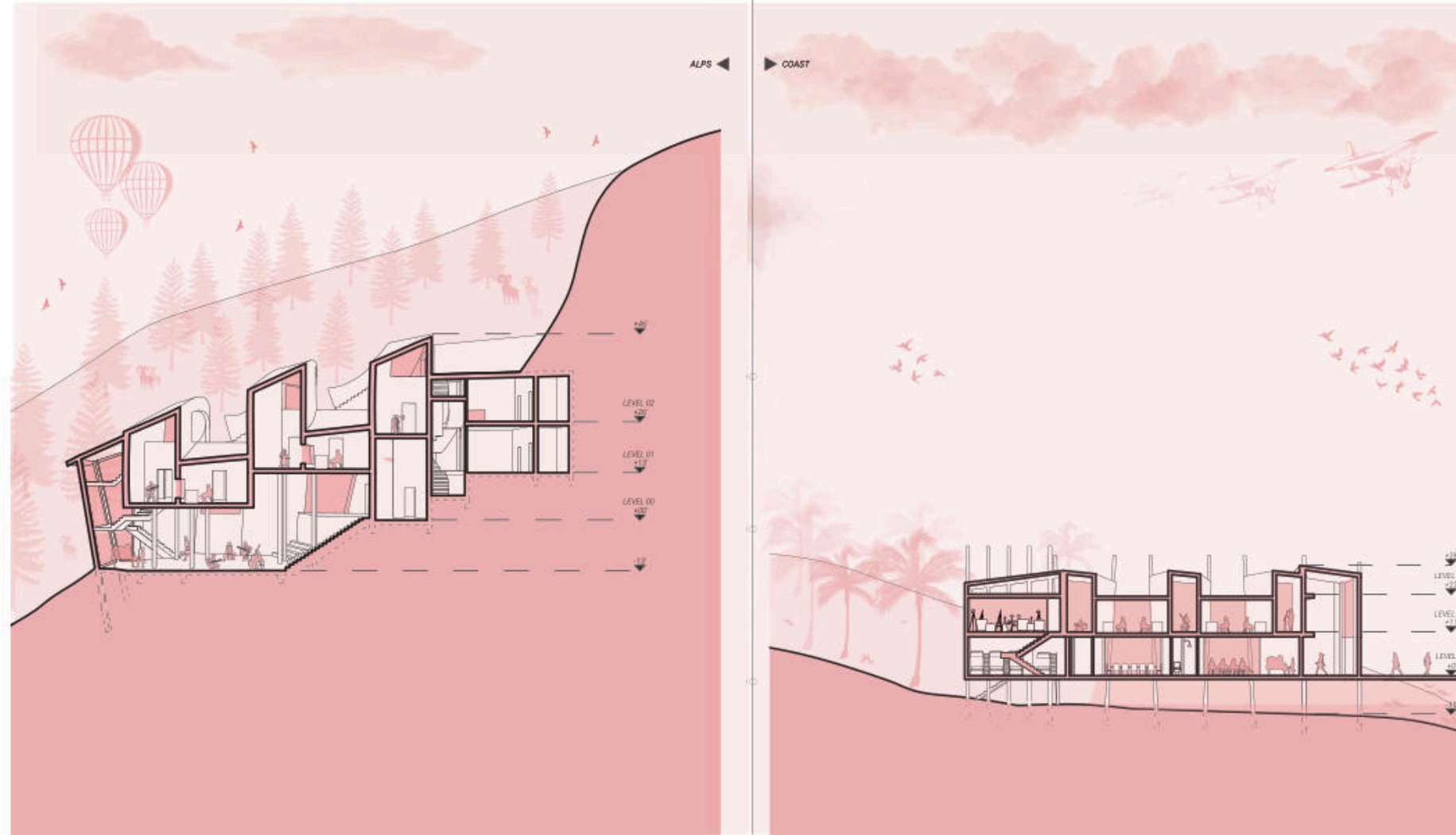
Salomon Alcantar - Alpines

Alexander Erickson - Costal



Spatial Adaptations

This project was done as a two person collaboration, where we took the same building typology and adapted it to dynamically fit into our given site and climate. The shared building typology was developed as a joint effort to create the most basic form of a building needed to accommodate our developed program of a sound hut. From the development of the typology, design and diagramming was done independently. The end result of this project is two distinctly different buildings that serve the same general program, derived from the same spaces and typology. The focus in this studio was on addressing and diagramming environmental/anthropogenic conditions of a given site.



A shelter in the alpine for musicians to play, practice and record their musical talents in a space separated from the noise of society.

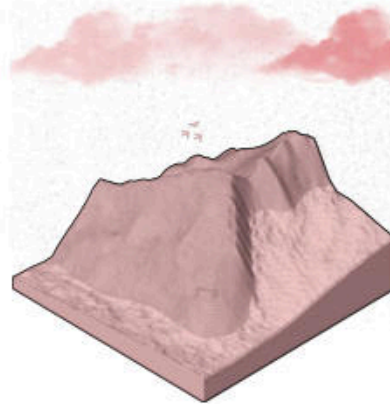
The programmatic spaces that make up a sound hut are the sound chambers, control rooms, and the ensemble space. The sound chambers serves as an ideal acoustic environment for musicians to practice and record as an individual, with control rooms sitting adjacent to allow for professional recording if wanted. The ensemble space serves both a community and practice space where different groups of musicians and individuals can play together in a larger acoustic environment



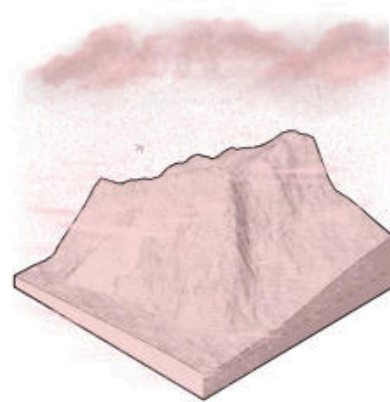
Site

This project called for us to locate a site in the alps with an existing hut, which would become the marker for our precise site location. In choosing a site with an existing structure, it also opened up further opportunity for site studies and examination. The location for this alpine hut is the Ötztal Alps, which is near by Sölden in Austria. It is high in the Austrian Alps, and has ski resorts and major towns located nearby. The advantage of this particular site over many others in the alps is that it is on a sort of corner of a mountain slope. This allows for the structure sitting there to enjoy 270 degrees of open view towards the outer mountain range, along with a reduced risk of snow avalanching from above.

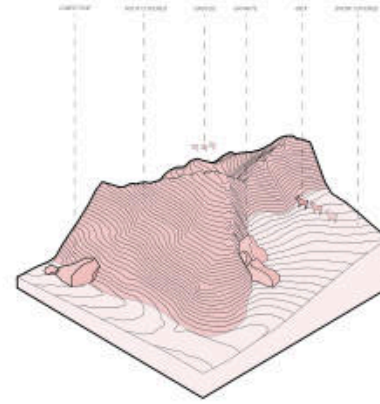
CLIMATE



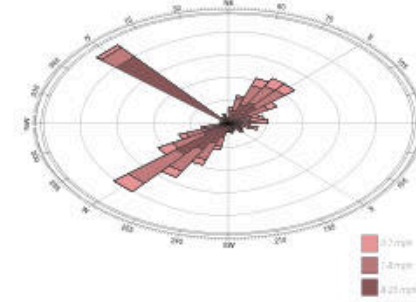
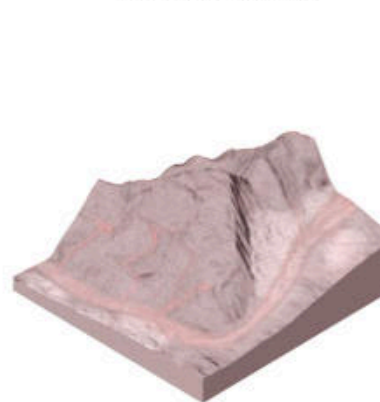
HAZARDS



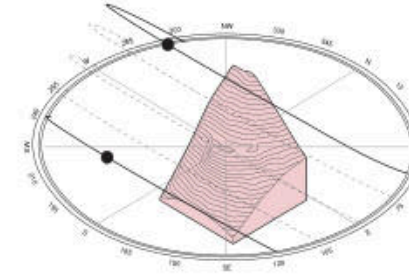
FAUNA AND FLORA



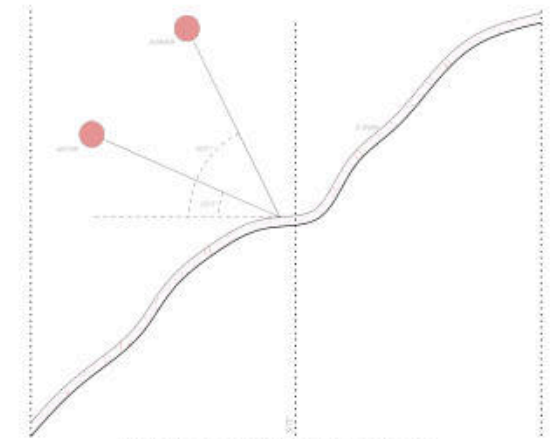
CLIMATE CRISIS



WIND CONDITIONS

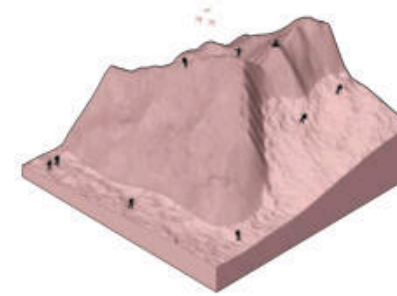


LIGHT CONDITIONS

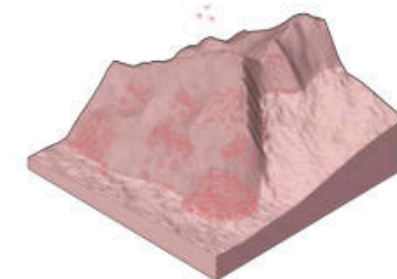


ENVIRONMENTAL THREATS

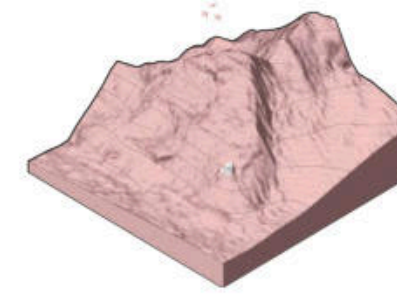
USES AND PROGRAMS



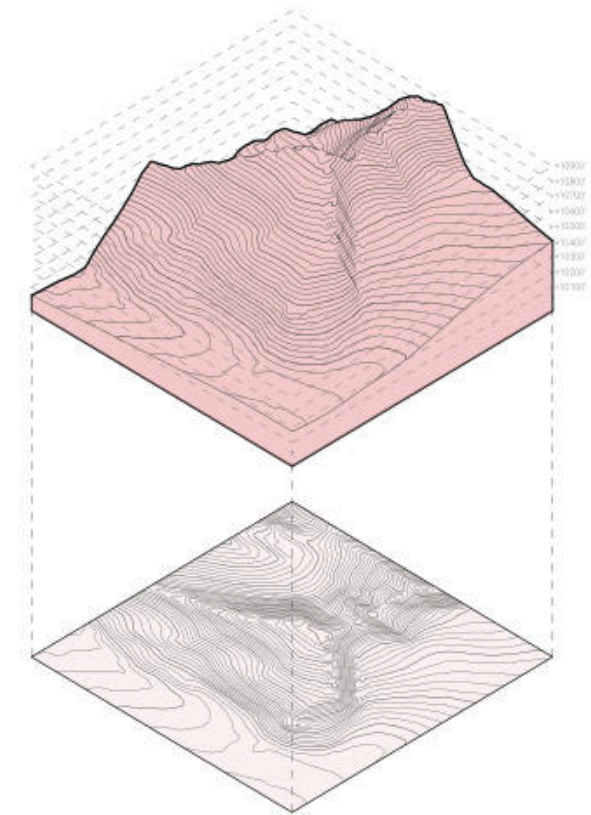
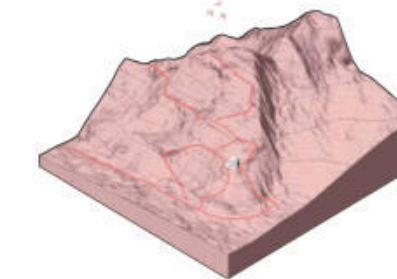
ANTHROPOGENIC IMPACTS



EXISTING STRUCTURES

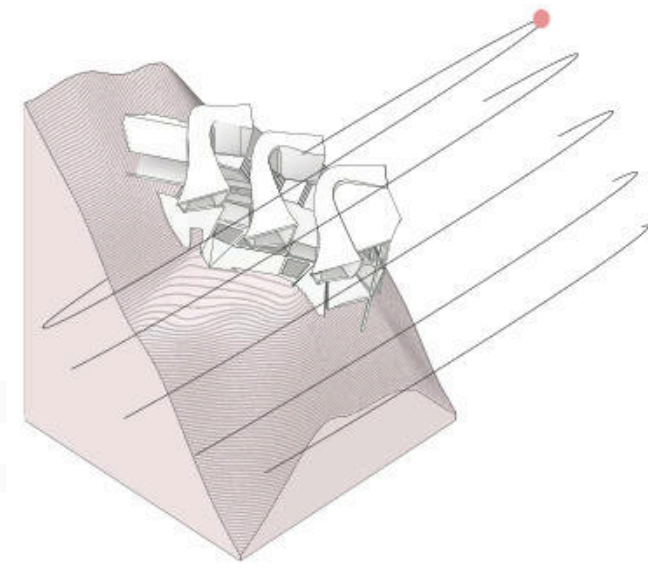
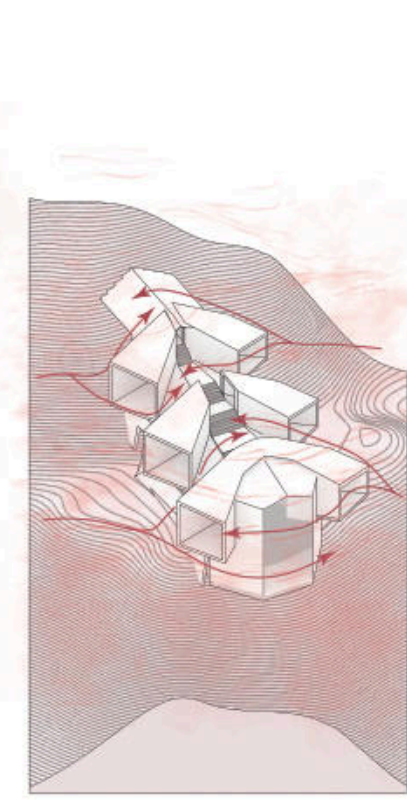
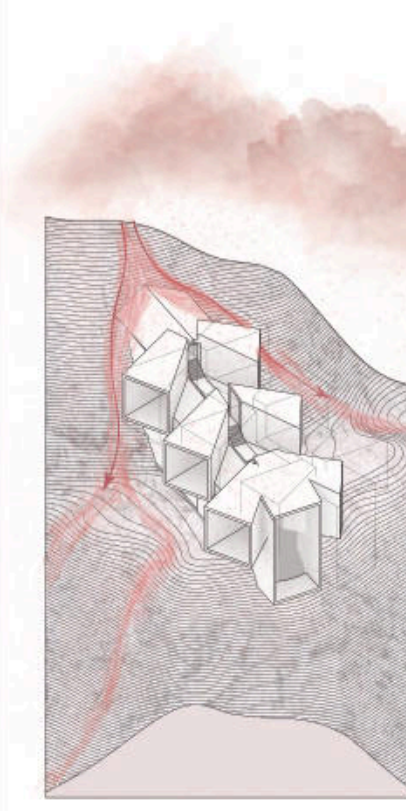
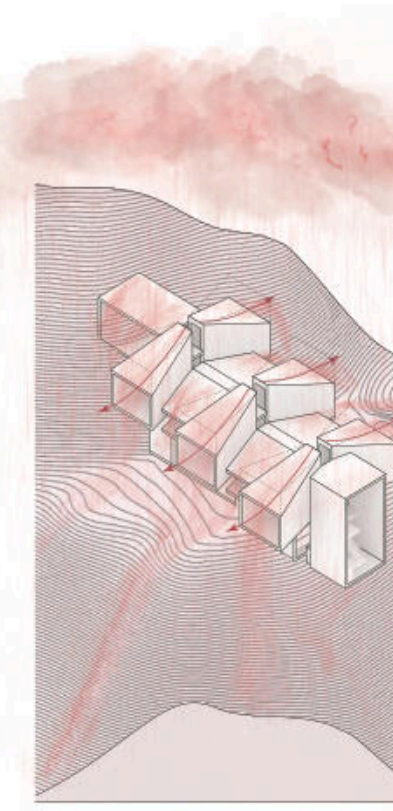
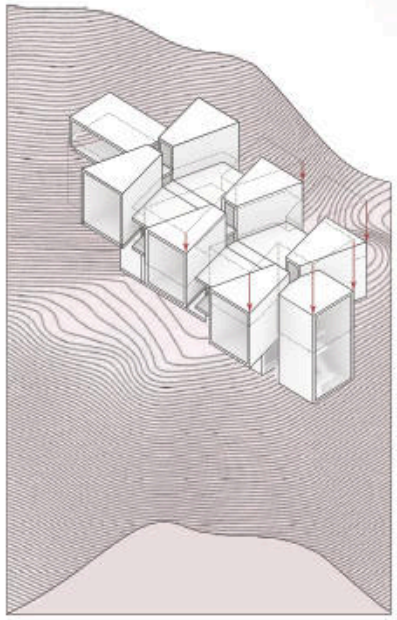
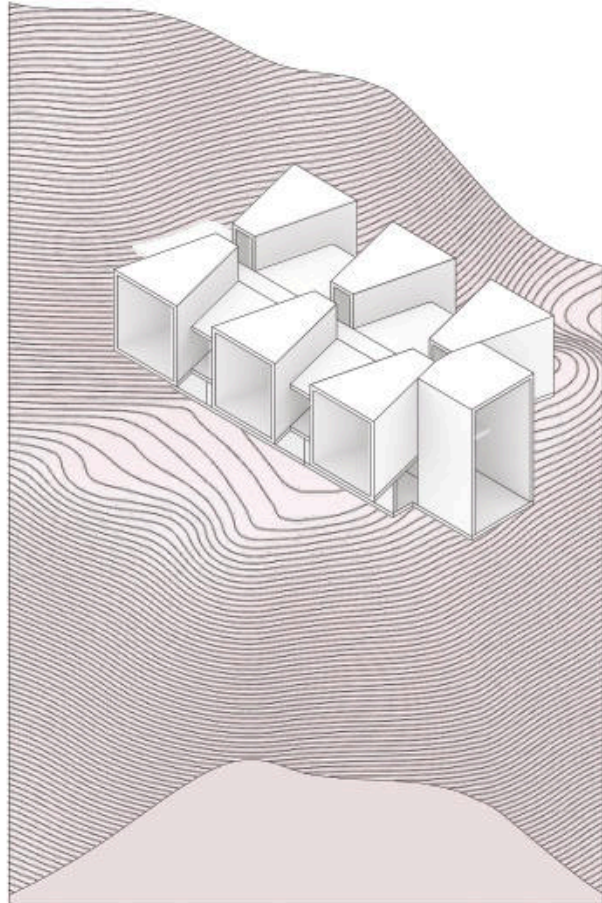
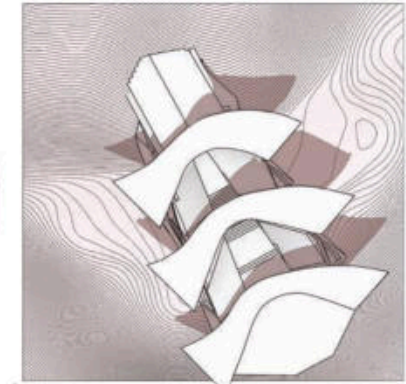
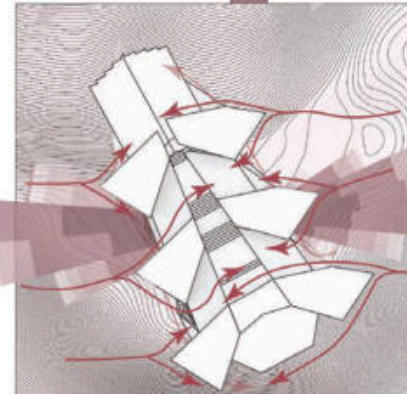
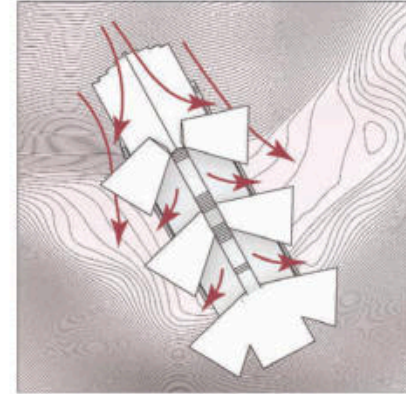
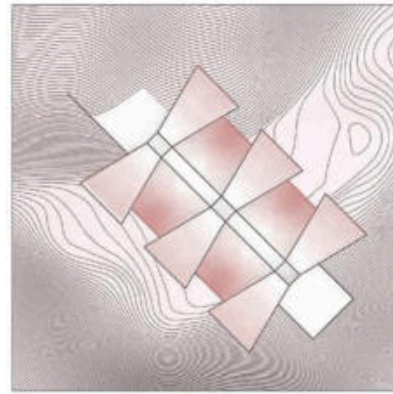
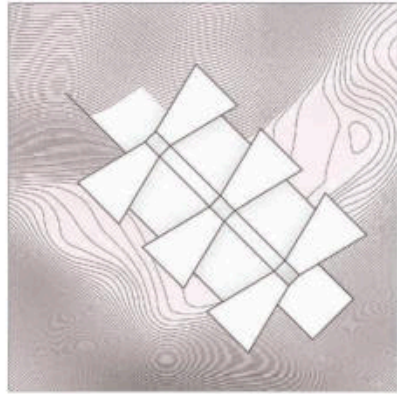


