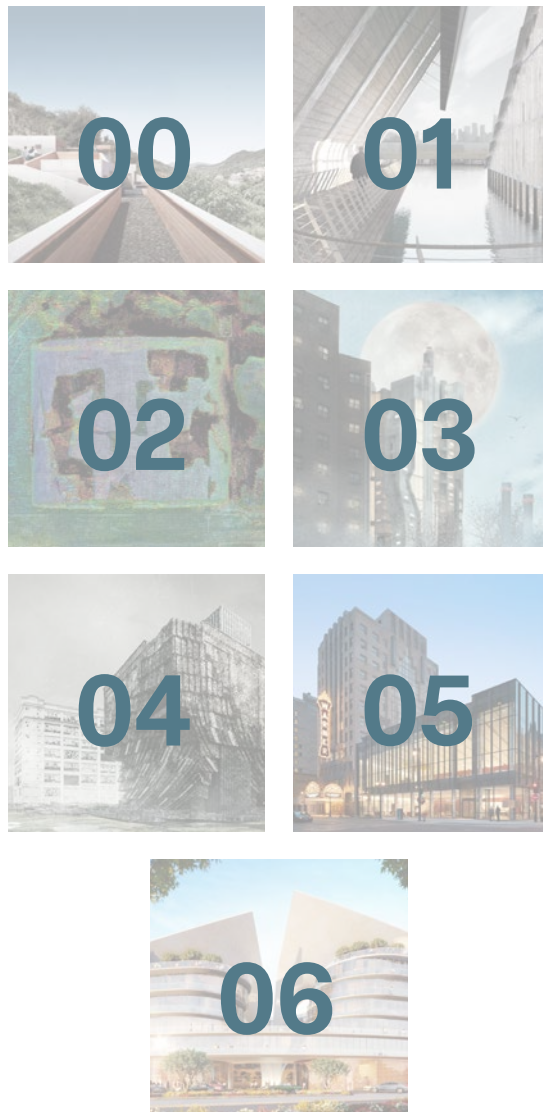


A close-up photograph of a book's binding and cover. The binding is made of dark, textured material, possibly cloth or leather, with a prominent vertical crease. A small, light-colored rectangular label is attached to the binding. The cover is a lighter, textured material, possibly paper or cloth, with a subtle pattern. The lighting is soft, highlighting the textures and the binding's structure.

BROOK ROBERT BOUGHTON

Master of Architecture
Pratt Institute

Portfolio
2022



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Bridge Entrance

CASA ULIVI

Micro-Accommodations in the Sardinian hillside

International competition project with Paola Bokobsa

Inspired by traditional Sardinian architecture and Costantino Nivola's sculptures, the project aims to connect the Nivola Museum with the Orani village with multiple terraced outlooks creating micro-accommodations in the generated voids.

The material palette is a combination of orthogonal rammed earth and the stark terracotta clay. This creates a contrast between thick and thin, warm and cool.

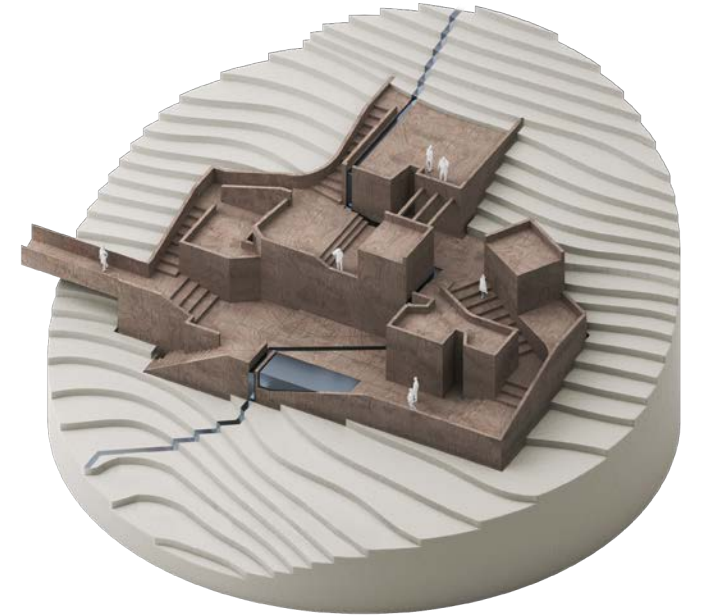
Interiors are built following sustainable, vernacular material choices, integrating furniture

into the mass maximizing the volume. Varied apertures reframe village and countryside for the visitor, allowing a greater connection between the visitor and the landscape.

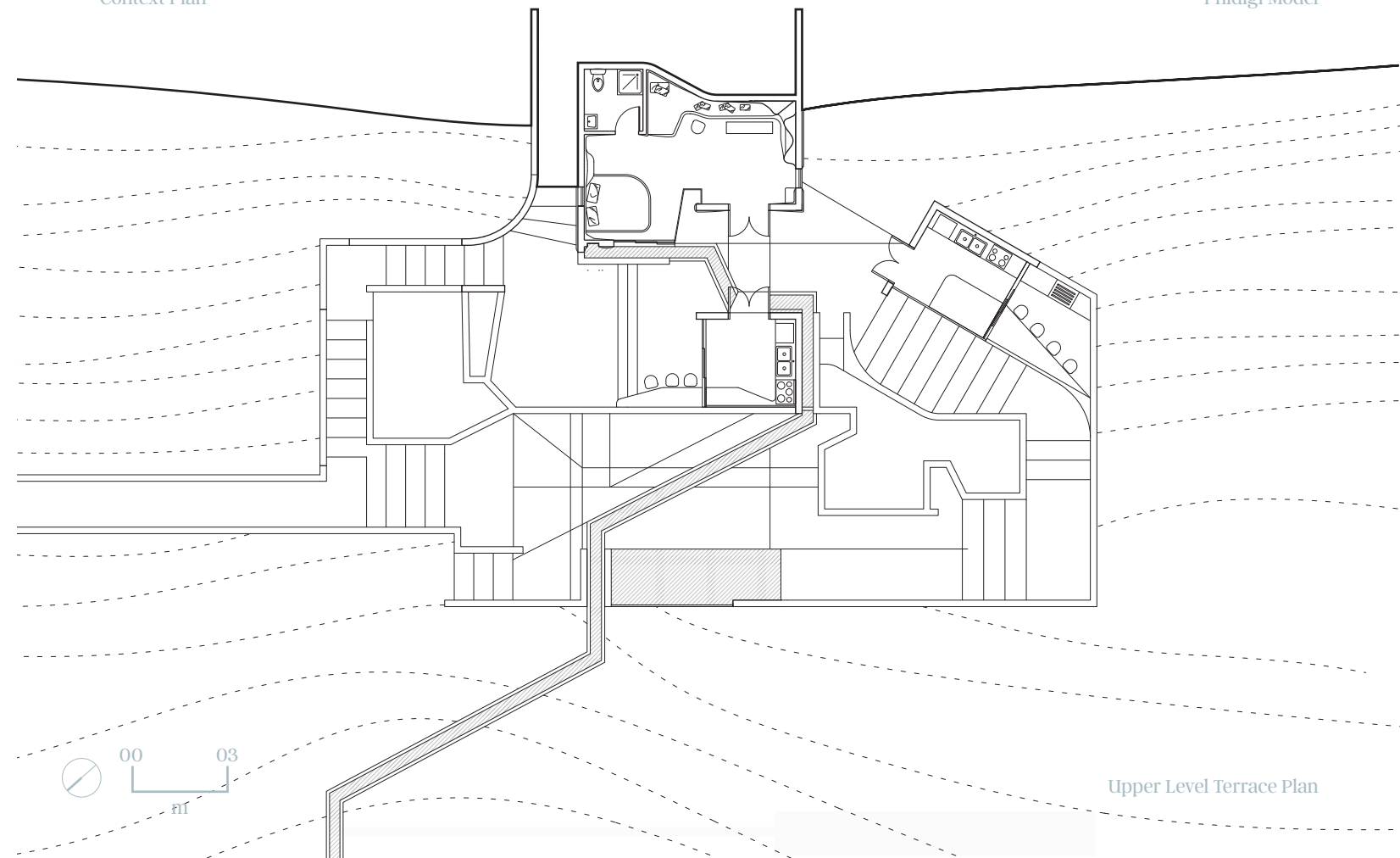
The deconstruction of space allows for constant movement from indoor to outdoor quarters. A network of viewsheds and levels extends the boundaries of privacy, and redefining the living space as a connecting knot of explorations similar to Nivola's ideal urban space.



Context Plan



Phidigi Model



Upper Level Terrace Plan



TERRACESCAPES

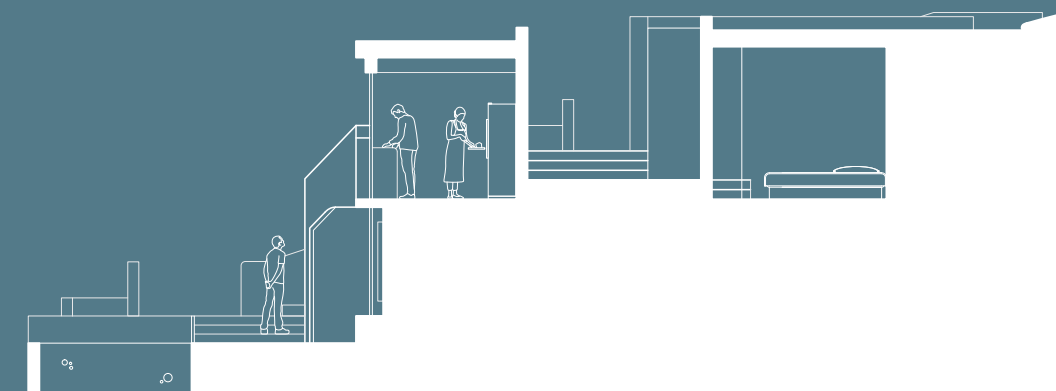
The terraces throughout the project not only visually tie the micro-accommodations together but they allow for the sharing of experiences between guests, creating core memories of Orani prompting return visitors, a core issue that the Nivola Museum sought a remedy to.

The terracescapes also allow for each micro-accommodation their own viewsheds onto the village and landscape creating distinct units within the hillside, in which the village

residents would be able to easily identify from the valley and acts as a landmark for the village residents and the visitors a like.

Finally terraces continue the language established by the Nivola museum, and reinterprets them not only as a retaining wall, but rather an experiential network.

00 05
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Perspective of the lower terrace

Latitudinal section



Living Space Perspective

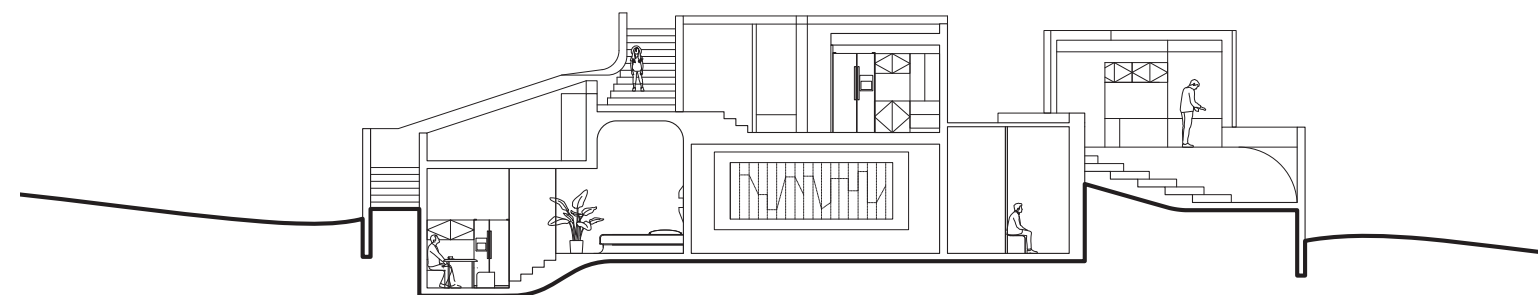


Bedroom Perspective



Evolution of Brooklyn Navy Yard's Docks & Piers

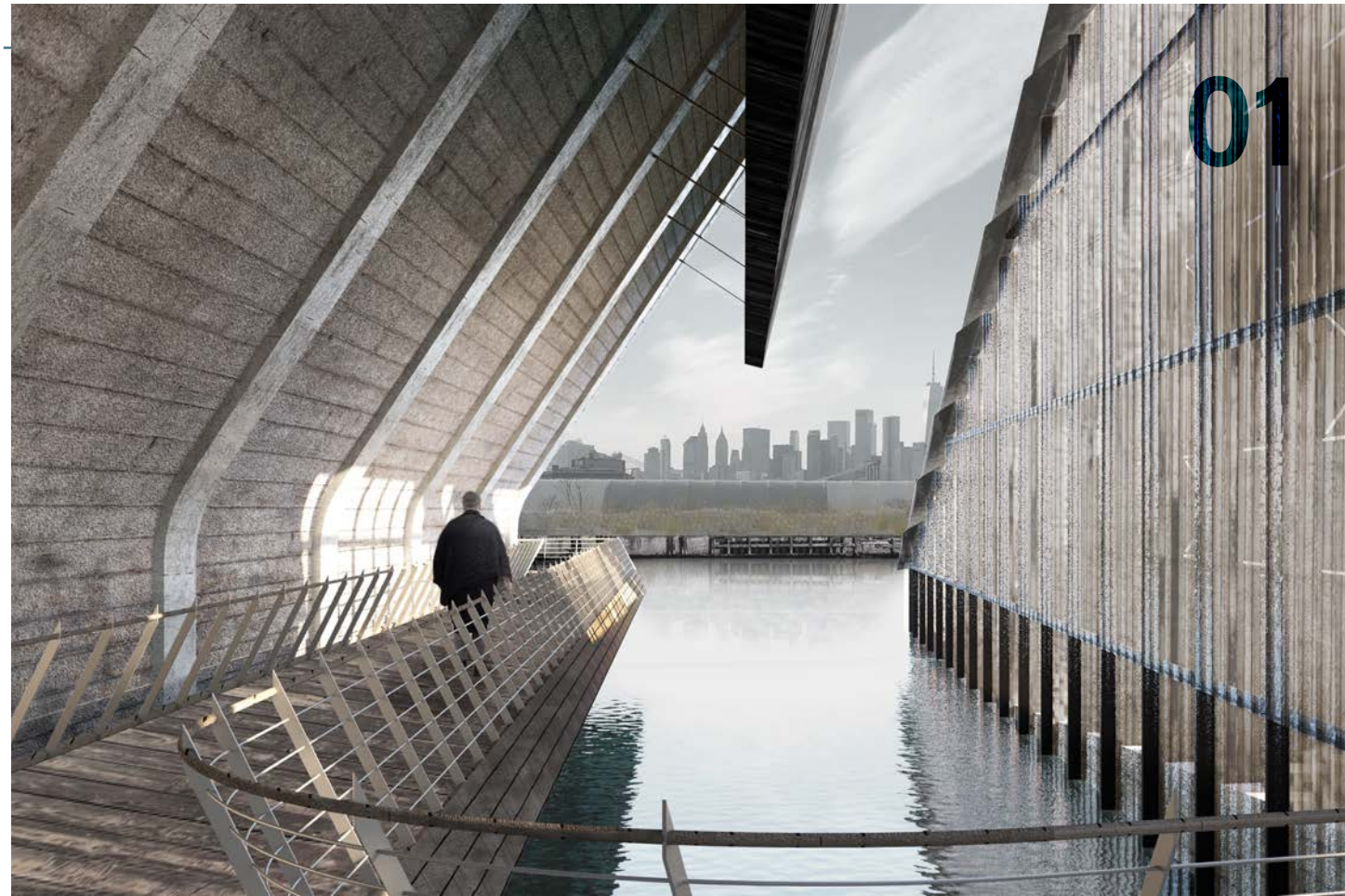
00 05
m



Longitudinal section

SARDINIAN CRAFT

The Sardinian people hold pride in their historied craft working with their local stone quarries, expertise in terracotta, and the ability to carve space to their desire. Many of these traits can be seen in Costantino Nivola's many works. His use of stone and sand hold strong architectural movements and contain poetics in every work. Casa Ulivi channels that desire for elegance in both form and experience, in which the visitors could both visually experience his work, but hopefully feel like they were also living in one of his works.



Pier Perspective

EPIDOTE

Waste to Energy and Mushroom Farm in the Brooklyn Navy Yards

Academic project with Paola Bokobsa
Critic // Dylan Baker-Rice

The history of the recently revived Brooklyn Navy Yards, with its engineered and manufactured aesthetic allowed for creating an industrialized nature by breaking down the dichotomy of human-built and natural habitat. Epidote creates a retreat from the city while being conscious of the constraints of time and environmental change. The reinterpretation of geological formations as natural environments to architecturalized spaces created various moments of ecological speculation along the East River.

