Work that I couldn't of done without my friends I came here with.

**PILOT FLYING J BRAND STUDY**

33 THOMAS

**MODULAR LIVING**

MONUMENTS TO NATURE

**INTERCONNECTIVITY**

ASTOR PLACE AMBIANCE

**POSITIVE NEGATIVE**

VARIOUS VISUALS

Rendering : View of the new Pilot Flying J from W Front Street.

# PILOT FLYING J BRANDING STUDY

Battle Mountain, Nevada.

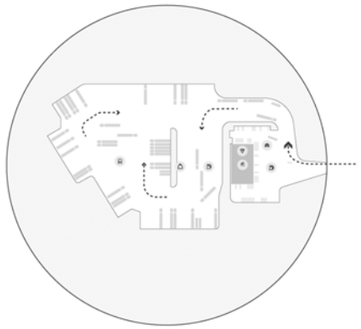
Pilot Flying J is one of the marquee travel center companies in the US. Their client base is not only industrial logistics partners, but also typical civilian travel creating an beautiful opportunity to design around these different flows. Pairing this with the environmental regulations of today and the immediate future, adding electric vehicles into the mix only creates a richer opportunity to design for the immediate change in the vehicle landscape. This leads us to believe the temporal nature of travel centers and fueling stations have a longer use period per stop, meaning opportunities to beyond just refueling exist and we began to study those and learn what works best and why should Pilot Flying J have it.

Pilot Flying J has 786 stops around the country with different identities because it's never been truly updated and upgraded following different mergers. The question we asked ourselves was, how can we create an updated unified brand that takes into account the technological and sustainable changes that meet the needs of the Pilot Flying j users and employees through a mass and easily deployable product?

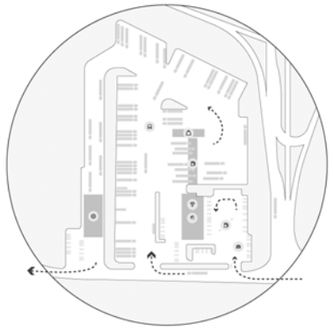
Studio Critic: Michael Bell
Spring 2023 - ADV 6

**Partner: Joachym Joab**

1880 W Winnemucca Blvd, Winnemucca, NV

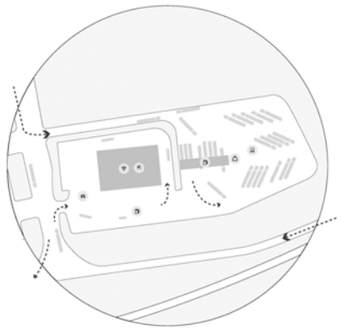


5625 W Winnemucca Blvd, Winnemucca, NV

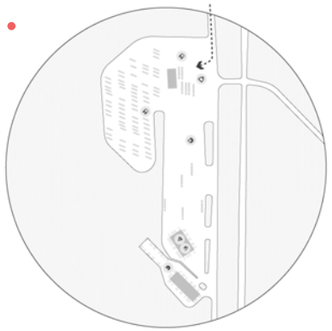


465 Pilot Rd, Fernley, NV

3812 E Craig Rd, North Las Vegas, NV

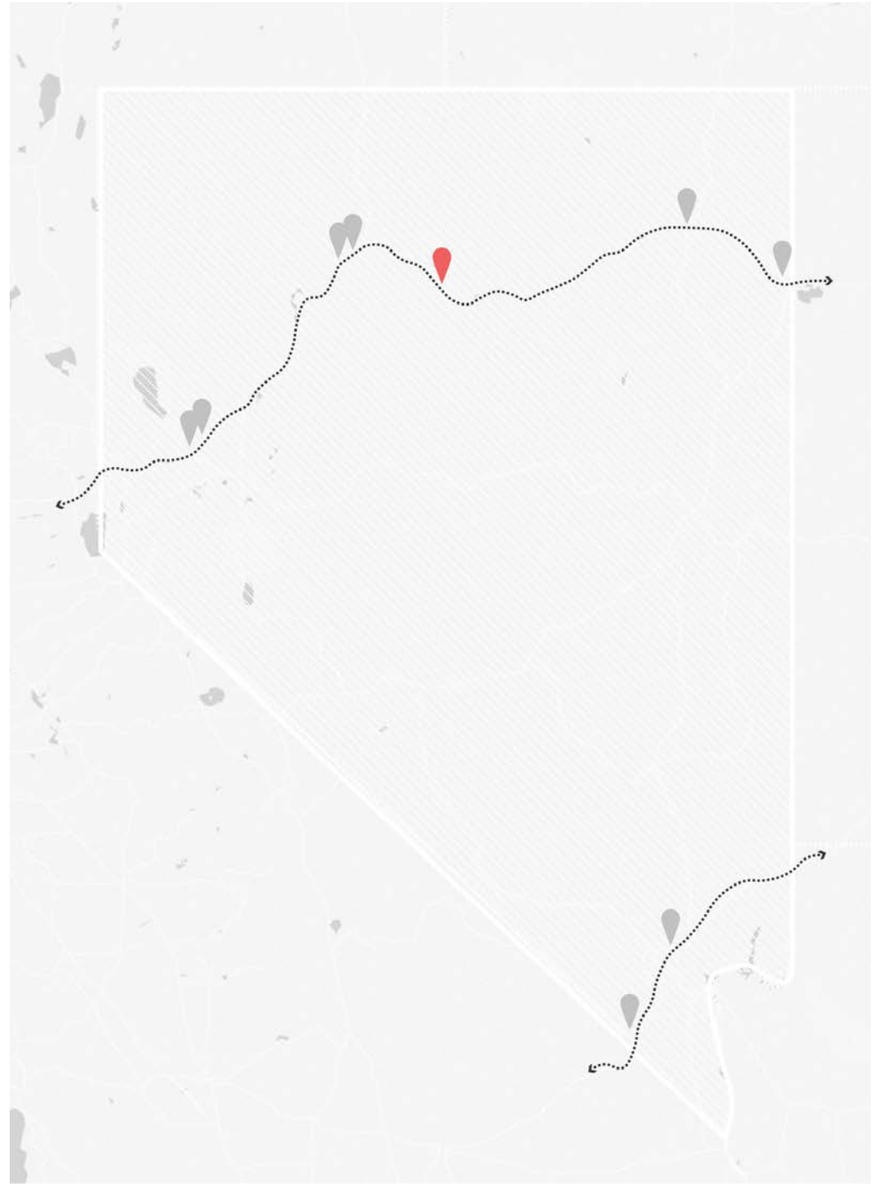


480 Truck Inn Way, Fernley, NV



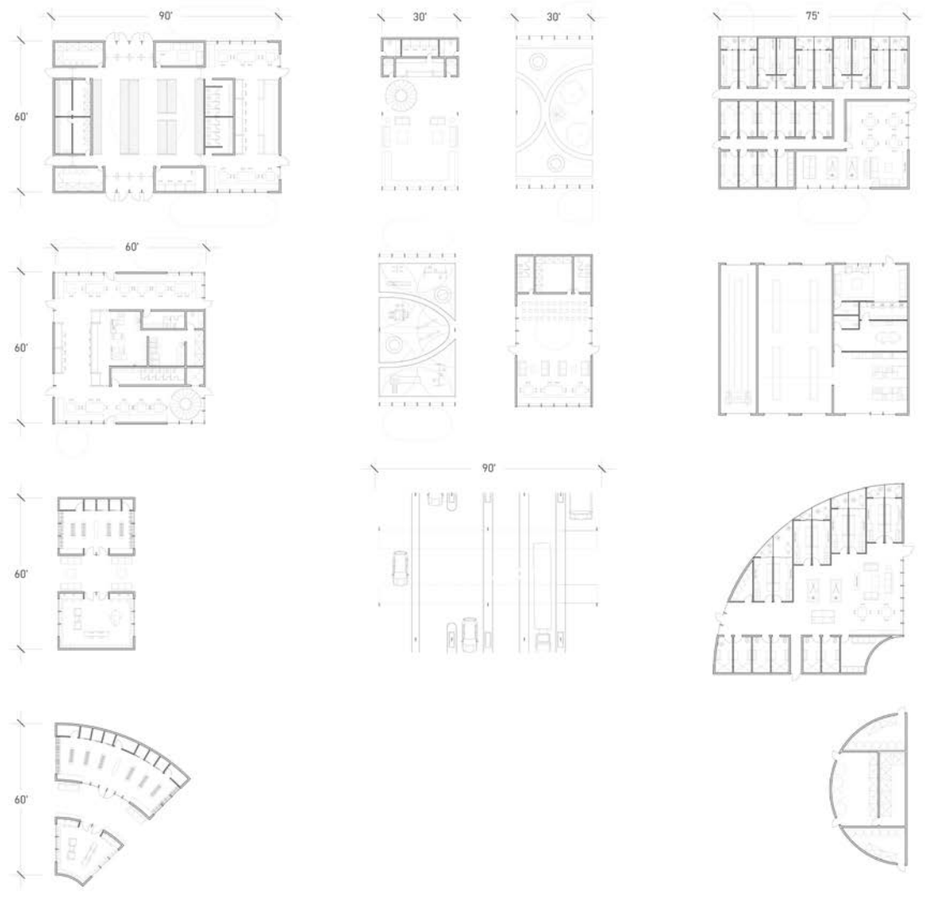
650 W Front St, Battle Mountain, NV

Diagrams : Six Pilot Flying J's across Nevada being analyzed.

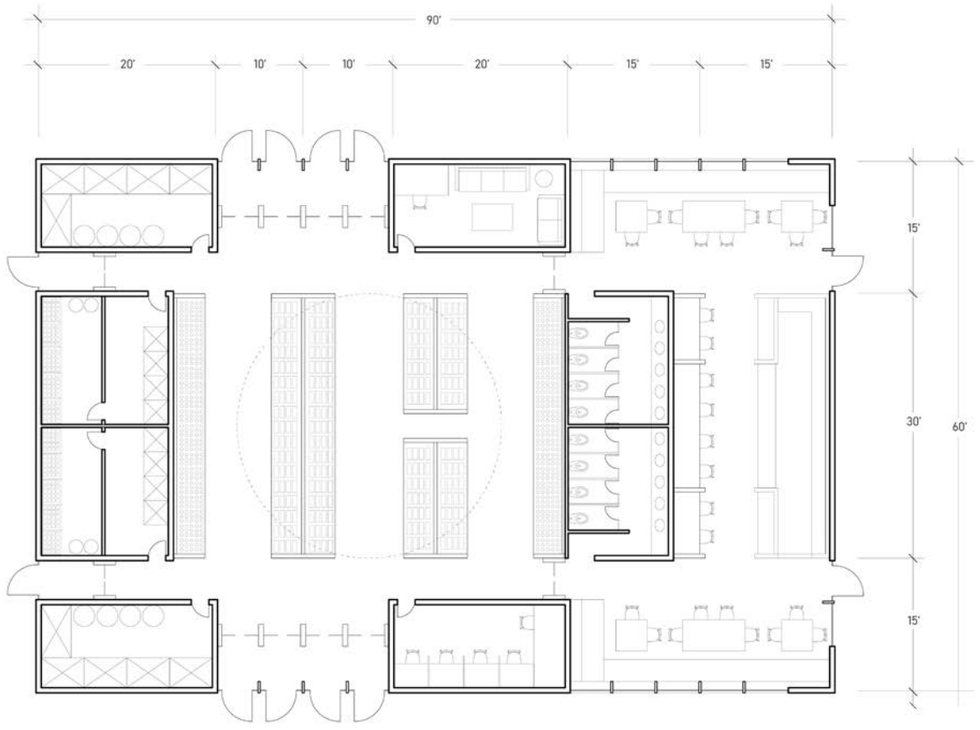


Map : The 9 total Pilot Flying J's in Nevada. Site in red.


Diagram : Different program masses and their respective floor plans to match.



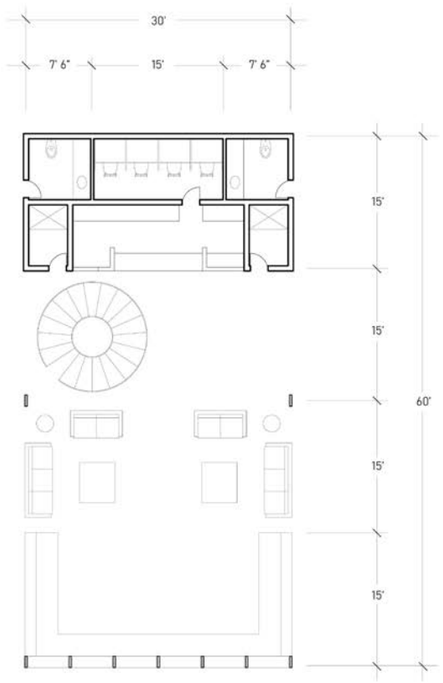

Floor plans : Different modules and the respective floor plans to match.




Floorplan : Grocery Store module

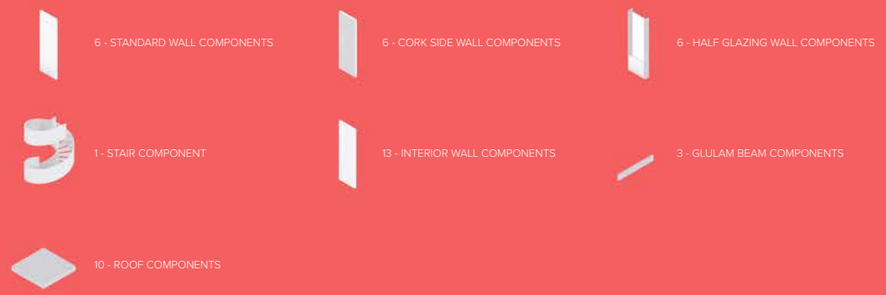

Rendering: Entry into the Pilot Flying J between the grocery module and welcome center.

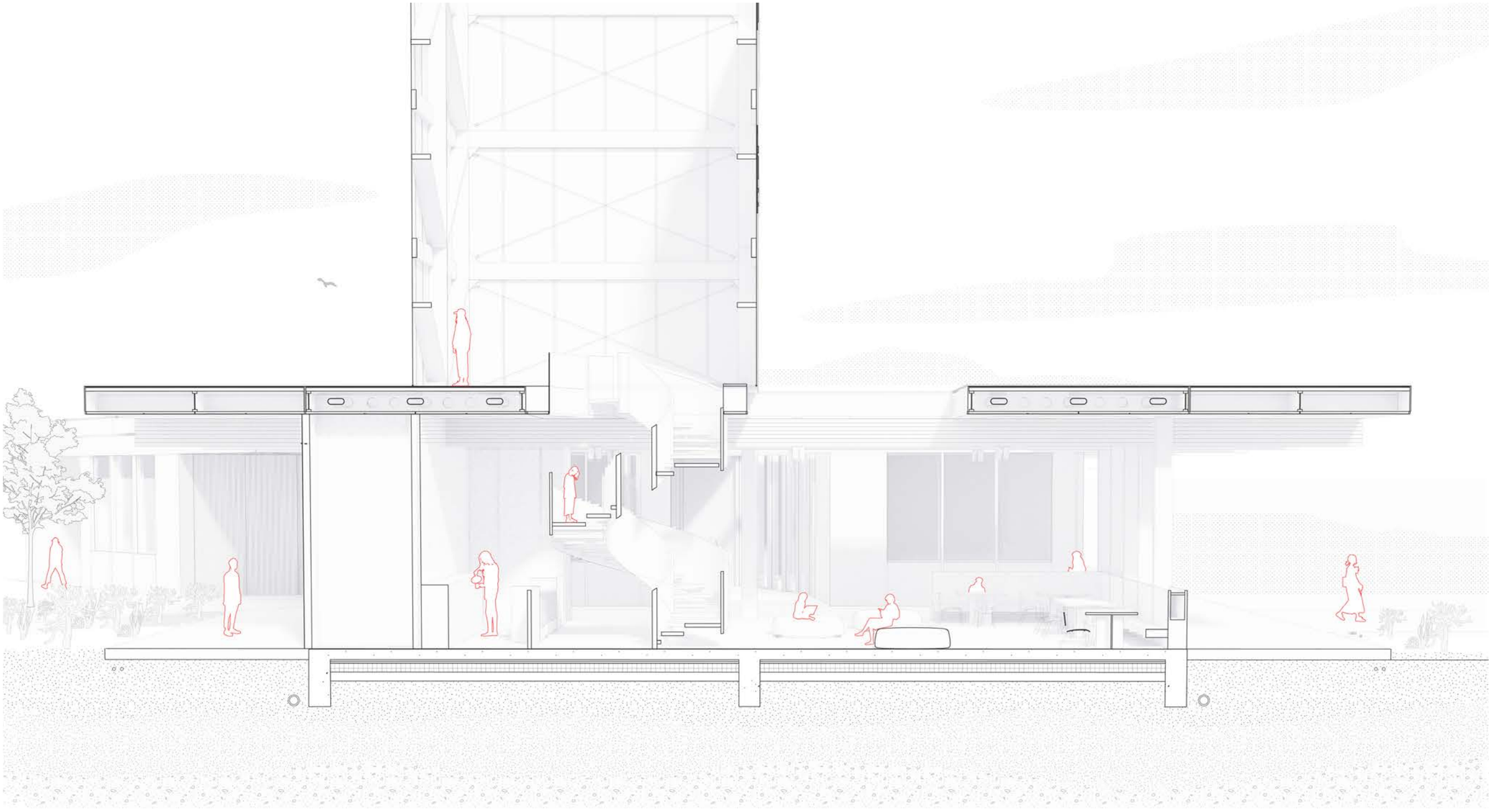
Floorplan : Welcome Center Module



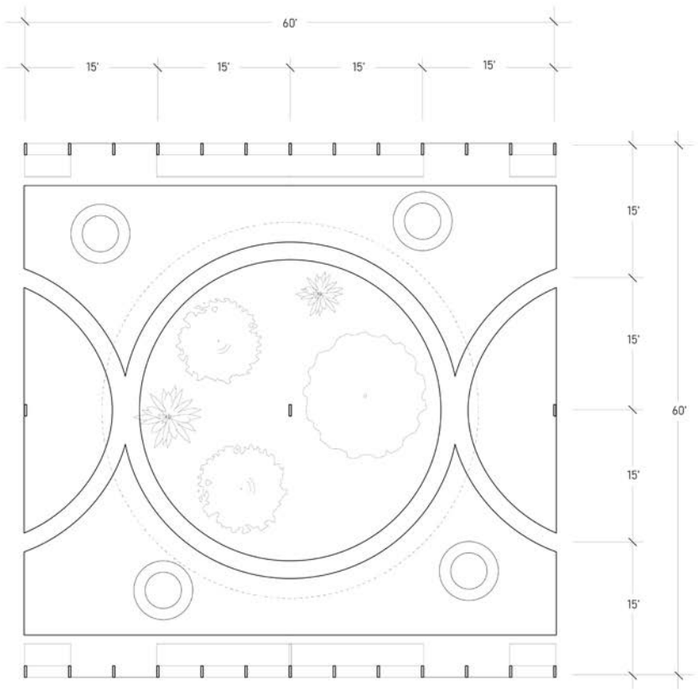




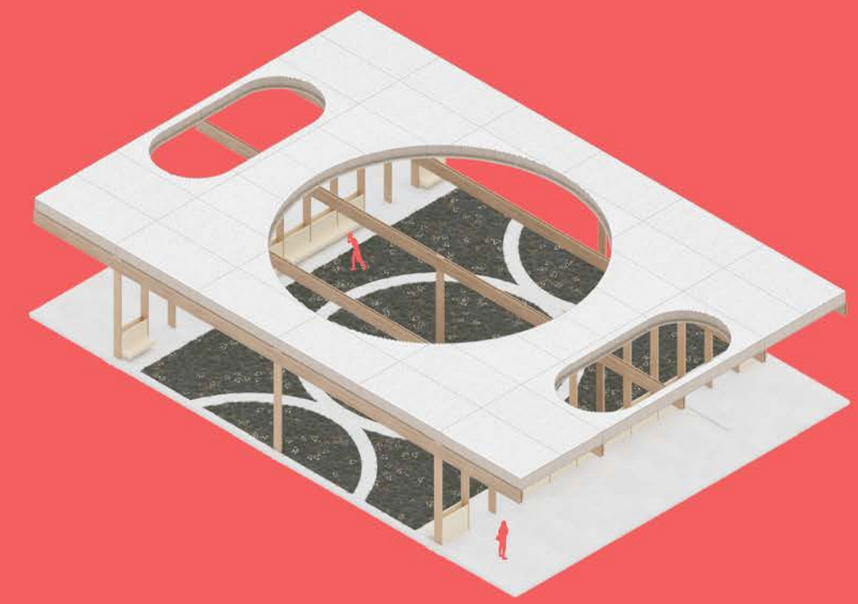




Section : Cut through the Welcome Center module.




Floorplan : Park Module



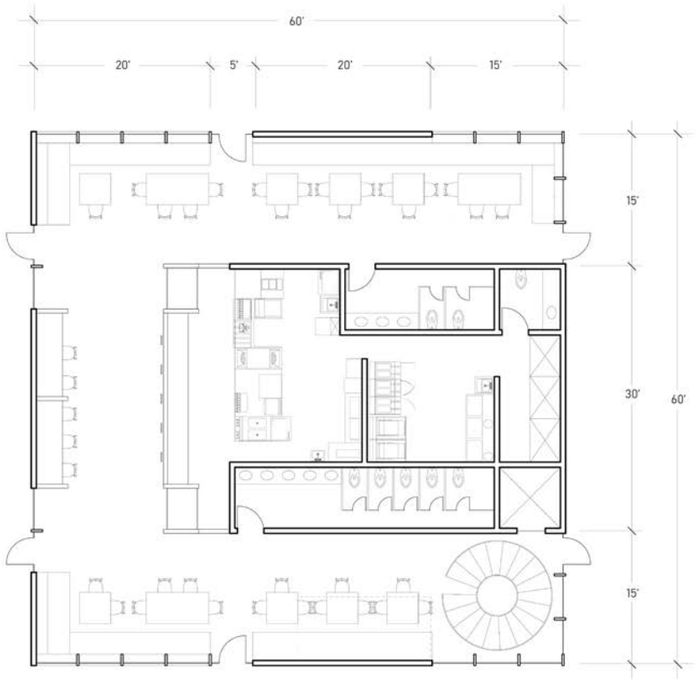
20 - ROOF COMPONENTS (12 TYP.)

5 - GLULAM BEAM COMPONENTS

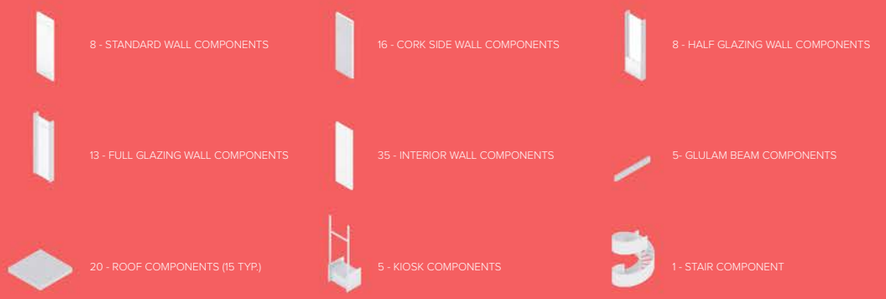
16 - HALF GLAZING WALL COMPONENTS


Rendering : The interior courtyard shared between the building massing.