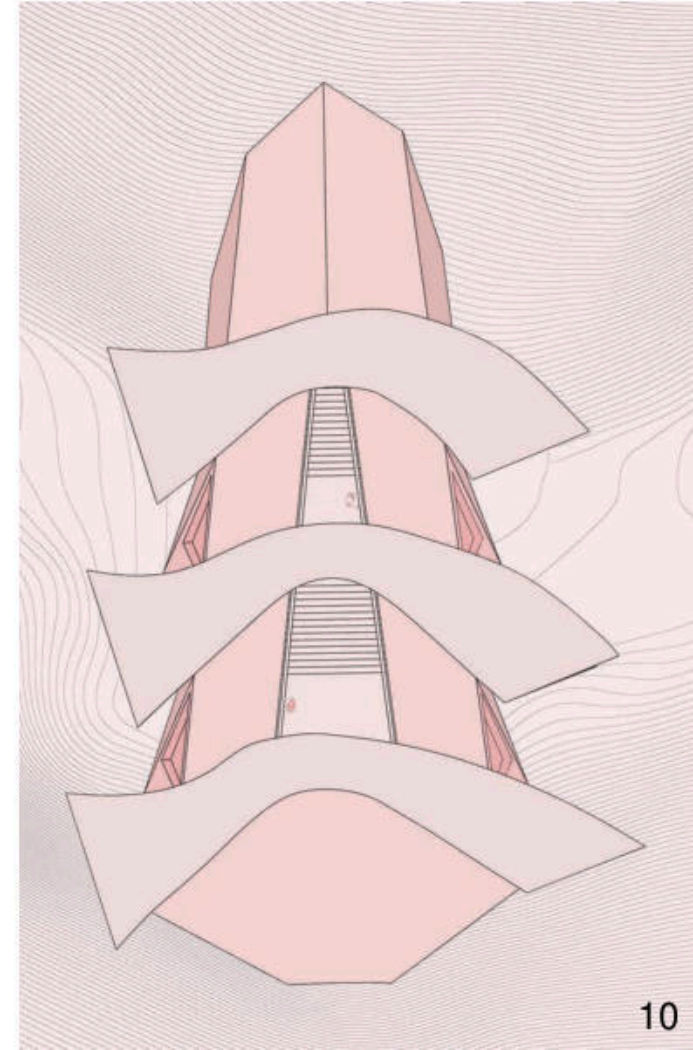
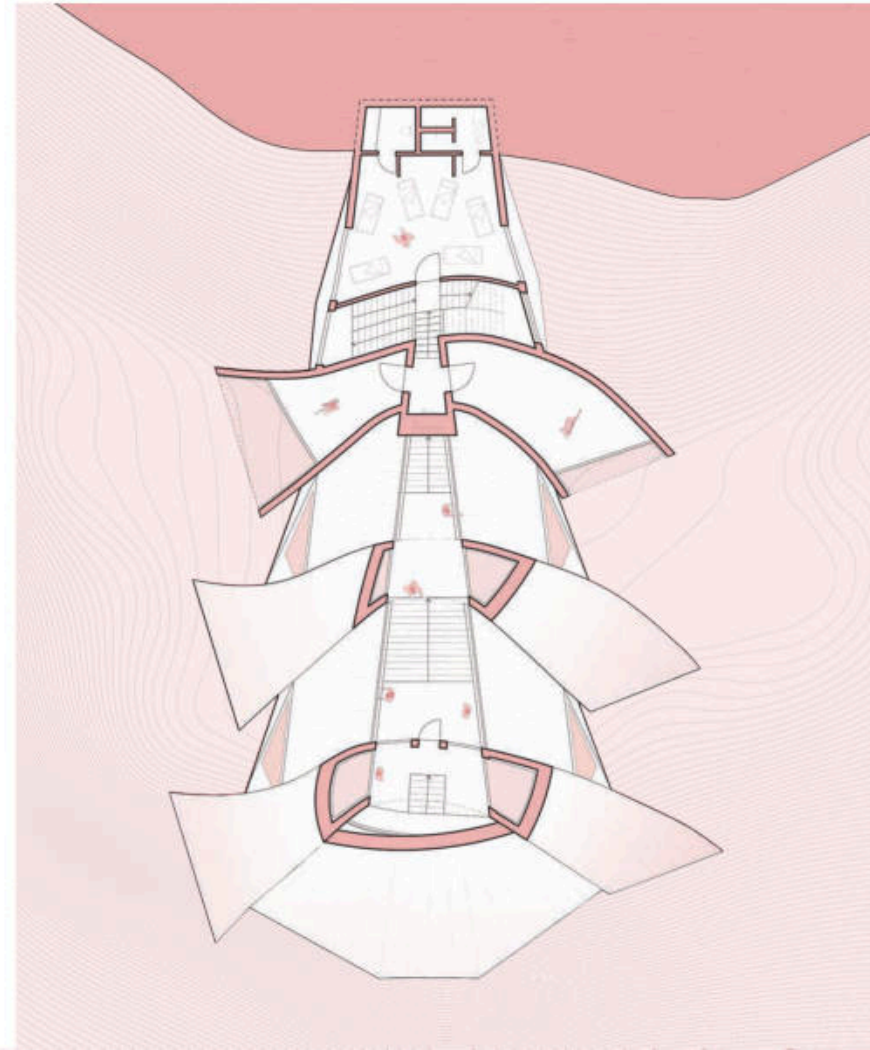
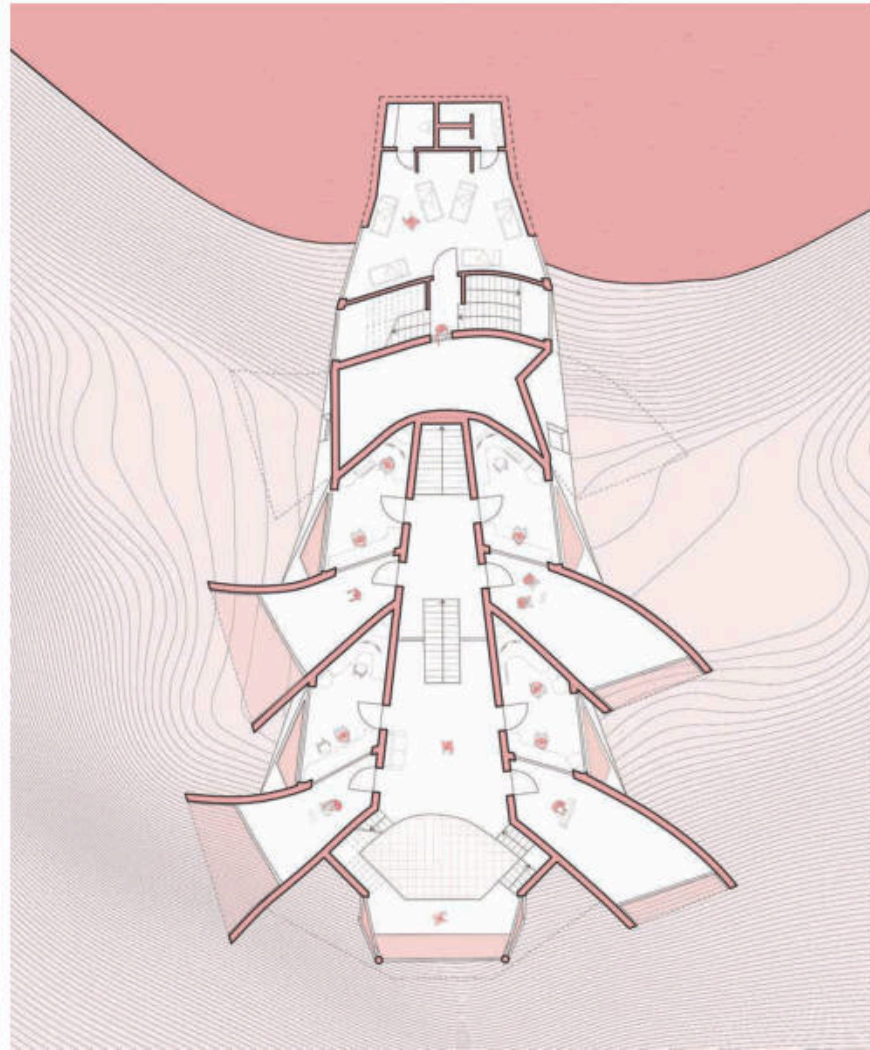
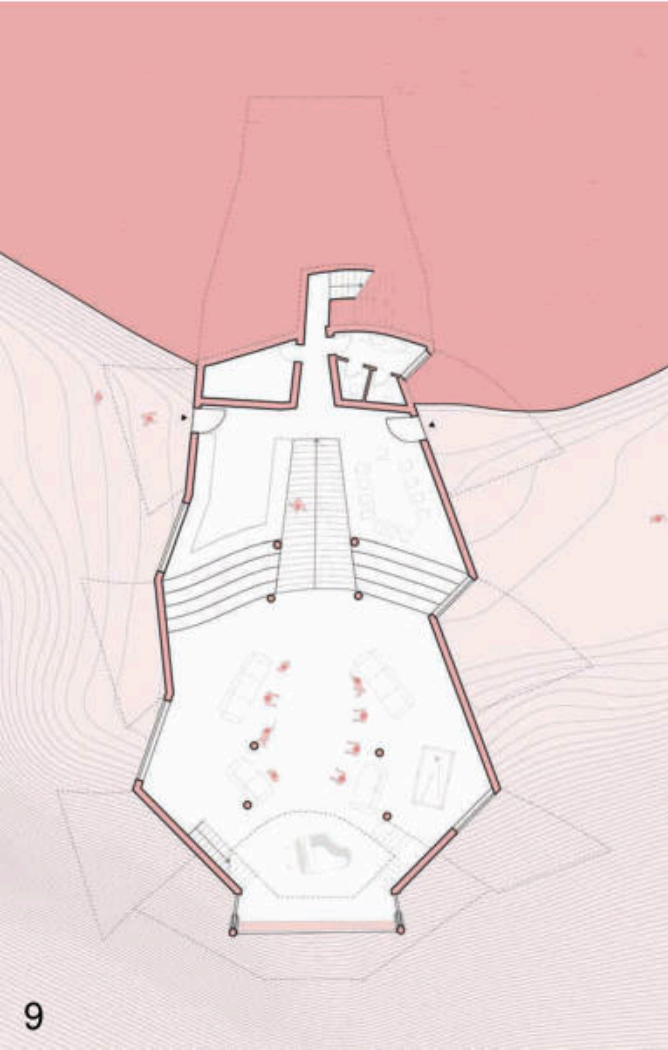
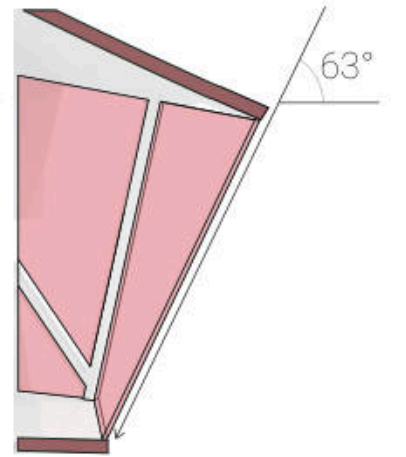
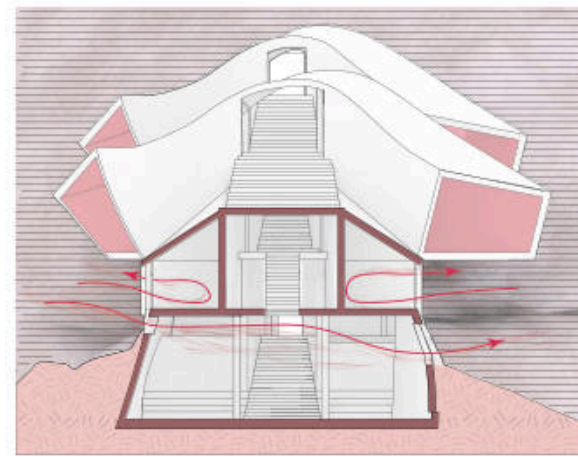
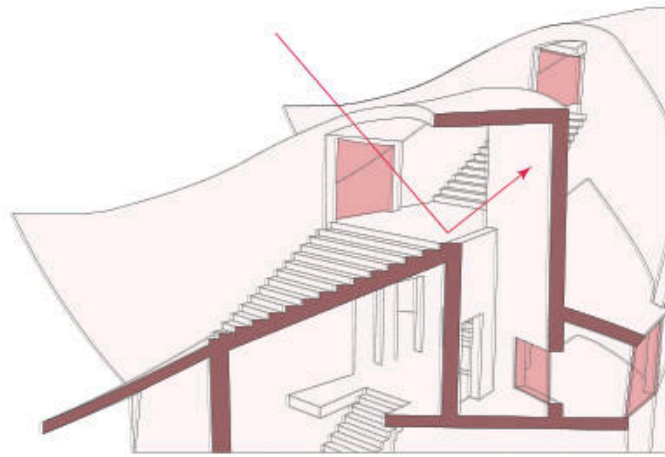
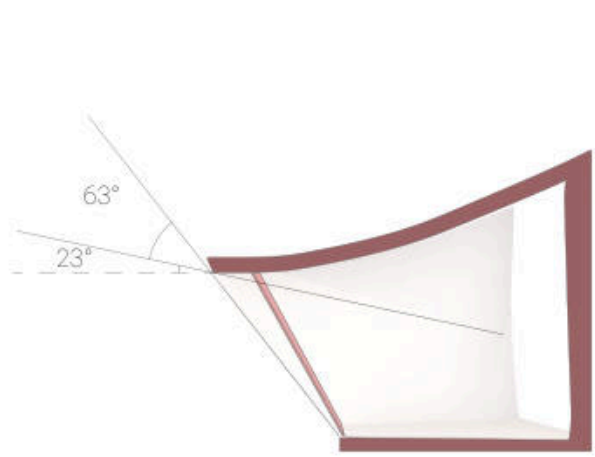
PATHS AND PLACES



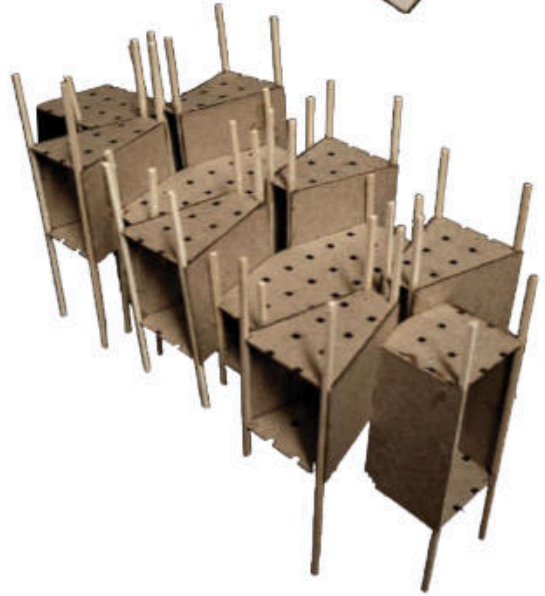
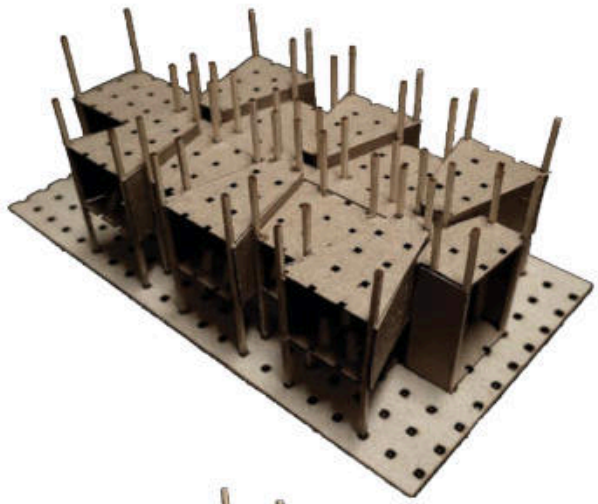
TOPOGRAPHY

Spatial Adaptations





Sound Hut



Third Year Studio

Fall 2022

Professor: Bijan Youssefzadeh

Studio Projects

Project 1 - Architecture Office

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Project 2 - Tea House

Pages 11-20

Project 3 - Loft Exhibition Space

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Project 4 - Semi-Detached Duplex

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Studio Overview

Formal design and consideration to structure are the two things that I would use to best describe this studio. The structural system was encouraged to be seen as more than just a means of holding up a building. Rather we were challenged to see it as an opportunity for creating architectural moments in space, facade, and even section when developing the design of a structure. Each project that I designed in this studio had unique circumstances and situations in the structure of the building, and my desire to complicate each project added to the challenge of designing a workable approach in designing the supports.

This studio had a particularly formal nature, which shaped the approach I took to the design of each of these four projects. This studio heavily encouraged the use of orthogonal lines and planes when approaching design along with the use of formal precedents. The use of the modernist architects toolset, being things such as the modular system, regulating lines and object-space, were also strongly reinforced and encouraged to be used, as can be seen in each of these 4 projects.



Design Development

The program called for the design of a semi-detached duplex, where the client would live in one specifically designed unit, while the other unit is designed generically and sold separately. The Duplex is designed on a real site with existing conditions in the Fortworth area, providing context such as a sightline to Fortworth skyline, adjacency to a highway and property boundaries.

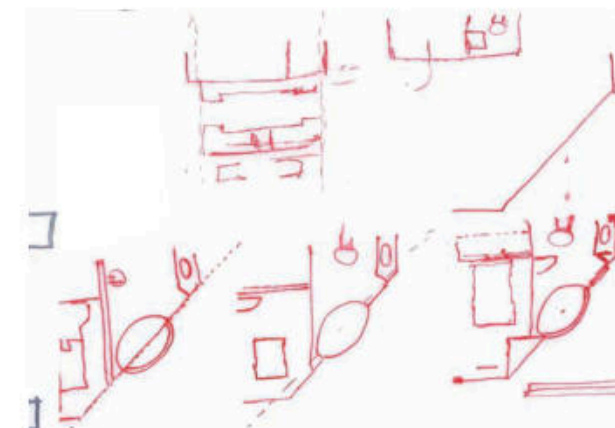
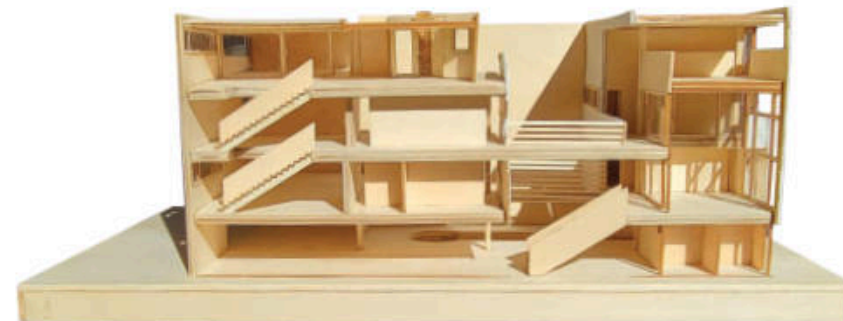
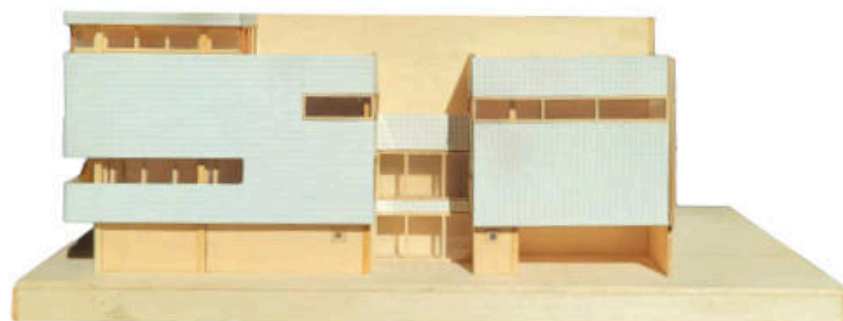
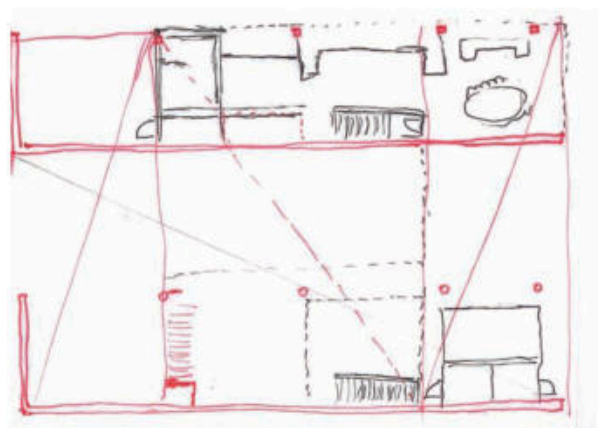
The study and use of a precedent was required for approaching a duplex design. This project sought to utilize this opportunity to fully emerge itself in the design of one existing precedent, and draw inspiration from it in the various ways that could be discovered. The precedent that was studied for this project was the Delray beach house by Anthony Ames, making this project a kind of continuation from a second year project.

Semi-Detached Duplex

Fall 2022



This structure sought to imitate the precedent's various organizational strategies, such as development in the structural system, facade, grid system, lighting of spaces, circulation, lap pool placement, and even its promotion of an active lifestyle. The design of this project also sought out the transparencies of square fields in the various plans and facades of the structure.



Precedent Ground Level

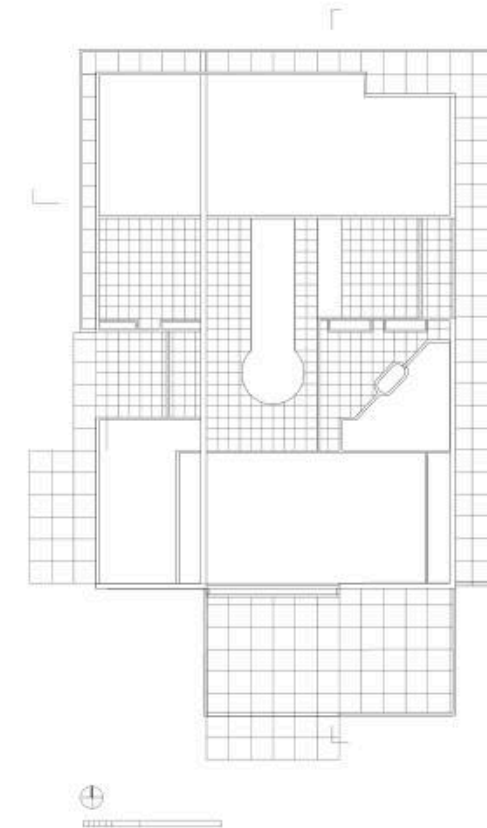
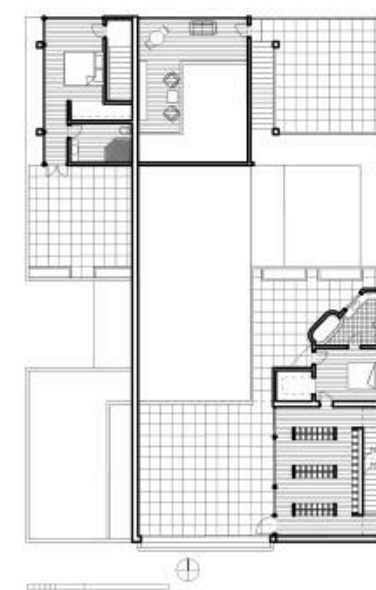
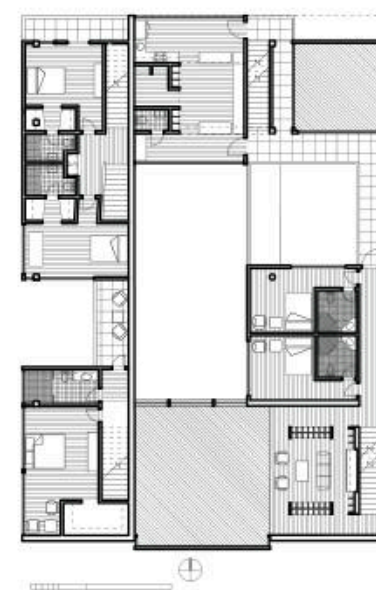
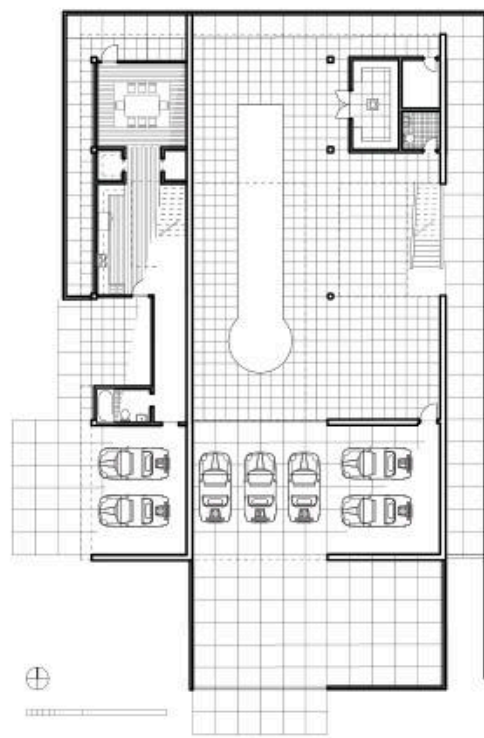
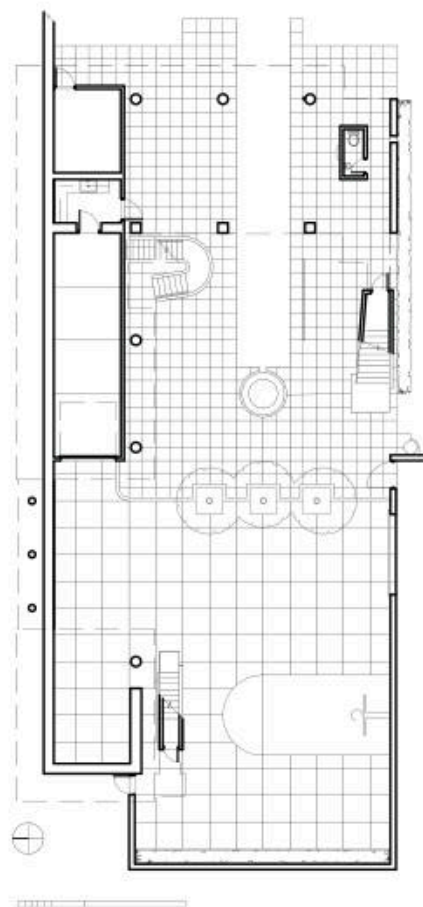
Ground Level

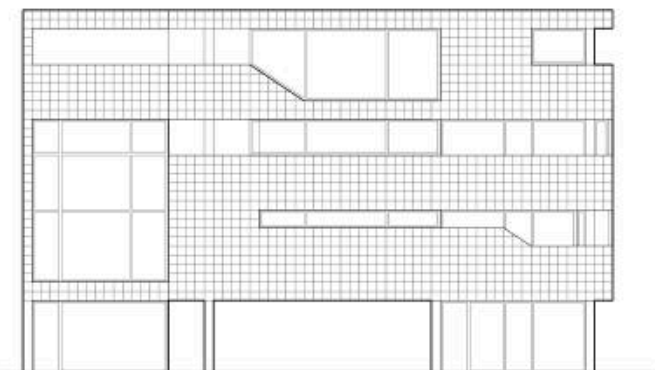
First Level

Second Level

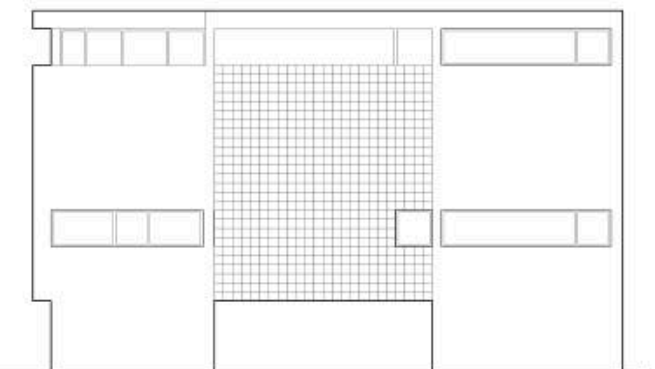
Third Level

Site Plan

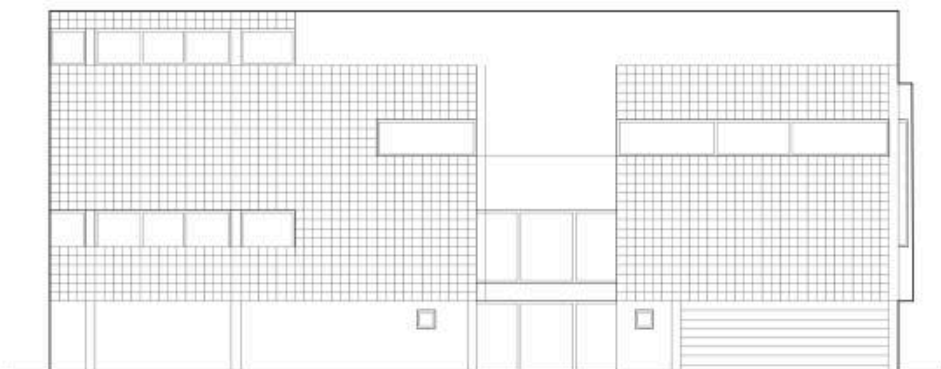




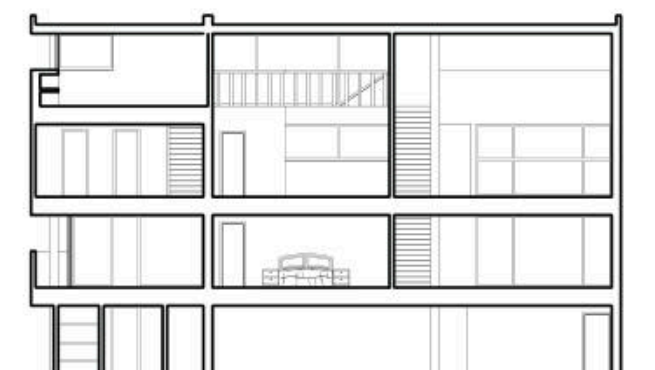
NORTH ELEVATION



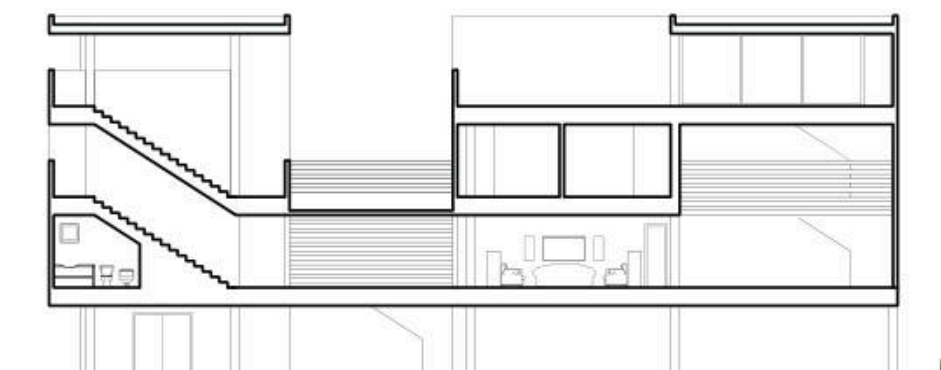
SOUTH ELEVATION



WEST ELEVATION



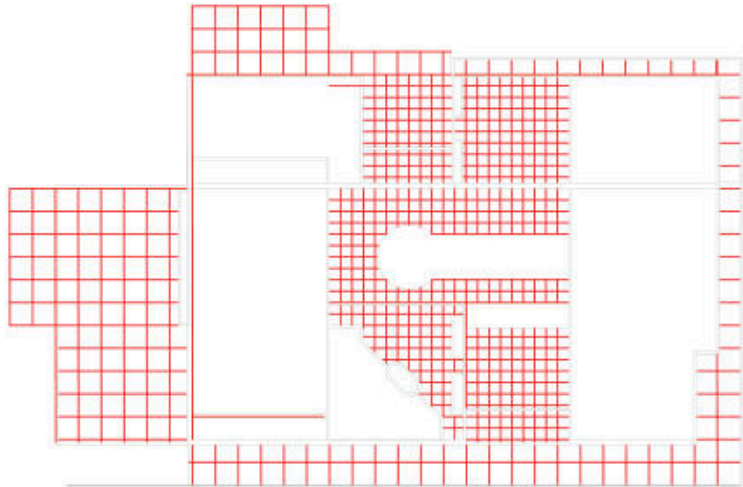
SECTION



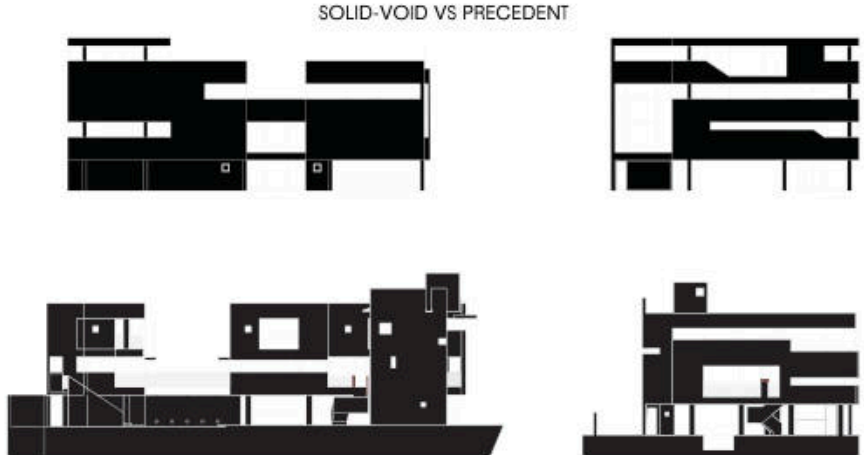
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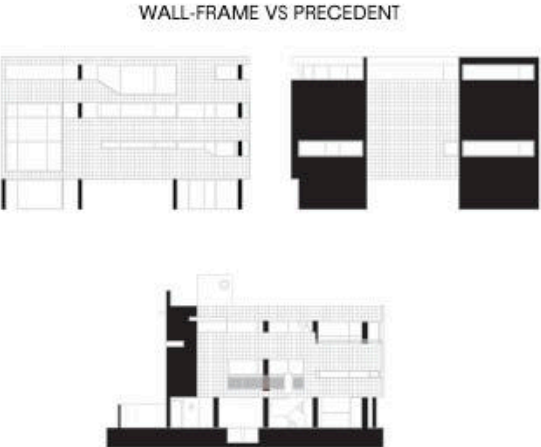
Analysis



