

**MEGHROUNI
-BROWN
ZAKIOS**



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OFFICE PARK AFTERLIVES

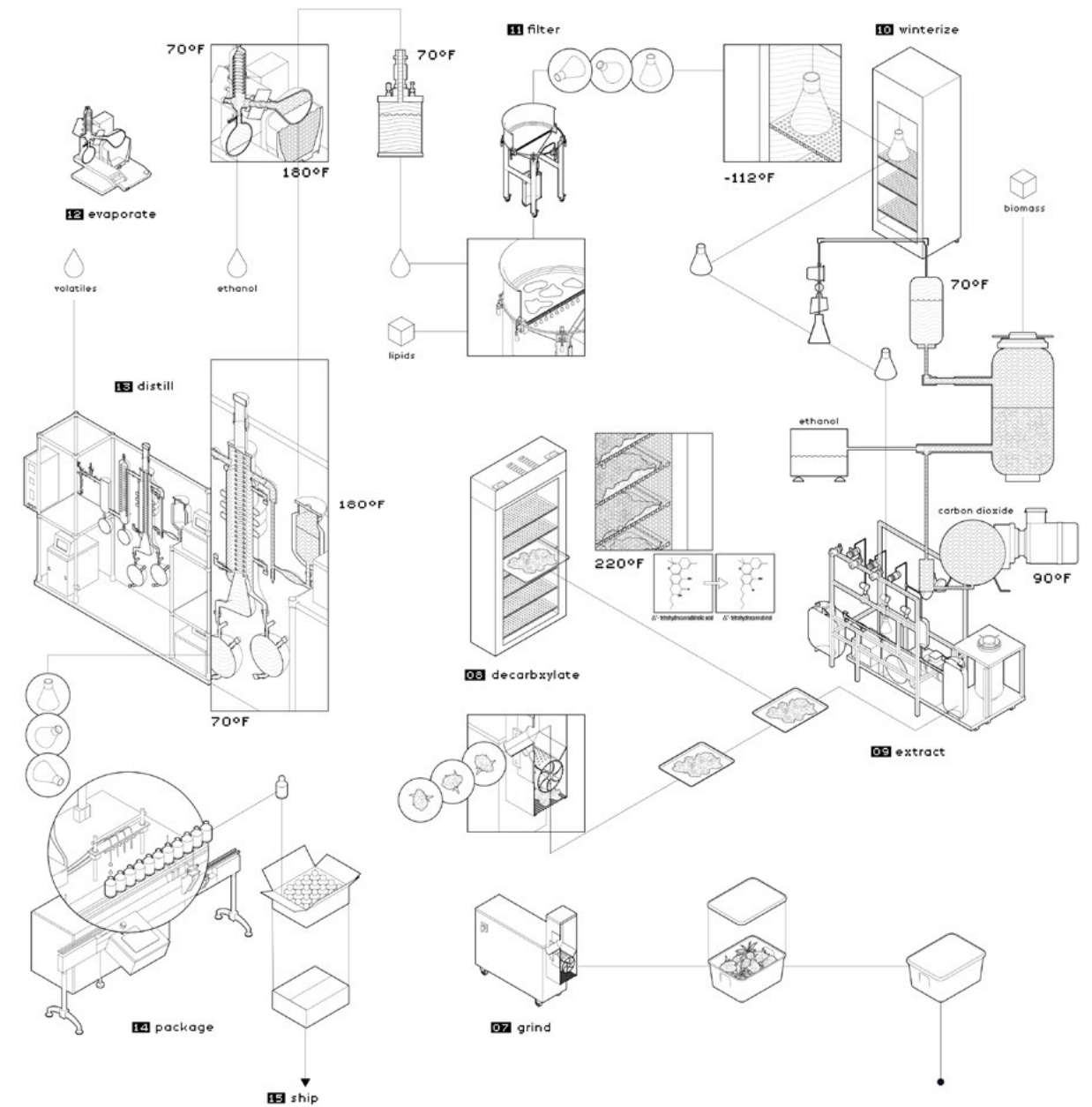
Advanced Studio IV

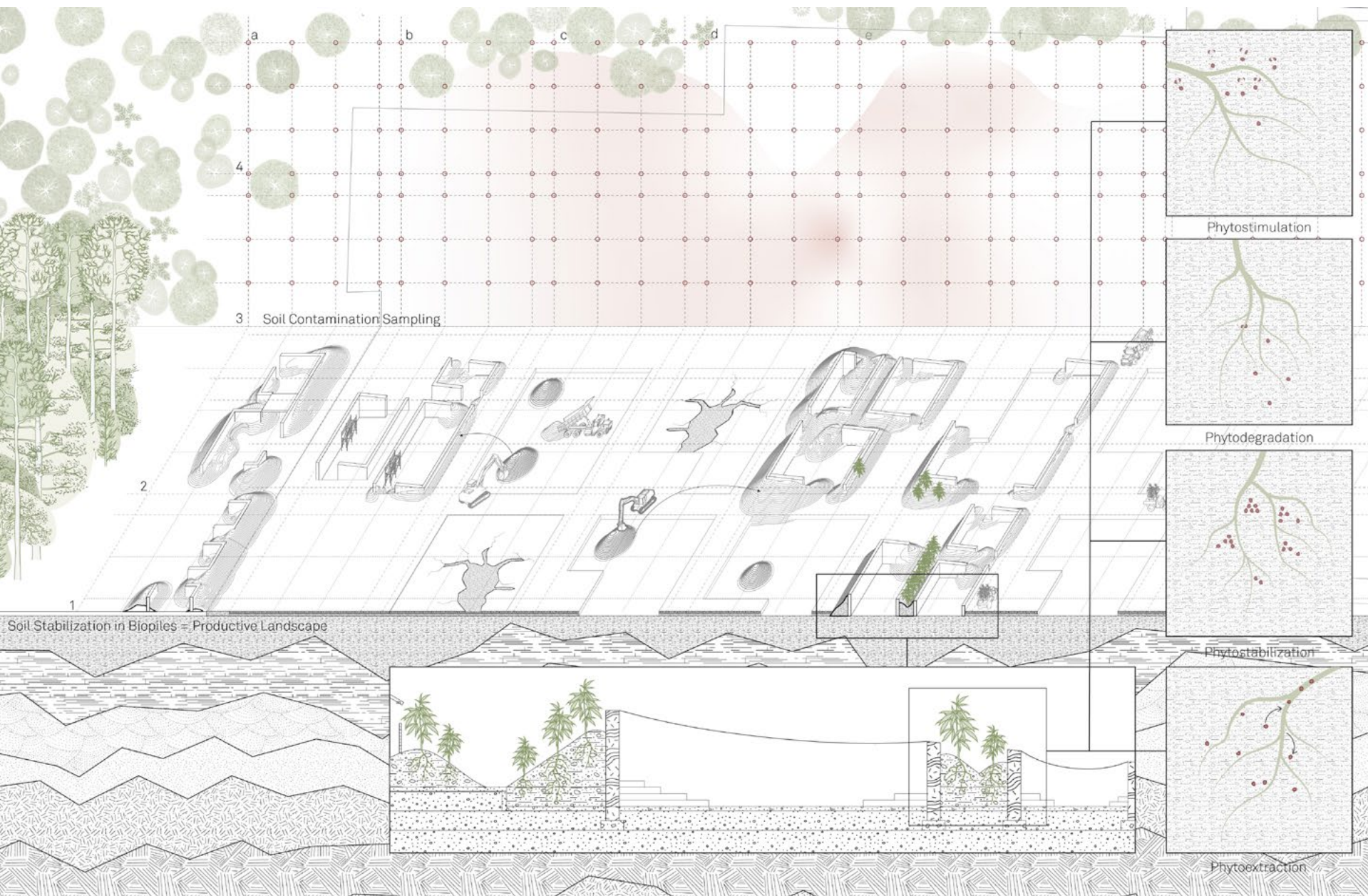
Critic: Phu Hoang

Partners: Jules Kleitman and Andres Alvarez Davila

Spring 2021

This proposal speculates on the afterlives of the Hudson Valley's post-corporate landscape. It calls for an expansive process of vaccination, remediation, construction, cultivation, and rewilding: an alternative to current modes of production, including those in the nascent cannabis industry, which has largely followed existing paradigms in big pharma. The project accomplishes this in two principal ways. First, by remediating the ruins of the former IBM campus in Kingston, NY; second, by allowing populations affected by the 'war on drugs' active participation in the ethical production of cannabis. The result is a paradigm of production which, rather than extending racist practices and extractive logics predicated on models of infinite growth, also becomes a generator of justice and an ecologically productive part of the environment, limited in space by the confines of industry, and temporally by natural cycles of healing and growth.





Phytoremediation Diagram, Site Plan

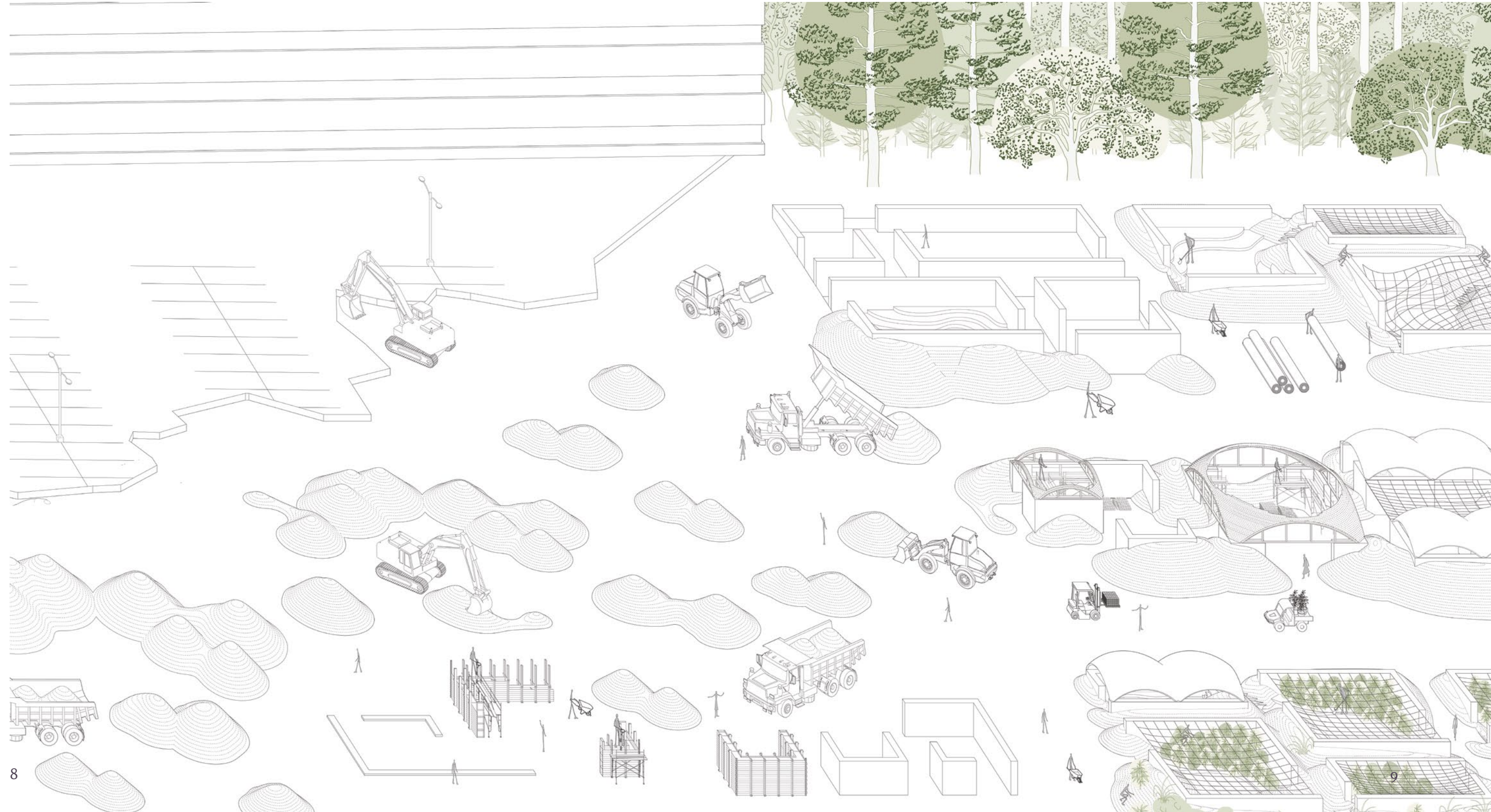


The polluted and largely abandoned former IBM campus in Kingston comprises an industrial office park with acres of parking lots. The proposal calls for the demolition and phytoremediation of the parking lots using hemp plants

Earth is excavated and cleaned as an extension of the ongoing remediation processes at the IBM campus.

Concurrently, rammed earth walls are built to house greenhouses for production as well as dispersed programs such as a vaccination center.

Demolition, Construction, and Rewilding Process



Excavated earth is bermed around the walls and hemp is planted atop them, while cannabis is grown inside the resulting greenhouses. Programmed space is vaulted over.

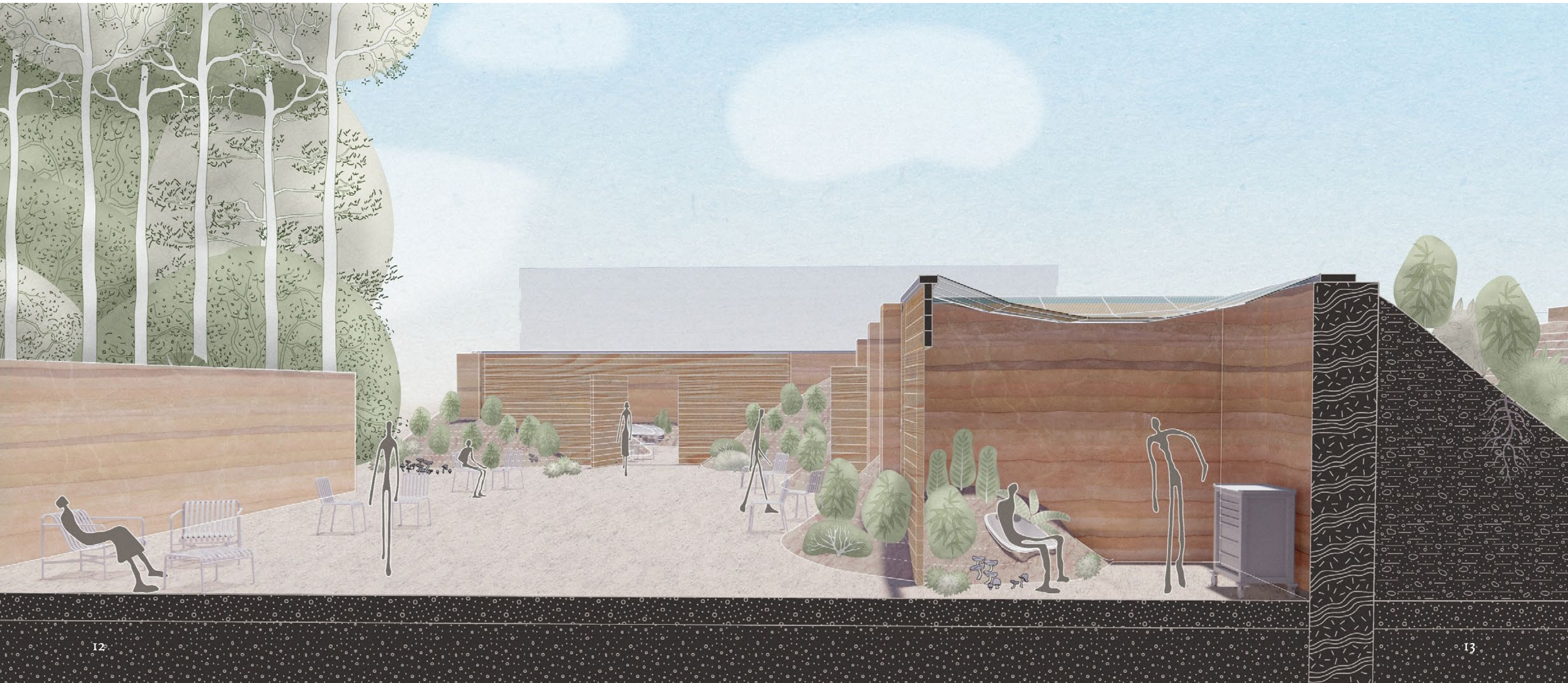
As the incubator grows, the planting plots extend across the site. Once fallowed, the earthwork landscape disintegrates and becomes overgrown, merging with the landscape.



The first portion of the commune to be built, the future incubator building, will host a vaccine center at the edge of the as-yet unexcavated parking lot.