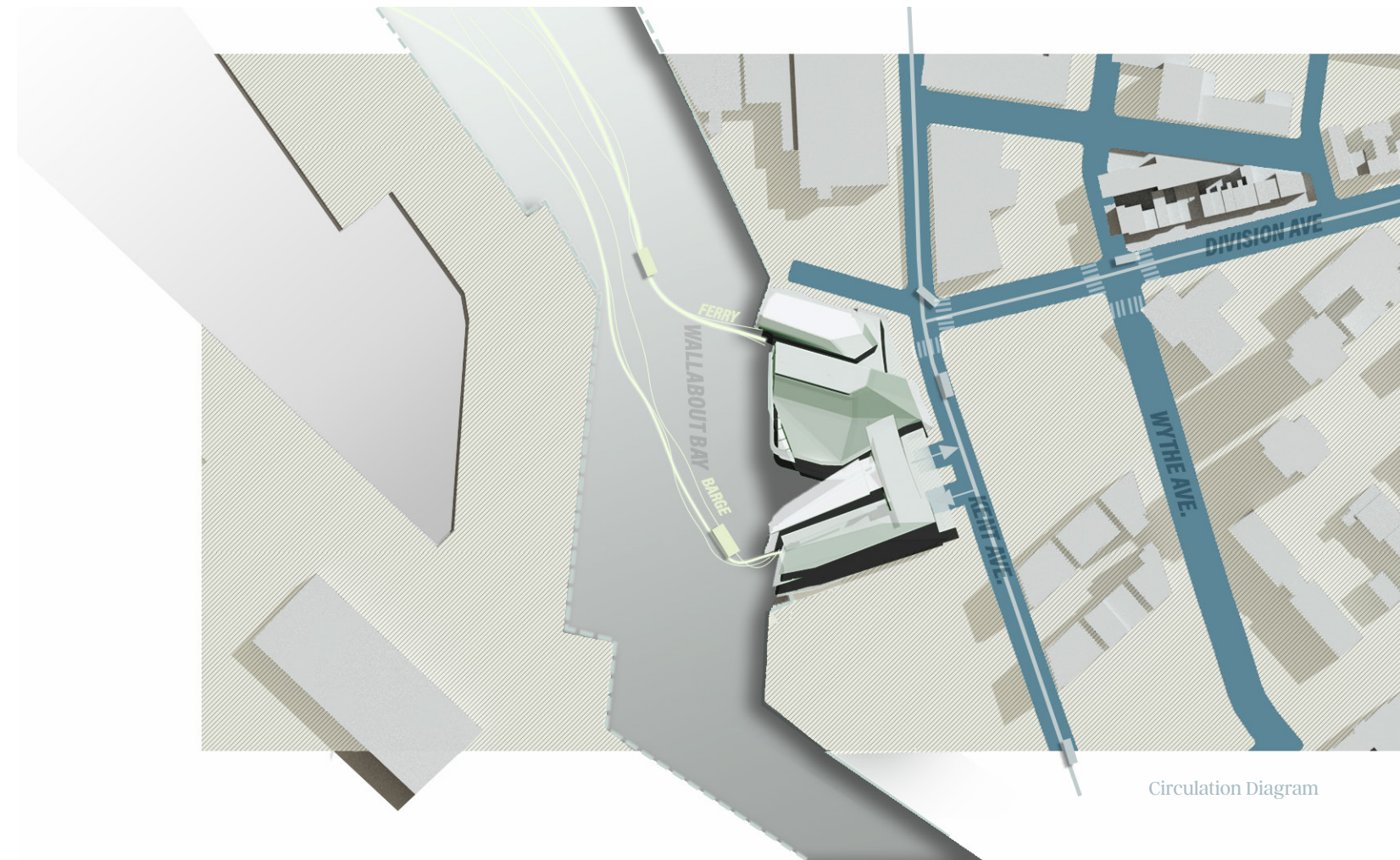
Materially and programmatically, various circular economies are created such as the on-site production of mycelium panels. An adjacent lumber mill uses the excess heat of the waste to energy to char the timber. The transitions between the masses, symbolize the link between the fragmentation in materiality and their volumes and connect back to a singular massing, shaping unique circulations. Through overlapping material fragmentations, a passive ventilation system was generated by these conditions in the enveloping walls.



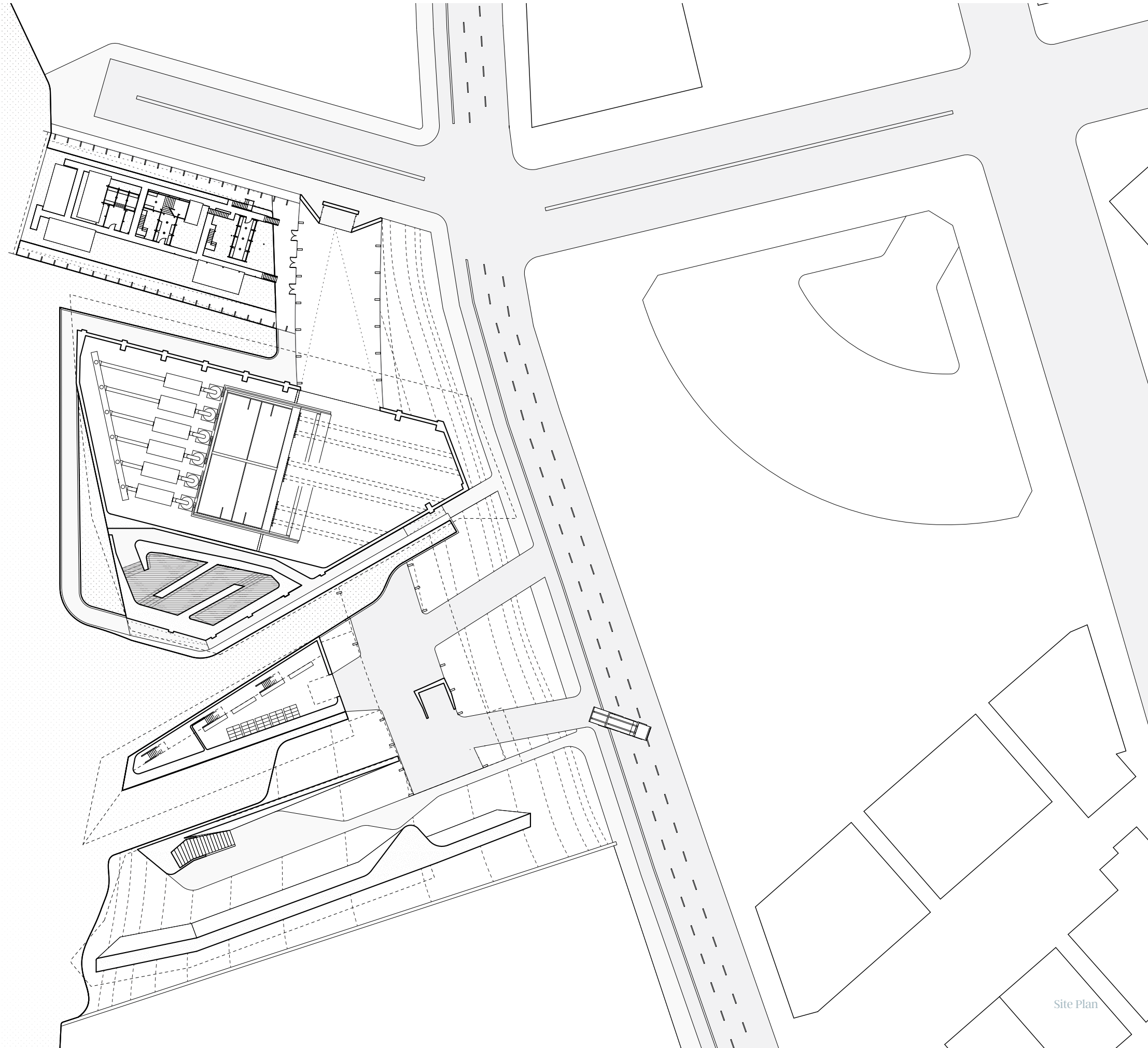
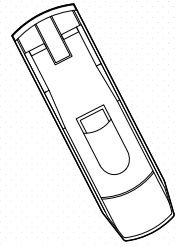
Context Plan - Brooklyn Navy Yards



Evolution of Brooklyn Navy Yard's Docks & Piers



Circulation Diagram



MUSHROOM FARM

FERRY PIER

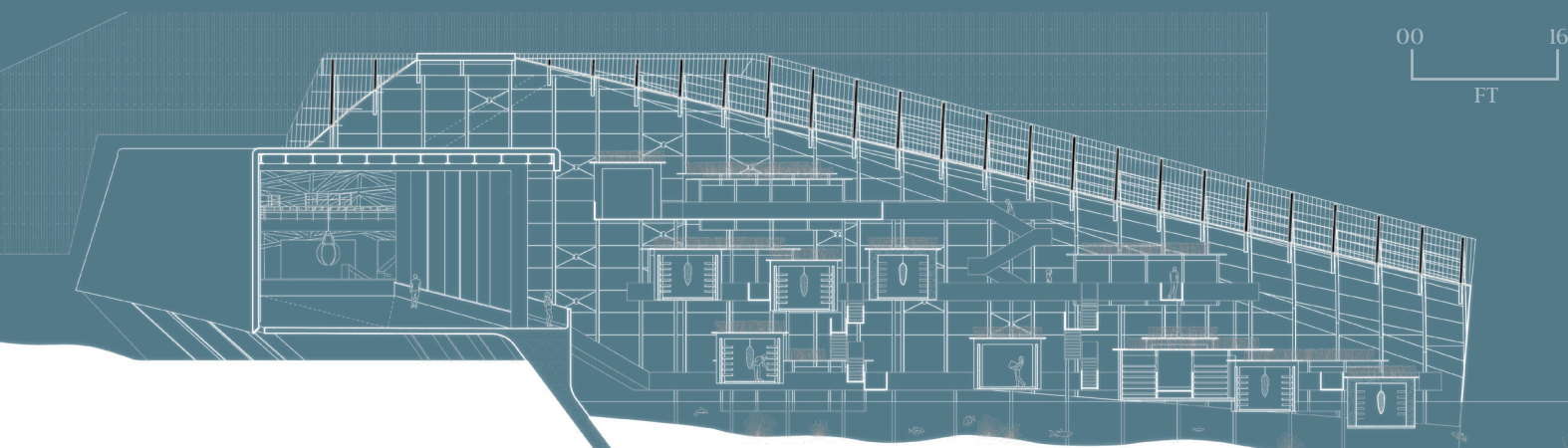
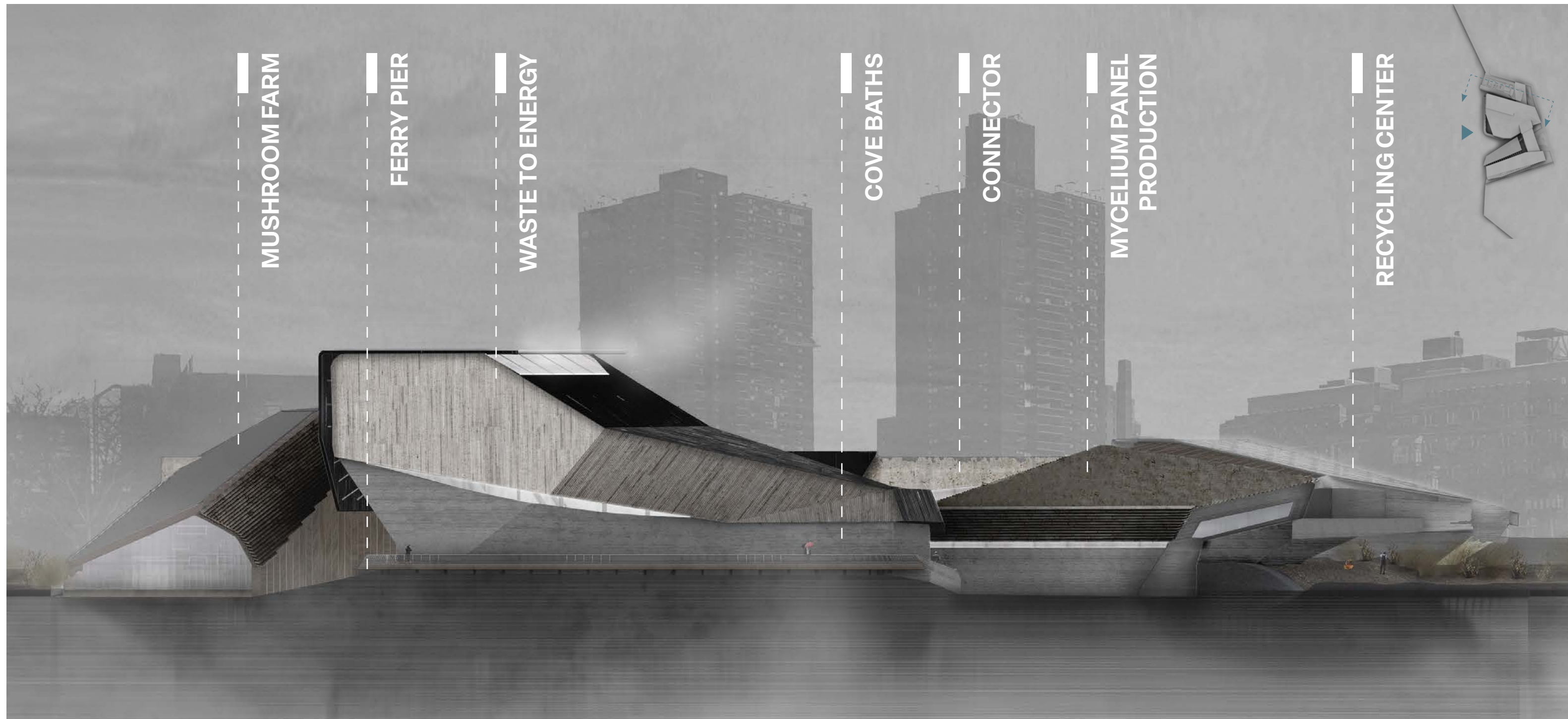
WASTE TO ENERGY

COVE BATHS

CONNECTOR

MYCELIUM PANEL
PRODUCTION

RECYCLING CENTER



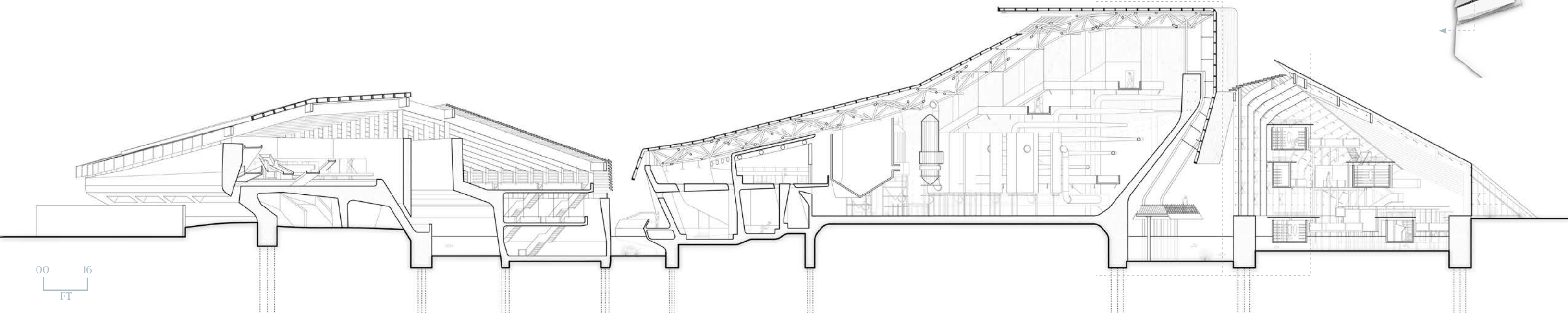
Mushroom Farm Section

Wallabout Bay Elevation

SHROOM SPAWN

When studying the division between building and environment, we discovered nature's equivalent to the waste to energy cycle. The mushroom farm located at the north end of the site serves as an allegory for the program at large. The mushroom farm, which produces edible, psychedelic, and mycelium acts as an extension to Wallabout Bay as it invites in the waterway, continuing

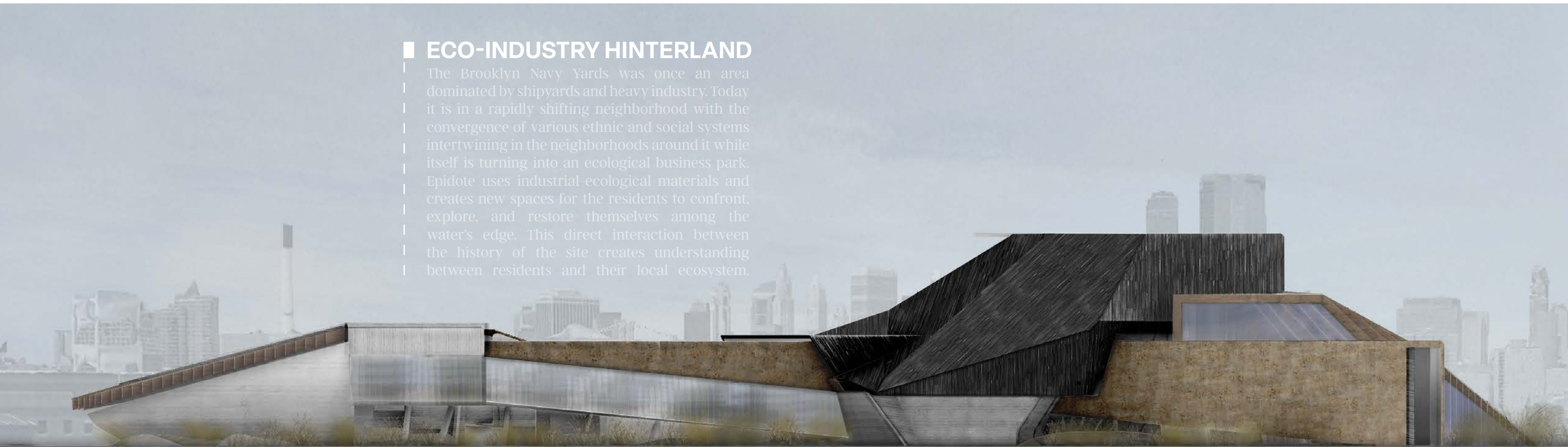
the waterway's ecosystem. By inviting the waterway into the project, it dismantles the hierarchy between architecture and the local ecosystem, and starts to develop a heterarchy between the two. The mushroom farm also takes part of an on-site circular economy of mycelium panel production and integrates the reuse of ecological waste for its production.