GRID SYSTEM AND FIELDS



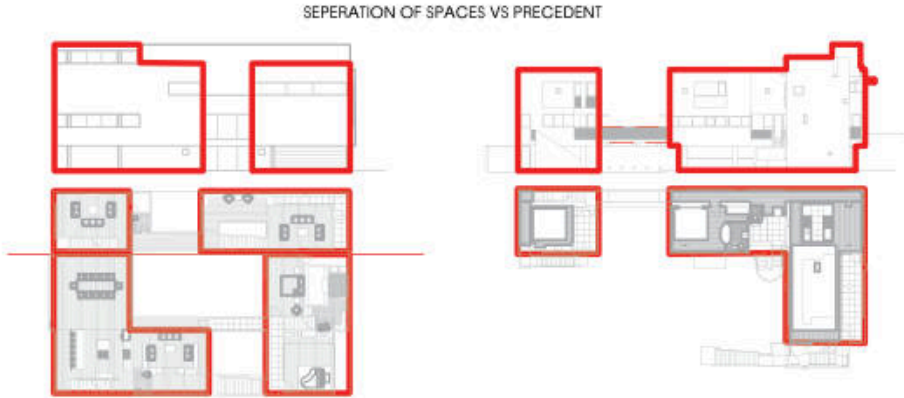
SOLID-VOID VS PRECEDENT



WALL-FRAME VS PRECEDENT



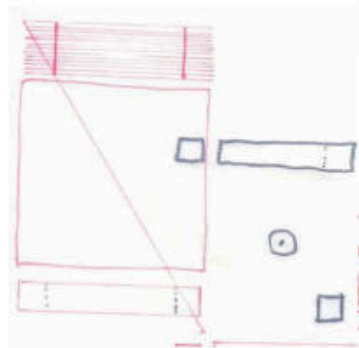
AXIAL CONDITION



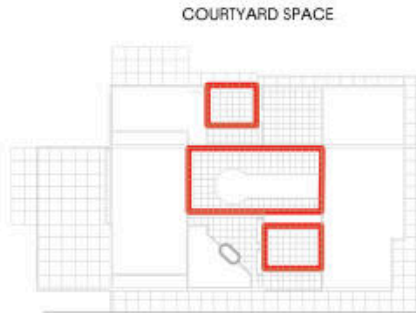
SEPERATION OF SPACES VS PRECEDENT



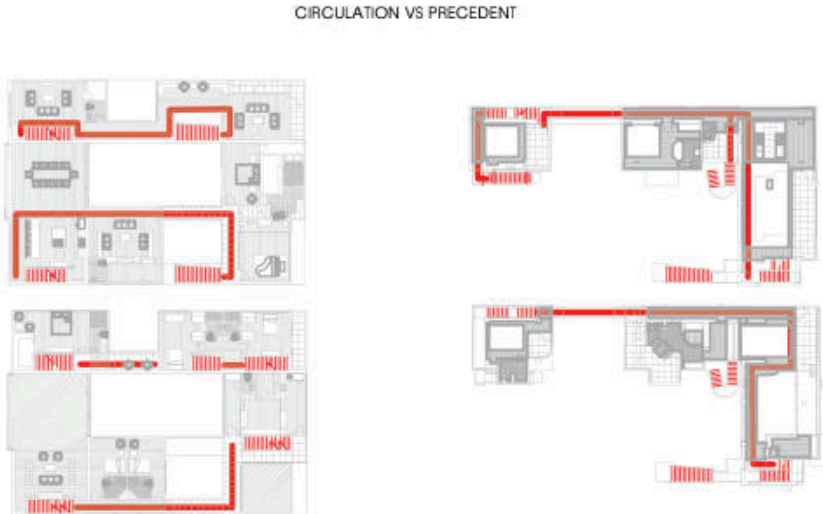
TRIPARTITE DIVISION VS PRECEDENT



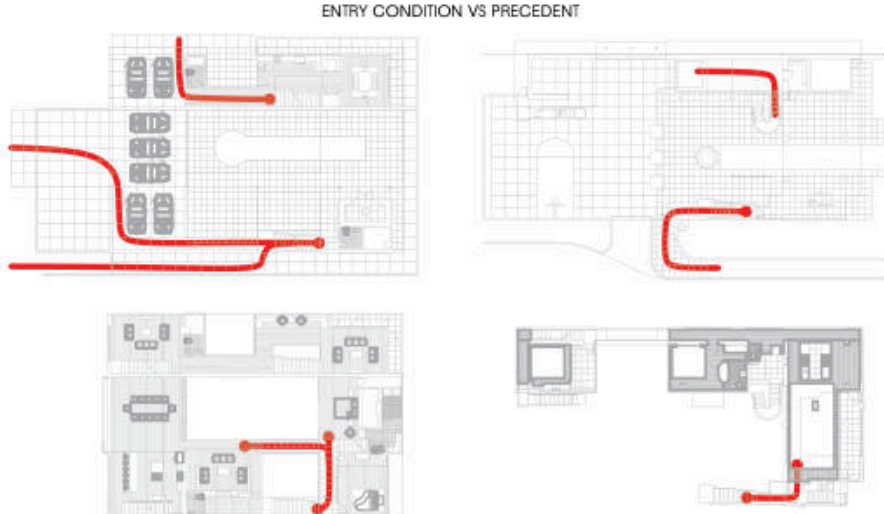
STRUCTURAL SYSTEM VS PRECEDENT



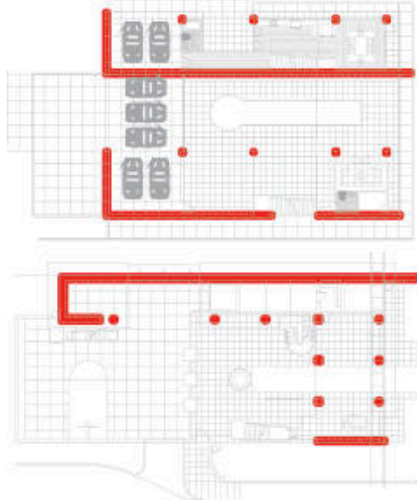
COURTYARD SPACE

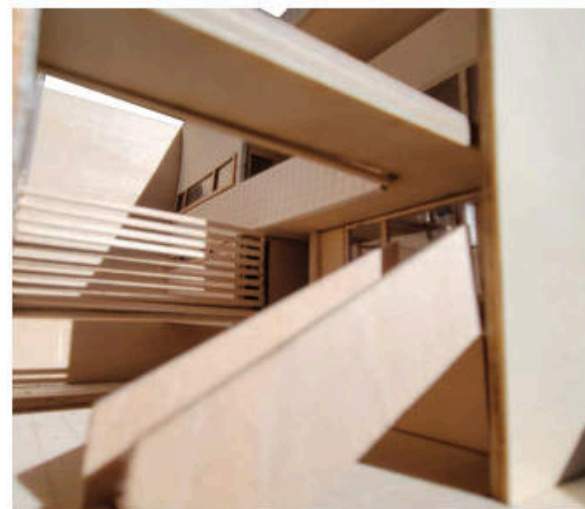
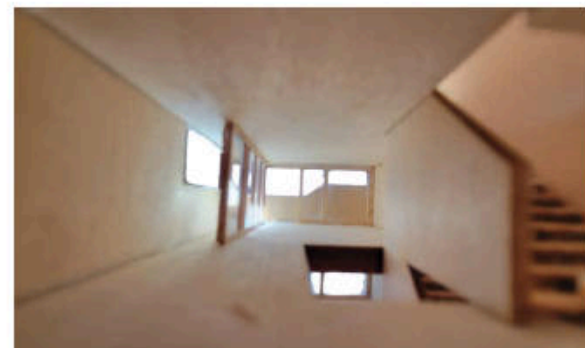
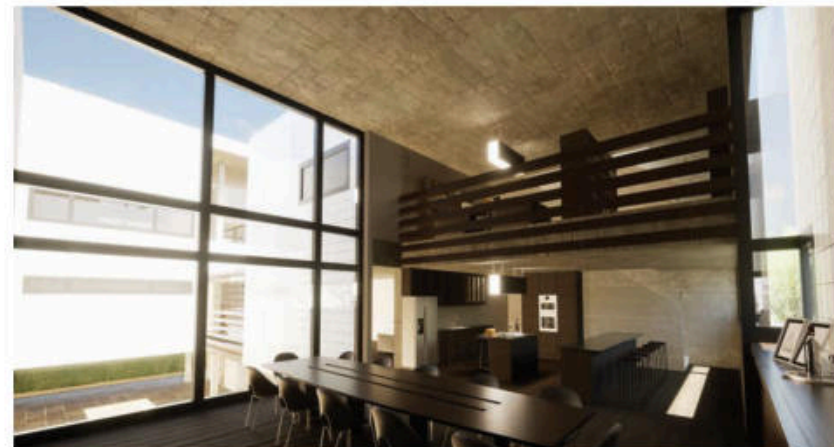


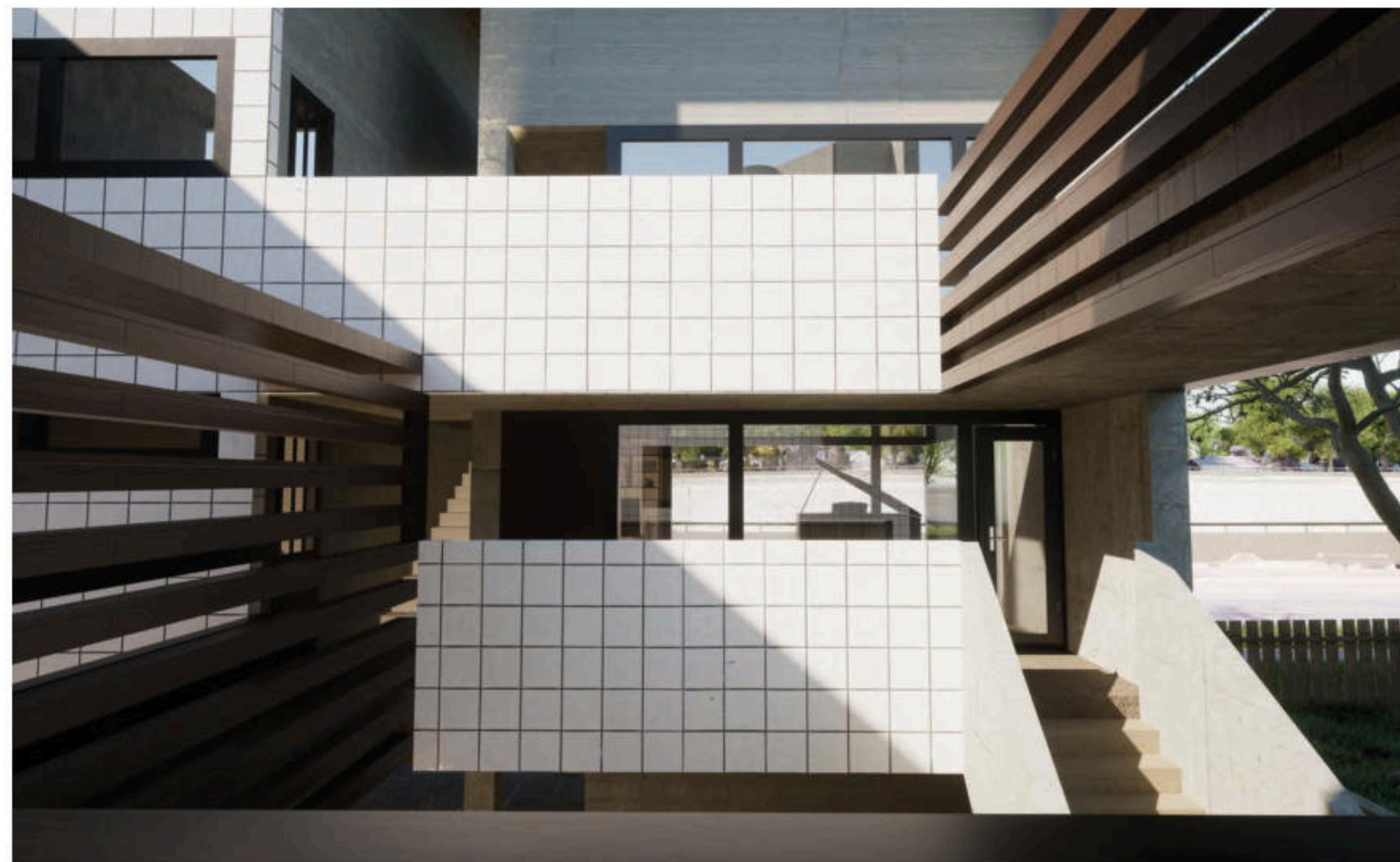
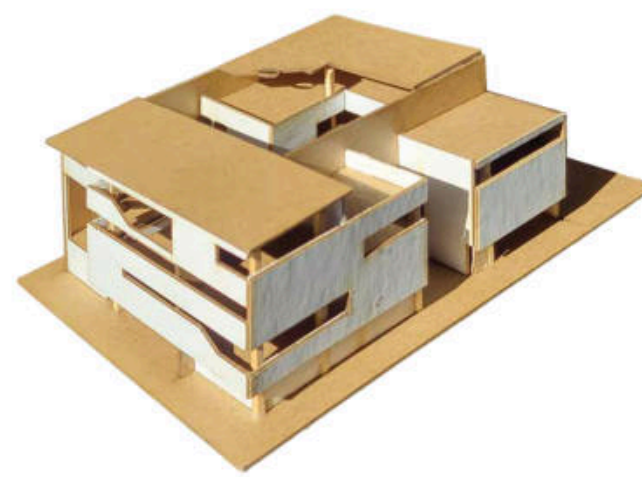
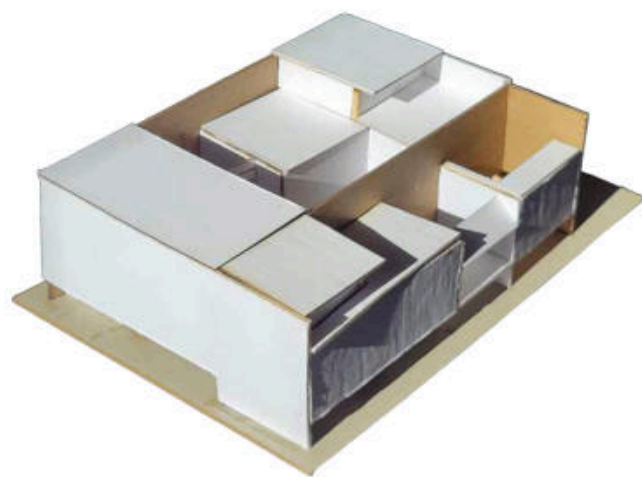
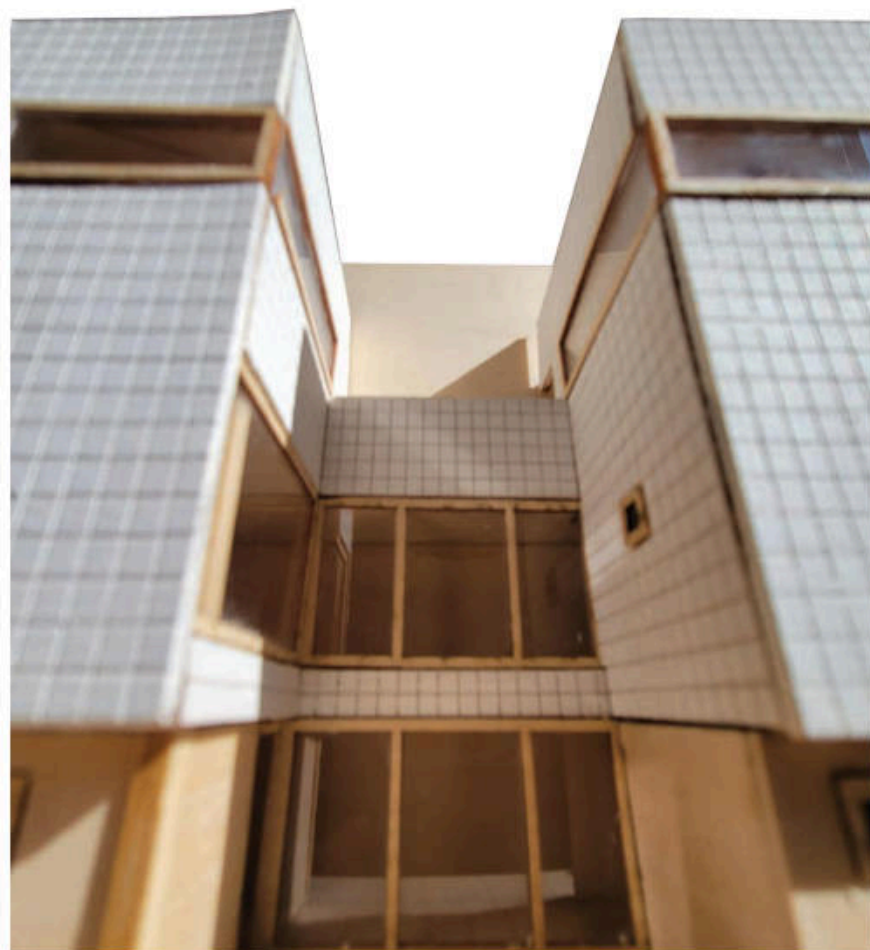
CIRCULATION VS PRECEDENT



ENTRY CONDITION VS PRECEDENT







Loft Space Photo Exhibition

The program called for the design of a loft space on the top floor of an existing building. The site is in the SOHO area in New York, and the space is meant to serve as an exhibition space for Photographers Andreas Gursky, Andre' Kertesz, and Barbara Crane.



The development of this project was required to be done through the analysis and inspiration of one of the listed photographers' works. Once a photograph was chosen as a precedent, it was to be evolved and simplified into a workable and formal floor plan, capable of meeting the programmatic requirements of the loft space.

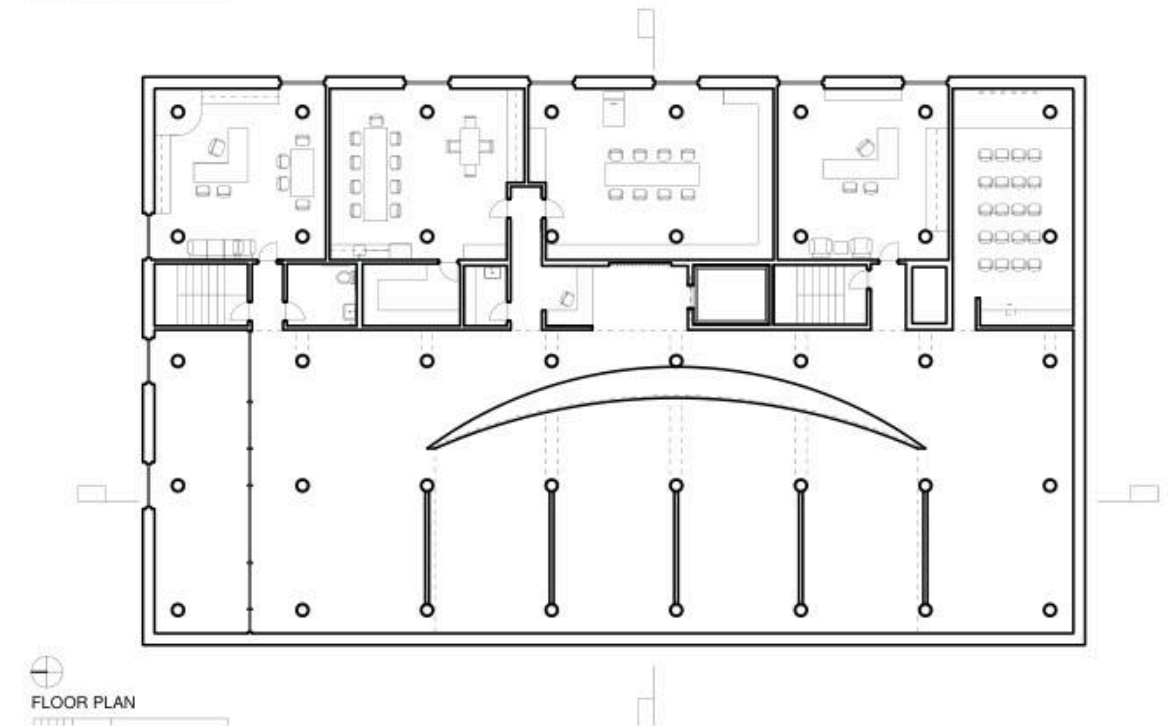
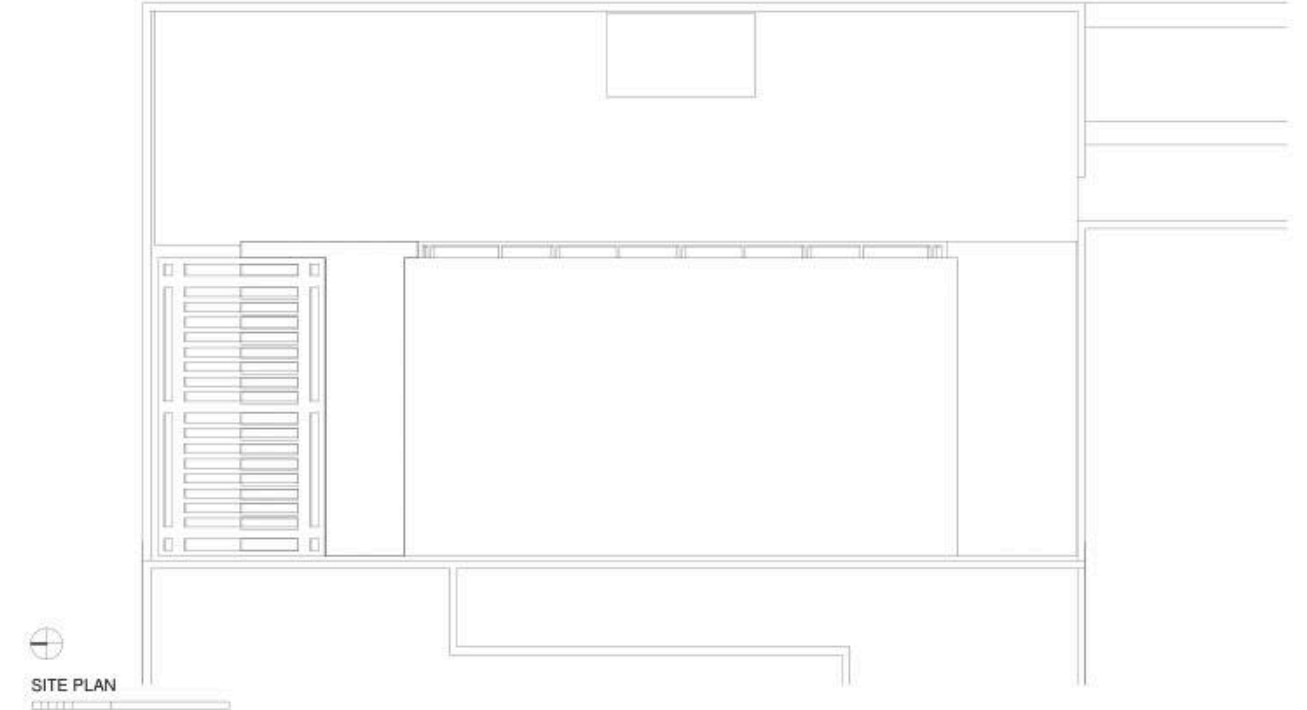
Added design challenges for this particular project include working with existing round columns as a structural system, utilizing an existing elevator and fire-escape staircase, not manipulating the exterior wall/windows, and providing natural indirect light deep into the exhibition spaces.