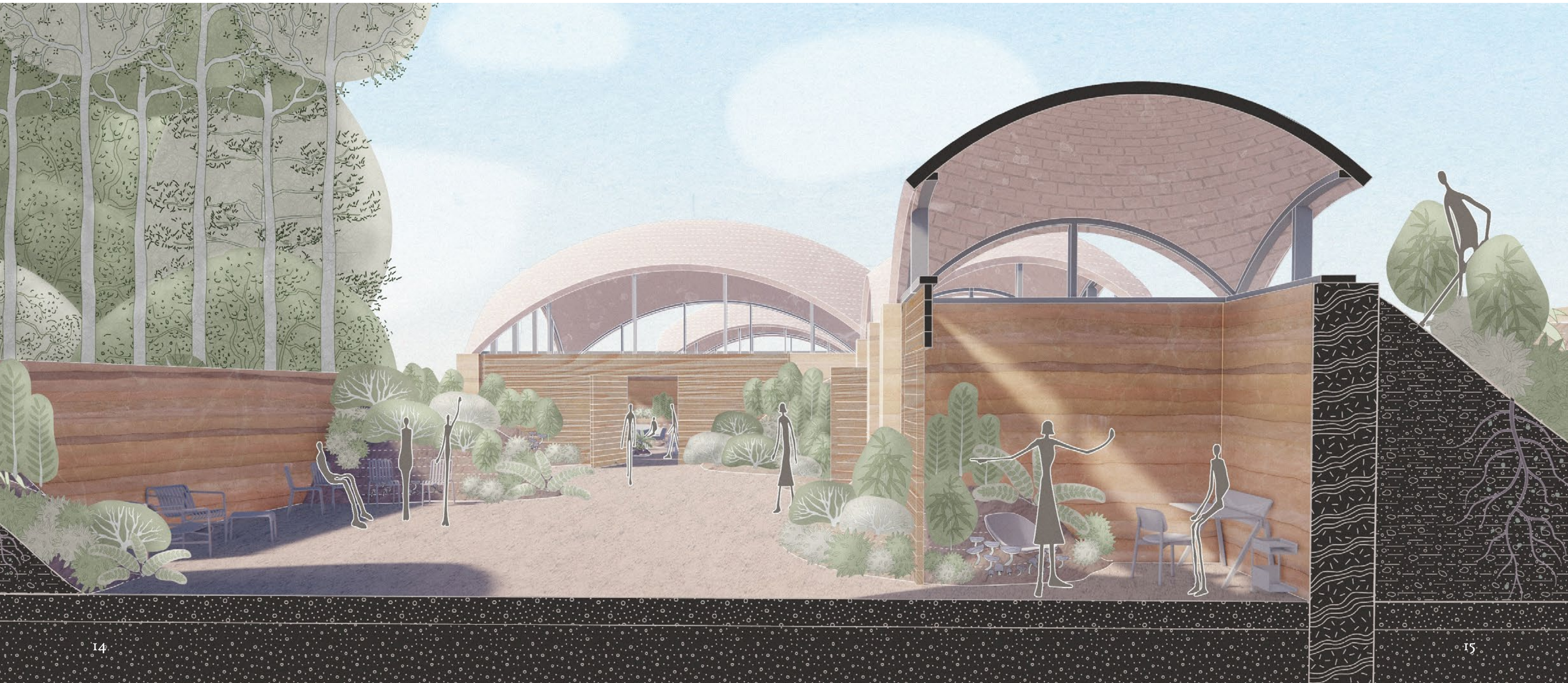
Short term: Vaccination Center Plan and Section



The vaccination pods and waiting spaces are embedded within the landscape. In the short run, they are roofed over with mesh. This is replaced with a more permanent compressed earth brick vault for the incubator as construction proceeds.

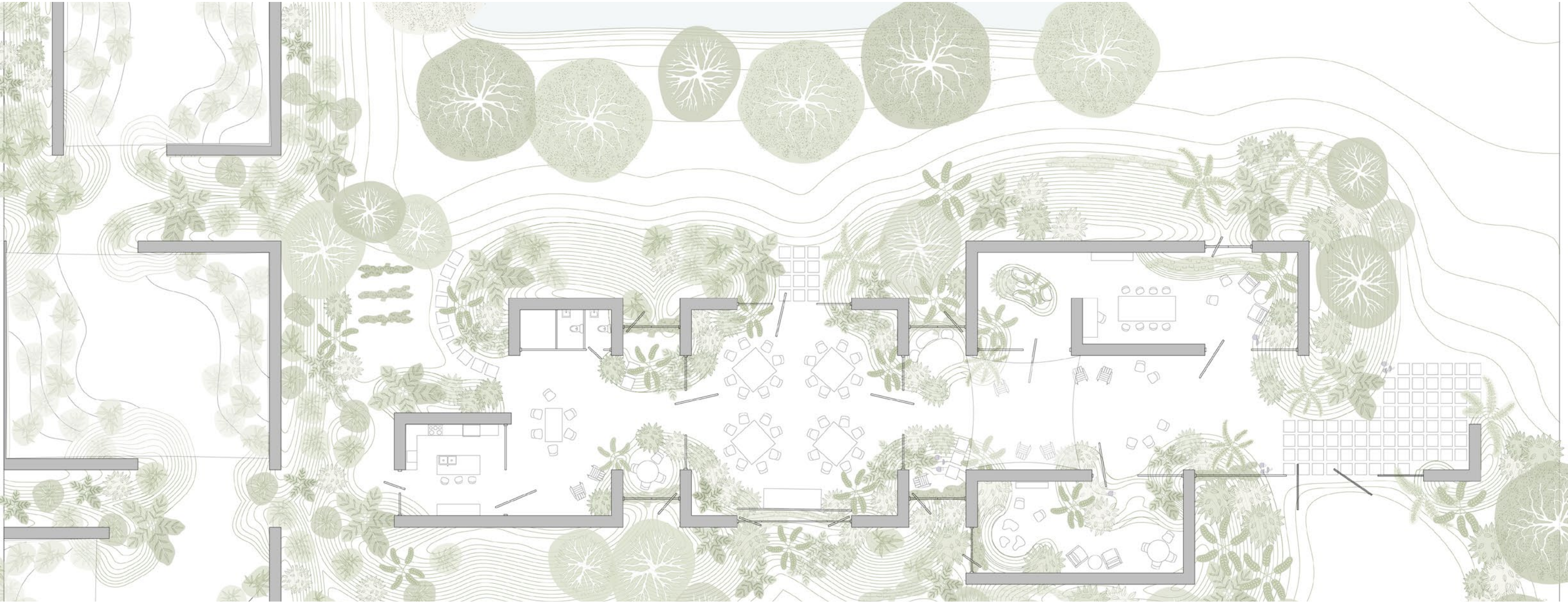


Long Term: Cooperative Incubator Plan and Section



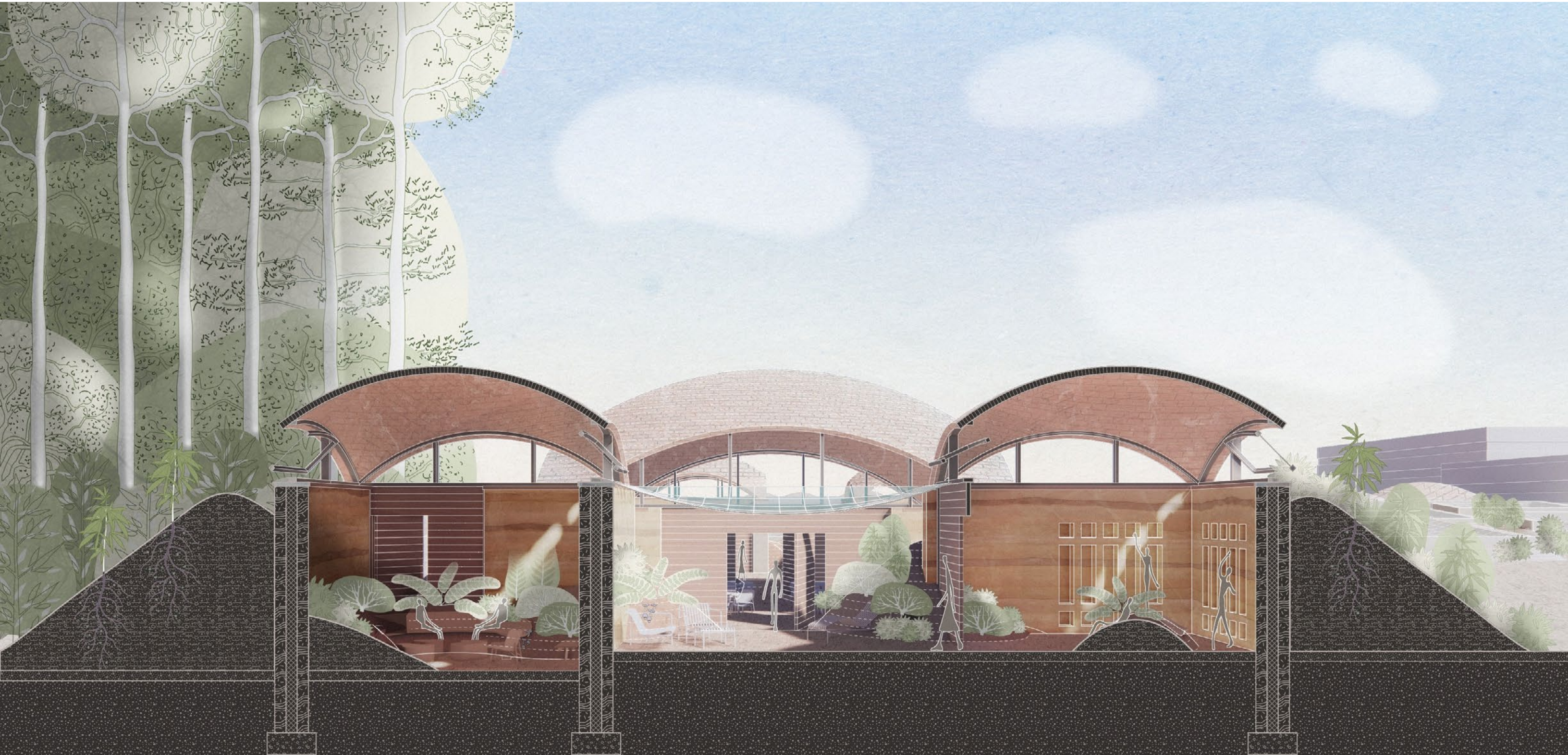
Long Term: Social Hub and Entrance Pavilion Plan

The social hub includes a refectory, shared kitchen, and interior and exterior common spaces, which flow into each other as in the incubator-cum-vaccination center.



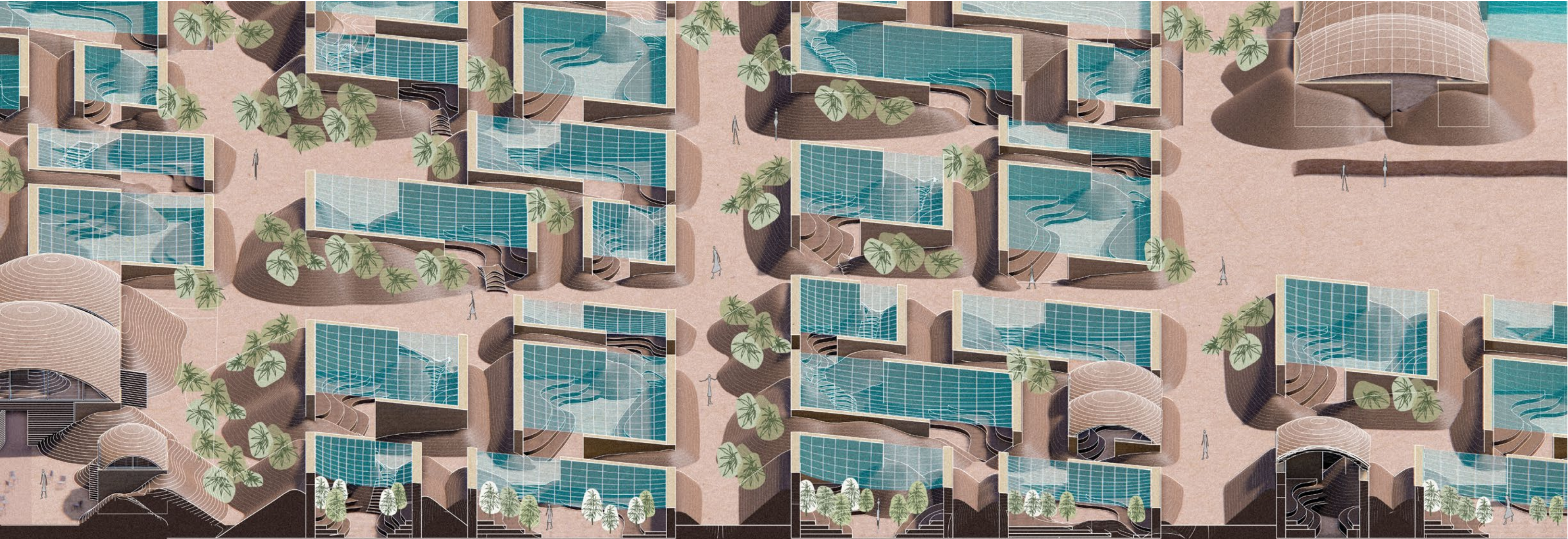
Long Term: Social Hub and Entrance Pavilion Section

The rammed earth walls, mounds, and vaults create an environment that incorporates, more than the image of nature, its atmospherically diverse effects: the opposite of the hermetically sealed facility which is the norm in large scale cannabis production.



The greenhouses are underground structures.
The earth functions as a thermal mass,
helping to maintain the warm temperatures
the cannabis plant requires to grow.

Long Term: Greenhouse Axonometric Section





CENTER FOR REUSE ARTS

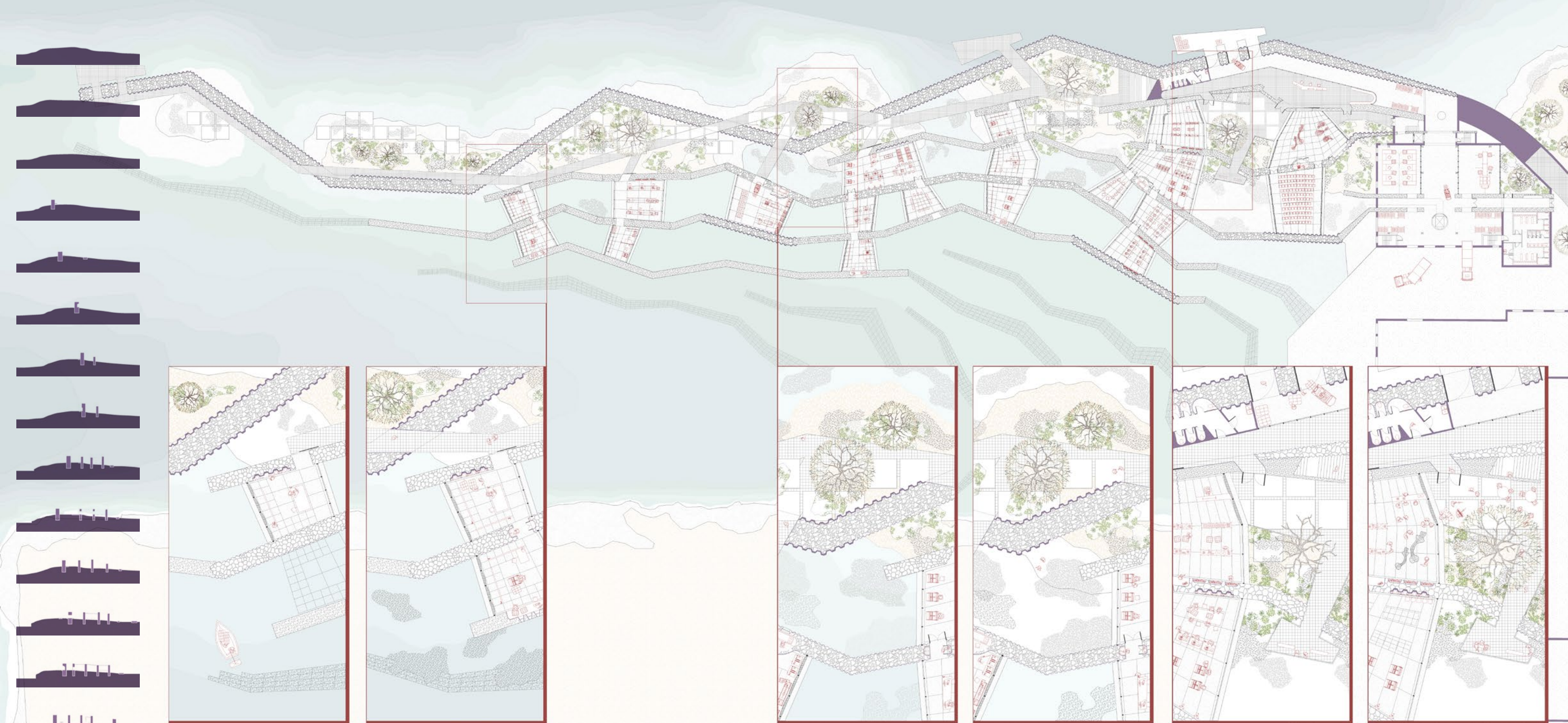
Advanced Studio V
 Critic: Marc Tsurumaki
 Fall 2021

A groundswell of economic development - in large part spearheaded by the New York City Economic Development Corporation - has aimed to turn the city's many waterfronts into a network of design, arts, manufacturing, and retail destination. While on the one hand this transformation constitutes a savvy use of New York's mouldering industrial spaces, Sunset Park forms an exception to the city's industrial dilapidation, and consequently its so-called revitalization, such that large scale commercial developments present both promise and danger to the community which relies on the working waterfront for accessible jobs.