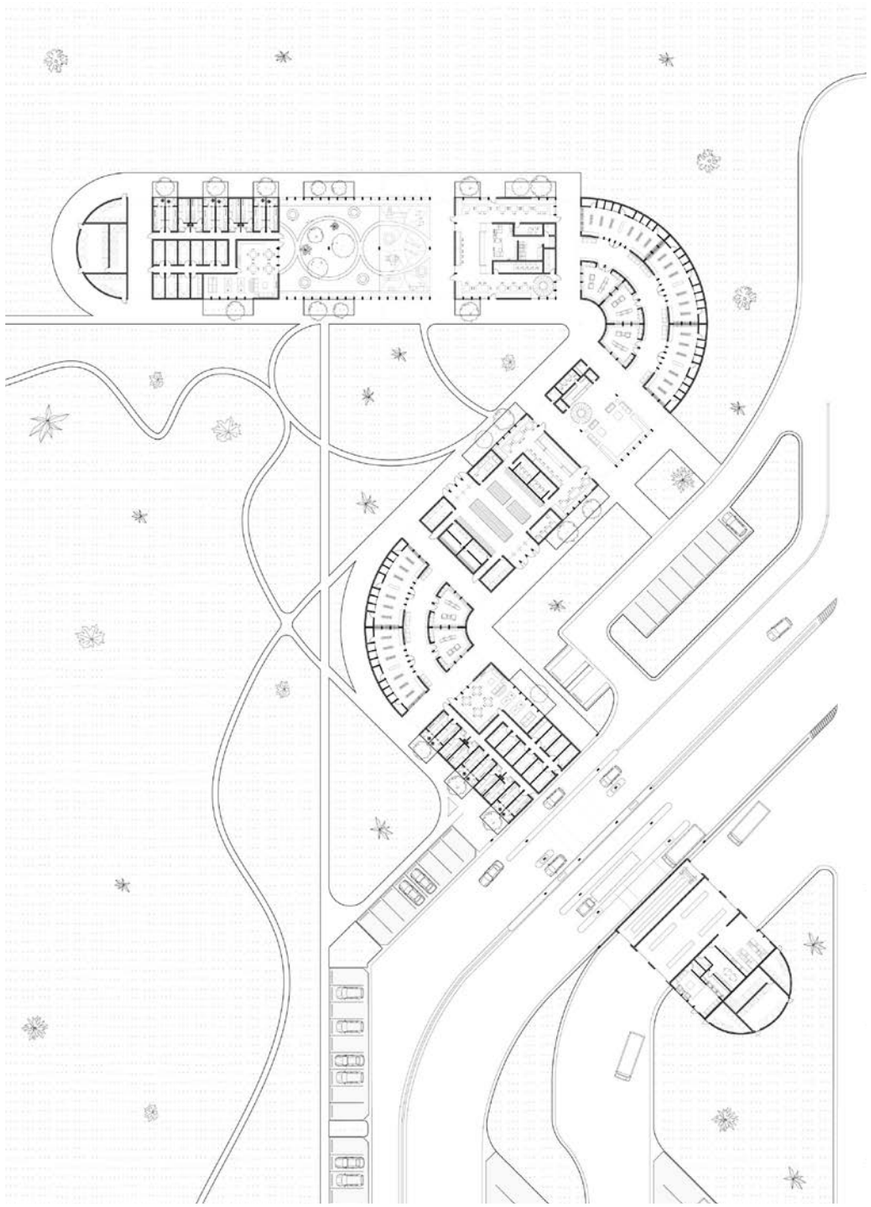
Rendering : The manicured green space for the Park Module adjacent to the Playground Module.




Floorplan : Restaurant Module's lower level floor plan.

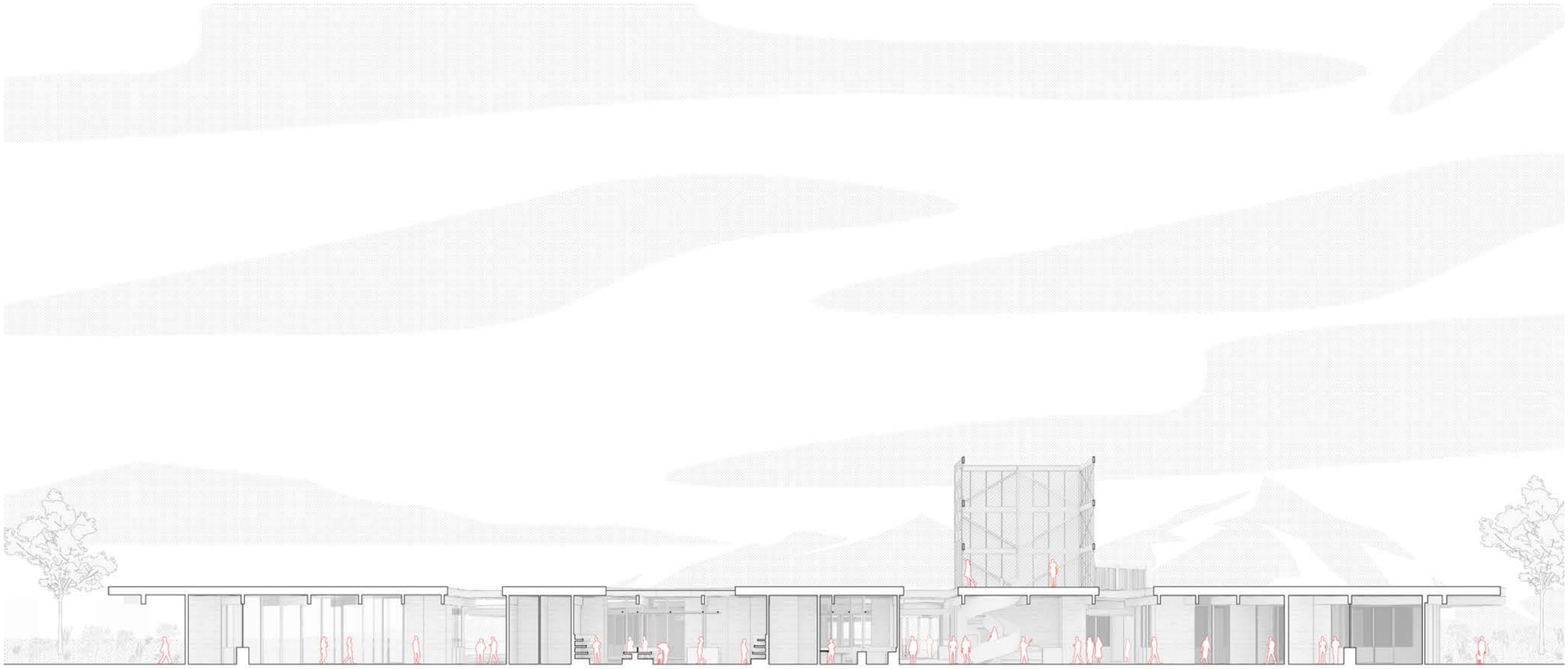




Rendering : Grocery Module Interior.



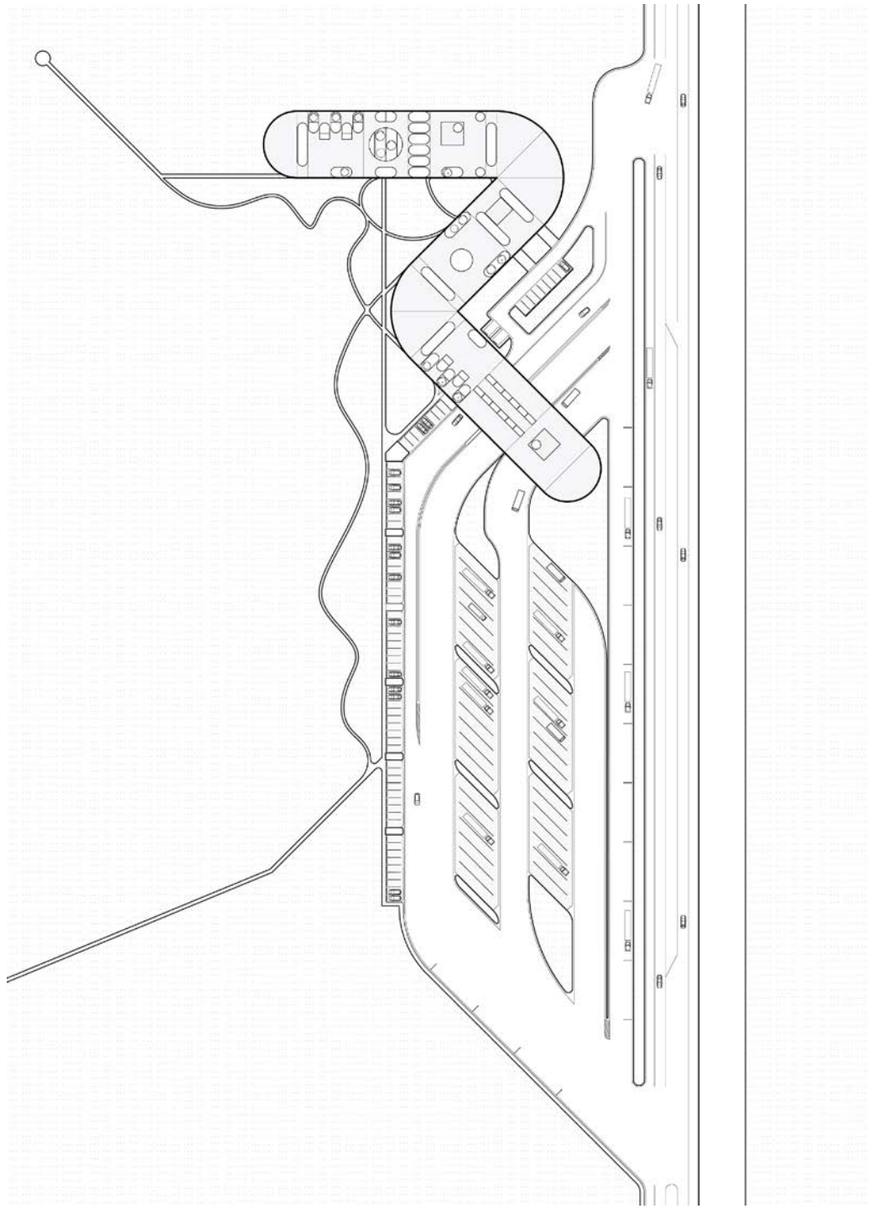
Floorplan : Pilot Flying J 693's Building Plan at Battle Mountain.

Rendering : The vehicular approach to the new Pilot Flying J.

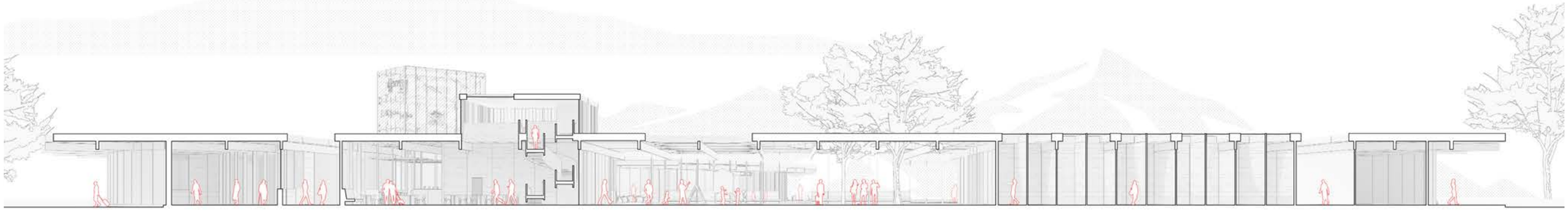


Building Section : Cutting through the Welcome Center and Grocery Modules.

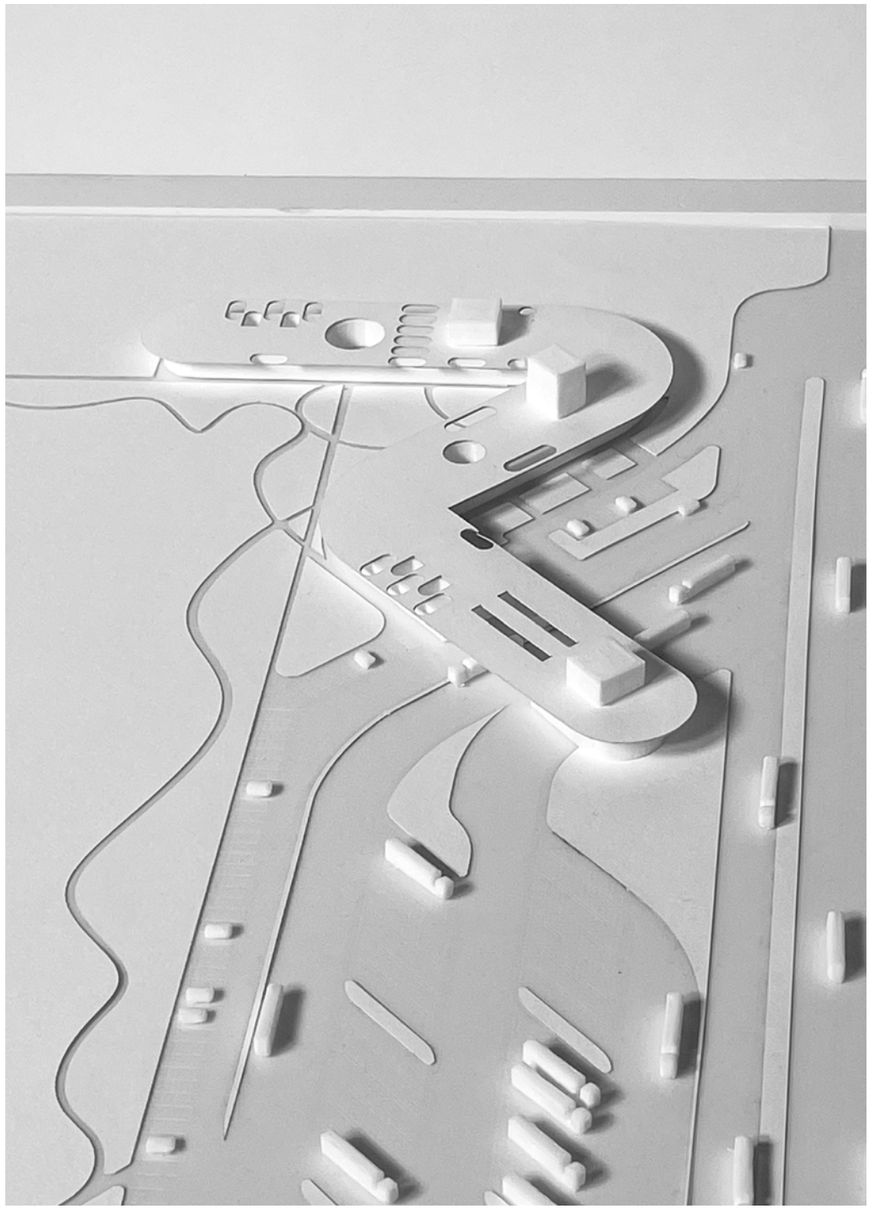
(Left) Rendering : Man jogging into the Pilot Flying J from park connection.



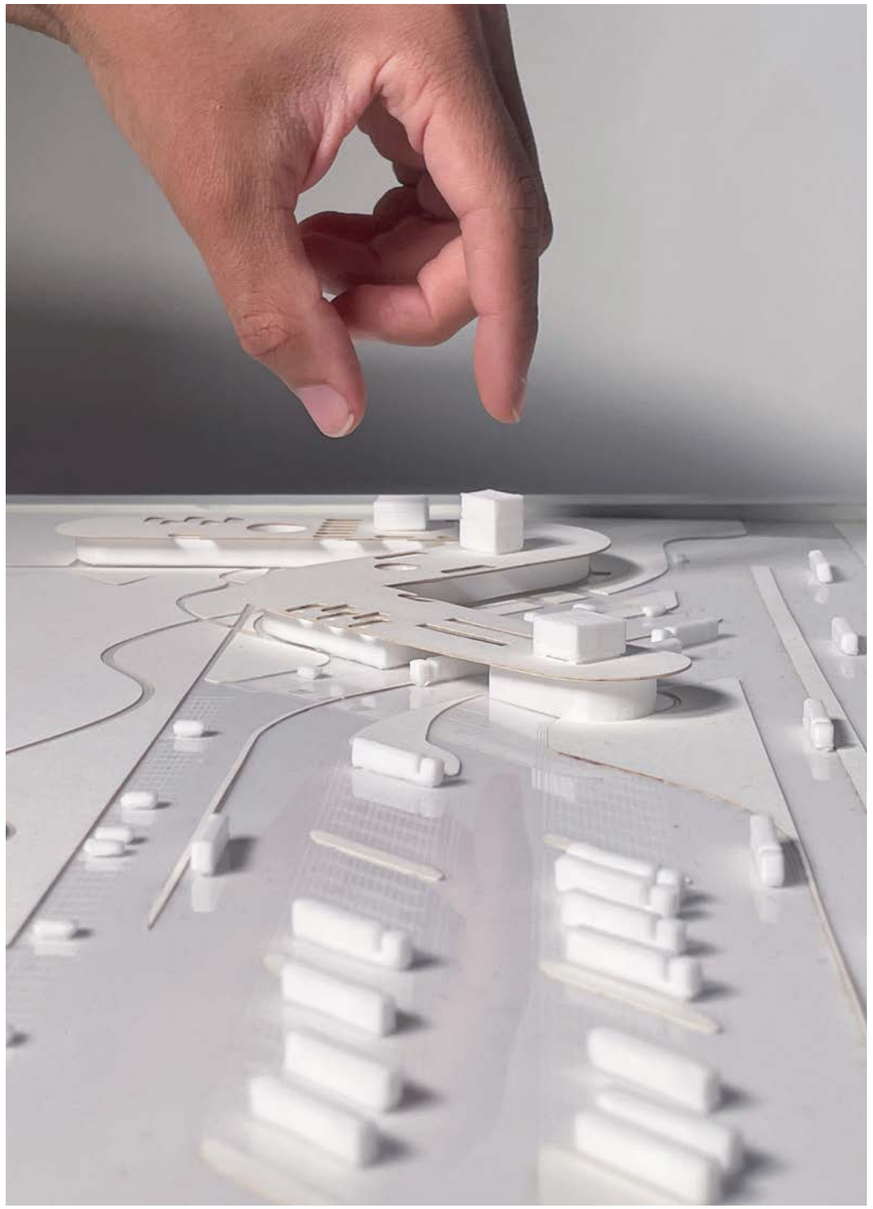
Site Plan : The Synthesis of Building Form and Site - designed for efficiency.



Building Section : Cutting through Restaurant, Park, and Playground Modules.



Photography : Model from above.



Photography : Module from South end of the site.

Rendering : Pilot Flying J #693 - Battle Mountain, Nevada.

# 33 THOMAS

Tribeca, New York City, New York.

33 Thomas, formerly known as the AT&T Long Lines Building has a very prominent place in the history of high-rises in New York City. Along with it's architectural successes of being a monolithic, iconic, and extremely functional architecture, it's equally scrutinized; The rumors that spiral around this architecture are just as impressive.

Through research about John Carl Warnecke and his drawings, we've come to learn about who funded the project, and what it's intentions were. An atomic bomb proof, windowless high-rise, that's has incredibly low occupancy, and use in the twenty-first century. What can we do with it?

Our interventions looks for solutions to keeping the iconic elements of 33 Thomas there, and integrating housing and other mixed use programs into the podium and the tower.

Studio Critic: Wonne Ickx
Fall 2022 - ADV 5

**Partner: Min-Soo Jean**

Rendering : View of the intervention from Thomas Street across Church Street.

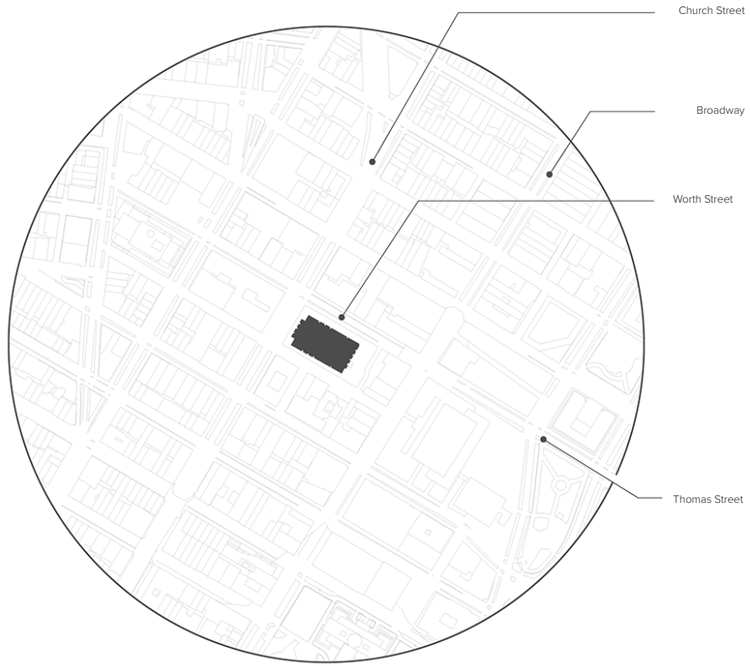
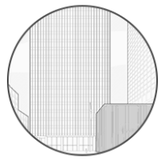
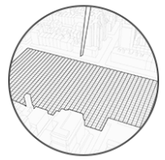



Diagram: Mapping of Tribeca

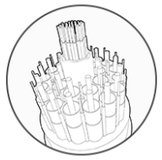
Granite Slab Height Diagram



Steel Volume Diagram



Precast Concrete Panel Diagram



Telephone Cable Diagram

Terracotta Mass Diagram

CMU Volume Diagram

Diagram : Material indexing

Rendering : The Atrium condition created via the cut.

Rendering : Looking across Atrium into the racquetball court.