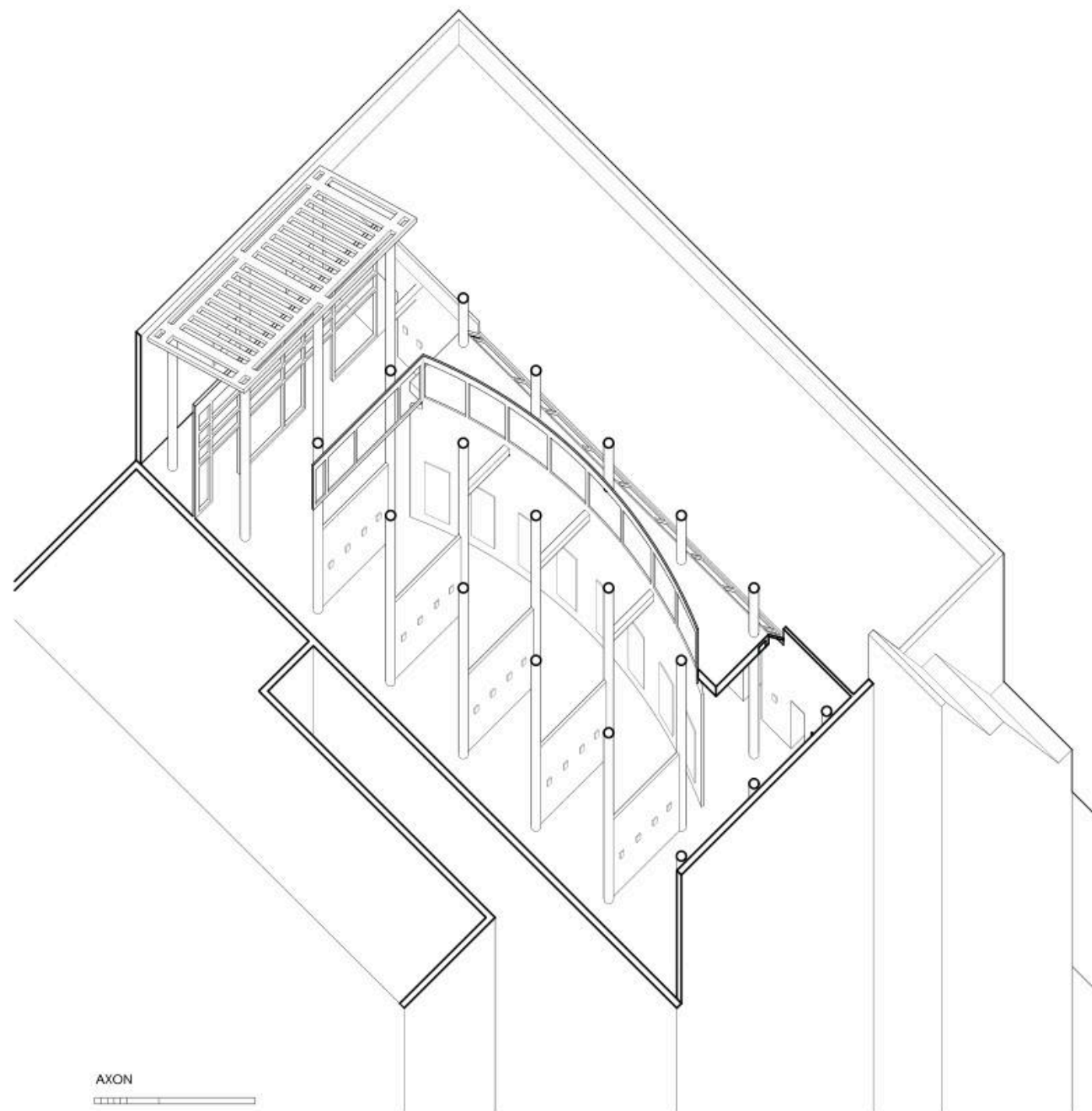
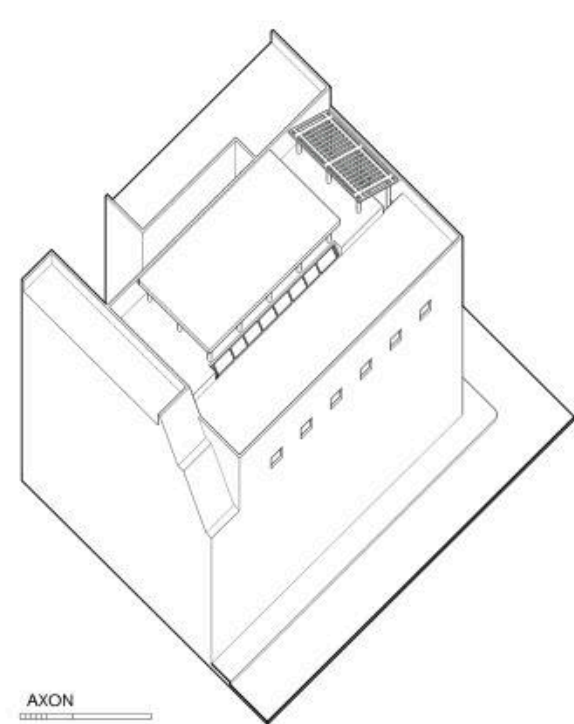
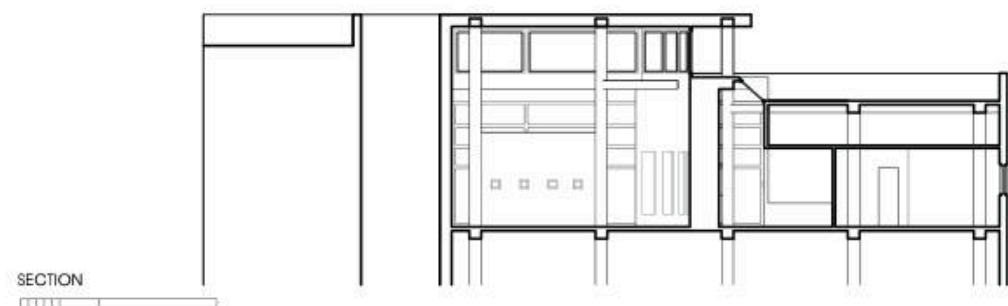
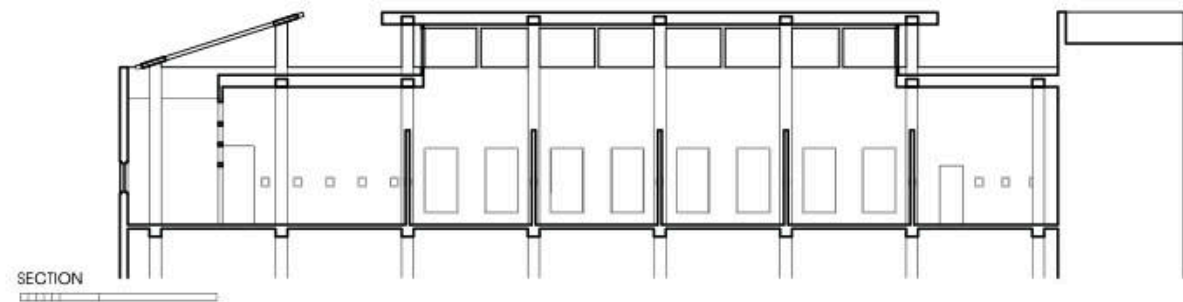
This project followed the precedent of a photograph by Andre' Kertesz, which inspired the space hierarchy, tripartite division, circulation and various other design decisions. Part of the purpose in this exercise was to also consider the design of the roof plate in relation to the floor plan, so the center display wall is raised up as means of letting in natural light to the exhibition space and adding to the facade of the roof. The work and public spaces are clearly defined and separated in this design by a long center datum wall, which holds the service spaces and the vertical circulation.

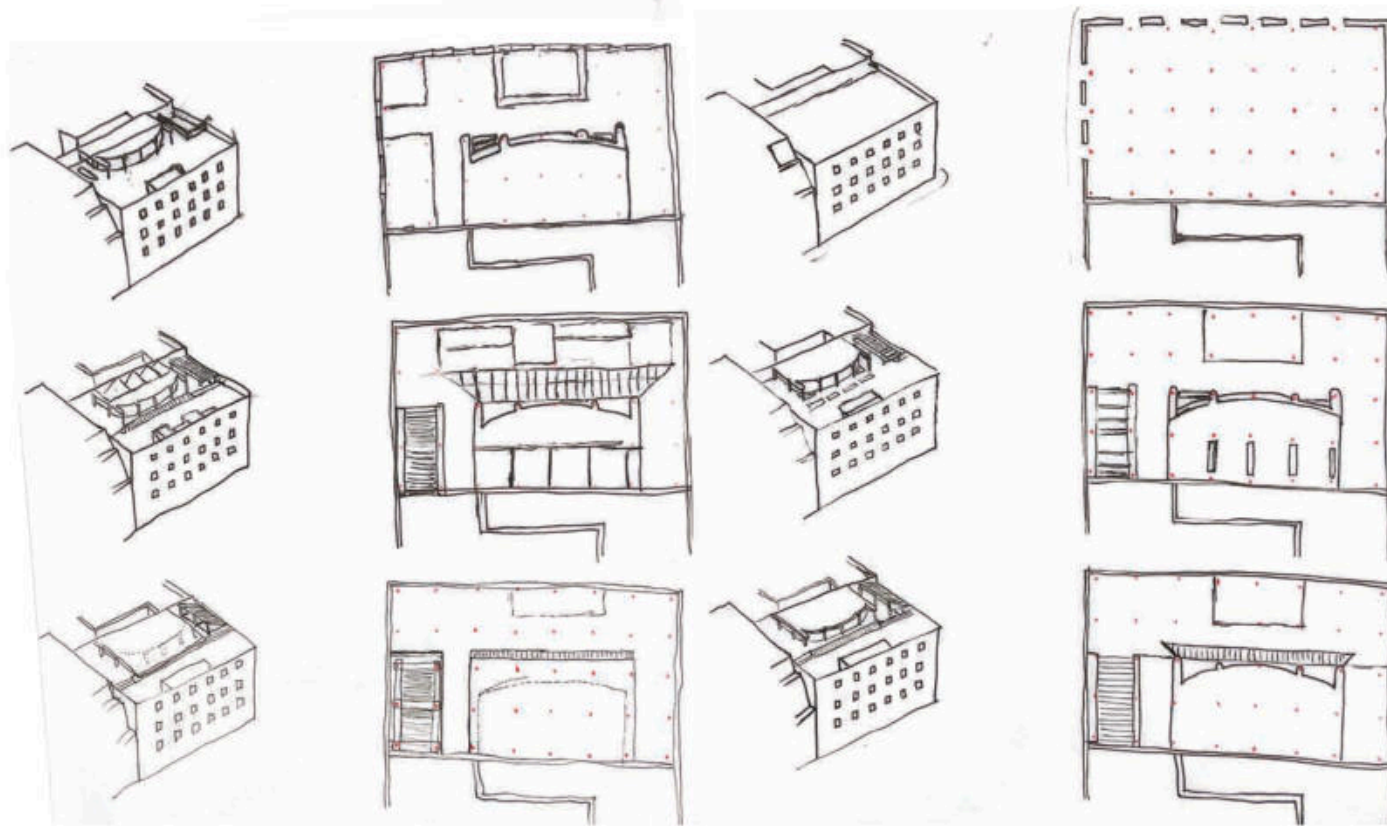
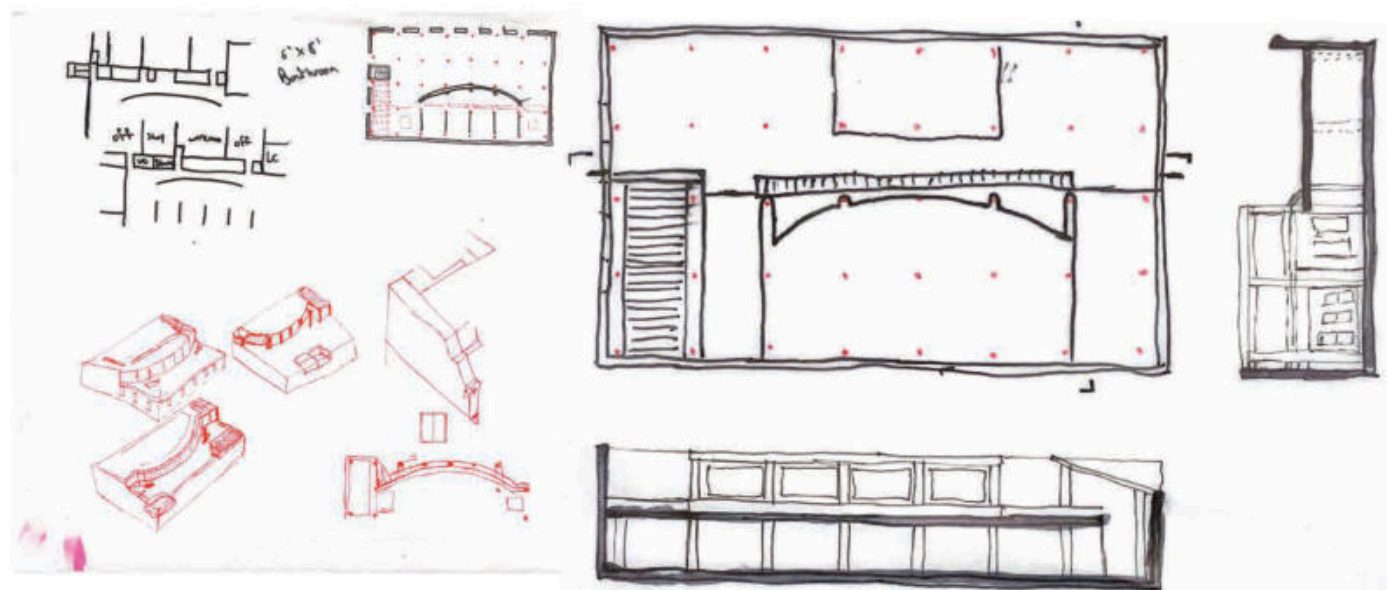
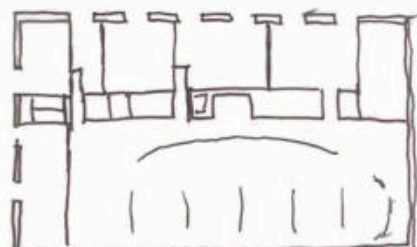
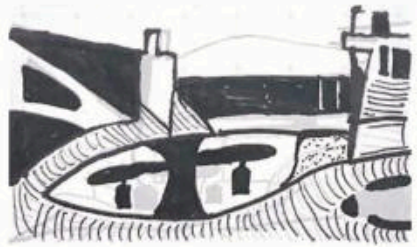
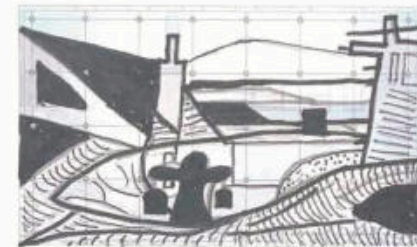


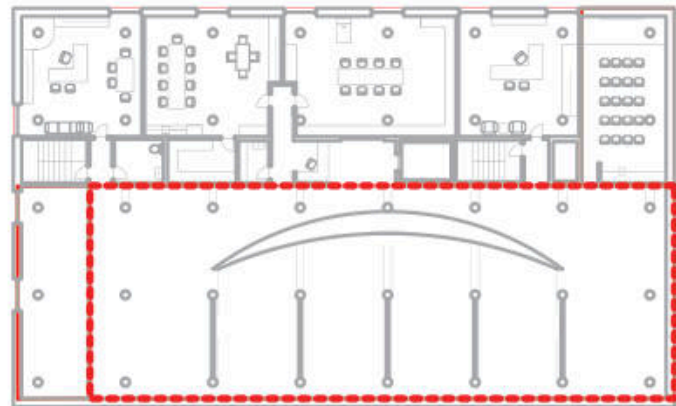
Program Requirements

- Entrance with reception, and coat space
- Office for owner, with lounge space and natural light
- Office for assistant with natural light and ventilation
- Workroom with 3'x12' table
- Storage for photographs
- Shop for crating and uncrating
- Lecture room
- Bathroom
- Maintenance Closet
- Added Fire-escape staircase

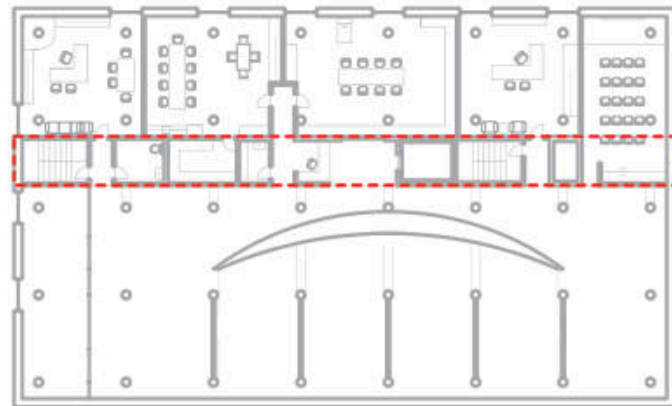




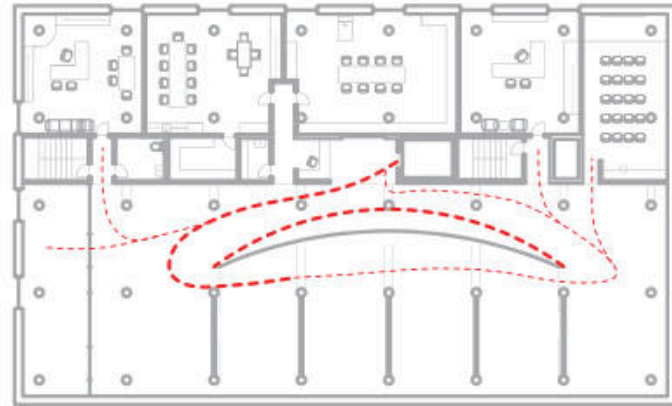




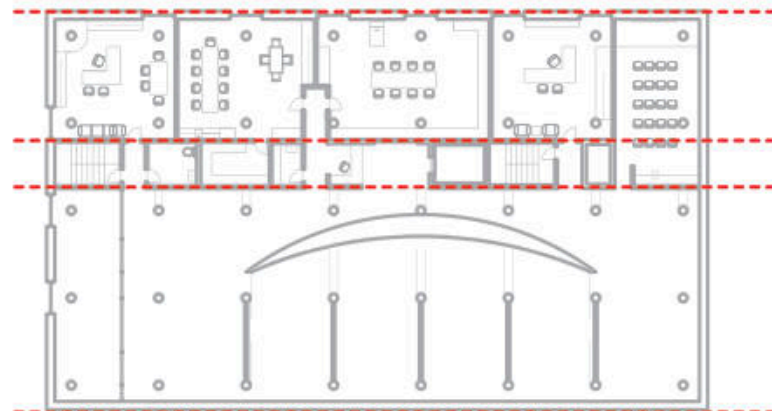
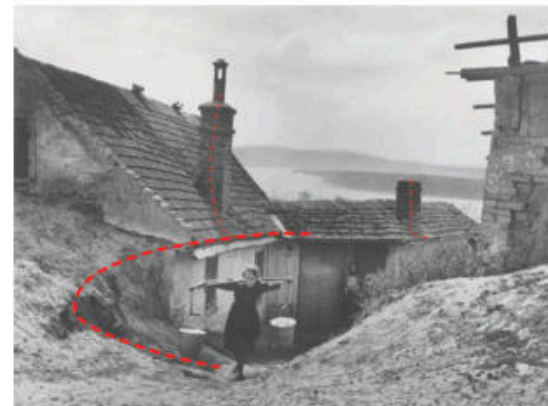
HEIARCHY



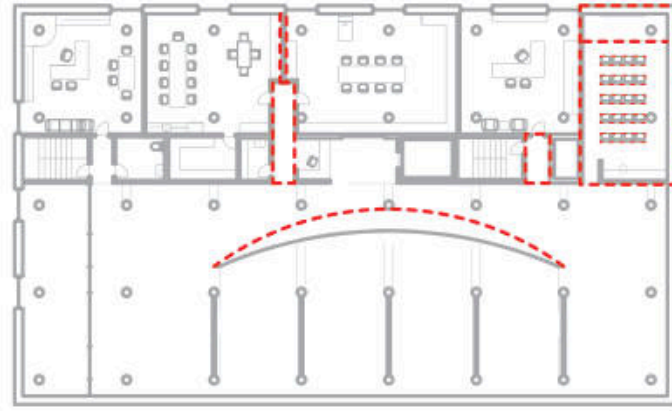
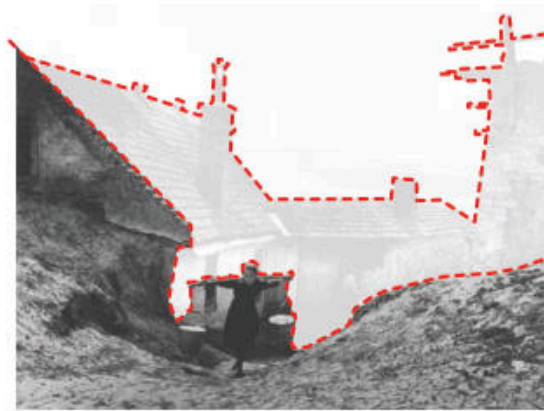
DATUM WALL



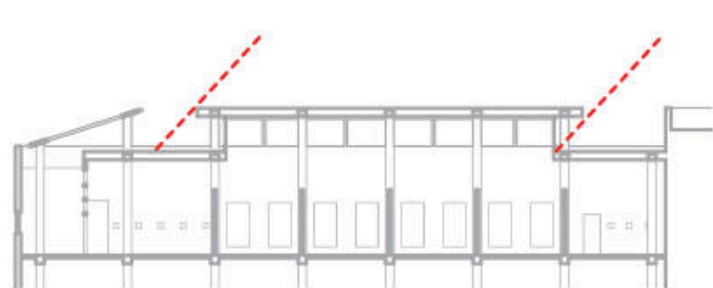
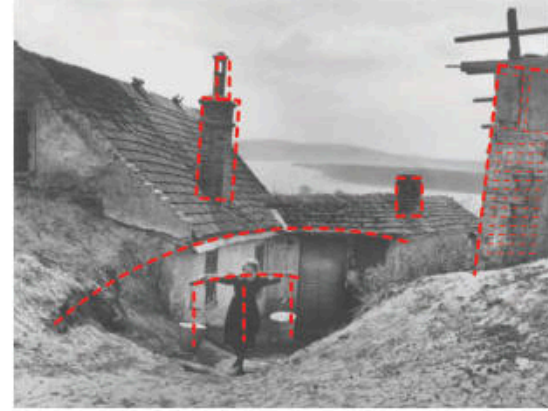
CIRCULATION



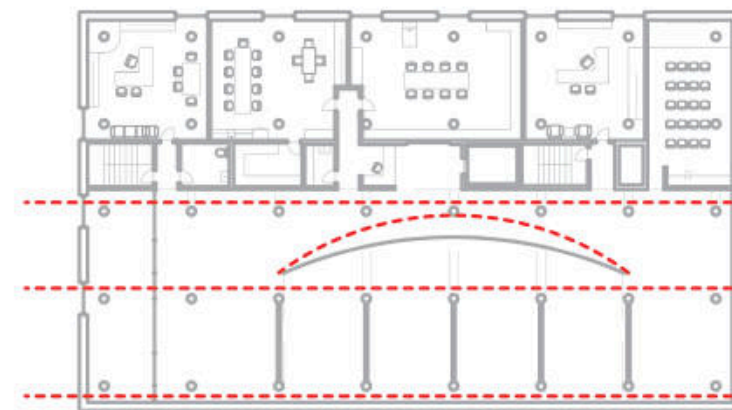
TRIPARTITE DIVISION



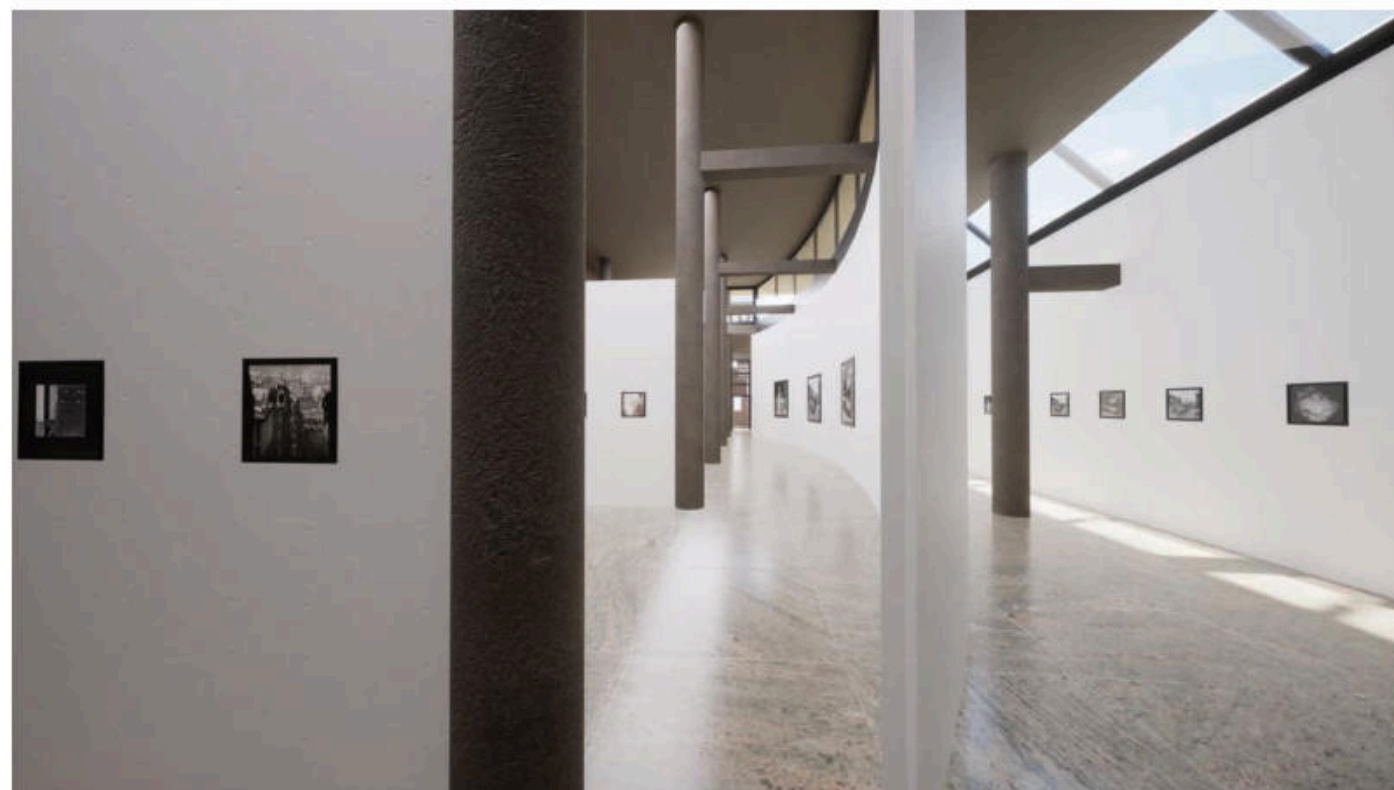
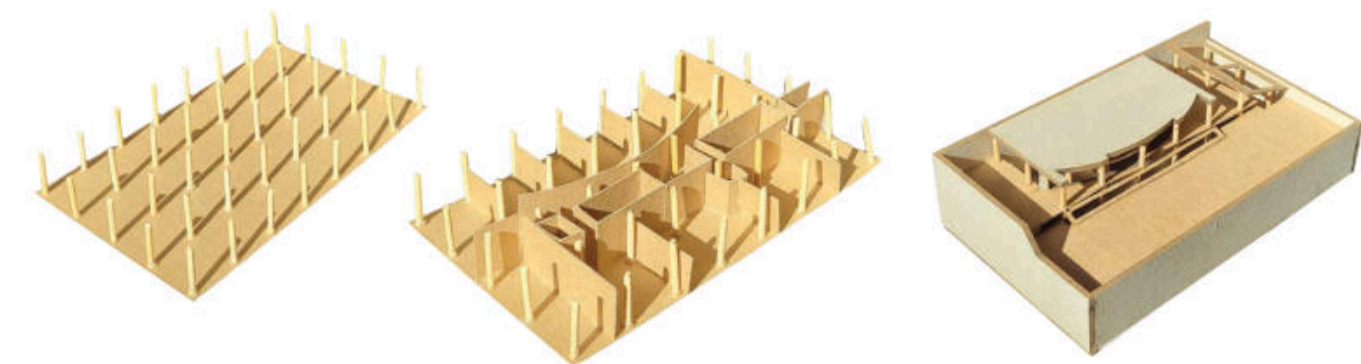
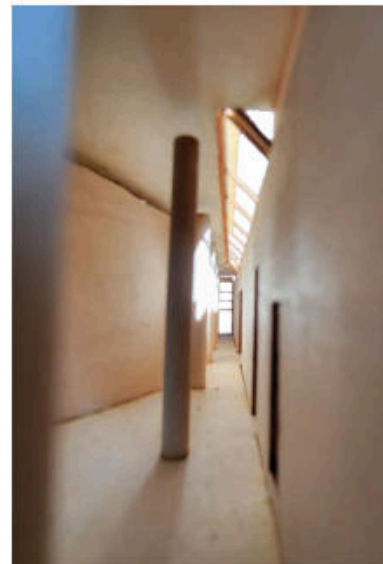
FIGURAL ELEMENTS



INDIRECT LIGHTING



SLOT CONDITIONS



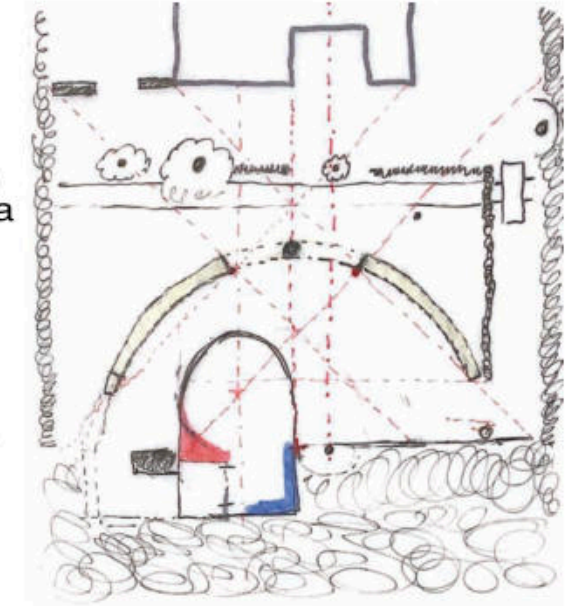


TEA HOUSE

The program called for the design of a Tea house in the backyard of a residential house. The provided residential site was surrounded on all sides by hedges, had a small stream flowing through, was adjacent to a forest area and had a single existing tree on the site.

The goal of this exercise was to formally design the tea house to fit into the existing site, utilizing a list of provided ingredients and a yellow wall as an added design element. The tea house itself was to serve only as space only to drink tea, with some minimalist storage space and no furniture of any kind.

One last requirement which affected the design of the tea house was the requirement of certain colors for specific ingredients in the design. the way in which we utilized these colored ingredients was left up to us.