In this milieu of a gentrifying arts- and design-based economy arises the need for an arts center which adapts the new economy of the waterfront to the existing communities in western Sunset Park.

Sited on Bush Terminal's Pier 7, this Center for Reuse Arts reconstitutes the fractured substrate of the pier, transforming this now-defunct locus of the city's freight logistics into a piece of climate resiliency infrastructure, a site of regenerative ecological practices, and an engine of community-based craft tradition using recycled fabrics, building materials, and food waste from nearby manufacturing operations.

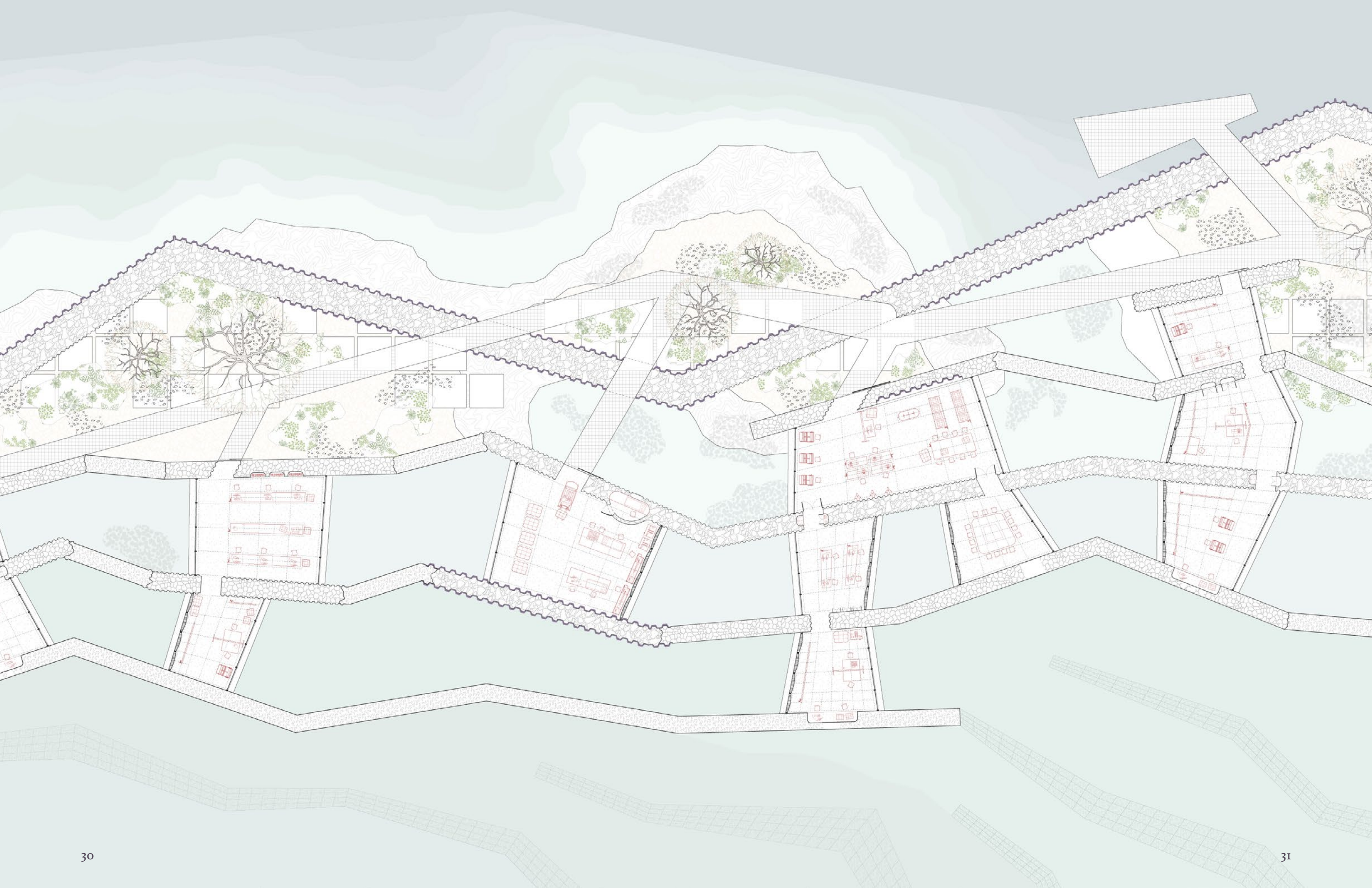


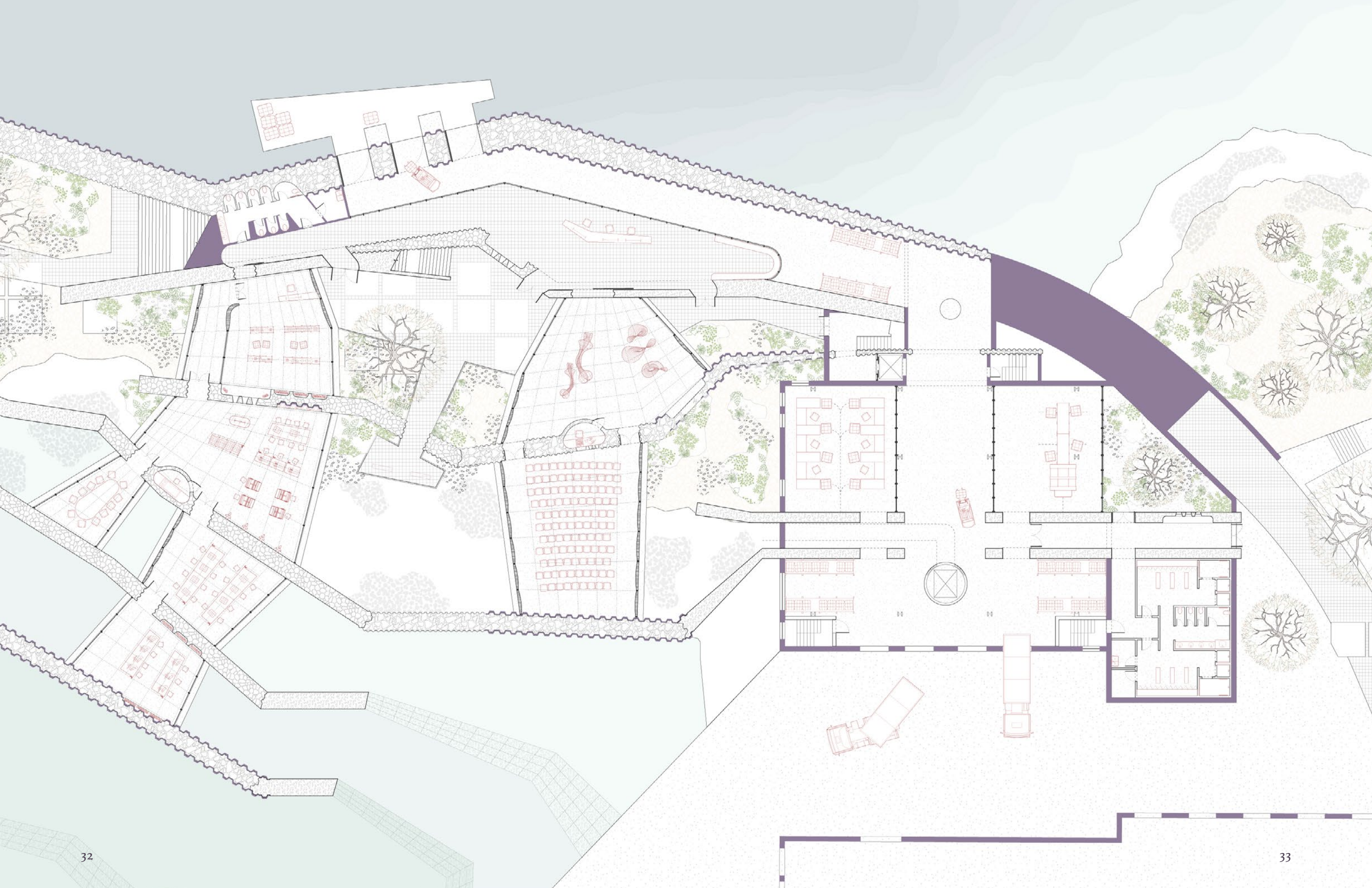


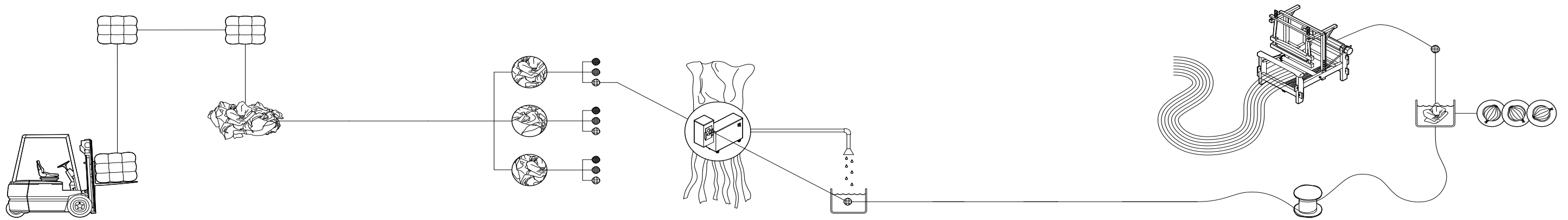
Serial Section of the Pier, Overall Ground Plan

The proposal operates on an abandoned pier and power plant at Bush Terminal, transforming them into productive spaces for the processing and reuse of fabric and food waste, and into a series of studios and classrooms, set in intimate contact with the harbor's ecology and the rhythm of the tides. A series of rubble walls reconfigure the crumbling pier on one side to restore moorages for ferries and barges. On the other side oyster reefs are seeded. The placement of the walls encourages the buildup of sediment, creating a shallow cove that becomes a part of the necklace of New York harbor's resiliency projects.







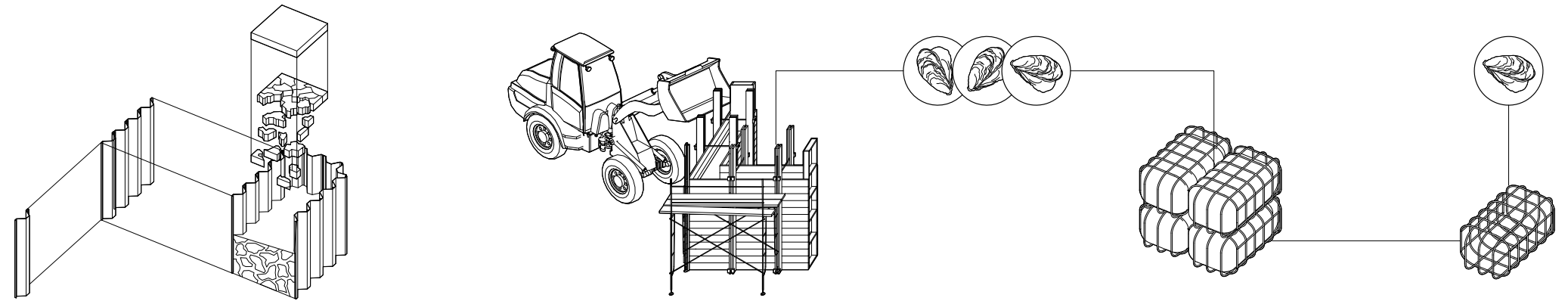


Factory Section, Fabric Recycling Diagram

Bales of fabric and food waste arriving to the center must be sorted and processed to be used on-site by artists and classes. The power plant's shell and steel frame are maintained and retooled to accommodate the production of recycled fabric and natural dyes. The central hall of the power plant is open to the public with views up and down into the sorting line, wash barrels, and artists studios.

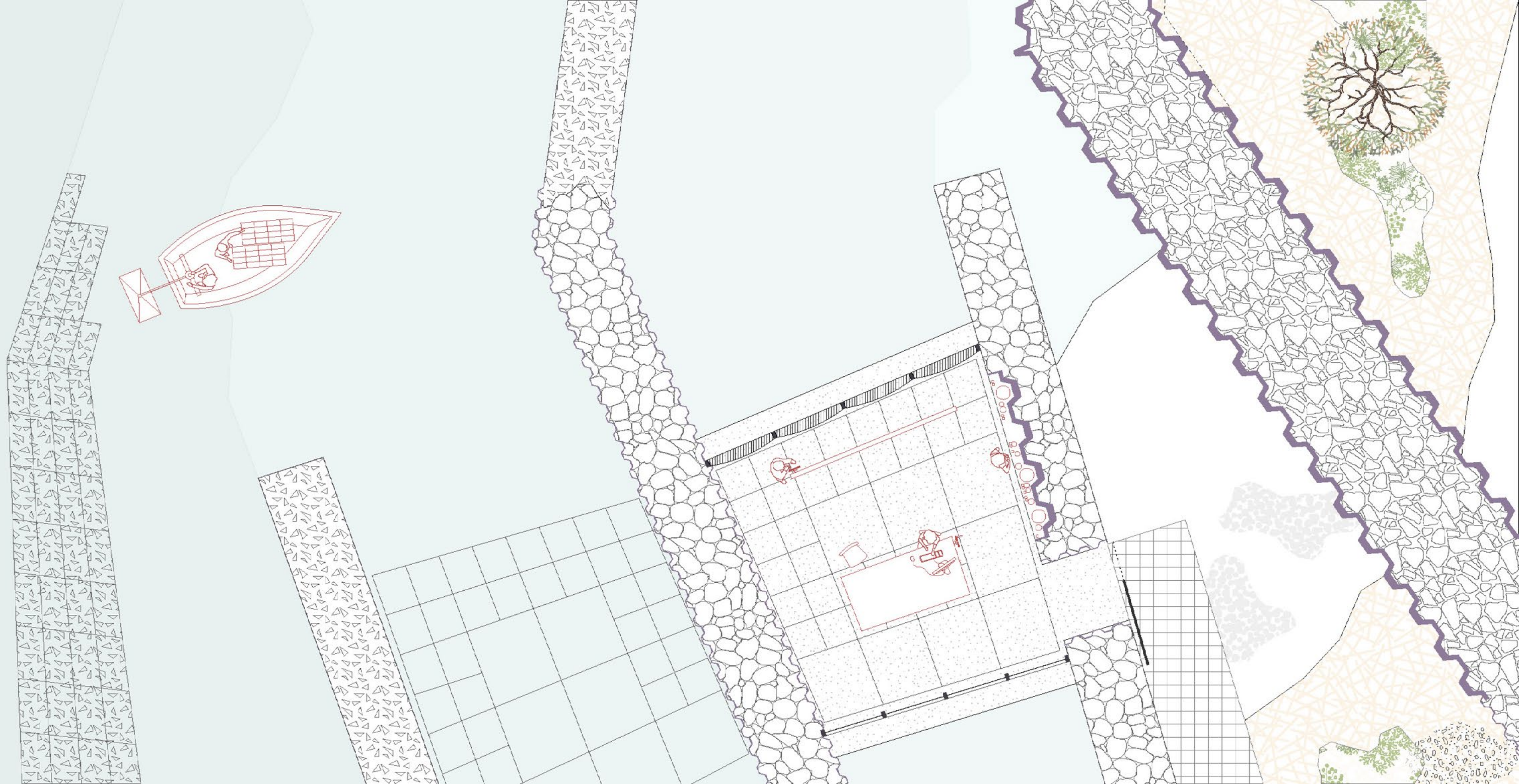


The walls of the pier are alternately infilled with pontoon-floored tensile units partly constructed from recycled fabric waste, or left in a state of arrested decay. The walls are built by backfilling concrete and steel sheet piles with the crushed rubble of the ruined pier's foundations. As the oyster reefs mature, the shells are harvested for aggregate and cement to build the outermost walls of the center.