Longitudinal Section

■ ECO-INDUSTRY HINTERLAND

The Brooklyn Navy Yards was once an area dominated by shipyards and heavy industry. Today it is in a rapidly shifting neighborhood with the convergence of various ethnic and social systems intertwining in the neighborhoods around it while itself is turning into an ecological business park. Epidote uses industrial-ecological materials and creates new spaces for the residents to confront, explore, and restore themselves among the water's edge. This direct interaction between the history of the site creates understanding between residents and their local ecosystem.



Pedestrian Elevation

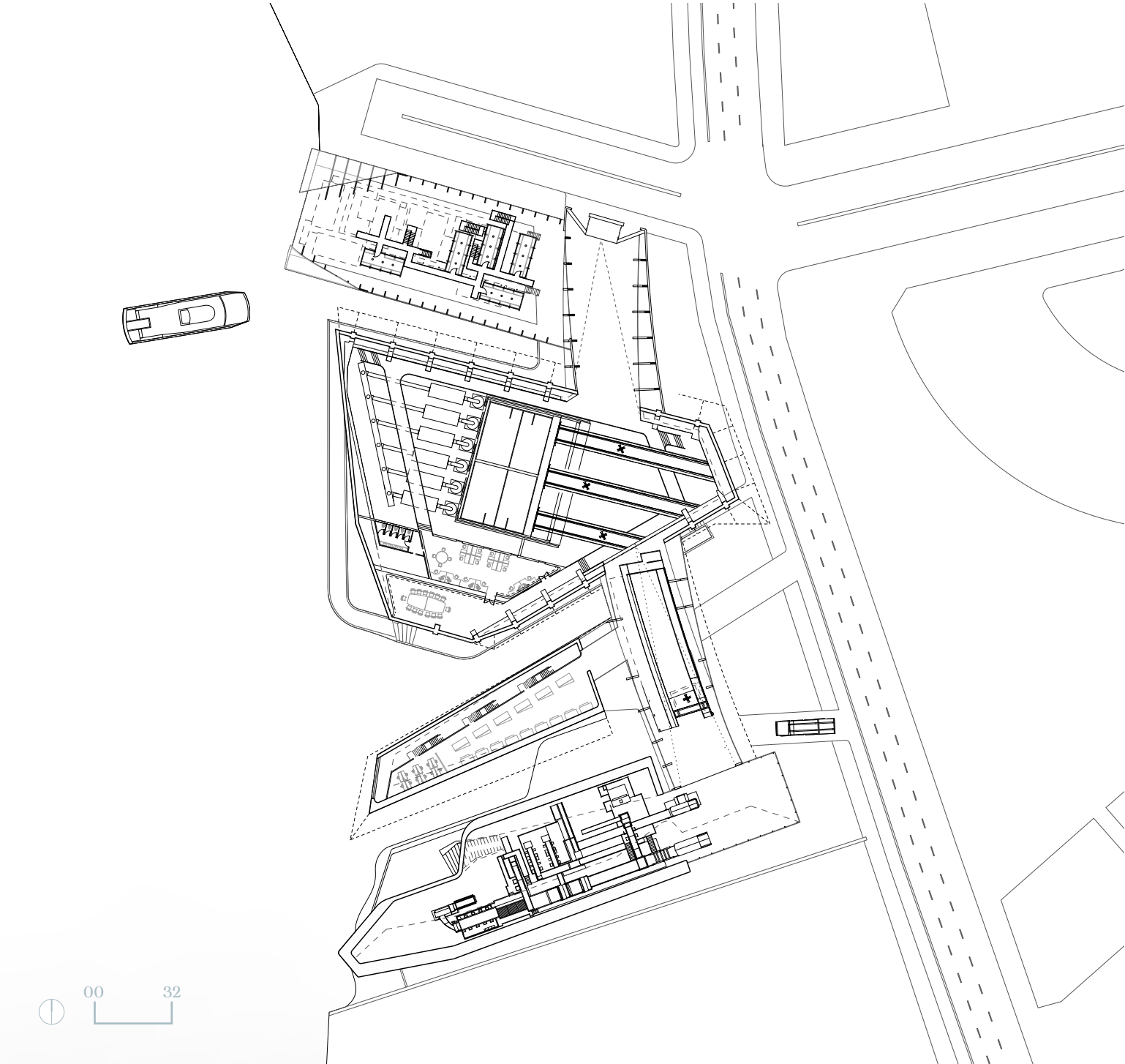
TECTONIC SHIFTS

Through overlapping of material fragmentations, a global passive ventilation system was generated by these conditions in the enveloping walls. This occurs at various scales from slotted channels between facade panels to larger shifts like in the model below. Due to the proximity of the lumber mill to the north of the site, it became a significant construction

material source. As previously mentioned, the project produces mycelium panels through the grow house and the separate panel factory. A connector along the street edge, encased in channel glass, reveals the movement and activity through each programmatic space.