List of Ingredients

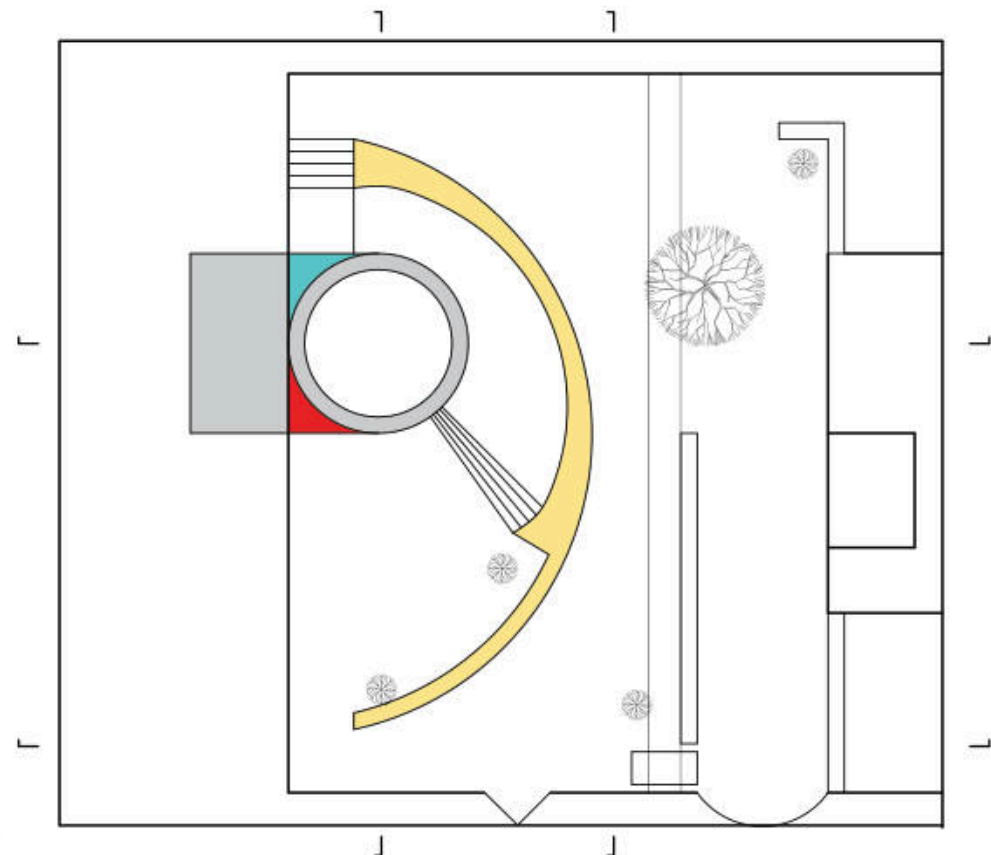
- 1 entry door
- 90 feet minimum of tube steel
- 1200-2000 square feet of light grey wall.
- 1 yellow wall of any size
- 1 blue storage unit
- 1 red tea cabinet
- 5 cedar trees
- 120 linear feet of hedges
- No furniture



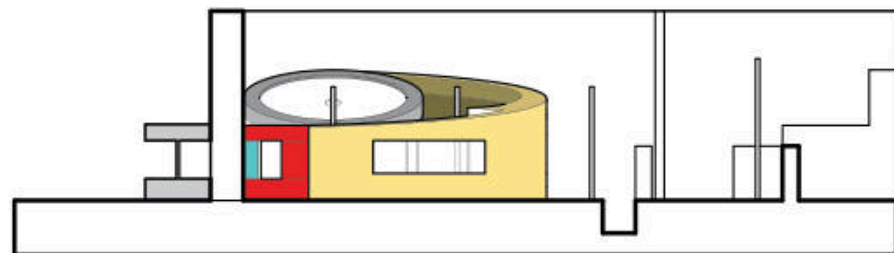
The design of this tea house stemmed from the investigation of the regulating lines, centers and alignments present on the site provided to us. The design and placement of the tea house was to serve as an abstract teapot on a plate, cut into the hedges of the backyard. The tea house then sits as a clearly defined object in the site, and within the space created by the yellow wall. The placement of the colored elements were designed so that there is an element of reverse atmospheric perspective in the entry condition, as is shown in the elevation



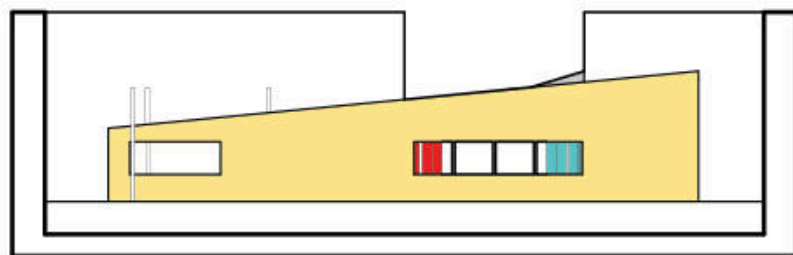
SITE PLAN



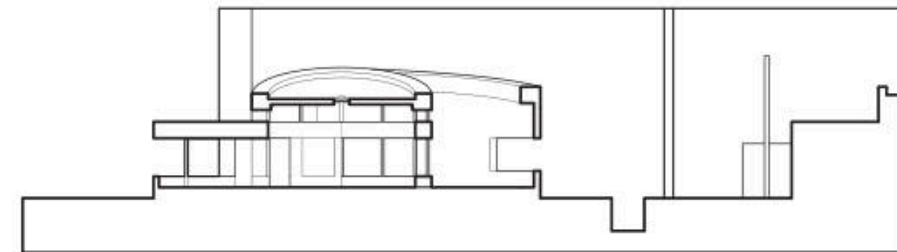
SECTION



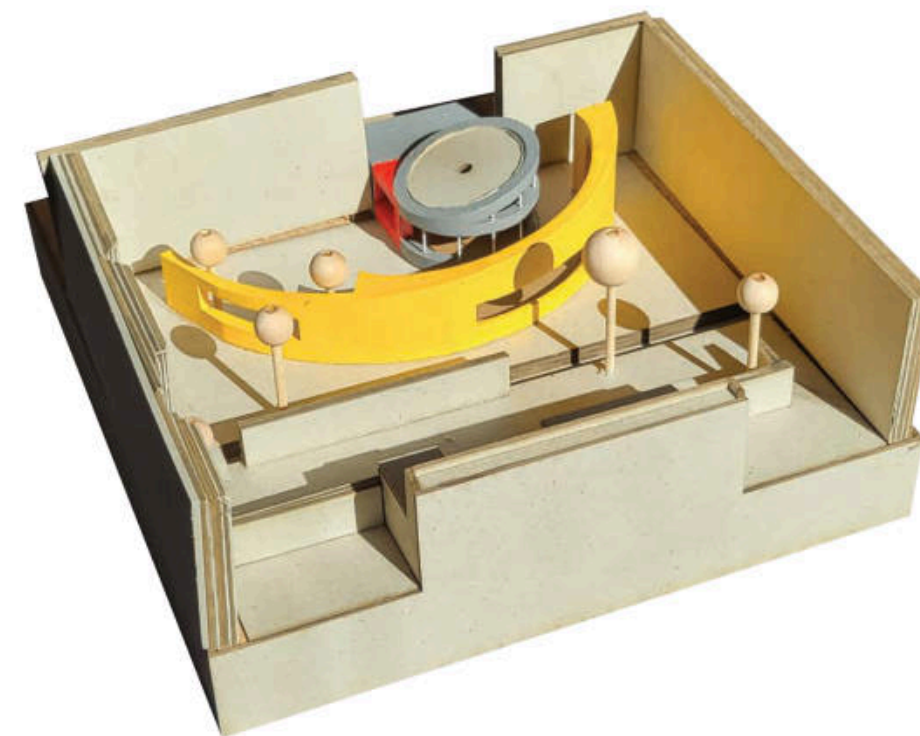
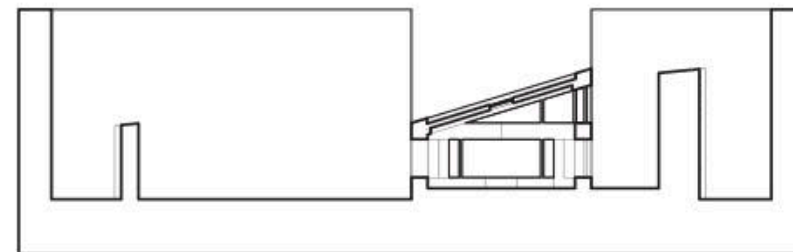
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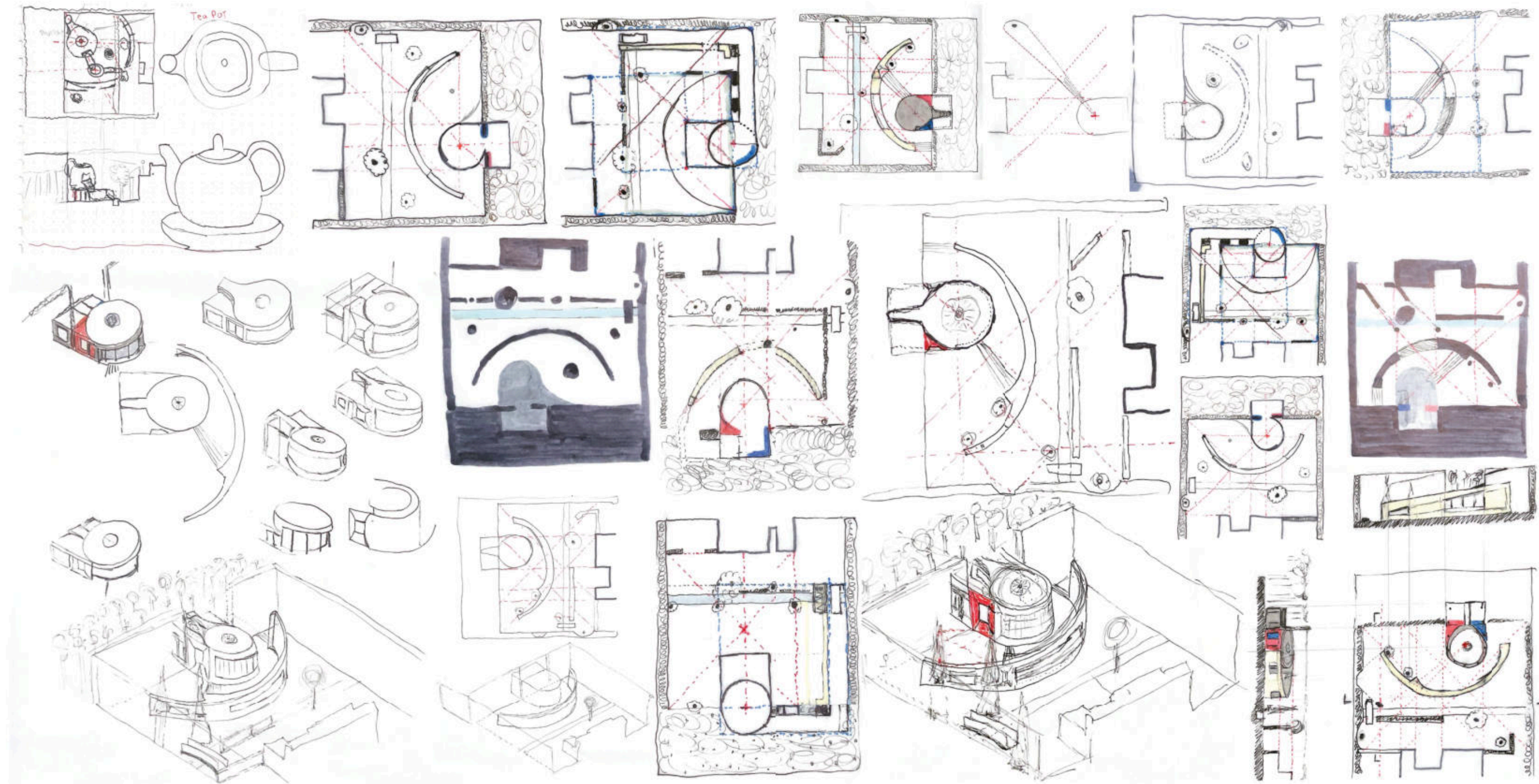


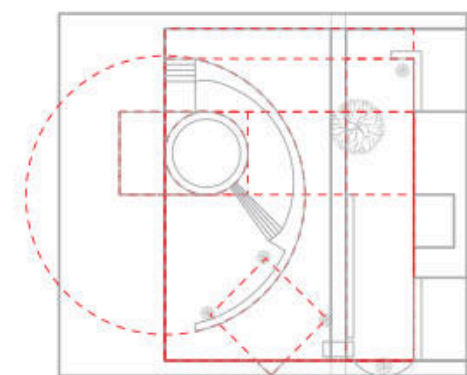
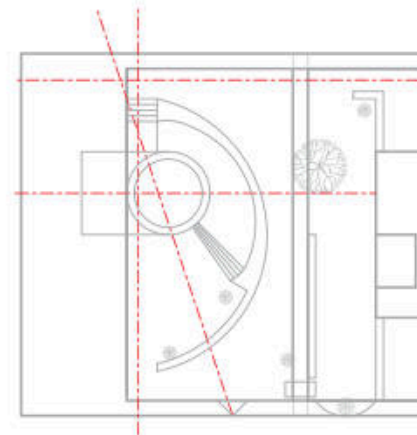
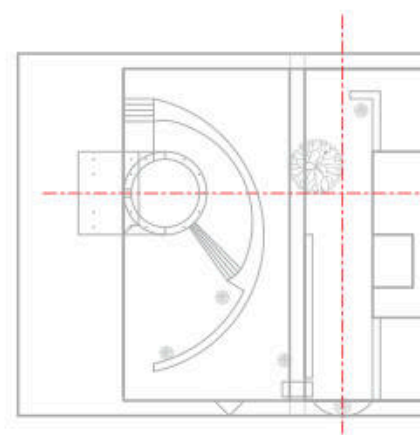
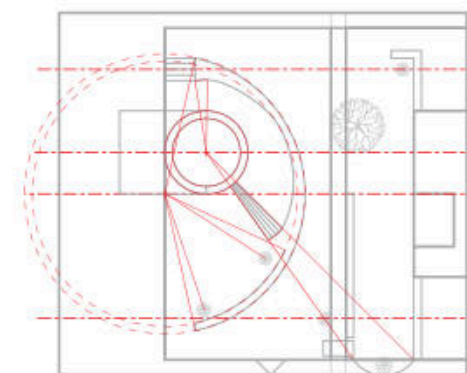
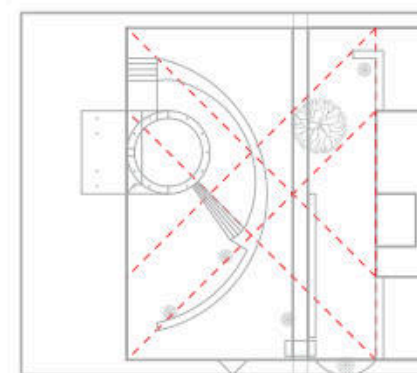
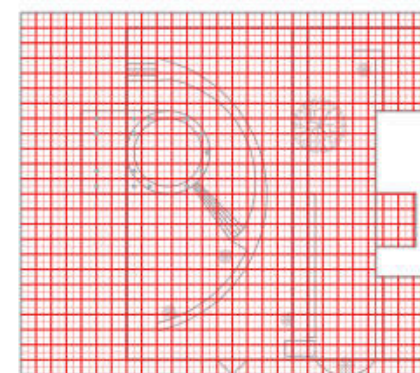
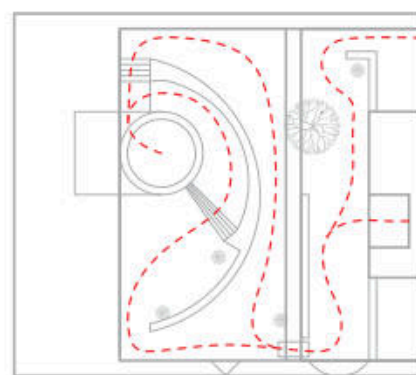
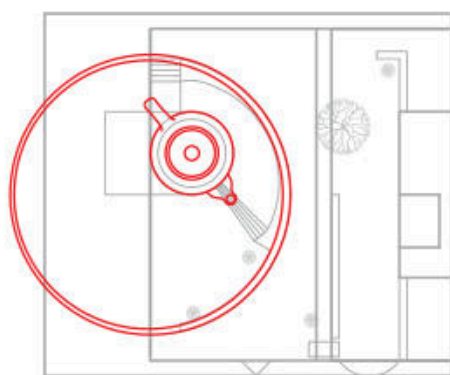
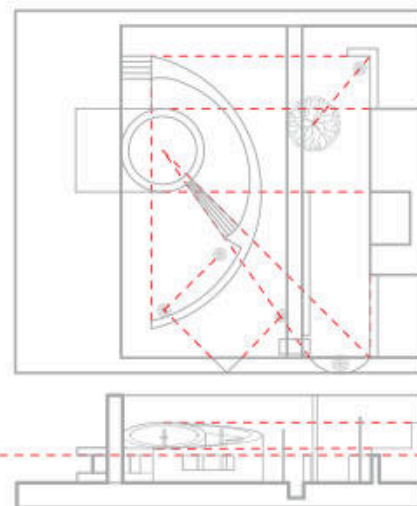
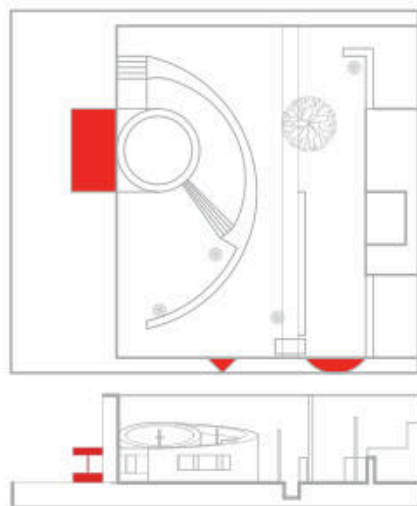
SECTION



SECTION



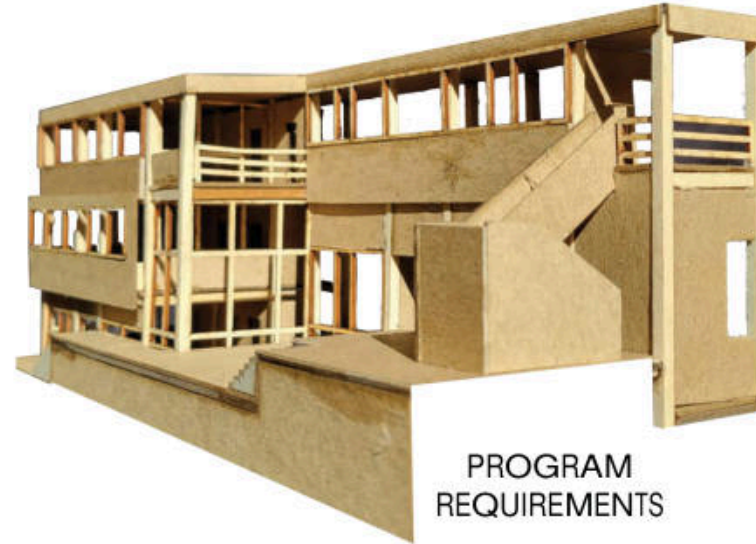






ARCHITECTURE OFFICE

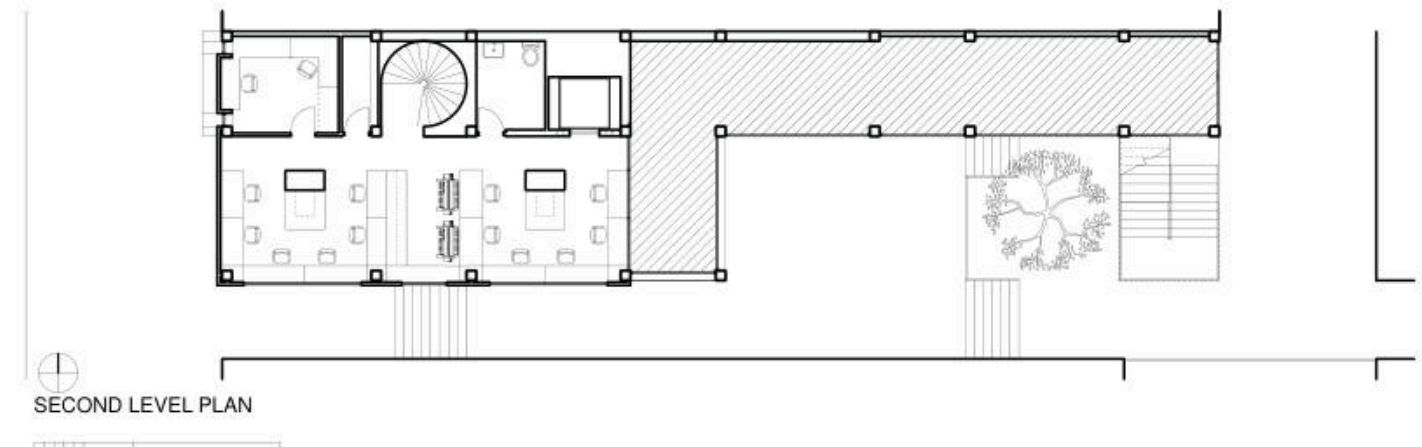
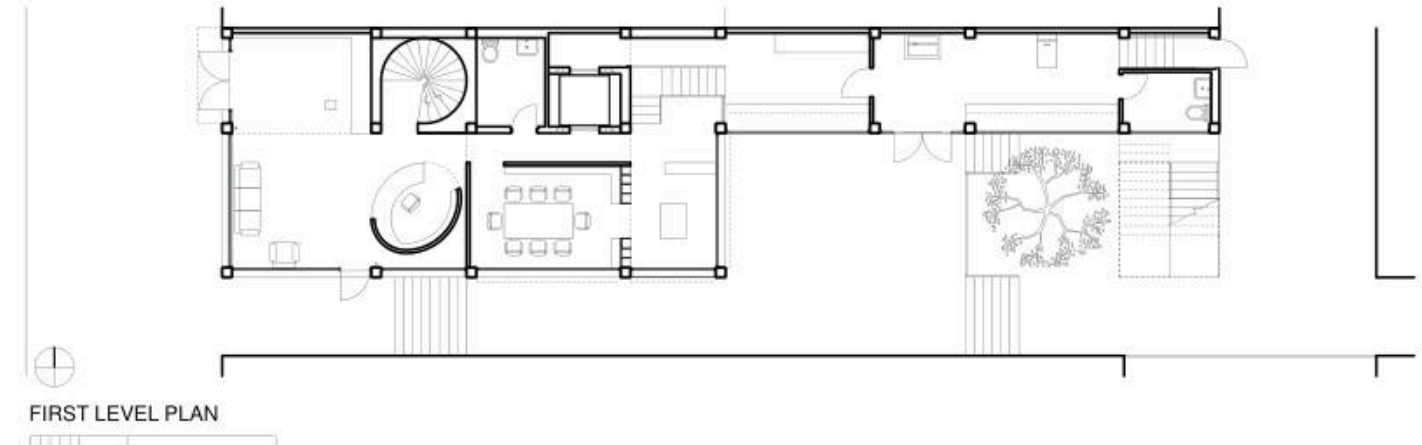
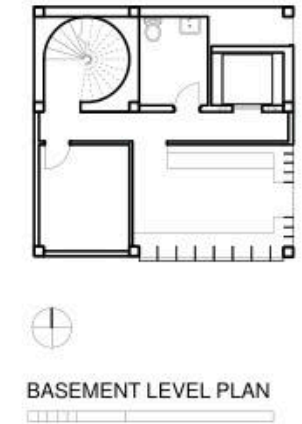
The program called for the design of an architecture office as an infill condition, with a provided typical site and list of general requirements. The infill site is a common condition found when designing projects in the New-York City area.

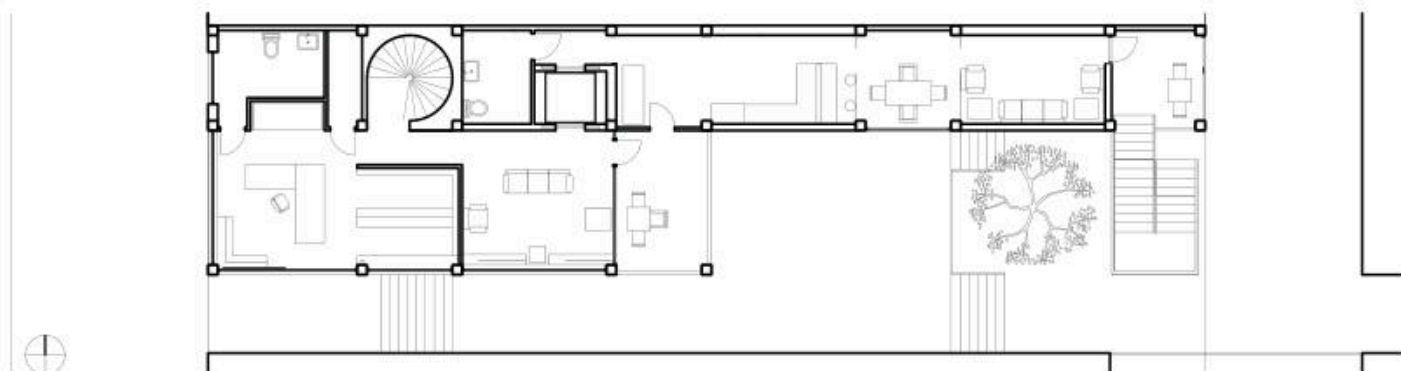


- Entry with Reception, display wall and seating
- Meeting room/Library with storage space
- Personal Office/studio with lounge, storage and water closet
- Studio space for 12 workstations, plotters and shared workspace
- Workroom for two staff members
- Model Shop with laser cutter, table saw, work bench, shelving, etc.
- Storage and Utility room
- Staff Lounge
- Exterior spaces
- ADA accessible

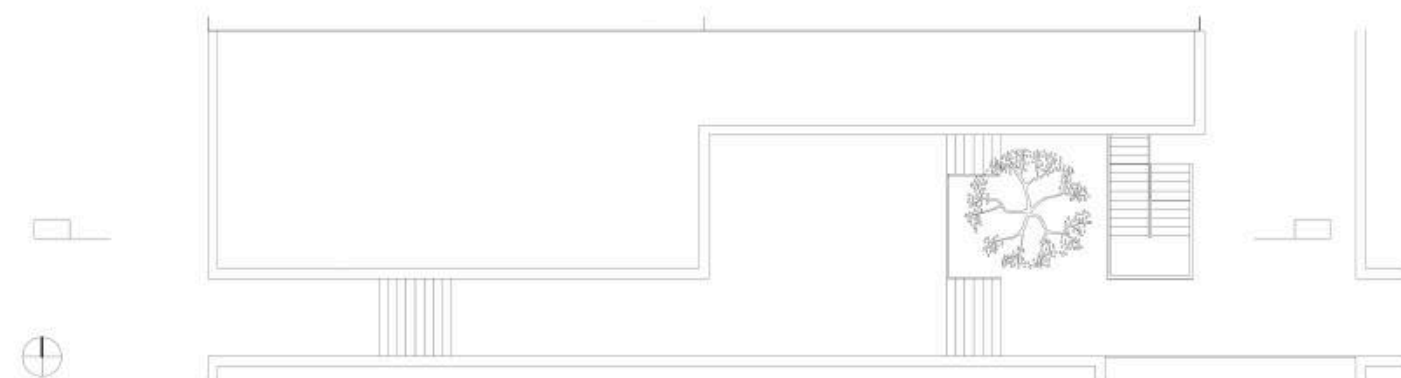
From the initial design phase of the project, we were called to consider how the structure would serve as a face to the city streets, how the structure could be realized in the facade, and how it would address natural lighting conditions in a condensed space. The sloped condition of the site, the need for a separating party wall from the neighboring building, and the limited space we could use in the rear yard effected the shape of the floor plans the most in this project.

This structure was designed utilizing the modular system, which guided the organization and proportion of this structure in plan, section and elevation. The limitation of utilizing only 35% of the rear yard helped guide the design of a defined courtyard space, along with the views and lighting conditions that each space could receive. The requirement of square columns led to a type of structure vs skin approach to the exterior facade.