Pier Section, Wall Construction Diagram





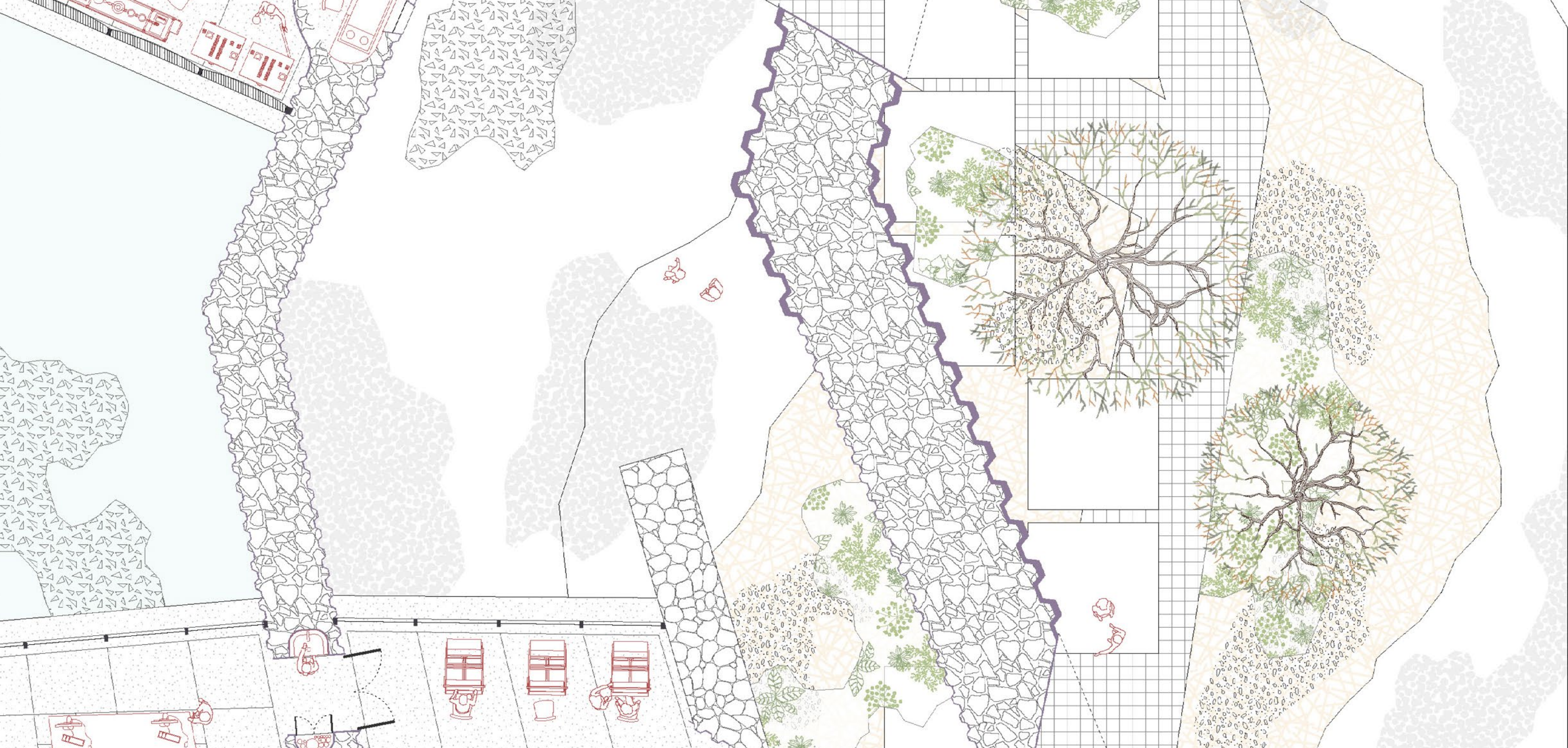
Plan Detail: Seeding Oyster Reefs

Obfuscating the logic of the pier purely as a site of commerce, the proposal strives for a more ambiguous relationship to the water. Approaching the site not just as a ruin, but as a landscape with its own nascent ecology, the project sets up a flexible state of arrested decay.



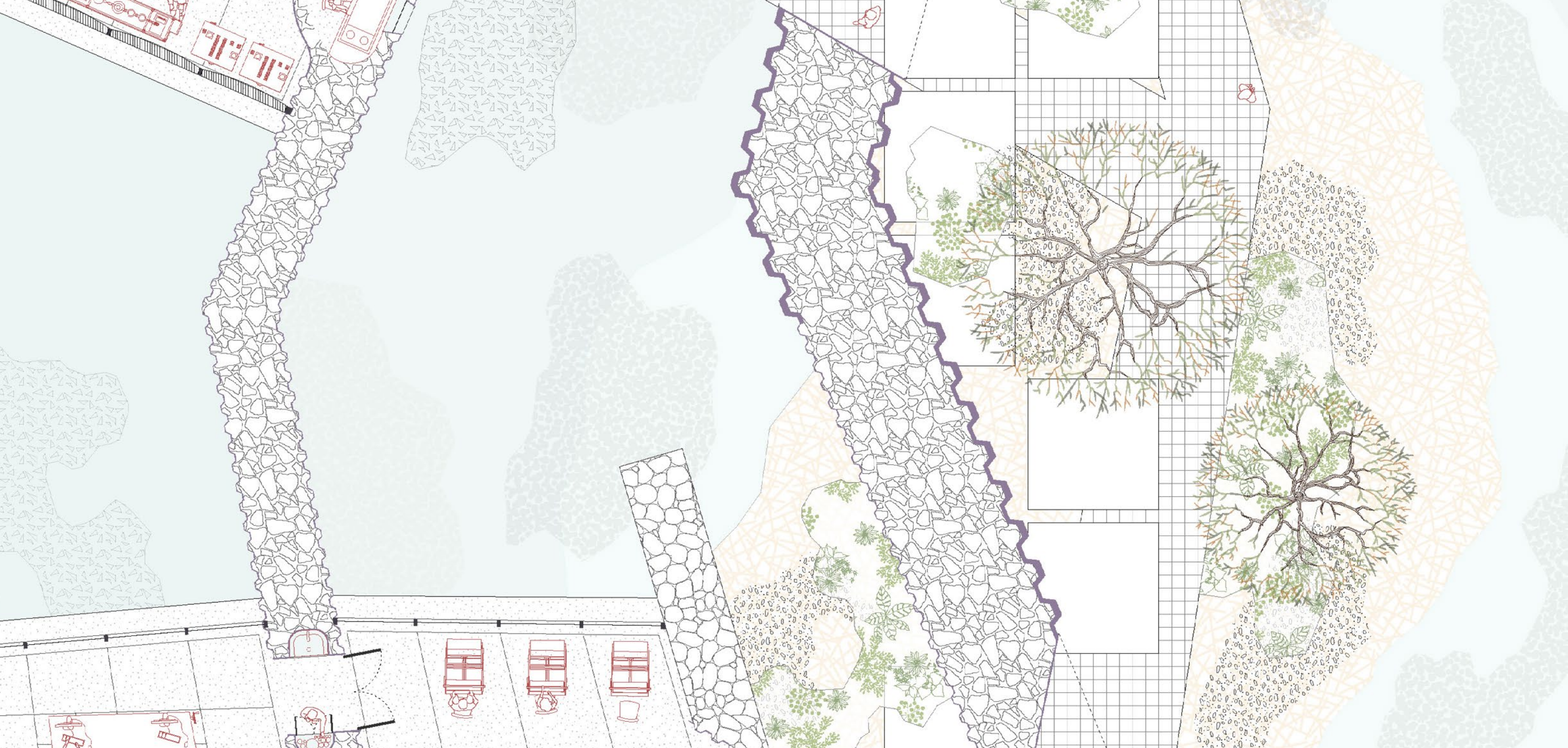
Plan Detail: Seeding Oyster Reefs

The pier is re-purposed and developed only insofar as it's required to be habitable and usable, and the process of construction itself encourages resettlement of the harbor's ecology, creating a productive landscape in both the economic and ecological senses.



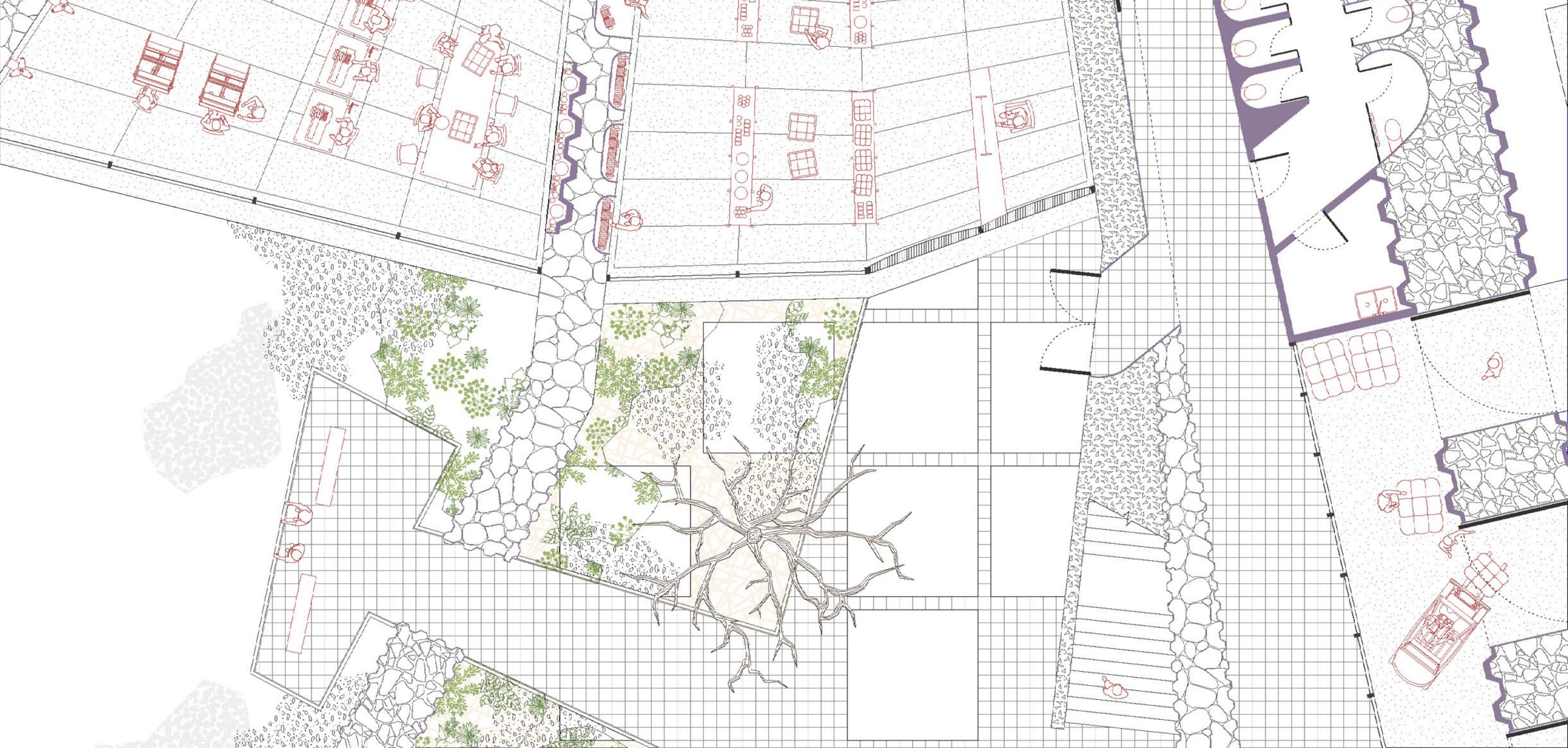
Plan Detail: Tidal Variation

The spaces created between the ways change throughout the day and the season. Bringing creative labor to the water's edge not only entices visitors to become involved, but inflects a unique sensibility upon the artists at work.



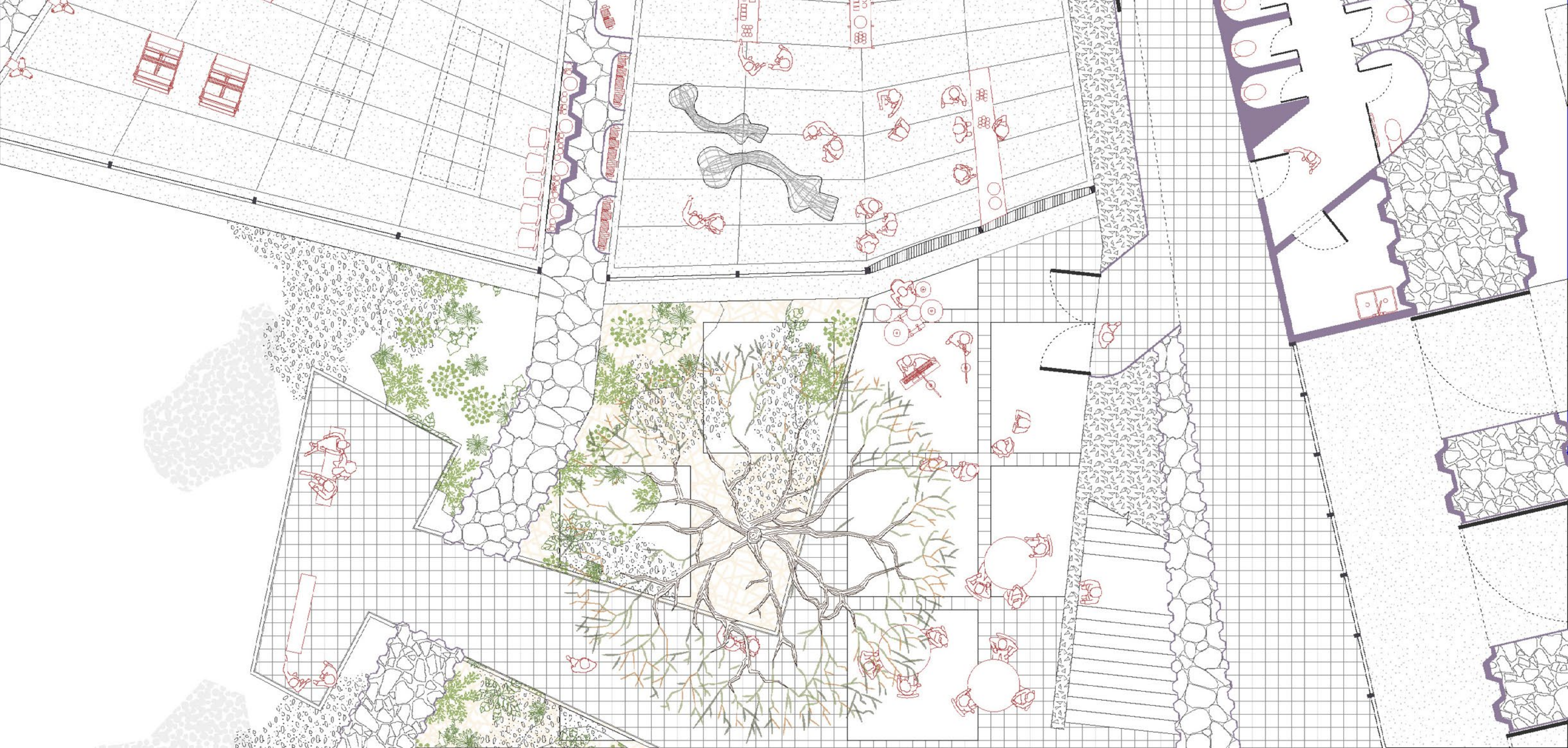
Plan Detail: Tidal Variation

As the tide rises, portions of the pier disappear below the water. Studios which were on dry land are suddenly suspended over the harbor.



Plan Detail: Programmatic Variation

Using a suspended ceiling grid, the infill spaces like classrooms, galleries, and storefront can be flexibly programmed to hold classes in dyeing and weaving.



Plan Detail: Programmatic Variation

Outdoor courtyards range in scale from those meant for quiet enjoyment to those capable of hosting the surrounding community for celebrations, gallery openings, and lectures.