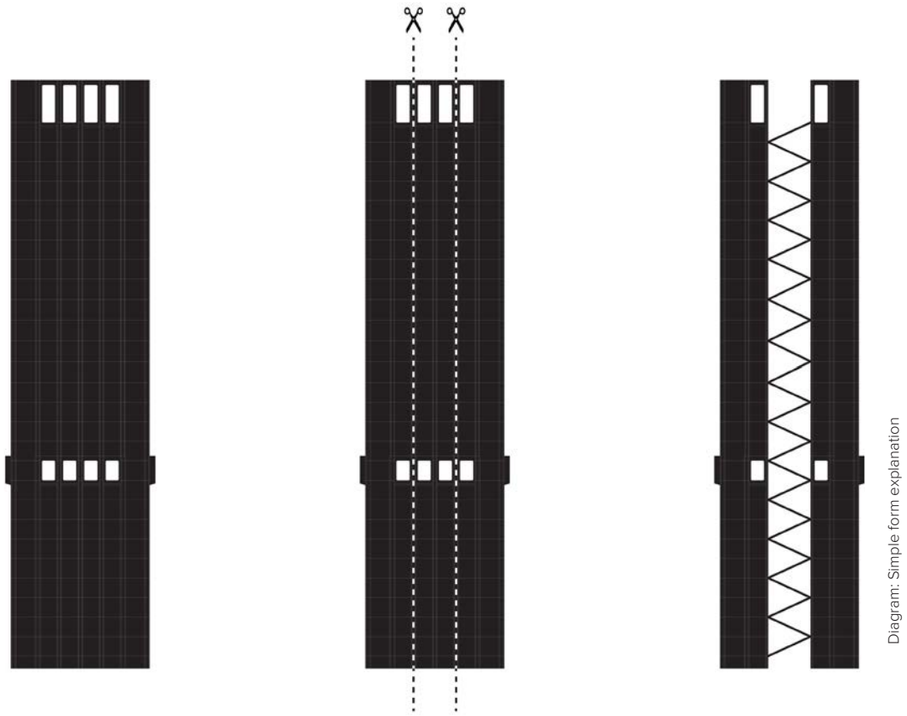
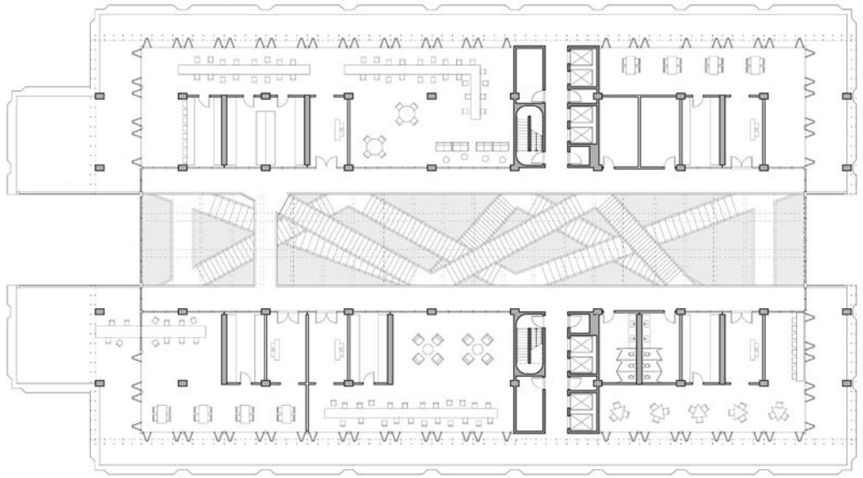
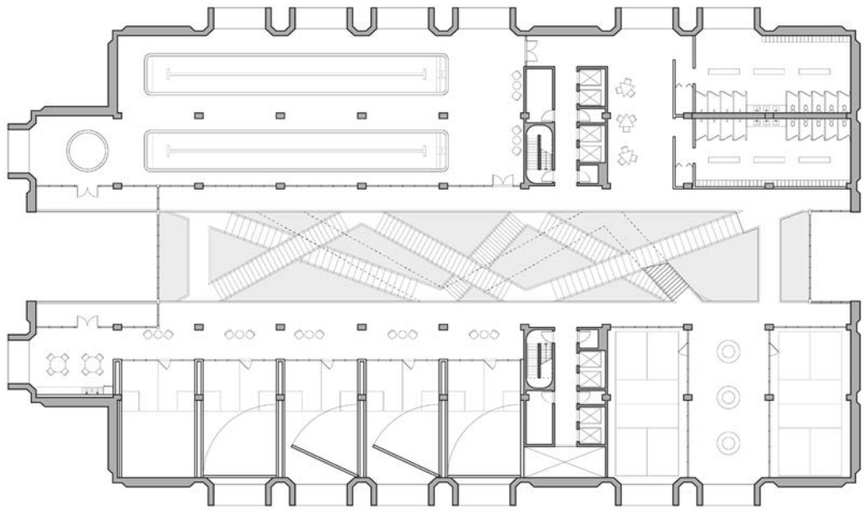



Diagram: Simple form explanation



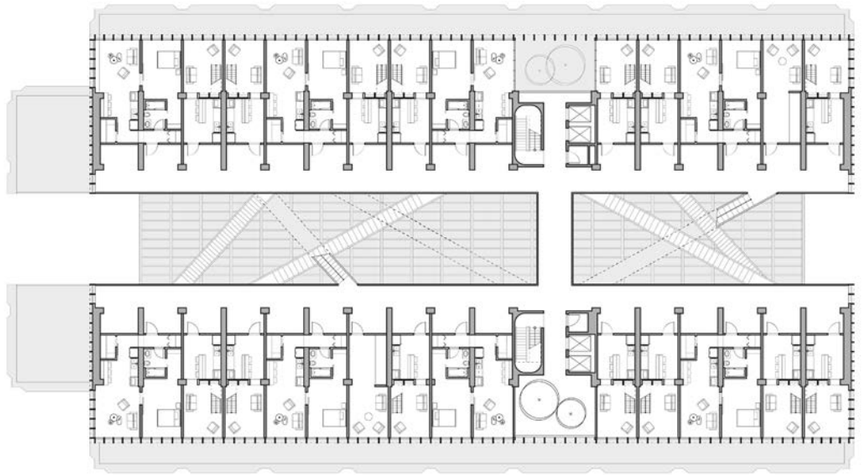
Floor Plan : Top level of the podium before it transitions to residential.



Floor Plan : Vent level of the Podium.

Rendering : Showing the connectivity between "neighborhoods"

Rendering : Canadian users front yard.



Floor plan : Residential level

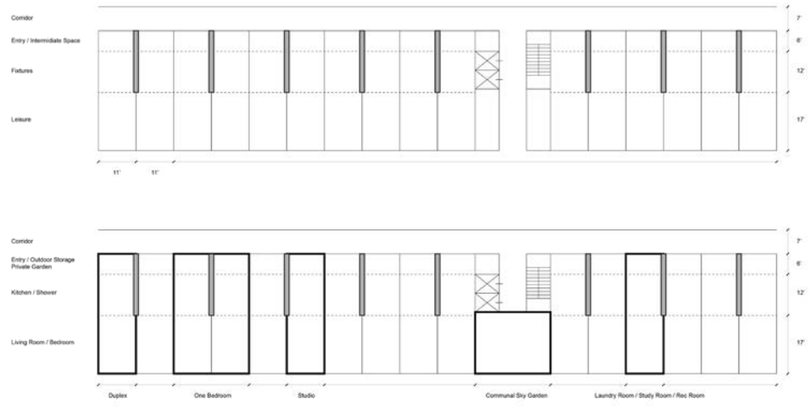


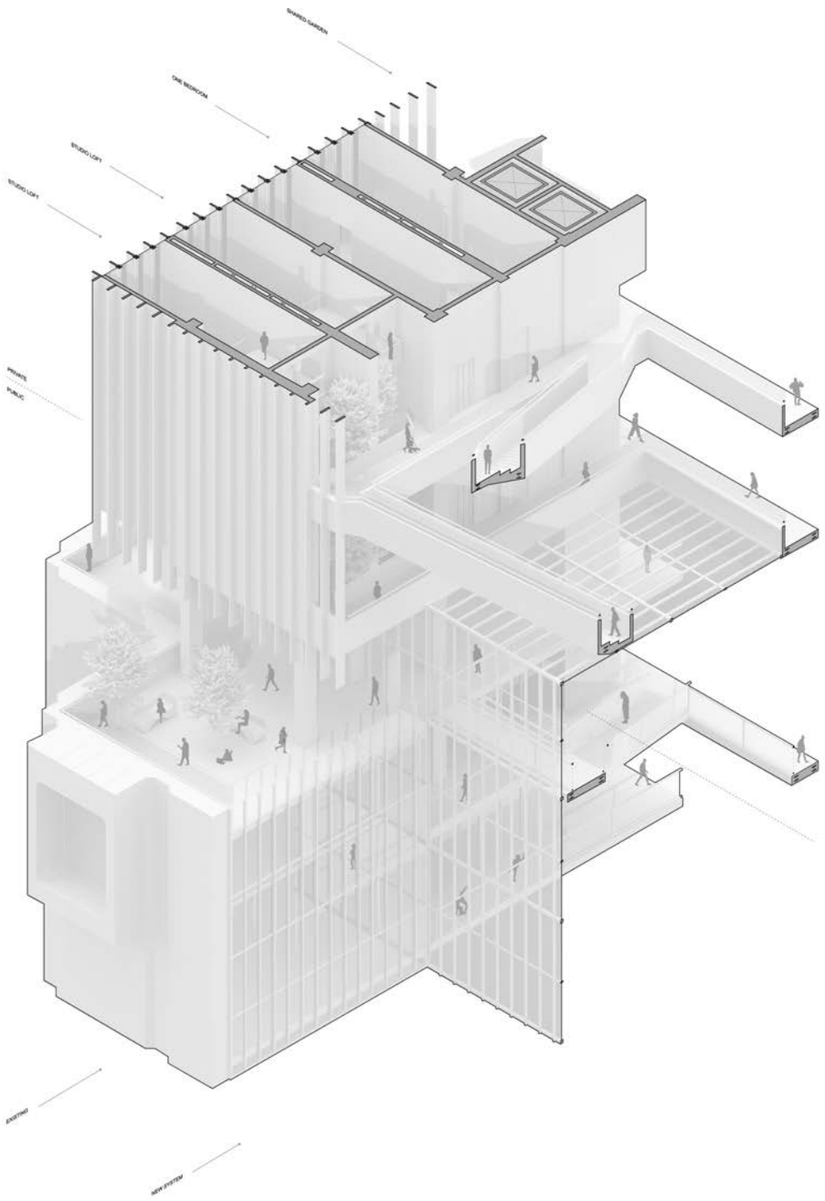

Diagram : The program distribution on the residential level.

Rendering : The shared neighborhood park.

Rendering : Theatre condition in the basement of the podium.

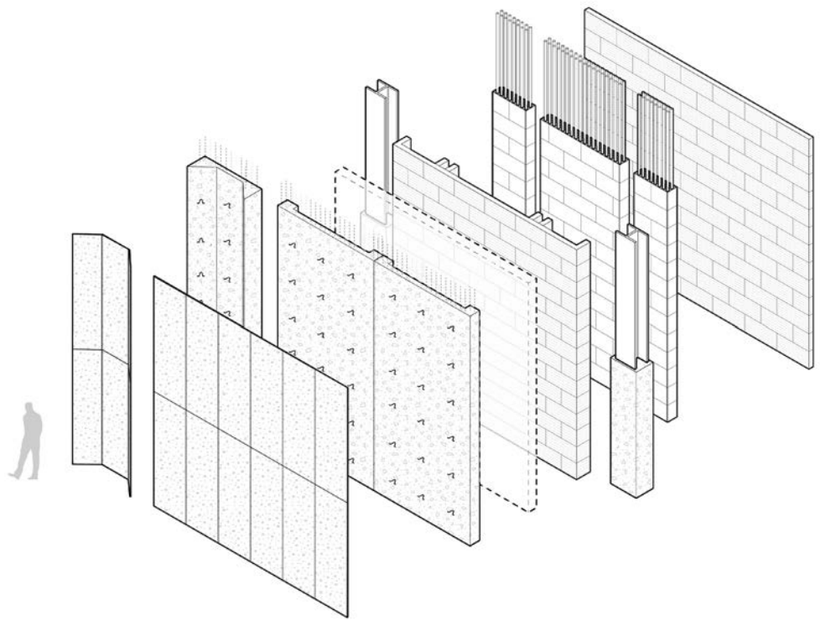
Photography: Model on the Broadway side

Photography: Model from the Church x Worth side.

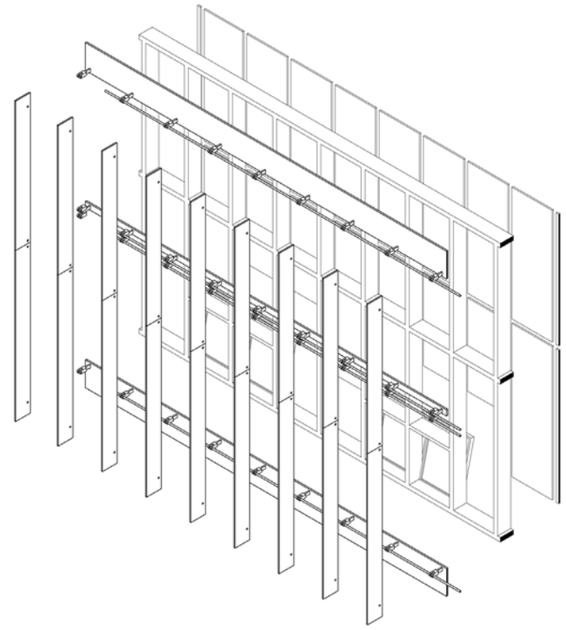



Chunk Axon : Showing the transition from the lower podium to the upper Residential levels.

Rendering : Kids playing by the pool on the vent level of the podium.



Exploded Axon : Existing wall assembly



Exploded Axon : New Residential facade assembly.

Rendering : Inside a residence at 33 Thomas.

# MODULAR LIVING

Bronx, New York City, New York.

Mod:Liv is a project that looked to redefine how project delivery methods and partnerships in the process could enable modular homes to have more meaning and deliver better housing at a lower cost.

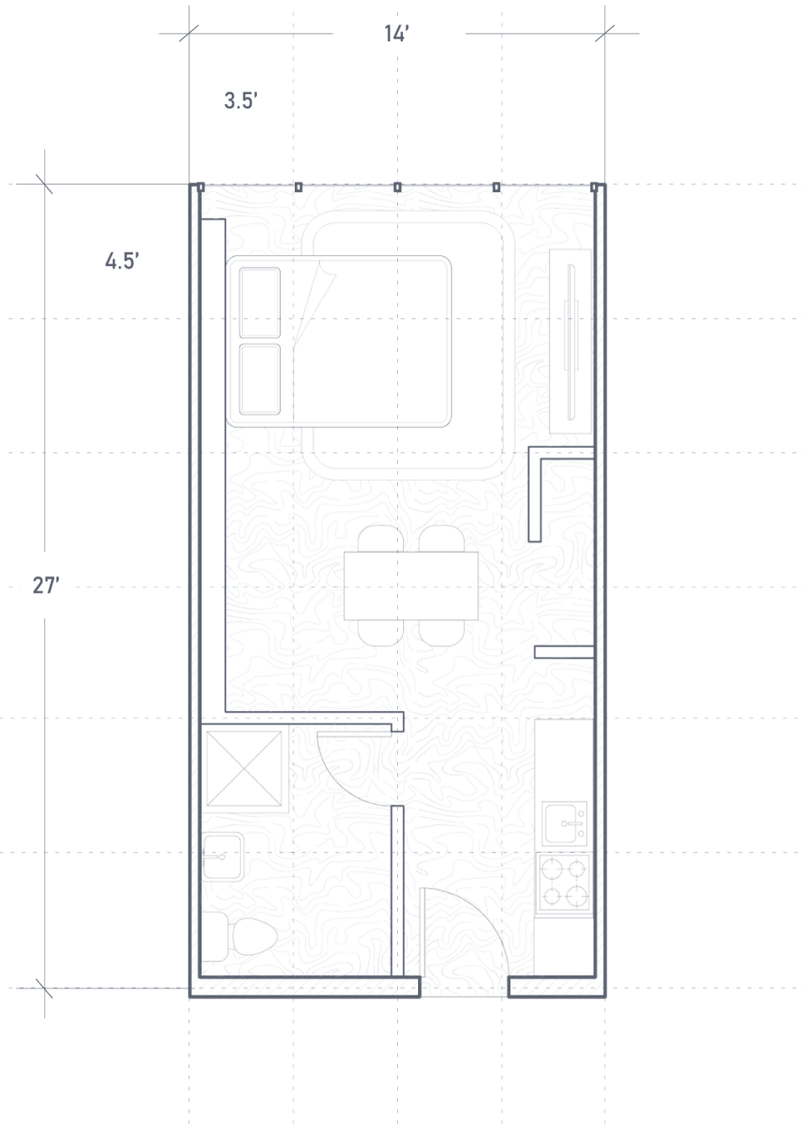
Utilizing a joint venture with Project Manager, and Manufacturing we were able to lower project vacancy and hard costs of assembly. Designing a modular project meant that we could do a lot of the construction offside. The modules were designed so they would fit nicely on a twin twenty-seven foot trailer, bringing two modules to the site at a time. With the Project Manager and our design features, we aimed to enable flexibility in the modules and how they could be staged. This meant that the modules were able to flex into more or less bedrooms per need of the user, therefore they would never leave the development because of availability. They would only move down the hall or next door.

Balancing modularity and repetitiveness with operation pieces and site specific architecture really begins to give Modular Housing a new meaning and added afford-ability. This is Mod Liv.

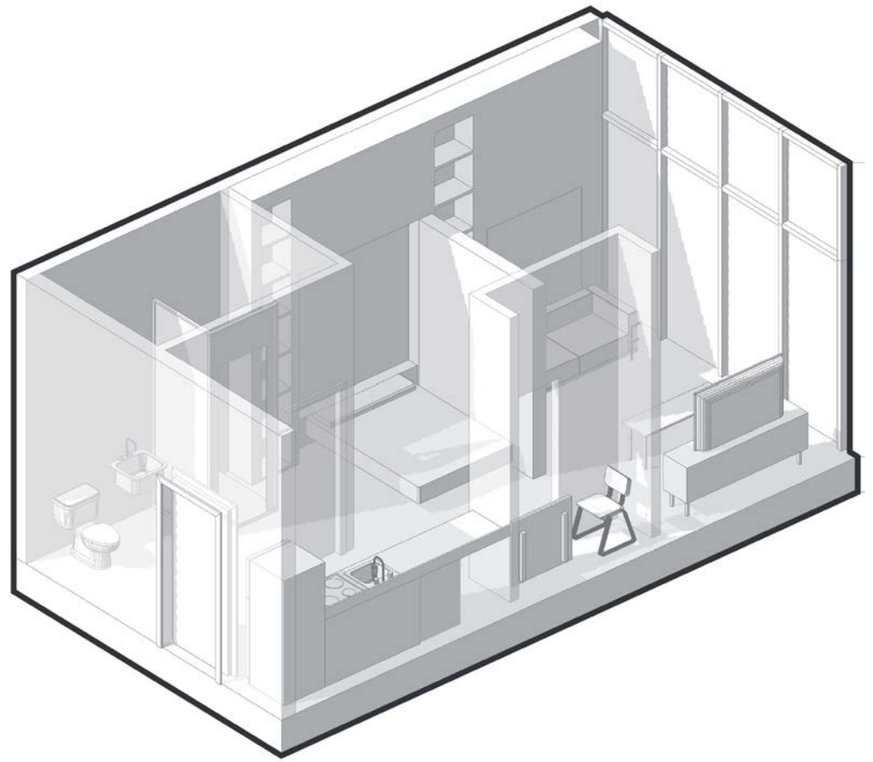
Studio Critic: Michael Caton
Fall 2021 - Core 3

**Partner: Samuel Bager**

Rendering : Stacking the prefabricated modules into position.




Floor Plan : Singular Module of a typical studio apartment.



Axon : Studio Apartment being flexed into a two bedroom configuration.

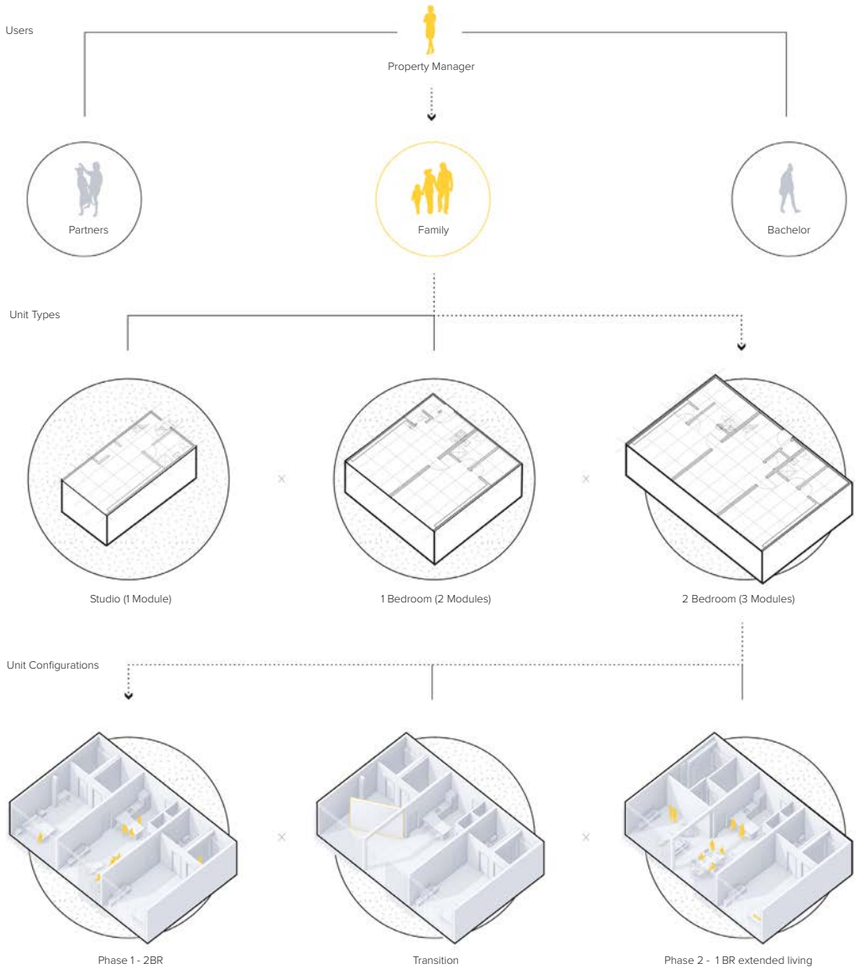
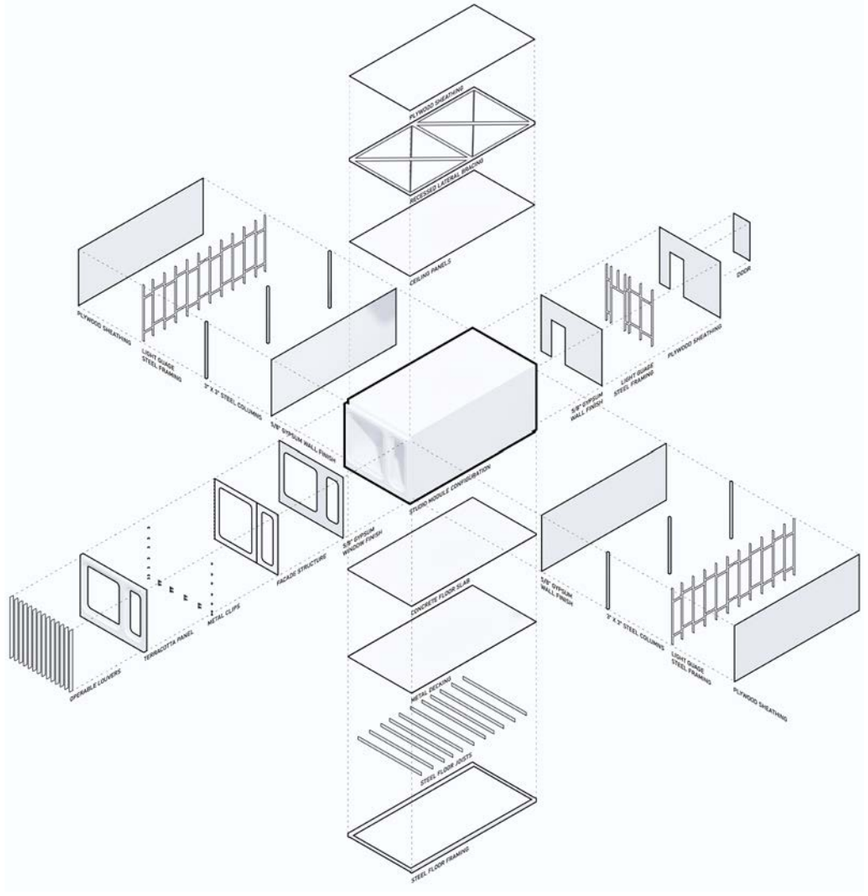
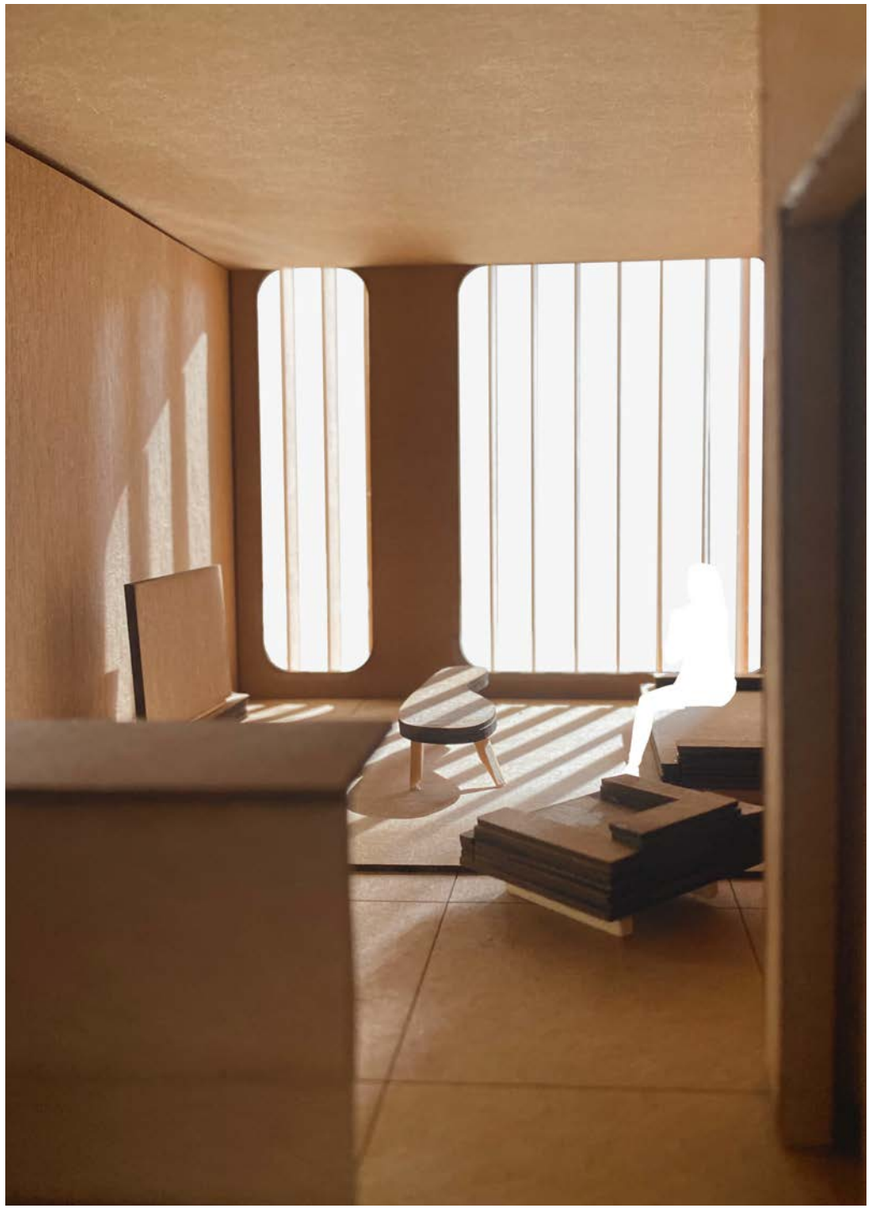



Diagram : The flow in which a user would interact with a project manager to find the best solution to their dynamic family needs.