Physical Model of Tipping Hall Passive Wall



First Floor Plan



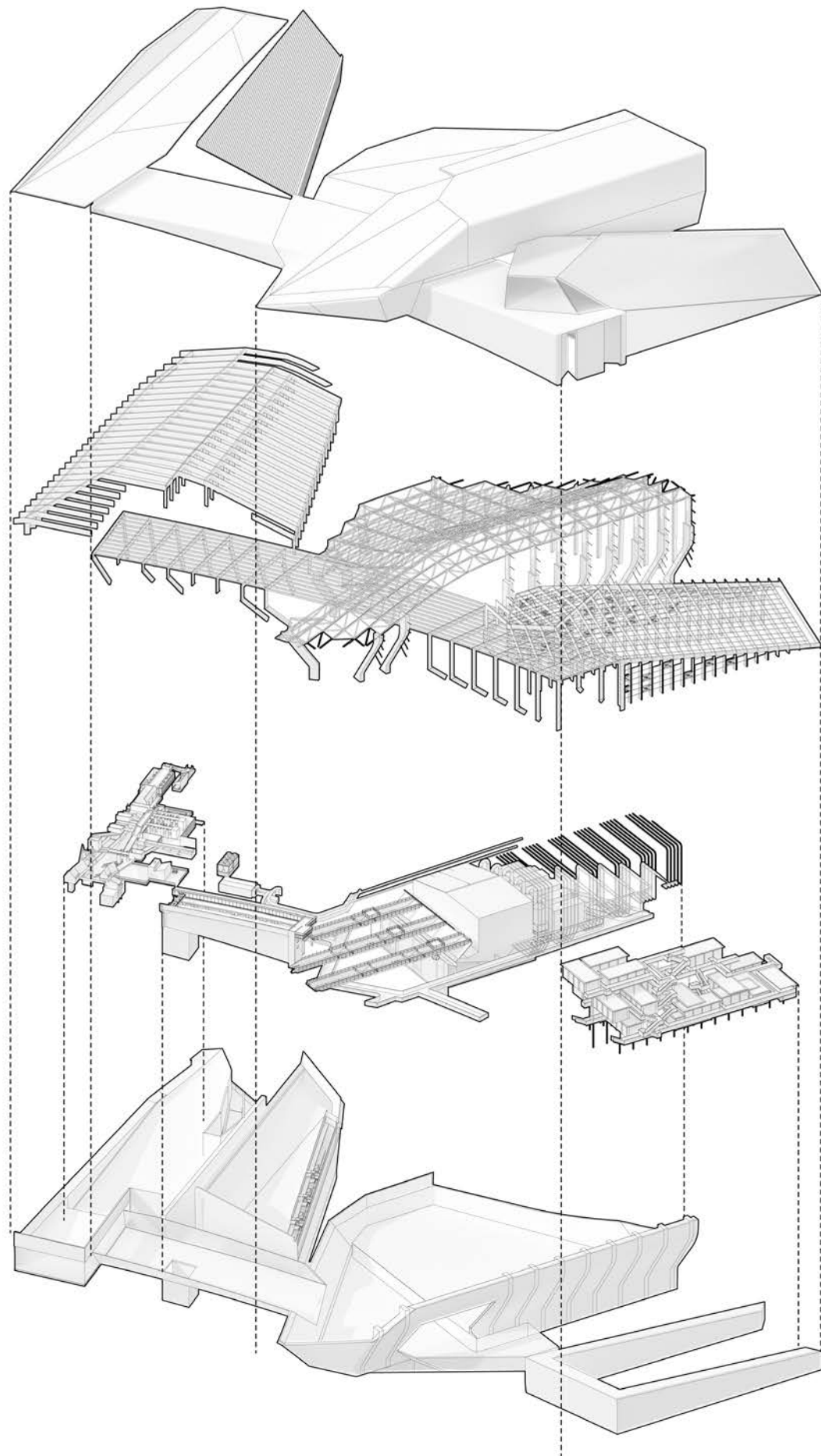
Physical Concept Model



Tipping Hall Perspective

FACADE

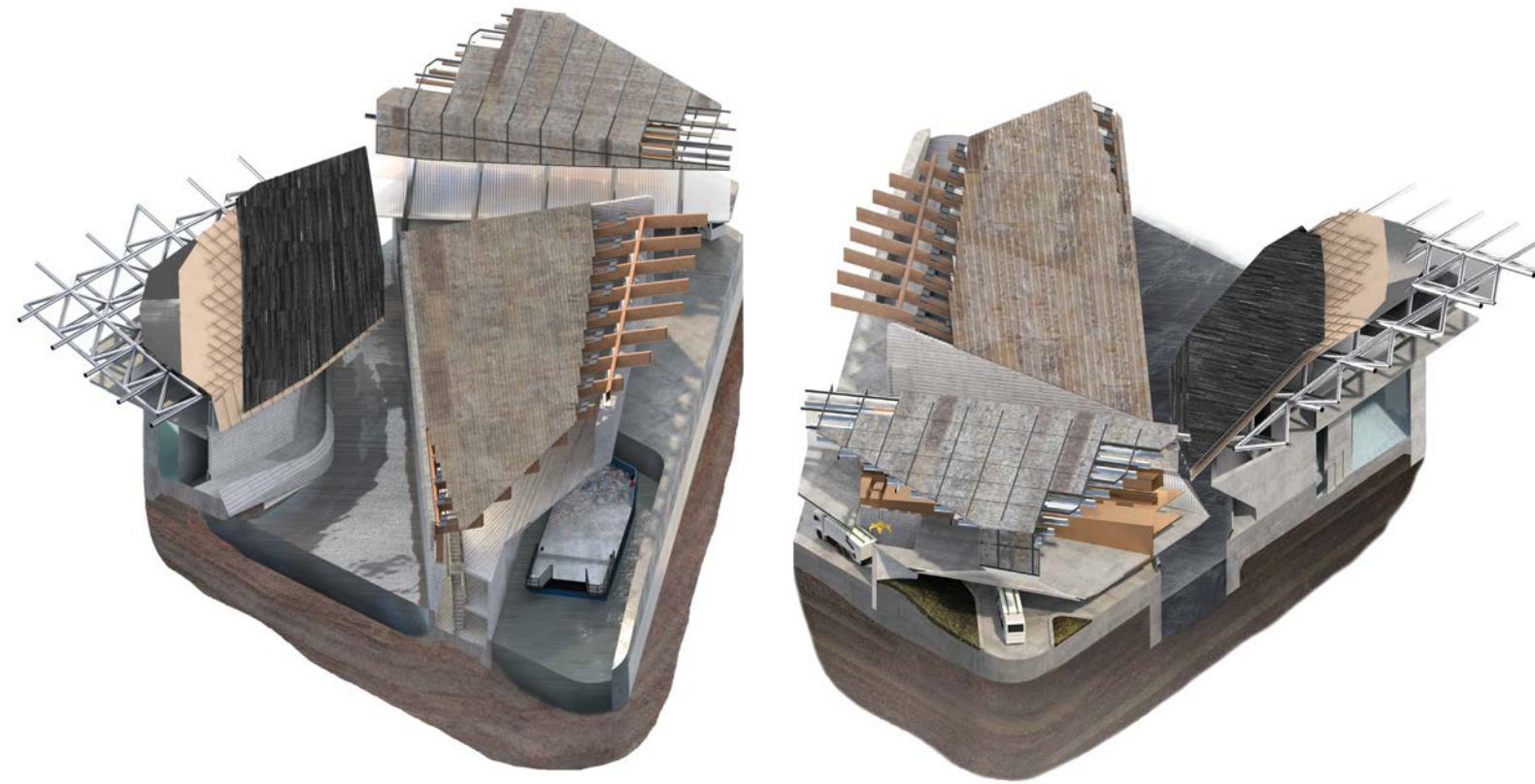
MACHINIC



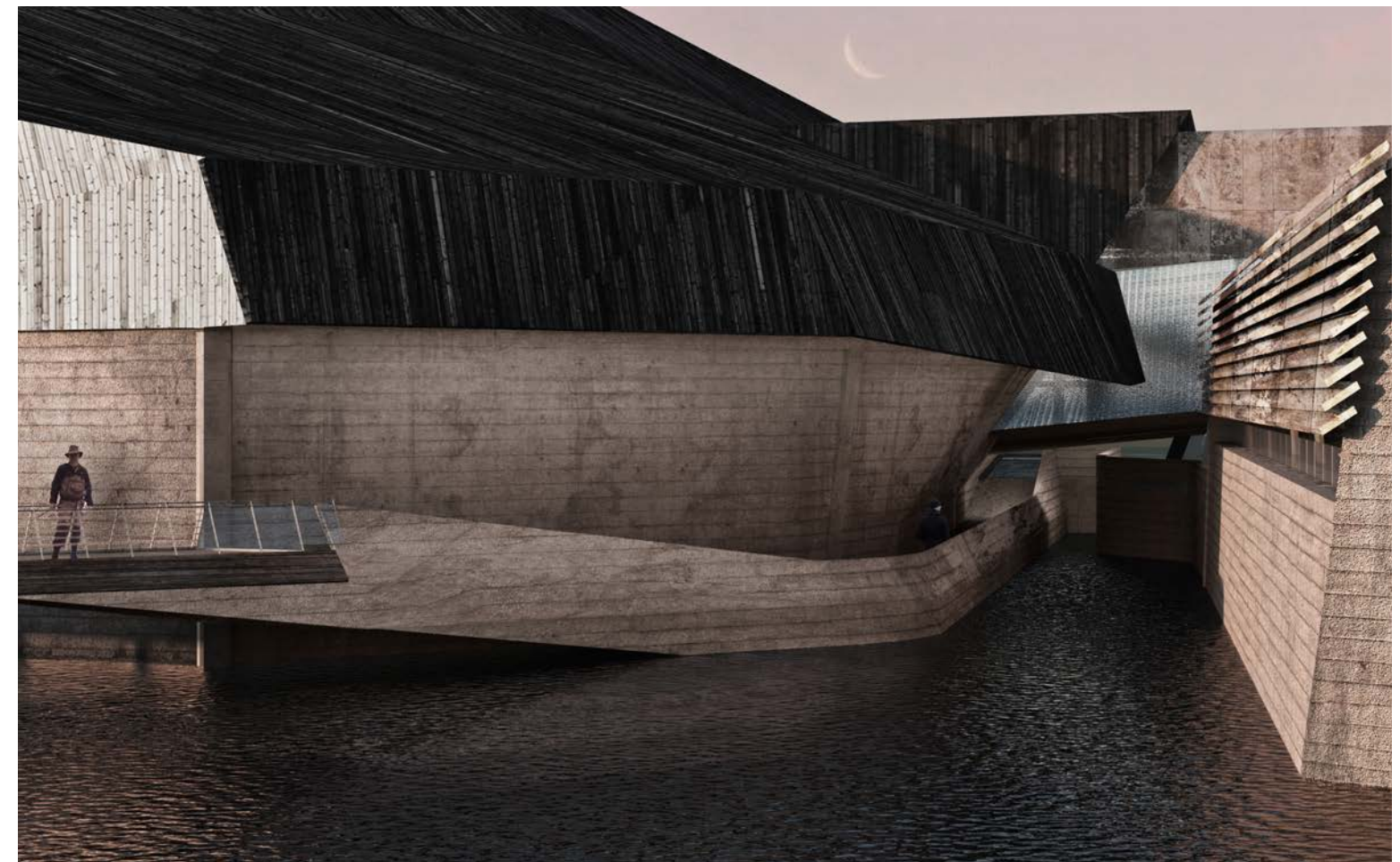
Exploded Isometric

STRUCTURE

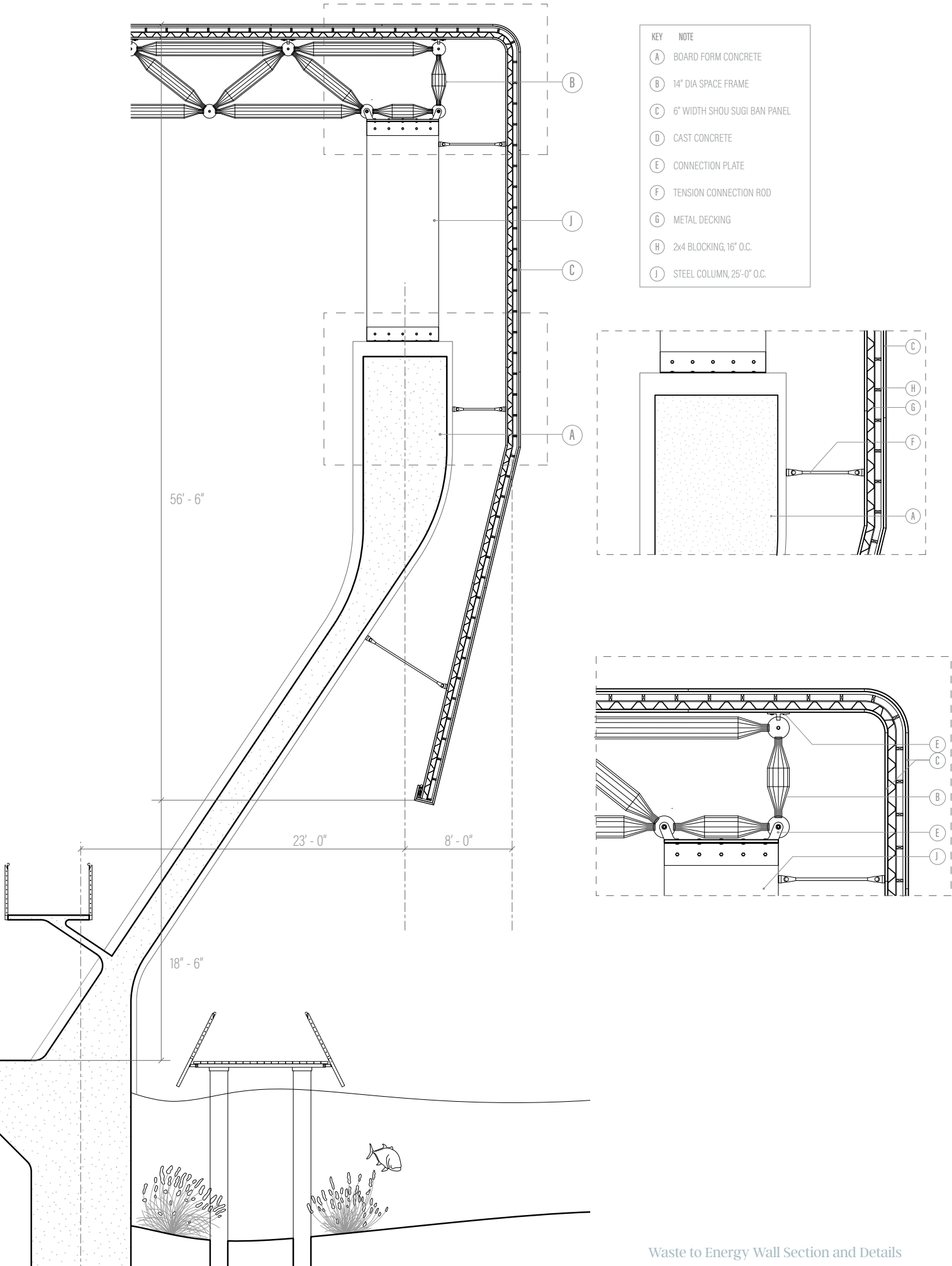
FOUNDATION



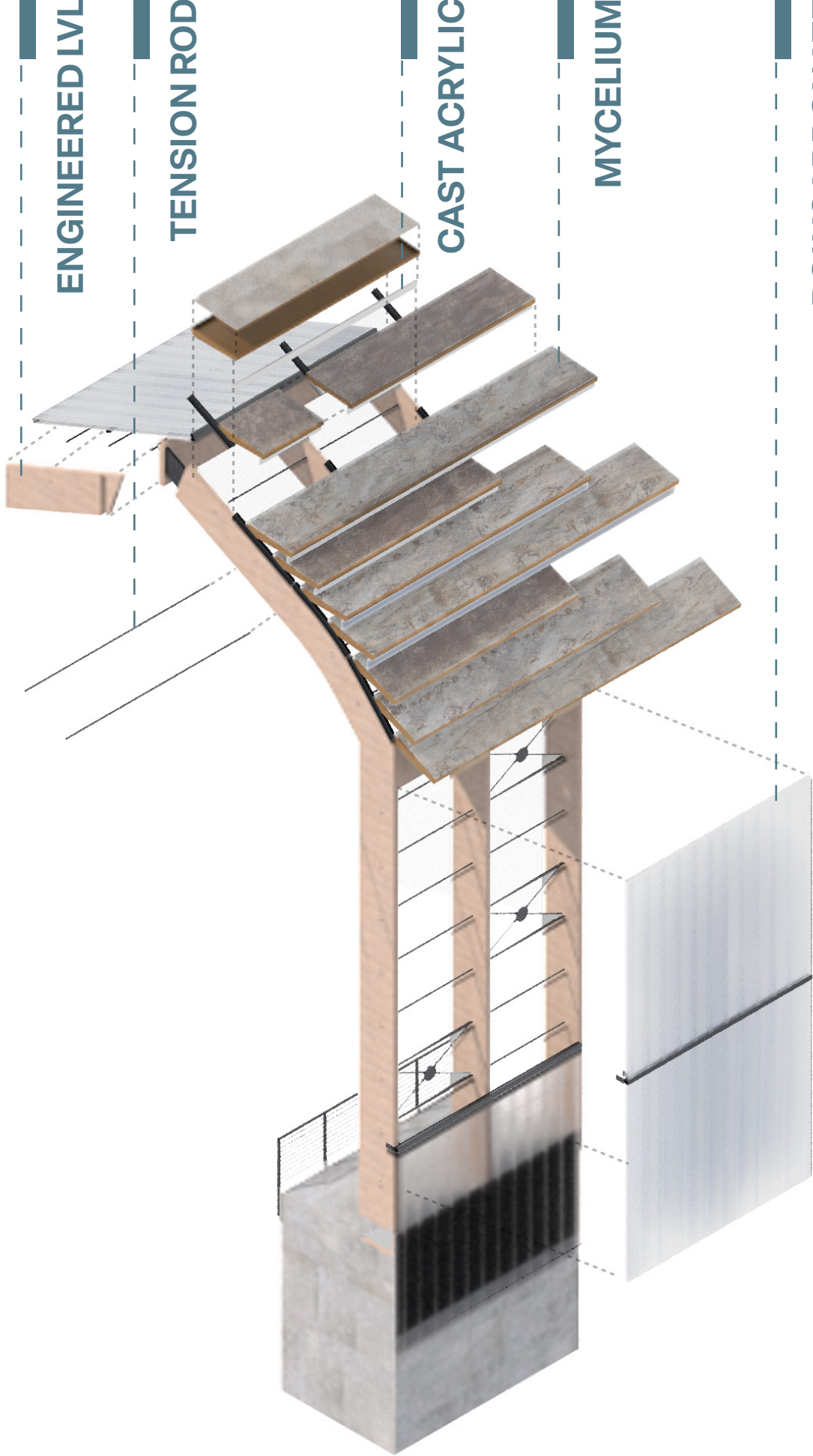
Chunk Models



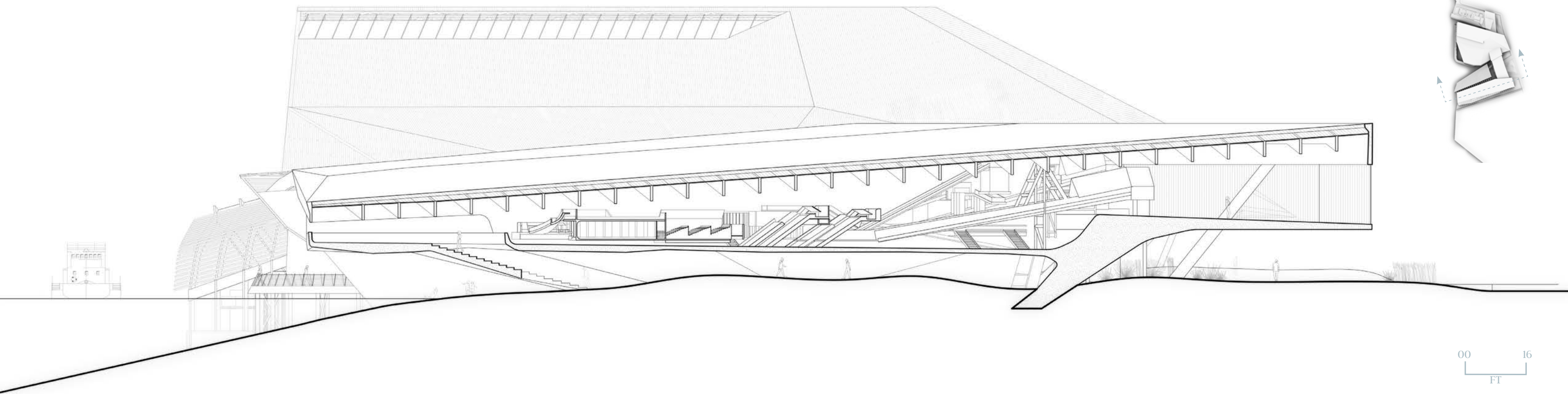
Gorge Pathway Perspective



Waste to Energy Wall Section and Details



Exploded Isometric of Mycelium Fin Panels



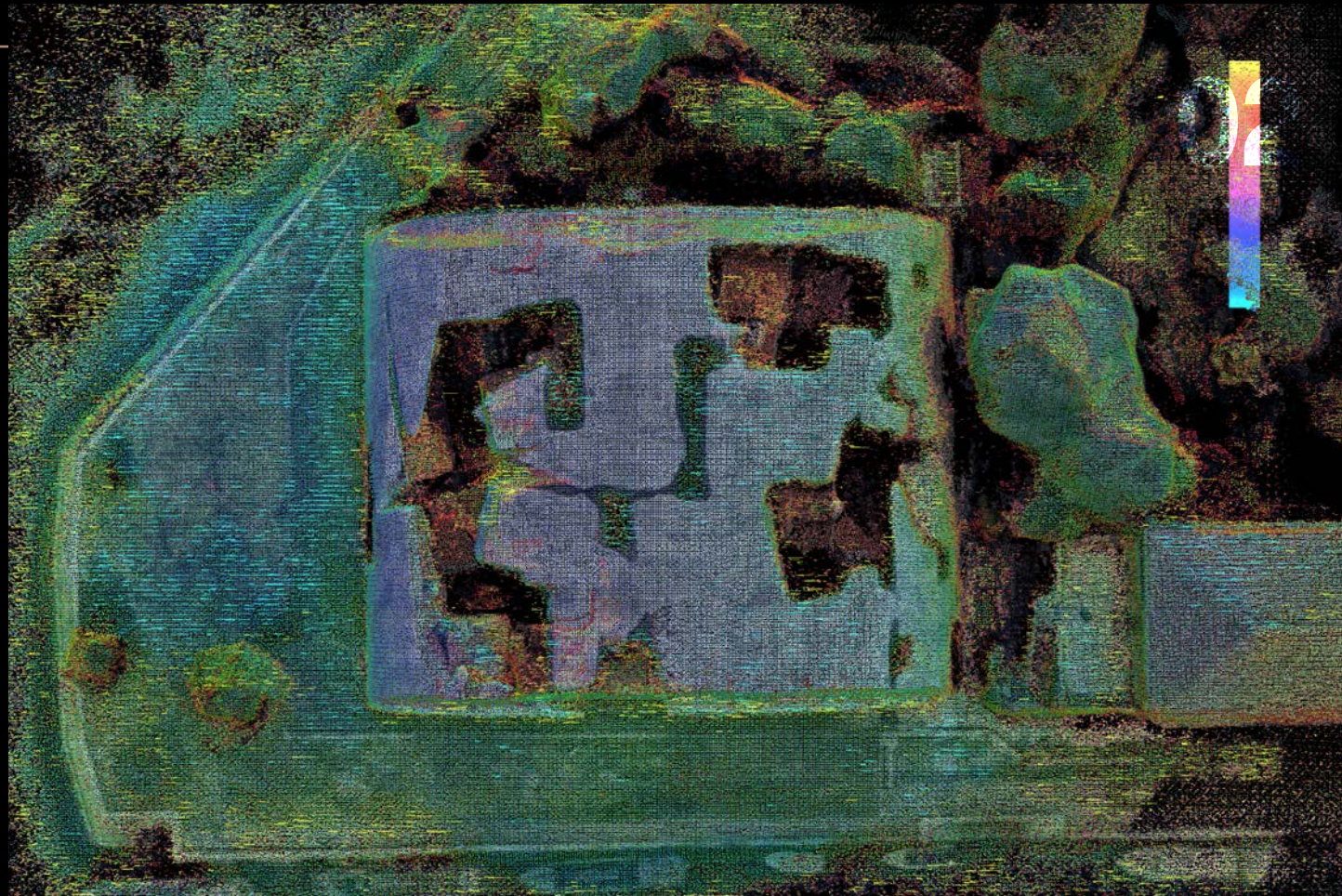
Recycling Center Section



Physical Concept Model



Heated Cove Perspective



Aerial View

ARCHIVIO DI VENEZIA

**VENICE STUDIO MELBOURNE
PEOPLE'S CHOICE AWARD**

Hyper Veniceness in Cannaregio

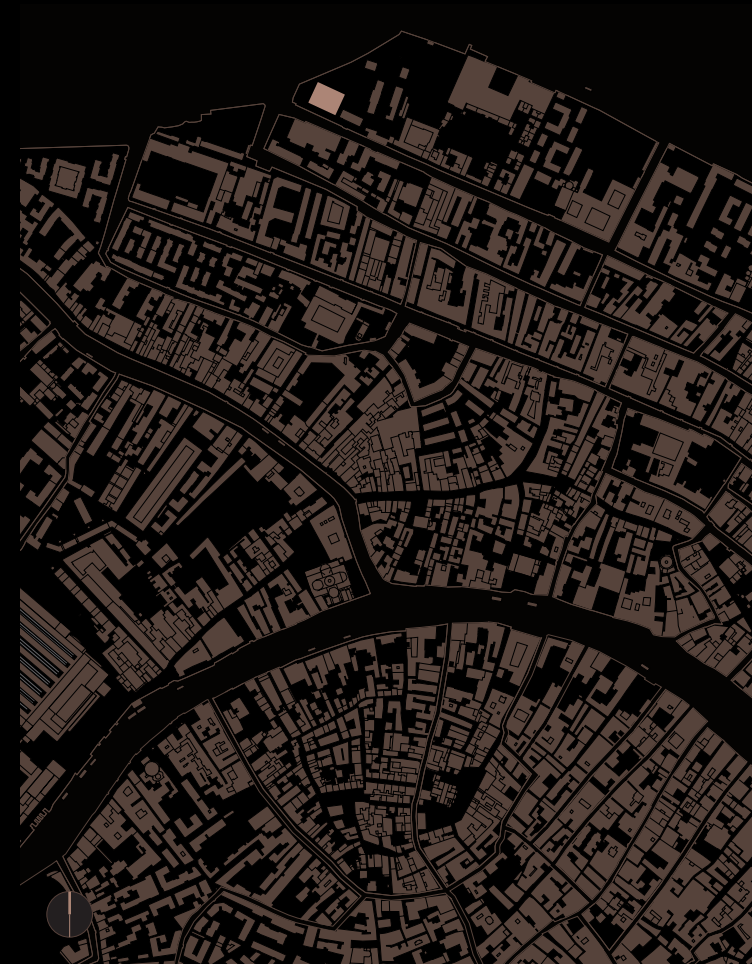
10 day studio project

Lead by Michael Young & Kutun Ayata

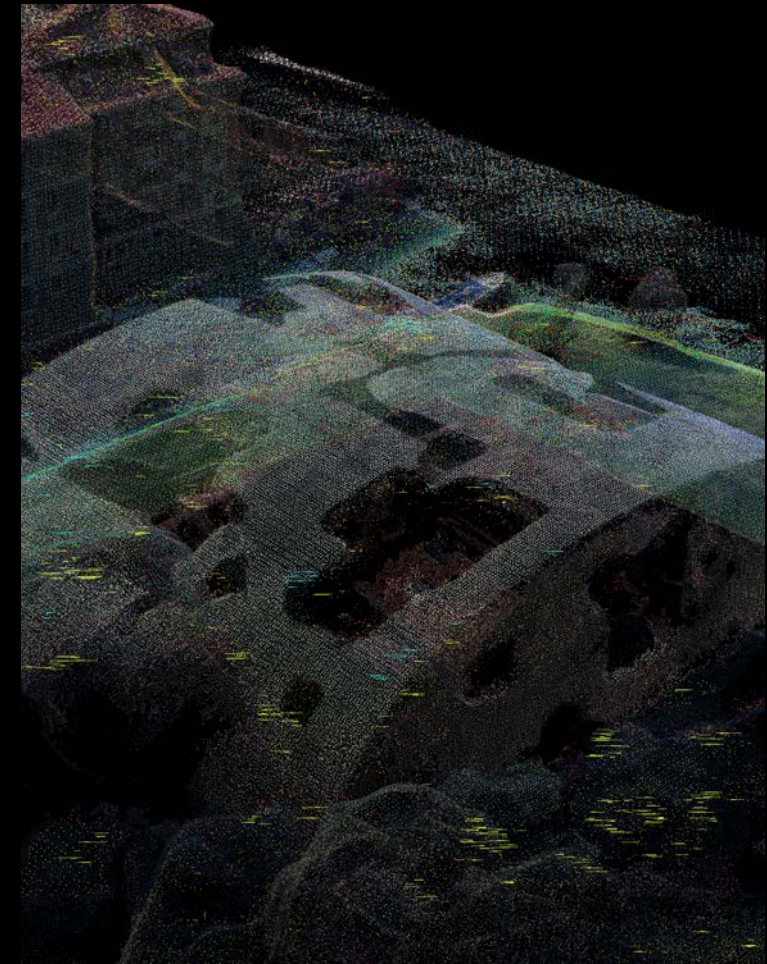
with Yazeed Alamas, Sahil Rattha Singh, Beyza Zeynep Kirazoglu, and Bella Saralpova

Archivio di Venezia investigates the didactic relationship between the existing realities of the Venetian context while simultaneously documenting, exploring, and experimenting with a pool of the existing data-driven digitized Venice, directly impacting the perception of the built environment. Venice has been represented in many ways throughout time by literature, drawings, and media. The perception of Venice is a veil of information throughout cyberspace, resulting in an architectural and historical paradise marred with environmental concerns such as rising sea waters and flood surges. Using the media and

information available to us, we imprinted and infused this information within the confines of the existing sports facility to create a new aesthetic of sublime and hyper Veniceness. Baths, galleries, and multipurpose spaces are scattered throughout the new spatial conditions, resulting in an inter-woven ruin-like paradise. Archivio di Venezia seeks to evoke a sense of urgency and timelessness through manipulation, inversion, and documentation of data-driven facets defined by its urban fabric while creating moments of speculation through its historic intricacies resulting in new contextual bound architectural anomalies of tomorrow.