Perspective: Courtyard at the end of the pier



Perspective: Factory visitor's walkway

PROOF OF LIFE

Advanced Studio VI

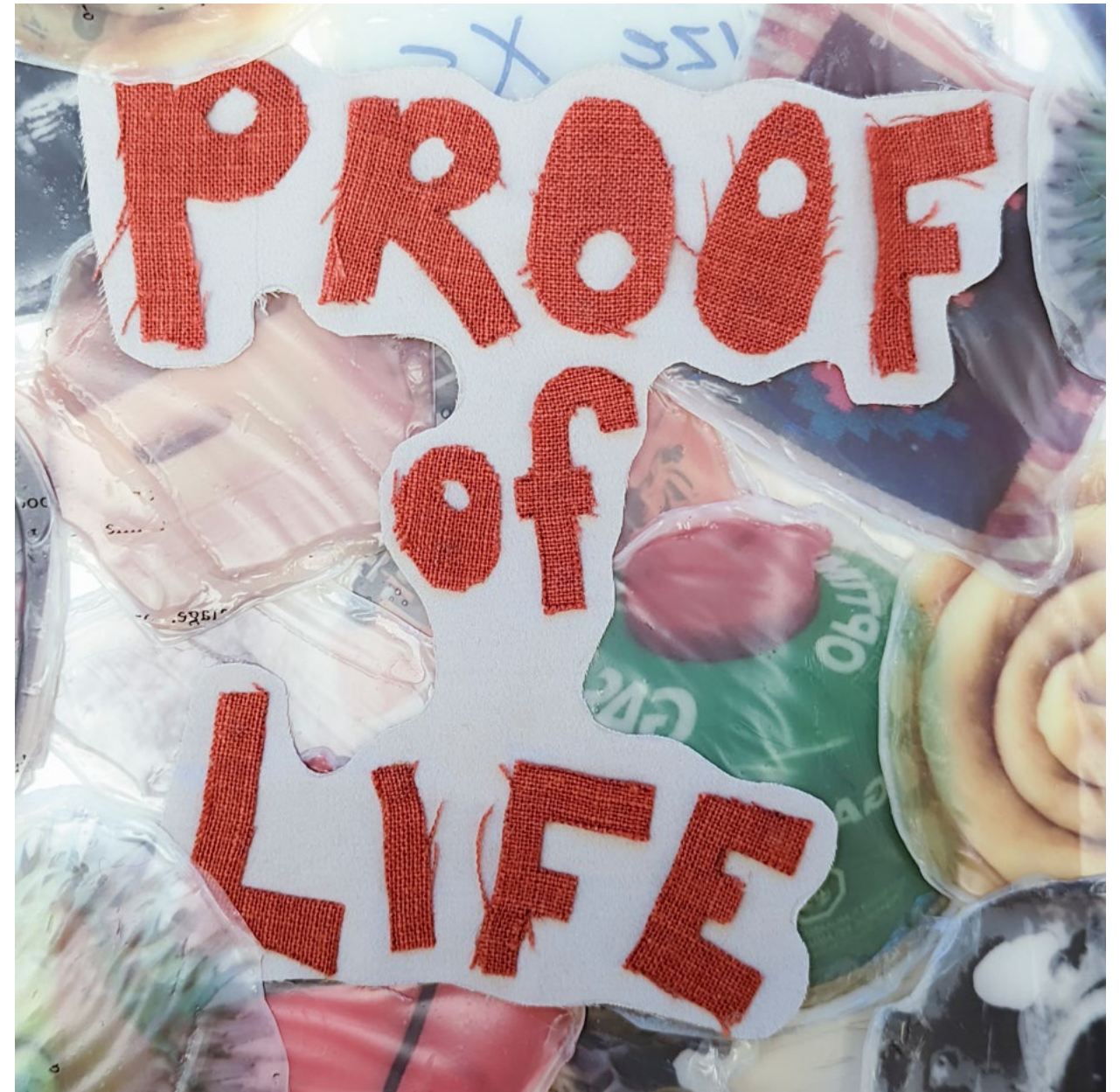
Critic: Ada Tolla and Giuseppe Lignano

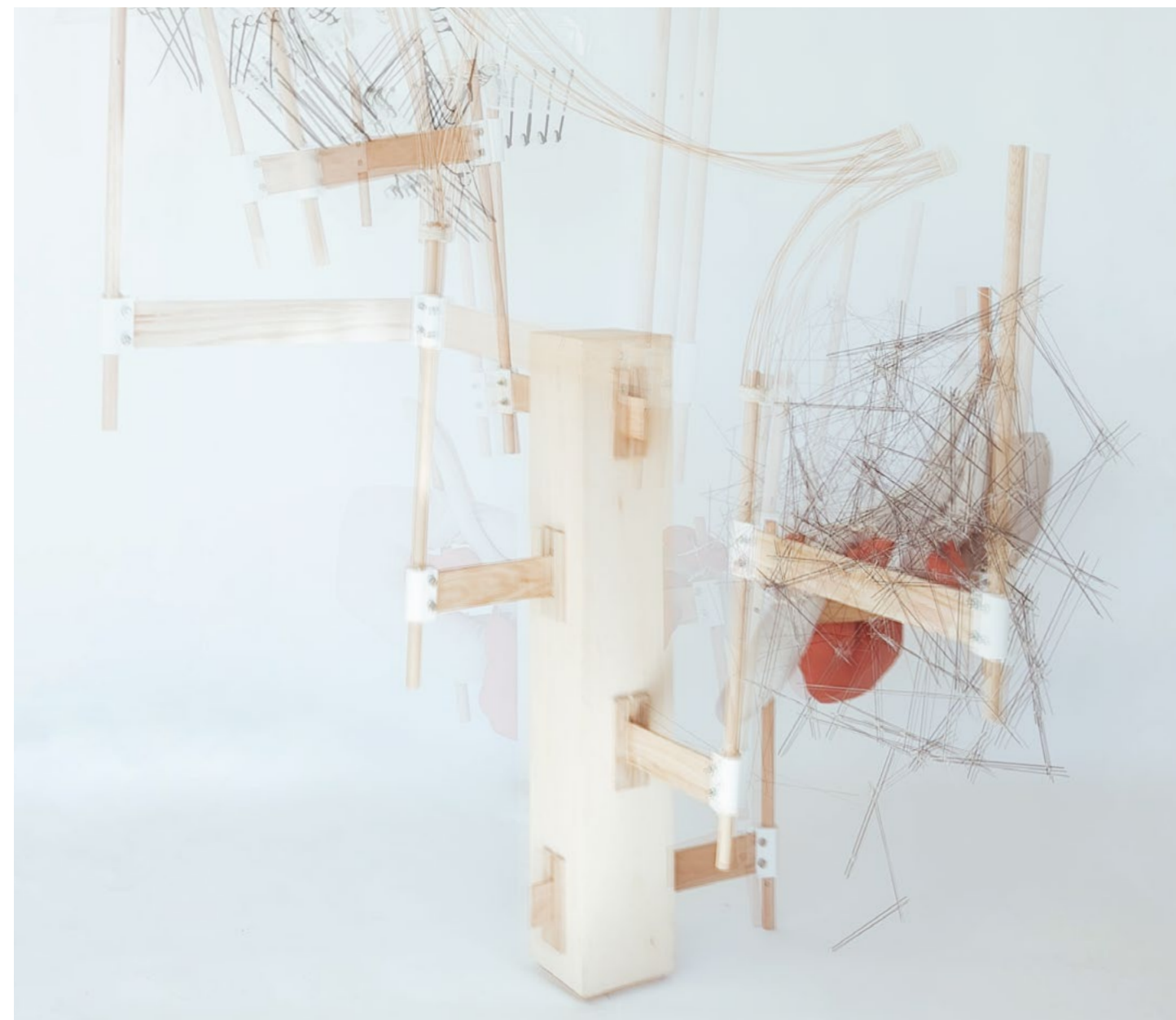
Spring 2022

A book of studies, discoveries, and reflections on the self through the process of material explorations.

This is a book grounded in gratitude to those who built me. Within it is a collection of objects born from an indulgence in sentimentality, hung from the branches of my own “fairy tree.” In moments of crisis I am comforted with nostalgia, and I use it as a pure and deep well of strength to fortify me in times of fear and uncertainty.

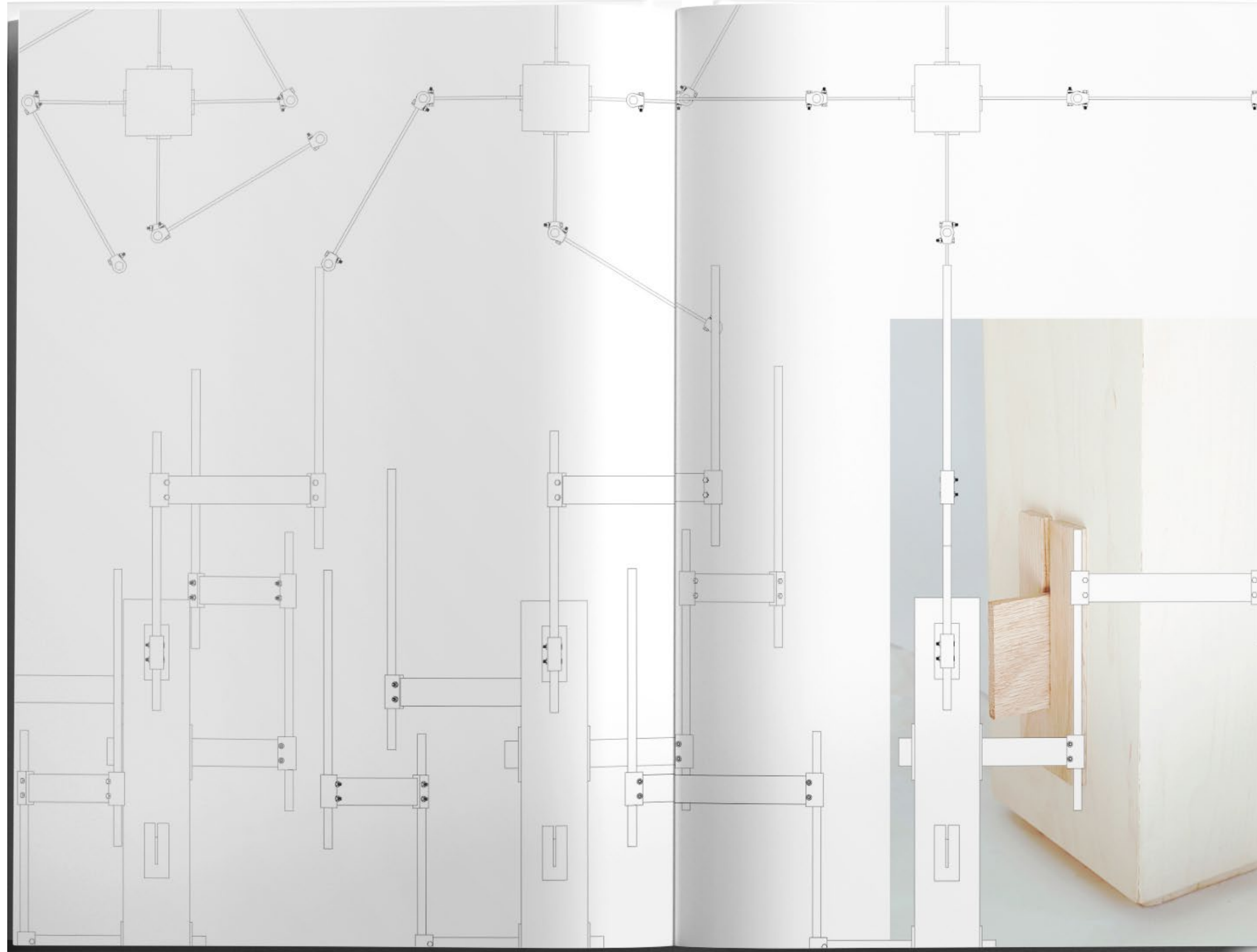
Inside my book is also a sanctuary: a space dedicated in veneration to my friends and family, my ancestors, and the objects and places I hold dear. It is a reflection of the labor and expression of our bodies, and the material culture through which we communicate, entwine the past and the future - both individually and collectively. I am rooted in my past; it gives me confidence to face the future.





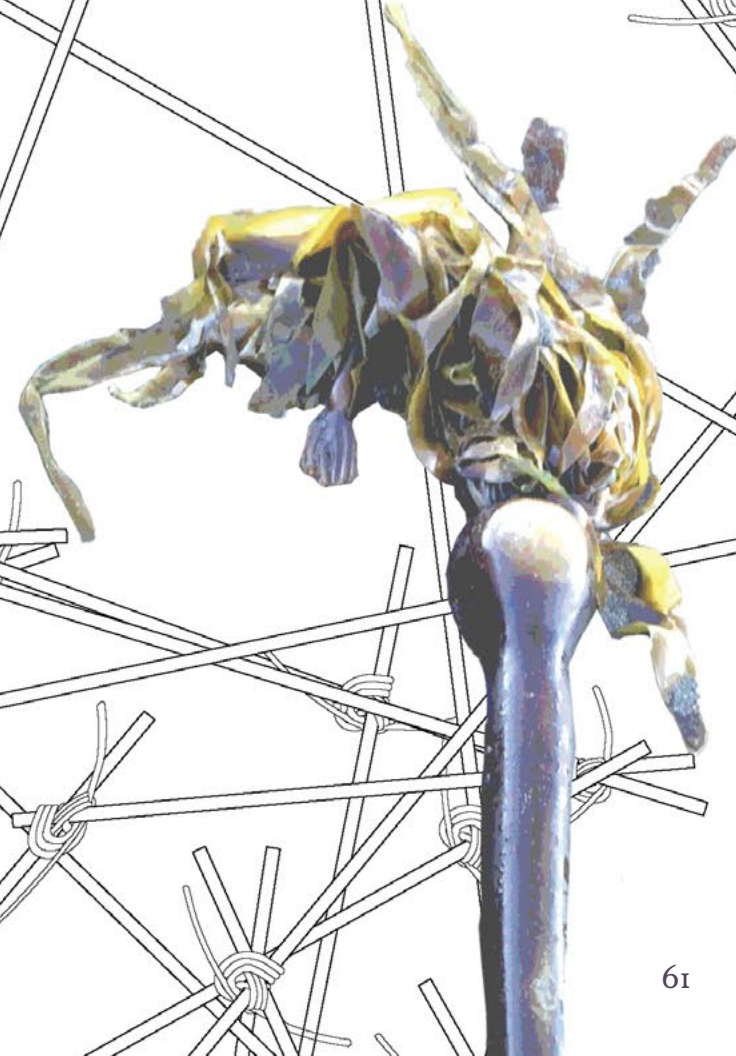
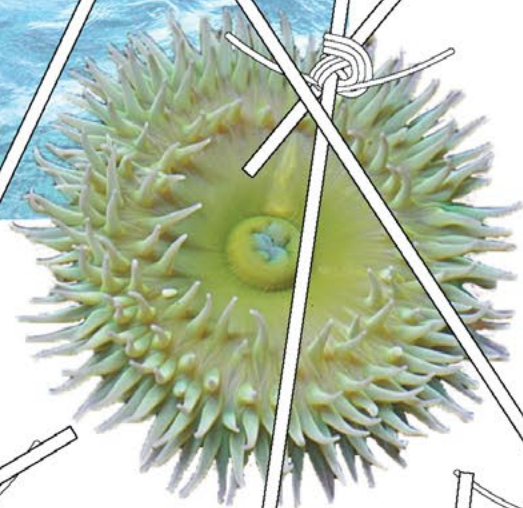
We called them Fairy Trees when we were children. Their trunks are knotted together. Twisting bodies seemingly without beginning or end. They created a room within themselves - a space both safe and mysterious. Privately, these became a playground for one. Sanctuary. A place to covetously feast on gathered loquats - peel away the fuzzy skin with fingers sticky from the fragrant juice. Communally, we gathered around this tree in a ritual of collective gratitude. Each year, a public but anonymous chorus of hopes, fears, and thanks would be carefully hung on pink and blue slips of paper from the tree's cascading fronds.