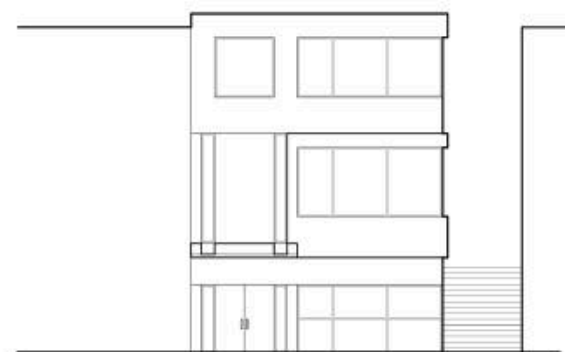
THIRD LEVEL PLAN



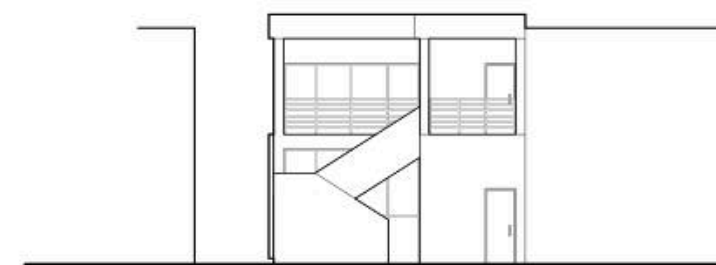
SITE PLAN



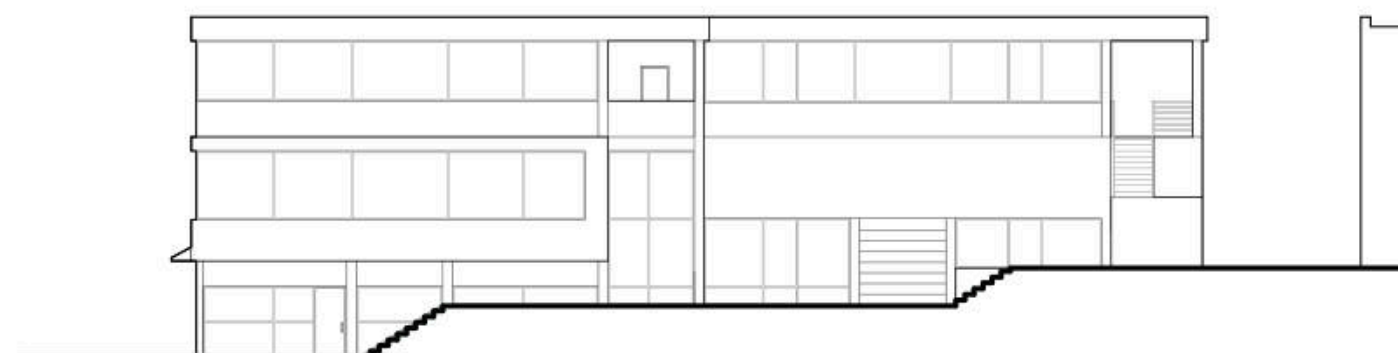
SECTION



WEST ELEVATION

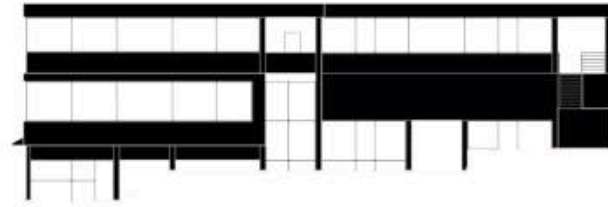


EAST ELEVATION

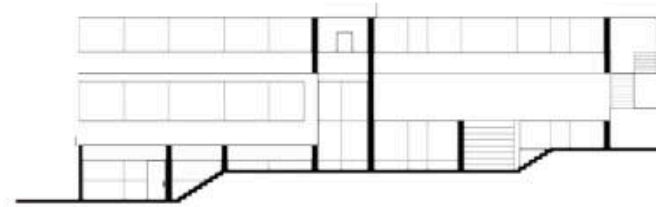


SOUTH ELEVATION

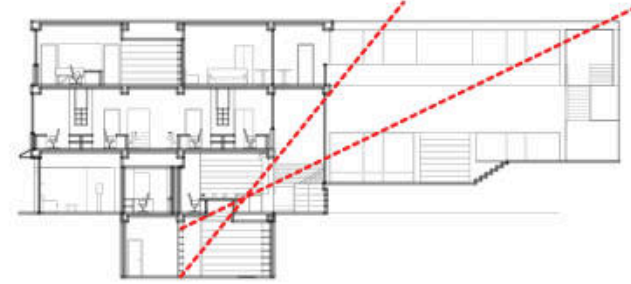




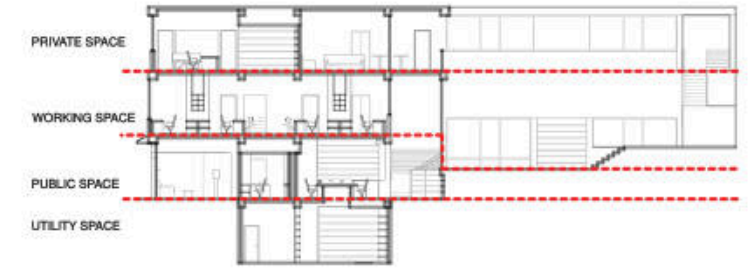
SOLID VS VOID



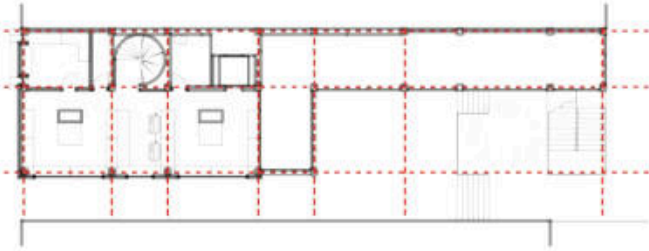
WALL VS FRAME



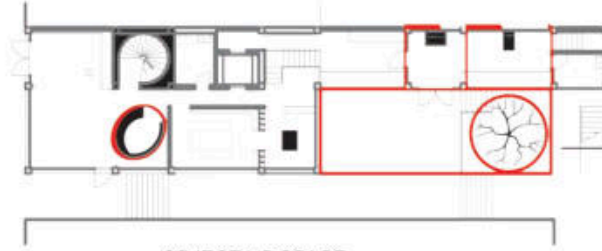
NATURAL LIGHTING
CONDITIONS



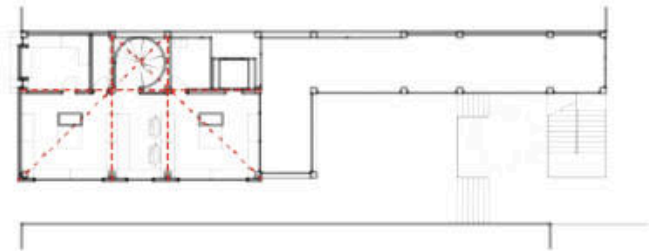
SPATIAL ZONING



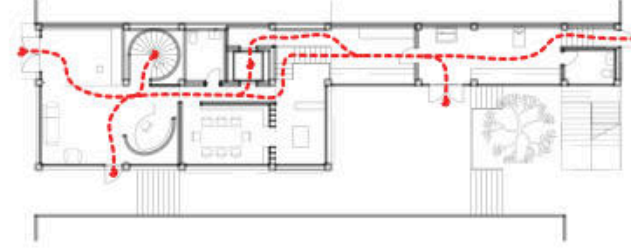
GRID/PROPORTION



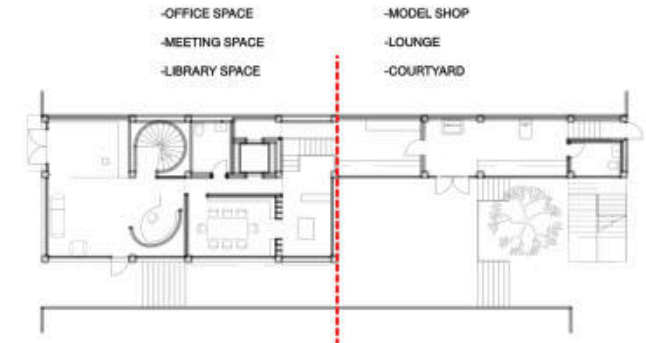
OBJECT VS SPACE



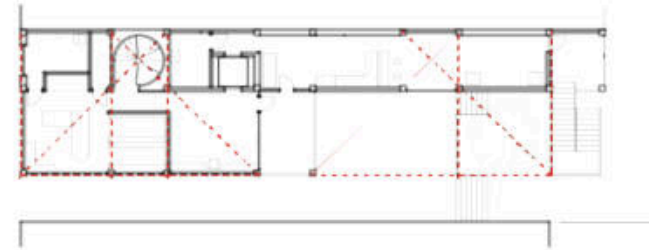
CENTRAL OPEN SLOT CONDITION



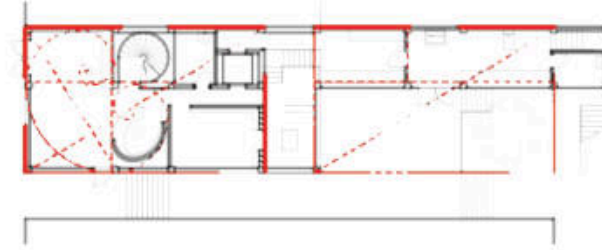
CIRCULATION



SEPARATION OF SOUNDS



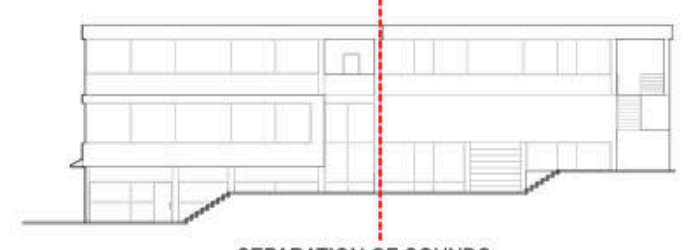
GRID/PROPORTION



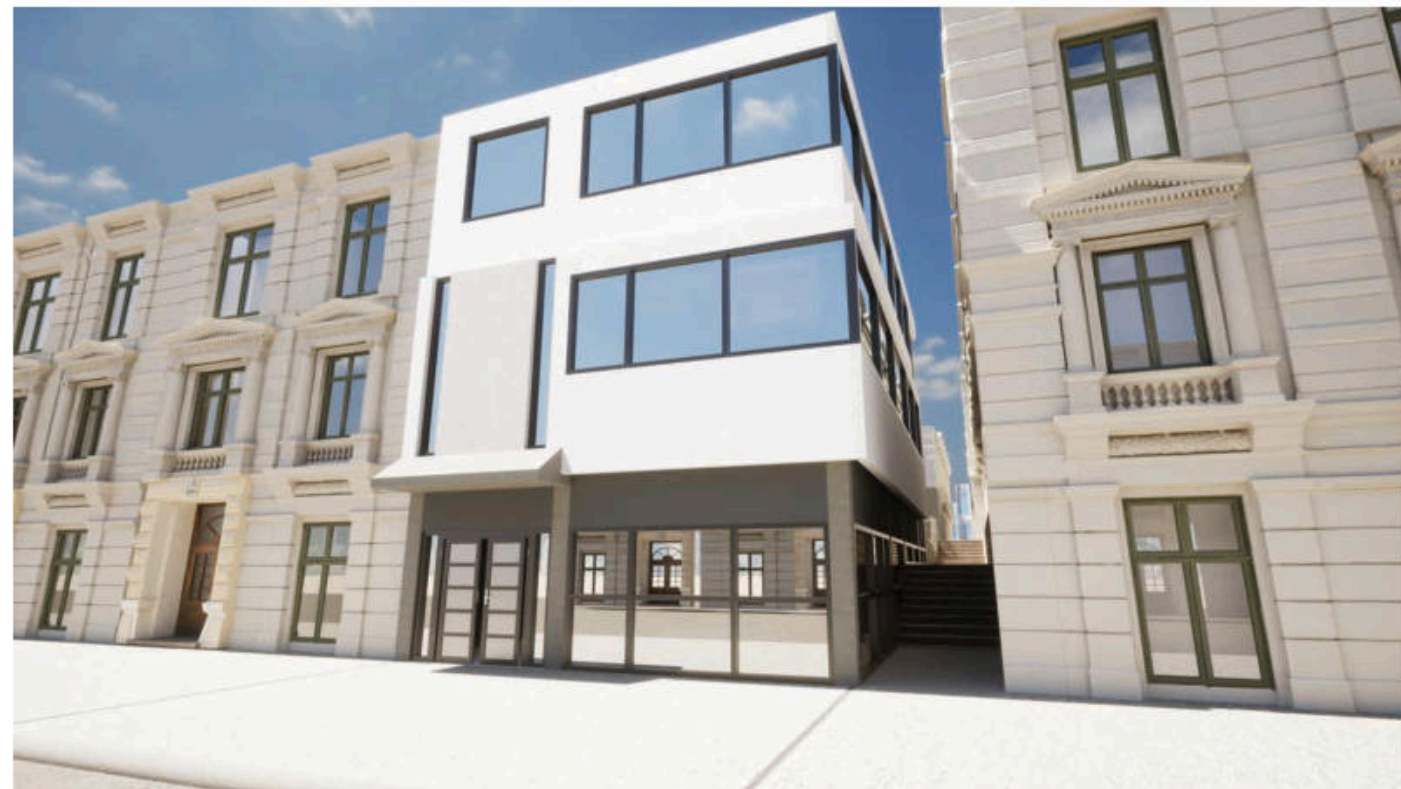
GOLDEN MEAN



CIRCULATION



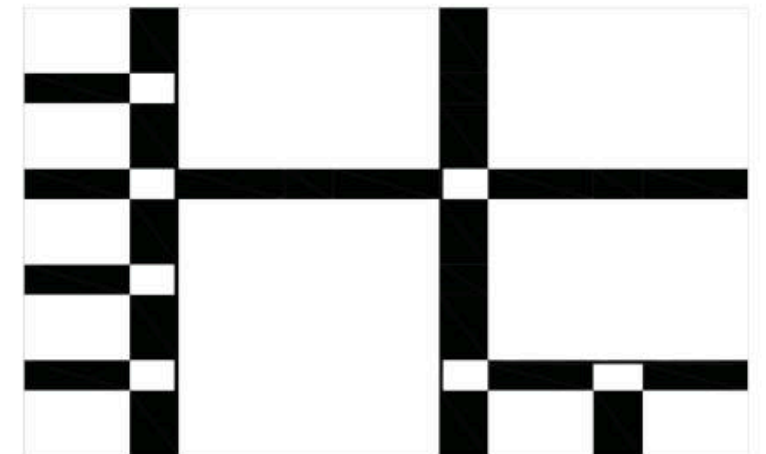
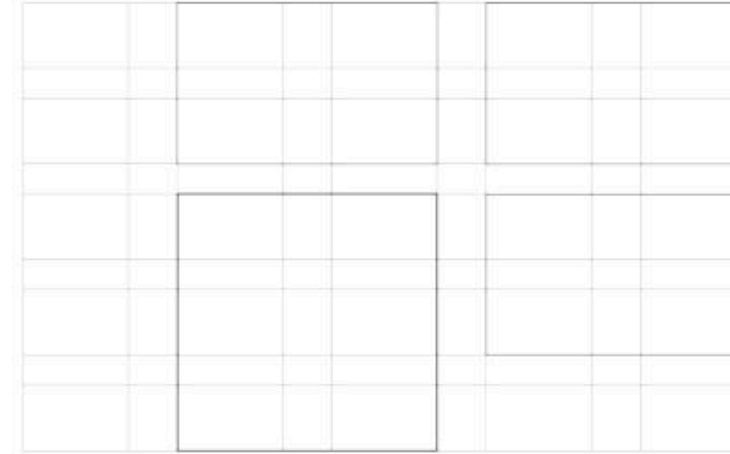
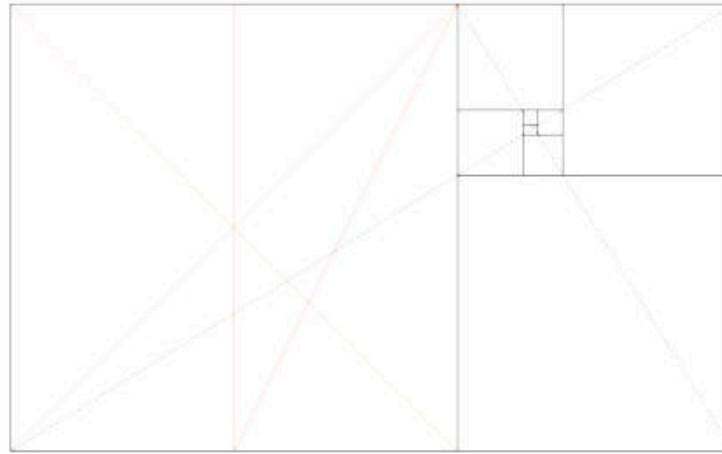
SEPARATION OF SOUNDS



Archeological Site

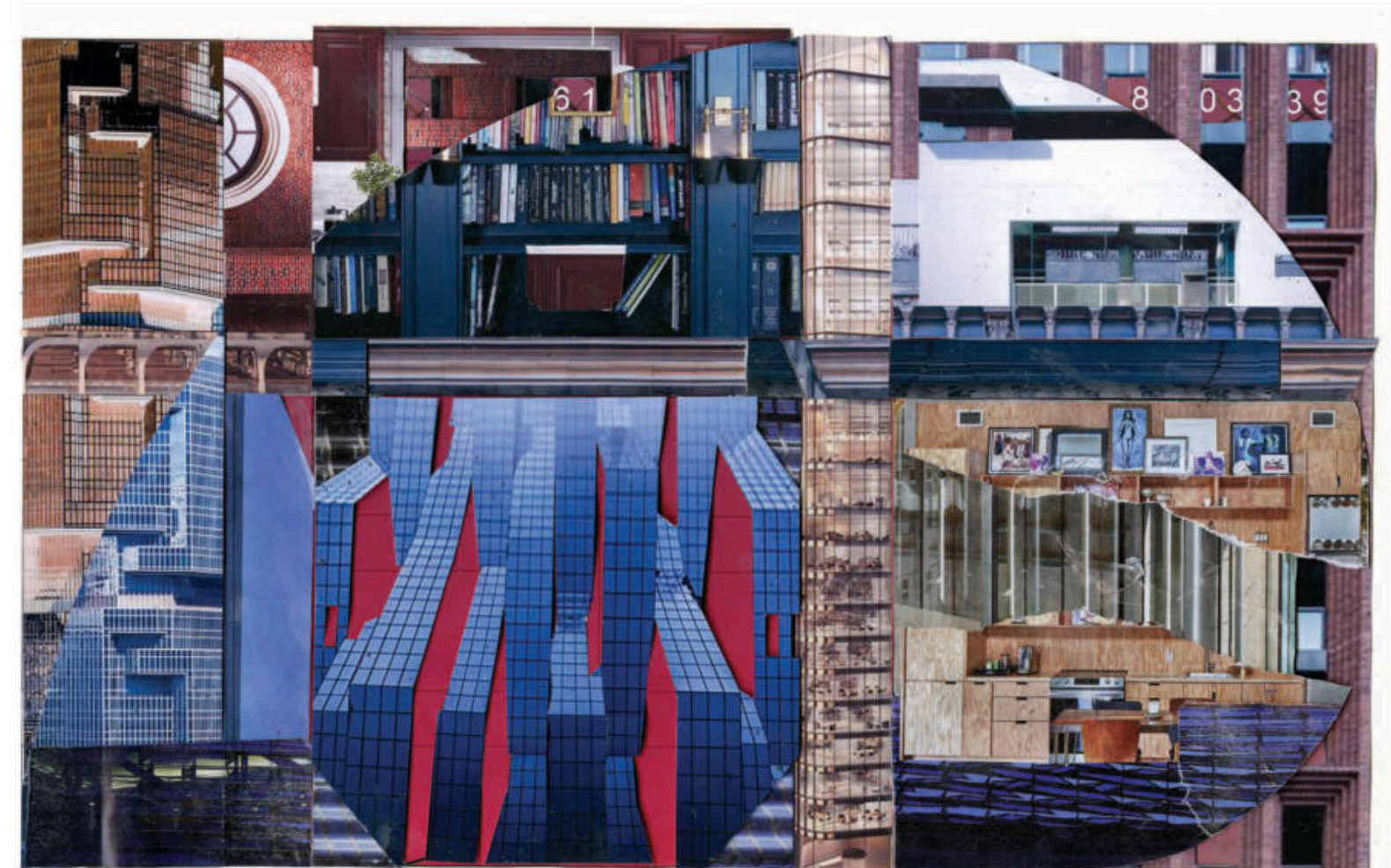
Second Year - Fall Semester

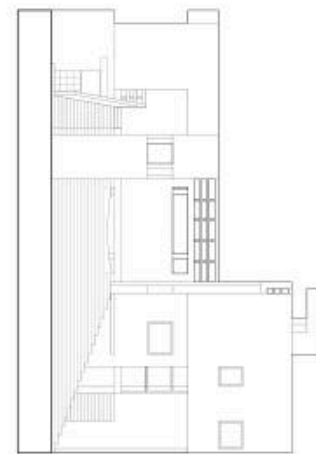
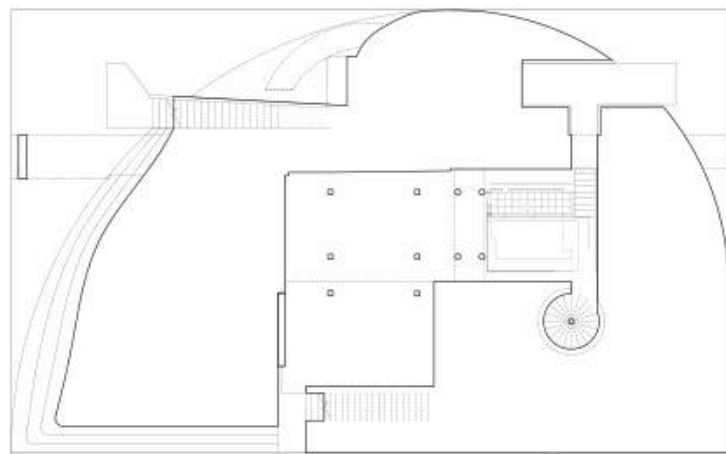
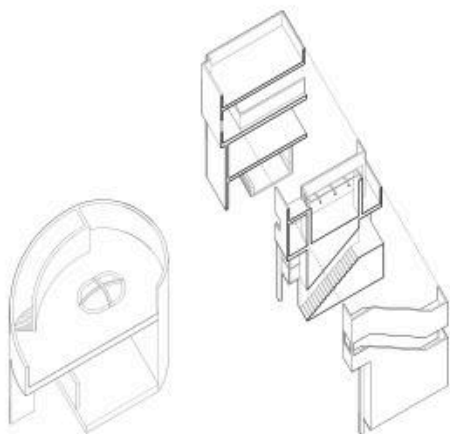
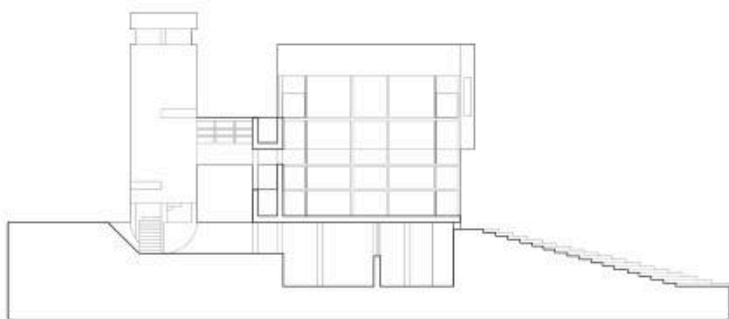
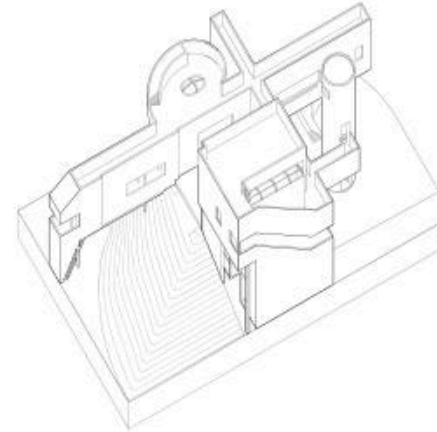
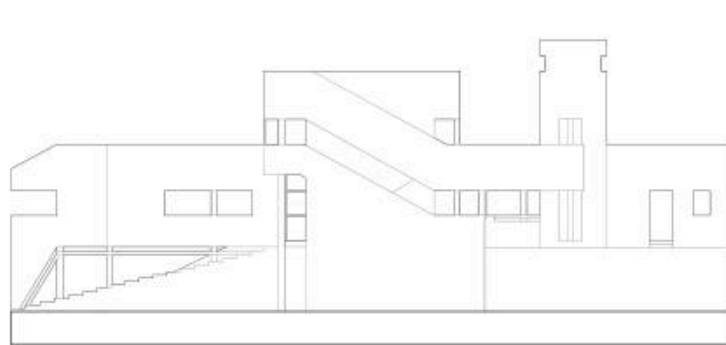
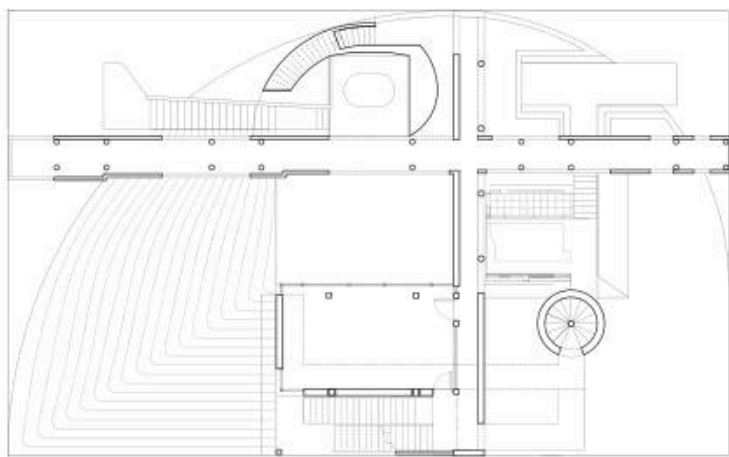
Professor - Steven Quevedo

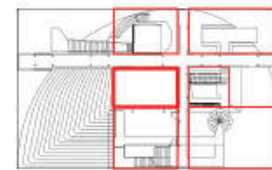
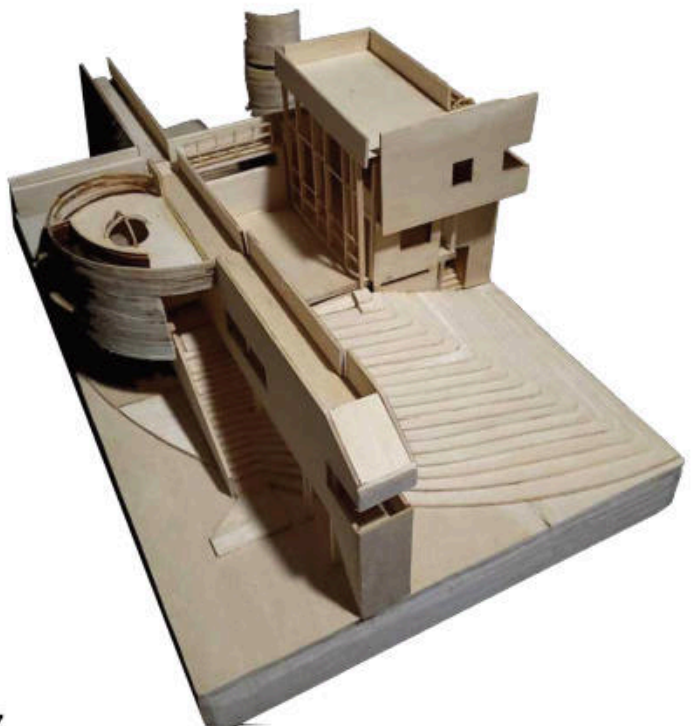


Design Process and Concepts

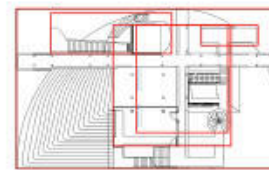
This studio was where I was first introduced to many modern and post-modernist concepts. The projects were derived from grids and fields developed through the use of the golden rectangle and the modular system. To develop spatial and unique organization ideas, we developed collages that would evolve into bas reliefs and later into our project organizational plans. The main project at the end of this studio was the Archeological site, which was the culmination of all the work we had done prior. In addition to being a continuation of the prior bas relief and model design, the project sought to be an archeological site of the precedent we studied, which in this case is the Delray Beach House by Anthony Ames. The constraints of this project were to design within a specific site, utilizing a specifically proportioned X-Y wall which utilized the Modular system. We were to design and place an Exhibition structure for our precedent building, and art gallery for our precedent painting, and a tower.



