Alexander Faza
Graduate Architecture Portfolio

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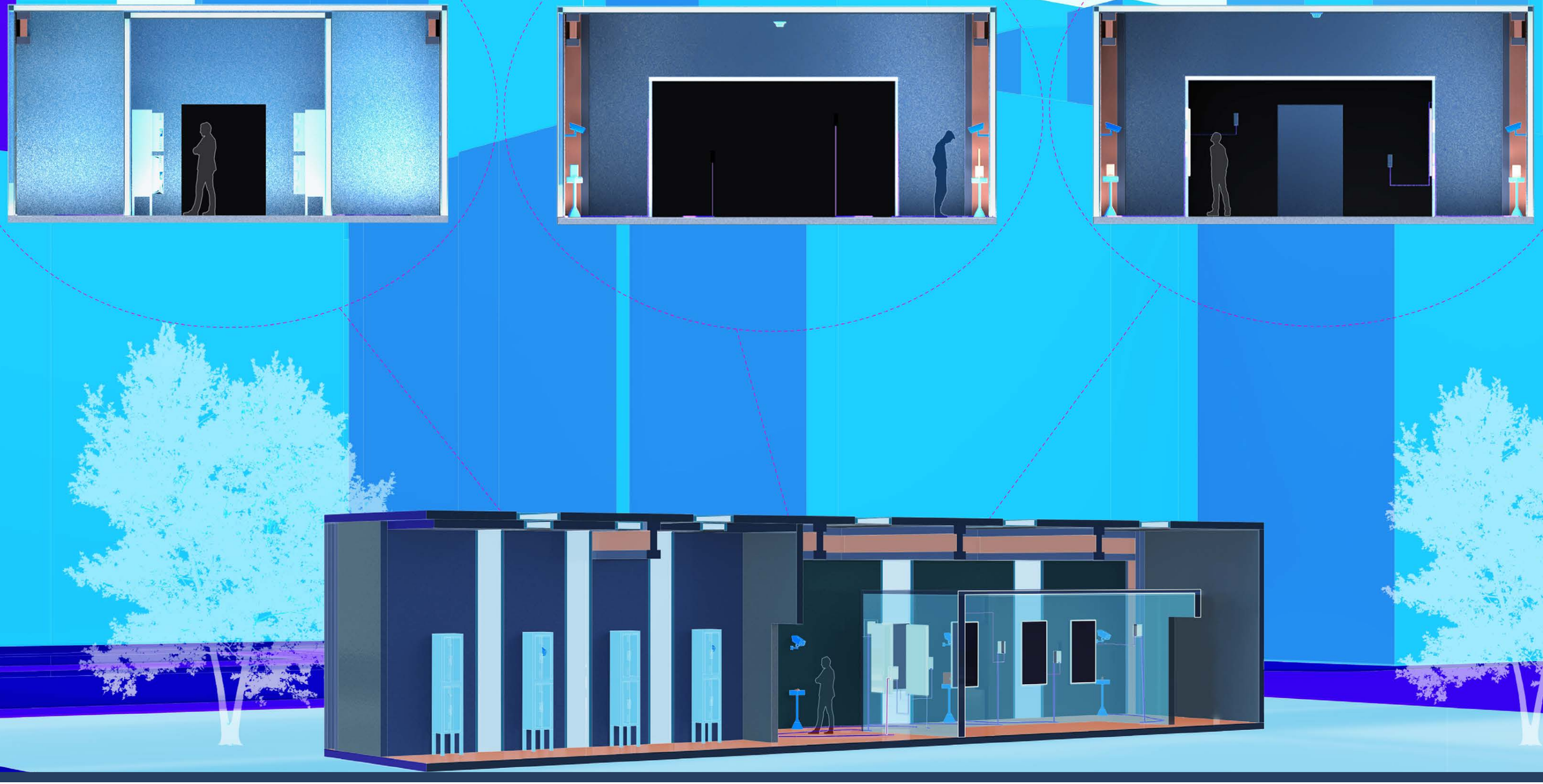


Surveillance Gallery

Virginia Black Core I Studio

Fall 2022

Site: City Hall Park, Manhattan, NY

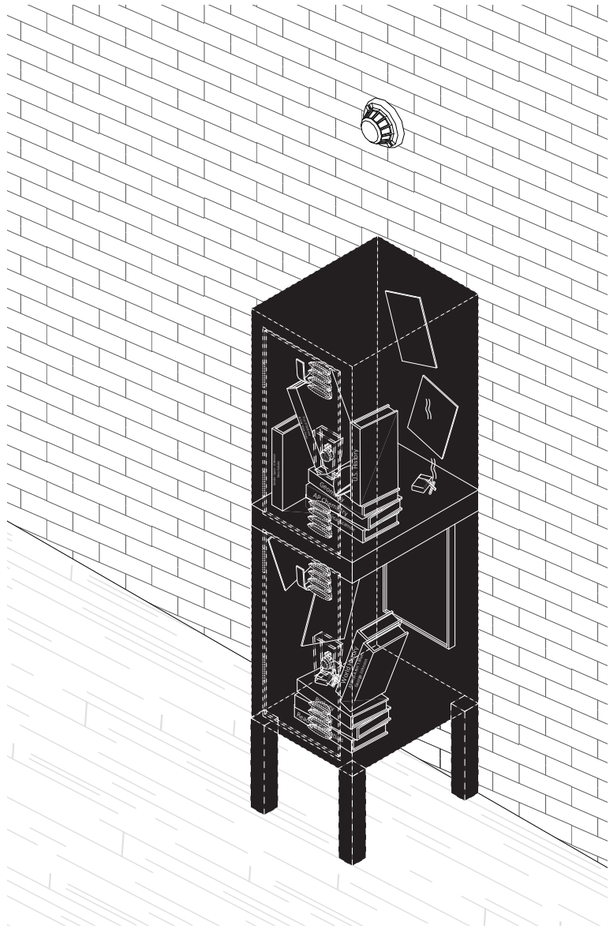
This Gallery project consisted of a semester long design process heavily focused on historical research and current issues.

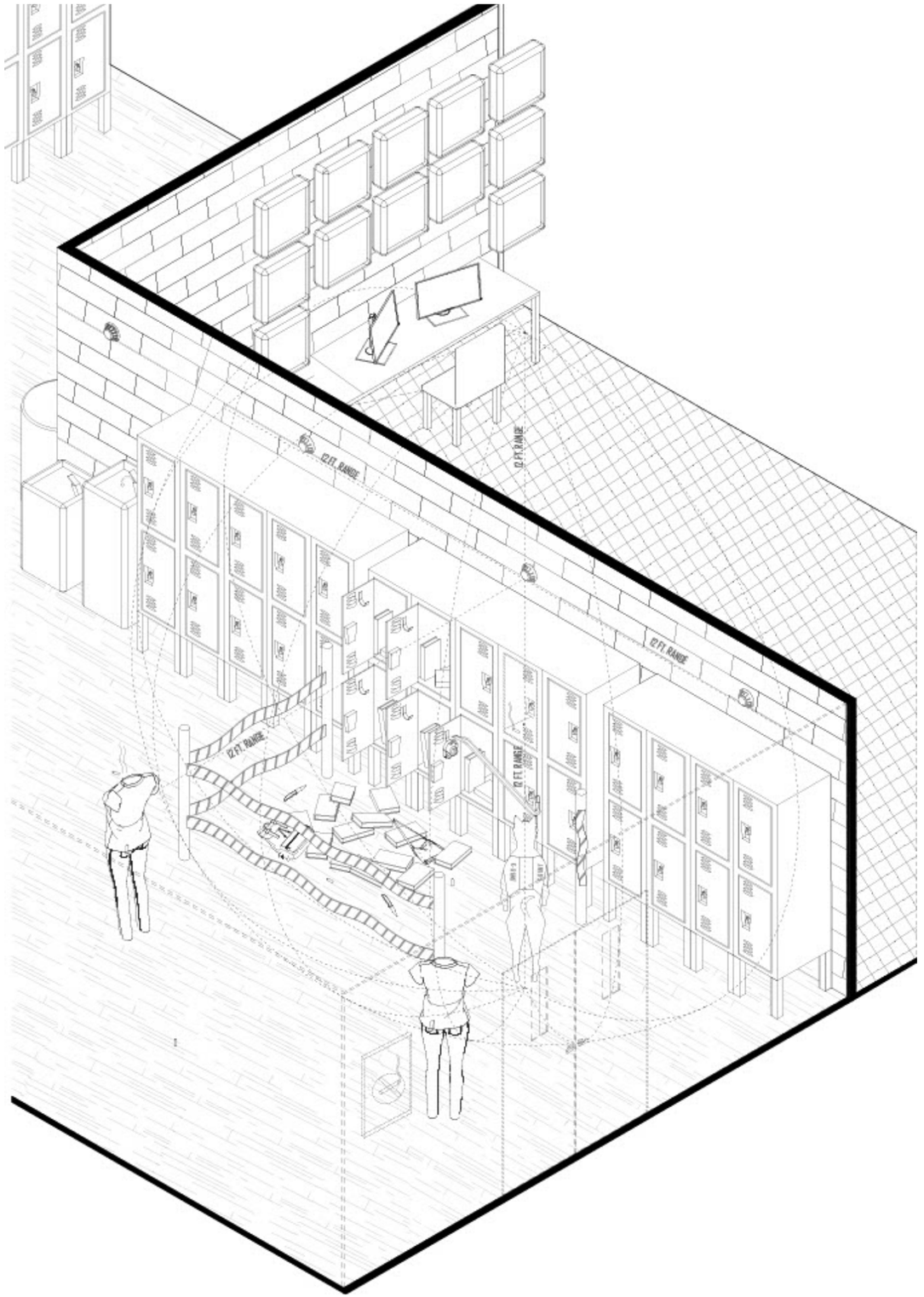
The project started by looking at an element found in schools, in which, I chose the locker. With the locker, I explored the relationship it holds between the student and admin of the schools. I investigated who has rights over it, who can access it, and what can be held in it. This research quickly led me to looking at the ideas of policing and surveillance in the school system, specifically in New York City. Along that research, I came across new devices being implemented in schools and how they can be misused as an invasion of student privacy. Through the iterations, the design finalized as a gallery that would serve as an interactive display for visitors to come in and experience a space of over surveillance and policing.

Security Research

These drawings were created to display a scenes of how this new device, the Halo Smart Sensor, could detect a banned substance and call for police attention.

Working with the site of George Washington High School, I created a situation in which the Halo Smart Sensor alerts and how the scenario with police may unfold. The drawings depict how this Halo Sensor can “X-Ray” each locker and trigger on an alert. Although triggered, the sensor doesn’t have the ability to pinpoint the location, leading to a search by authorities that puts innocent student’s privacy at risk.



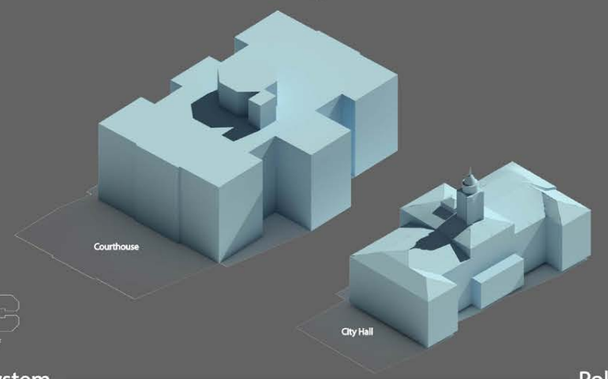


Educational System Research

With ongoing research throughout that semester, I worked in learning about the various organizations in place that run the school systems in New York. The diagram on the right examines that breakdown and the relationships between the different groups. Additionally, I looked at community organizations in the city that have a focus on youth and student rights, where I landed on the Urban Youth Collaborative as a group to work with. Learning about their mission and past events, I centered my design as an aid that would help convey their message to the public.

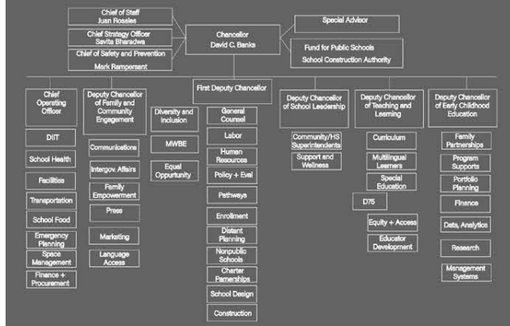
The diagram below was a representative look at the Halo Smart Sensor and all the contraband that it can detect.

Legislature



NYC Department of Education

Educational System



Policing Authority

Eric Adams - Mayor

Keechant Sewell - NYPD Commissioner

Mark Stewart - Deputy Commissioner of Community Affairs

Marlon Larin - Deputy Chief of NYPD School Safety Division

Officers - NYPD School Safety Division

"School Safety Division works with the city's ***Department of Education*** to provide a ***safe environment*** for public school students that is ***conducive to learning***, and a place where students, faculty, and other personnel can be ***free from any hostility or disruptions***. NYPD school safety agents, assigned to every New York City public school, receive 17 weeks of training at the police academy in various disciplines. Police officers are assigned to schools that are ***more likely to experience conflict.***"

-https://www.nyc.gov/site/nypd/bureaus/administrative/community-affairs.page

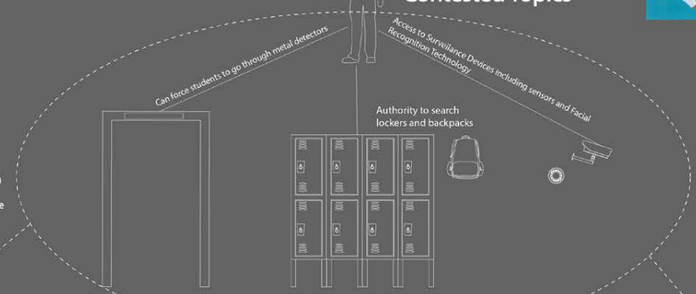
Goal: Student Safety in the School

Fight to find the balance between what authority safety officers should have and how current punishments should be re-evaluated

- Surveillance
- Search and Seizure
- Detection Systems

Official Safety Bulletin

Contested Topics



Student Rights Organizations

Fighting to reduce levels of policing in schools through various policies focusing on reforming the current institution and focusing on a system of restorative justice and care for students rather than criminlizing them

NYRA NATIONAL YOUTH RIGHTS ASSOCIATION

Creating an intervention to disrupt the system by exposing the over surveillance of students

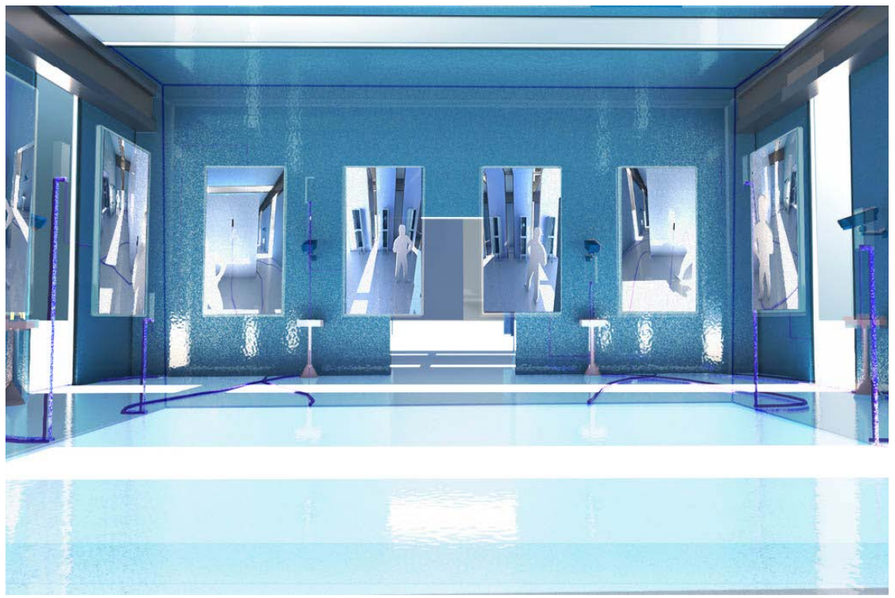
Urban Youth Collaborative

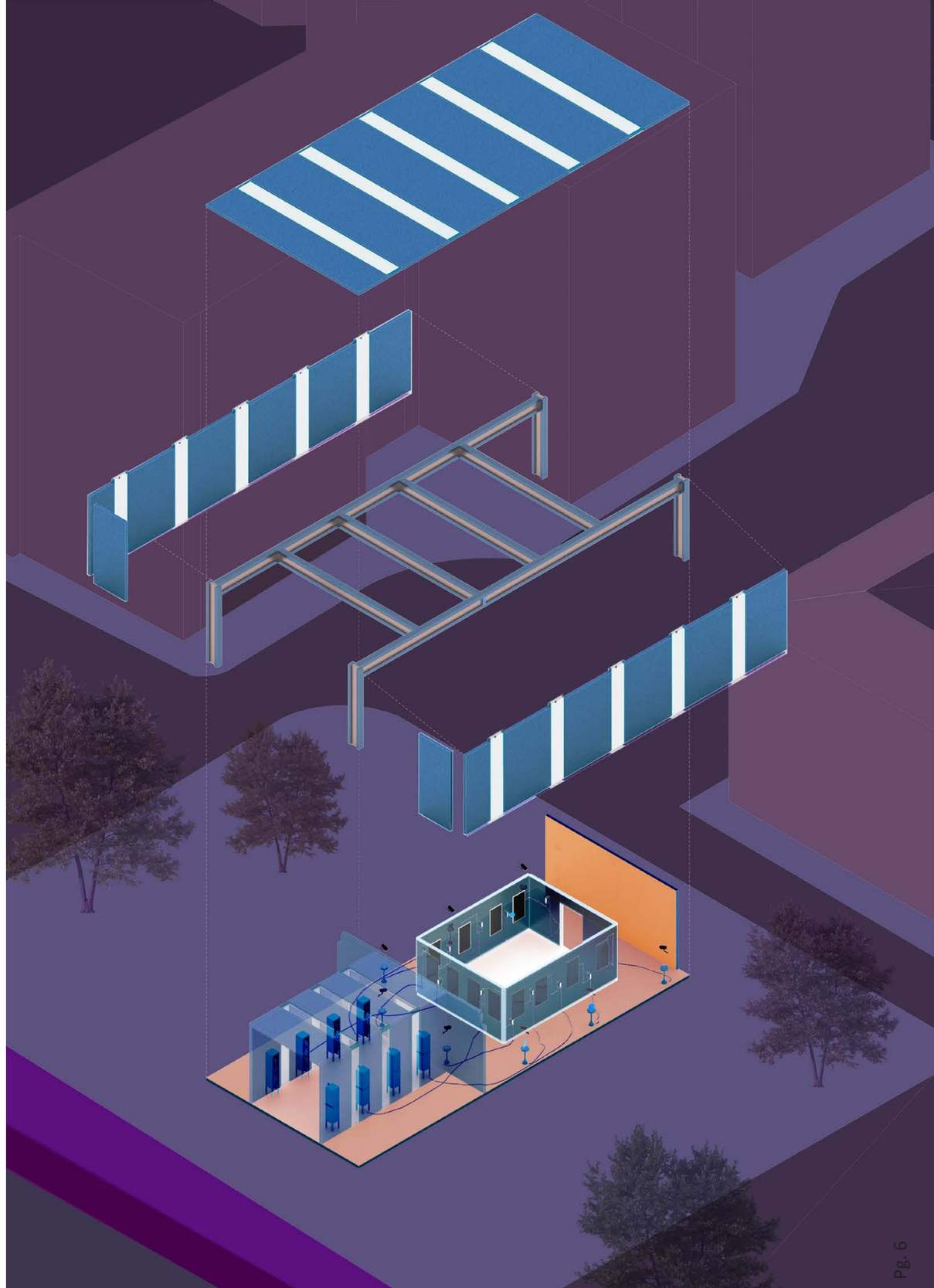
NYCLU ACLU of New York

Gallery

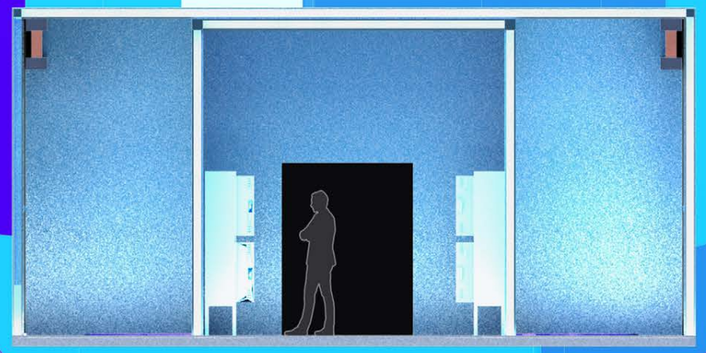
The design itself starts as narrow hallway similar to that found in any school. Lockers line each wall, however as one walks down the path and looks into the lockers, they are greeted with a security camera, rather then books. A representation of surveillance in schools and shock to the person looking at them. After the hallway, they enter into a large room with a black box in the middle and two diverging paths. Along each path, podiums line the wall with various items of contraband on them. However, above each podium is a security camera creating an uneasy tension between wanting to interact with the contraband but also knowing you're being recorded.

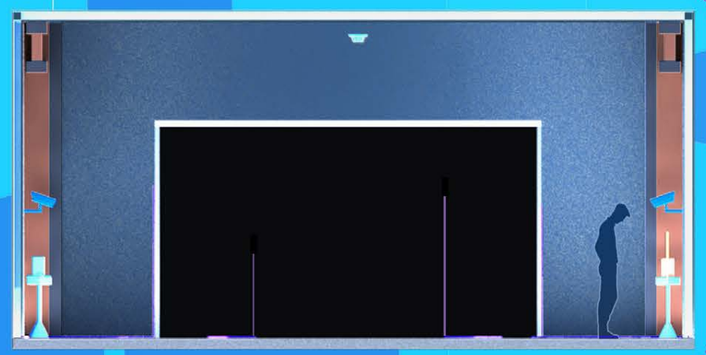
The security camera's have wires running from them into this black box where the visitor doesn't know what is happening inside. As they approach the back of the gallery, they see that the black box is actually a room with monitors displaying a video feed from each camera as well as seeing that the box isn't solid but is one way glass. Allowing those inside the box to look out into the space, without those in the gallery knowing they are being watched.