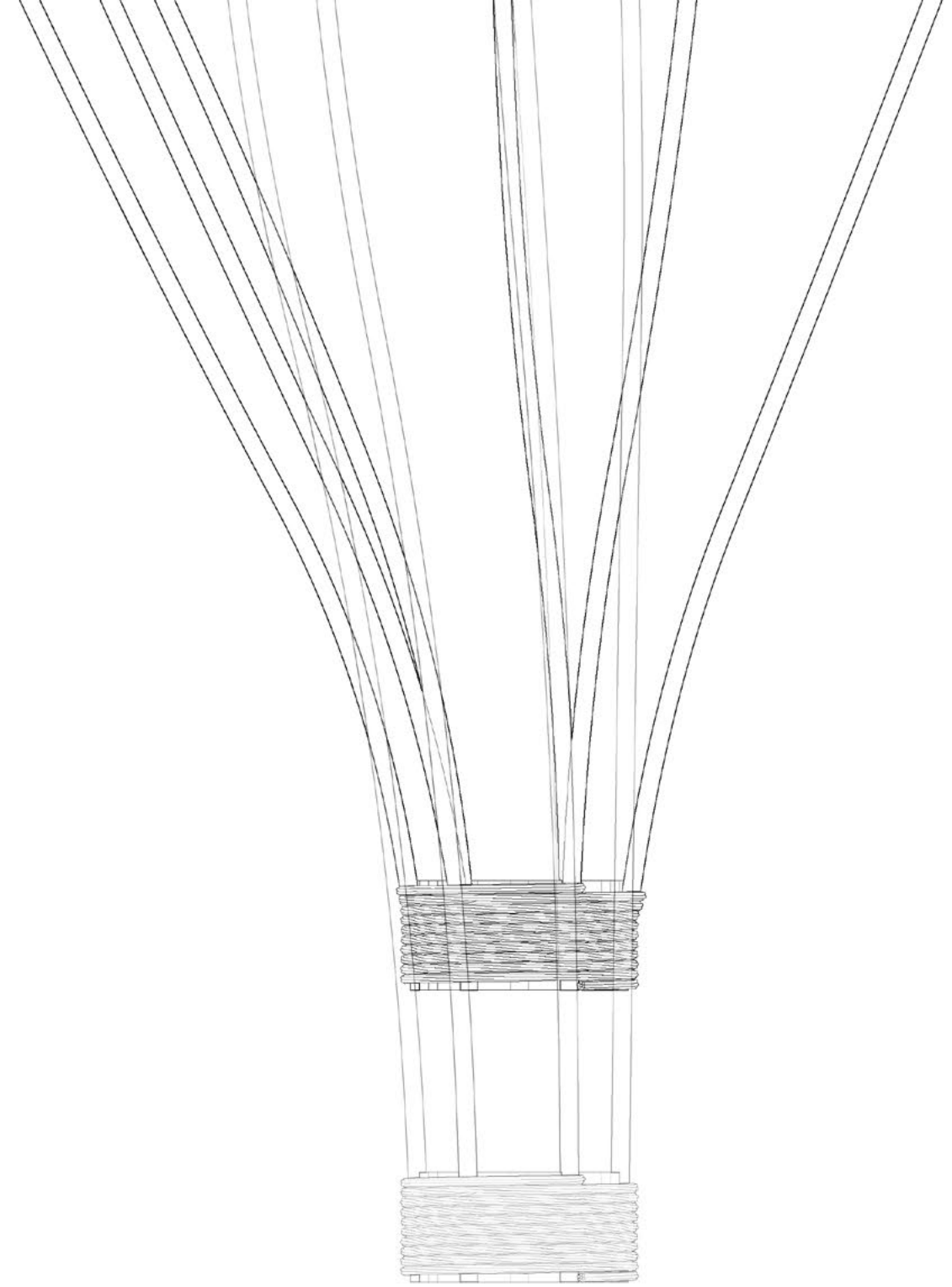
The fairy tree became a totem adorned with my material experiments. Its joinery and bouncing, swinging arms complement the indeterminate complex rumination on connection both physical (materially) and interpersonally (metaphorically) that my experiments investigated.



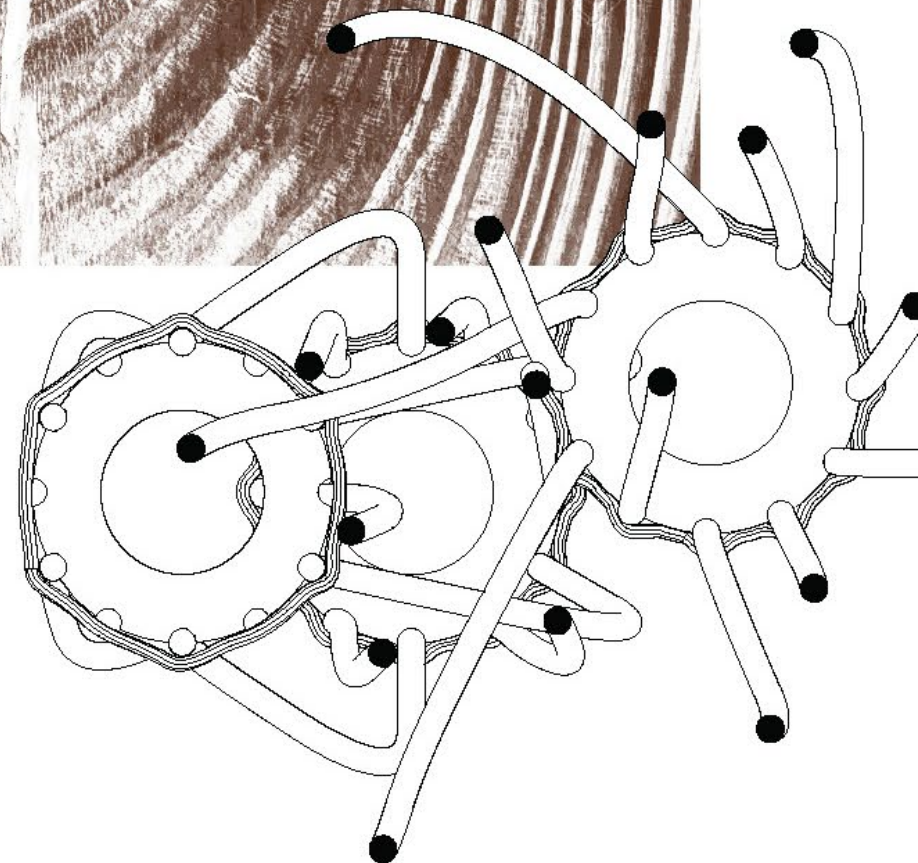
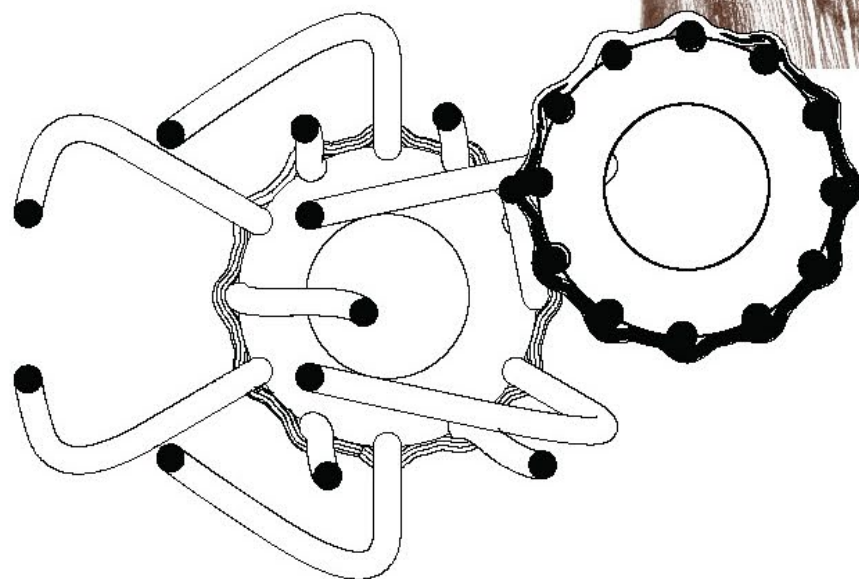
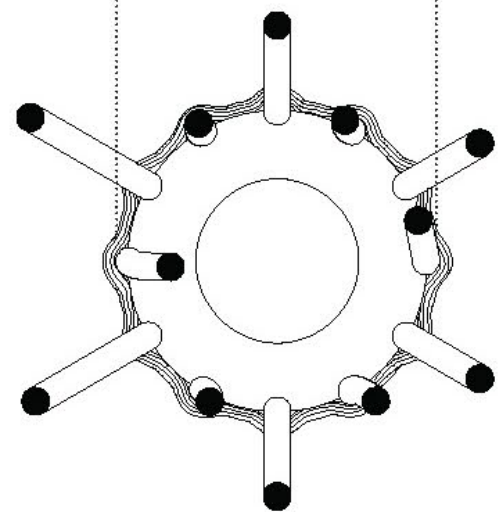
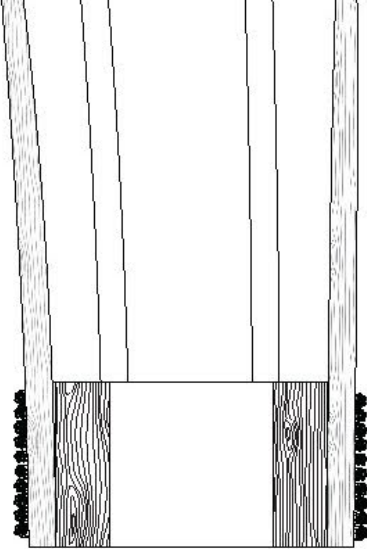


Each week of the semester resulted in a new material study in plastic, wood, metal, or fabric. With a quick turnaround, these objects were created on impulse, and the result reflects my interests, fascinations, and hangups as a designer.



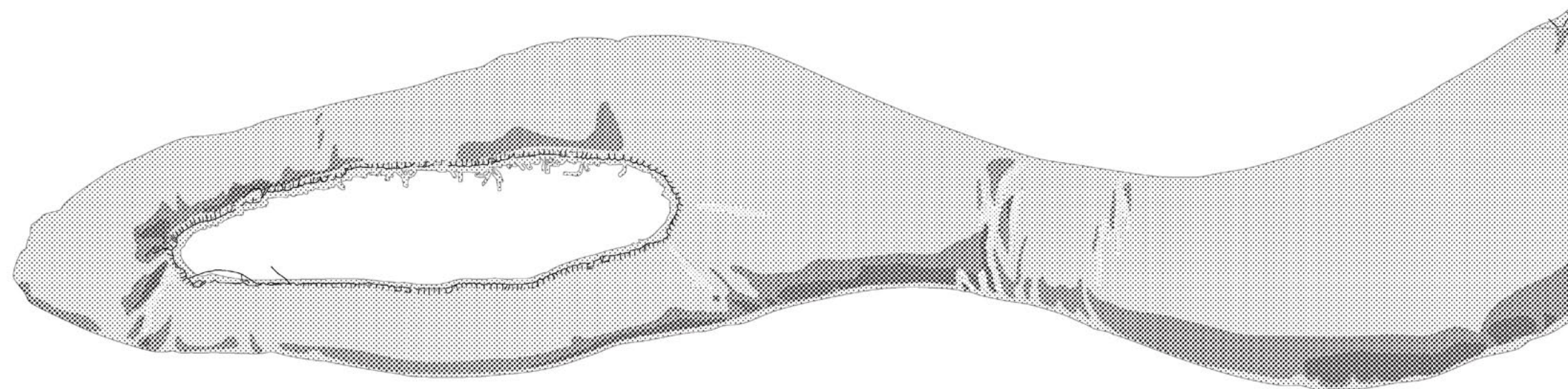


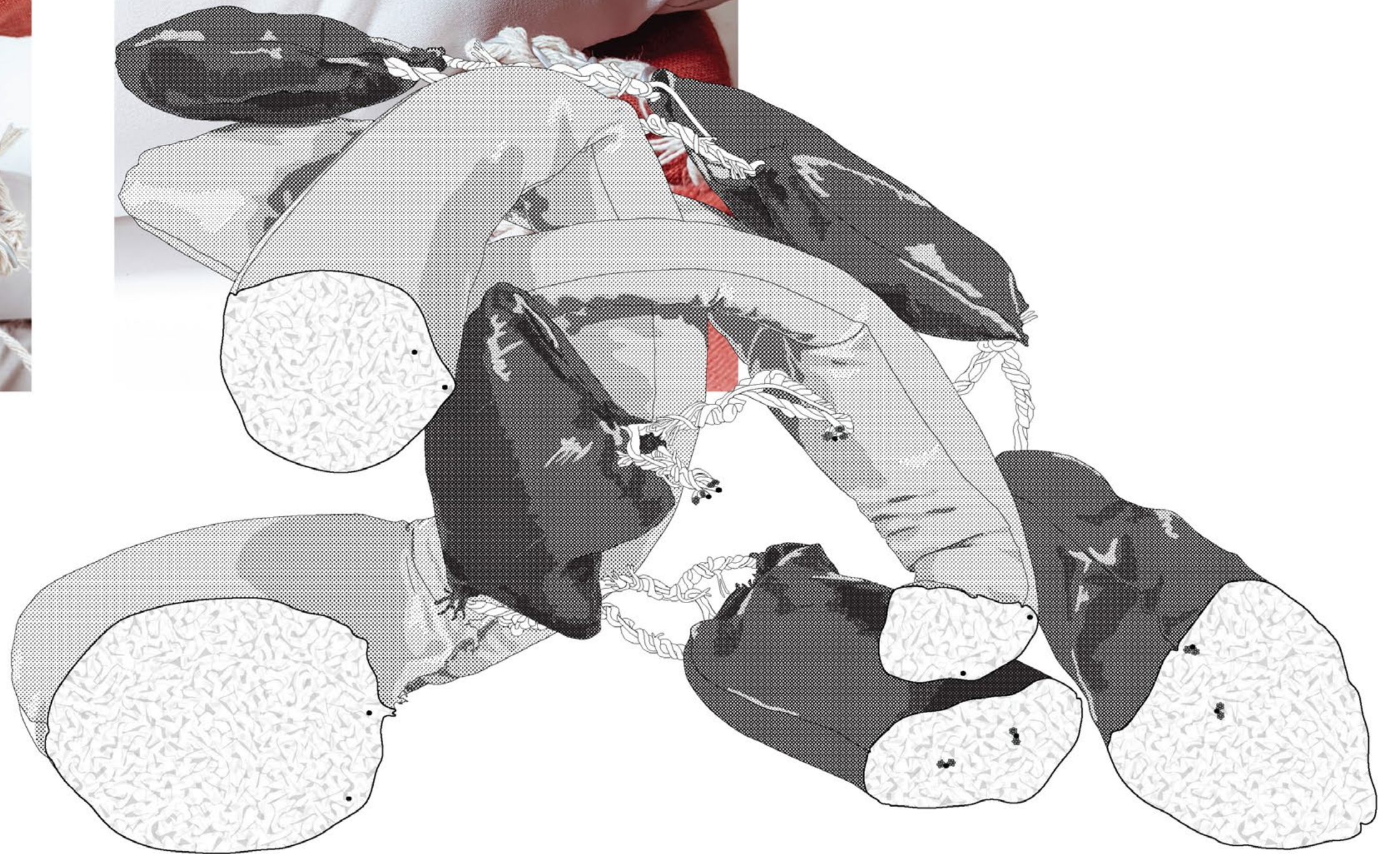
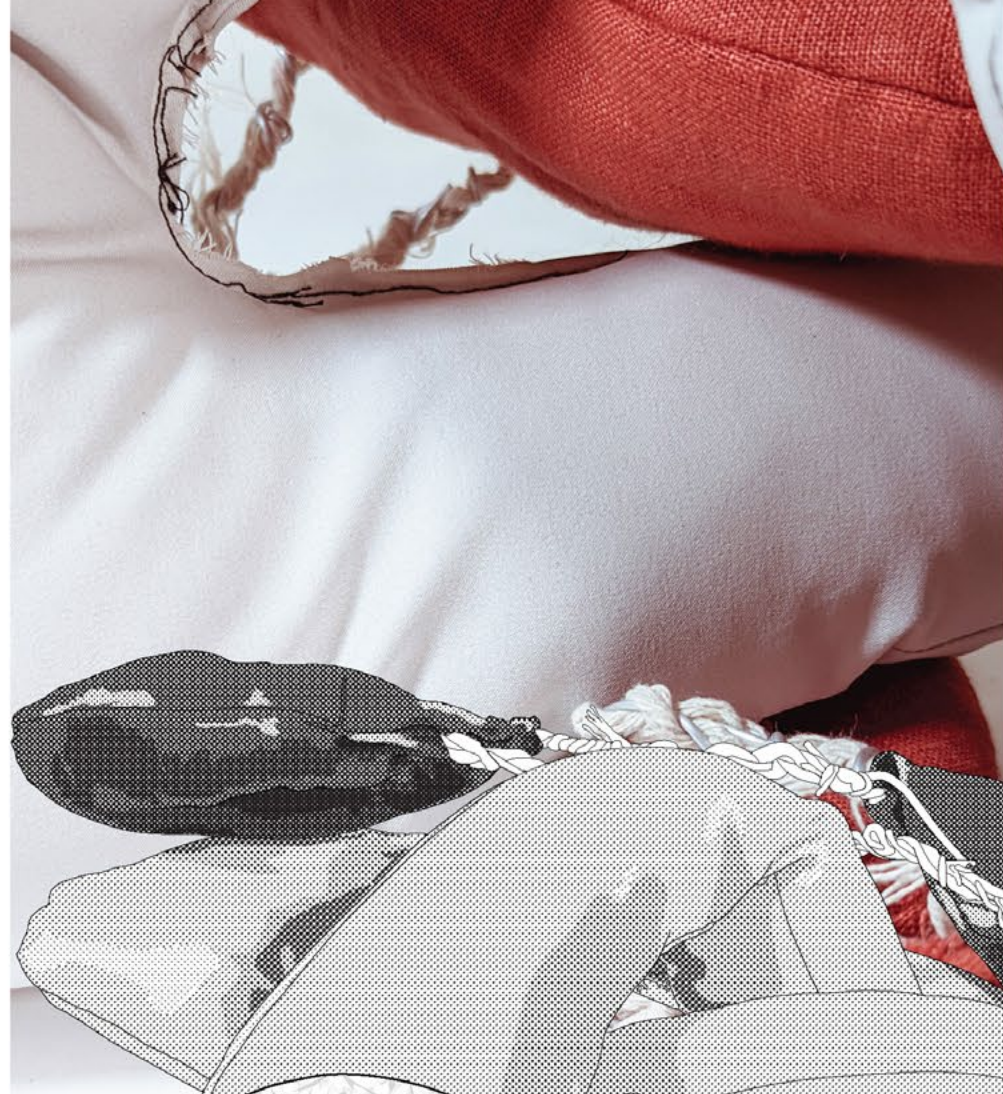
I quickly honed in on two things. First, the impulse stemmed from the meaning I wanted to create, often through employing metaphor.