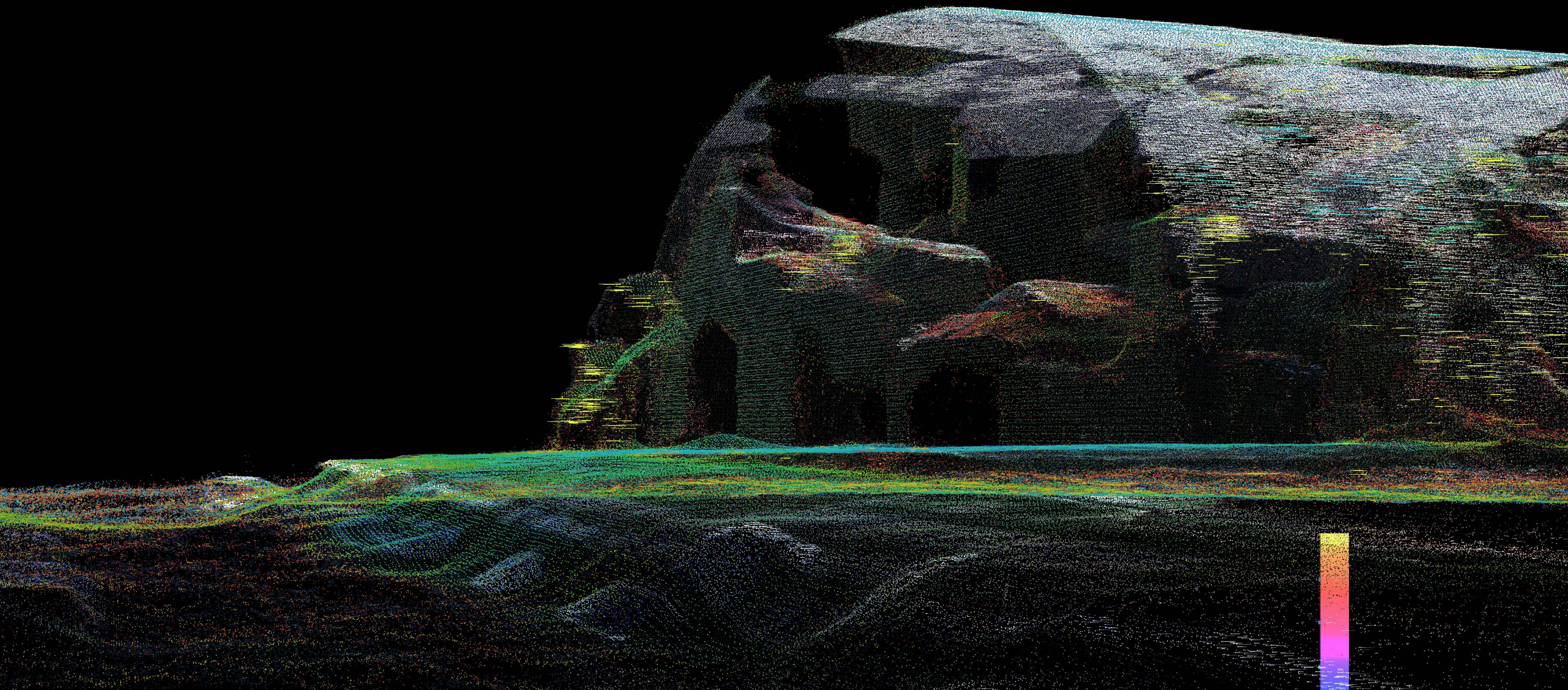
Context Plan



Roof Perspective



Canal Perspective



Canal Perspective

■ NEW MEDIA, NEW WORLD

In the conventional approach to architectural design, architects typically start from sketches or concepts, but in Archivio di Venezia, it's the other way around. Images with their materialities and details were re-contextualized through the use of photogrammetry. The resultant aesthetics are spectral, yet still shares some remnants of the constructed, while moments of normality become inverted on themselves, reexamining architectural conditions and forms. The spatial conditions are influenced by the confidence of the information provided, the

building forms and language are only as refined as the information that is able to be processed by 3D scanning software. Point cloud clusters represent variations in shades, saturation, and brightness, which create color combinations indicating differences in material and texture. The line between the real and the abstract is erased making way to precise formal conditions, resulting in a new hyper-Venicensess.



Massing Iterations



Street Perspective

DOMAIN 11201

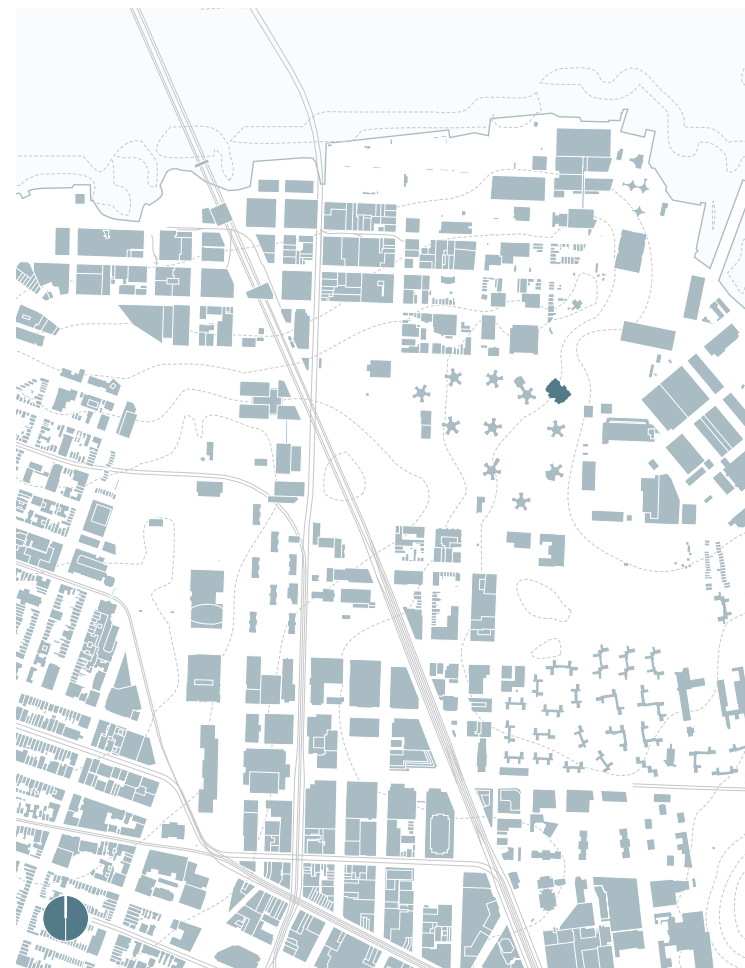
Residential Highrise in Downtown Brooklyn

Academic project with Paola Bokobsa
Critic // Erich Schoenenberger

Domain 11201 investigates the dichotomy between the living and the public spheres by introducing layers of seclusion and togetherness, allowing for liminal spaces between residential and public activities. Domain 11201 seeks to break away from the typical high-rise residential typology by stripping away the normative hierarchy by offsetting amenities and public spaces throughout the tower and ties them with localized and delocalized circulation.

The facade and program hold an ambiguity of what is understood as residential and what could be.

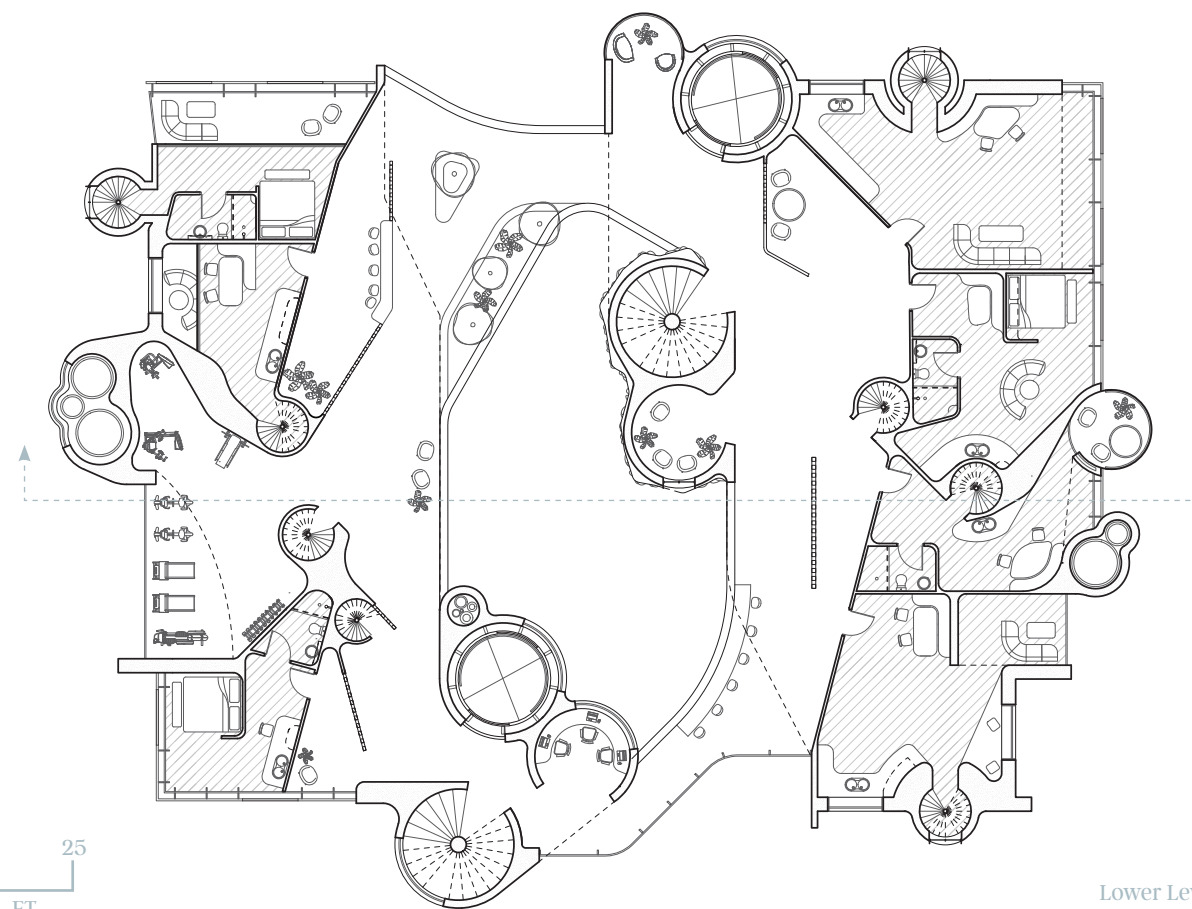
The interior of the edifice starts with the atrium which creates sky lobbies and social spaces throughout the tower allowing for new opportunities to get away from the private space and into novel, shared experiences. The strands of the tower not only serve as circulation but also function as the primary structure. The floor plates are all in tension with clusters of tubes, found throughout the exterior and interior of the highrise. Tension morphs the atrium, creating a dynamic floorplate and generating various qualities of light, movement, and viewsheds.



Context Plan

GO DOWNTOWN

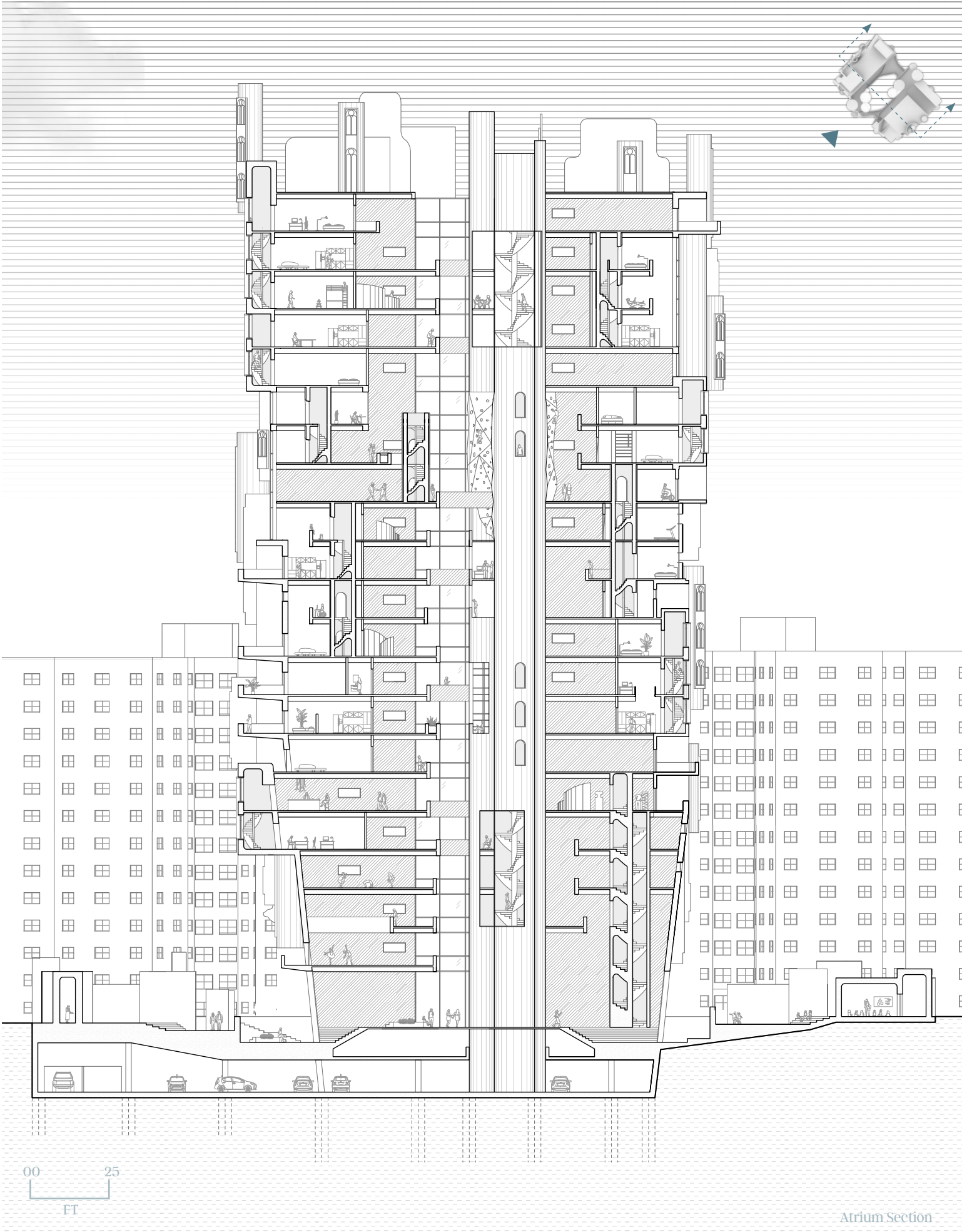
Domain 11201 sits within the NYCHA Farragut Public Housing Complex in downtown Brooklyn. The new towers gives residents of the complex new social programs and community spaces which serve not only the residents, but the downtown Brooklyn community.