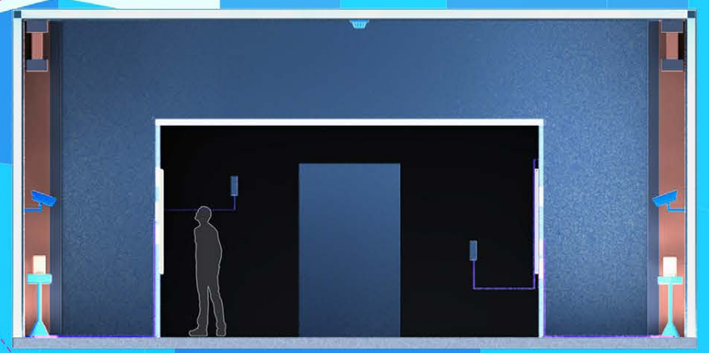




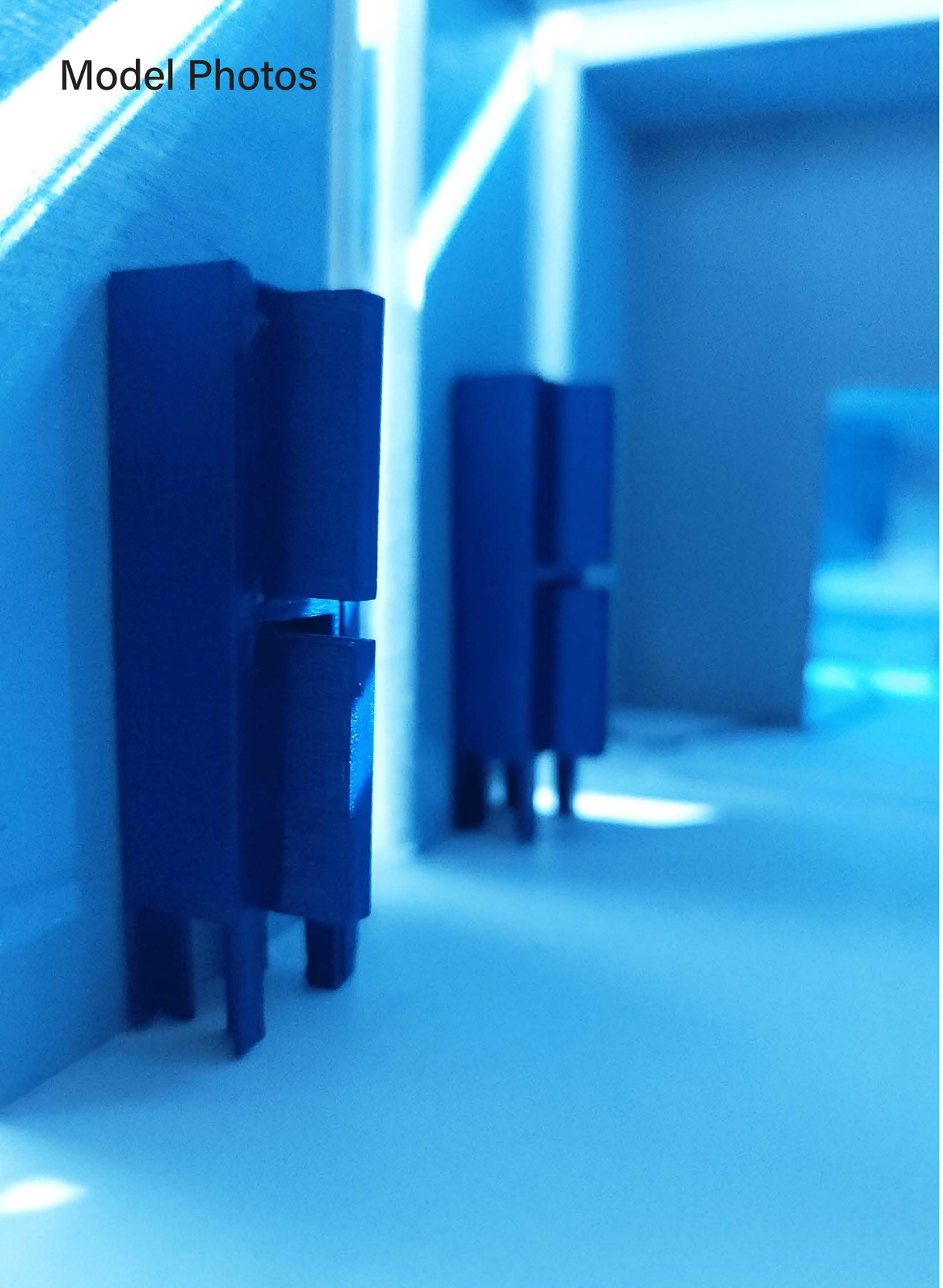
The Journey Through the Gallery

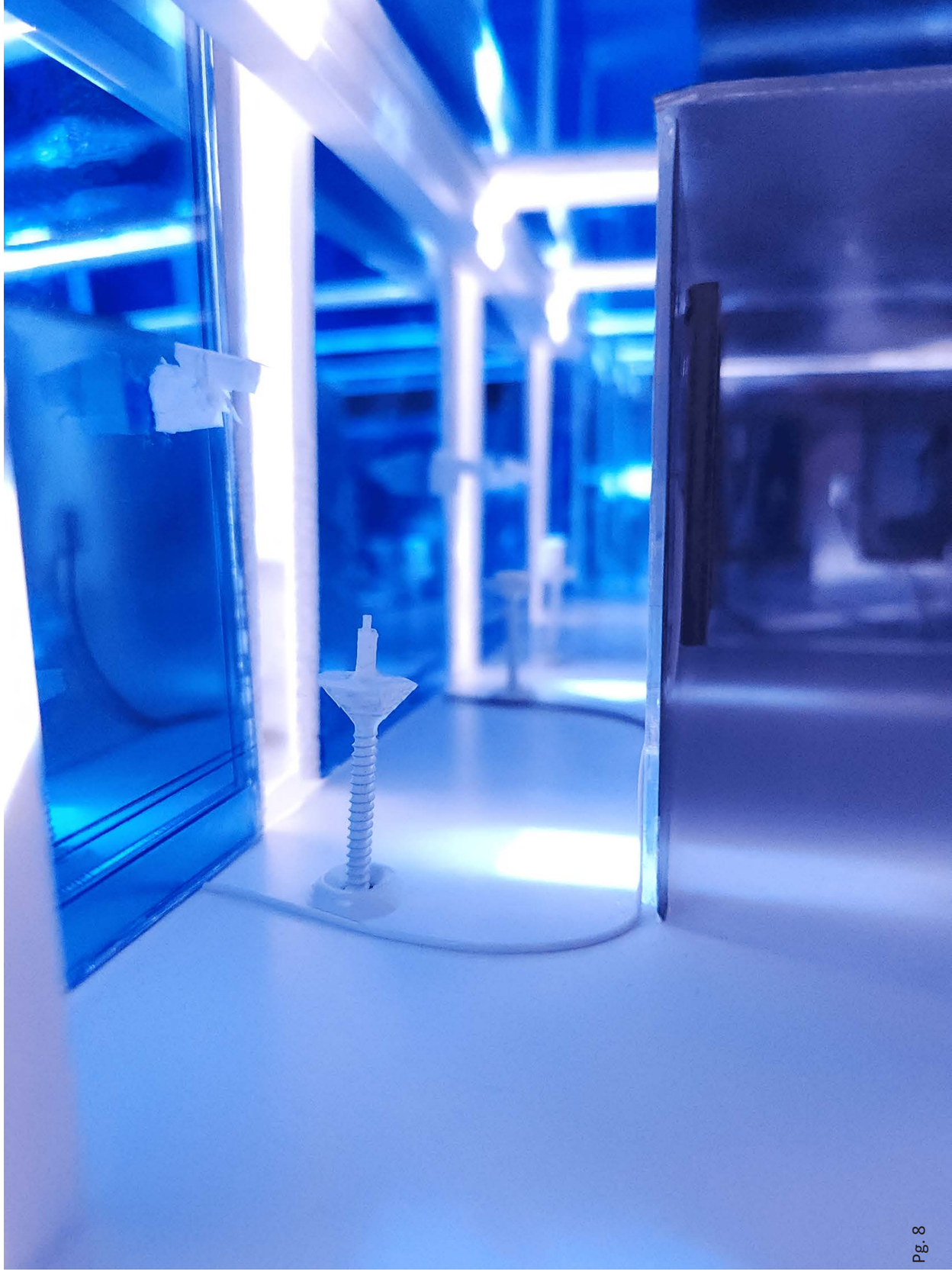


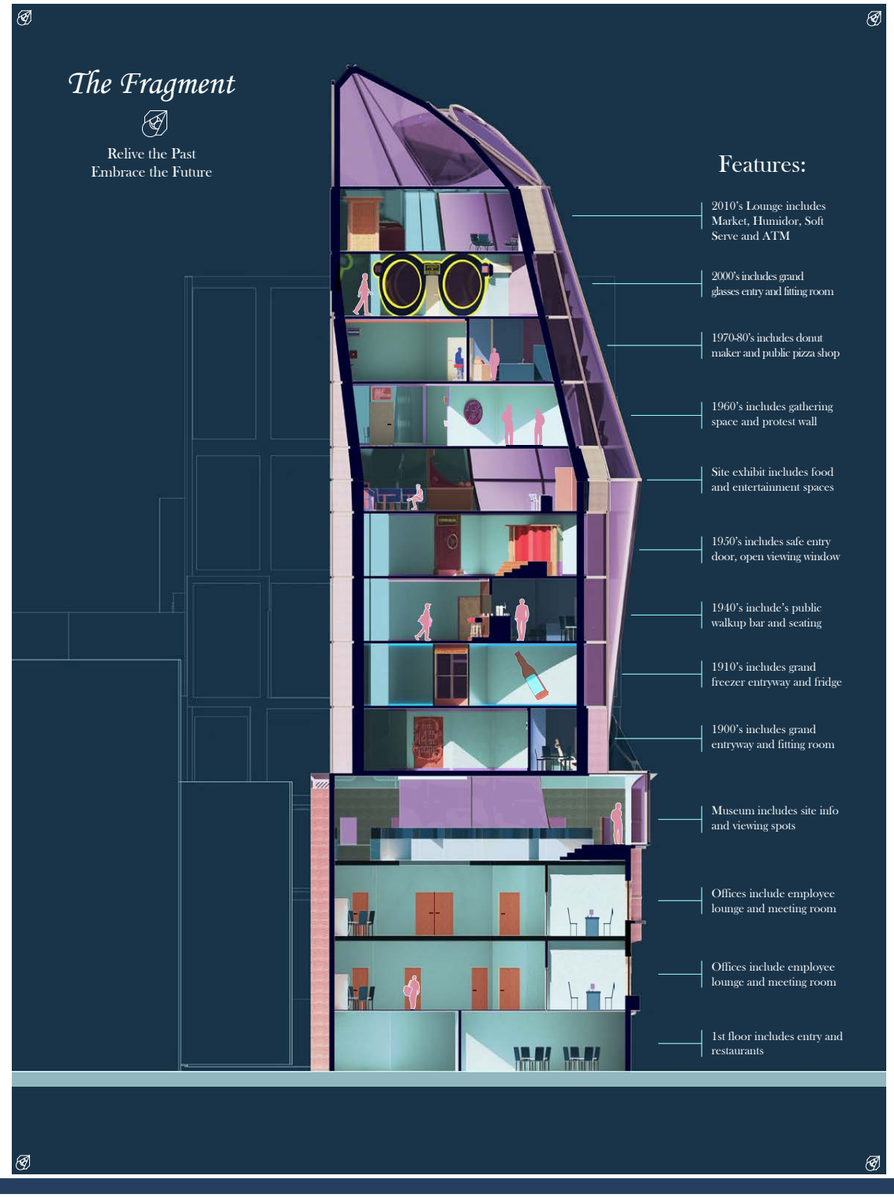




Model Photos







The Fragment

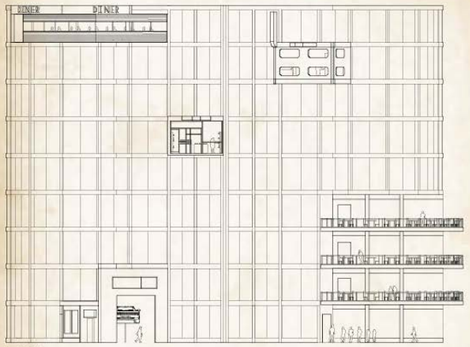
Mustafa Faruki, Core II Studio

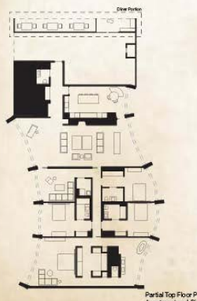
Spring 2023

Site: Corner of 14th and 6th Ave, Manhattan, NY

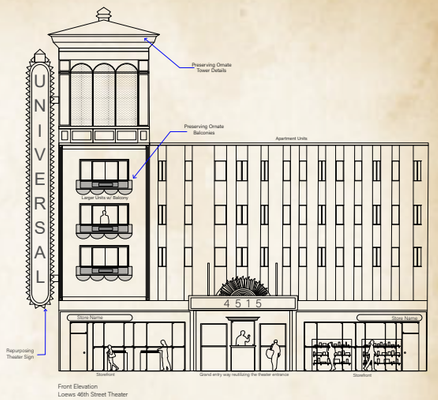
The idea of "Damage Control" was the overall concept for the studio brief. The damage I was interested in was the damage of time. More specifically, how time contributes to the idea of damage in the form of lost memories and erasure of what used to exist. I looked at the intersection of 6th and 14th avenue in lower Manhattan to study the history of what used to exist, what currently exists, and what the future holds. Only one original building still remained from the early 1900s at the intersection and as modern highrises were built around it, I set out to find a way to preserve this last living memory.

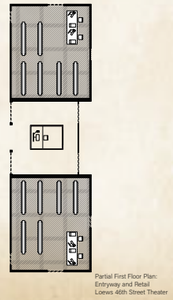
#28: Parasite Protocol

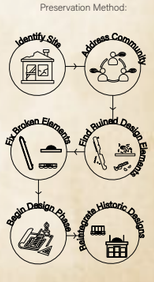




#29: Timeshift Protocol

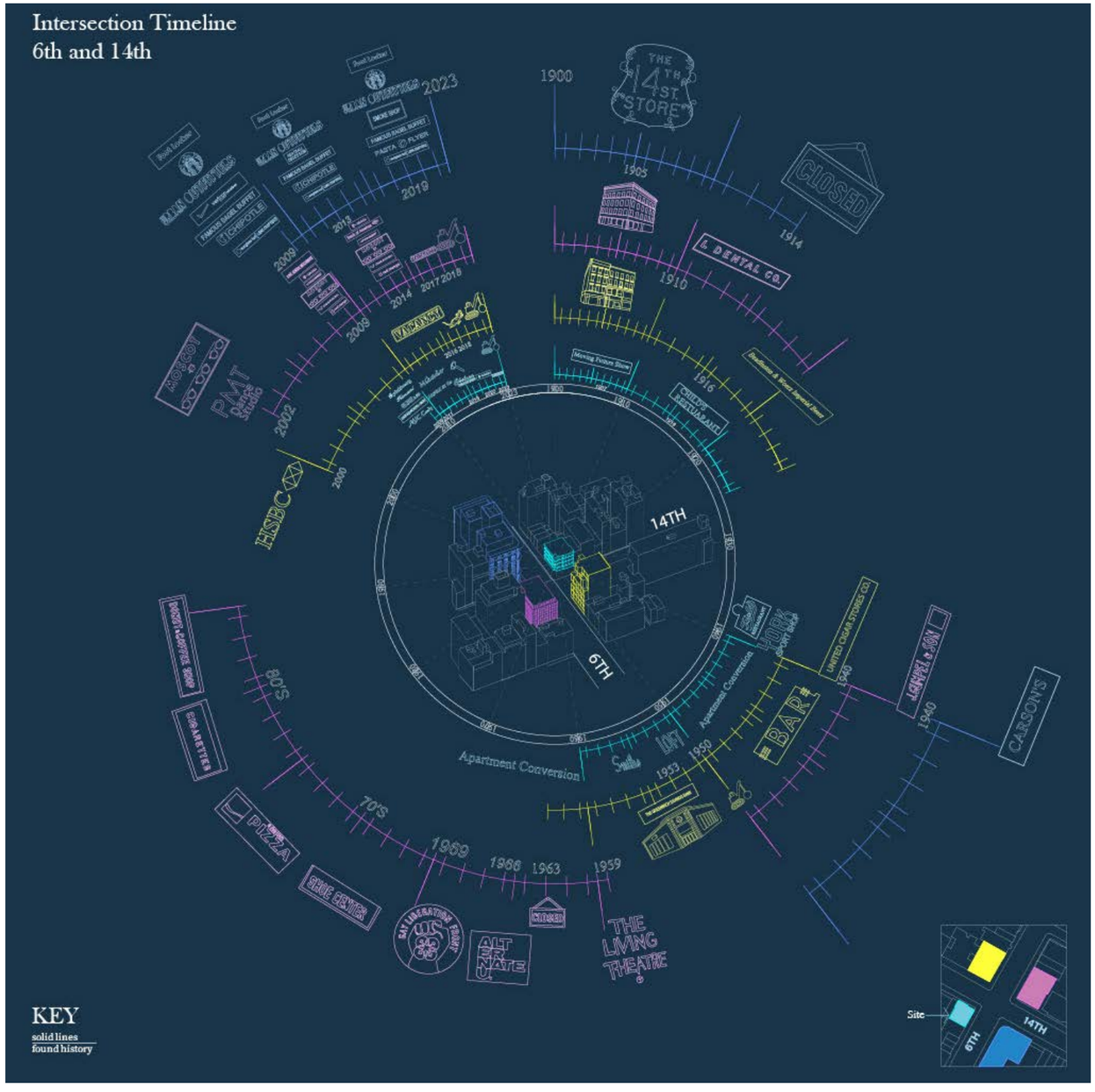






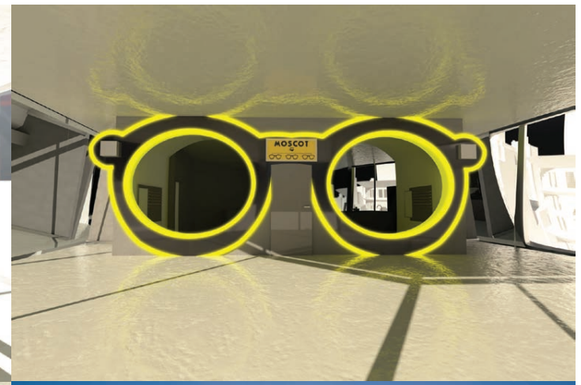
pg. 57

Before narrowing down my site, I turned my research to other New York area buildings thats went under recent developments. I comparatively looked at the sites in both the past and present context to develop unique protocols that could be used on each site to continue to develop it while still finding ways to embrace the past.



This semester was heavily researched based with the radial drawing above focused on documenting the history of the intersection. Each colored radial lines corresponds to a specific building on the intersection with the logos representing what was located there during that time period .

Each floor of The Fragment contained unique additions to the residential units that would force residents to embrace or at least interact with the past. Some of these additions were as simple as making the entryway including elements from a past big box store while other were more interactive like integrating a bar into the apartment unit.



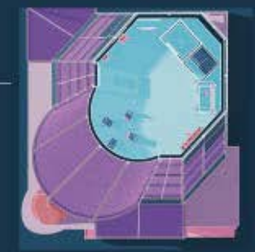
The Fragment

Relive the Past
Embrace the Future

Description:
Welcome to The Fragment, a new development on the intersection of 6th and 14th. At The Fragment we examined the past, acknowledged the history of the site, and with our team of architects, found a way to resurrect what was once here. Here, each apartment possesses a unique quality, a connection to a past decade that once graced the area. Thank you for visiting The Fragment and welcome to both your future and your past.

Amenities:
Residents have access to unique amenities based on the floor they are residing on. Additionally, all residents have access to the 6th floor exhibit and top floor lounge featuring dining and entertainment.

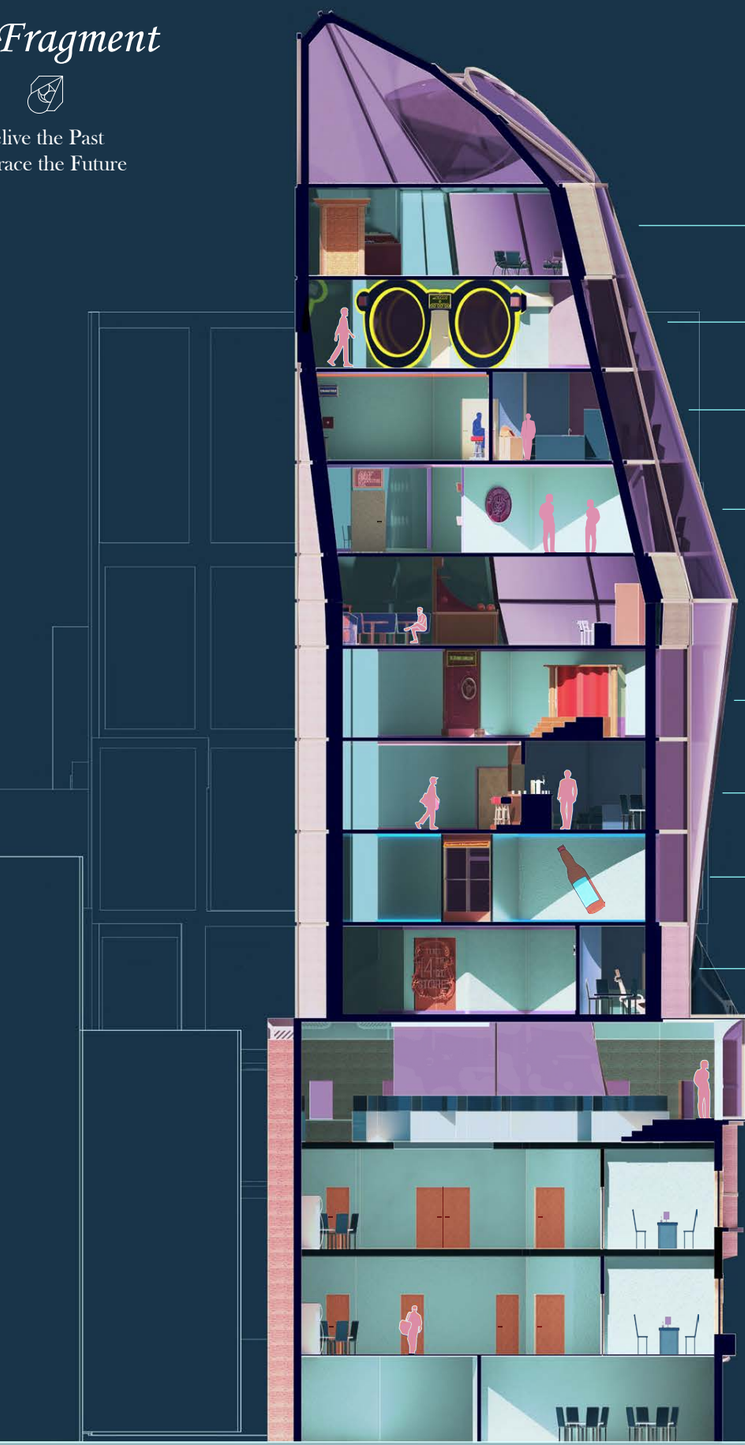
Units starting from $1,500,000



The buildings new form is a mixed used structure with the lower original portion being turned into a museum and office space focused on preserving artifacts and presenting the history of the surrouding sites. Above the original structure are the apartments units where each floor represents a different decade in ascending order. The top floor serves as an amenity level for residents while continuing to make those amenities relevant to the history of the area.