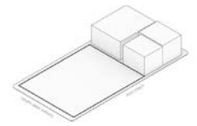



Exploded Axon : The different components needed to assemble a singular unit.

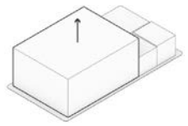


Model Photography : View from inside of the living space of the module.

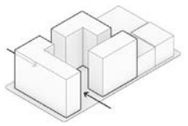
Model Photography : How two prefabricated modules of a one bedroom configuration begins to aggregate.



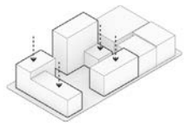
Building Site



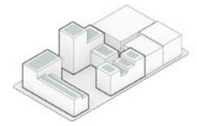
Maximum Extrusion



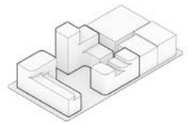
Removal of Mass



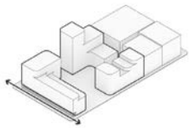
Height Variance for Sun light



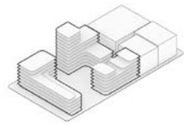
Removal of Mass for Terracing



Articulation of Mass

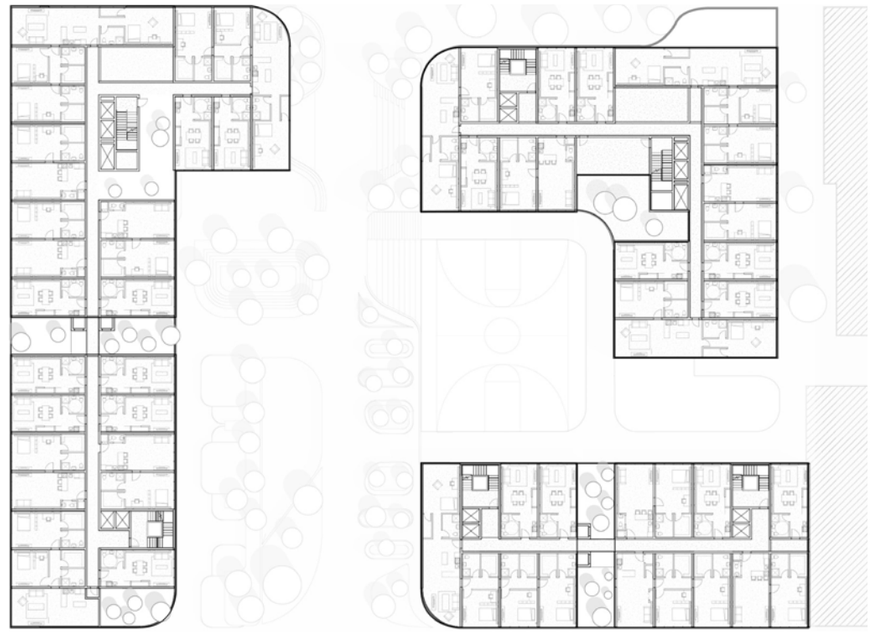


Commercial Allowance



Floor Plates

Diagram : Addressing site needs versus maximum capacity of the site for our modules.

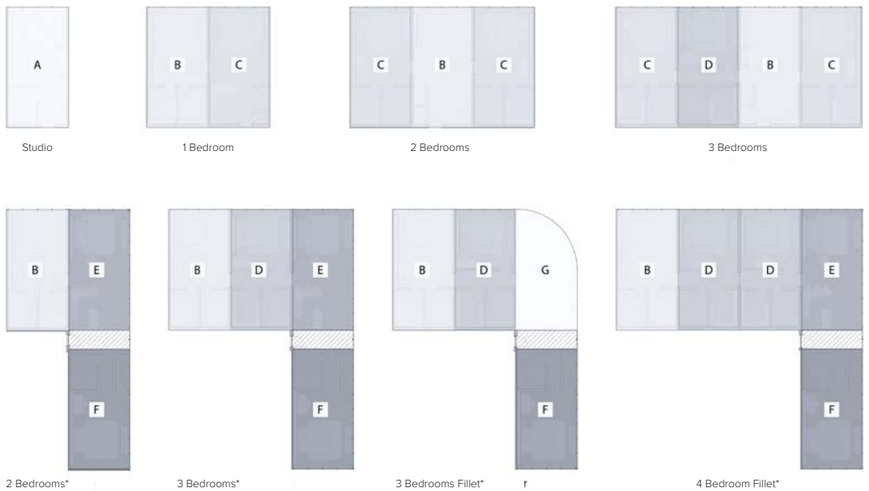


(Left) Rendering : View from top level terrace into the public park.

Floor Plan: Typical upper level floor plan showing the different units.

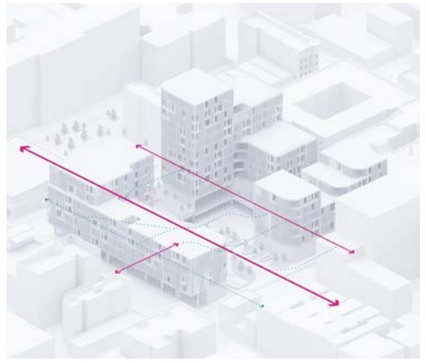
Floor Plans : How the unit aggregates to create different unit types.


Diagram : Different unit types within the same overall module dimensions.




* Signifies that these are bookend units that cap off the end of the building or the double loaded corridor

Rendering : The shared outdoor spaced created when removing a singular module.



Pedestrian Circulation

Vertical Circulation

Primary Street Axis

Green Cores

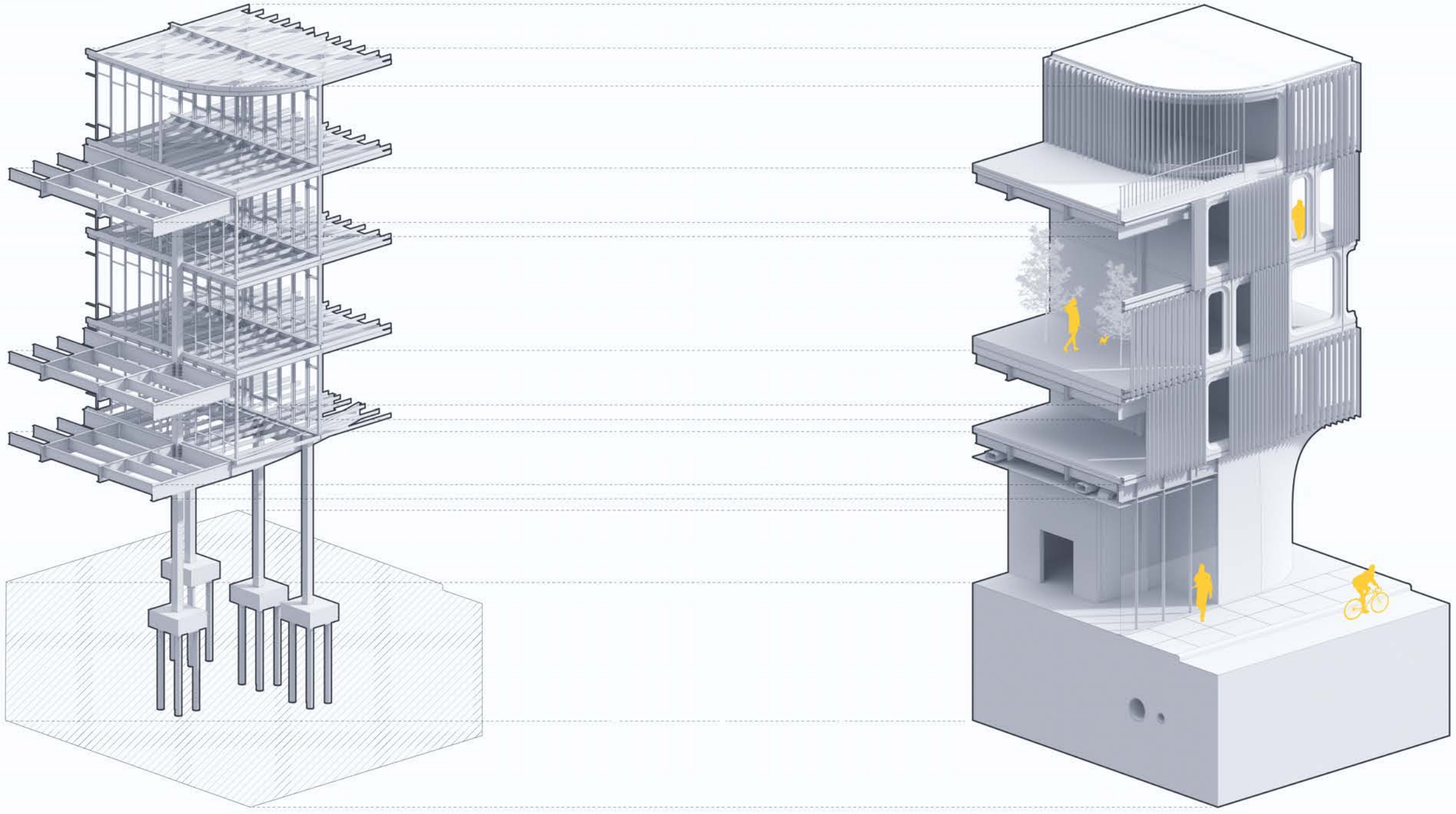
Building Through Points

Green space

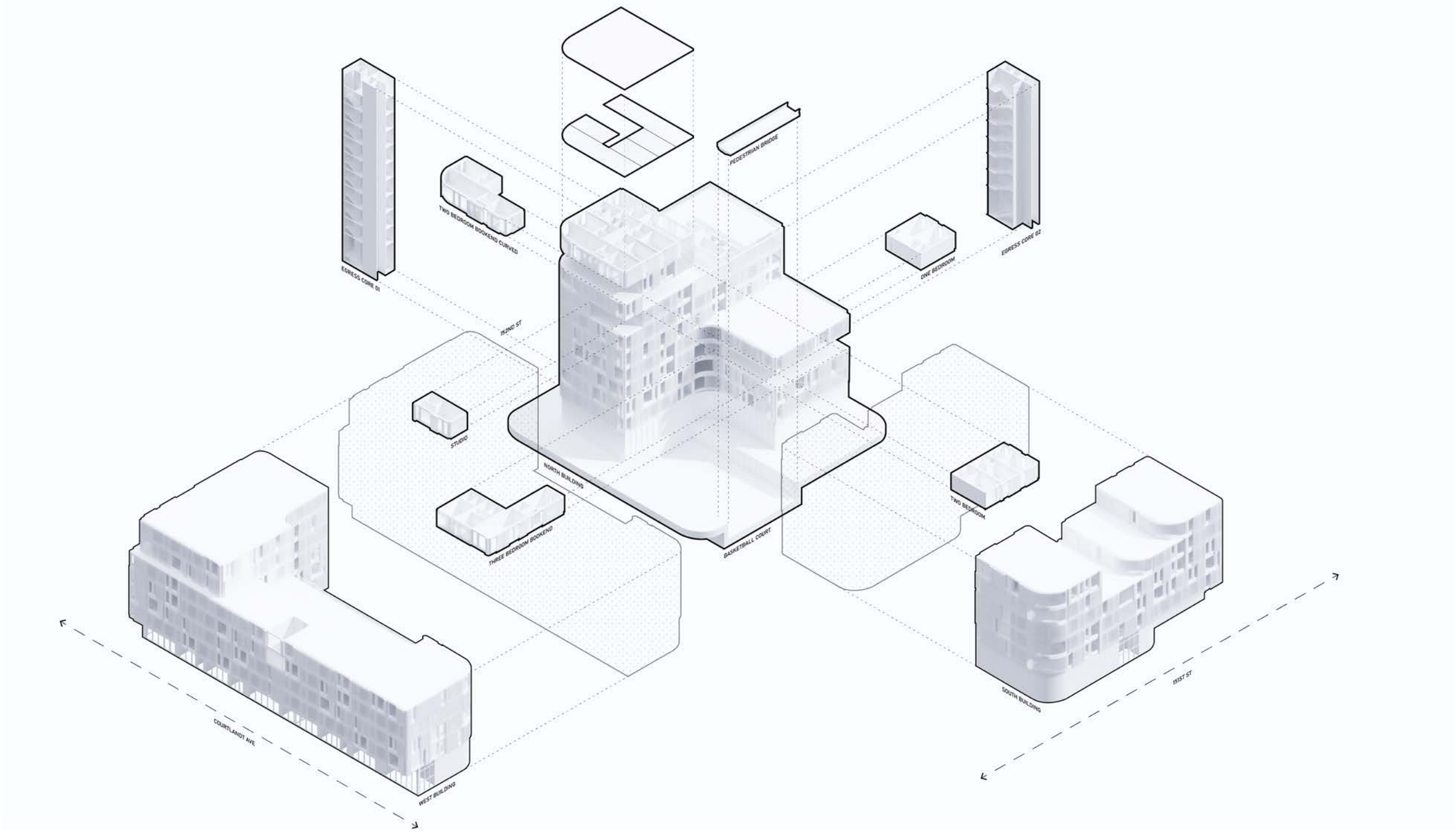
Axon Diagrams : Form articulation diagrams.

Model Photography : Masses on site.

Rendering : A living space of a one bedroom module facing inward to the courtyard.

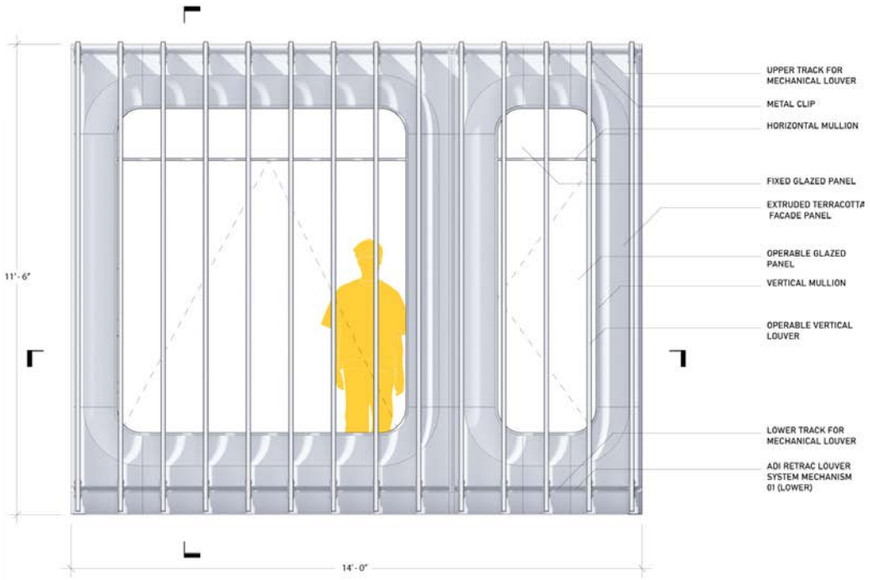


Chunk Axon : Two part drawing showing the repetitive structure featured in the prefabricated modules versus the site specific architecture below.

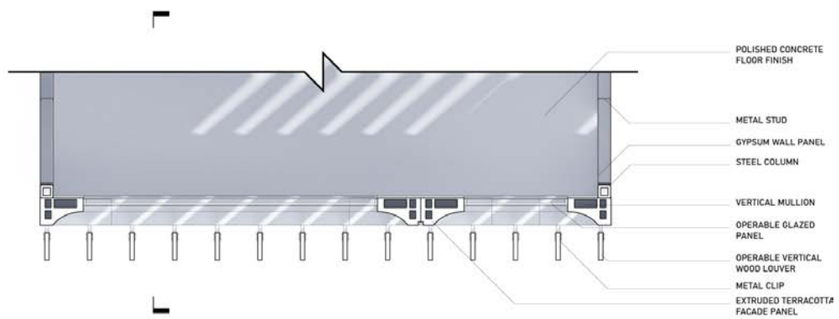



Building Scale Exploded Axon : Showing the major components of the three separate masses and how they relate to each other on the site.

Facade Road-map : Elevation

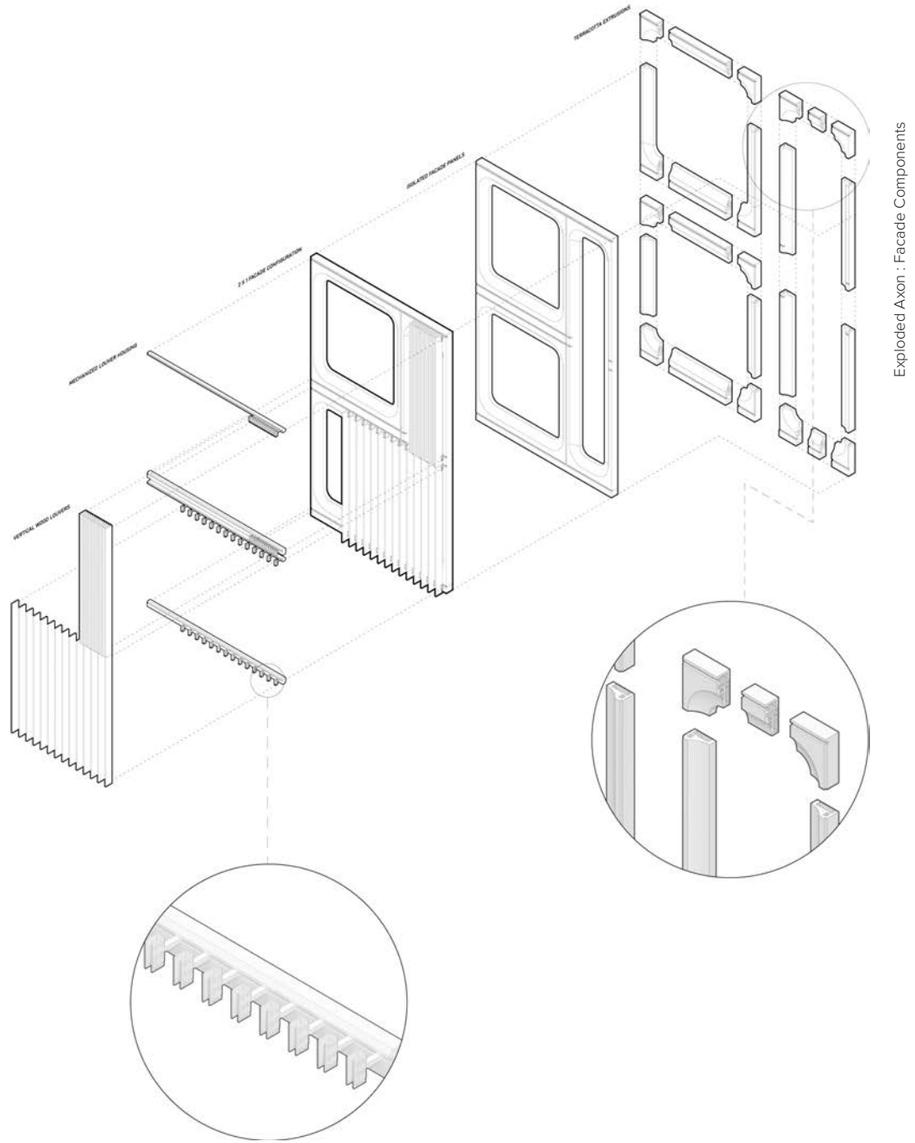



Facade Road-map : Plan






Exploded Axon : Facade Components



Longitudinal Section

Latitudinal Section

Rendering : Path through the tie at night.

# MONUMENTS TO NATURE

Annandale-on-Hudson, New York.

Being placed in a site removed for the urban condition left us in a position to generate a philosophy about nature and context, and what it means to design a center focused about it. Monuments To Nature aims to distill the elements, and their sensory experiences.

There are three monuments, the tower which focuses on air, utilizing vision. Here you can bird watch in the environment of the bird, at the tree canopy level. The second monument is the land element. Here you have your surroundings blocked off so you're focused only on what is inside, and what you're allowed to see outside. It's designed around an ancient rock, which you can only see, not touch from above. There are opportunities to look out, but you can only see the ground in front of your feet, forcing you to experience the dynamism of the simple things in front of you. The third and final monument is the water monument. Here the water flows onto it and you can interact with the water of the Hudson River upstream. There is also a water wall in which it flows over and cascades down into the lower level.

The monuments are permanent and meant to last forever and eventually be overgrown by nature, whilst the only "architecture" on the site is made from Timber and Polycarbonate. These materials are more temporary and will eventually wear away leaving a slab. The symbolic geometries of the concrete left over will encapsulate the signification of the monuments and their relationships to one another.