Lower Level Floor Plan



Neighborhood Perspective



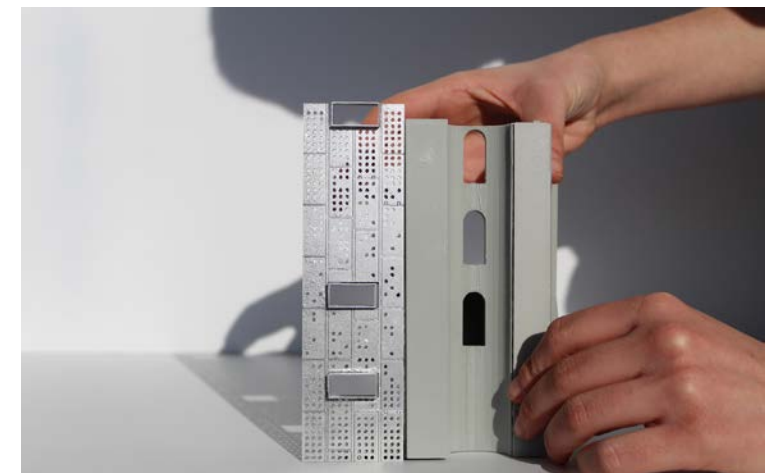
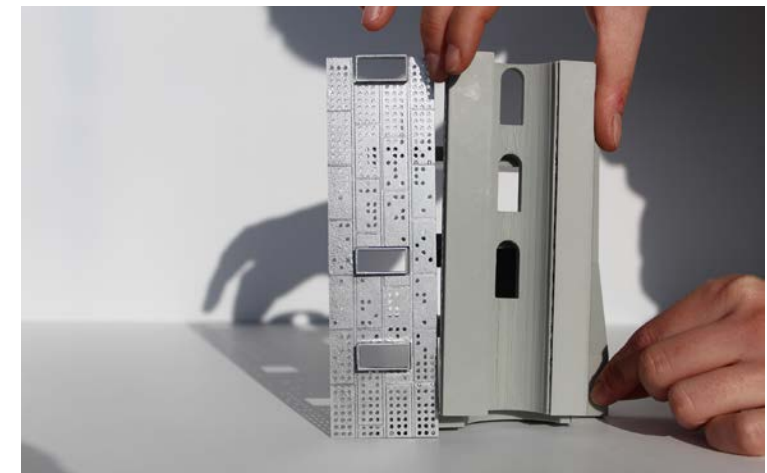
Atrium Section



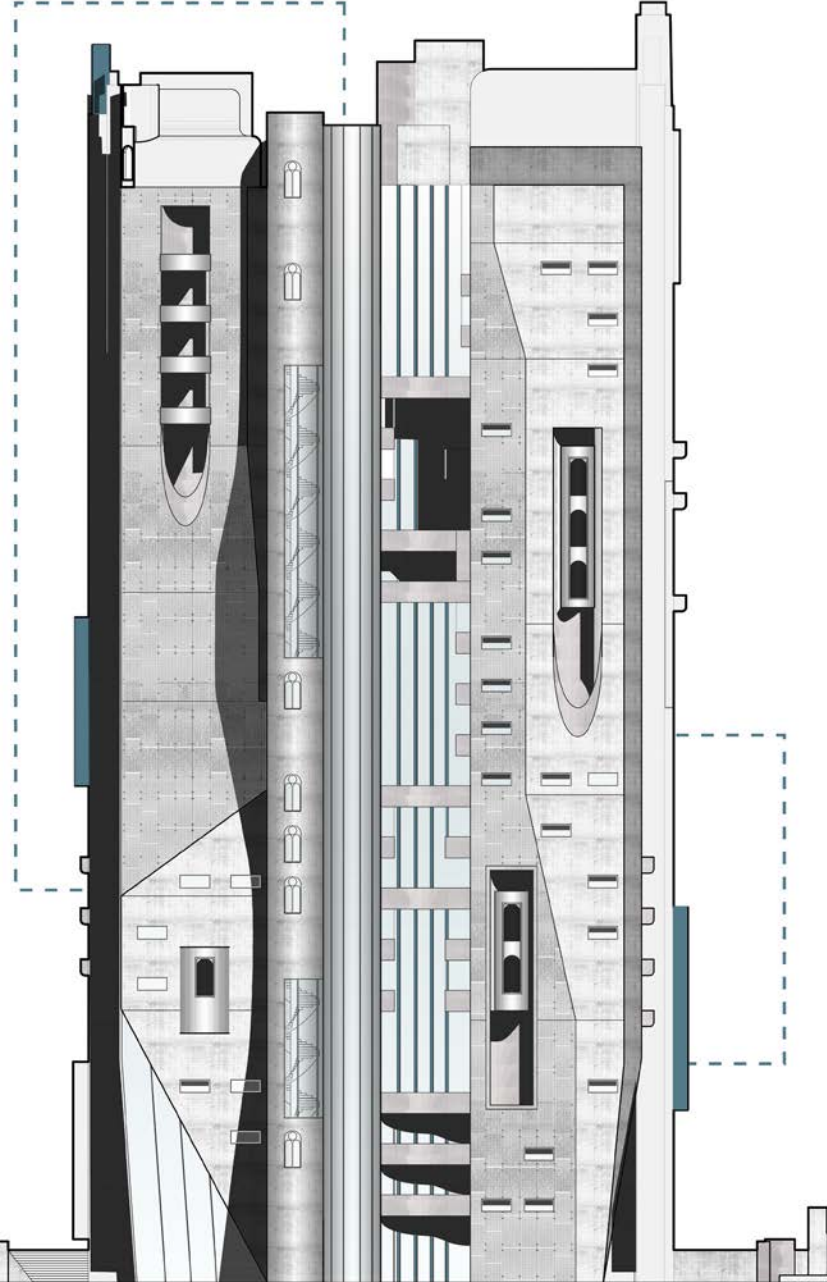
Atrium Perspective

SOCIAL TENSIONING

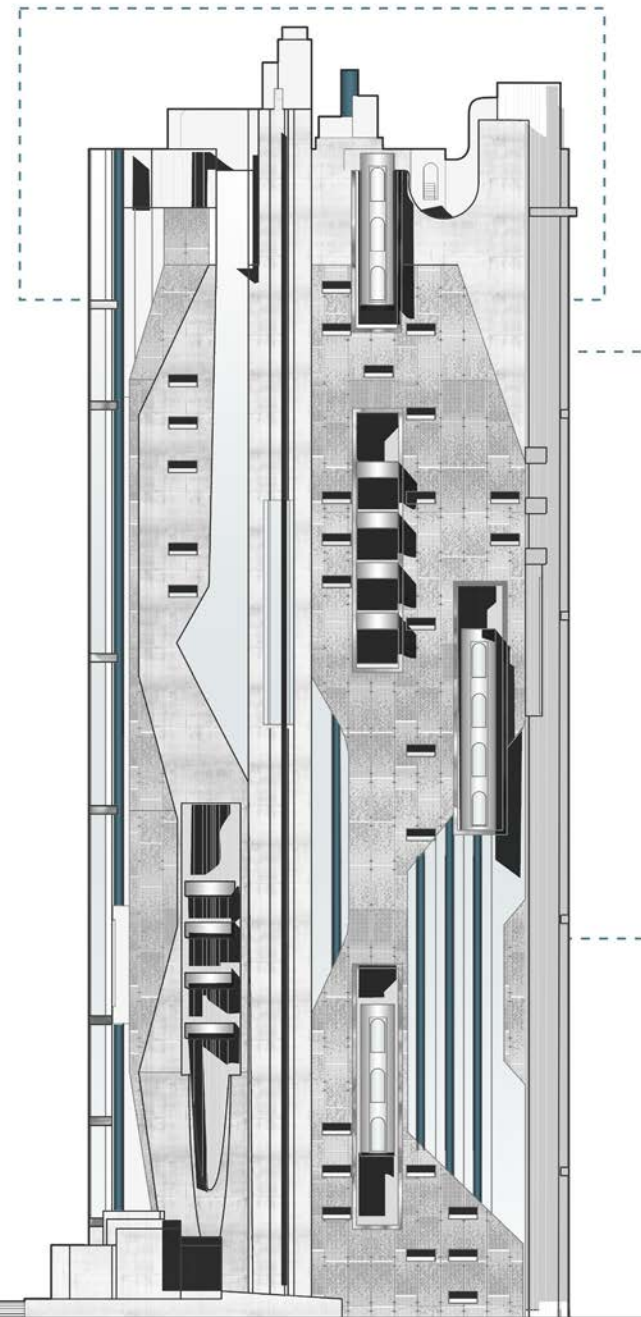
The tensioned floorplates of Domain 11201 create moments of exchange, interaction, and community. The intertwining of programs such as co-working space, rock climbing, reading, among other recreation and sports activities tie the community together through action provoked by the floorplates and the vertical strands that tie them together. The Farragut community is already a close-knit community, but lack the space and programming to properly allow them to celebrate together, Habitat 11201 can be that community solidifier.



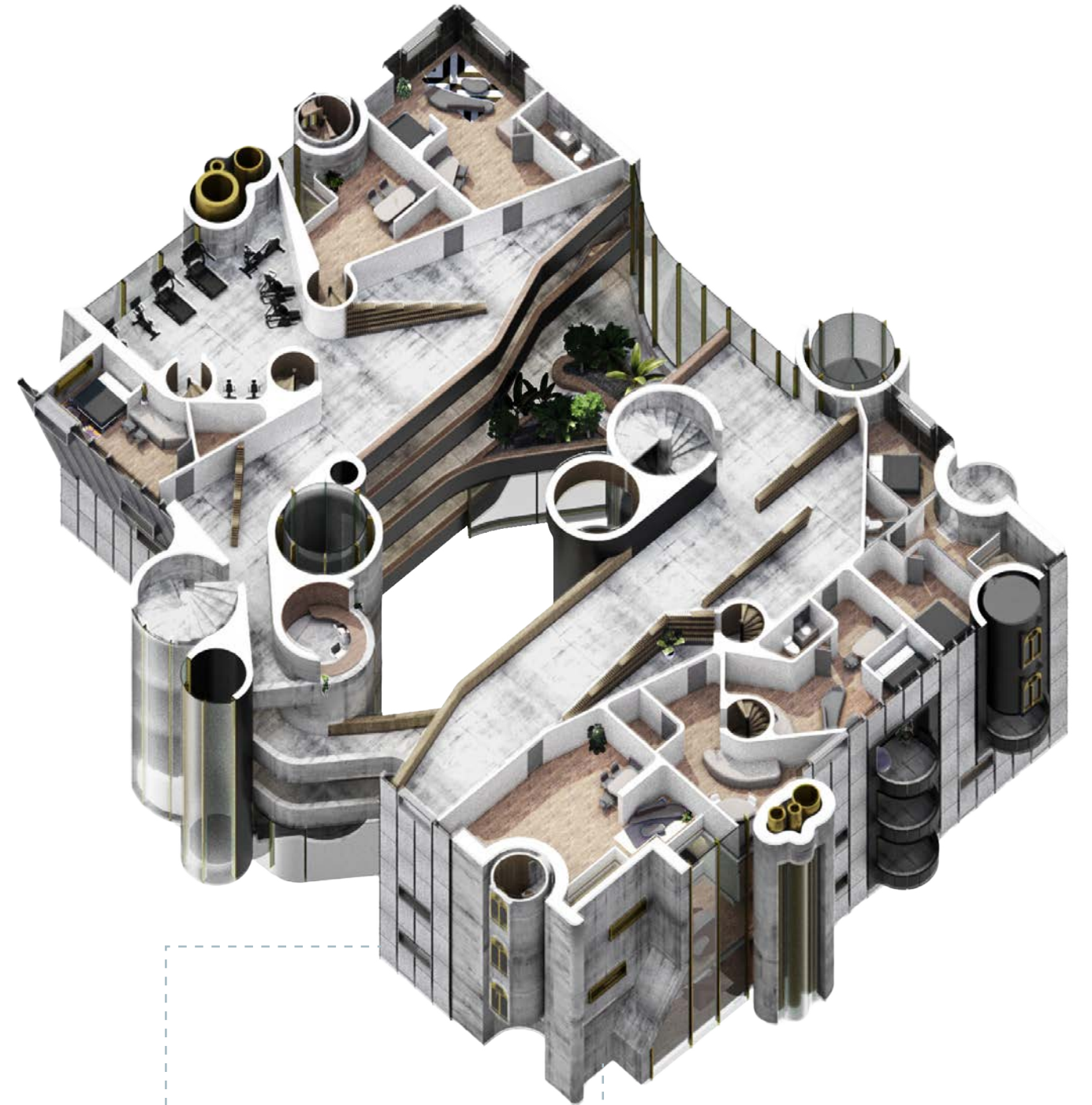
Facade Assembly Model



Southeast Elevation



Northwest Elevation

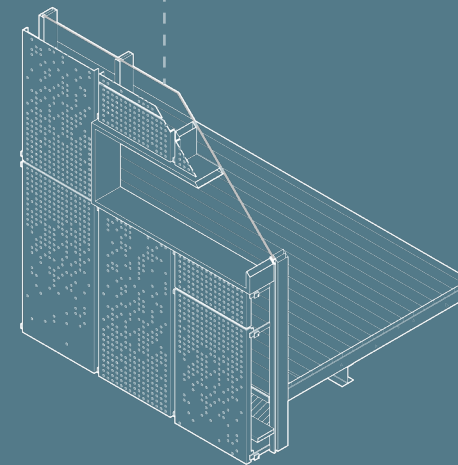


Chunk Render

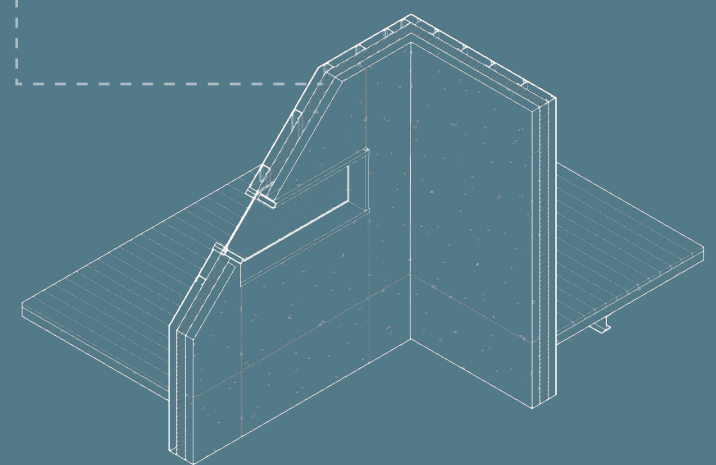
■ ARCHITECTONICS

Habitat 11201 facade does not take many cues from a typical residential highrise, instead it looks to it's context of silos, smokestacks, and the industrial backyard that is the Brooklyn Navy Yards. Invoking this industrialized aesthetic, the facade shifts and reacts, and is tied by the strong vertical elements that contain the core functions of the building. In doing so, an ambiguity is created around the building and it's program, that which both conceals it's self and opens itself up to the community creating dramatic viewsheds.

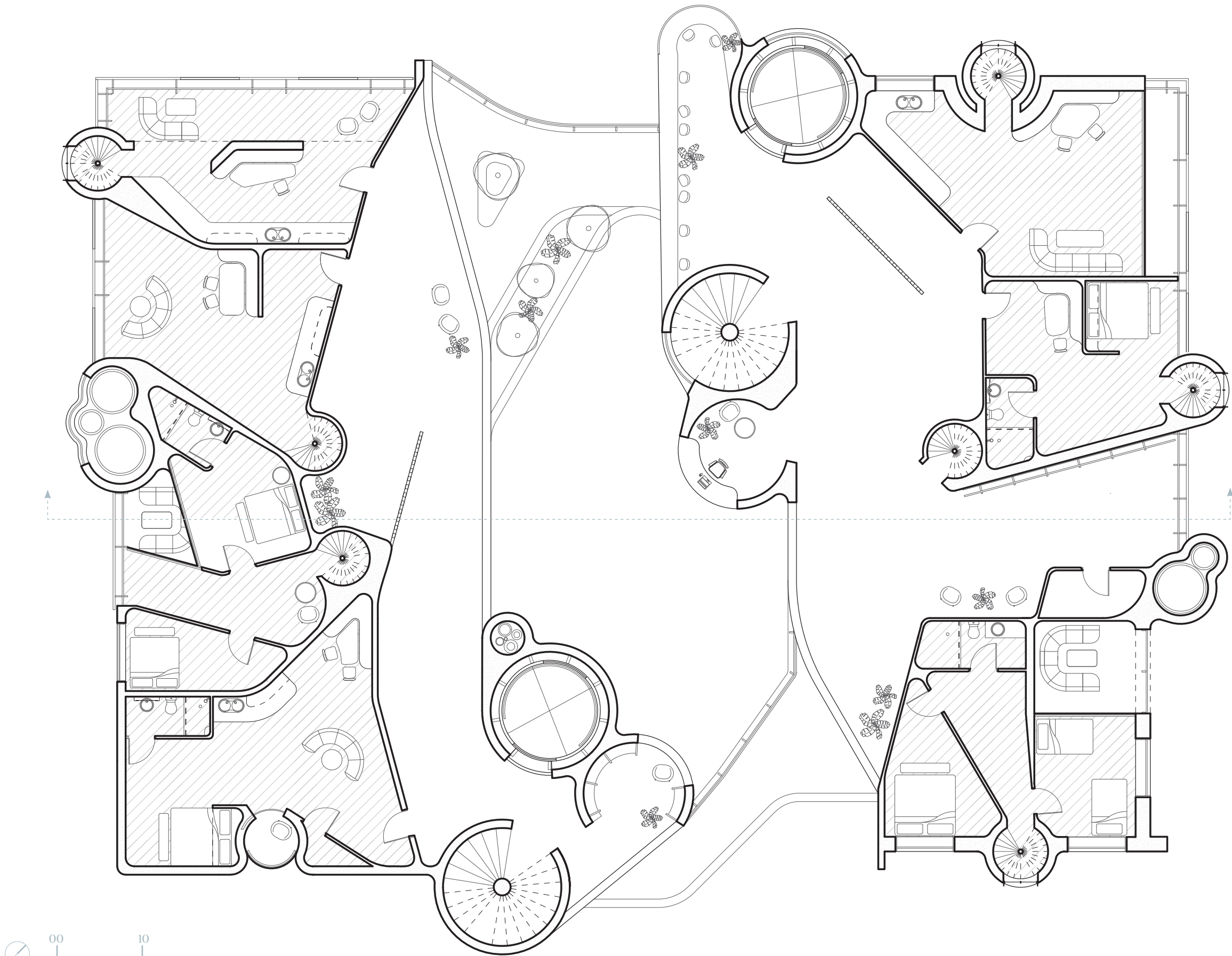
As the facade shifts, so do the interiors of the residential units. Single, duplex, and triplex units shift and tie themselves together through localized circulation strands, sitting between moments of shared spaces. Slotted walls act as a gradient between the public and private, creating transitional spaces between units.