The Fragment

Relive the Past
Embrace the Future



Features:

- 2010's Lounge includes Market, Humidor, Soft Serve and ATM
- 2000's includes grand glasses entry and fitting room
- 1970-80's includes donut maker and public pizza shop
- 1960's includes gathering space and protest wall
- Site exhibit includes food and entertainment spaces
- 1950's includes safe entry door, open viewing window
- 1940's include's public walkup bar and seating
- 1910's includes grand freezer entryway and fridge
- 1900's includes grand entryway and fitting room
- Museum includes site info and viewing spots
- Offices include employee lounge and meeting room
- Offices include employee lounge and meeting room
- 1st floor includes entry and restaurants

The Urban Homestead

Lily Wong Core III Studio

Fall 2023

Site: Harlem, Manhattan, NY

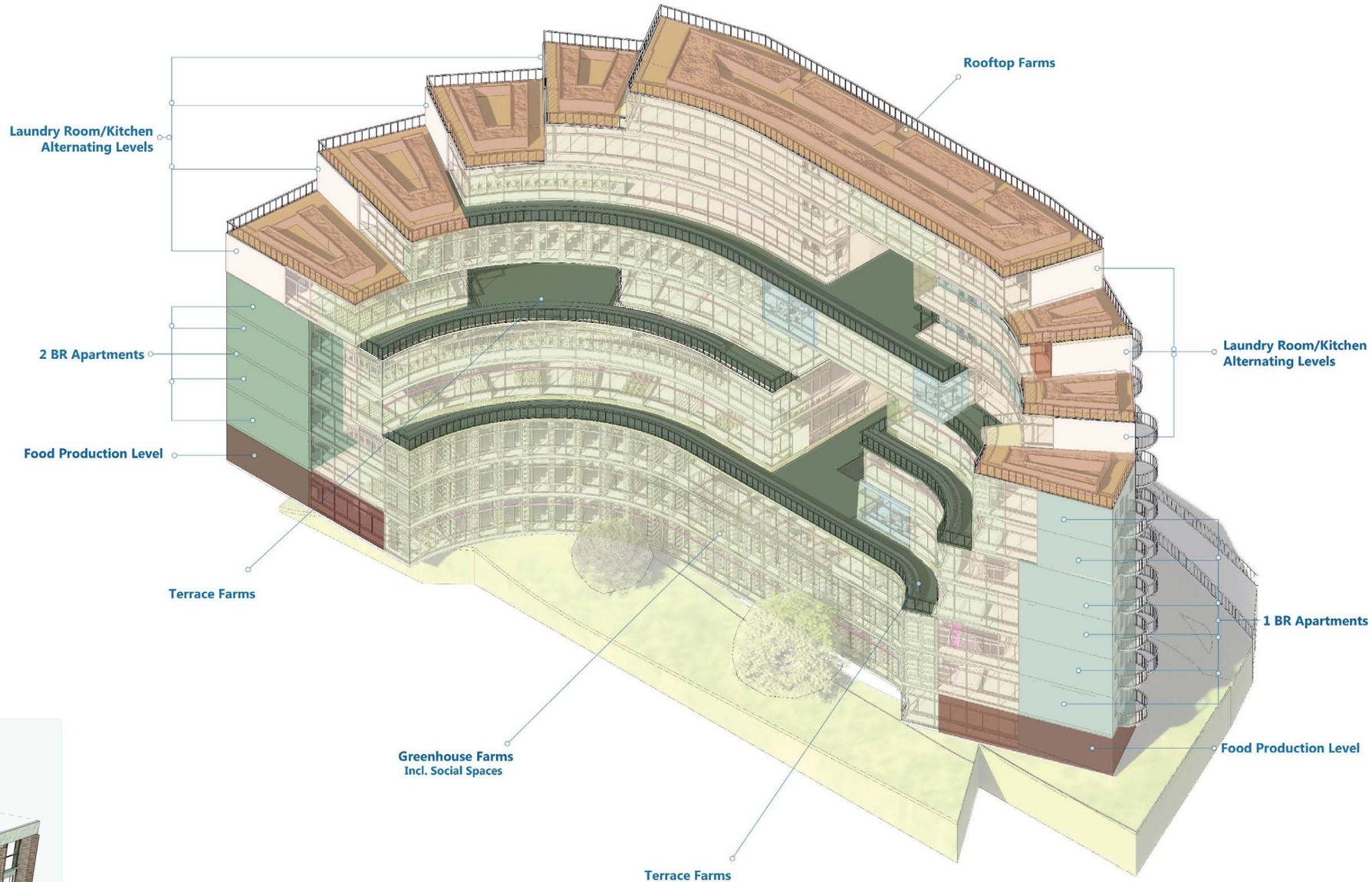
My studio partner and I's Core 3 housing project is called "The Urban Homestead". It was our take on finding a way to incorporate a fully running farm production system into residential housing. Our project focused on finding the balance between affordable housing and the involvement of plants from which the residents would care for and profit off of in their daily lives. We created a self-contained greenhouse system that would allow year-round agricultural production that also served as some of the main design elements of the building.

Ultimately our design focused on the relationship between food and habitation and how they can be mutually beneficial when incorporated into the same building.

Building Layout

With a focus on integrating “farming” into an apartment building, we knew the building layout would need to be carefully crafted to be successful. By creating a checklist of must needs such apartment type and number of units, total planting area, and additional services, we were able to go into the design with a solid framework.

The program diagram outlines that vision highlighting elements like the maximization of open air space for planting areas, the inclusion of laundry and kitchen services, and reaching an ideal number of apartment units.



PROGRAM DIAGRAM

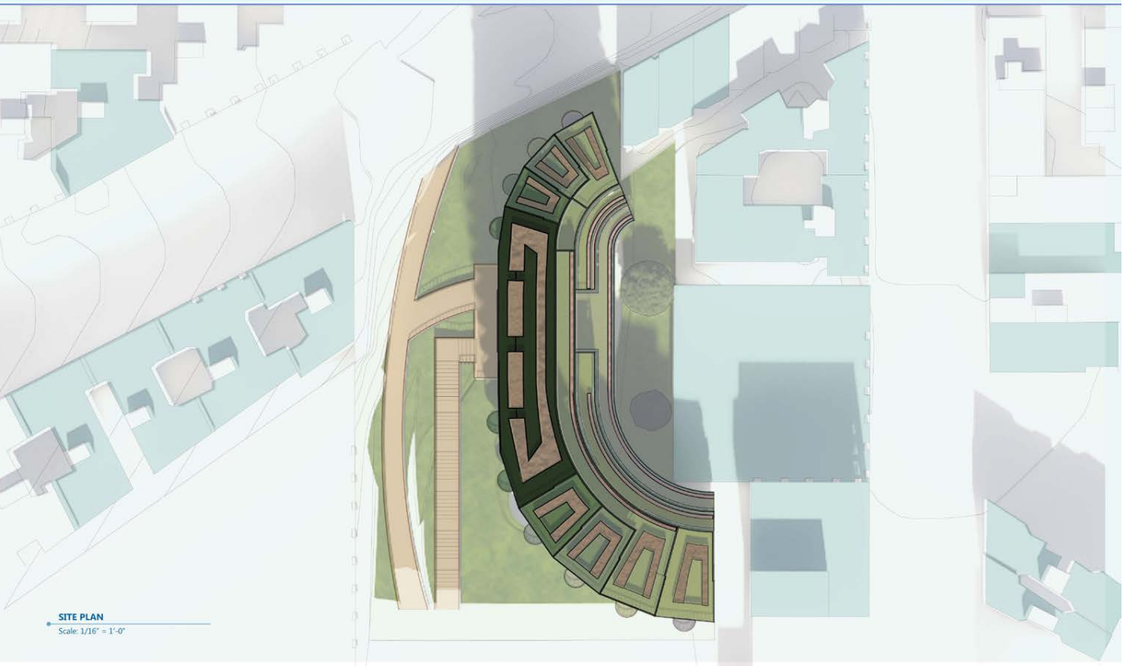
2 BEDROOM UNIT
800 Square Feet

Typical Floor Plan

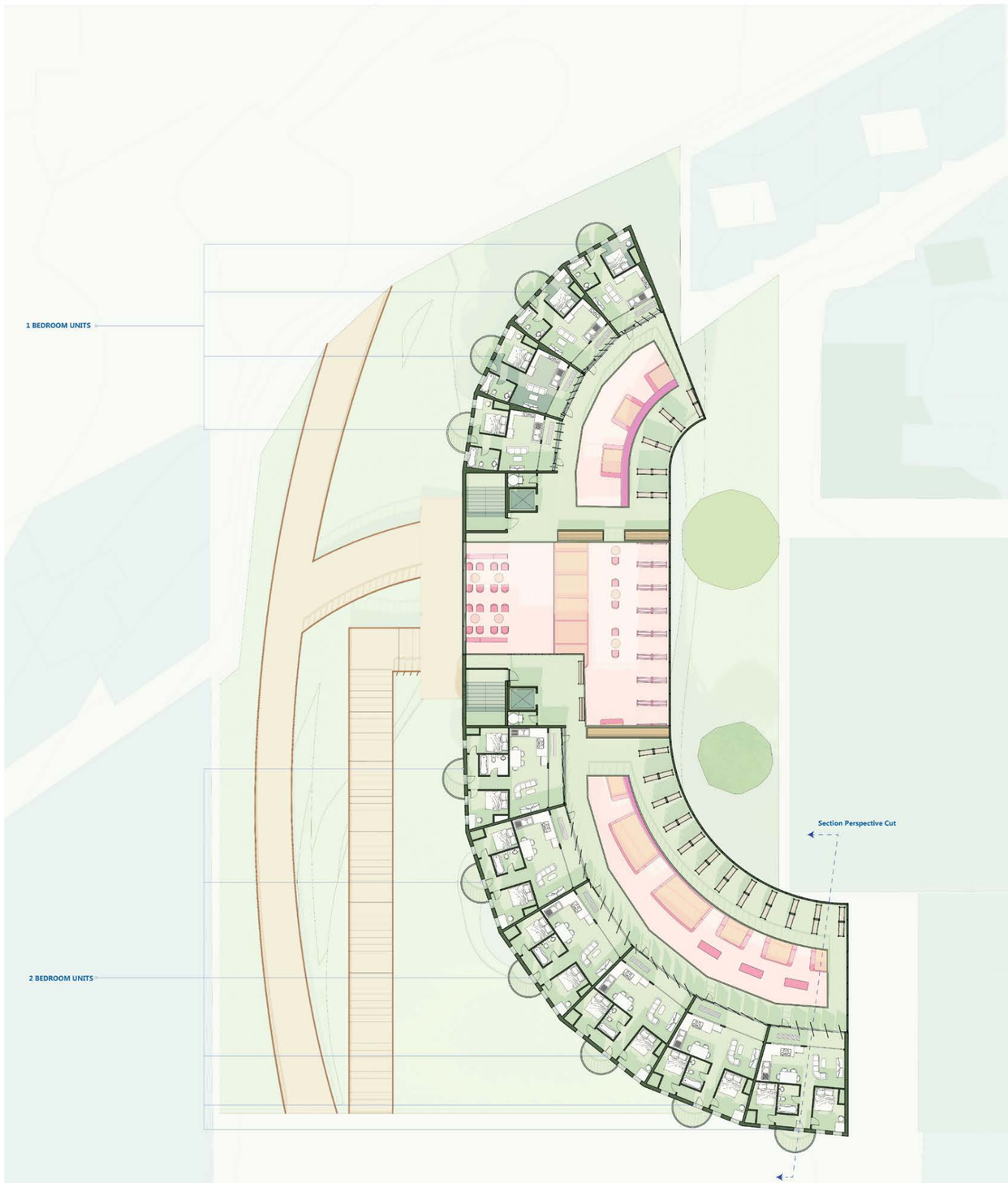
The typical floor plan consisted of two wings, one shorter wing of 1 bedroom units and one longer wing of 2 bedroom units. The design was orchestrated in this asymmetrical manner to best maximize site space as well as position the building for ideal sunlight to hit the farms.

Another important element we wanted to focus on was the division between the more public indoor growing areas and the privacy one would want at their apartment. We employed this by creating a sort of atrium space on each level so that their was a physical gap of separation between where one lives and grows so that the noises, smells, and lights of gardening wouldn't bother the living spaces.

This also created a more dynamic indoor space that would allow sunlight to flow through the building and air to circulate throughout.



SITE PLAN
Scale: 1/16" = 1'-0"



TYPICAL FLOOR PLAN
Scale: 1/8" = 1'-0"

Building Section

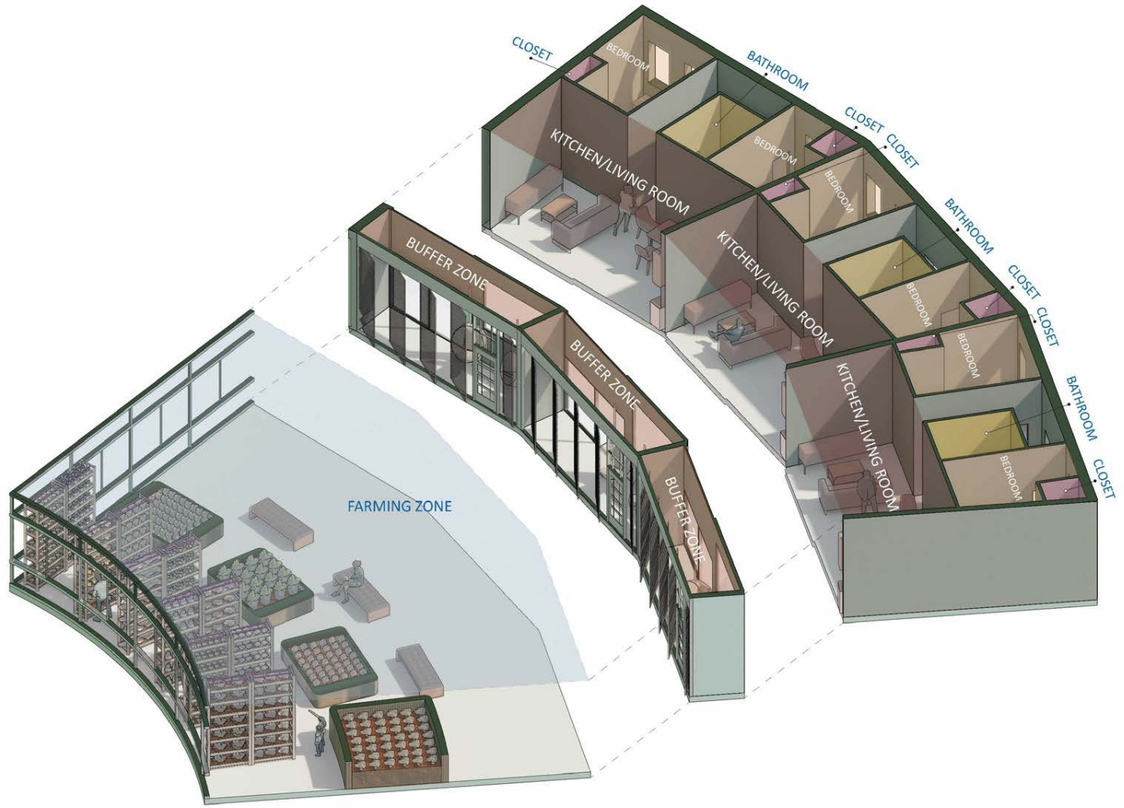
In this cut section, we further highlighted the relationship between living and farming and how the building changes from level to level.

With this stepping design, we were able to both create a more dynamic facade but also allow sunlight to reach all levels of the building and create these outdoor habitable terraces. Giving the residents, their own little park on their building.

Living Experience

The idea for the living experience was that residents would both live and work on the site. We wanted our building to integrate into this “tech” corridor developing in the area and participate in the communal park/entertainment space being built next to our site. The goal was that all excess produce grown that wasn’t consumed by residents would be processed on the ground floor or used in communal kitchens to then sell at local farmer’s market or fruit stands that are common in Harlem. This gives residents another source of income and provides and healthy “free” source of fruits and vegetables for themselves as well.

Looking at the relationship between farming and apartment units, we knew issues would arise with their close proximity and the sounds, smells, and grow lights of indoor farming. To help solve this, we created this idea of a “buffer zone” that would serve an indoor balcony/privacy area where residents could sit and open the blinds or close them off a provide a buffer from the disturbances.

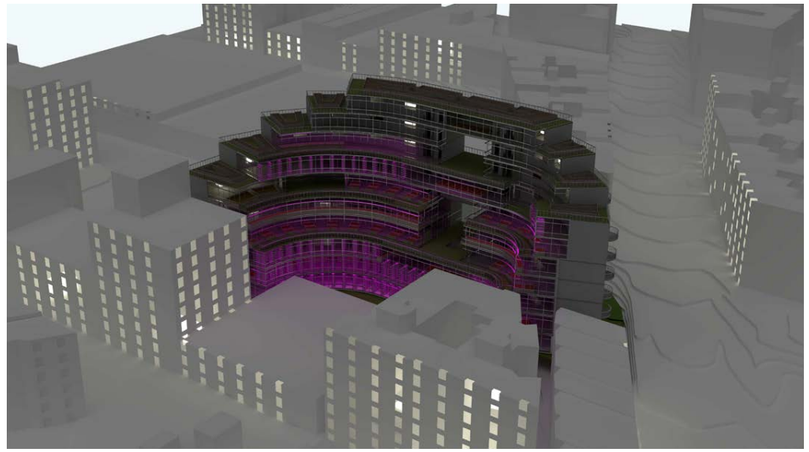


HABITATION ZONES DIAGRAM

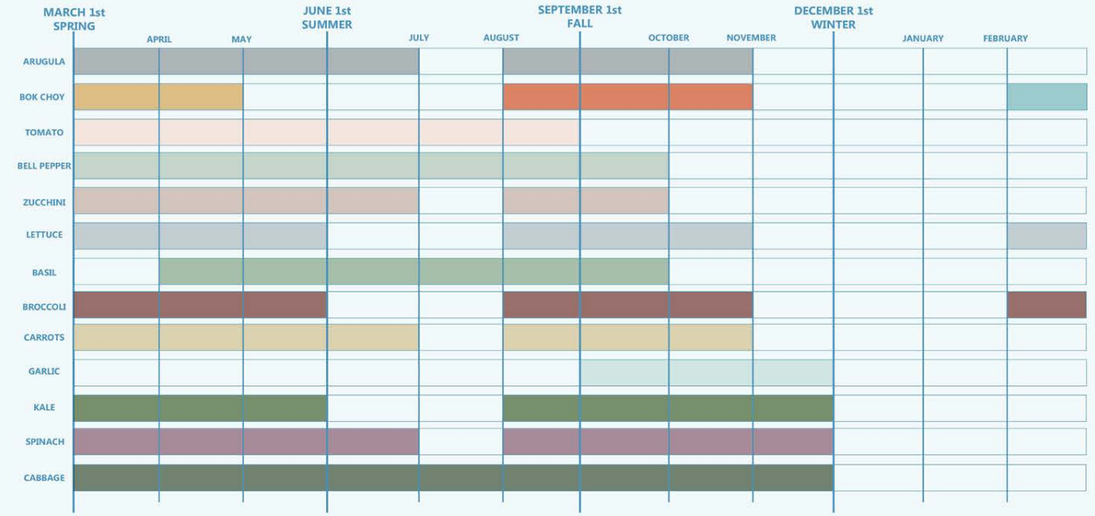
Urban Agriculture

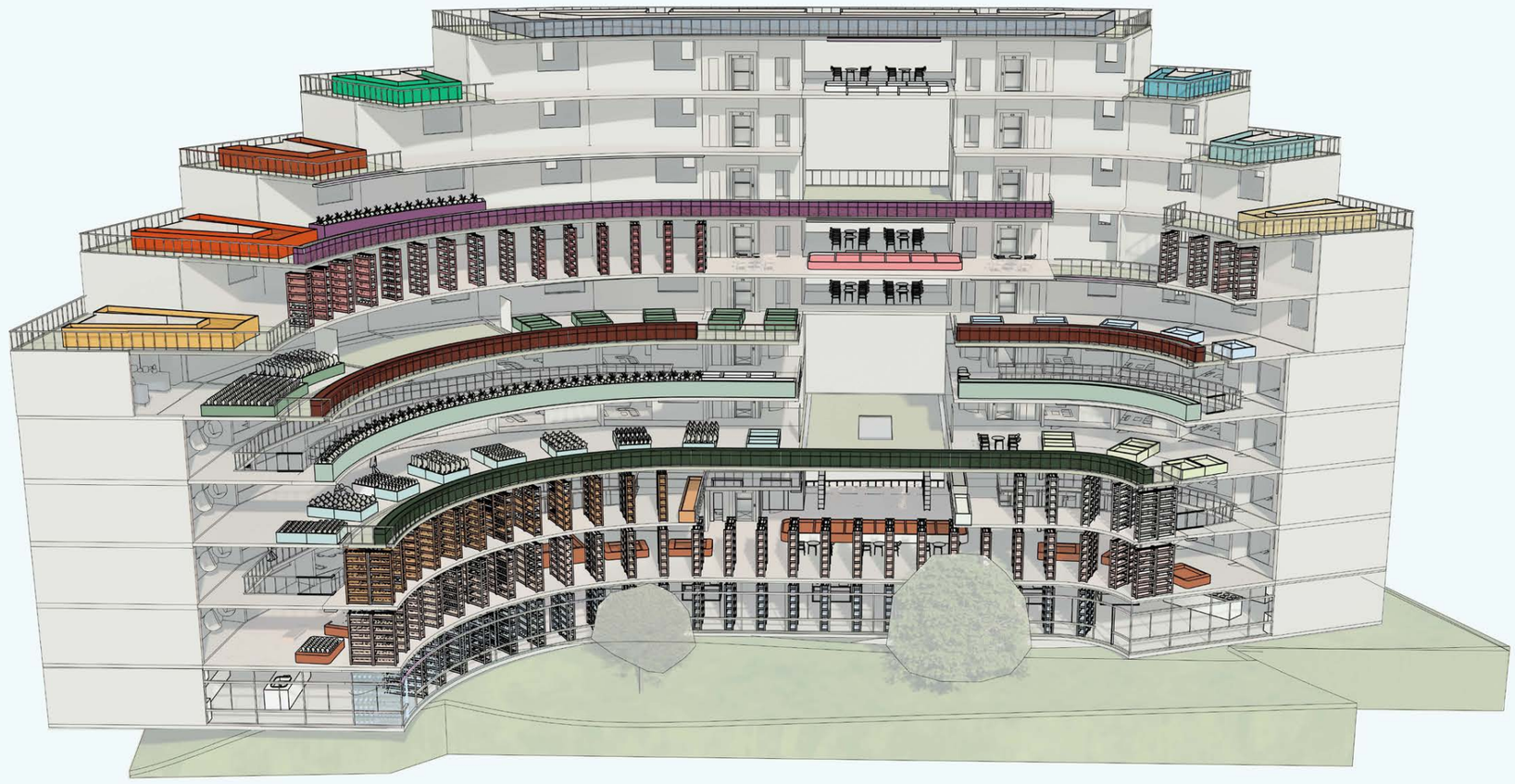
We worked with the organization Harlem Grown, to research and learn about community needs regarding food and ease of access. Through this research we were able to learn about what crops are most popular in the area, as well as the need for community kitchens because they are always rented out.

With that knowledge we were able to integrate communal kitchens as well as study the planting seasons of the crops to ideally layout our farms. The diagram shows our research and the various crops and their planting seasons and how that correlates into where they are grown in our farms.



Crops With Smaller Planting Seasons to be Grown Indoors. More Resilient Plants to be Grown Outdoors.





Planting Zones Diagram

Utilizing Both Indoor and Outdoor Space to Maximize Crop Yield Year Round

Jamaica Bay West Pond Restoration

Feifei Zhou Advanced IV Studio

Spring 2024

Site: Jamaica Bay, Queens, NY

The site for this studio section was Jamaica Bay, located in Queens, NY near JFK Airport. My partner and I focused on the wildlife refuge located centrally in the bay. We chose this site due its storied history of undergoing many different iterations. With input given by the park supervisor, my partner and I created a solution that would address the various issues effecting both the pond and the visitors that come to it.

Site Research

The site of the Jamaica Bay Wildlife Refuge intrigued us due to its complex history. From initially a thriving fishing village, to a freshwater built environment, to a ruined ecosystem, and finally, to where it is now, in a constant battle of fighting against climate change, sea level rise, and erosion.