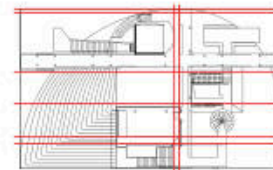




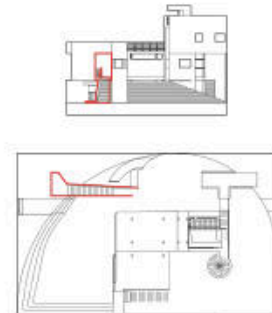
HEIARCHY



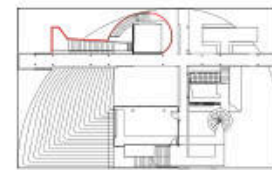
OVERLAPPING FIELDS



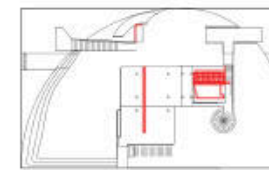
SLOT CONDITIONS



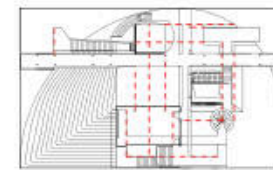
ENTRY CONDITION



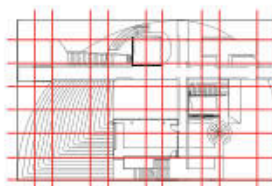
CUBIST PAINTING ELEMENTS



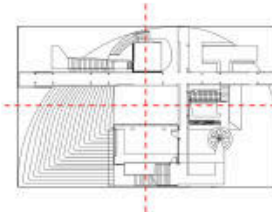
HISTORIC PRECEDENT REVEALED



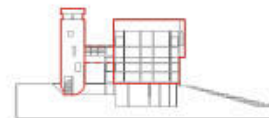
ALIGNMENTS



GRID SYSTEM



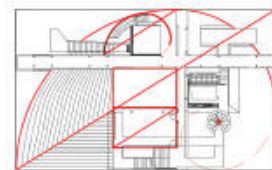
AXIAL CONDITIONS



SEPERATION OF SPACES



TRIPARTITE DIVISION



GOLDEN MEAN



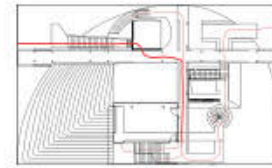
SOLID



VOID



REGULATING LINE



CIRCULATION

Precedents

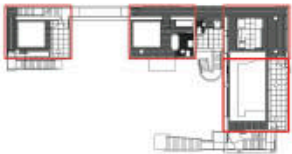
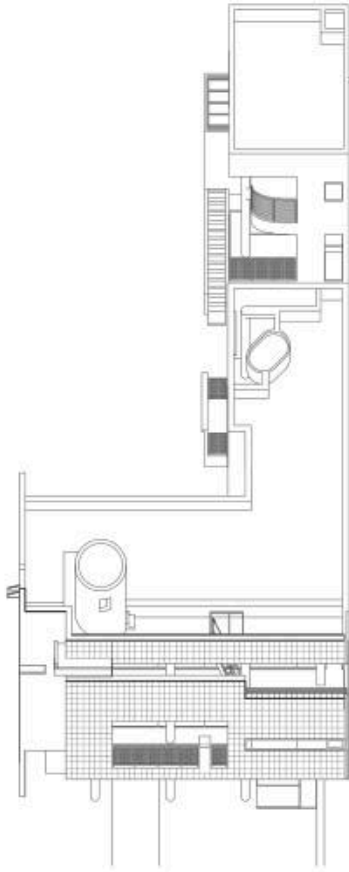
Study and Analysis



Delray Beach House - Anthony Ames

Function of Delray Beach House and Cubism Painting Analysis

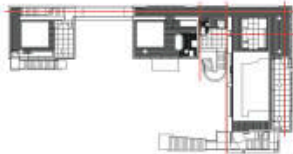
The study of these two precedents over the course of my second year fall semester helped to set the foundation for my understanding of Modern architecture. Some of these modern concepts include ideas of alignments, overlapping fields, proportion, solid-void, and grid systems. Though several professor's I've taken required us to use these concepts as a strict set of rules when designing in their studio, I would prefer to move forward by taking these Modernist concepts as a set of tools I can use when designing architecture, while still leaving myself free to consider the design of space through other styles and concepts which I may learn. In the case of the Delray Beach house by Anthony Ames, I have used it's ideas of structure and organization in two studios through my second and third year.



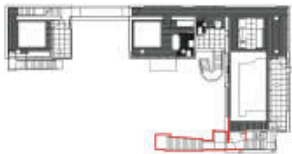
Heiarchy



Overlapping Fields



Slot Conditions



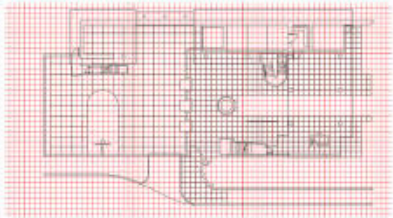
Entry Condition



Wall vs Frame



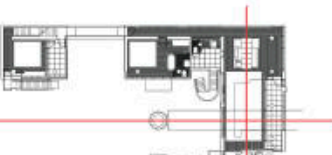
Private vs Public Realm



2' Grid System



Proportion System



Axial Condition



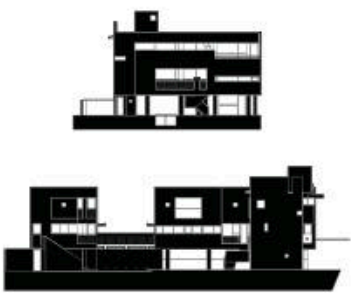
Seperation of Space



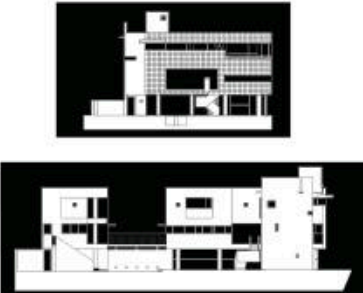
Tripartitite Division



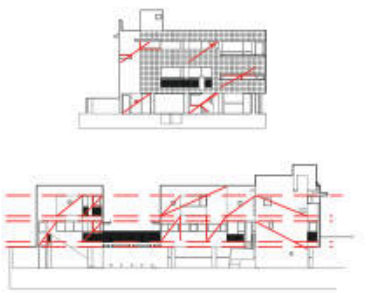
Golden Mean Units



Solid



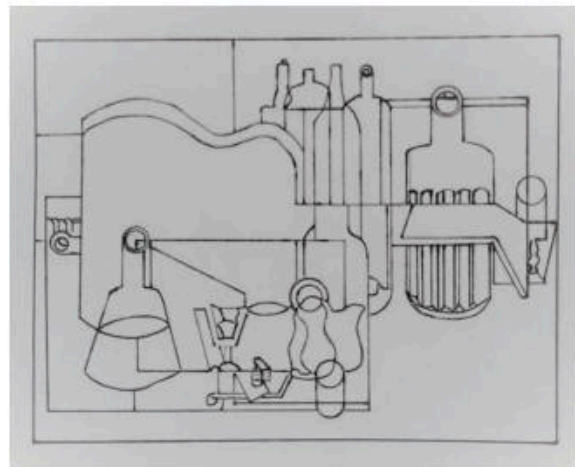
Void



Regulating Line

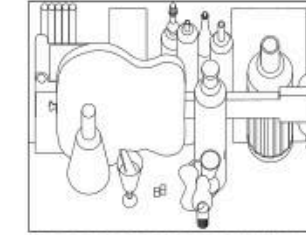


Circulation

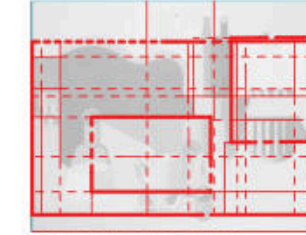


Nature Morte Independant Le Corbusier

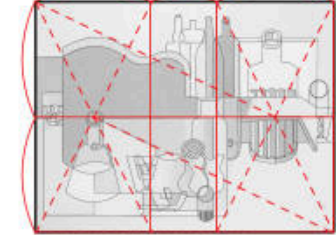
Analysis of this painting was done as a means of studying the Modernist concepts that Corbusier would then use in his work. The various ordering principles shown here can be applied directly in use of designing modern architecture, and this painting masterfully displays how many of these concepts can work cohesively together. As part of an analysis exercise, I had to take this painting and build it into a 3 dimensional study model according to the ordering principles it follows, and by designing simultaneously in plan section and elevation. From this exercise, I particularly found that designing in all views at once to be especially useful when attempting to design with cohesive connections and to create architectural space. This painting was ultimately used as a precedent for the Archeological site, borrowing ideas of form and organization.



0-90 DEGREE PARALLEL VIEW



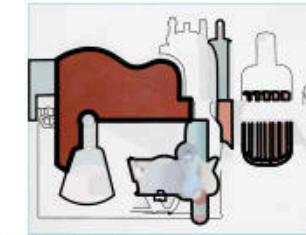
OVERLAPPING FIELDS



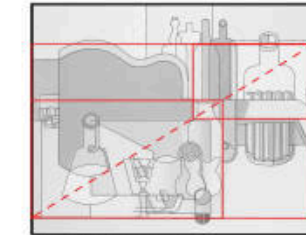
PROPORTION SYSTEM



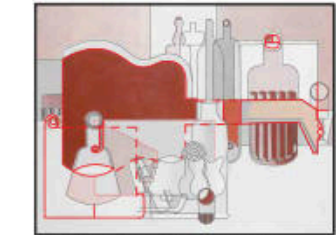
REVERSE ATMOSPHERIC PERSPECTIVE



HIERARCHY



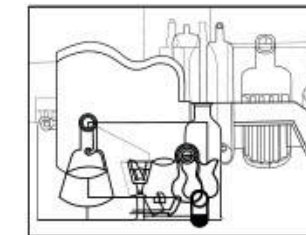
REGULATING LINE



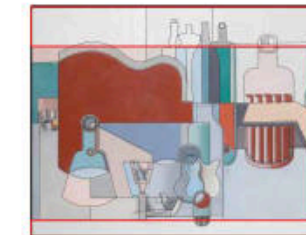
INVERSION OF OCCLUSION



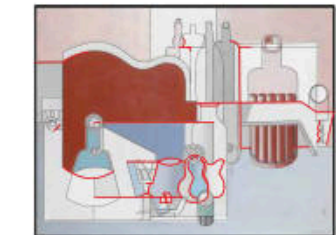
TYPES OF BLUE



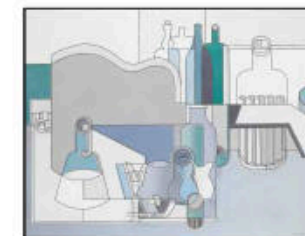
LAYERING



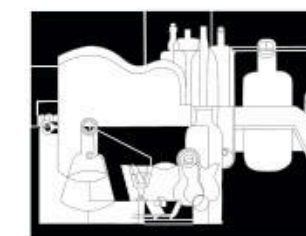
RESIDUE



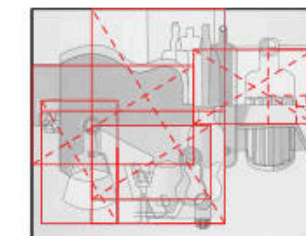
FALSE ATTACHMENTS



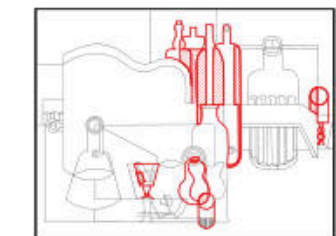
TYPES OF RED



VOID SPACE



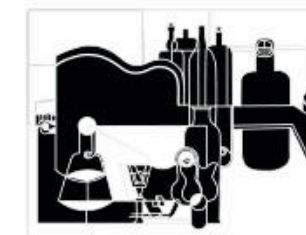
GOLDEN MEAN REINFORCED



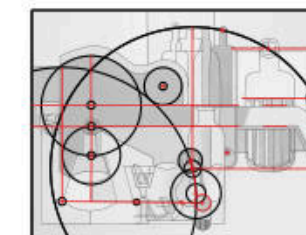
LITERAL TRANSPARENCY



VARIANCE OF SATURATION



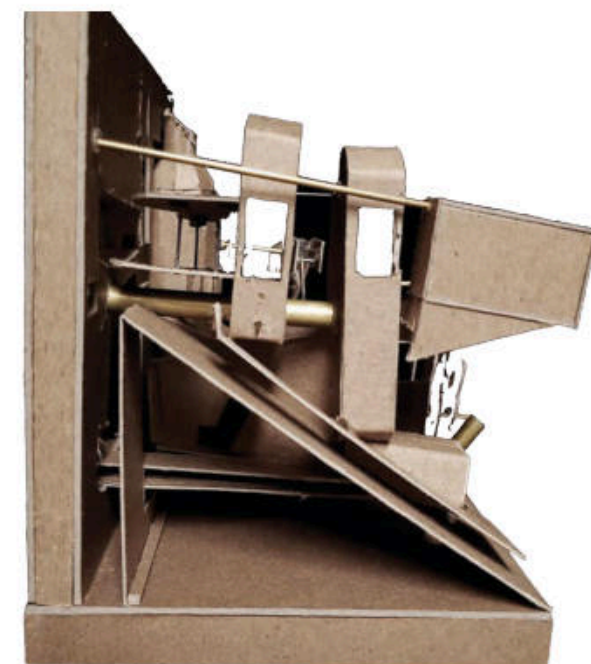
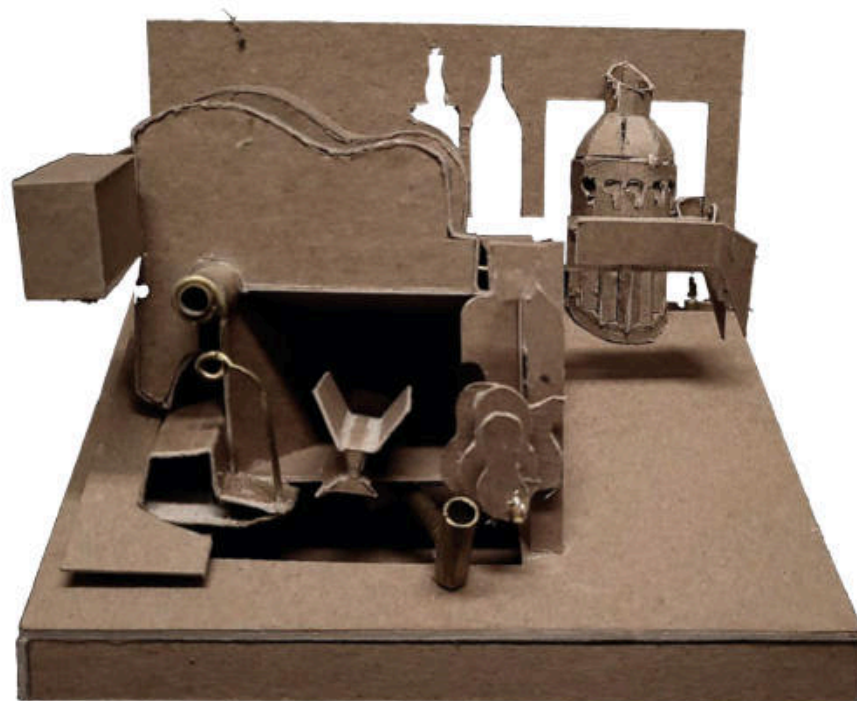
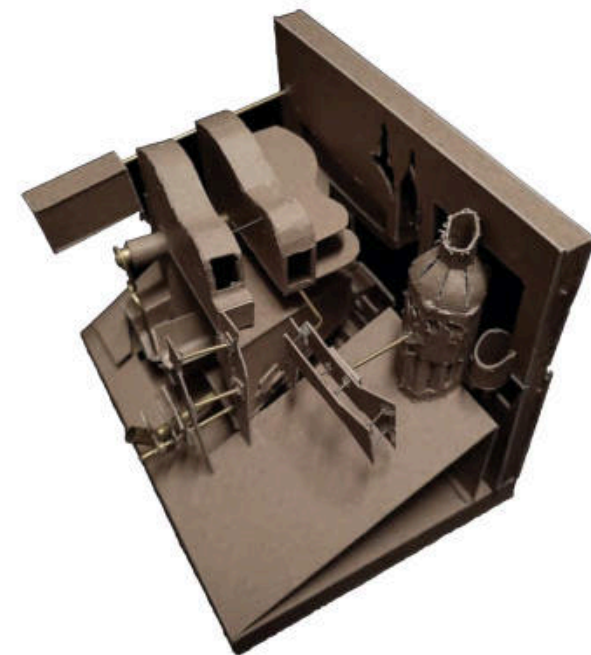
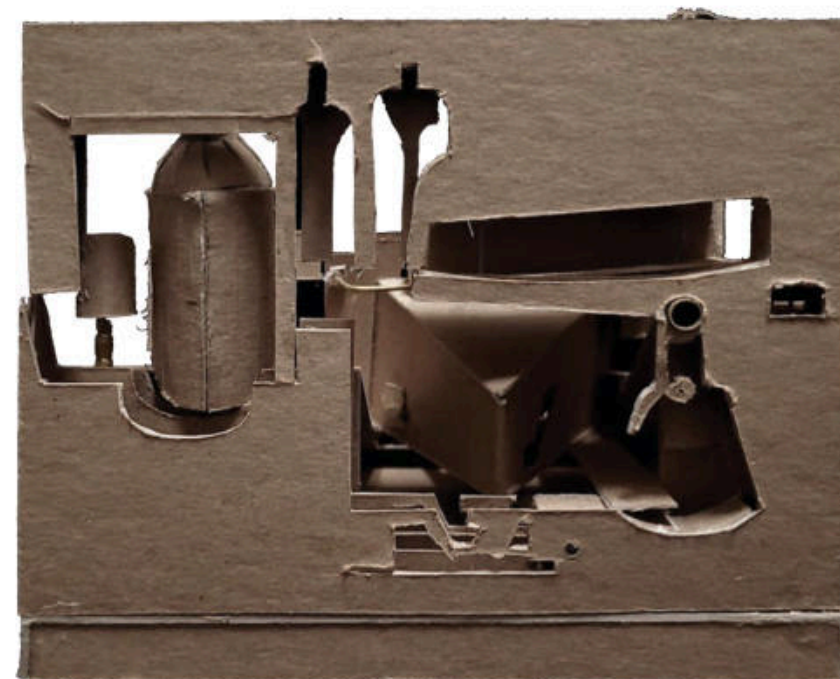
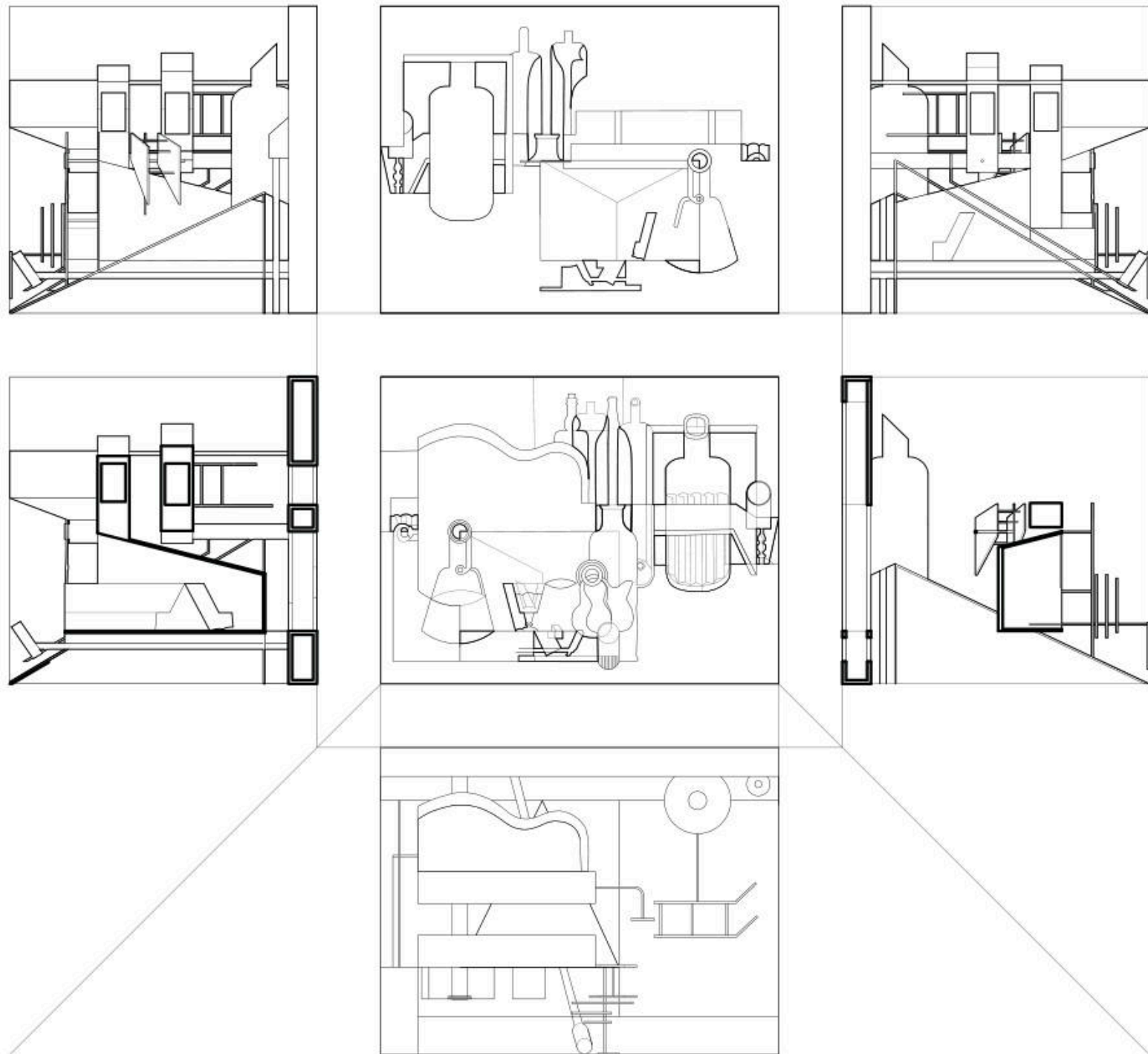
OBJECT TYPES



CENTERS AND SEPTUMS



MULTIPLE VIEWPOINTS



Form to Fabrication

Design - Build Projects



Overview

Through electives and personal projects, there have been several forms and objects which I designed digitally that I had to figure out how to fabricate in real life. Some of these projects are sculptural in nature and were done as a fabrication study, going from form in Rhino into real material. Other form to fabrication projects include watch dial design, a subtraction model, and even this portfolio cover. Ideas of exploring fabrication of uncommonly shaped architecture are shown in the sculptural pieces which utilized sectioning and module tessellation as a method of construction.

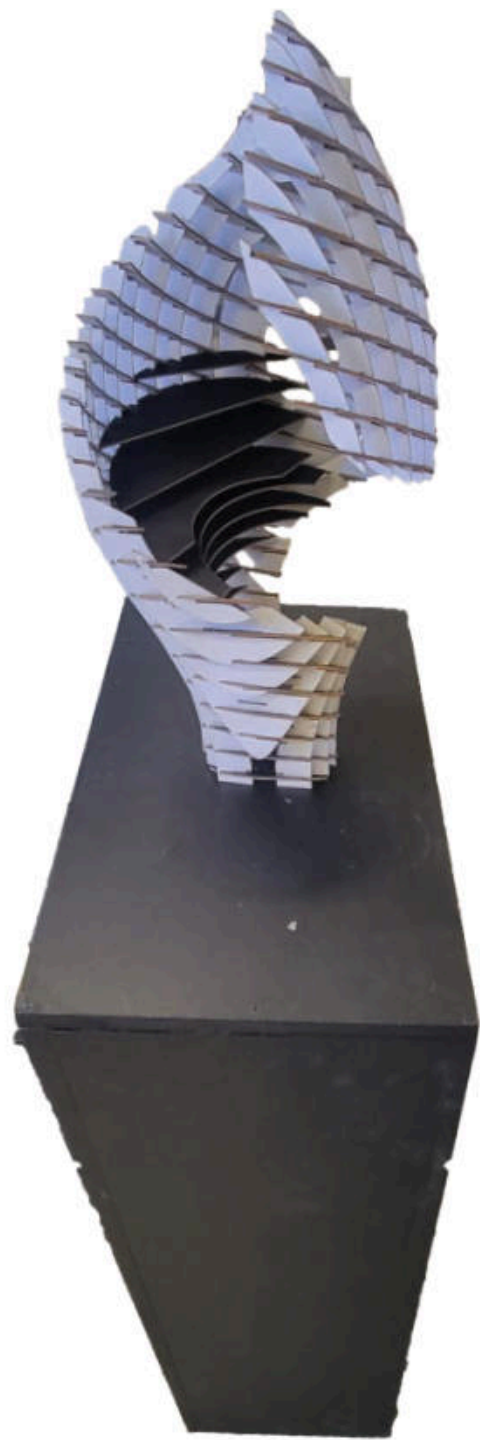
Section Model

Digital Fabrication Elective

Section Model Process

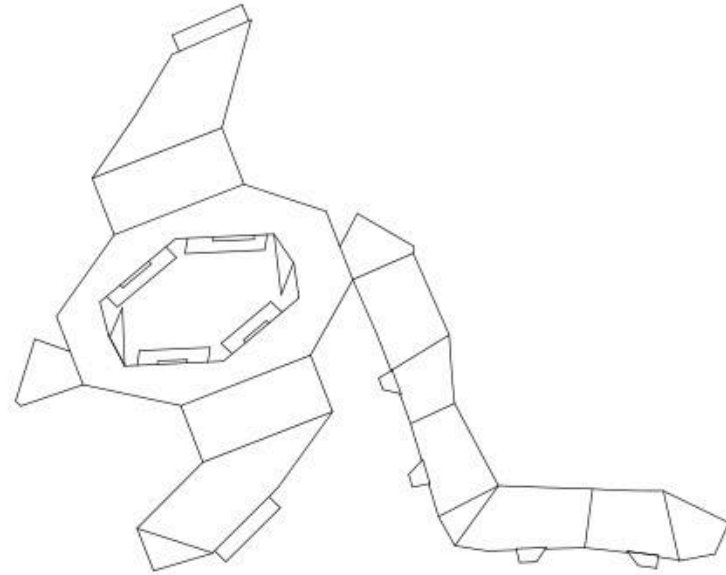
This model was a product of a digital fabrication elective, where we were simply instructed to come up with a form and fabricate it using a sectioning method we learned through course workshops. The model itself was designed as a sculpture for capturing space and sectioned in a way that makes the most of the form and rotation. I initiated ideas of form-finding through Midjourney, which led me to designing the form that is shown here. Through the course workshops, we followed a process through rhino and grasshopper where we sectioned the model form, cut interlocking notches from the sectioned pieces, labeled each of the pieces, and layed them out in two dimensions for the pieces to be laser cut precisely. For this particular model, a contrasting black and white museum board was used so that the model would give a different user visual from all angles and sides.