Second, I discovered through the process of making and drawing my fascination with connection, the application of force, and my predilection to create from simple parts complex indeterminate systems that behave like organisms.



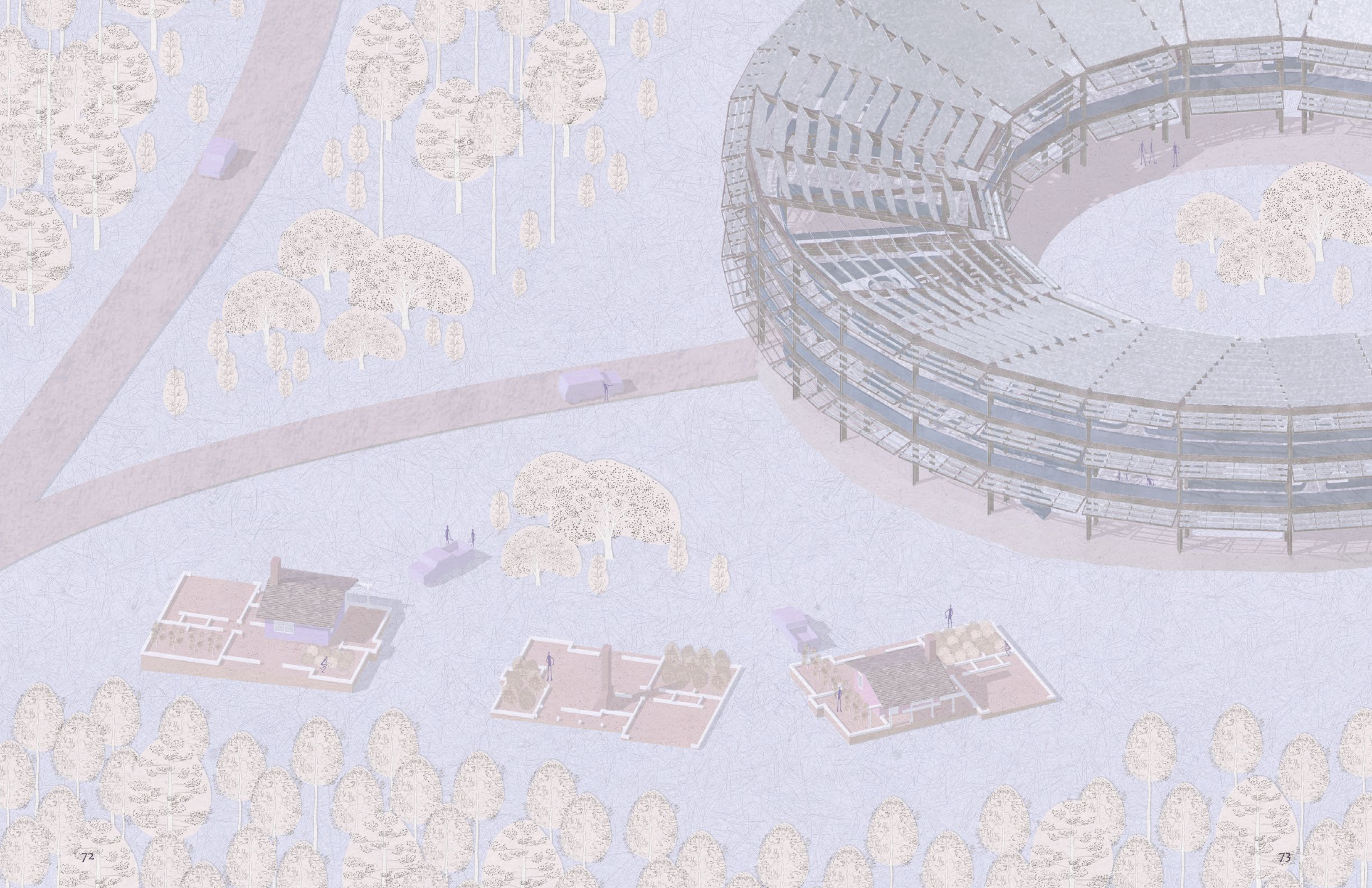


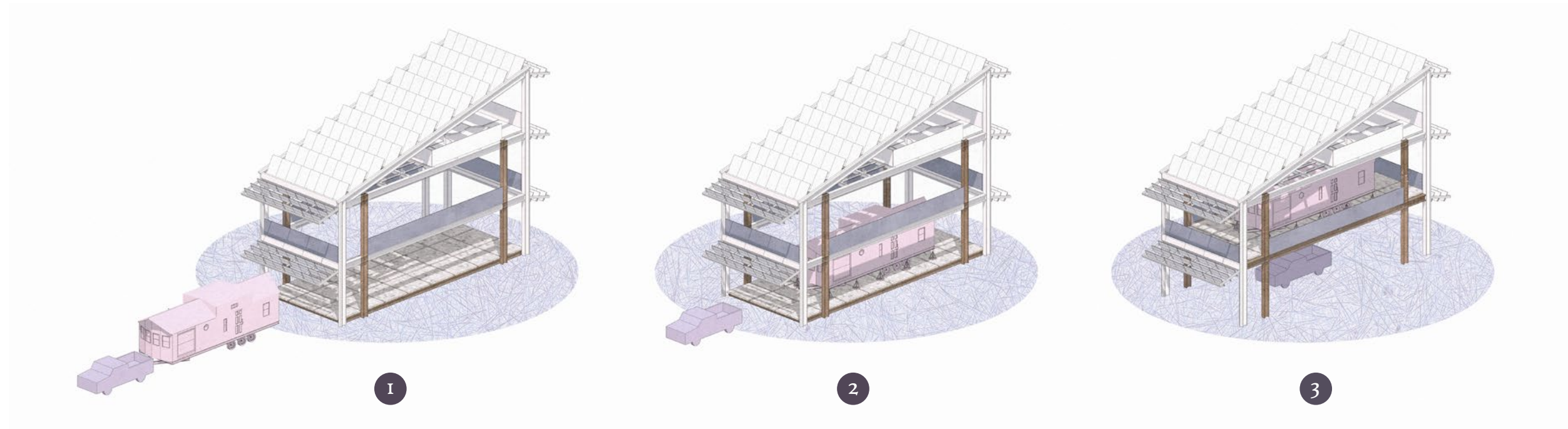
LEISURE FORTRESSES

Speculative Cities
Critic: David Moon
Spring 2022

Leisure Fortresses provide an alternative blueprint for how to rebuild in the aftermath of fire. The proposal contends that towns rebuilt after wildfires must be not only resilient, convenient, and enjoyable, but positively contribute to the rewilding of stressed and unbalanced ecosystems damaged by environmental degradation and extraction-driven forestry practices. Taking the form of a network of depots to accommodate permanent or transient residents, the Leisure Fortress provides an alternative to the destructive and wasteful settlement pattern typical to American exurbs. Its small footprint will allow the landscape to regenerate, and free up space from enclosure into personal property to enjoyment for all.



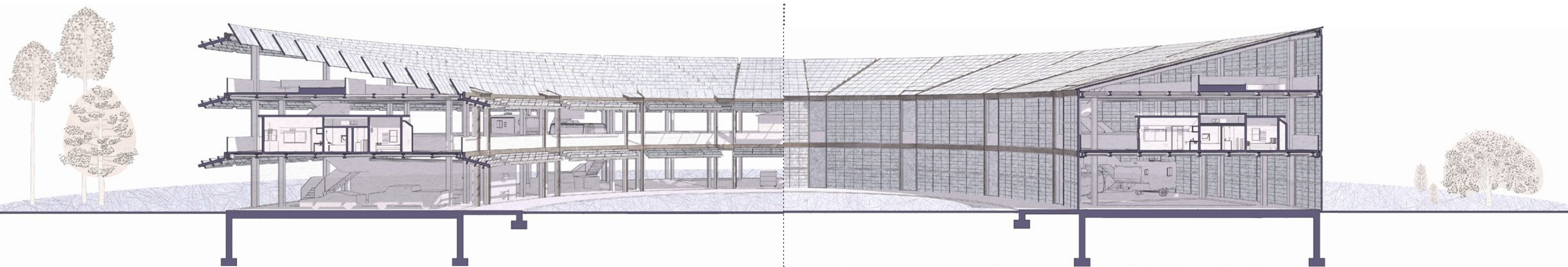




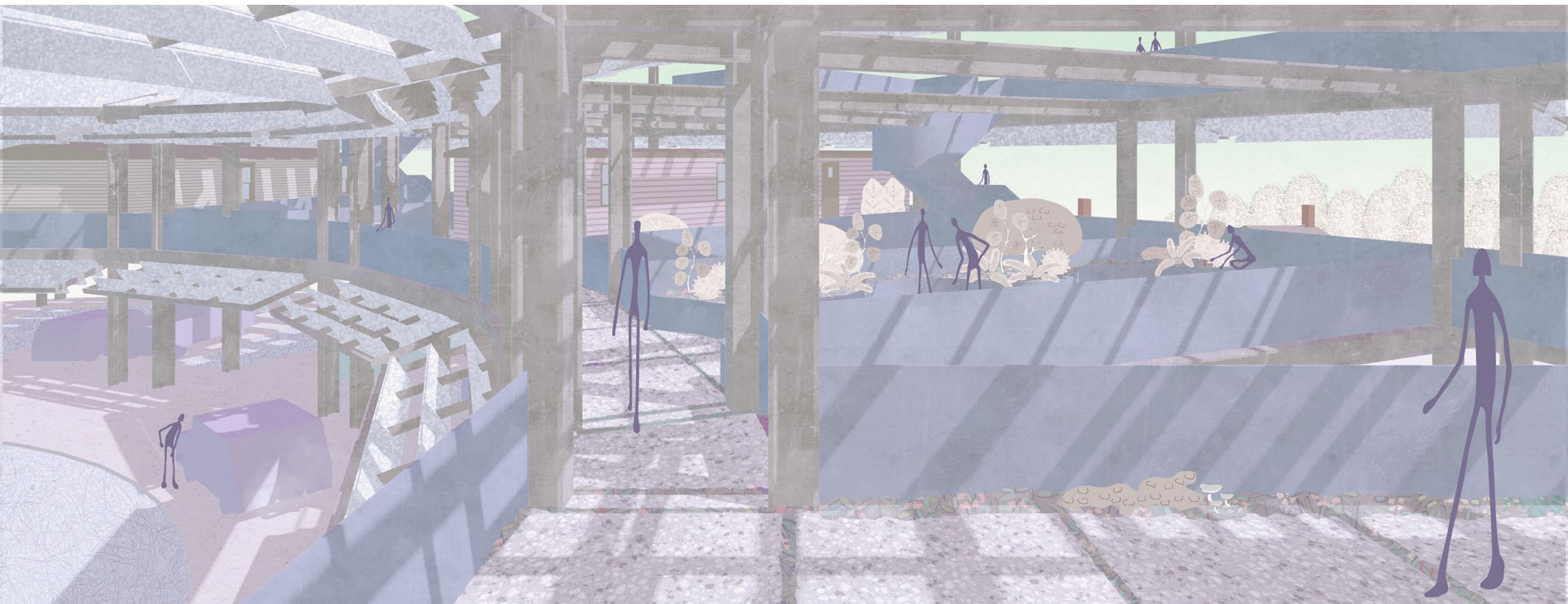
A resident arrives with a mobile unit in tow.

The unit loads onto the lift platform.

The ground level becomes a parking area.



In the case of a nearby fire, all of the fortresses openings consist of operable shutters, which can be closed to seal out flying embers. Residents of the fortress, as well as members of the surrounding community, can shelter safely without worrying about when to leave and what to leave behind.



The fortress has two levels which alternate between gardens and residences. One neighbor's front yard faces the other's backyard, blending a sense of autonomy while providing social opportunities.

HOLLOW EARTH RESEARCH INSTITUTE

Techniques of the Ultrareal

Critics: Philip Crupi and Joseph Brennan

Spring 2021

A peculiar shimmer in the distance alerts the attentive traveler to something that does not seem to belong in lonely landscape of yucca and sagebrush. Embedded in a remote and nameless canyon lies a mysterious compound. It seems to be a laboratory of some kind. It is well kept; clean, if weatherbeaten. Its last occupants seem to have left in a hurry. That makes you think you should too.





This project is experiment in rendering the fictional and fanciful as a means of learning the high techniques of realistic rendering. It was completed in V-Ray and 3DS Max.