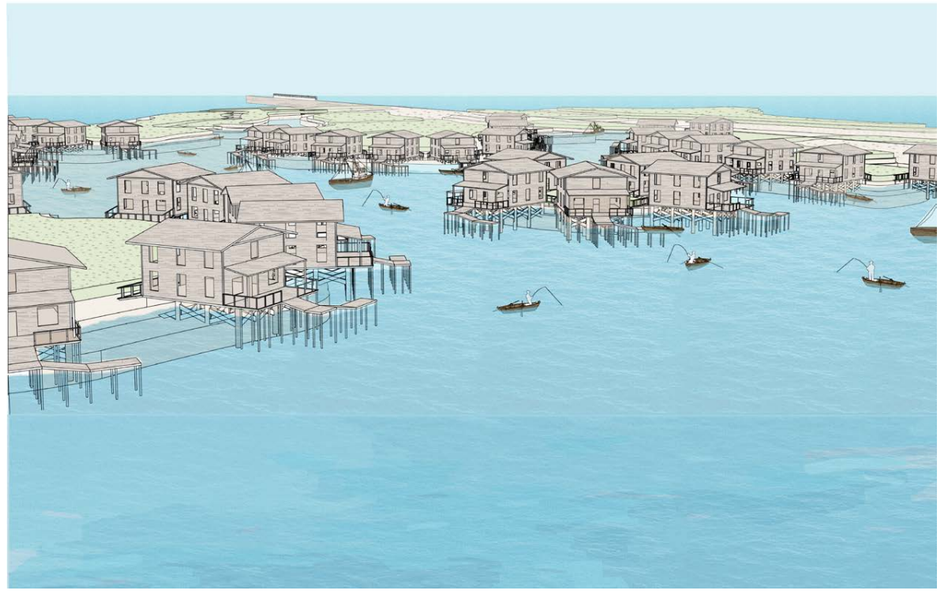
The “Raunt” as it was called in the early 1900s was the original fishing village located on the site. It was composed of temporary homes, bars, and even a hotel. This village however only survived till the late 1920s due to pollution in the bay causing fish to become inedible.

In the 1960s, Robert Moses took on the task of revitalizing the bay into a freshwater wildlife refuge for migratory birds to have a stop along their flight path.

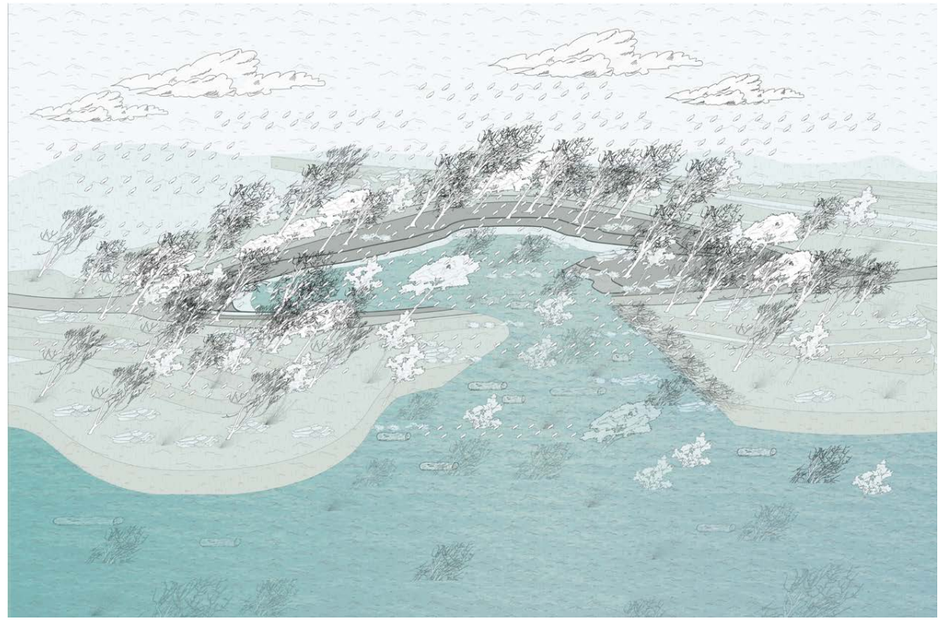
This continued till 2012, when Hurricane Sandy breached the freshwater ponds and destroyed the thriving ecosystems.

Finally, in the current state of the bay, it can be seen as a site of failed infrastructure projects, a losing erosion battles, and the recipient of a “boring” moniker due to unengaging trails.

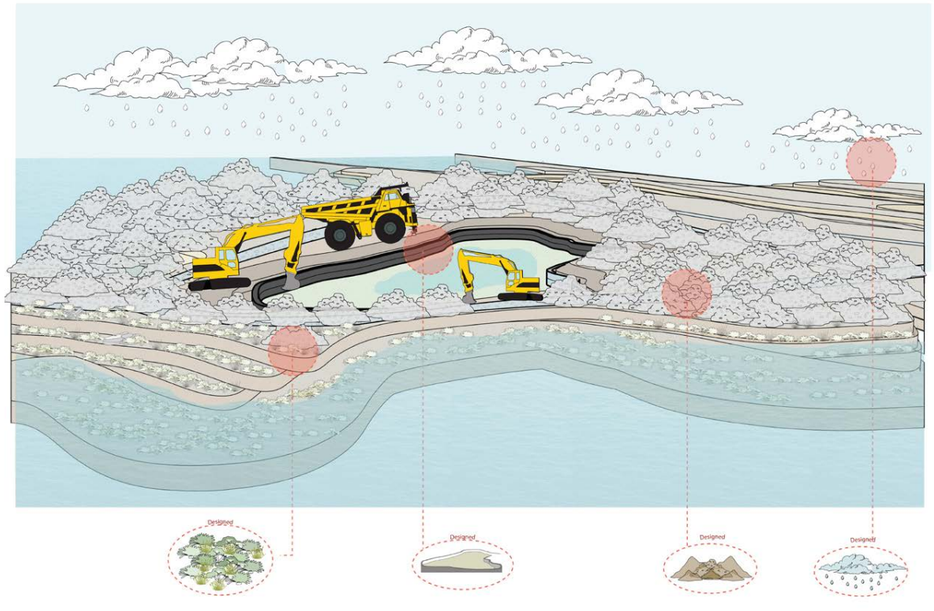
The Bay as “Livelihood”
Circa 1910s



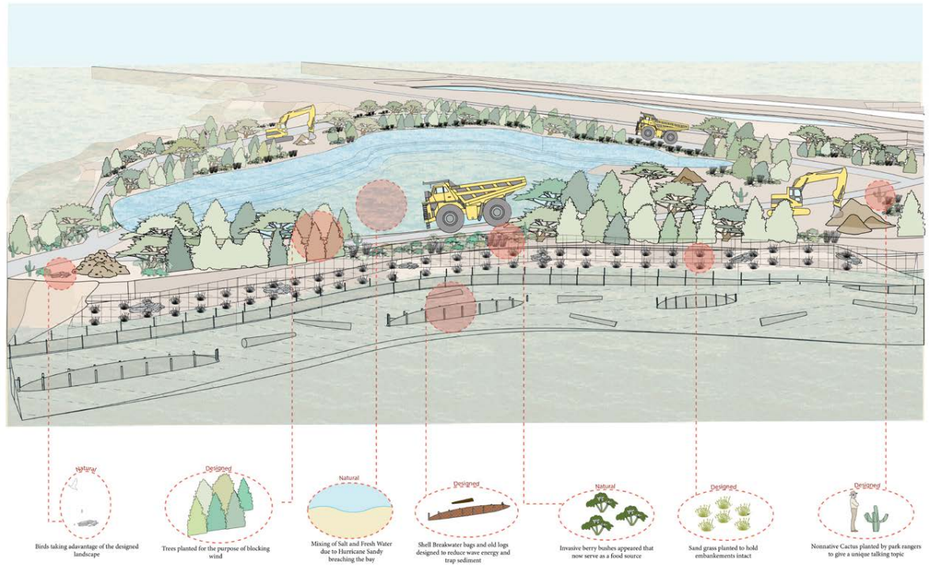
The Bay as “Natural Disaster”
2012



The Bay as “Built Environment”
Circa 1960s



The Bay as “Education”
2014-Present



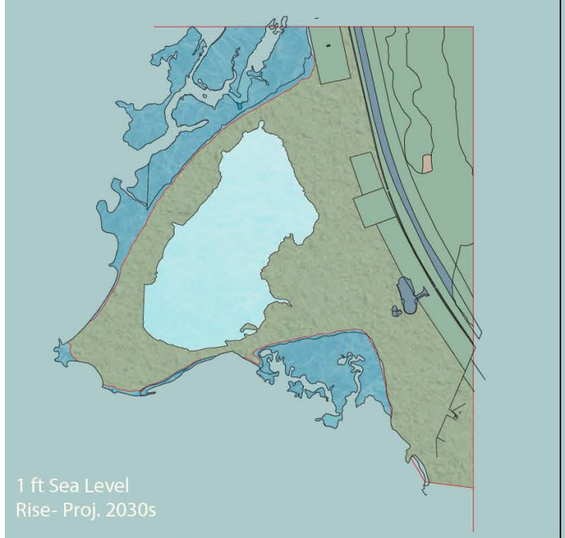
Site Conditions

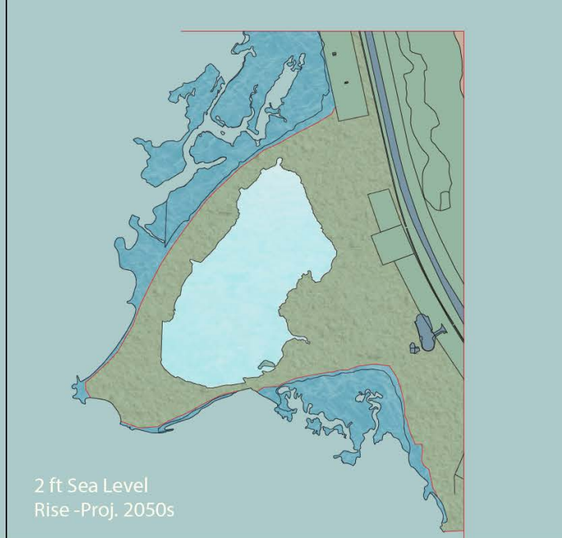
With the knowledge gained from our research, we examined the ongoing site conditions that plagued the refuge. By projecting out future sea level rise and flood risks for the next 100 years, we were able to identify weak points along the site for us to focus in on. These 4 locations became the future sites for our interventions to address.

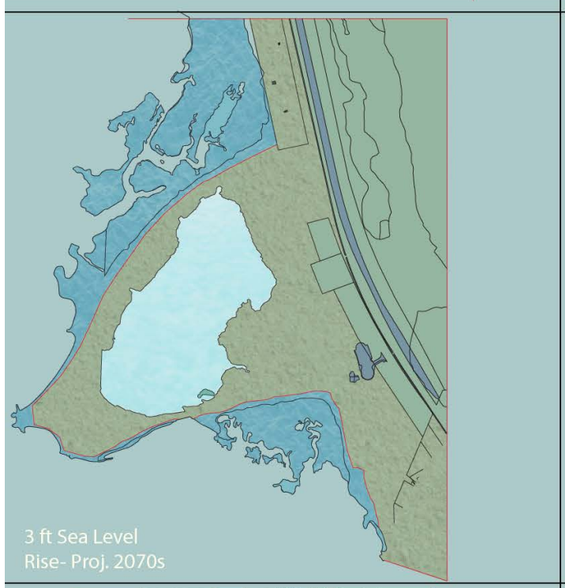
Sea Level Rise of Focus:
4 ft Rise-
Projected :
Medium Rise Pace -2090s
Fast Rise Pace- 2070s
Extreme Rise Pace - 2050s

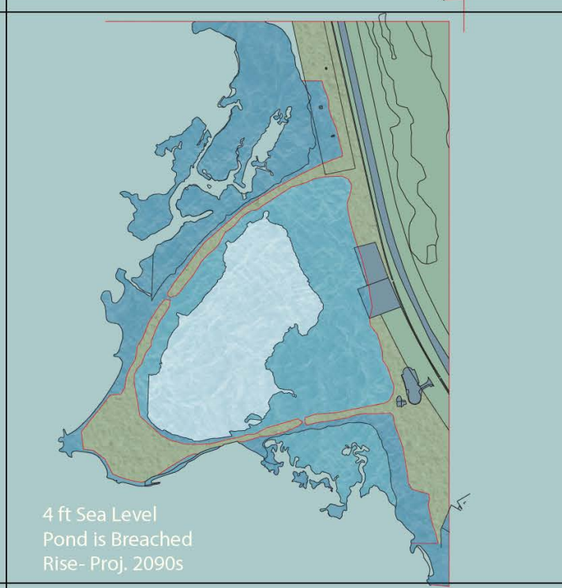
4 ft Flood Risk- 18% Current Chance and increasing
100% Chance of yearly floods in 2060
Breaches West pond and begins covering the refuge

Areas of Focus

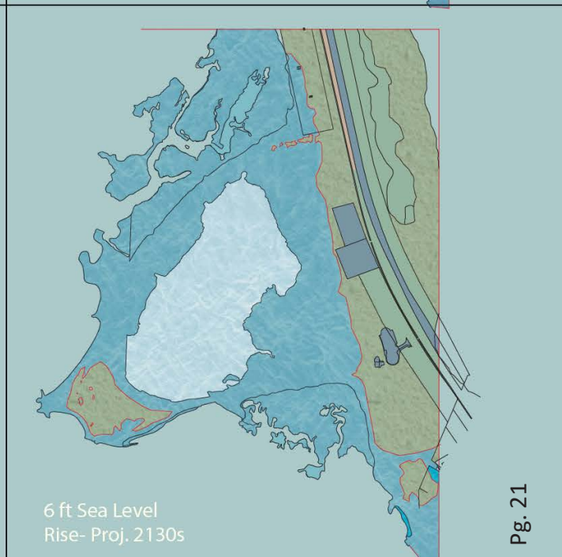

1 ft Sea Level
Rise- Proj. 2030s


2 ft Sea Level
Rise -Proj. 2050s


3 ft Sea Level
Rise- Proj. 2070s


4 ft Sea Level
Pond is Breached
Rise- Proj. 2090s

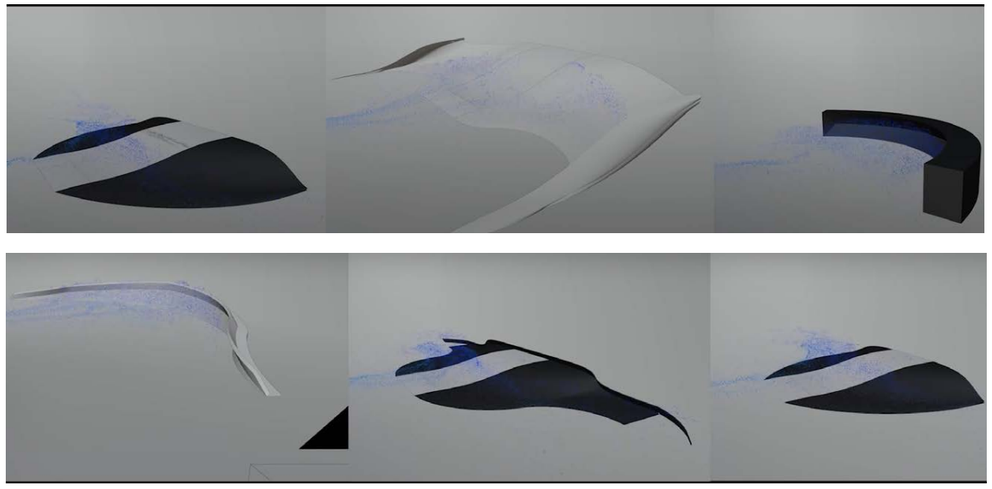

5 ft Sea Level
Rise- Proj. 2110s

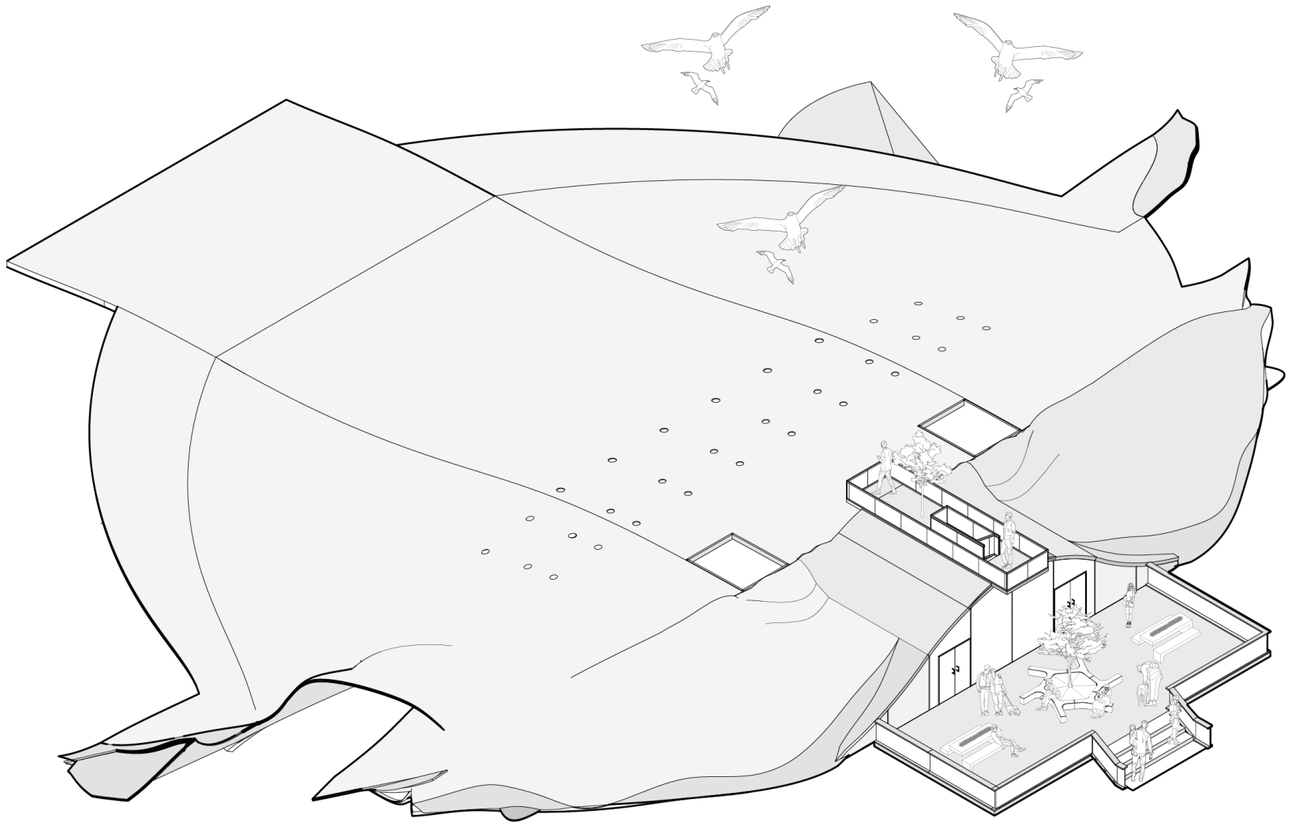

6 ft Sea Level
Rise- Proj. 2130s

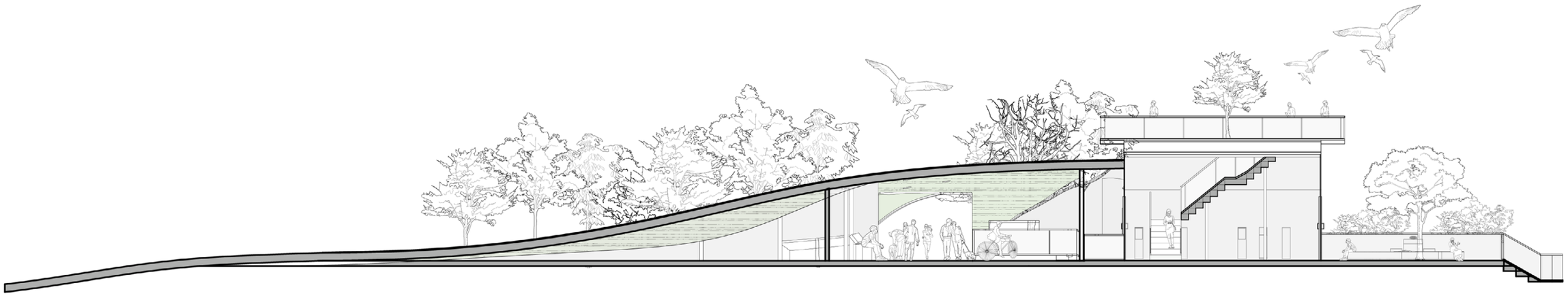
Building Nature

Knowing our main issue to address is salt water breaching the pond, the idea was to build a nature hilly landscape that can serve as barrier to ocean water while still integrating into the natural environment.

To find the ideal shape, I modeled a series of sloped systems as well as barriers that are used in real life situations. From there, I created a fluid dynamic system in 3DSmax to test how water would interact with the barricades. These simulations helped to point us in the direction we wanted to shape our pavilion in.

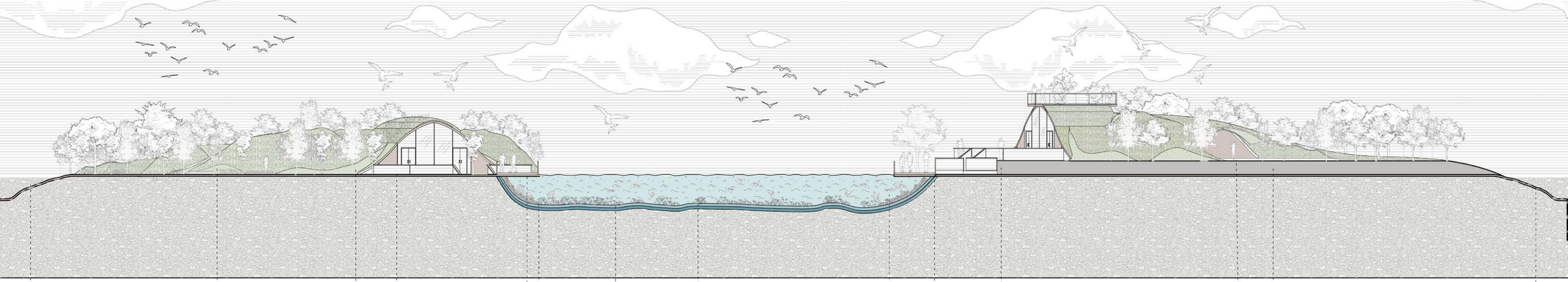






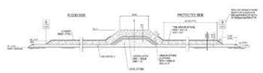
Revisiting the Site

Along with the pavilions, we also wanted to revitalize the rest of the site as well. To do this, we researched similar sites to look for strategies that have successfully deployed in similar conditions. With that knowledge, we came up with a restoration strategy that contained numerous techniques that can be implemented to fight against erosion, deal with rising tides, restore ecosystems, and create more interesting trails and moments to attract public interest.



Vegetative Buffer: Plant a buffer zone of salt-tolerant vegetation between the salt marsh and the freshwater pond. This buffer can help absorb excess nutrients, filter pollutants, and reduce erosion

Breakwaters structures: constructed in the water, either offshore or nearshore, that can absorb wave energy and reduce the wave exposure of flood risk reduction features landward of it.



Implement a floodwall system with berms, bulkheads, and revetments to prevent sea level rise.