Studio Critic: Robert Marino
Spring 2022 - ADV 4

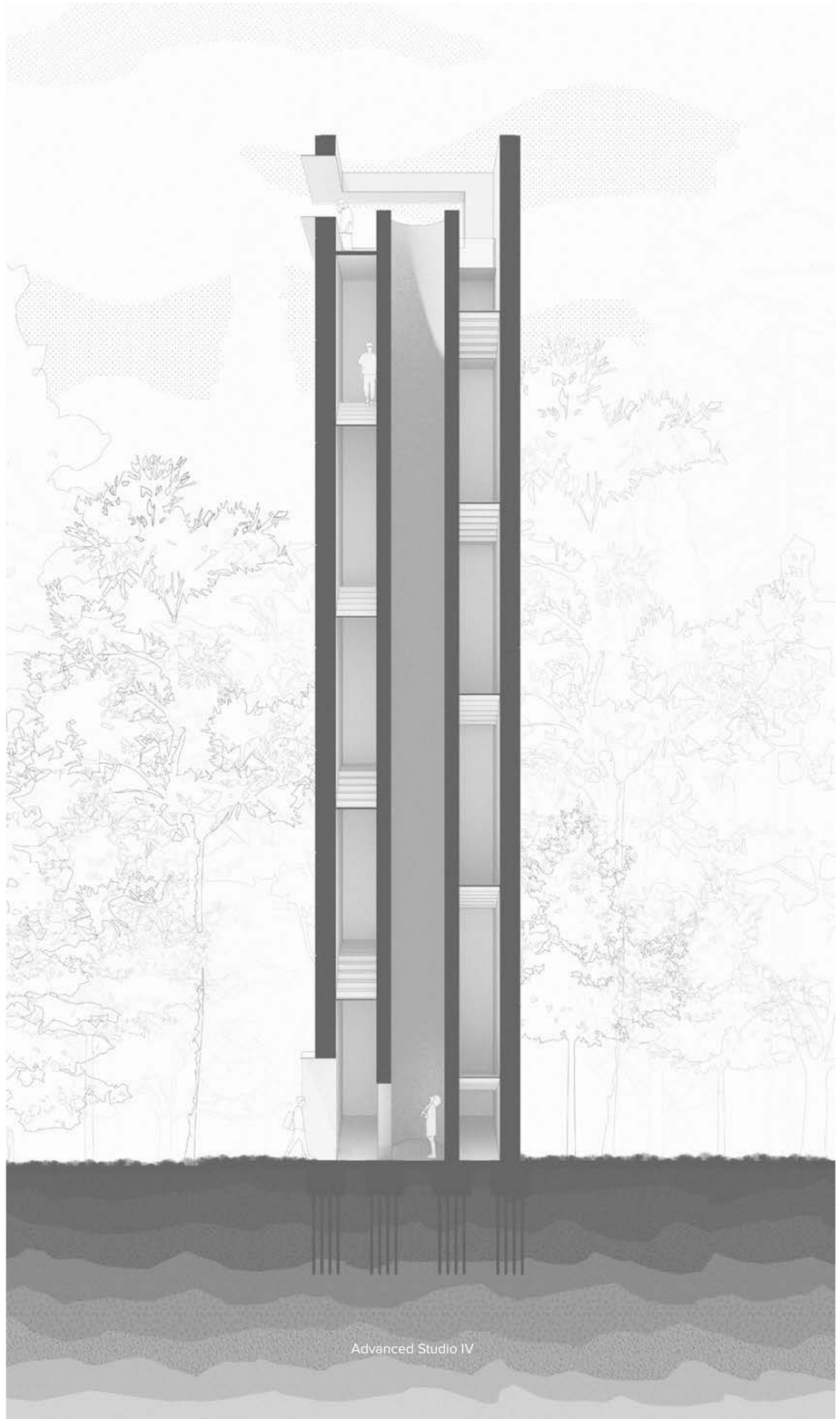
**Partner: Samuel Bager**

Rendering : The approach to the Tower monument.

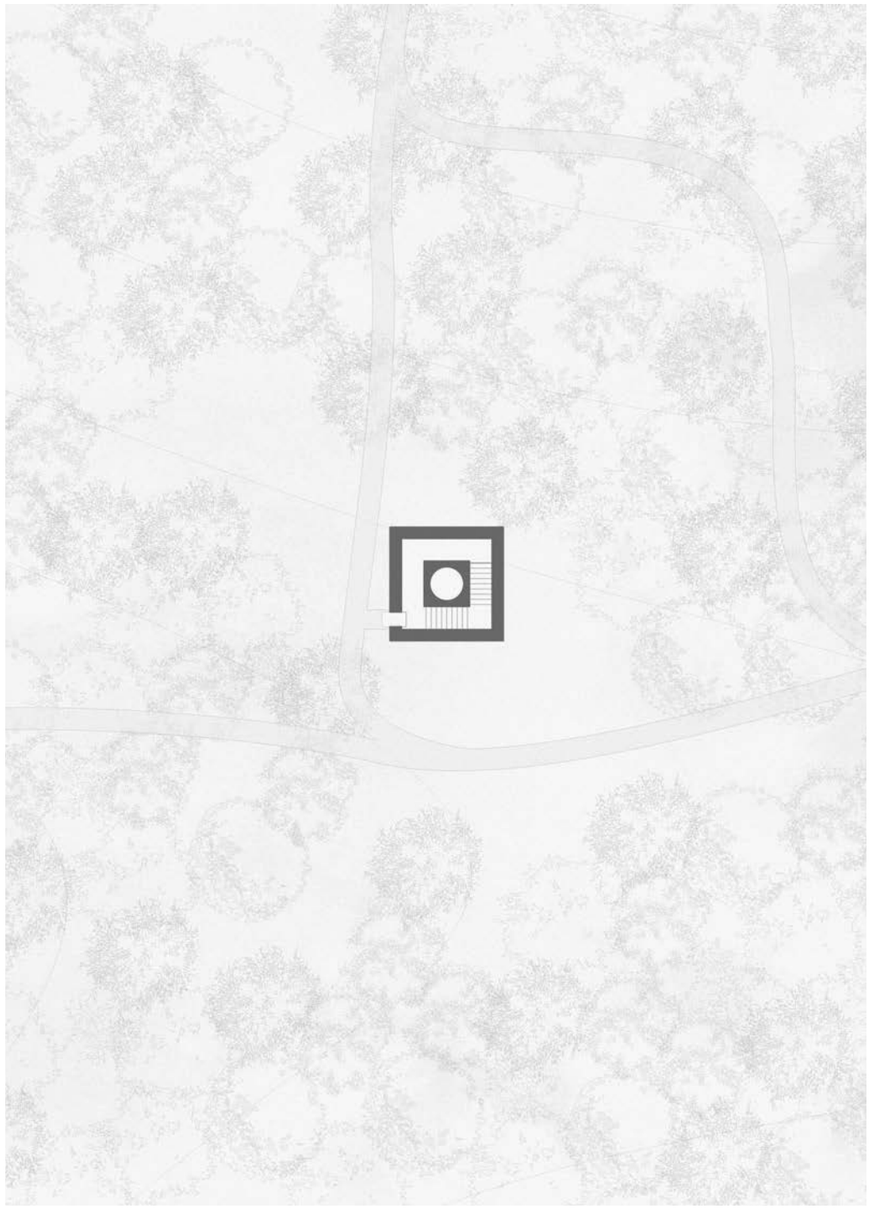
Mapping : Northeast regional map highlighting the site.

Mapping: Annandale-on Hudson in focus of our site.

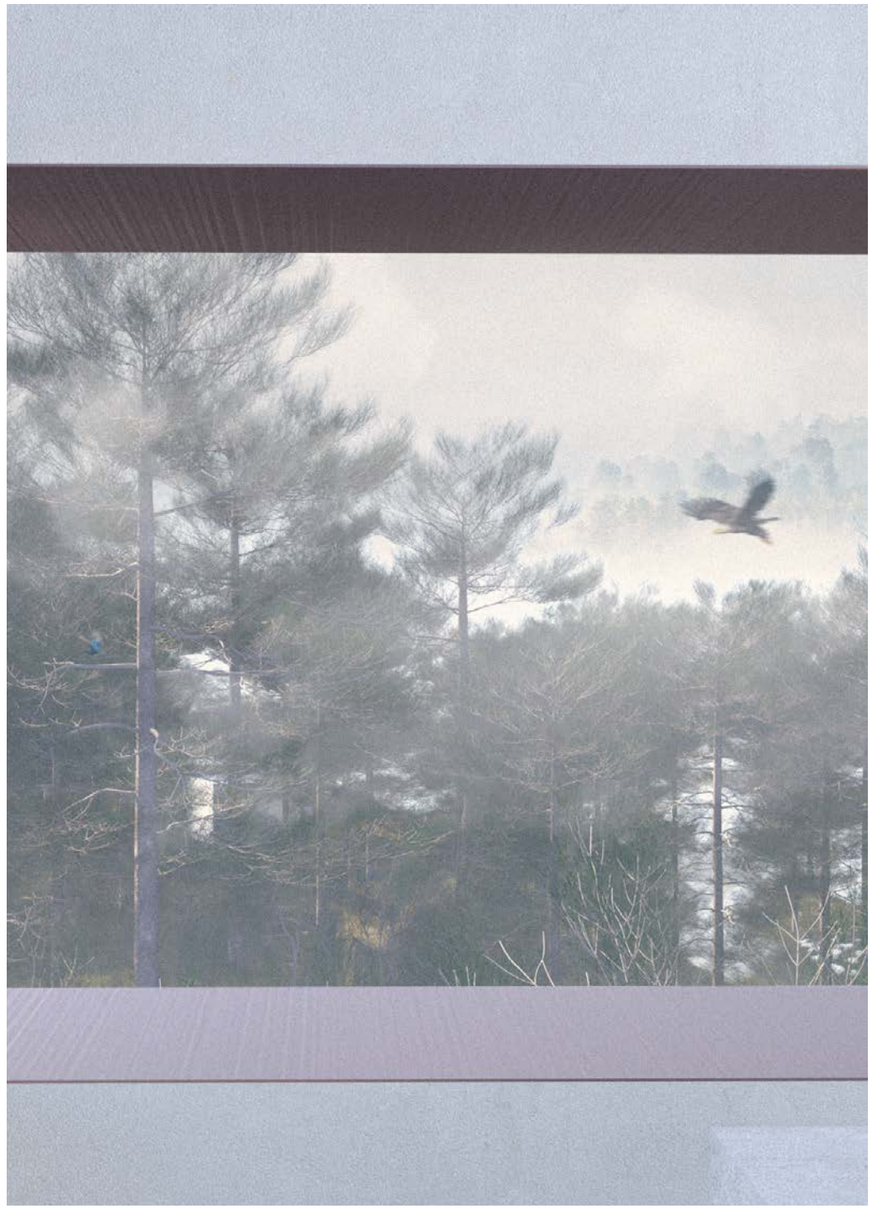
Mapping : Where the four structures fall on the site.



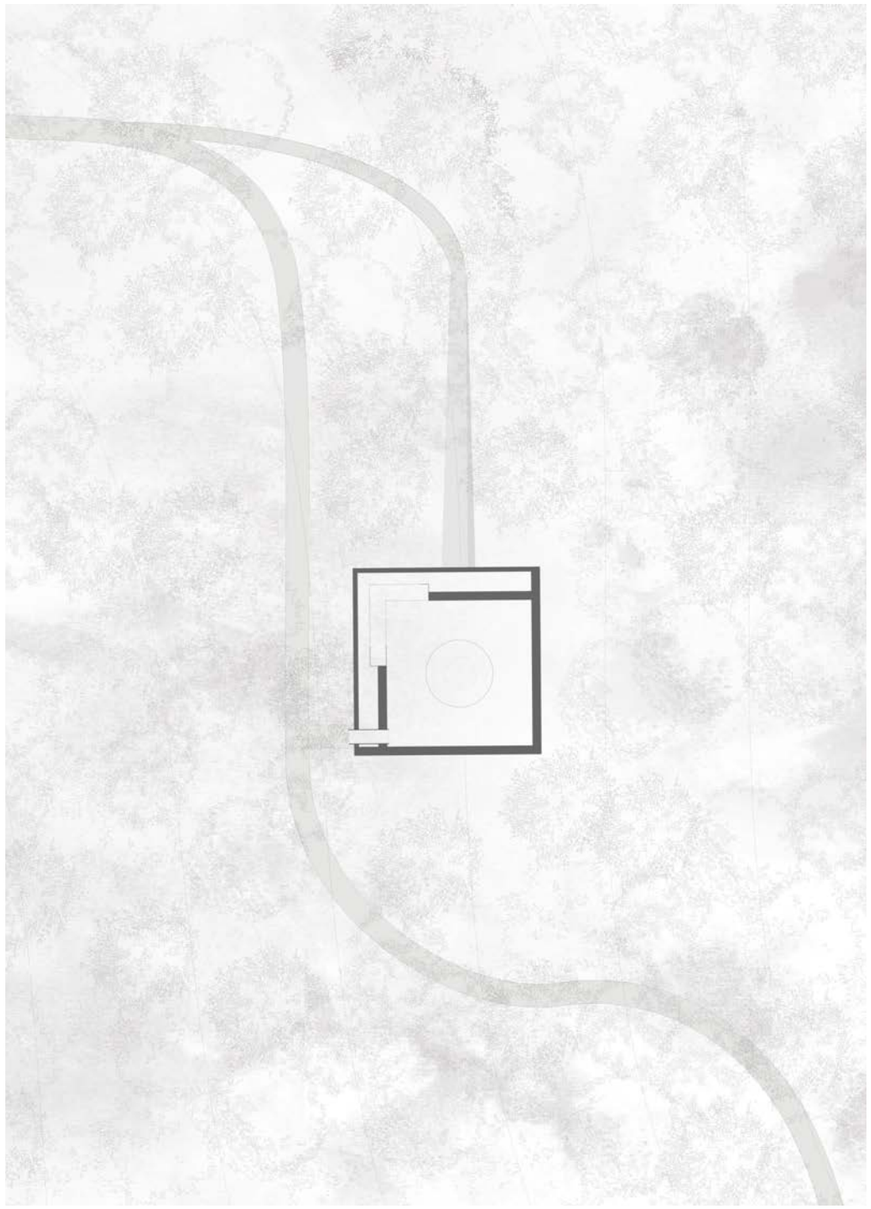
Section : Air Monument



Plan : Air Monument Plan



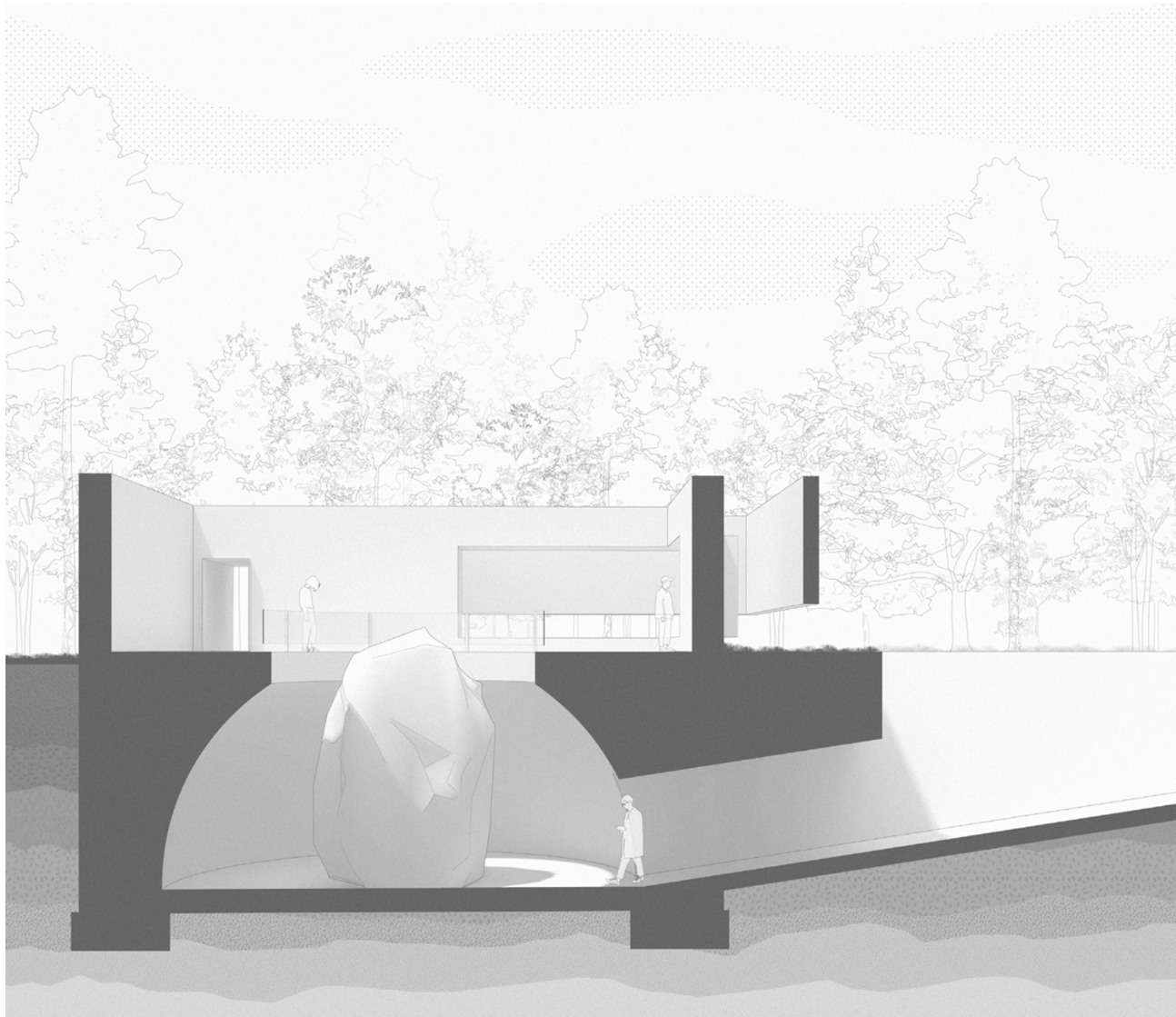
Rendering : Bird watching from the Air Monument.



Plan : Land Monument Plan.

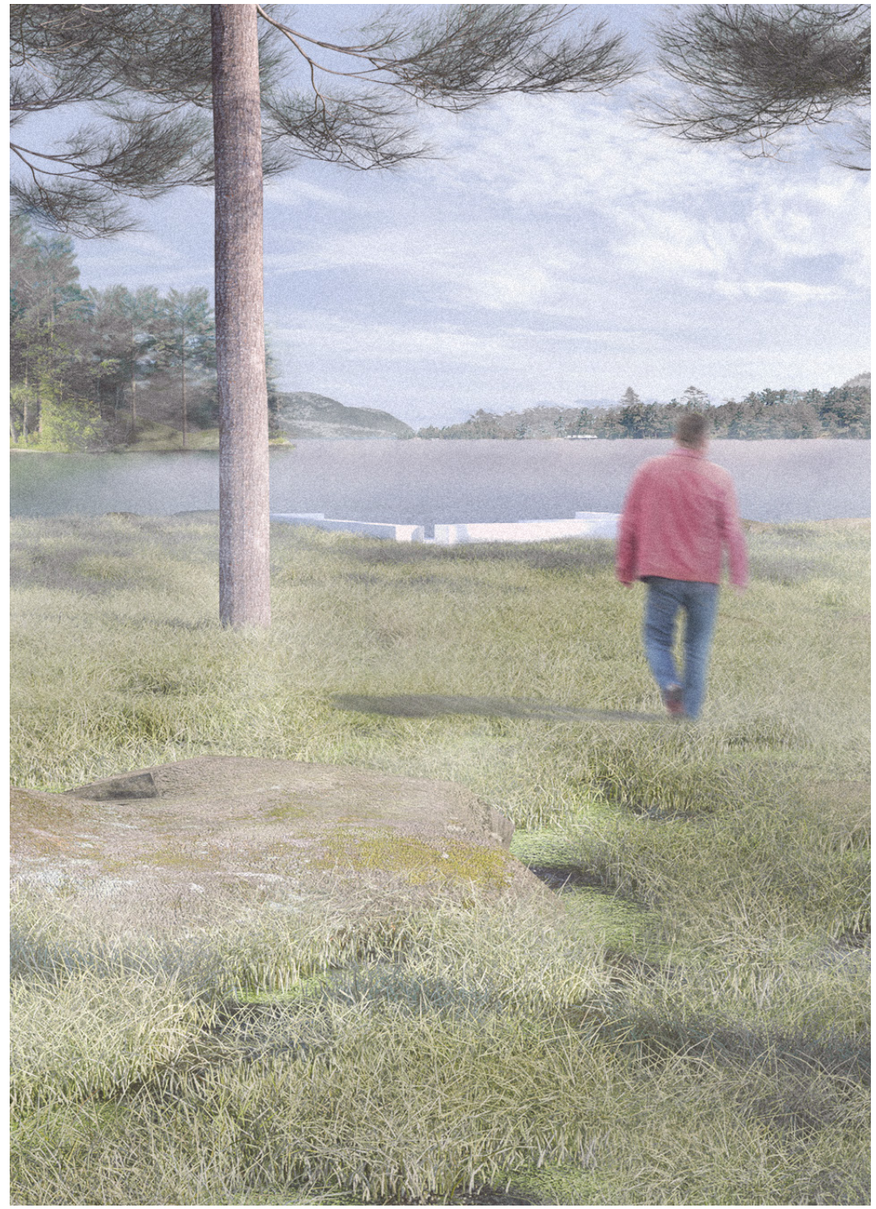
Rendering : Viewing the Land Monument from the outside.

Rendering : Viewing the ancient stone the monument was built around from above.

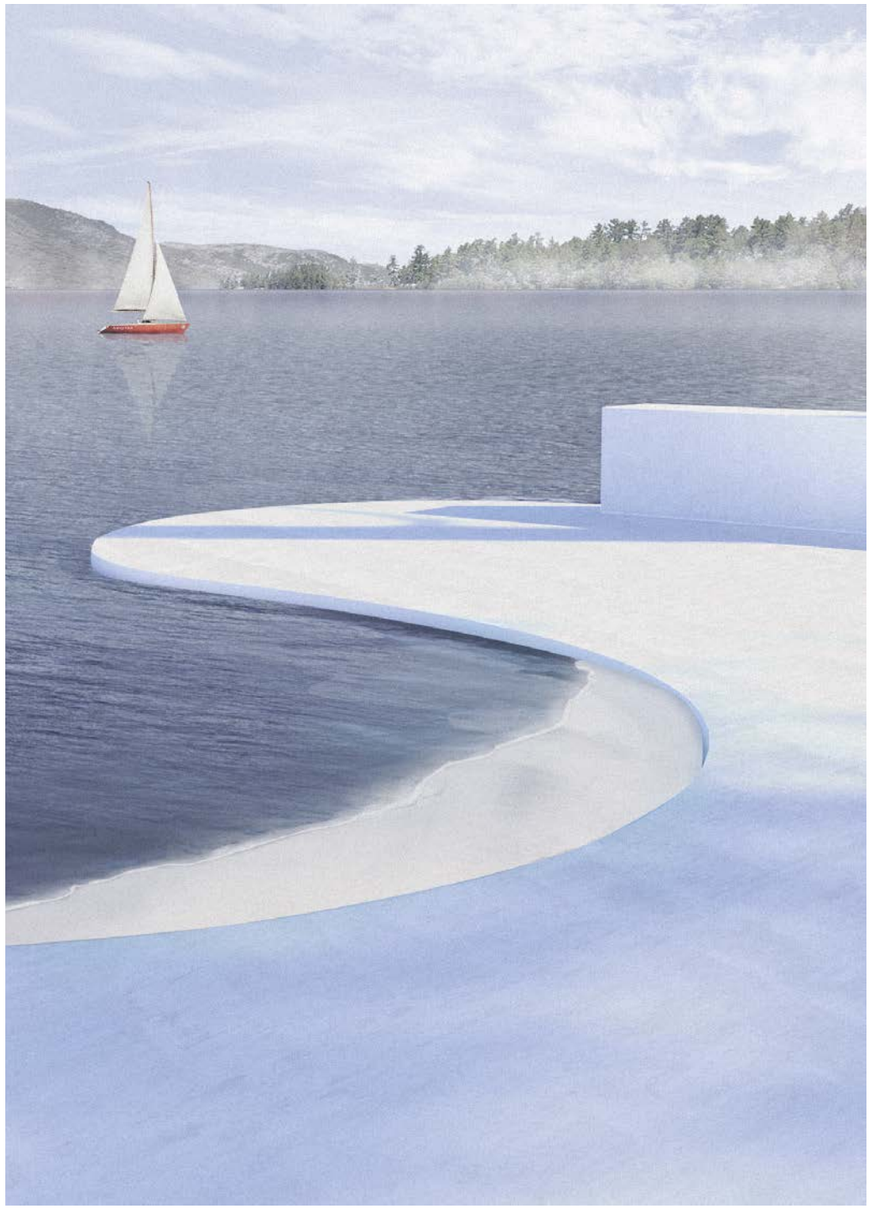


Section : Land Monument Section.