Metal Panel Detail Chunk

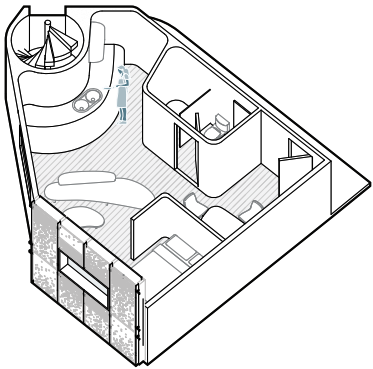


Concrete Detail Chunk

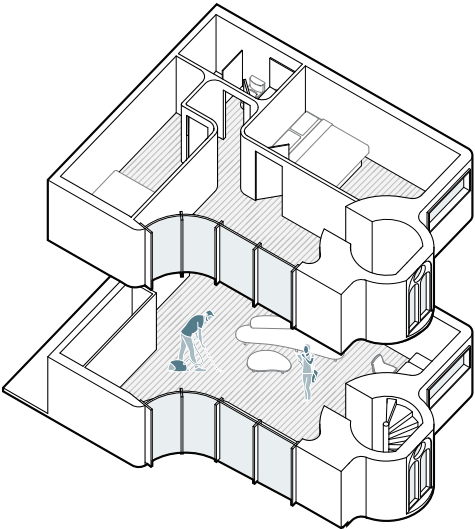


Upper Level Floor Plan

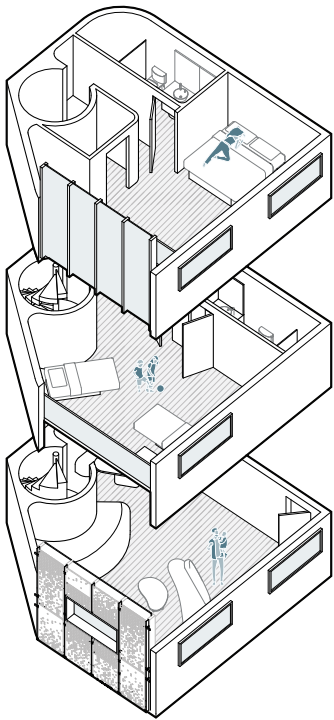
SINGLE



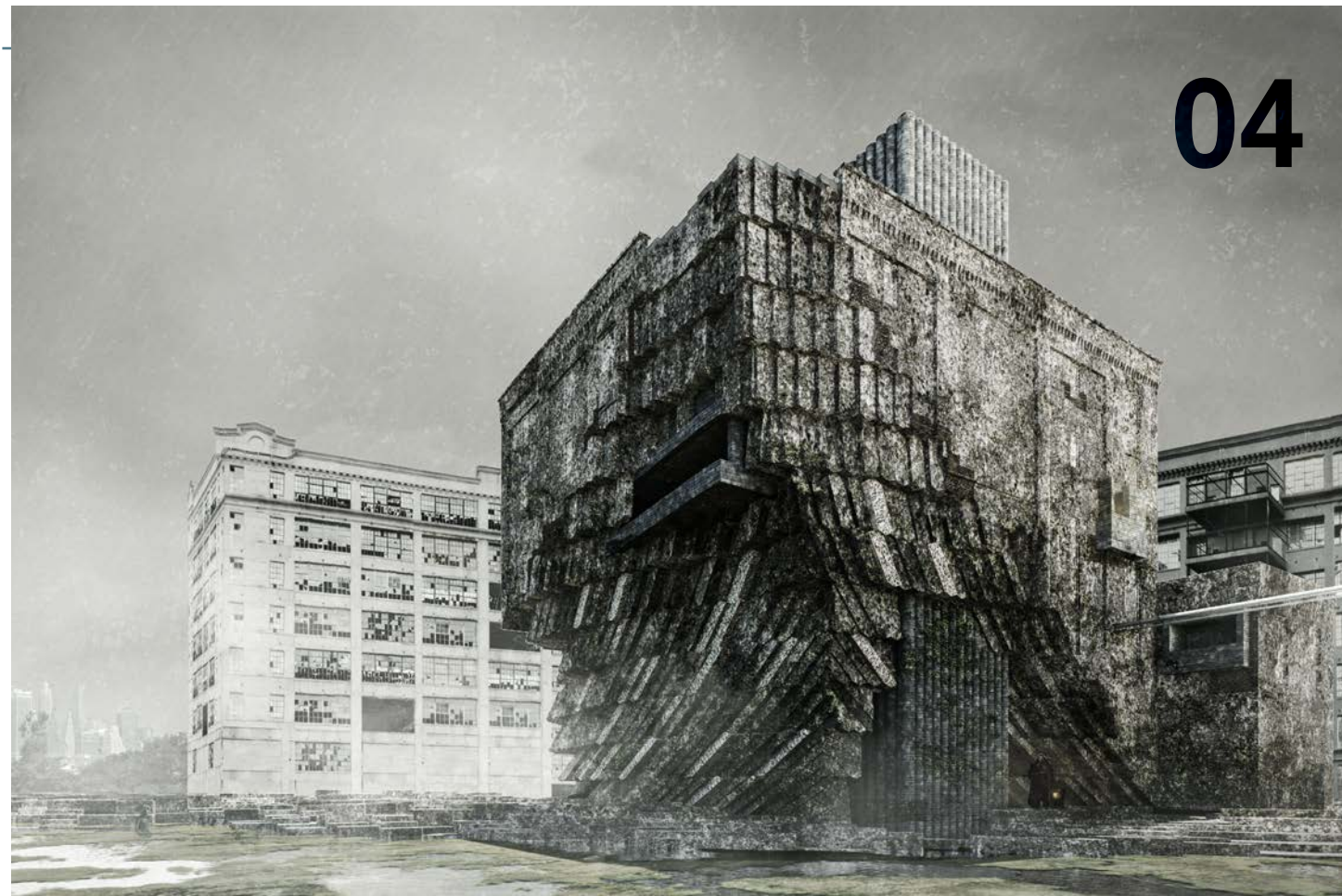
DUPLEX



TRIPLEX



Unit Diagrams



River Perspective

ULTERIOR RUINS

Archaeological Archive and Ecological Production in Sunset Park, Brooklyn

Academic project
Critic // Alexander Barker

Ulterior ruins, an adaptive reuse of a derelict 1920s coal power plant, acts as a new home to the community's dynamic climate and social justice groups while activating the space with cultural activity. Combining archive spaces with oyster and algae production, putting them together in a setting of industrial ruins flattens the typical hierarchy, which usually places the societies' artistic and engineering pursuits above that of nature. This new heterarchy approach is an equalizer where the visitors that come to the site, will see that ecological production can exist side by side with leisure. The concept of time in relation to the climate

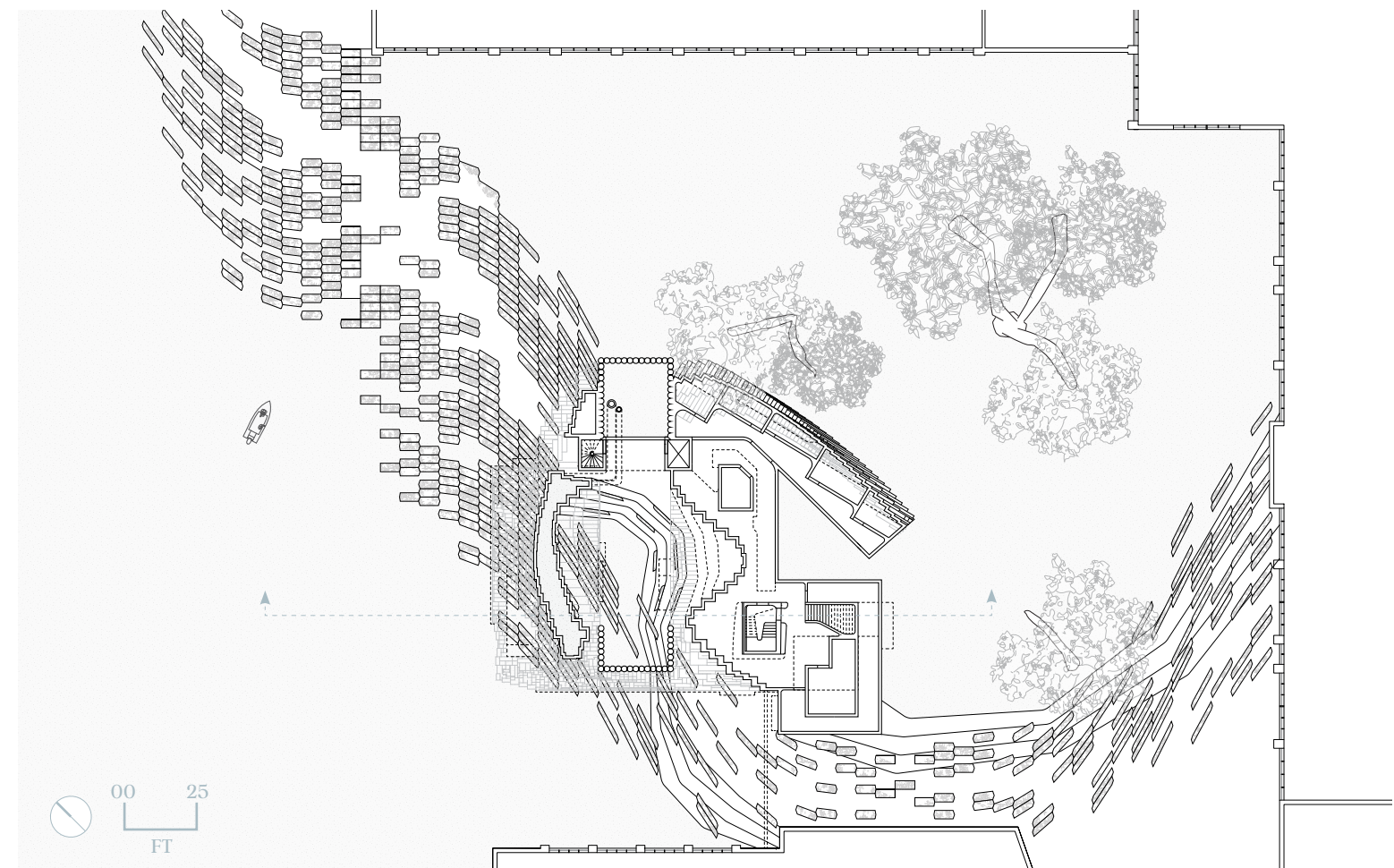
crisis is precious and is becoming increasingly so with every new dire report. By constructing the appearance of abandonment, or ruins, it is reflecting that if action is not taken, buildings and possibly society will fall to decay. Yet there is a possible more holistic solution when we consider how environmental production can coexist with leisure activities and the conservation of our built industrial past can be re-contextualized in order to address and offset the damage that they have caused to the local ecosystems and their contribution to our current crisis.



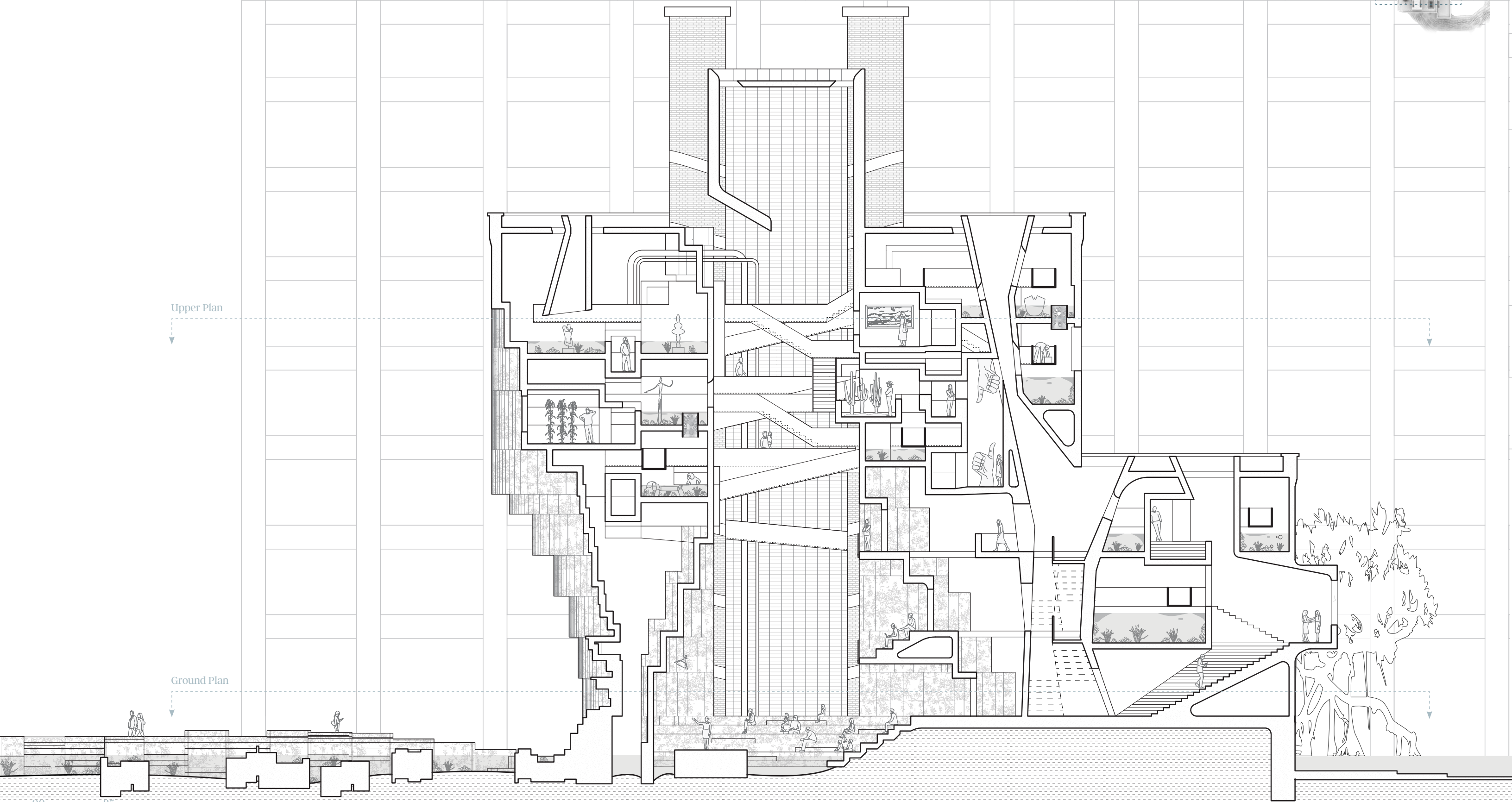
Context Plan

ECO-JUSTICE

Sunset Park is particularly vulnerable to flooding and rising sea waters. The community is well aware of their situation and have various ecological and social justice groups. Ulterior ruins provides community space, a large lecture hall, and it's galleries directly engage with the visitors as they move through the archival space embedded in pools of algae and oyster production, meant to clean the waters of the East River.