Geotextile fabric to help prevent erosion and stabilize the soil.

Low - Impact Elevated pontoon boardwalk, Birdwatching Platform and Bird Canopy.

To combat sea level rise, raising the pond's water level through controlled water management or constructing elevated berms or dikes.

Implement materials such as geotextile fabric to help prevent erosion and stabilize the soil.

Implement Mulch to retain moisture in the soil and reduce erosion on the slopes. Usage of a biodegradable mulch that will break down over time and enrich the soil.

Implement erosion control measures such as planting native vegetation along the pond's edges, installing erosion control blankets and retaining walls or dike walls for sea level rise.

Install a screening or baffle system at the terminal outlet of the pond to regulate stormwater flow and integrate freshwater to the pond, as well as to capture pollutants

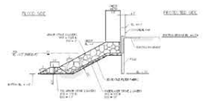
Freshwater tank collected from the wasterwater treatment plant.

Implement erosion control measures such as installing erosion control blankets, planting native vegetation, and constructing natural barriers like oyster reefs, rock sills, and coir logs to stabilize the marsh edge.

Low - Impact secondary trail / boardwalk for pedestrian and cycling access and usage.

Reintroduce native vegetation around the pond, especially species that can thrive in brackish water conditions. This will help stabilize the shoreline and provide habitat for wildlife.

Revetments are onshore structures made of erosion resistant material such as stone or concrete. They are typically built to protect the shoreline from erosion



The Pavilions

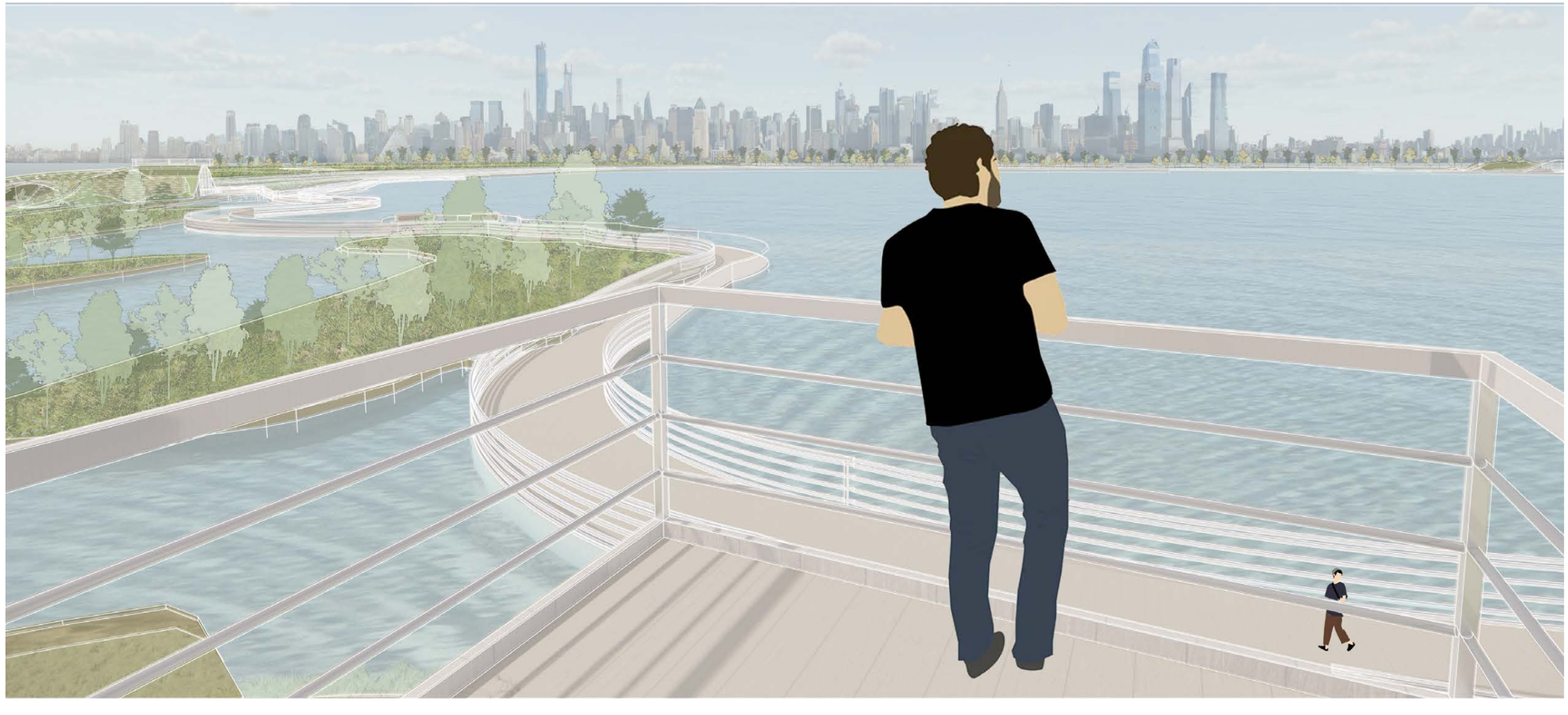
With the Pavilions, we wanted to create a space that addressed the needs of both visitors and non-human entities. For people visiting, common complaints of the site were lack of shading, sitting areas, and points of interest. To address this, the four pavilions serve as way points along the two trails, giving a place of refuge from the sun, a place to sit and read about the history of the site, as well as give elevated vantage points to view the bay and city skyline.

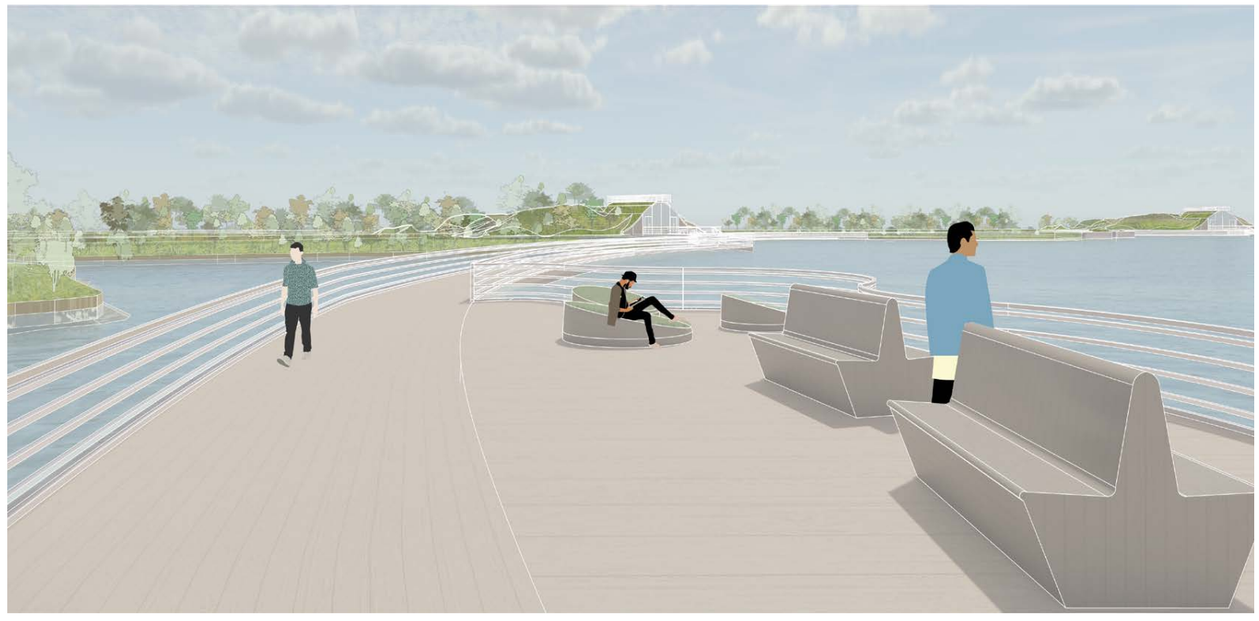
The non-human entities were also considered through the inclusion of protected nesting grounds, elevated perch points, and new terrain for them to inhabit.

The Trails

When examining the existing trail on a site visit, we saw a missed opportunity due to its lack of interaction with the pond on the site. Because of this, our site redevelopment included a second floating “trail” located in the west pond as an alternate means of egress that allows visitors to fully emerge themselves into the site and give better view points to see both the wildlife, the bay, and the city beyond it.

This trail also serves as another connecting point between the pavilions and includes moments of rest along the path





The New Avery Hall

Bryony Roberts, Abriannah Aiken, Advanced V Studio, Well School

Fall 2024

Site: Columbia University Campus, Manhattan, NY

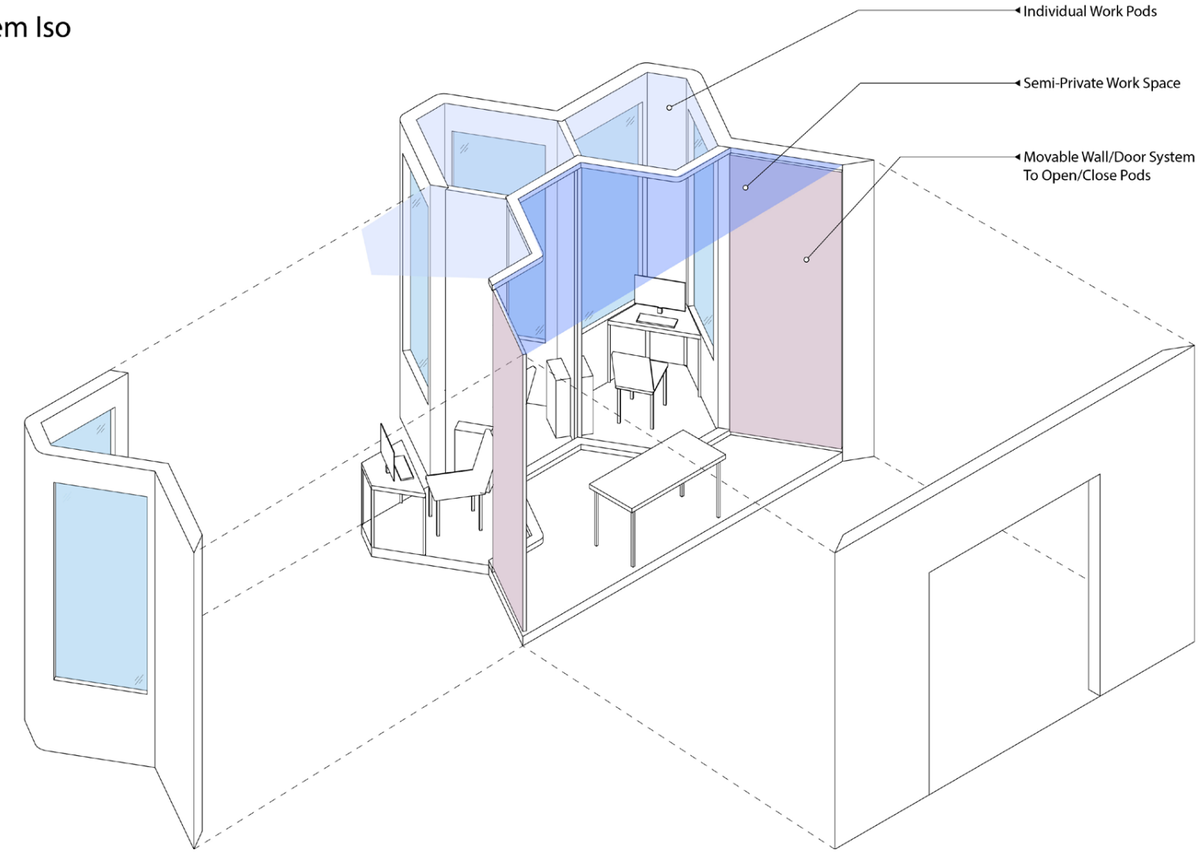
Modernizing Avery is a project that updates our Architecture Building, Avery Hall ,to address modern student needs. Working primarily on the upper floors, the design focuses on creating an extension of the floor plate with the goals of increasing studio sizes and introducing a variety of communal spaces within the learning environment. These spaces primarily focus on sensory experiences such as light and touch but also bring in much-needed zones such as quiet work offices and dedicated model building areas. Additionally, the new extension is connected through an open atrium to bring in natural light and give a visual connection between floors. It also introduces a 2nd circulation system to help ease the congestion issues currently within Avery.

Early Concepts

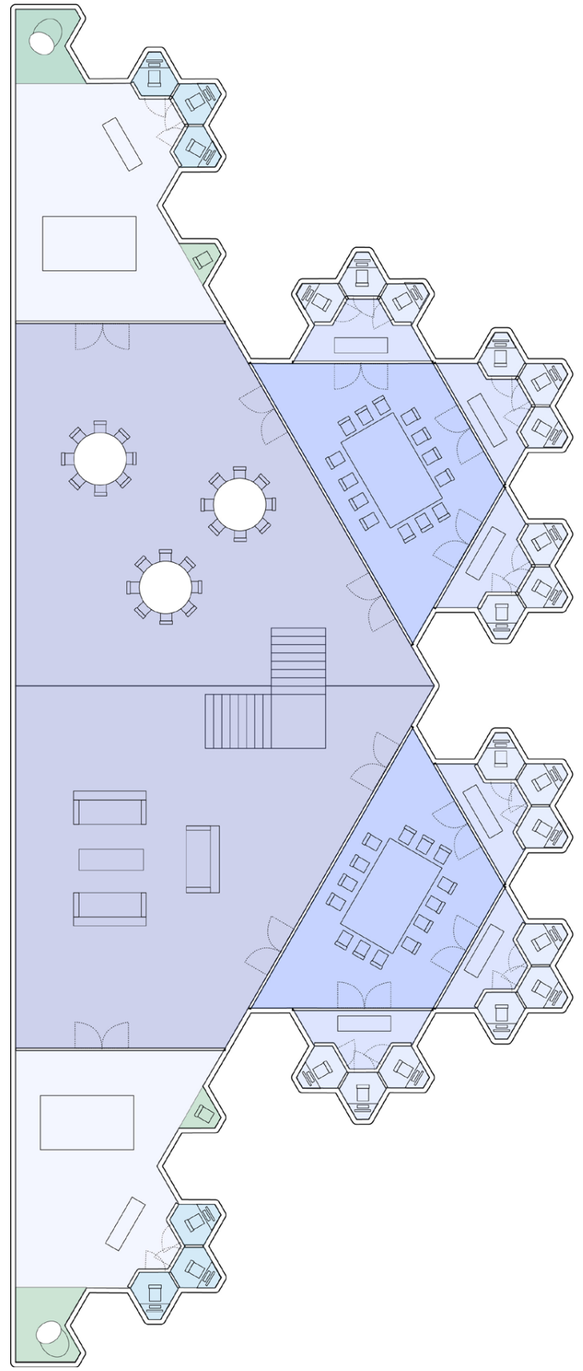
The overall theme of this studio was the idea of the “The Well School”. A school that is focused on addressing the needs of student agency and neurodivergence. A big part of the semester was looking into research of mental health of architecture students and the elements they feel are lacking in their architecture schools. Through surveys with classmates, I was able to narrow down common needs such as privacy, more space, and more flexibility in the floor plan.

With that knowledge, my initial concepts focused on this “nesting egg” idea of how studio spaces can be divided up into a private-semi private-public system so students can decide how open or closed they want their working space to be. For inspiration, I looked at fractals to initially layout the space as their repeating patterns lent well to the nesting egg concept.

Studio System Iso



Floor Plan Concept



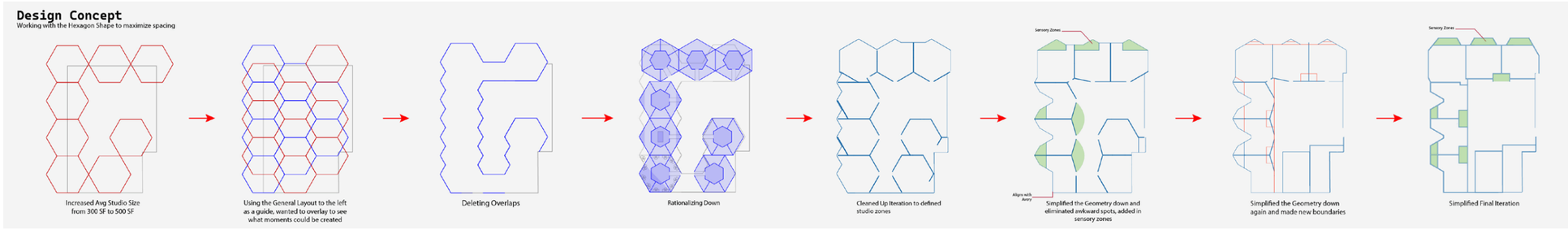
Nesting Egg Hierarchy

- Communal Area
- Overall Studio Space
- Semi-Private Work area
- Individual Studio Pod
- Communal Work Area
- Communal Pods
- Relaxation Area

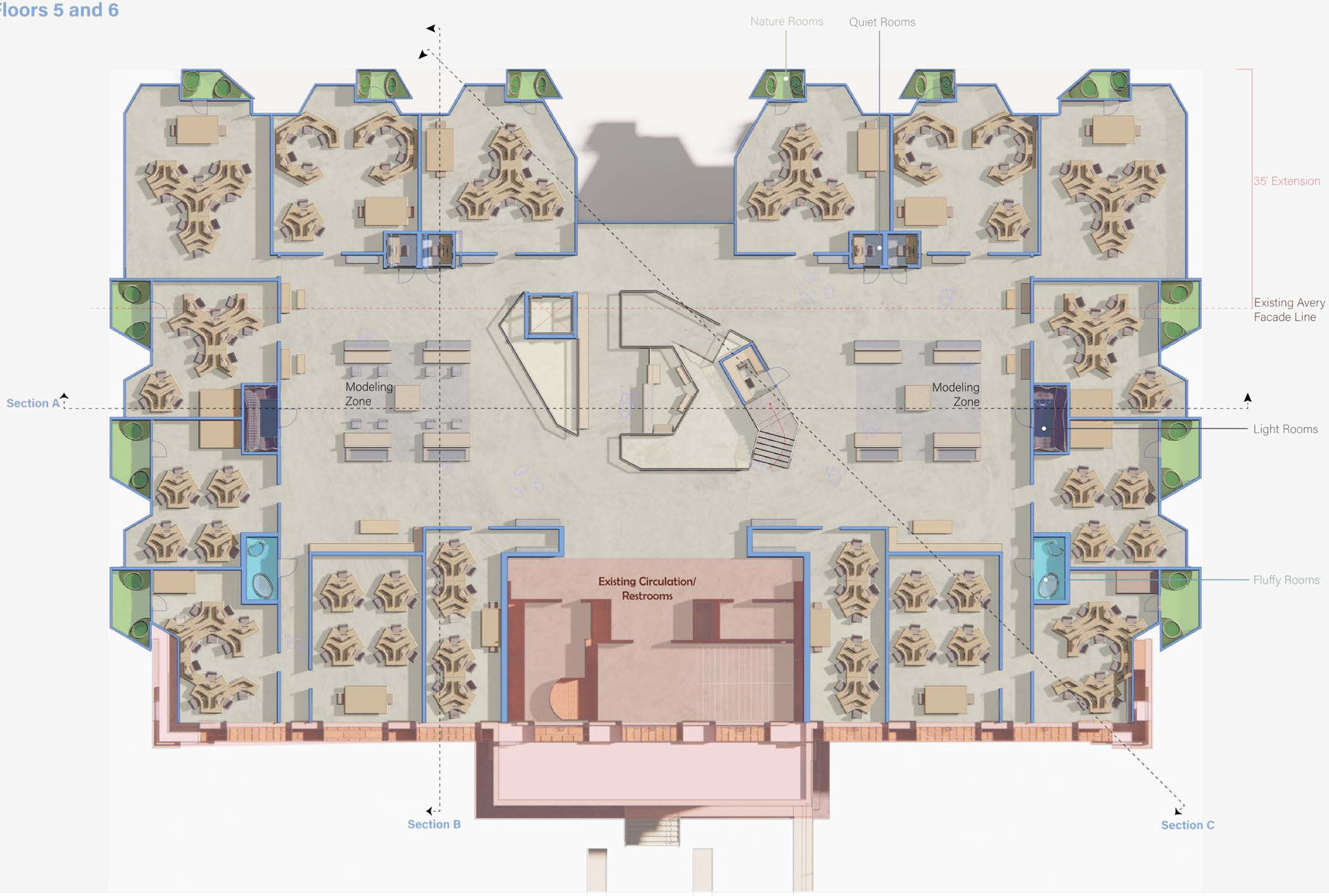
Typical Plan/Concept

Through iteration, I shifted from a complete new design through fractals to examining how I can manipulate whats currently is existing and how build on it. I worked with various shapes before deciding on the hexagon as the base layer into how I would change the Avery Hall floor plate. Through iteration and rationalizing seen in the concept diagram, I was able to work with the hexagons into the final plan idea.

This design addressed the needs of increasing studio space from 300 sf to 600 sf while not extending the floor plate too much outside of Avery. The use of hexagons also created unique overlapping moments that I was able to manipulate into different zones and spaces that would include sensory experiences and give students a less cramped floor plan.