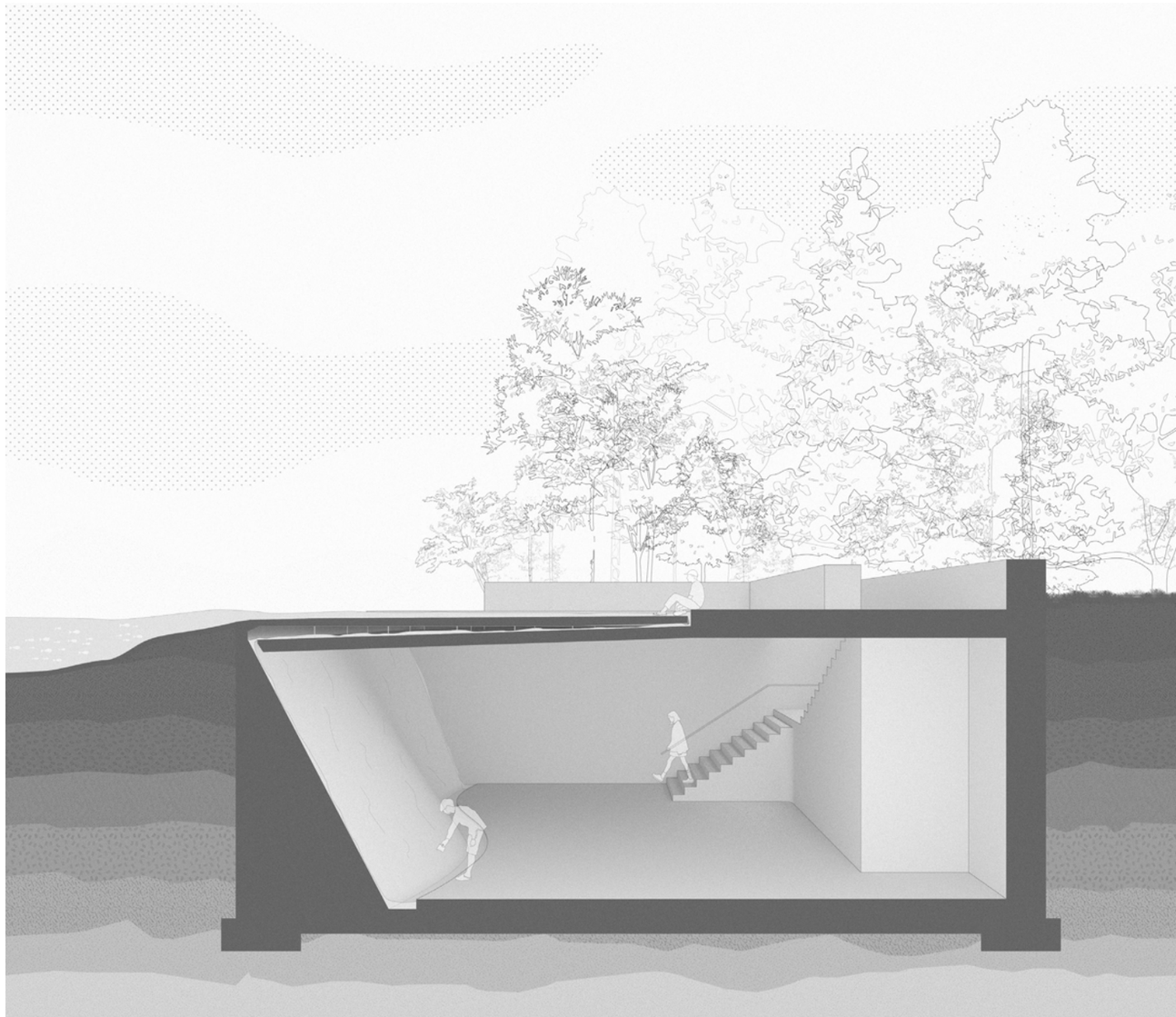
Plan : The Water Monument.



Rendering : A man approaching the Water Monument.



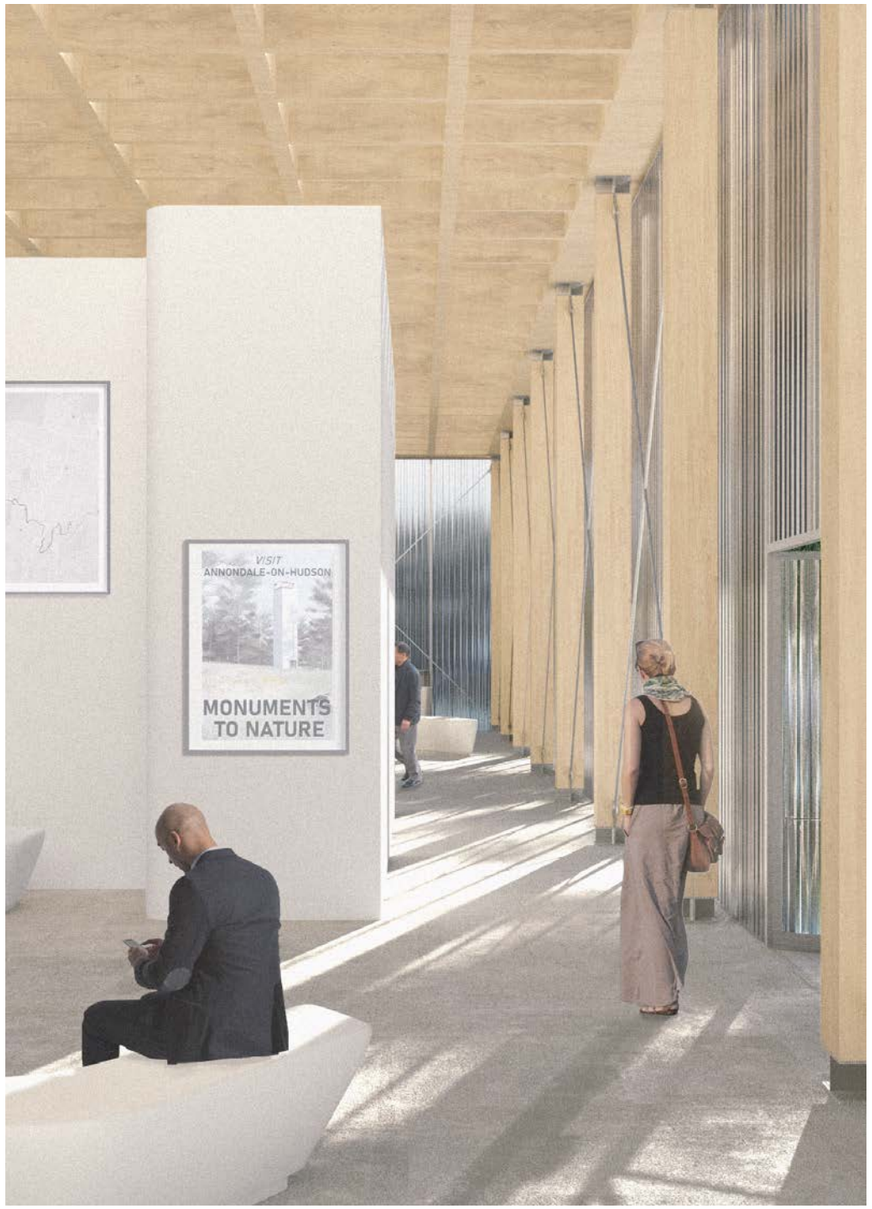
Rendering : Water washing up onto the Water Monument.



Section : How people can occupy and interact with the Water Monument.

Model Photography : Air Monument

Model Photography : Land Monument.




Rendering : Lobby Space.

Rendering : Entry into the Mass Timber and Polycarbonate Architecture.

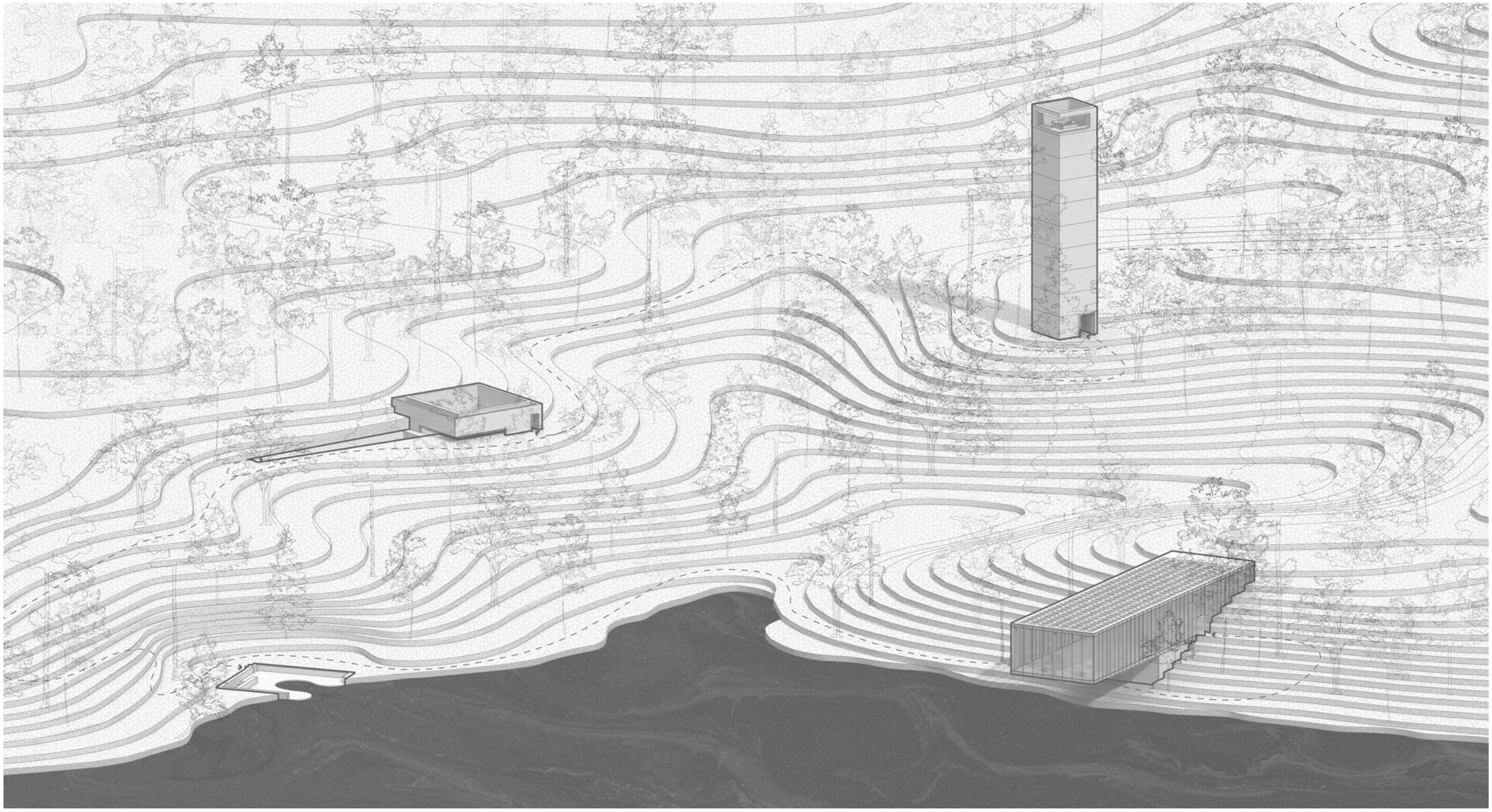


Diagram : All the monuments together in tandem.

# INTER-CONNECTIVITY

East Village, New York City, New York.

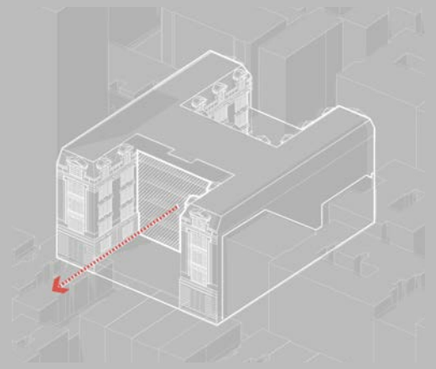
The project fosters an environment of sharing and connectivity through play and education. Children come from different backgrounds and the ability to share is very important to their growth and development. Play is free, genuine, and important keeping them alert.

Creating space in which they aren't inhibited by the lack of open space in the city and creating opportunities within the program is key. The geometries of space balance the adjacency and circulatory experience of the occupants leading them to destinations where they are able to break the boundaries of what is a classroom and interact freely and share with one another.

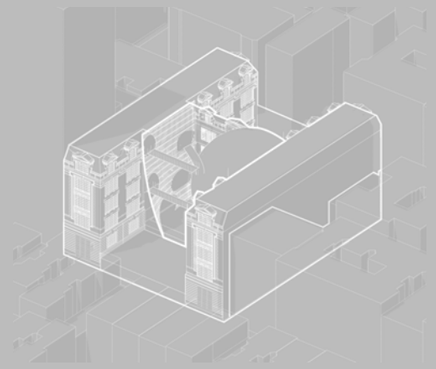
In the Neighborhood of the East Village, PS 64 has a prominent history and through Interconnectivity, it returns to it's original glory with additional services that are needed in the future classroom.

**Studio Critic:** Karla Rothstein
Spring 2021 - Core 2

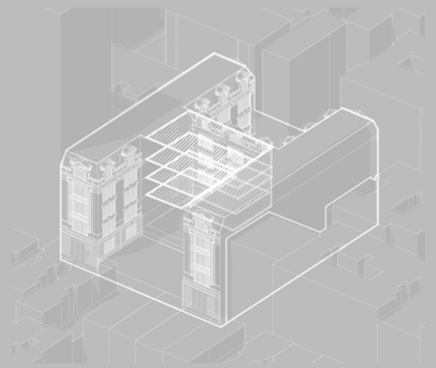
Rendering : Looking up at the intervention from the ground.



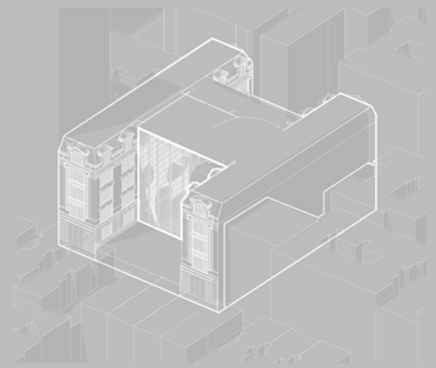
South Facade Removal



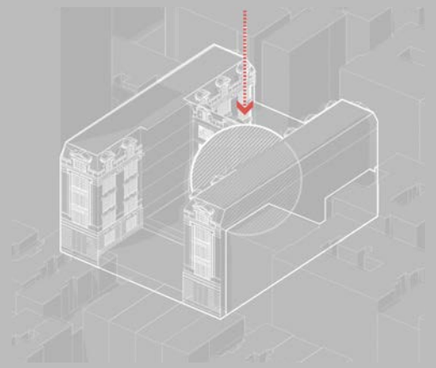
Circulatory Experience



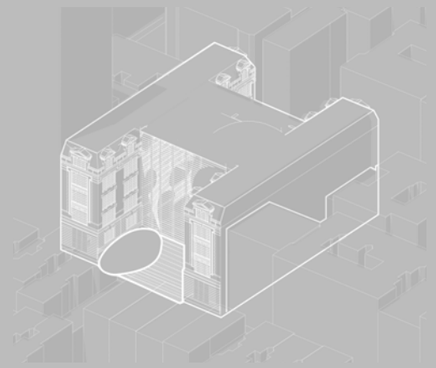
Mid-Section Floor Plate Removal



North & South Facade Addition

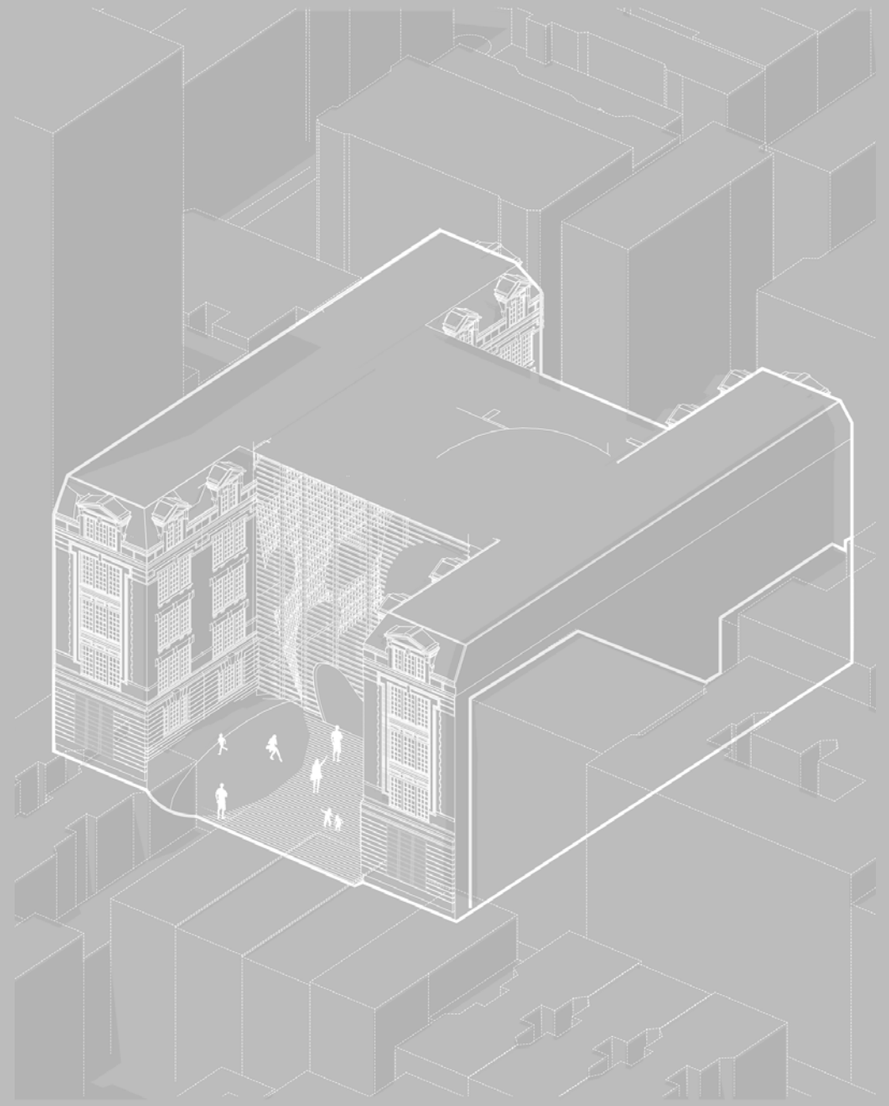


Atrium + Play-zone Creation



Entry Experience

Diagram : The interventions with the existing form.



Axon : The proposed architecture.