Site Plan



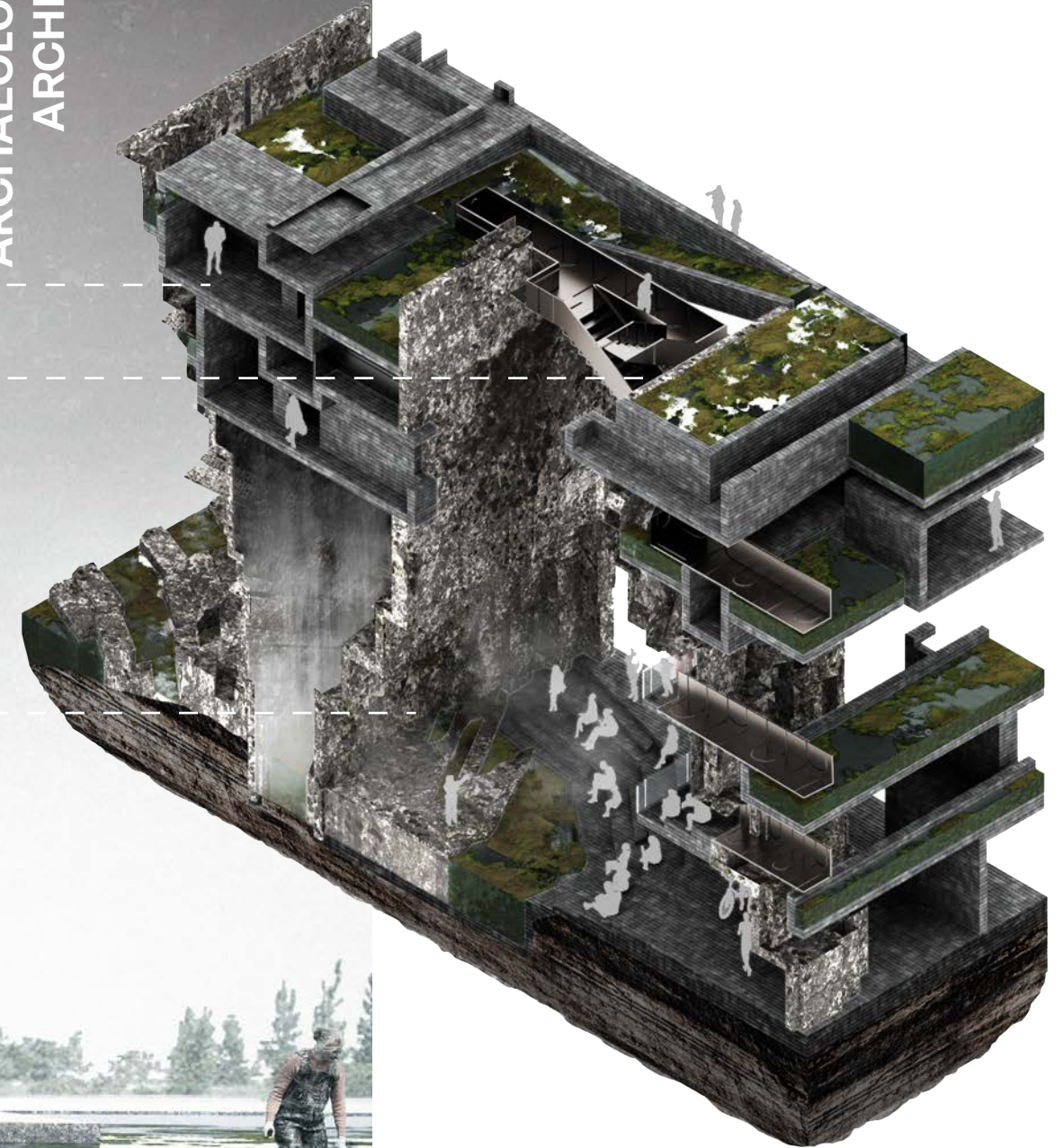
Upper Plan

Ground Plan

00 25
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LECTURE HALL

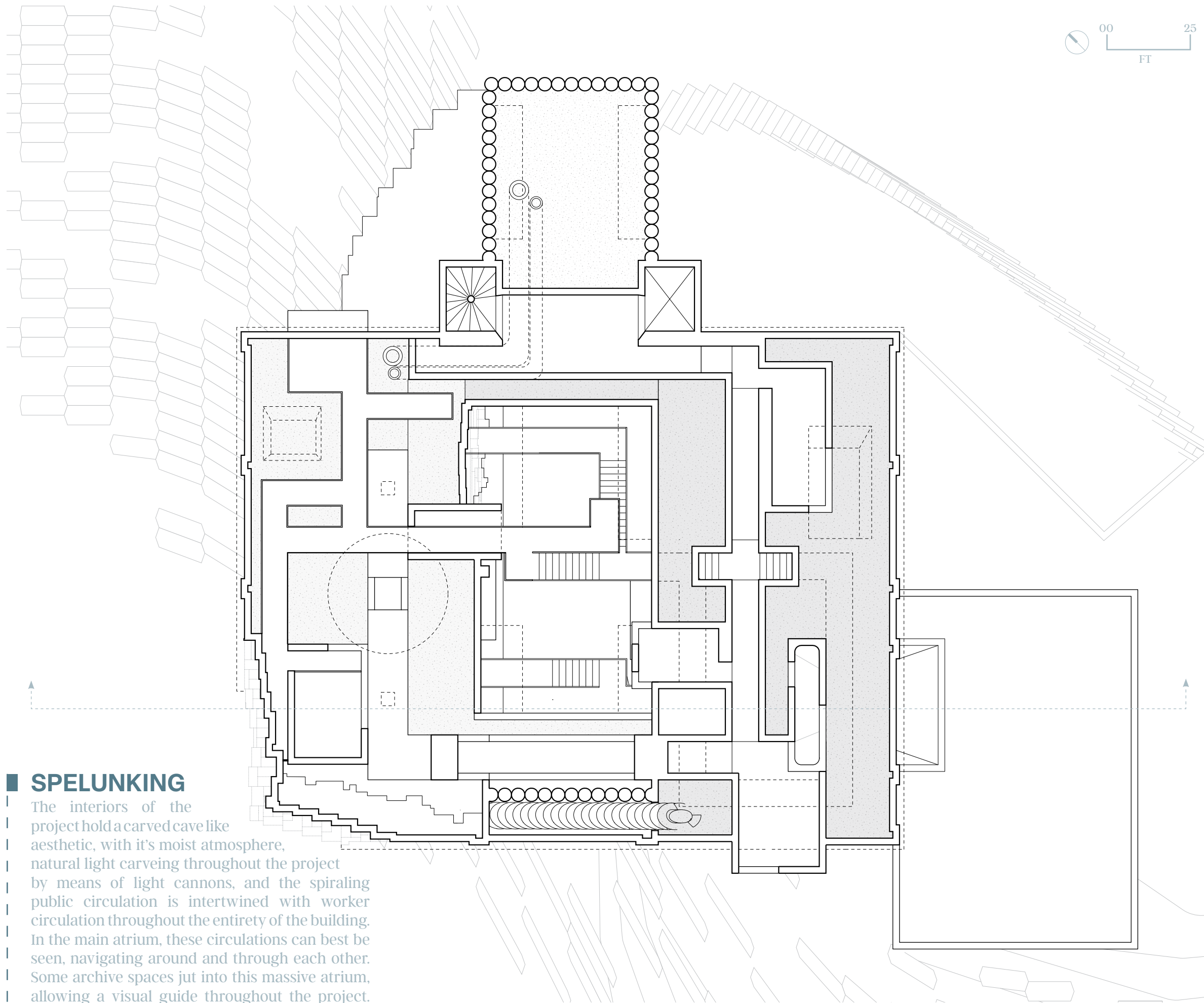
ALGAE AND OYSTER
FARMINGARCHAEOLOGY
ARCHIVE

River Perspective

Atrium Chunk

ECOLOGICAL YIELDS

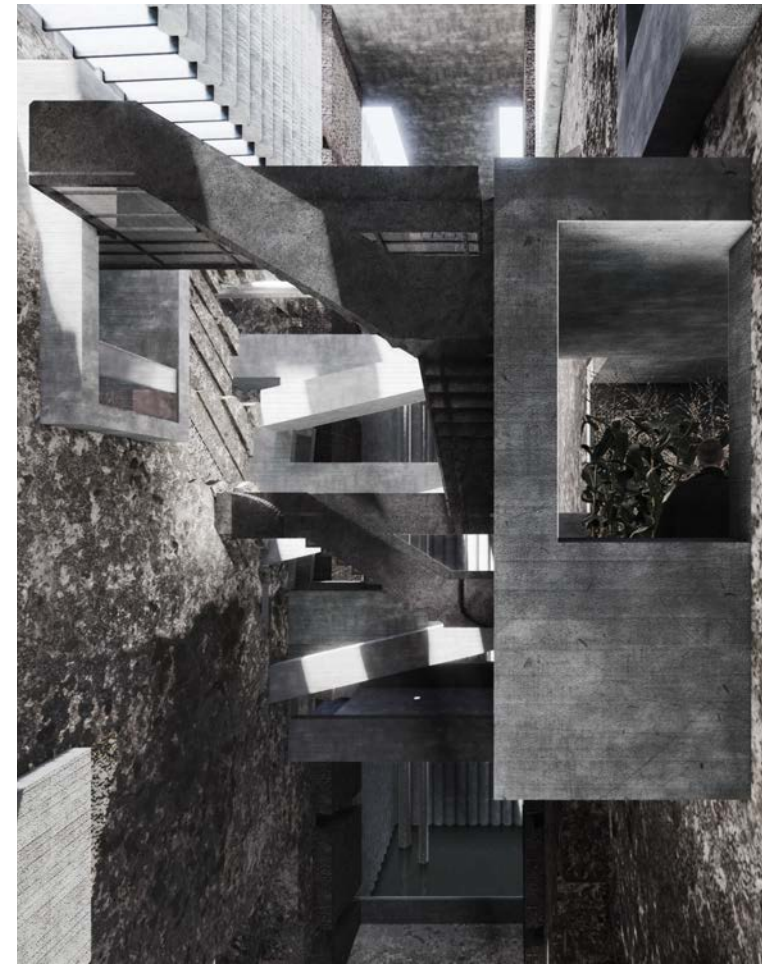
Ulterior Ruins embraces the mission of the Billion Oysters organization which seeks to reclaim the waterways surrounding New York City by re-bedding oysters on the river way floors, which were lost due to the dredging of the rivers for larger ships as industrialization grew. Both inside and out of the project, oysters are grown to clean the riverway and the project as a whole as an amplifier for this process. Meanwhile visitors to the site will experience first hand ecological production, an act that many may not have experienced before.



SPELUNKING

The interiors of the project hold a carved cave like aesthetic, with it's moist atmosphere, natural light carving throughout the project by means of light cannons, and the spiraling public circulation is intertwined with worker circulation throughout the entirety of the building. In the main atrium, these circulations can best be seen, navigating around and through each other. Some archive spaces jut into this massive atrium, allowing a visual guide throughout the project.

Upper Level Plan



Atrium Circulation



Worker Circulation & Gallery



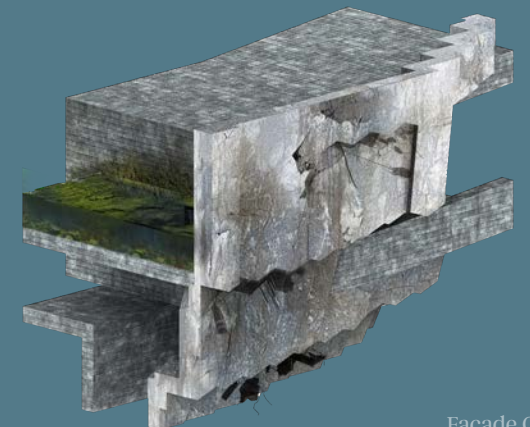
Archival and Production Space Perspective

■ HIERARCHY HETERARCHY

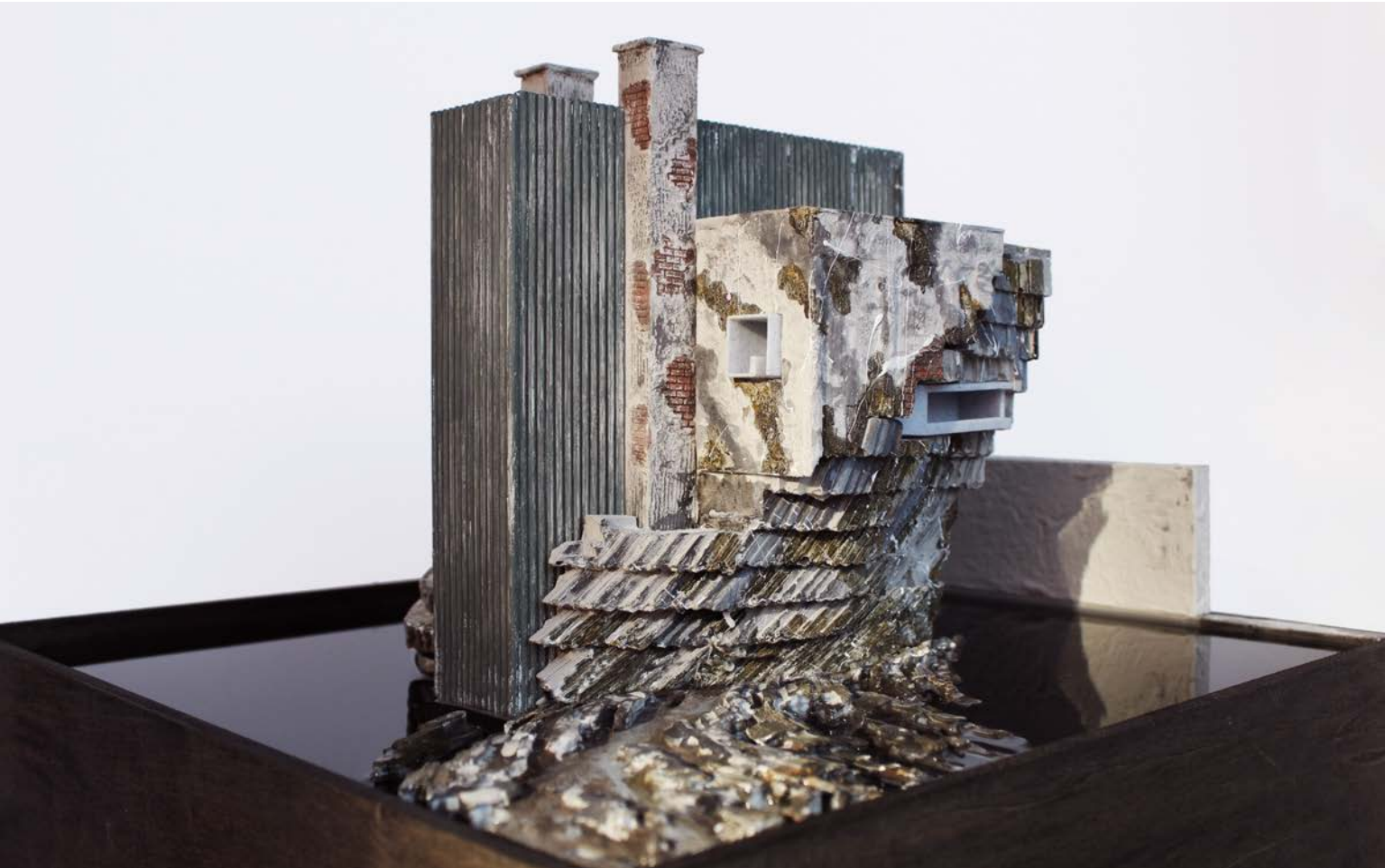
In order to address climate change moving forward, we must dismantle the typical hierarchy which puts anthropocentric ideas above that of ecology. Visitors move between archive spaces of different biomes, which have been directly affected by humans actions over the past centuries prompting conversations between the visitors and raising awareness of our past and present actions.

Ulterior Ruins place art, that is timeless, in a forgotten space, with endangered ecosystems

reminding the visitor of their place in time. This serves as an archaeological archive not only as the art serves as artifacts of human history, but also humans impact on every aspect of ecology along with the history of the building. The user is submersed into this new, possibly uncomfortable but necessary heterarchy. Ultimately a symbiotic relationship is formed between the cultural and ecological production, resulting in the promotion of society's engagement with water culture, building, and ecosystem conservation.



Facade Chunks



Physical Model



Physical Model



Physical Model



Physical Model

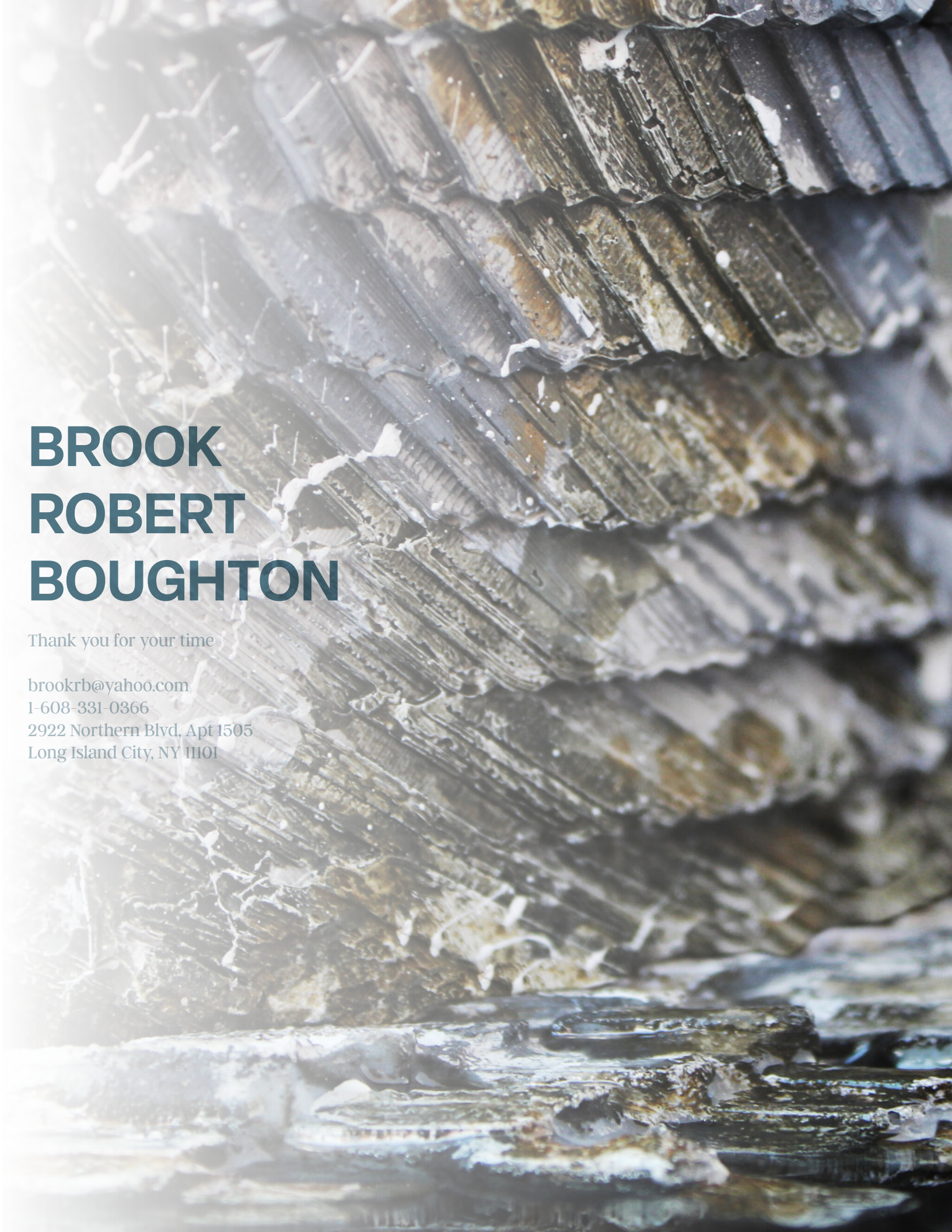


Physical Model



Physical Model





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