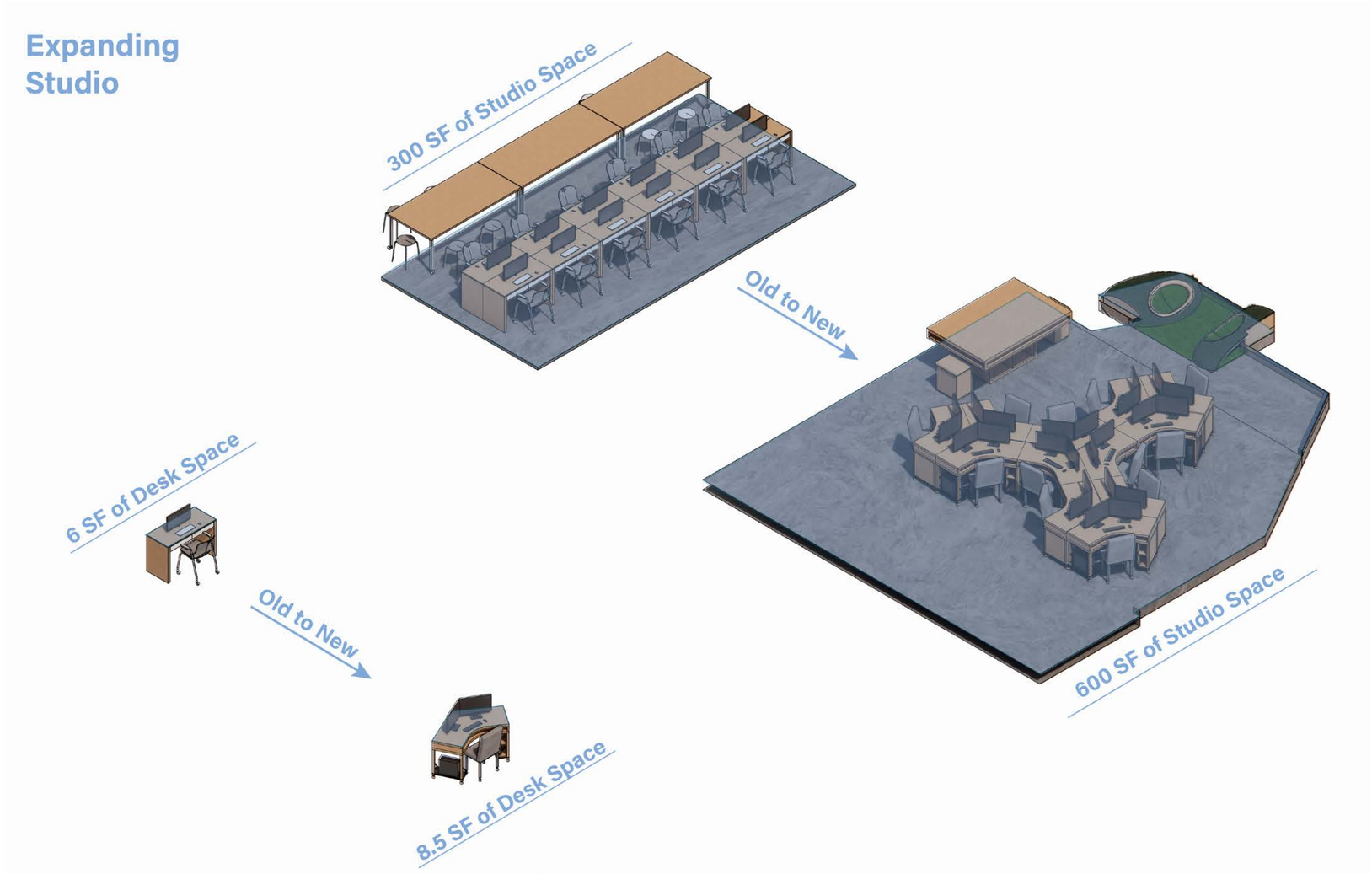


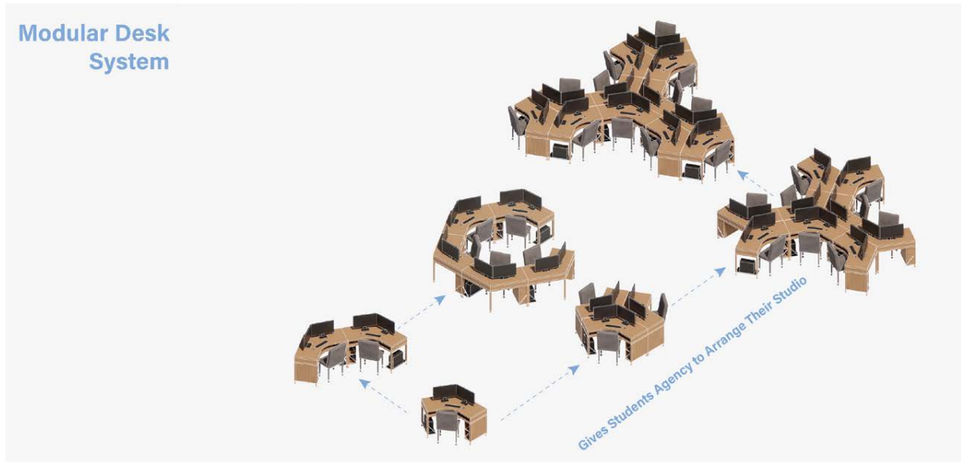
Typical Plan: Floors 5 and 6

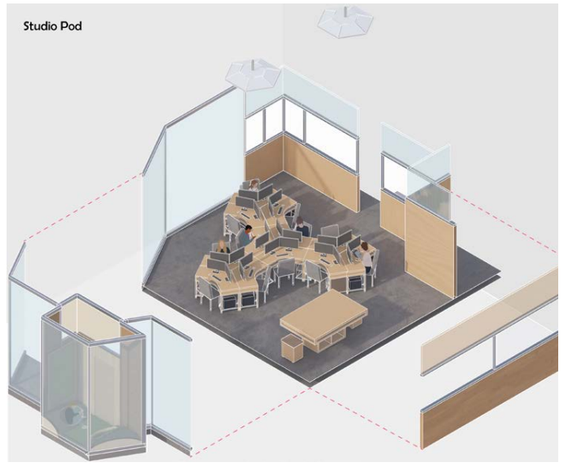


Student Space and Agency

Taking a closer look at the studio spaces, the plan presents a variety of desk layouts from studio to studio. This is due to the Modular Desk System I designed that would gives students the agency to reorient their studio as they see fit. If its a partner studio, they can group up easily, or if its individual studio, they can manipulate their desks to get more privacy. This desk system also gives each student more desk and storage space which is lacking with our current studio conditions







Interior Moments

Another big focus on the redesign was addressing the interior space of Avery. Right now it is very cramped and “closed” off and I wanted to change that. Through the introduction of a 2nd circulation system, I created an open atrium space connecting the ground floor to the 7th, allowing light and air to flow through the building. Additionally, this brings a sense of community between studios with the open connection that allows visual sights and spaces for students of different years to meet. Something that is currently difficult, with our studios being closed off on different wings of the building.

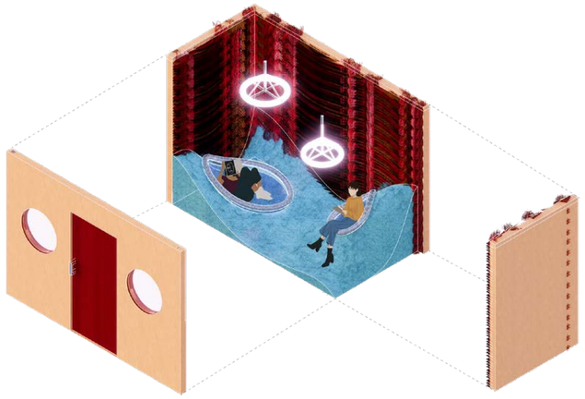
Additionally, the more open floor plate allows for spaces such as model building areas, discussion areas, and quiet offices, so students don’t have to cramp up their studio with model materials, classes can move around, and people can have privacy in an closed up office.

Sensory Experiences

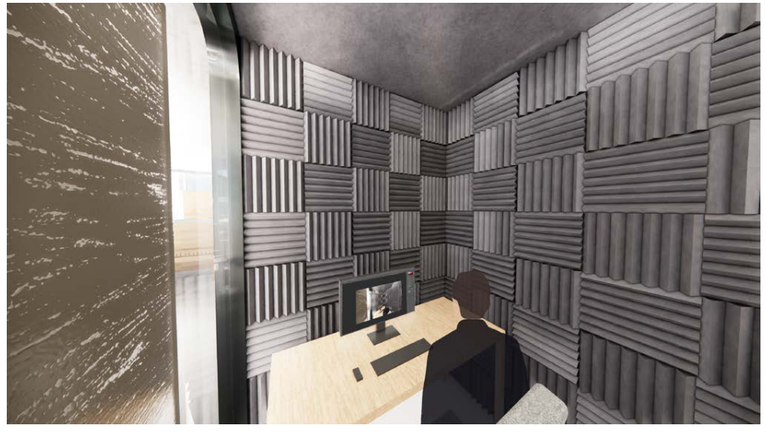
A big focus on this studio was sensory experiences and how they can give students unique study/work areas away from a desk. Through the creation of the overlapping spaces from the hexagons, I worked to design different unique zones that would impact the senses. The Nature Zone, lines the outside of the building and connects to each studio, to give students an adjacent work space that allows them to have fresh air and a natural surrounding. The Sound Zone works as a quiet work booth, giving students a space to take phone calls or just work in silence. The Fluffy and Light Zones work as relaxing spaces that do away with the rigidity of the studio environment and give a space to unwind and lounge without leaving the building. The range of spaces was to give a wide range of options to students as everyone approaches working differently.

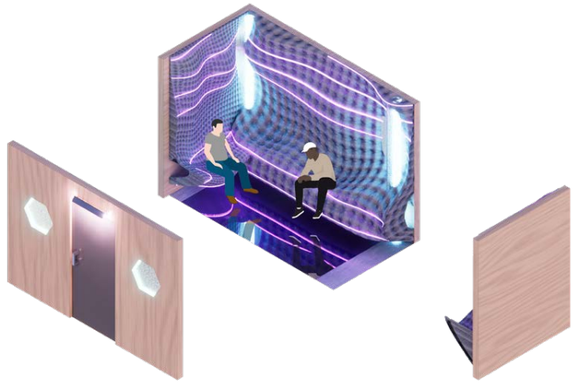
Nature Zone

Sound Zone



Fluffy Zone





Light Zone

Building Sections

The design focused on the upper floors of Avery Hall as that is where the studios are located.

However, I also created a 2nd entrance to the building through the design of a new courtyard facade that also introduced more classrooms,discussion spaces, and circulation systems that are much needed.

Section A

Section B

Section C

Welcome to The Hoodoo Archive

Ephemeral

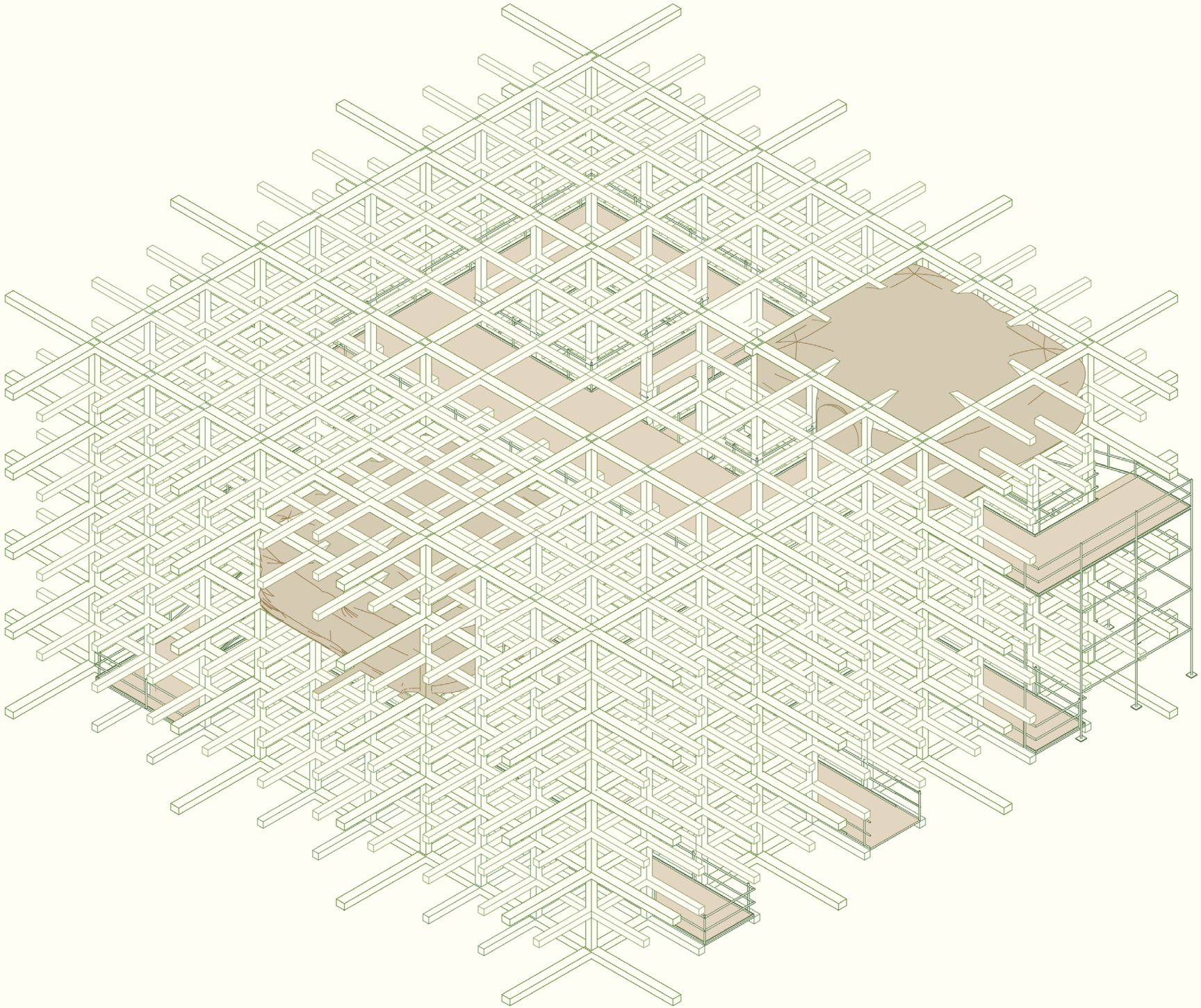
Eleni Petaloti, Leonidas Trampoukis, Advanced VI Studio

Spring 2025

Site: Nevada Test Site

Ephemeral is a collection of projects worked on throughout the semester with a focus around the ideas of temporality, movement, permeability, and building interaction. The first project, The Club, explored the relationship of rigid vs organic through the contrast of a grid system that allowed visitors sneak peaks of the rest of the structure while enocuraging explorative ciruclation. After our Kinne trip to Japan, the 2nd project, The Hoodoo Archive, took inspiration from museums visted on Naoshima Island. The Hoodoo Archive focuses on the idea of “Gallerifying” nature where the art is not man made but the natural rock formations of the desert. The museum takes on the design features of a liminal open space where the iteraction with the landscape is constantly being explored.

The grid's relationship can be broken down between the rigid beams and columns and the organic walkways and bubbles that fill in the carved out spaces. The overall design of the structure is to give off the impression of an unfinished building, one that was left in an abandoned construction state.

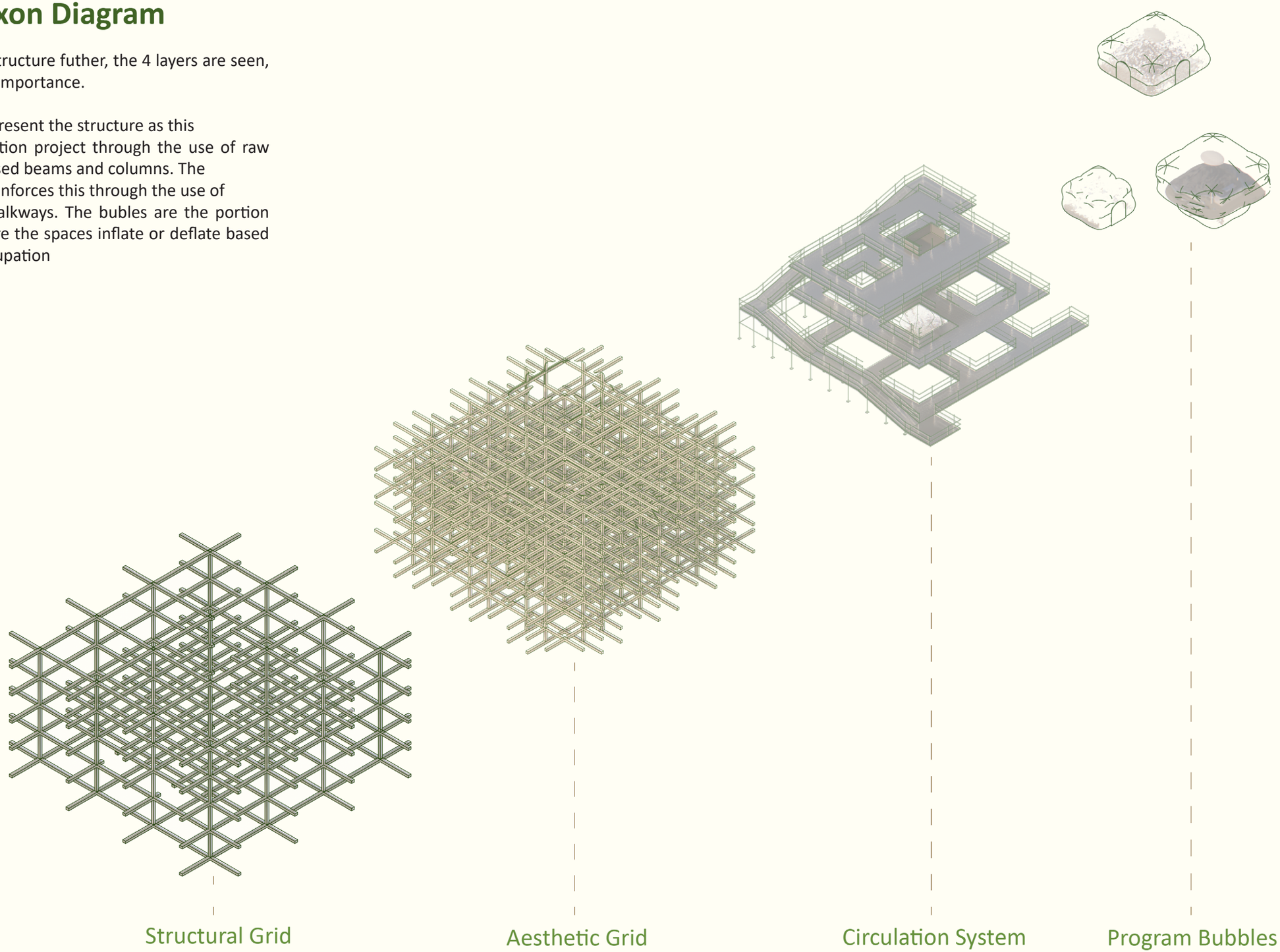


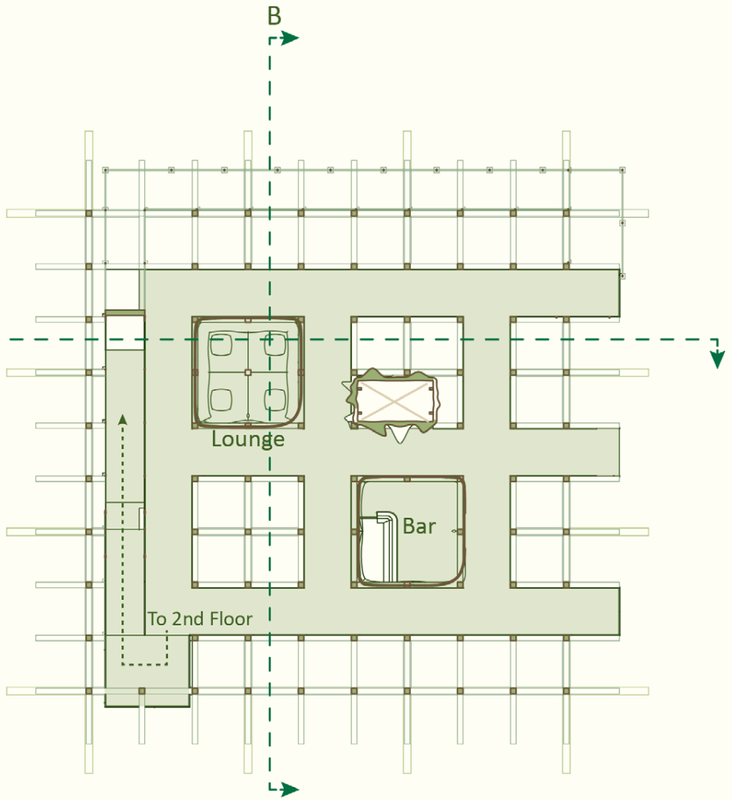
Axon

Exploded Axon Diagram

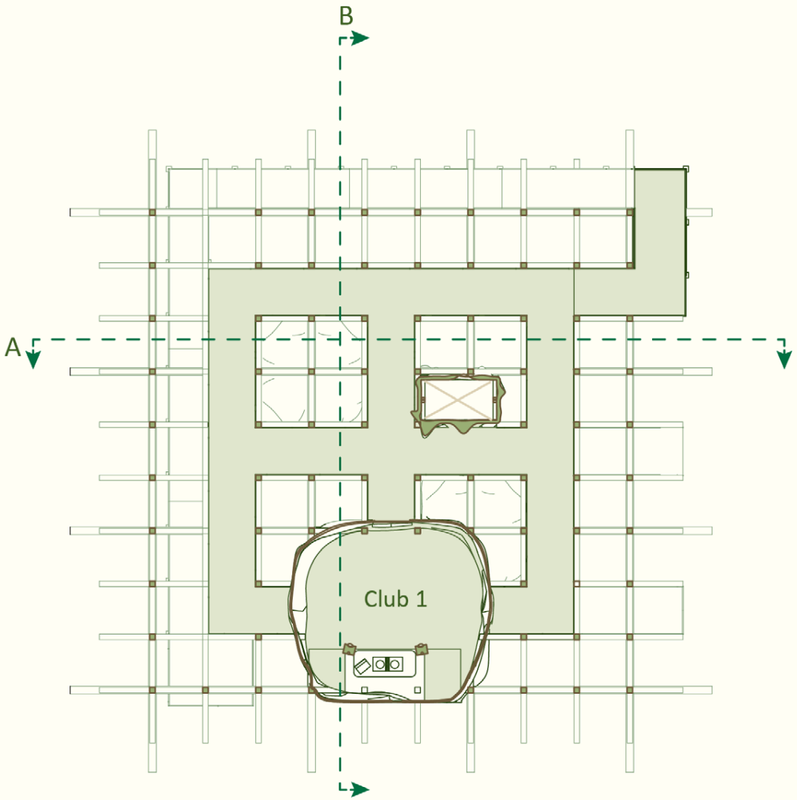
Breaking down the structure futher, the 4 layers are seen, each with their own importance.

The two grid layers present the structure as this abandoned construction project through the use of raw materials ande exposed beams and columns. The circulation system reinforces this through the use of scaffolding as the walkways. The bubles are the portion that are “alive” where the spaces inflate or deflate based on their use and occupation

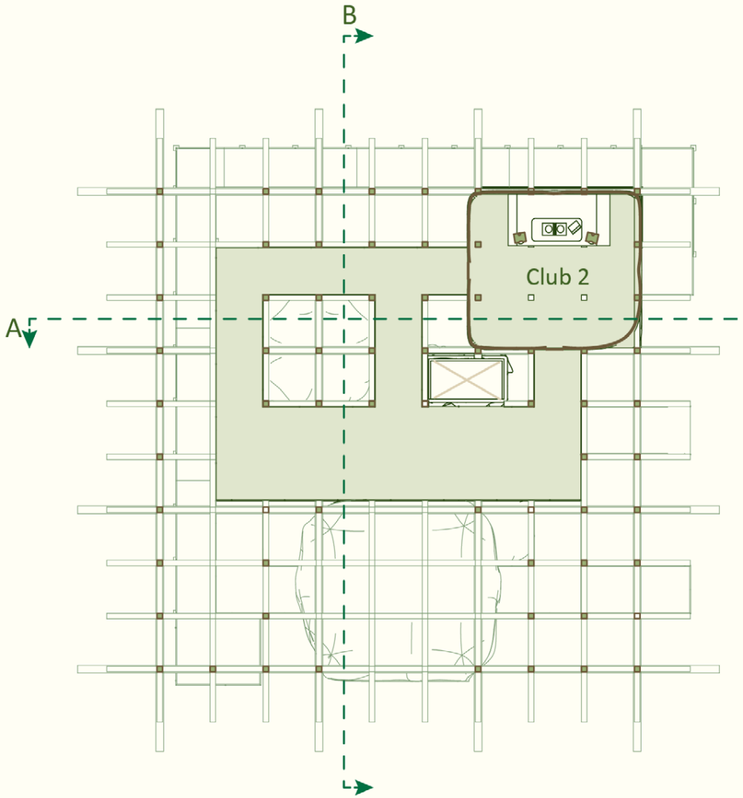




Level 1



Level 2

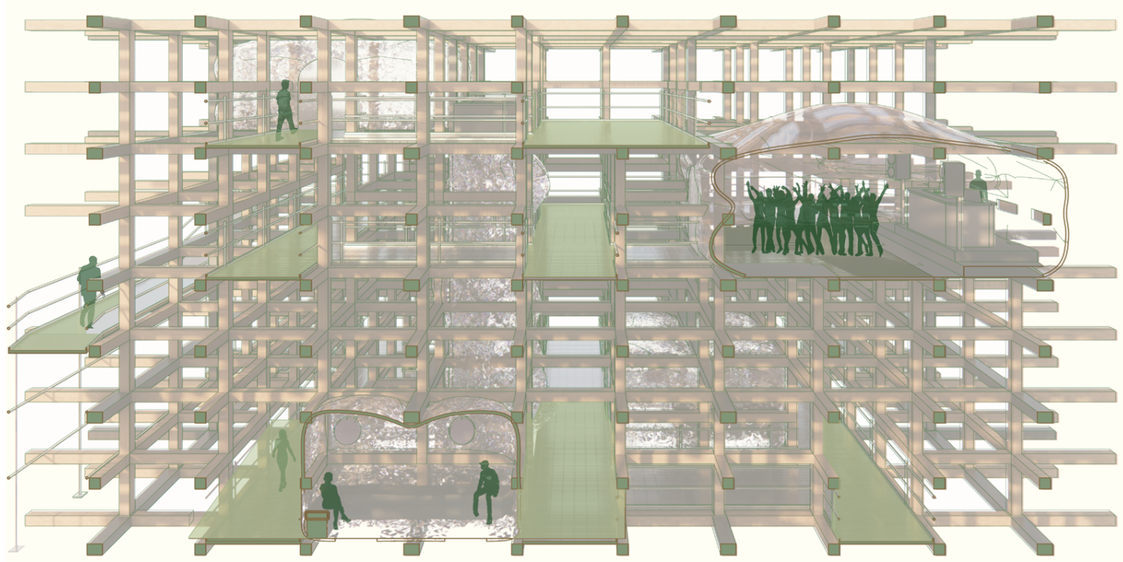


Level 3

The whole structure falls within a grid system with each component working in tandem. The walkways and bubbles carve out the grid while still remaining in some level of uniformity with it.