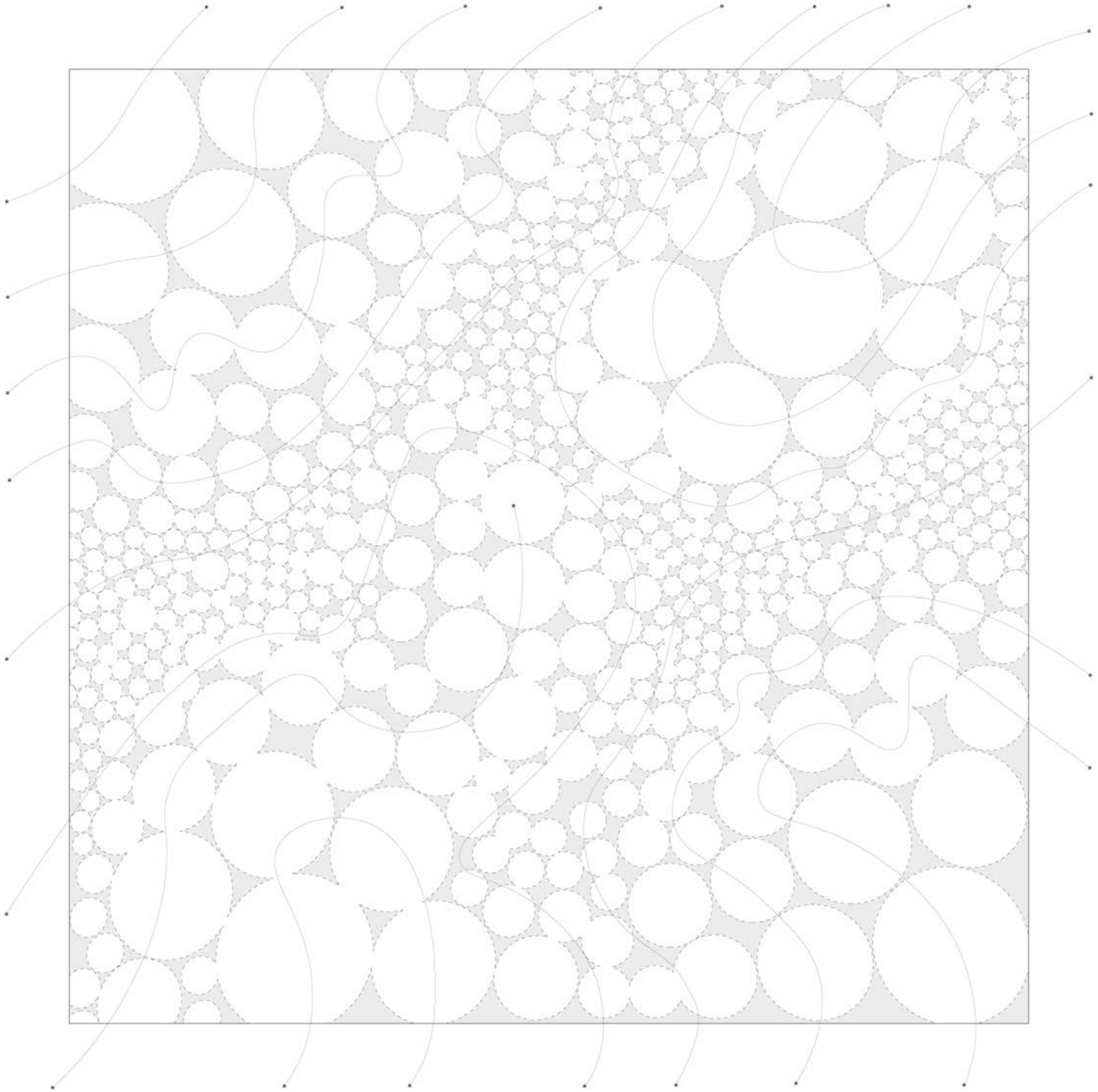
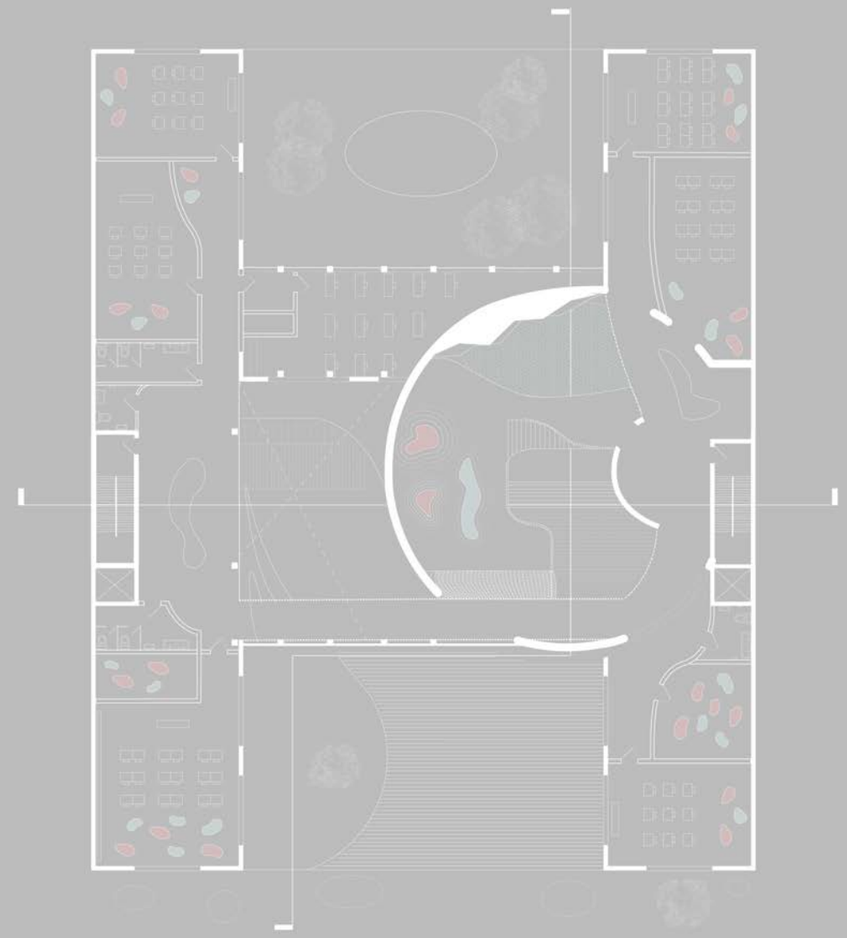


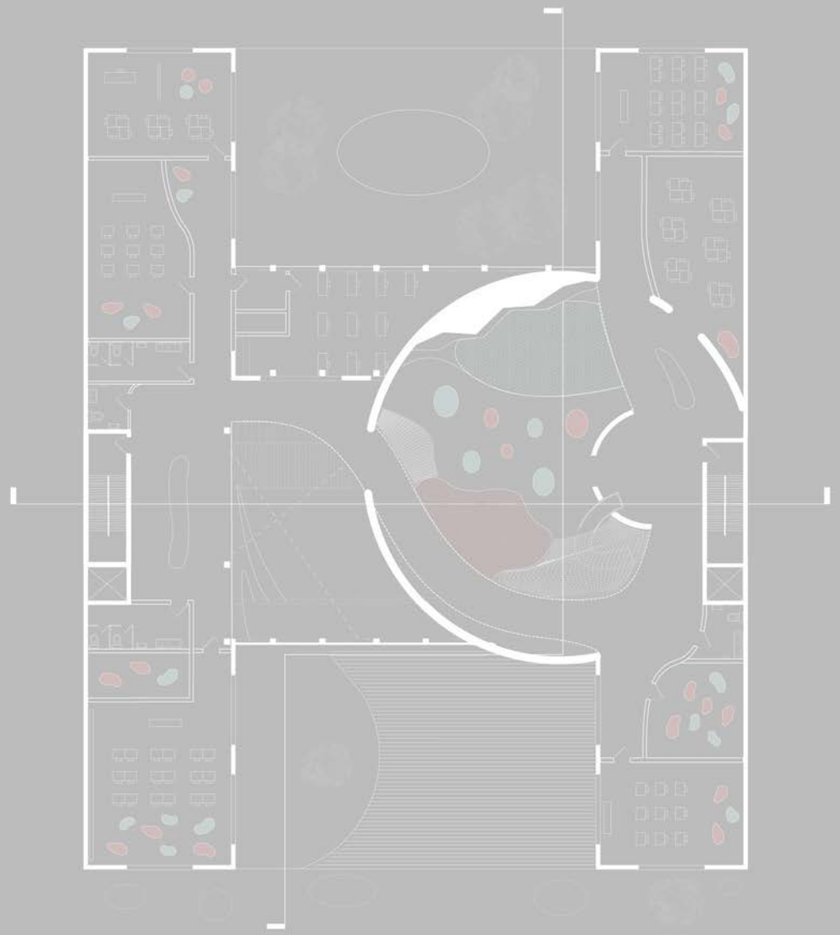
Diagram : Connectivity and integration via touch.

Material Experiments : Concrete Castings (porosity).

Rendering : Hallway outside of the concrete mass.

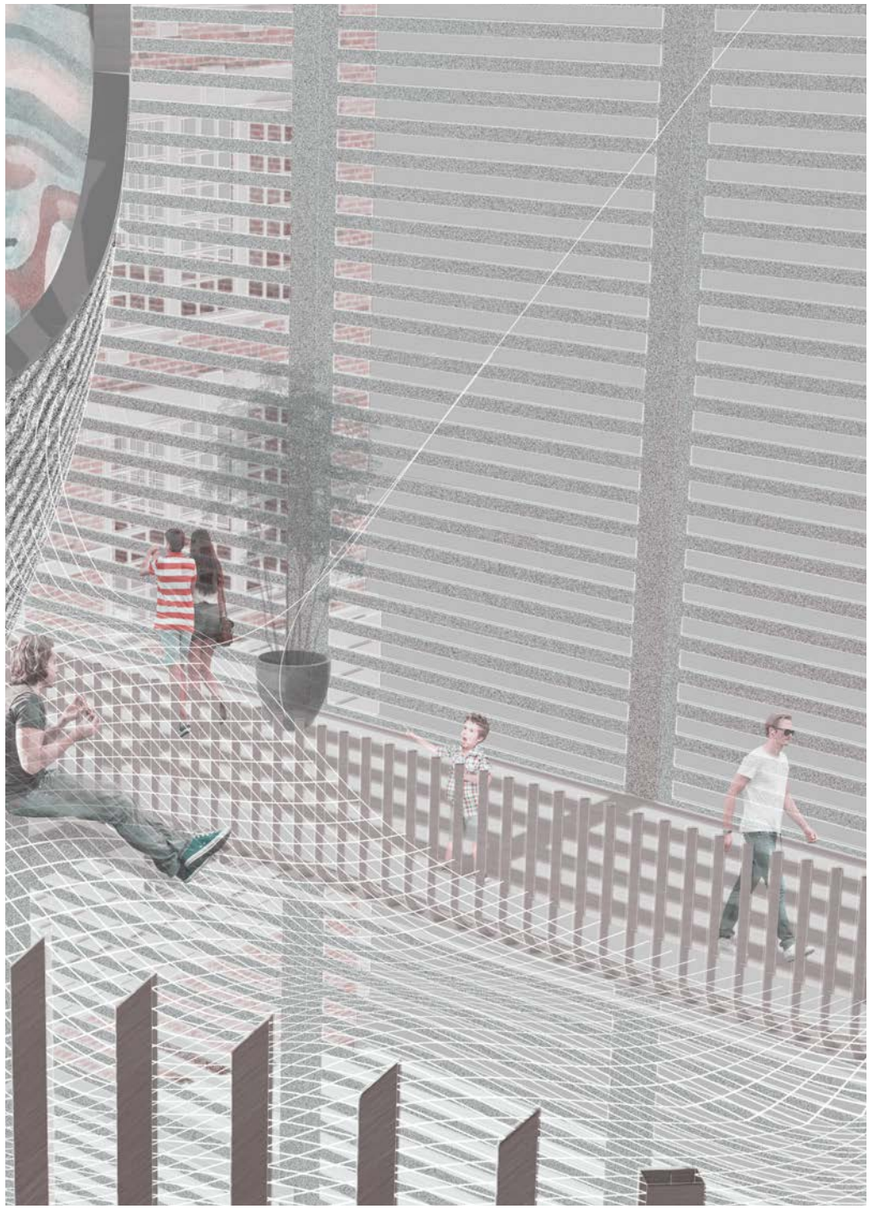


Floor Plan : Typical Educational level.

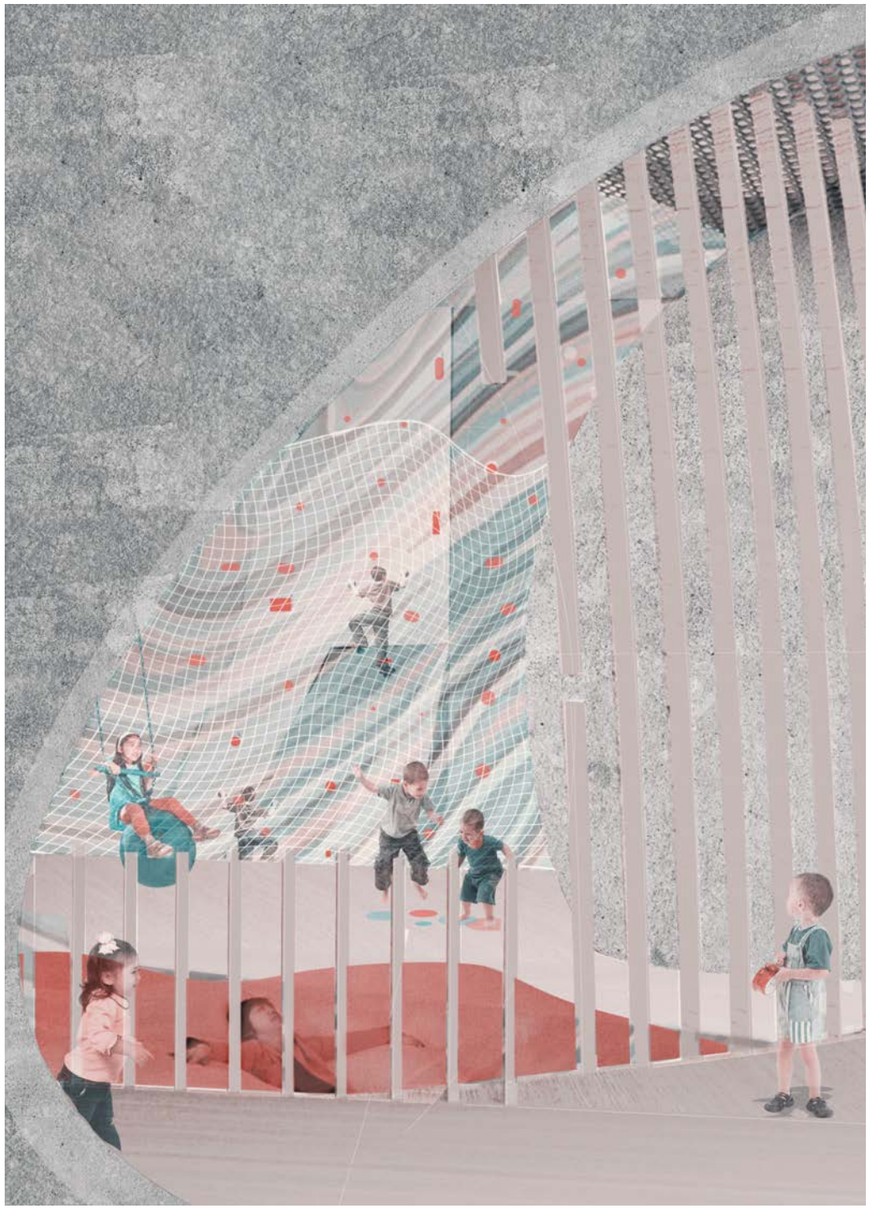


Floor Plan : How you'd circulation through the area of play.

Rendering : How the concrete mass creates space for play.

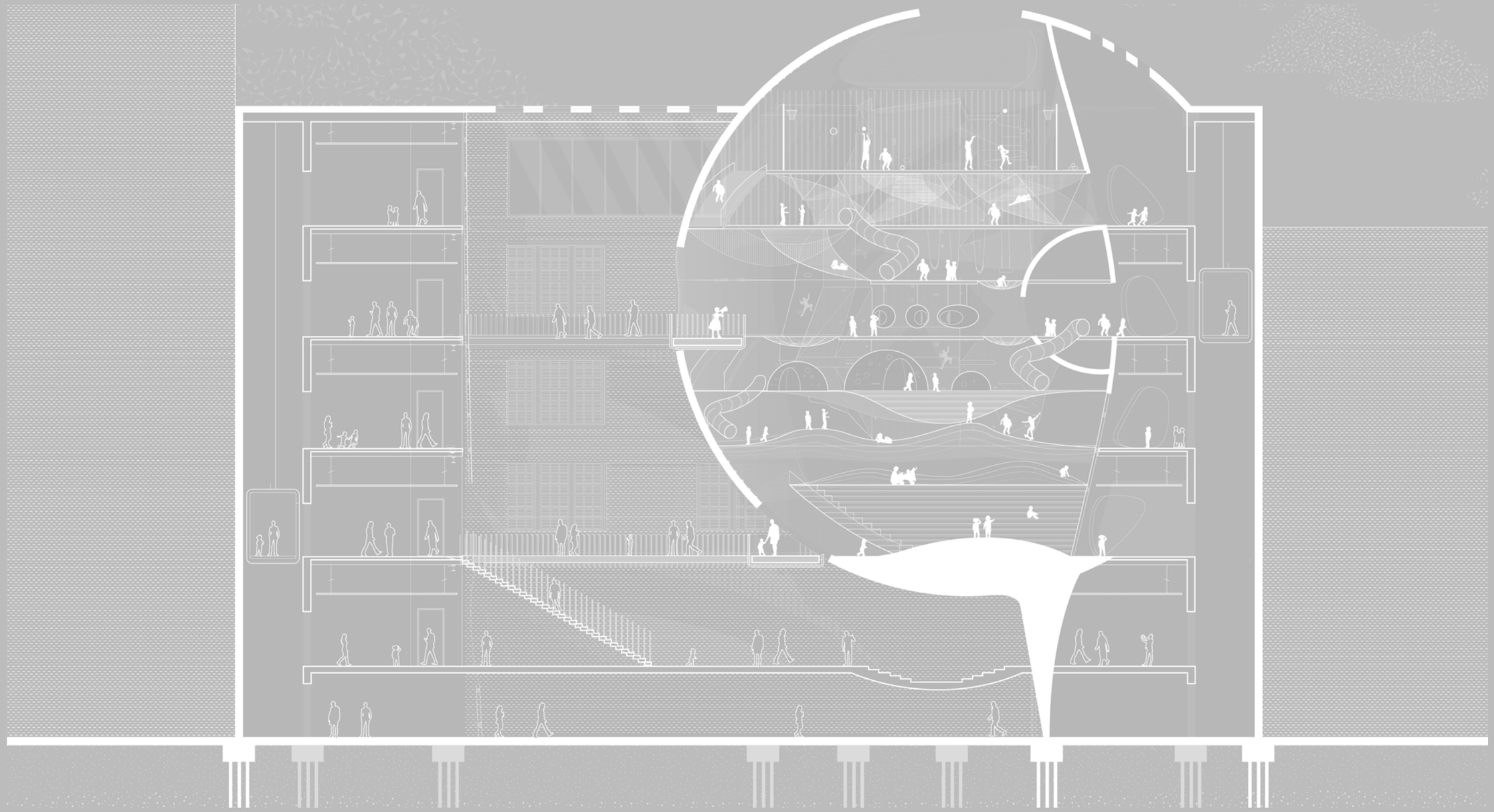


Rendering : Areas of calmness in tension between circulation.

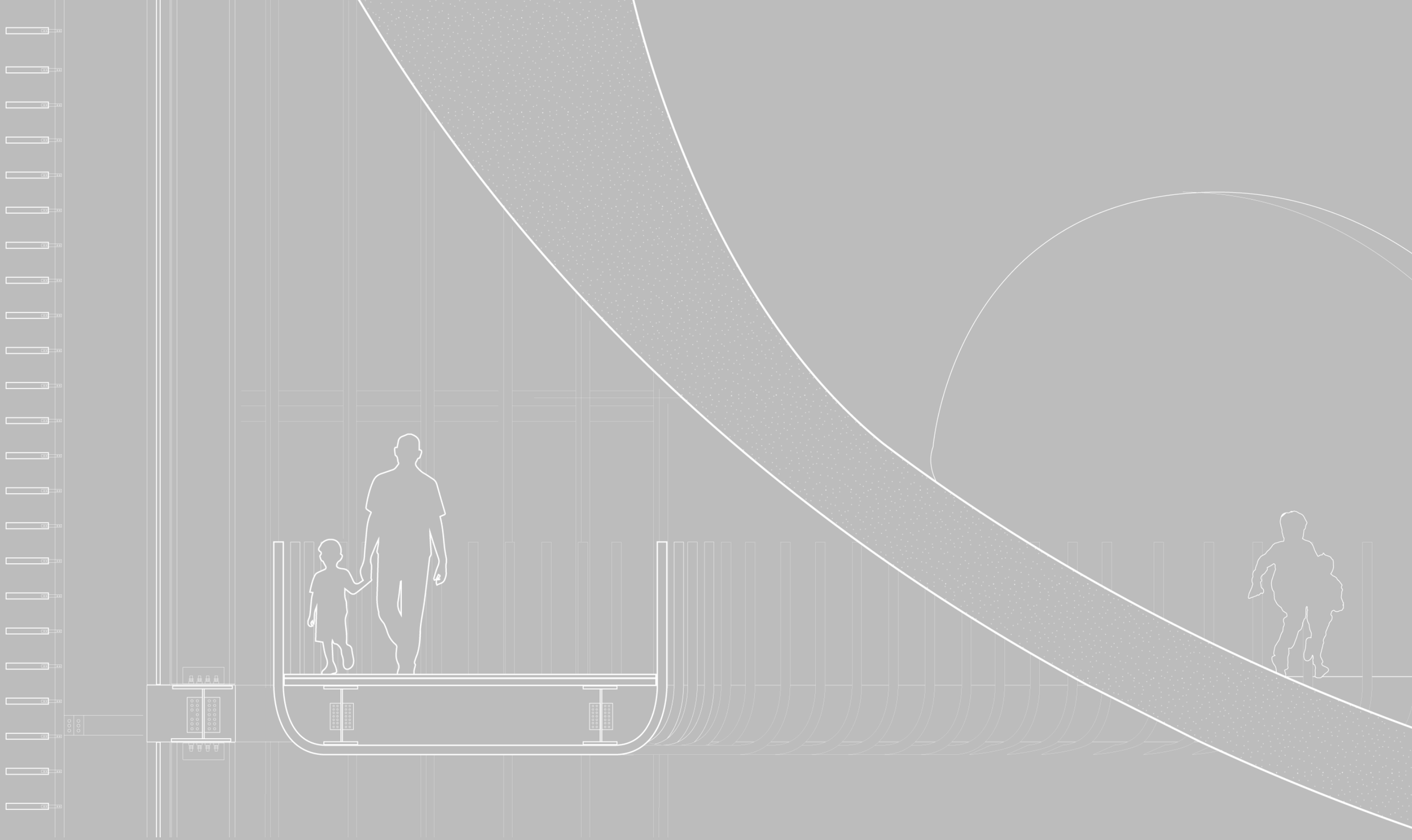


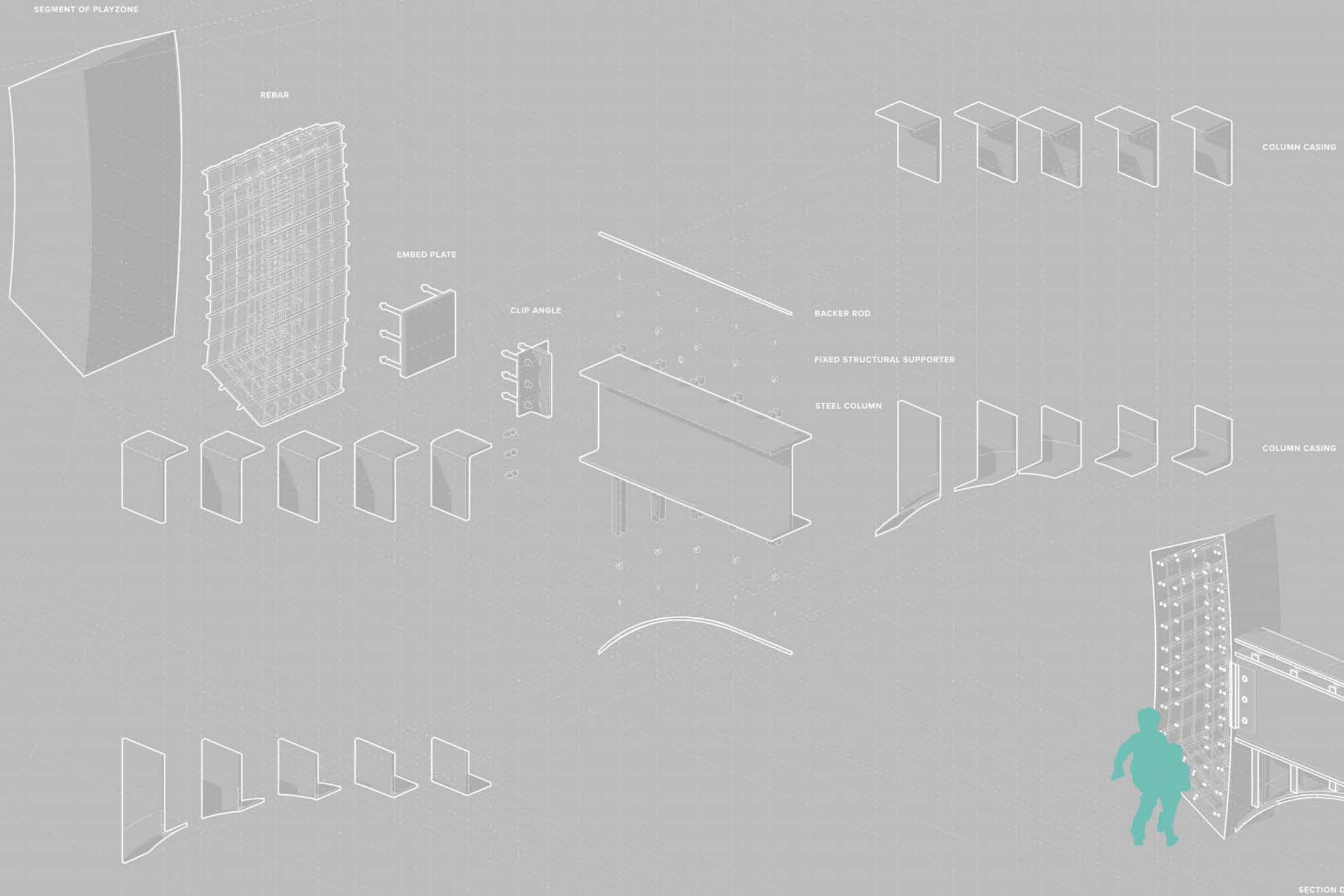
Rendering : Different forms of play shown inside the sphere.