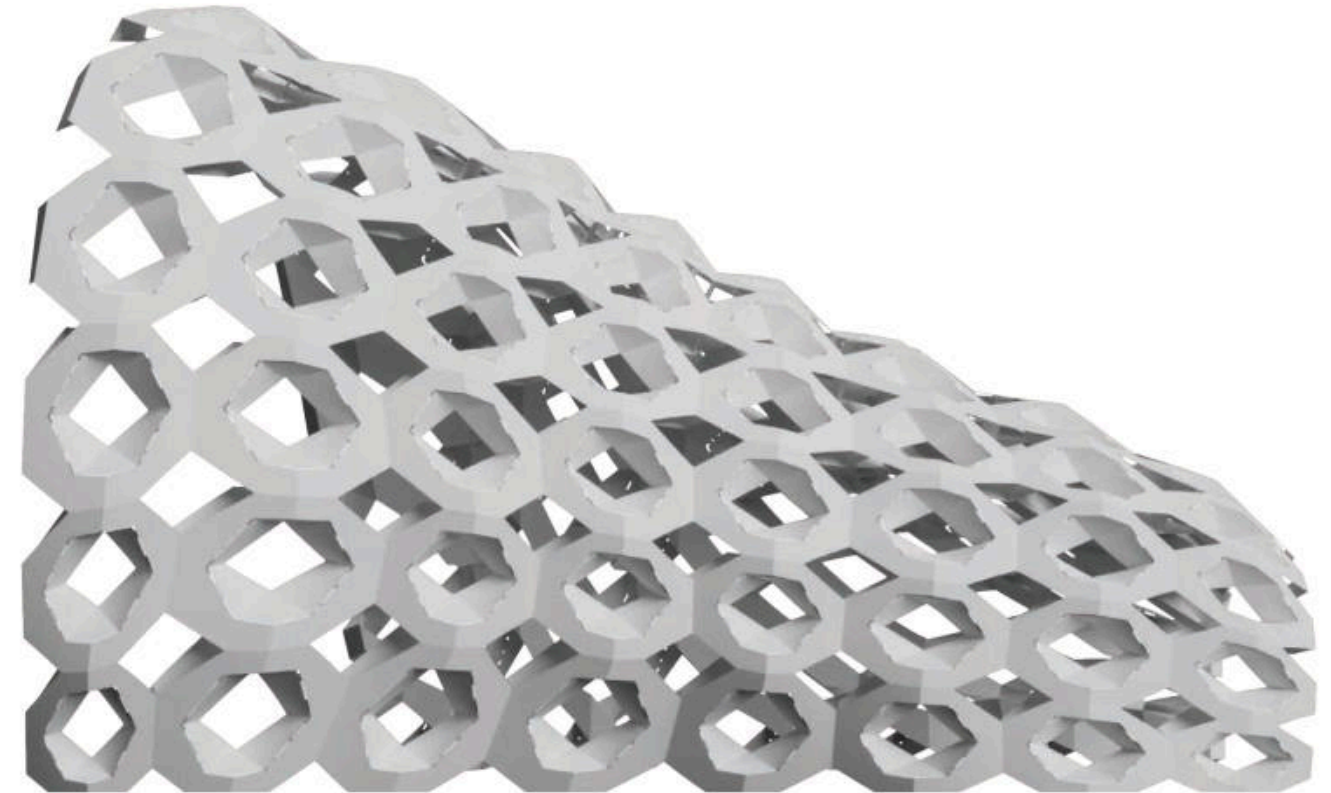
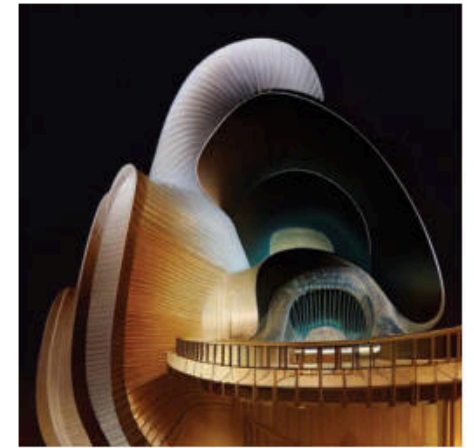
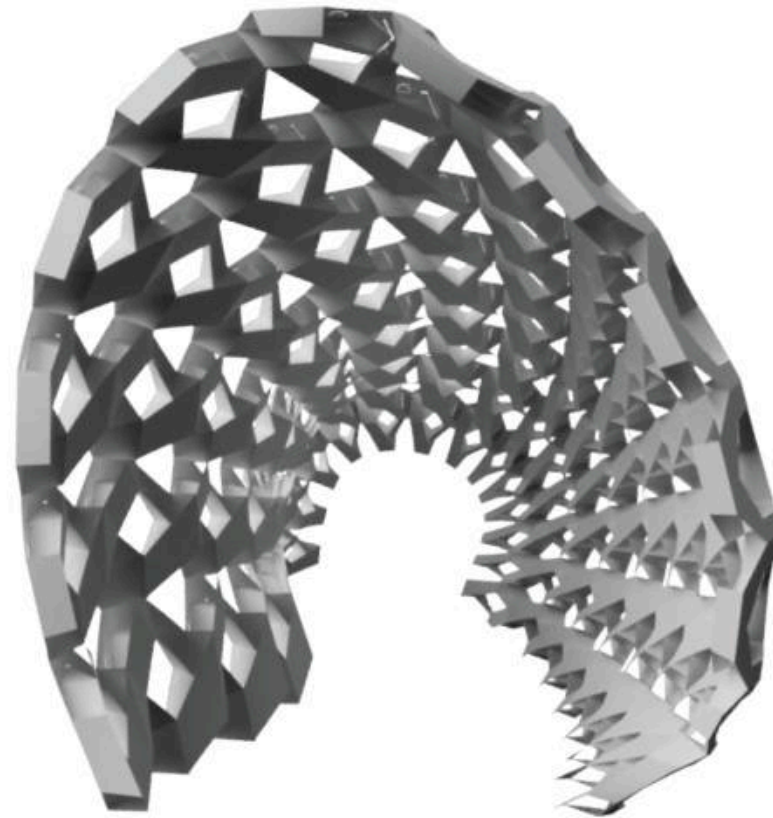
Tessellation Model

Digital Fabrication Elective



Tessellation Model Process

As with the section project, we were tasked to take whatever model or form we wanted, but now we had to construct it with the use of tessellated modules. The modules themselves were an element which we had to design, which effected the assembly and structure of our created form. In the case of this project, the modules have been designed to create depth both on the interior and exterior of the form. The modules were also designed with a tab system and etched folding lines, which greatly increased efficiency and ease of assembly once the pieces were laser cut. The design of this sculptural piece was partially thought out through Midjourney, with inspirations of following the form of the Cochlea.

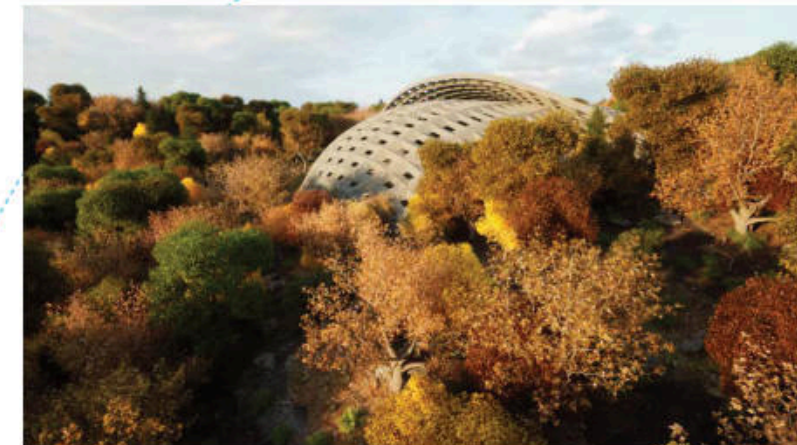




Catenary Structure

Digital Fabrication Elective

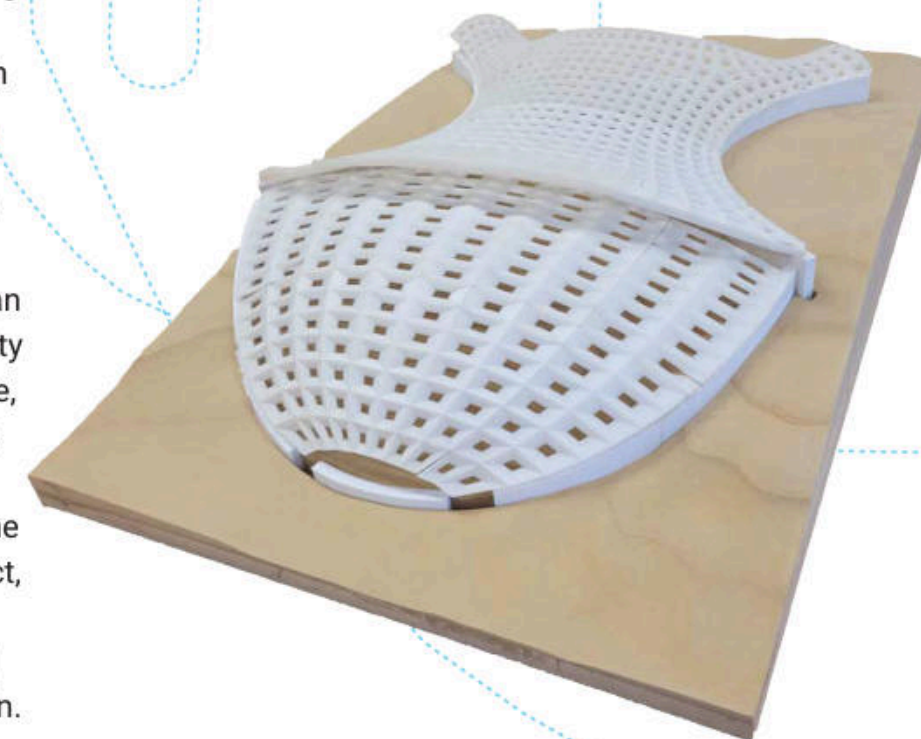
Group Members:
Salomon Alcantar
Emily Morales
Adrian Romo
Michael Kintzinger



Catenary Structure Process

This final project in the digital fabrication course was to create a catenary form using the kangaroo plugin in grasshopper, then fabricating it in our method of choosing. In the case of this project, we fabricated the base for our model using a wood CNC machine, and the modules with a 3d resin printer.

For the program of the project, we chose an open, undeveloped area by Dallas university to design a catenary covered amphitheatre, built out of the topography of the site. The catenary structure is anchored to bearing walls the sides, with arched openings in the back as an entry condition. For this project, I led development and modeling for the shell and landscape in Rhino, generated renderings, and 3d printed the shell in resin.



CNC



CNC Setup



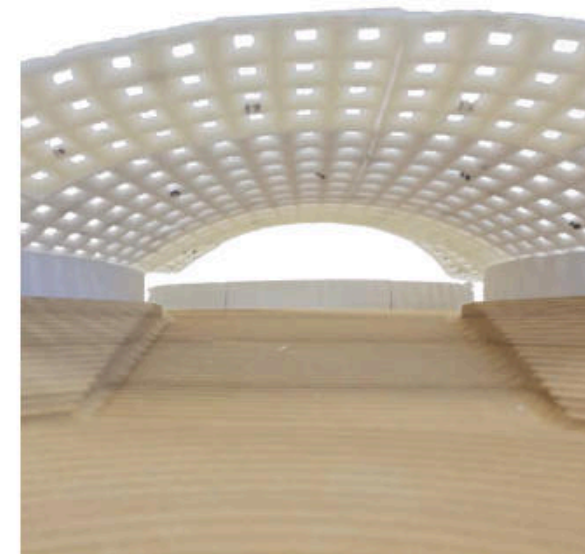
CNC First Pass



CNC Middle Pass



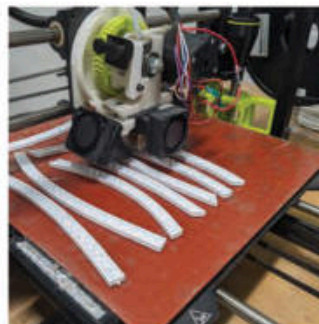
CNC Finished



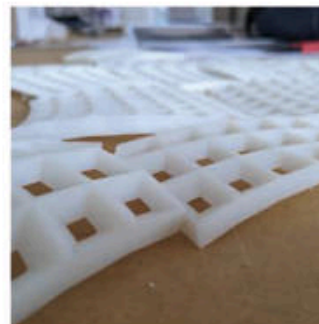
3d Printing



Resin Printing



3D Printing Walls



Resin Printed Shell

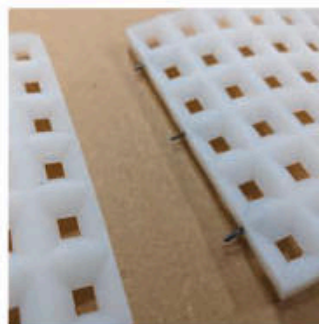


Walls Inserted

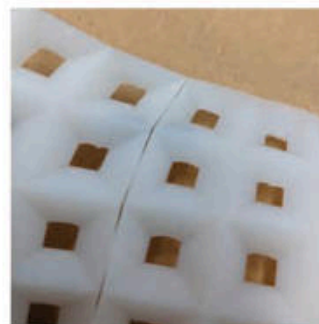
Assembly



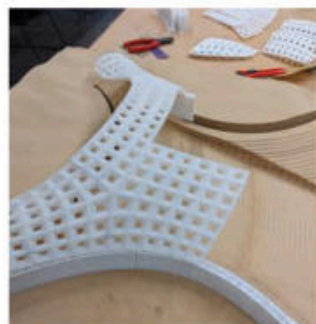
Resin Shell Layout



Joints For Shell



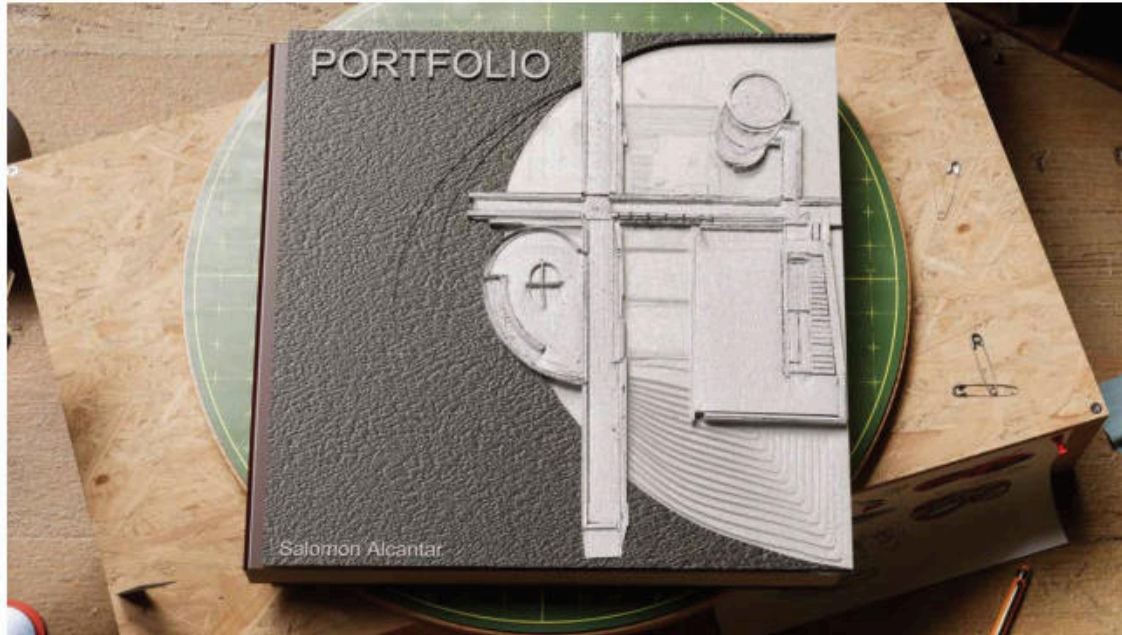
Combined Shell Parts



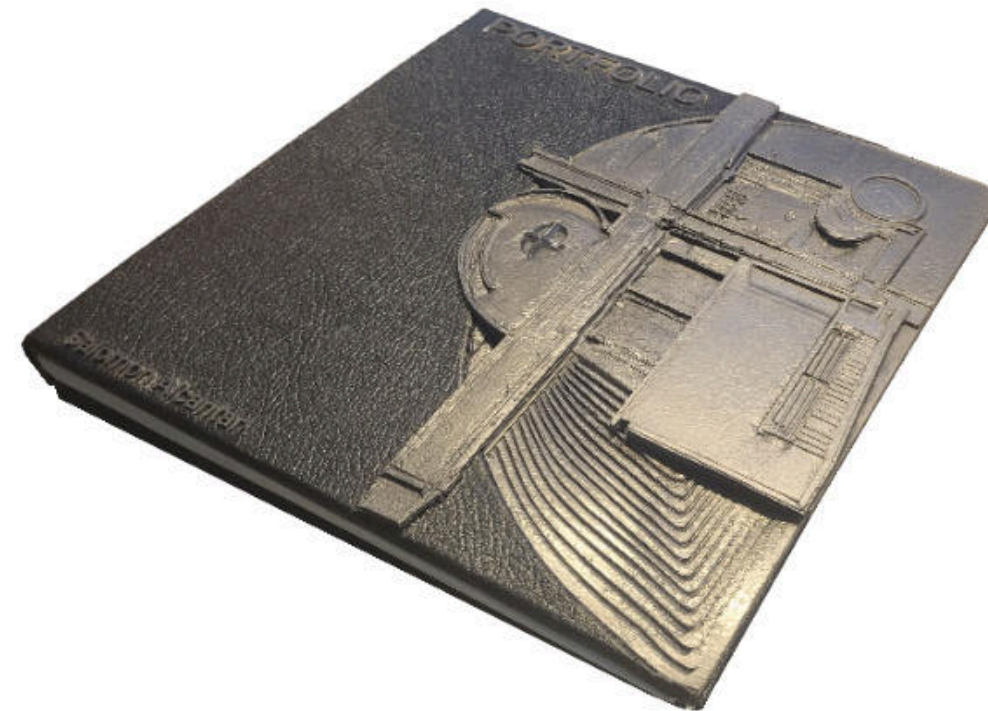
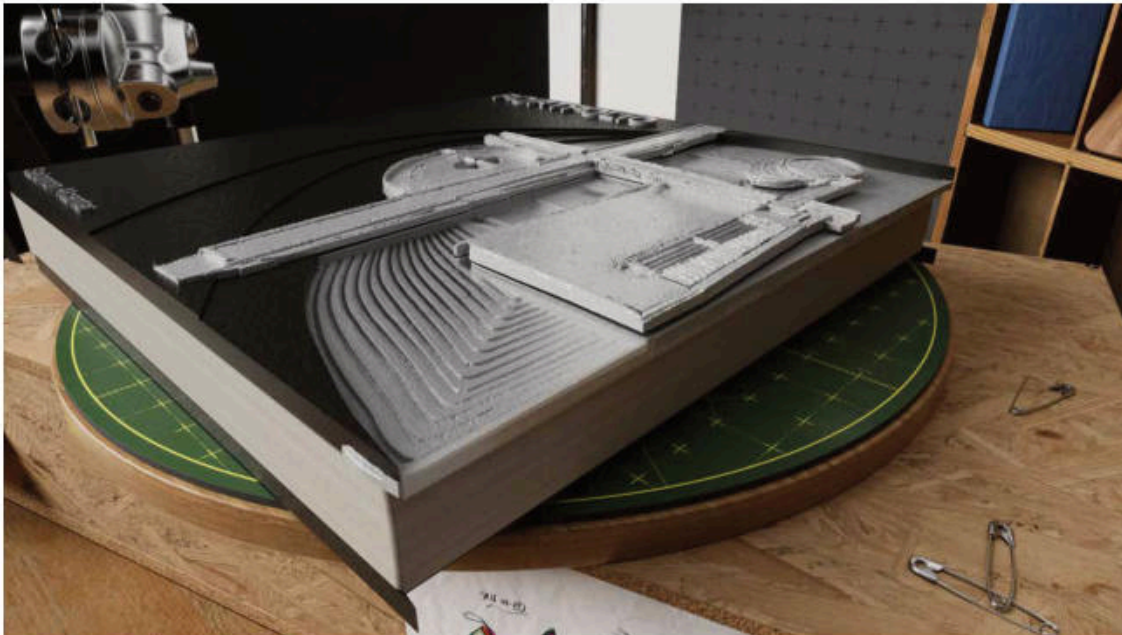
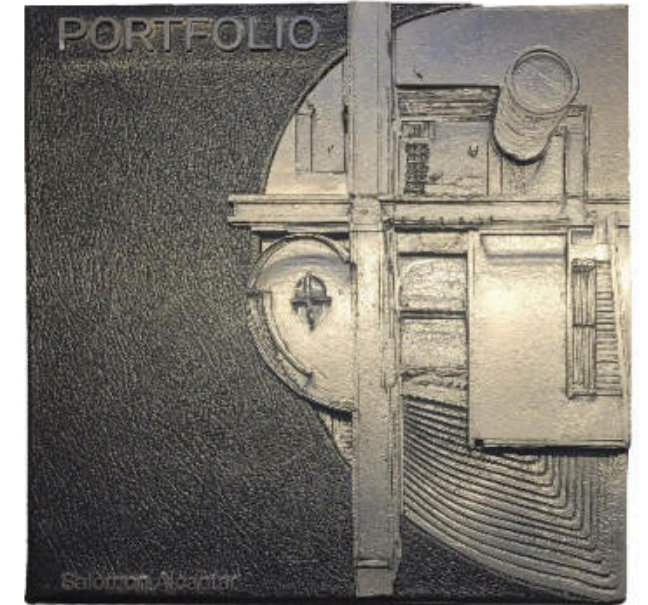
Building Progress



Portfolio Cover Design Concept



Physical Portfolio Build



Urban Landscape

Mexico City

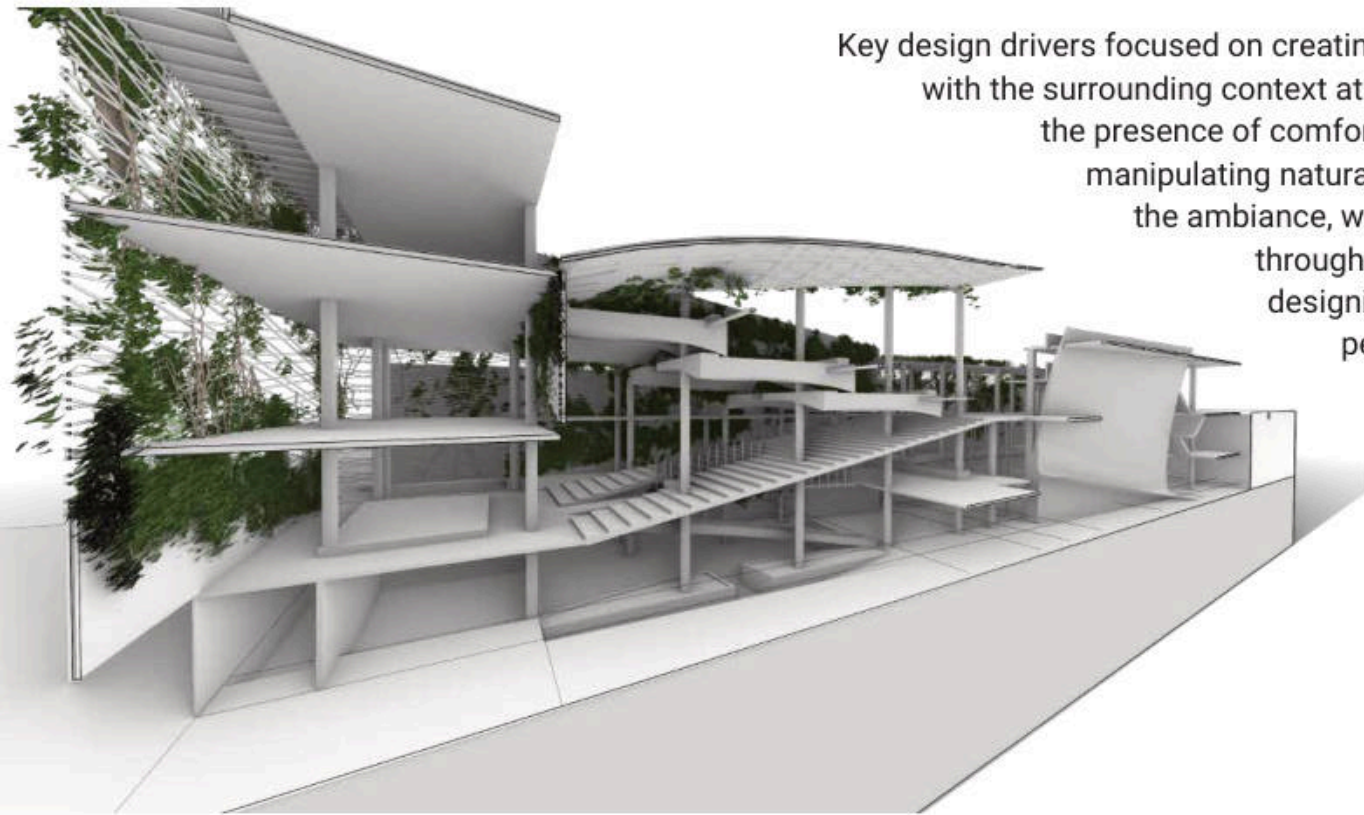
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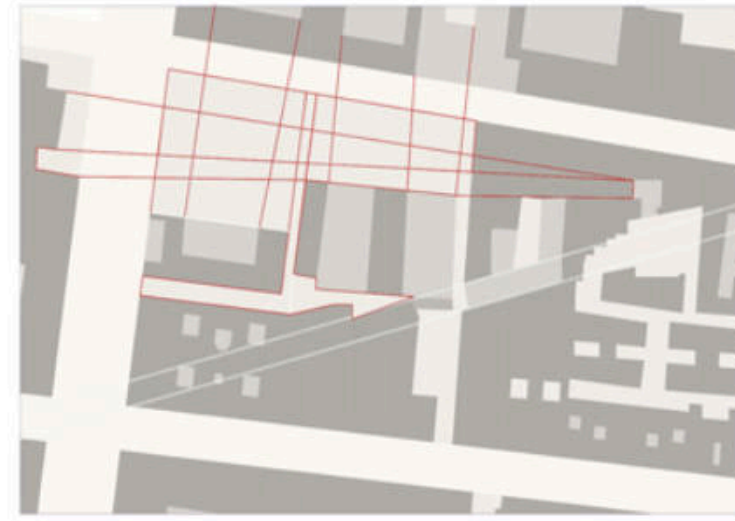
Overview

This semester-long studio project was an exploration of designing an urban space in Mexico City. We were given some design parameters, but these served more as gentle nudges than strict requirements. Our professor suggested we consider a courtyard architectural style and embrace minimalism, yet left the scope wide open for personal interpretation and creativity in our approach.

For my part, I decided to anchor the design of this urban center in experiential concepts, choosing to prioritize real, discoverable moments over the abstract and vague. Instead of merely offering views, the design aims to create moments of discovery that reveal themselves as one navigates through the structure, connecting the visitor with contextual landmarks and the essence of the locale.

Key design drivers focused on creating literal connections with the surrounding context at every level, ensuring the presence of comfortable, shaded areas, manipulating natural lighting to enhance the ambiance, weaving green spaces throughout, and thoughtfully designing spaces that were performance-oriented, ensuring that each programmed space was optimized for its intended use, reflecting a deep consideration for quality and functionality.





"The public space is particularly important for those who cannot enjoy a spacious and well located. For those who do not have patios or gardens at home, to who can't afford holidays to the most beautiful cities of the world, for whom it is difficult to attend the theatre or concerts."