Examples displaying the system relationships of the structure

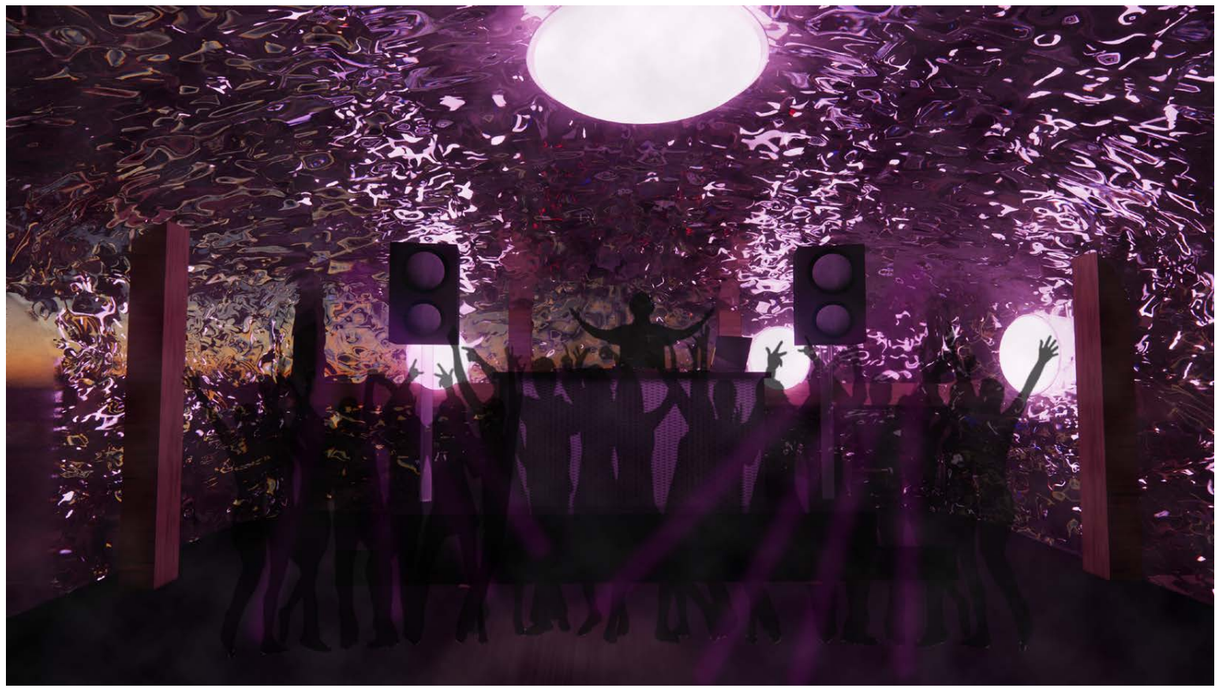
Section A



Section B

The walkways create an exterior walkable boundary around the bubble cores giving visitors views to the outside while also creating a visual barrier from the exterior. Reinforcing this idea of giving hints of what is there but requiring the person to still go in and explore.

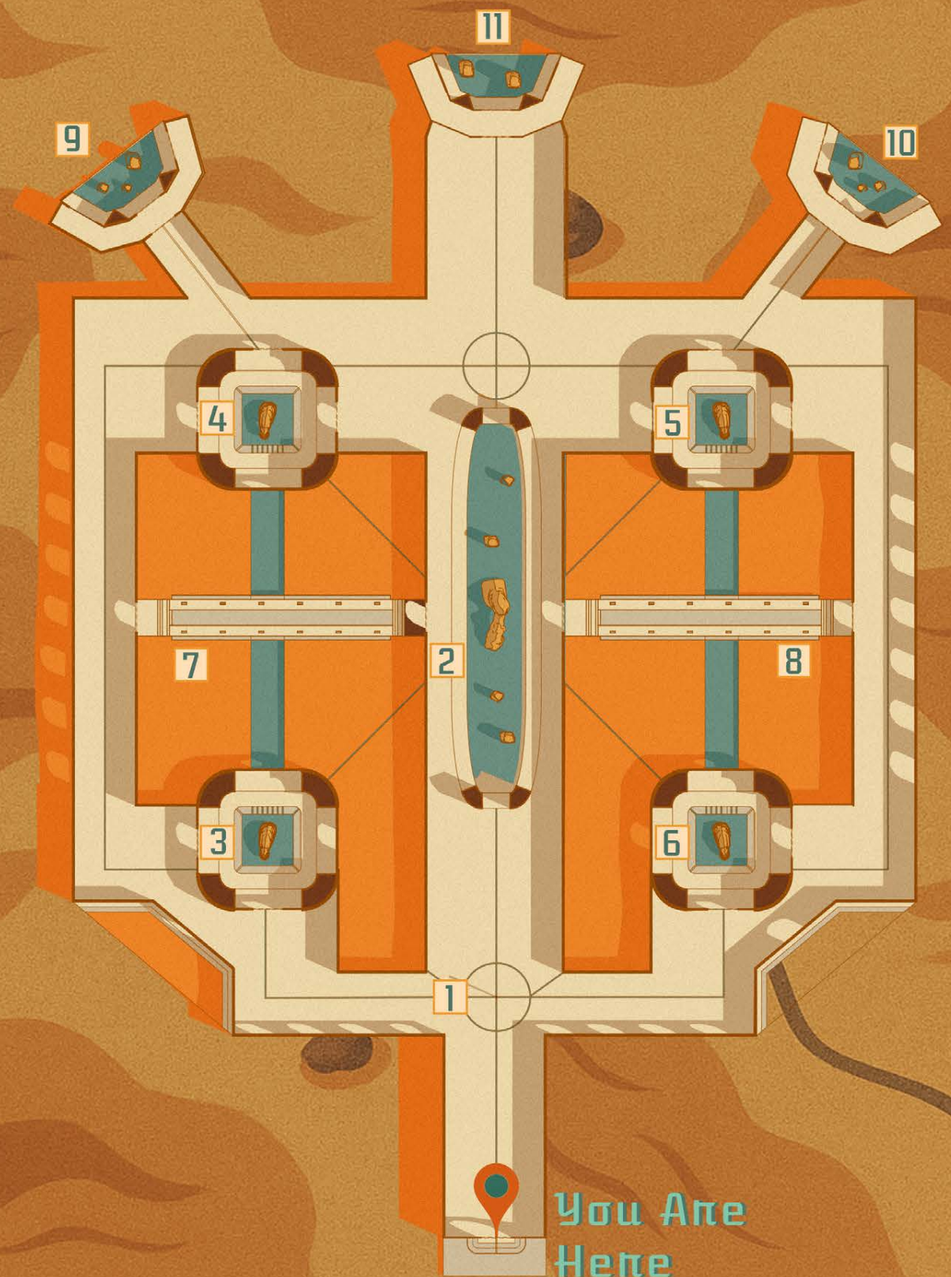
Further construction site elements are included like the use of a scissor lift as the elevator system.



Inside the bubbles are dynamic spaces that play with the relationship between light and materiality. When the bubbles comes “alive” it fills out the carved out spaces and bends around the grid system. The materiality then helps obscure the bubbles interior from the rest of structure, creating an intimate space while still giving some views to the outside world

Welcome to The Hoodoo Archive

Visitor Map



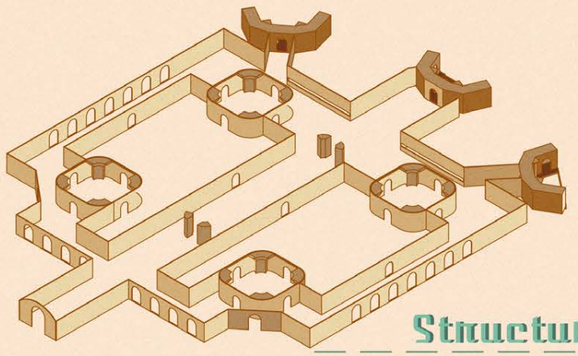
Exhibits:

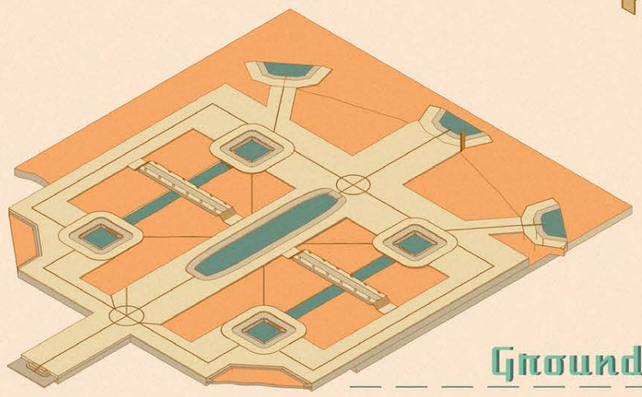
1. Essence of Life
2. The Solarium
3. Artifact #1
4. Artifact #2
5. Artifact #3
6. Artifact #4
7. The Oasis
8. The Mirage
9. The Dunes
10. The Pillars
11. The Horizon

Visit Us Today!

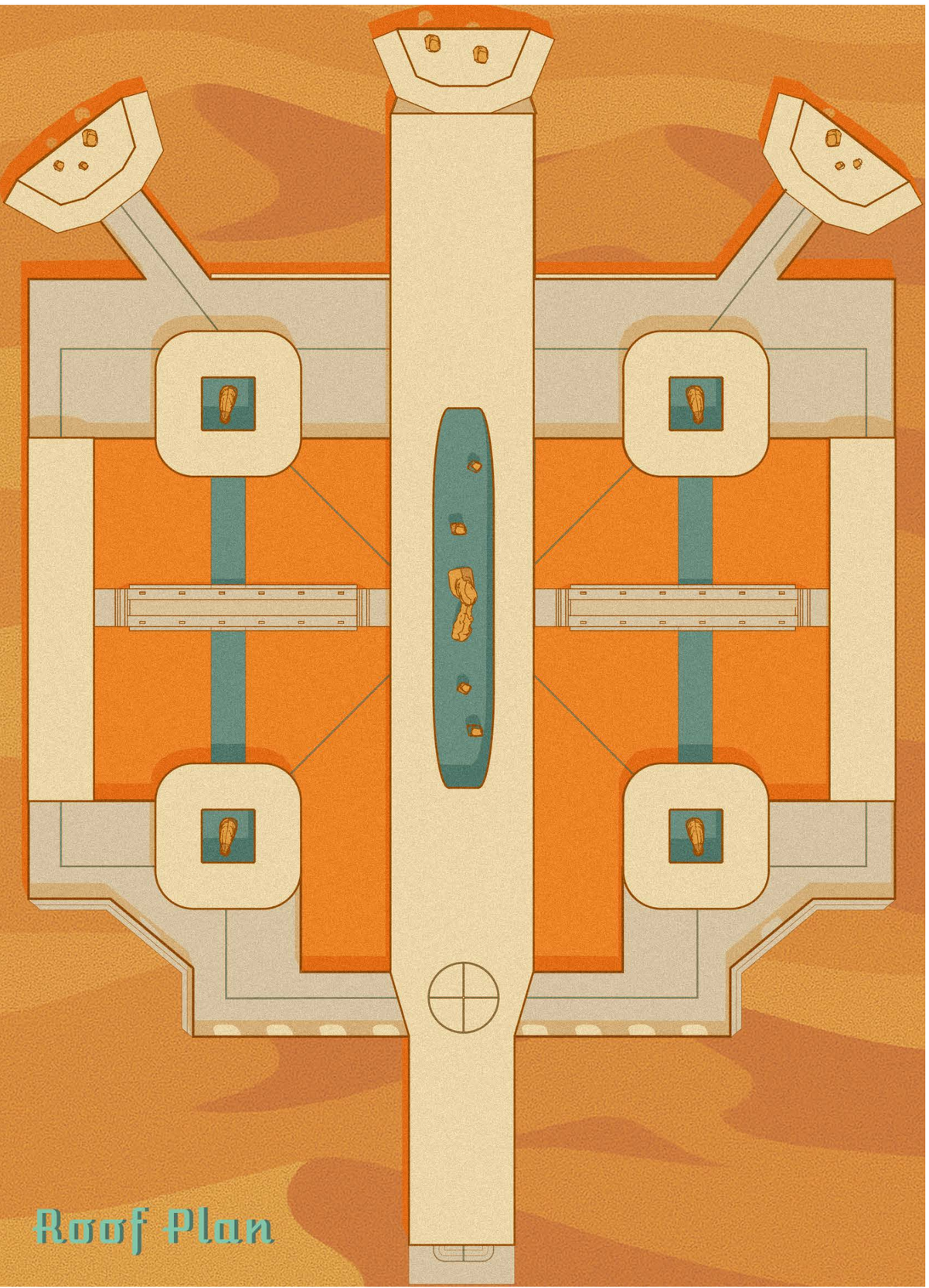
Presented through the lens of the Atomic Age, the 2nd project, the Hoodoo Archive takes on the approach of “Gallerifying” Nature, where the art of the museum is not man-made but rather the natural rock formations of the desert landscape. The inspiration behind the idea was looking at the history of the Nevada Test Site and how it used to be advertised as a touristic destination to watch the atomic bomb tests. However, I wanted to see if instead of people visiting the site to watch the nature being blown up, they simply go for the nature itself. The overall composition of the museum follows a symmetrical system with a focus on developing long sightlines, creating reflection spaces, and integrating into nature.

Building Layers

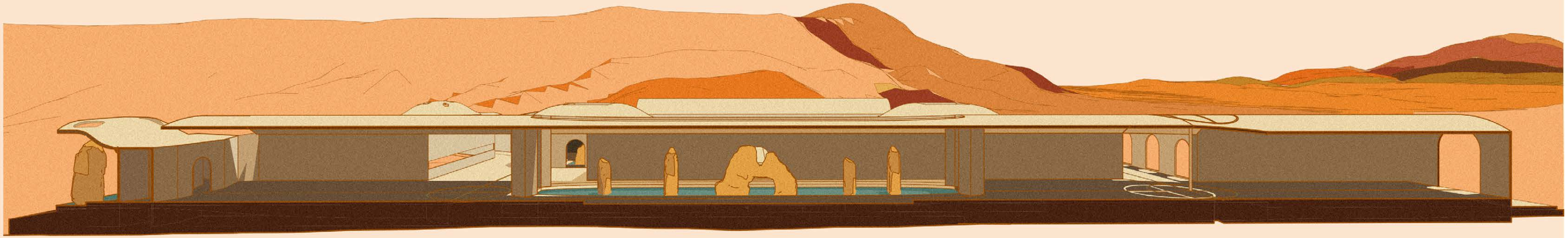




The building can be broken down into three layers. The “exhibits”, which are the rocks, create the boundary and layout needed for the building. The ground level and structure are then built around the formations, enclosing them within the gallery.



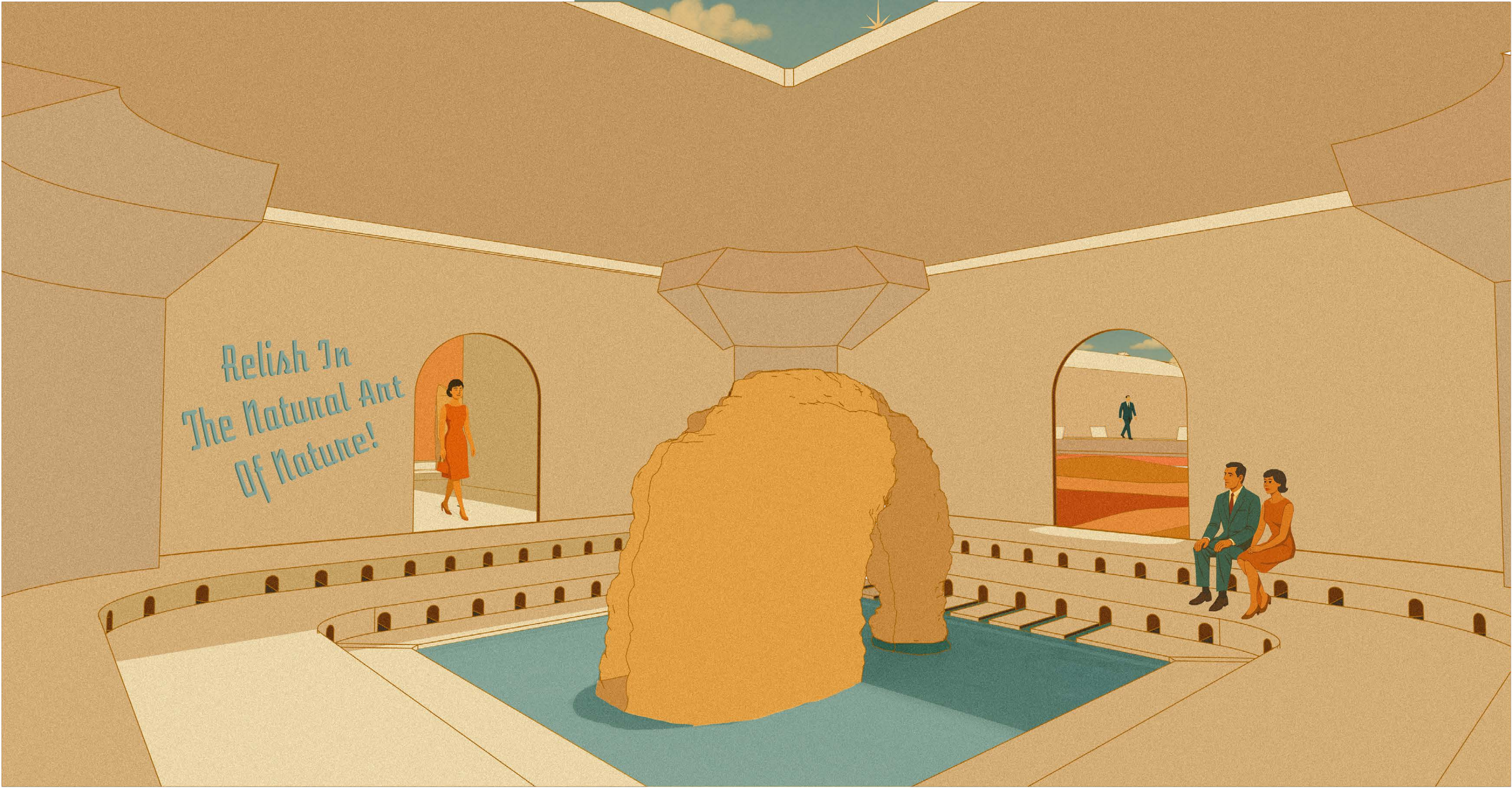
Another design focus was on the creation of long, building spanning viewpoints. Taking inspiration from the club and its ideas of giving hints towards whats to come along the circulation path, I wanted these viewpoints established to create connection between different points of the building while encouraging visitors to try to reach those points.



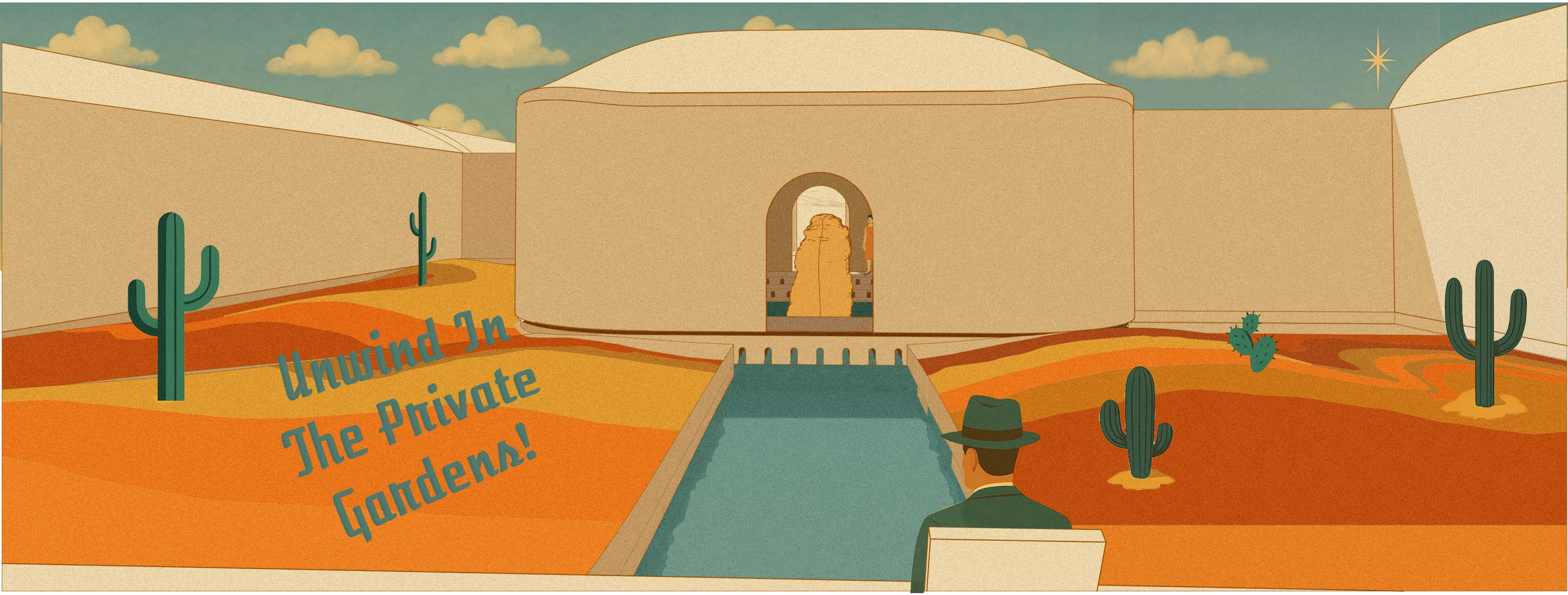
Section A

Section B

The layout also calls back to the “3 lane” walkway system seen in the club with the bubbles reappearing aswell in the form of the rock gallery spaces.