Latitudinal Section

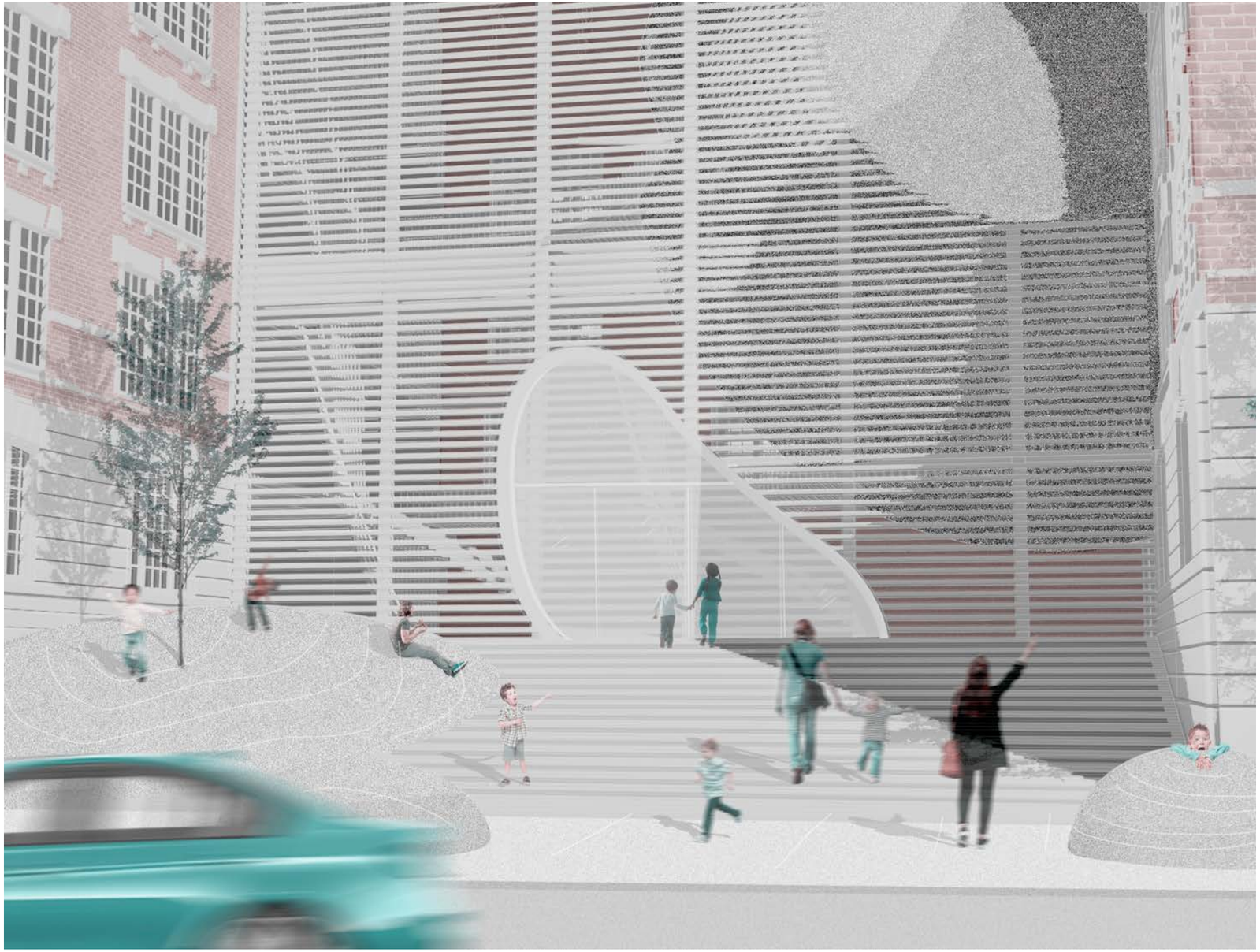


Longitudinal Section.






SECTION DETAIL



Rendering : The new PS 64.

Rendering : Approach and entry into Astor Place Ambiance from Cooper Square.

# ASTOR PLACE AMBIANCE

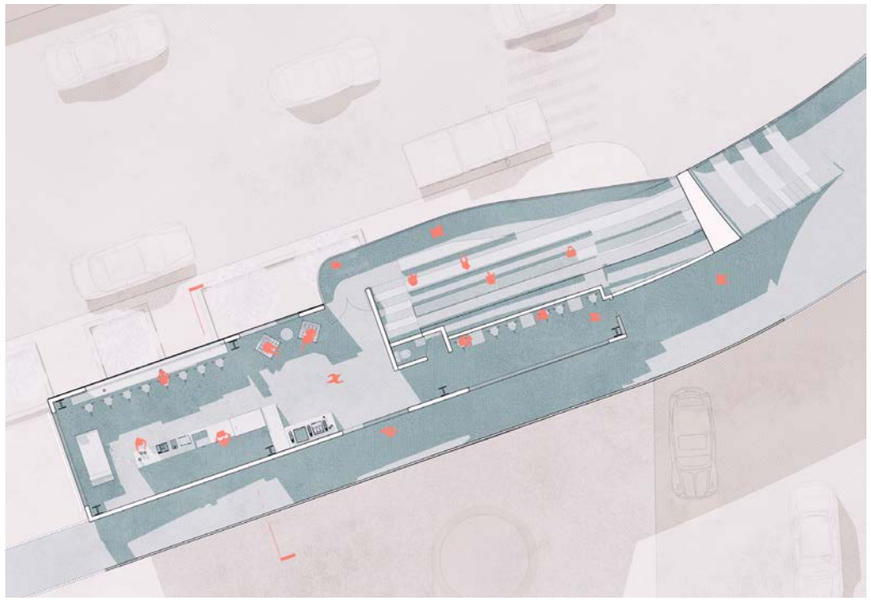
Astor Place, New York City, New York.

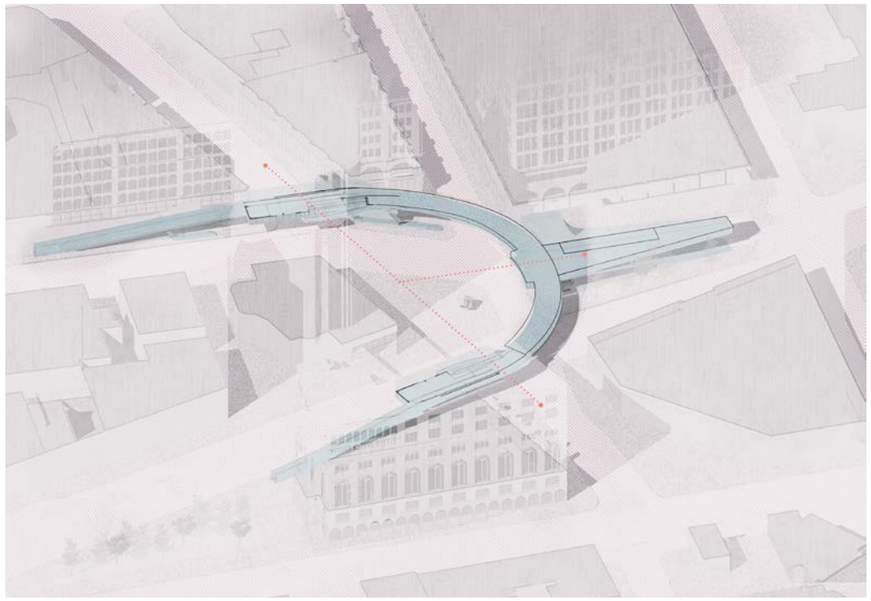
Astor Place Ambiance proposes an elevated architecture that acts as a viewing platform for the community. Tying into The Public Theater's repertoire of venues, this is a completely outdoor venue that would operate in the evenings with specific musicians or performers scheduled. On other days the structure allows for spaces above and below for moments of community and gathering. The platform provides a variety of seating focused around Astor Place as a centripetal stage, along with a multiplicity of spaces for different people to congregate. Utilizing vendors and the local restaurants, the platform also allows events to take place on the top, including art installations, or food events.

The form aims to have very little impact and contact on the surface level and the existing context. Astor Place Ambiance hopes to avoid obstructing existing pedestrian flows, vehicular traffic flows, and experience within the square,but amplify the possibilities and experiences of the previous condition. On a similar note, the platform aims to utilize the windows of the existing context as a means of viewing, expanding the ideas of spectator-ship to include viewers from work or home for example.

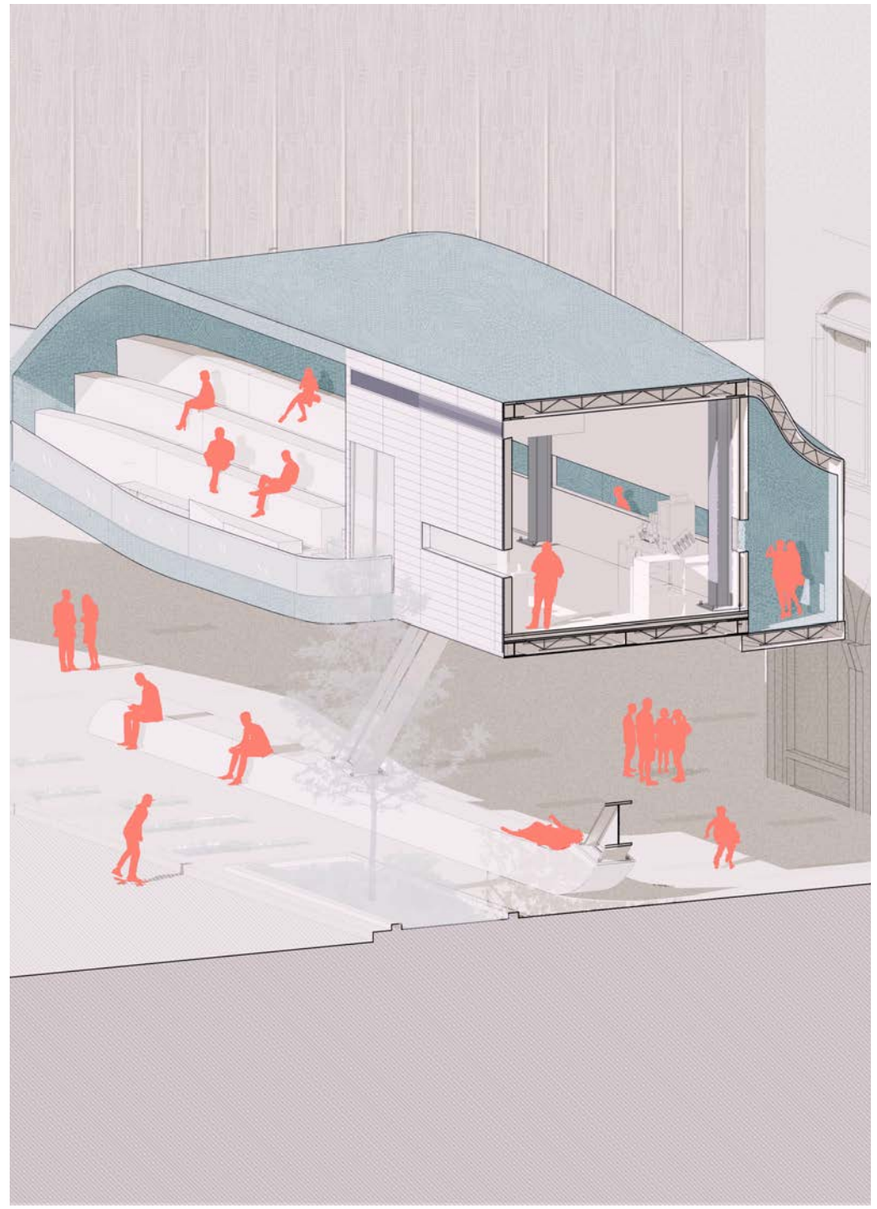
**Studio Critic:** Amina Blacksher
Fall 2020 - Core 1

Floor Plan : Viewing Platform enclosure





Plan Oblique : The elevated structure above Alamo Plaza.



Section : Slicing through the elevated viewing platform.

Photography : Positive Negative tile.

# POSITIVE NEGATIVE

Positive Negative is a project focused on the making of a repetitive geometry in the class of Translational Geometries. In this class we took a 2D idea and turned it into a repetitive tile that can fit together or relate in multiple ways via one form. Here I designed a detailed form with many different surface details to create formal relationships but also textural ones that can be appreciated from close and far visually but tacitly.

**Studio Critic:** Joshua Jordan
Fall 2022 - Transitional Geometries

Photo Collage : Giving it scale.

Photograph : Closeup of the inverting surface patterns.

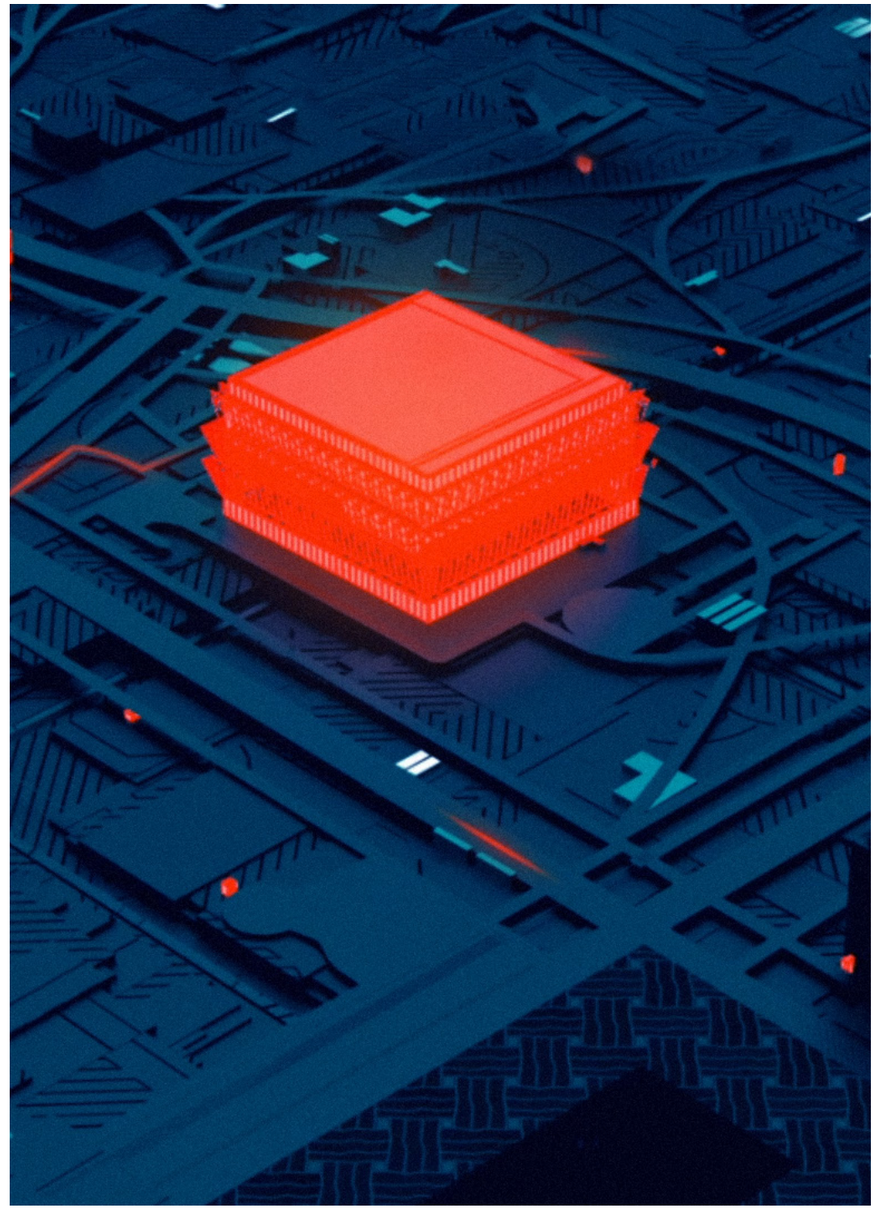
Photograph : Linear organization

Rendering: ADR 1 - Fall 2020 Professor Joshua Uhl

# VARIOUS VISUALS

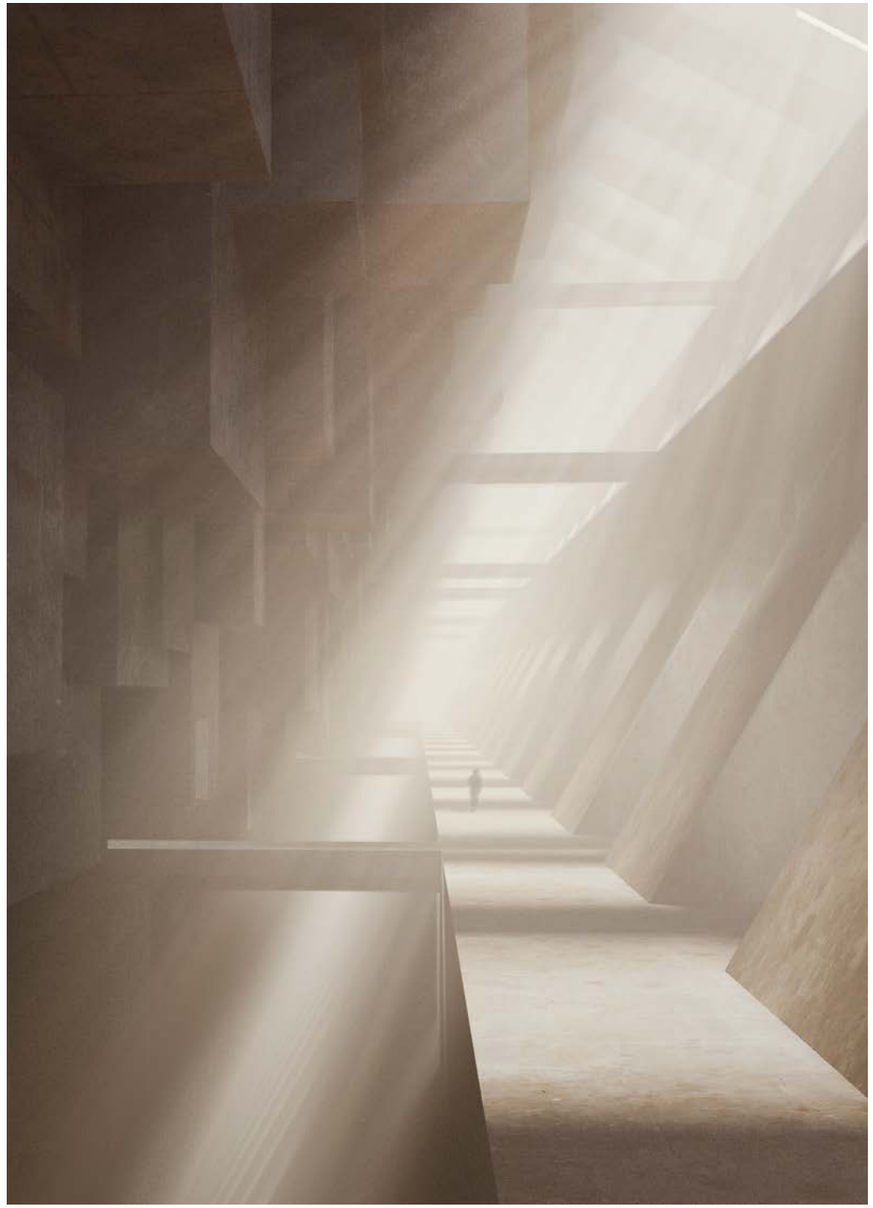
Miscellaneous visualizations that have been produced from year one to year three at Columbia GSAPP. Visual story-telling persay.

Rendering : The power of the light

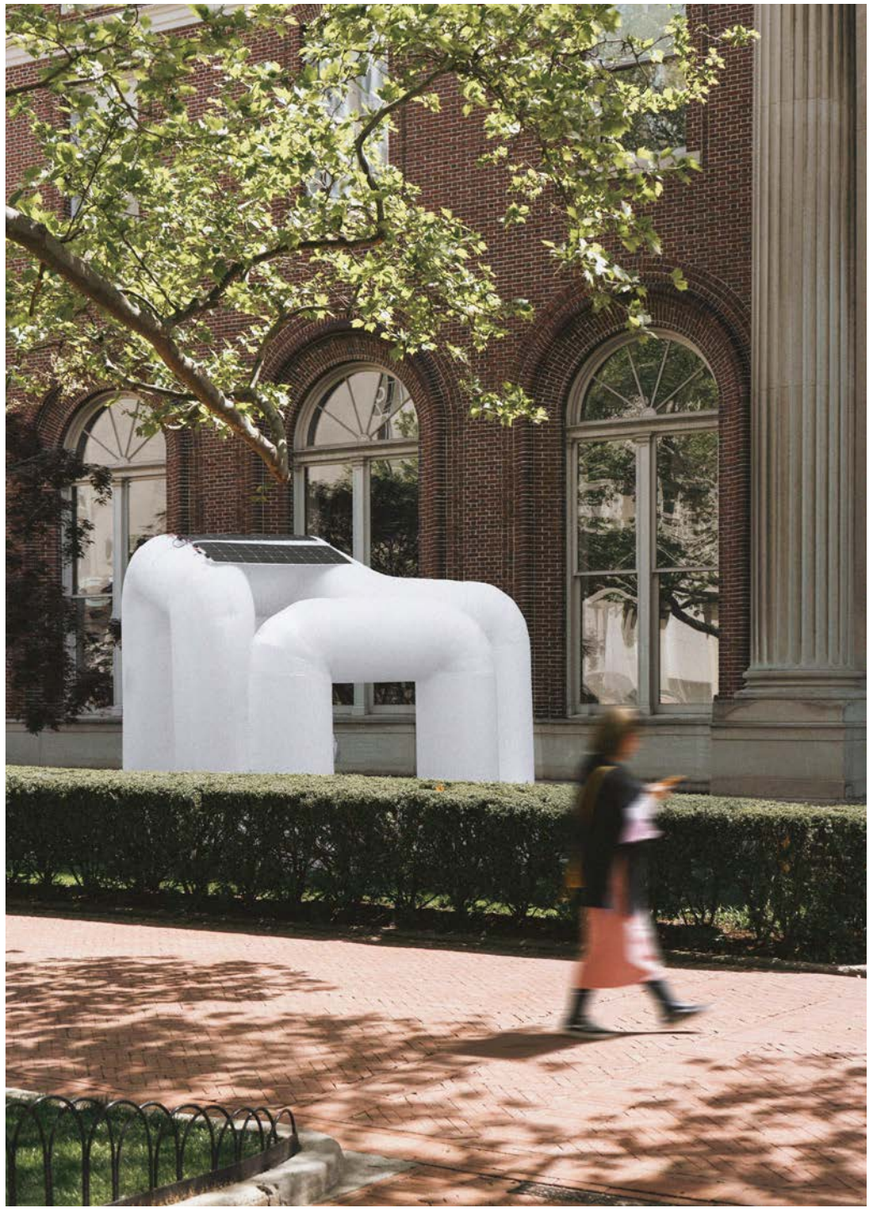


Animation : Movement of knowledge.

Rendering : The approach to the tower. Team: Samuel Bager & Joachym Joab.



Rendering : Inside the tower.



Team: S. Bager, N. Richards, V. Benjamin, K. He, D. Li, M. Guimaraes



Photograph : Student exploring Worm.

Rendering : GSAPP Worm at Night.