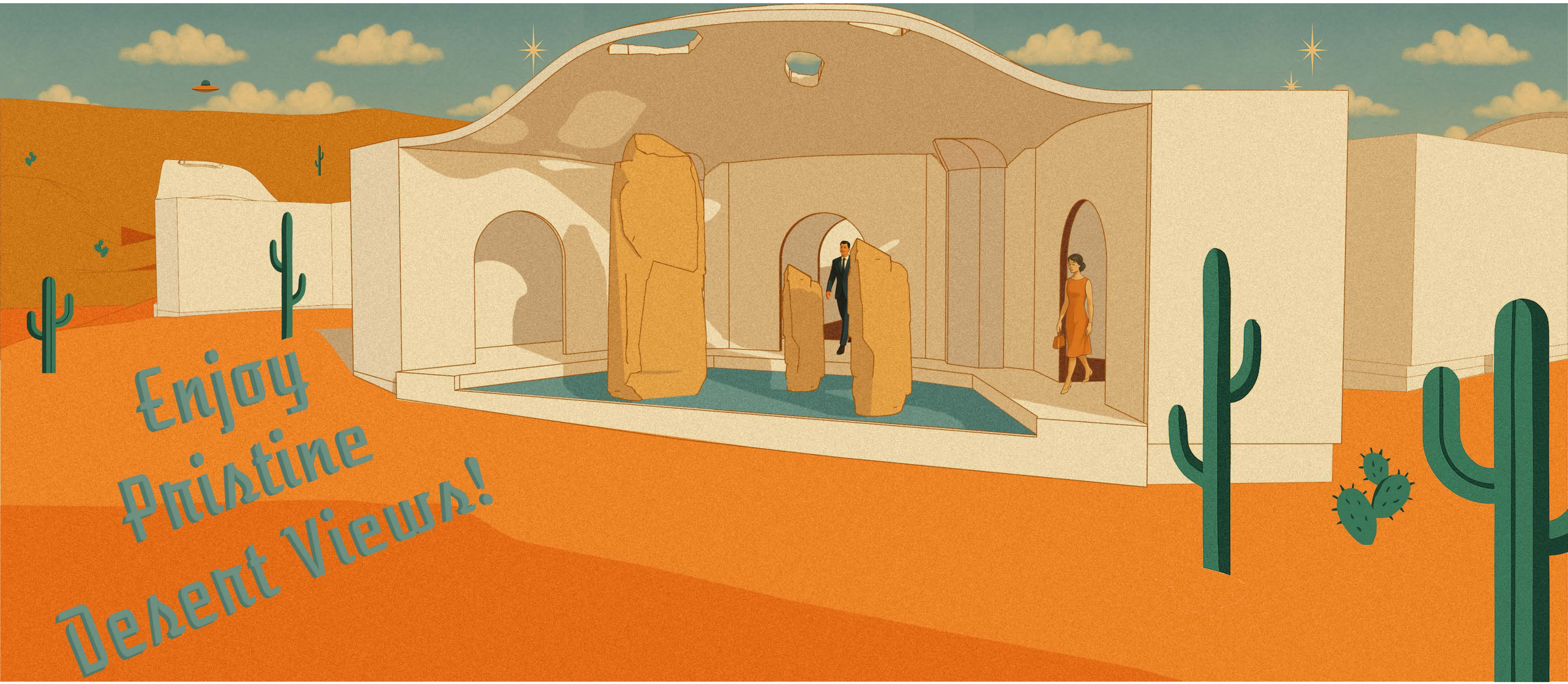


Each interior view took inspiration from Atomic Age era posters and present the structure as postcard advertisements of the museum.



The idea behind the design was to create this large temple like museum that has quiet moments of reflection while not isolating visitors from each other.

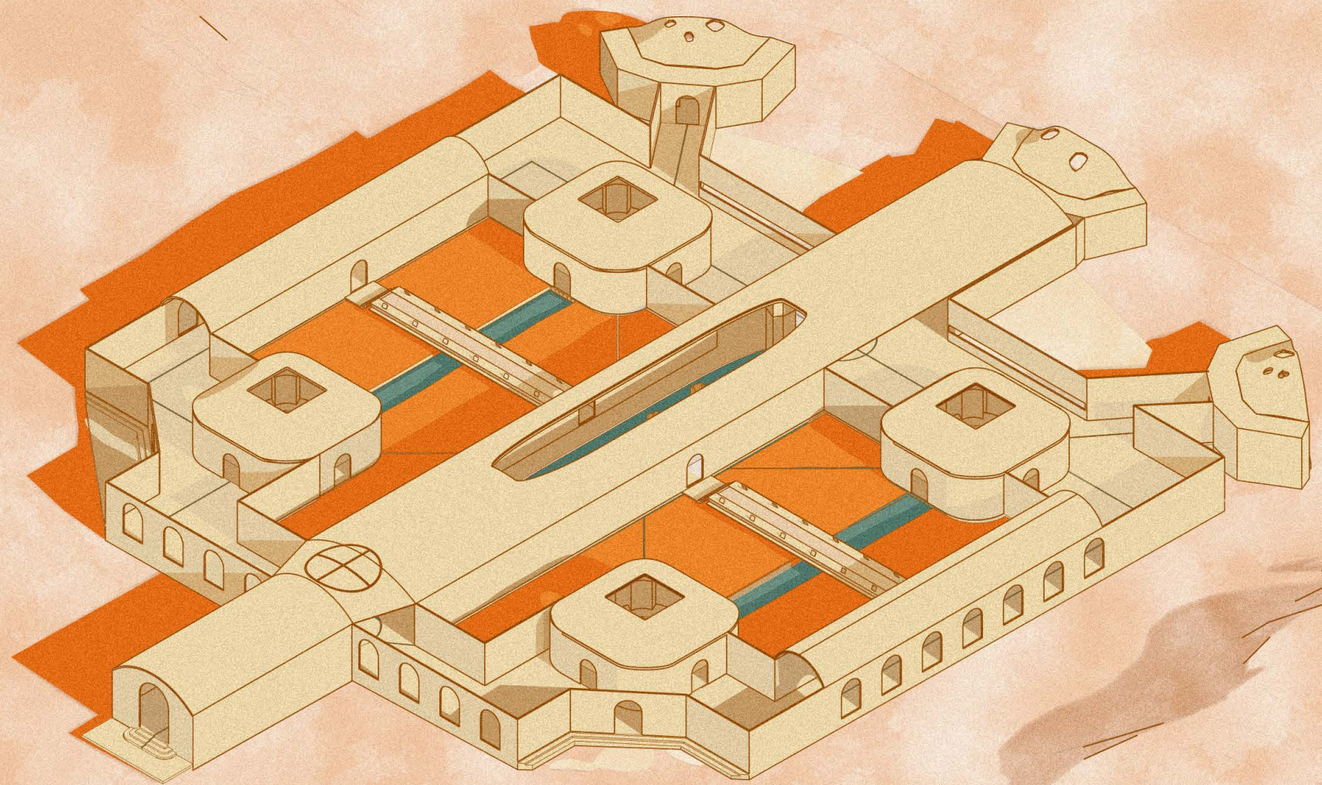
The ads also incorporate tag lines that advertise some of the design features of the building or what those features do for the experience.



Another important aspect is the interaction with nature, where the idea is that regardless of where you are throughout the structure, you are still able to see the natural landscape around you.

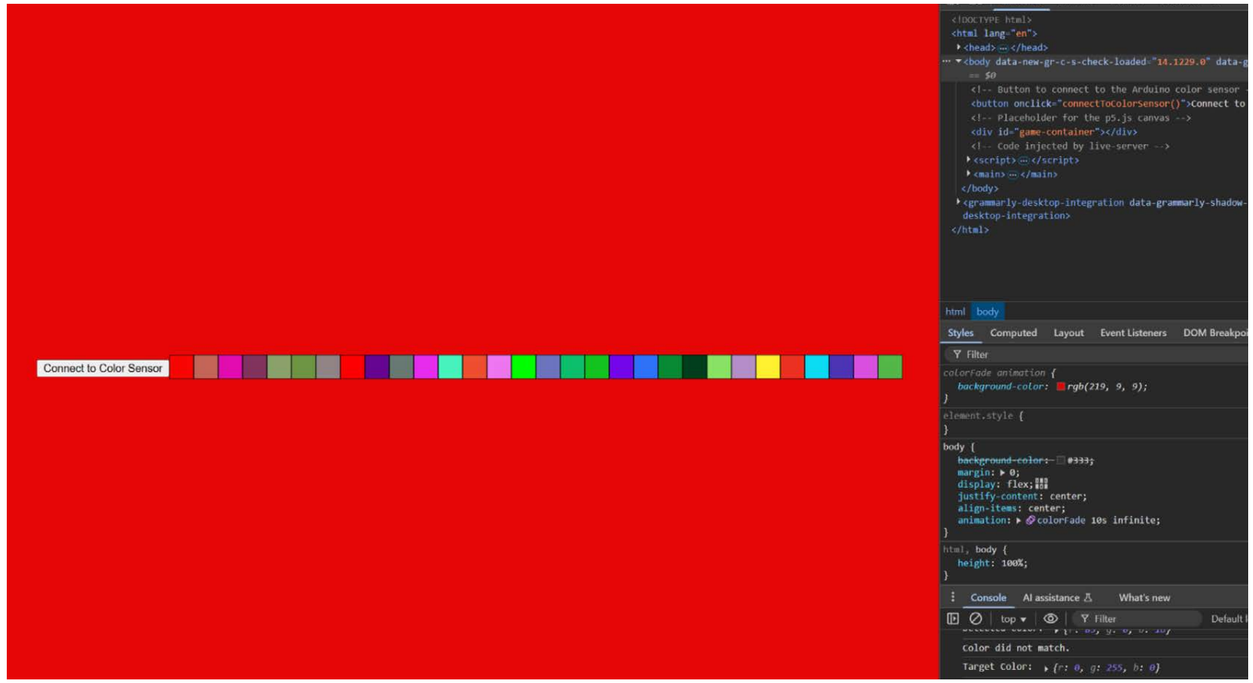
Each view was chosen to display the architectural features of the building as well the relationsip nature has with the stucture.

Thank You For Visting The Hoodoo Archive Come Back Soon!



The visit to the museum ends with visitors coming across a billboard thanking them for their visit and hoping they visit the Atomic test site again soon.

Additional Courses

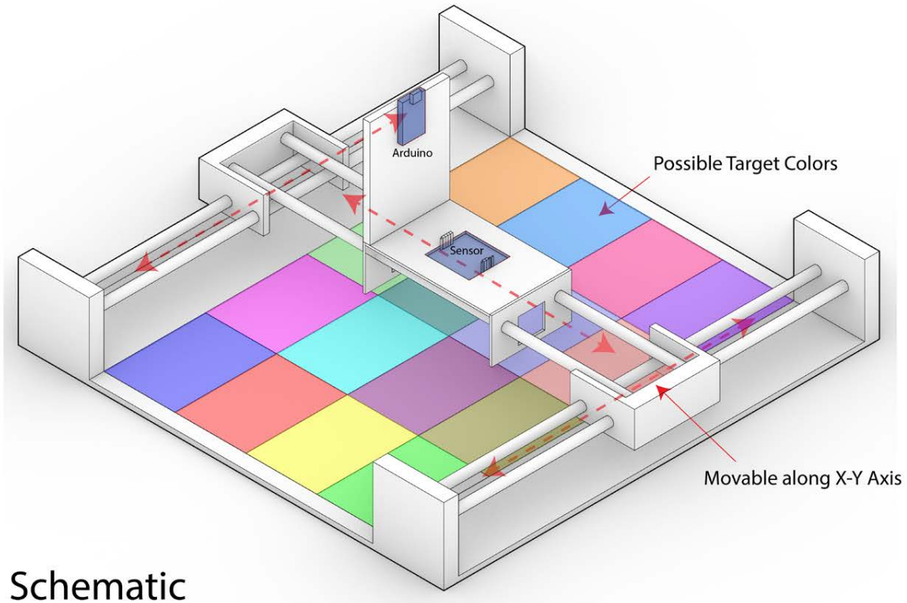


Physcial Computation - Arduino Game

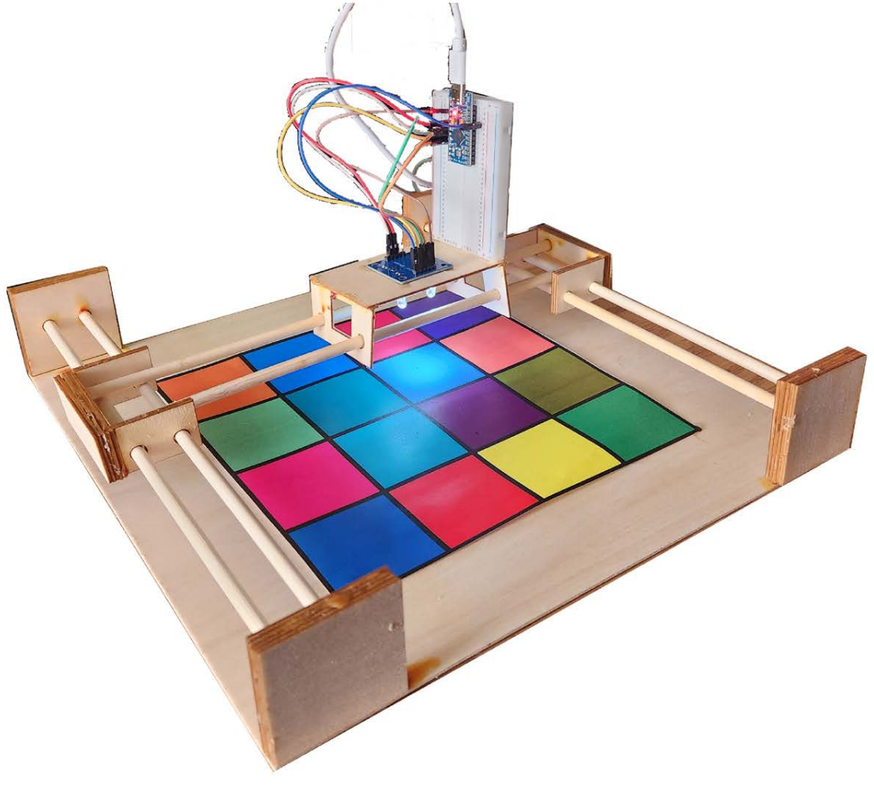
Daniel Leithinger

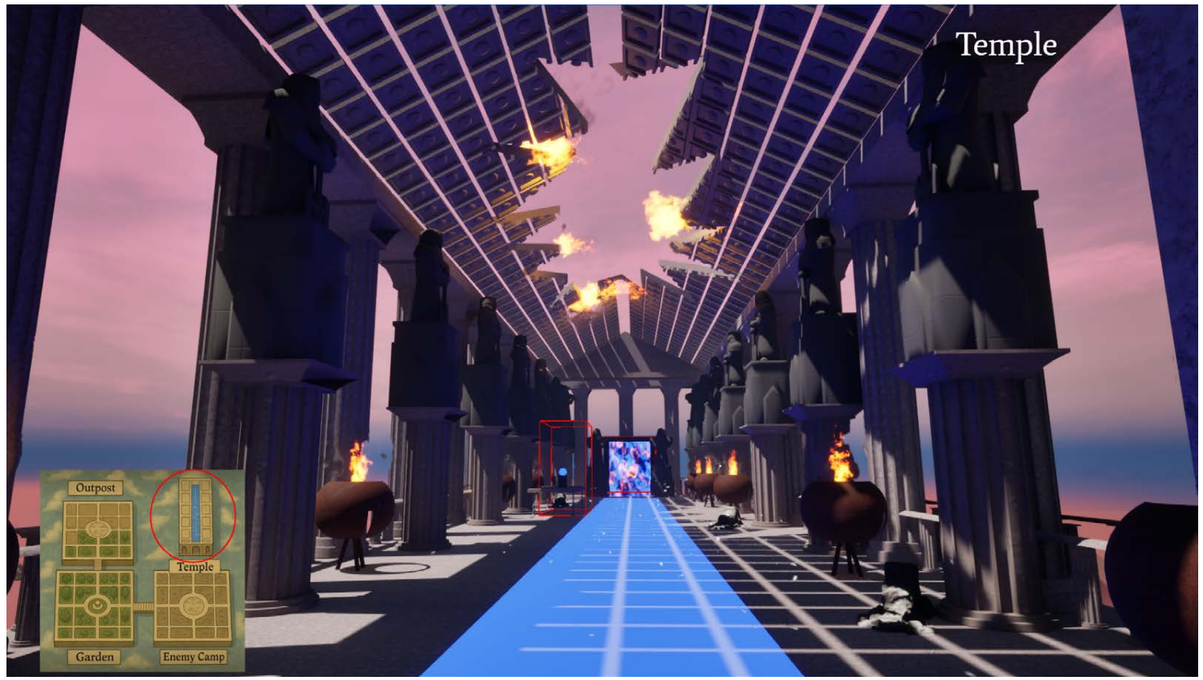
Spring 2025

The Physical Computation course focused on the ideas of 2d interfaces and digital interactions with the physical environment. We were tasked with creating an interaction controller device and linking it to a 2d game coded in java script. My “game” was a color memory game, where the screen displays a blank white grid with a single colored square for one second before suddenly each grid spcae gains a random color. In that 1 second time, the player has to try to see what color was chosen as the answer to the level. The controller itself utilizes a color sensor device connected to an Arduino attached to an X-Y axis device. This allows the player to move the sensor along the color grid to the answer they want to guess, which they do by hovering the sensor for 3 consecutive seconds above the color, which the code recognizes as the player locking in their selection.



Schematic



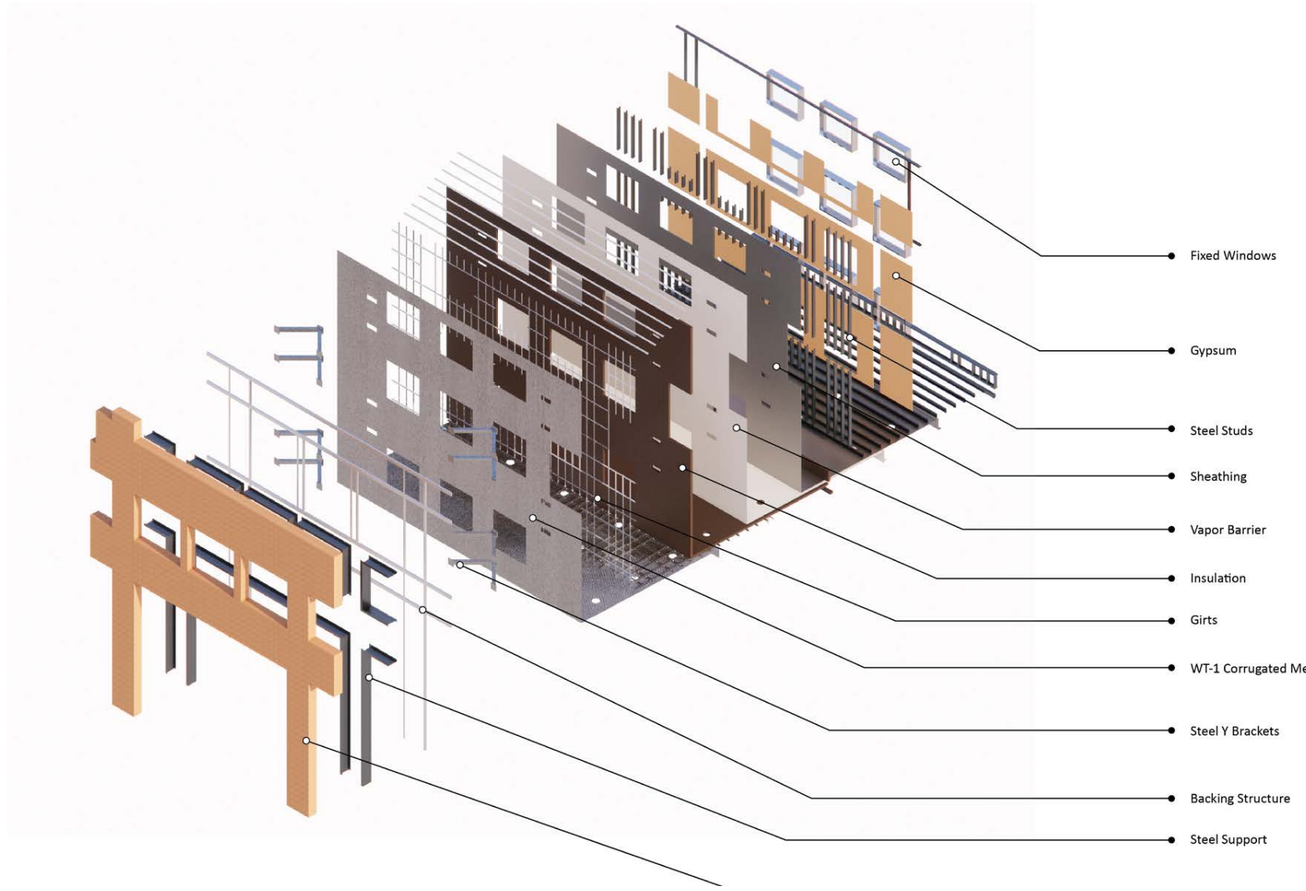


Virtual Architecture

Nitzan Bartov

Spring 2025

The Virtual Architecture course focused on us learning Unreal Engine and creating a video game level with aspects of different object interactions. This required learning about the blueprint coding of Unreal, its UI, and how to model and create special effects in the engine. My game's idea was to create levels of these stepping gardens that eventually lead to a temple in ruins. The player has to try and make it to the temple from their starting camp while avoiding enemies that seek them out. Some game mechanics include particle effects, a dynamic skybox, destructible objects, and enemy ai that hunts the player. Their was a large focus on atmospheric elements as well which included modeling out encampment buildings, friendly ai animals that roam around, and sounds that react to the player interacting with objects.

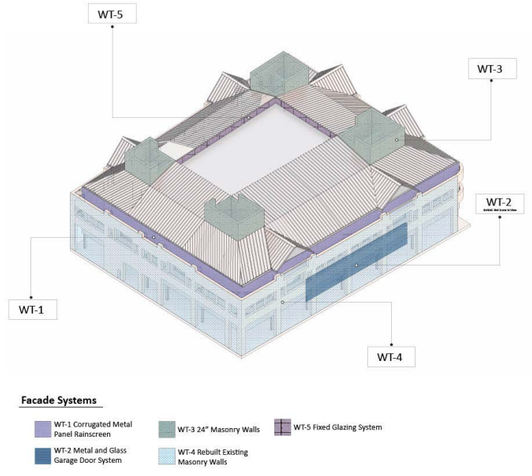


Building Technology

Berardo Matalucci

Fall 2023

The Building Technologies course focused on the ideas of taking a previous studio project and turning the design into a function building. In groups of five, we selected a group member's past project, and through the course of the semester met with four consultants that helped guide us a long. These consultants specialized in MEP, Enclosure, Architecture, and Structure and through weekly meetings, we continued to develop the studio project along to meet specified guidelines. Our changes focused on making the studio design into a "green" building as well as reinventing its purpose to serve the community. Through various systems such as heated floor slabs generated by pulling in river water, we were able to reach these goals. The chosen drawings reflect some of the systems I personally worked on such as the facade material system and mechanical systems utilized in the building.



Alexander Faza

Columbia Architecture Portfolio