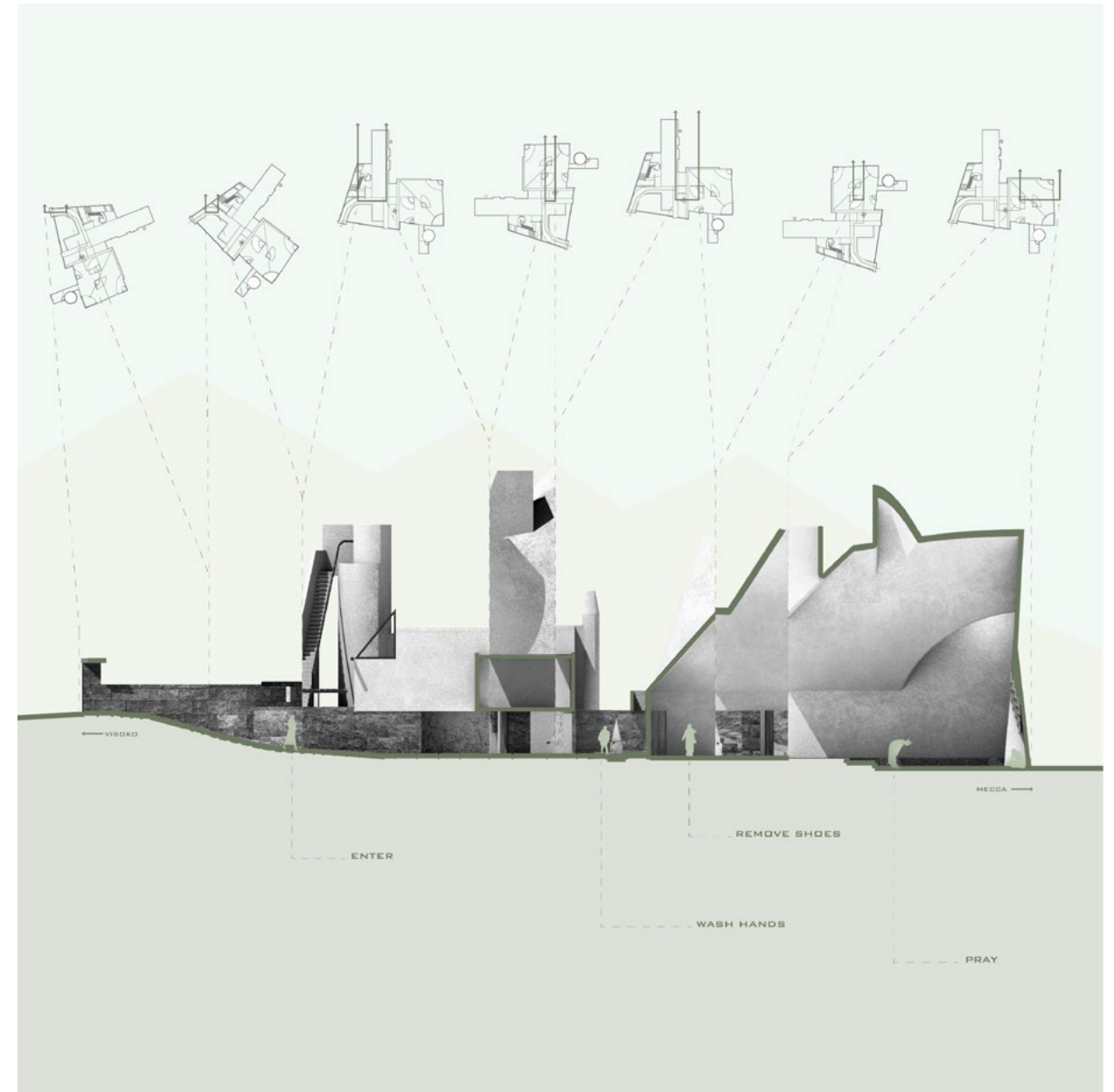
SHEREFUDIN'S WHITE MOSQUE

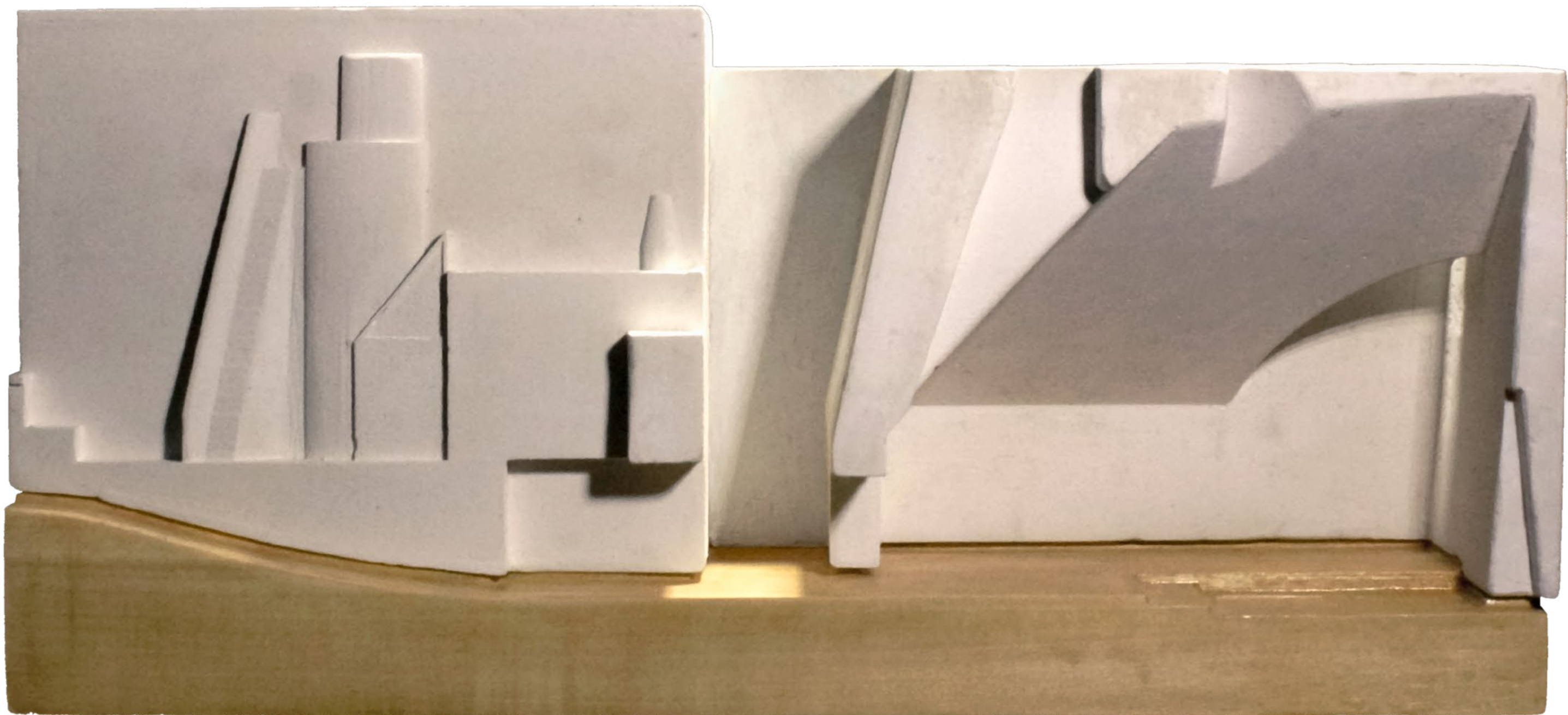
Architectural Drawing and Representation

Critic: Bika Sibila Rebek

Fall 2019

A material and organizational study of Sherefudin's White Mosque in Visoko, Bosnia, designed by Zlatko Ugljen in 1980. The building is set in a small town, with its white sculptural roof and distinctive minarets punctuating the clusters of pitched tile roofs. The mosque is notable for its geometric composition and processional sequence, with worshipers entering down into a compressed space to wash their hands and remove their shoes before entering into the prayer room which is at once cave-like and bright.



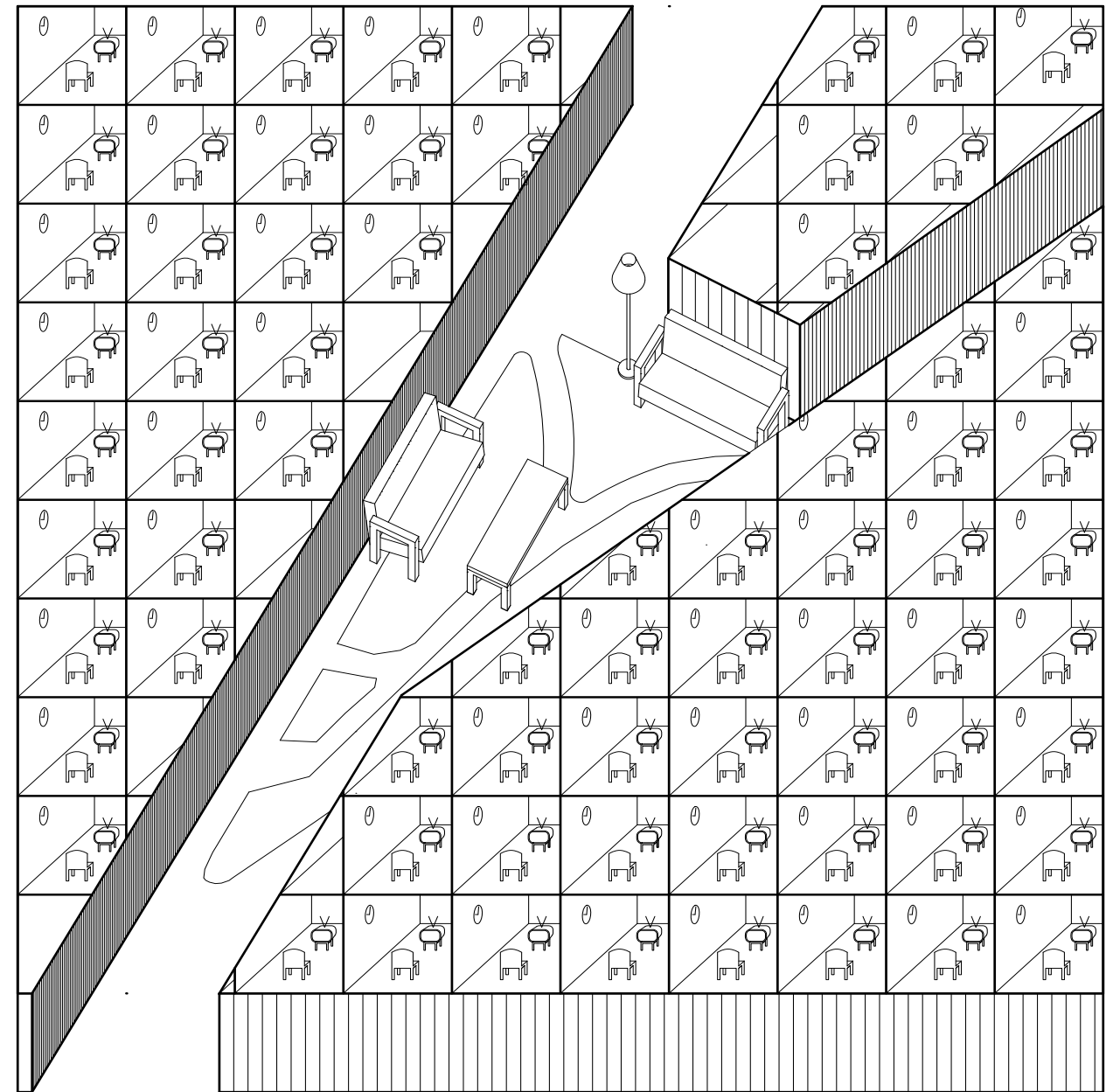


The model reconfigures the experience of entering and occupying the space. It straightens the processional sequence into a linear path, with the outdoors portion framed by bas-relief of the prismatic arrangement of volumes in the backdrop. The prayer room becomes an interior space carved out of solid volume with skylights striving upwards to penetrate its exterior.

NO-BORDER WALL

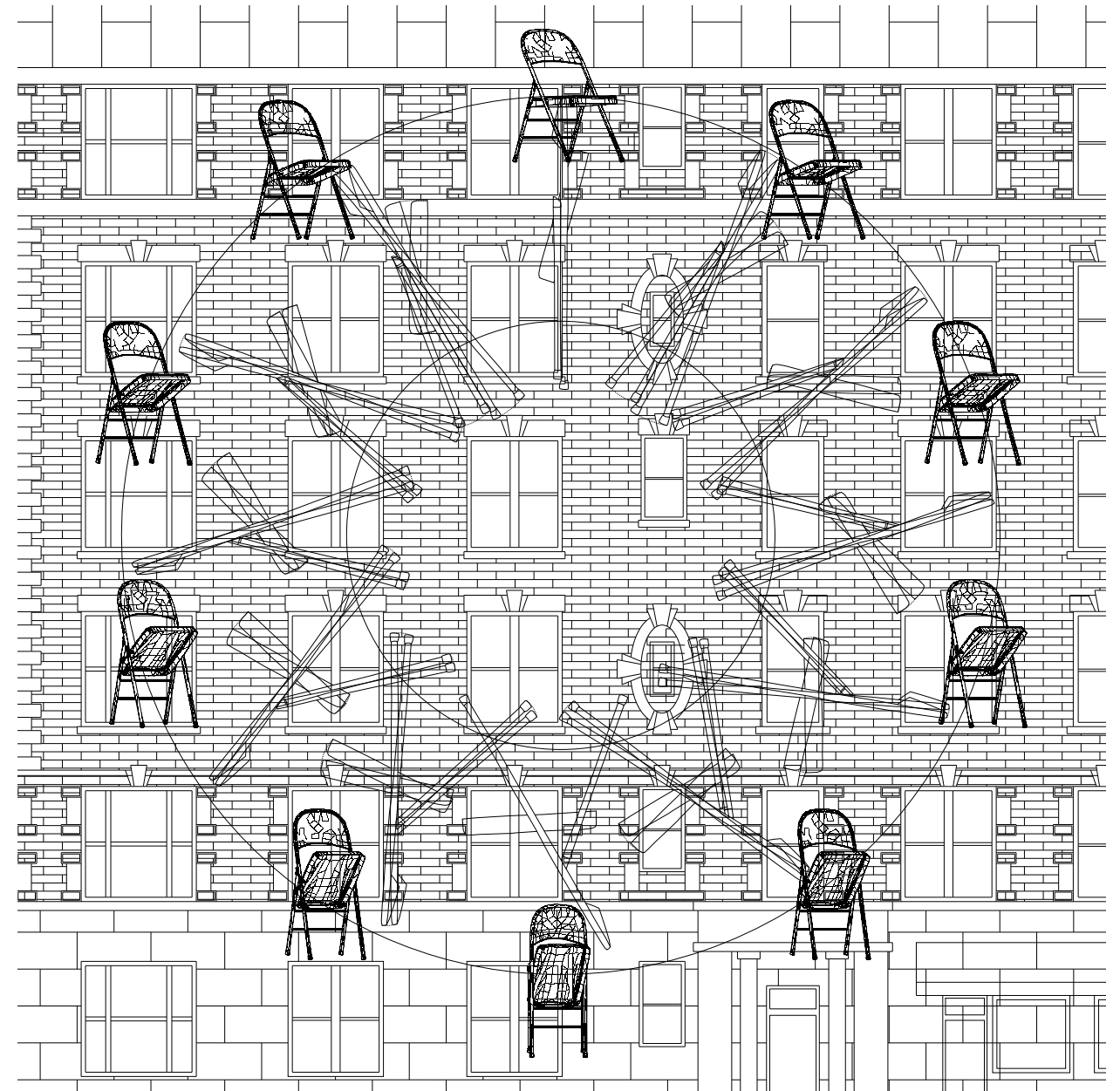
Core Studio I
Critic: Alessandro Orsini
Fall 2019

A retaining wall on Riverside Drive sprouts new plazas, galleries, artist's studios, making spaces, and lending libraries for tools and books. The center inherits the twin voids of defunct sewer access shafts used to construct Manhattan's sewer main in the 1970s. This community arts hub knits Hamilton Heights to the waterfront, which has for a century been rent from above by a cyclopean stone wall. It provides pleasant passage, a moment of respite and discovery between the heights above, and the Manhattanville waterfront below.



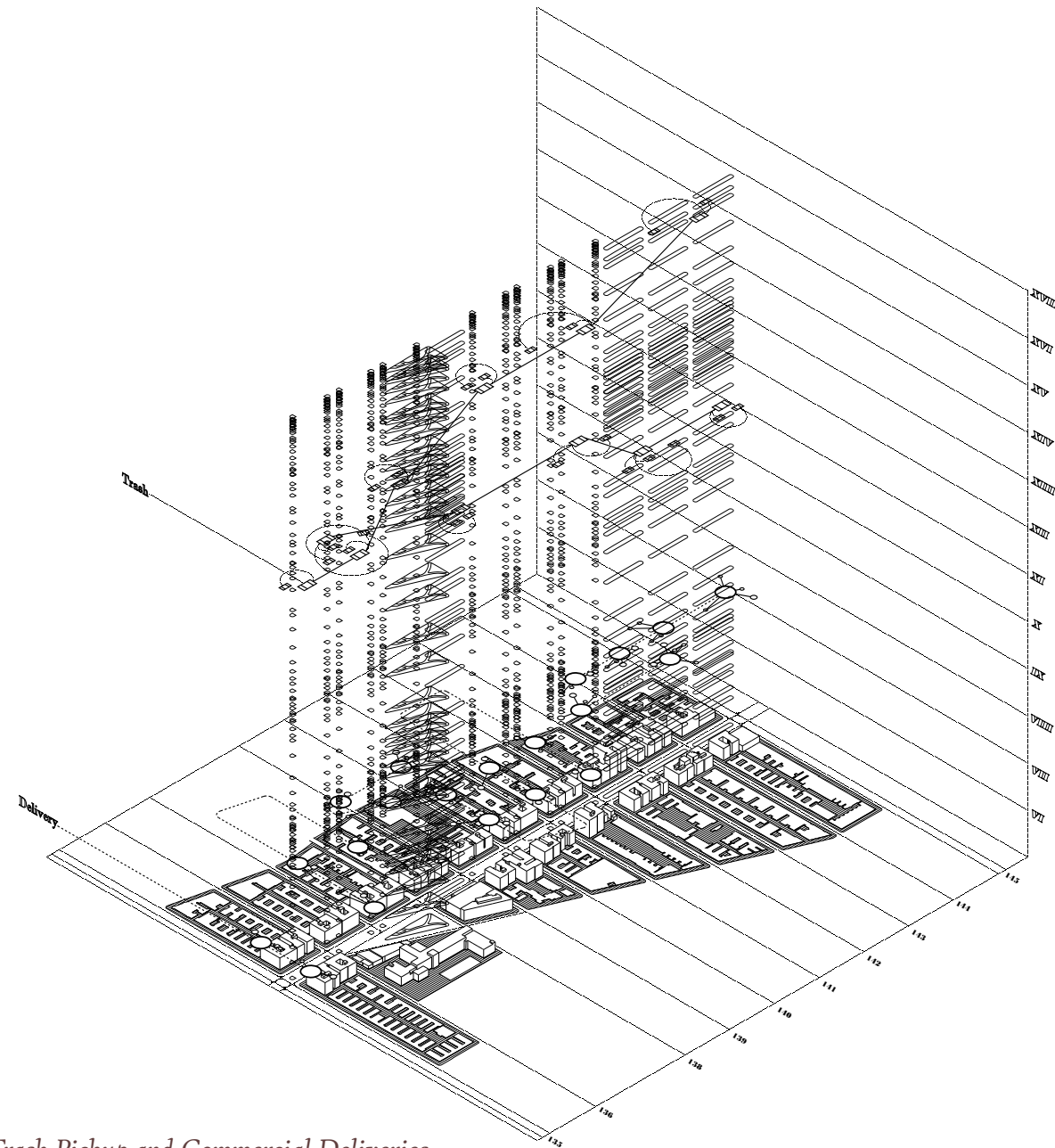


Observations on Broadway



Chair clock

Initial research was focused on the lively, informal street life in Hamilton heights. Folding Chairs chained to signposts are reminders of its temporal patterns.

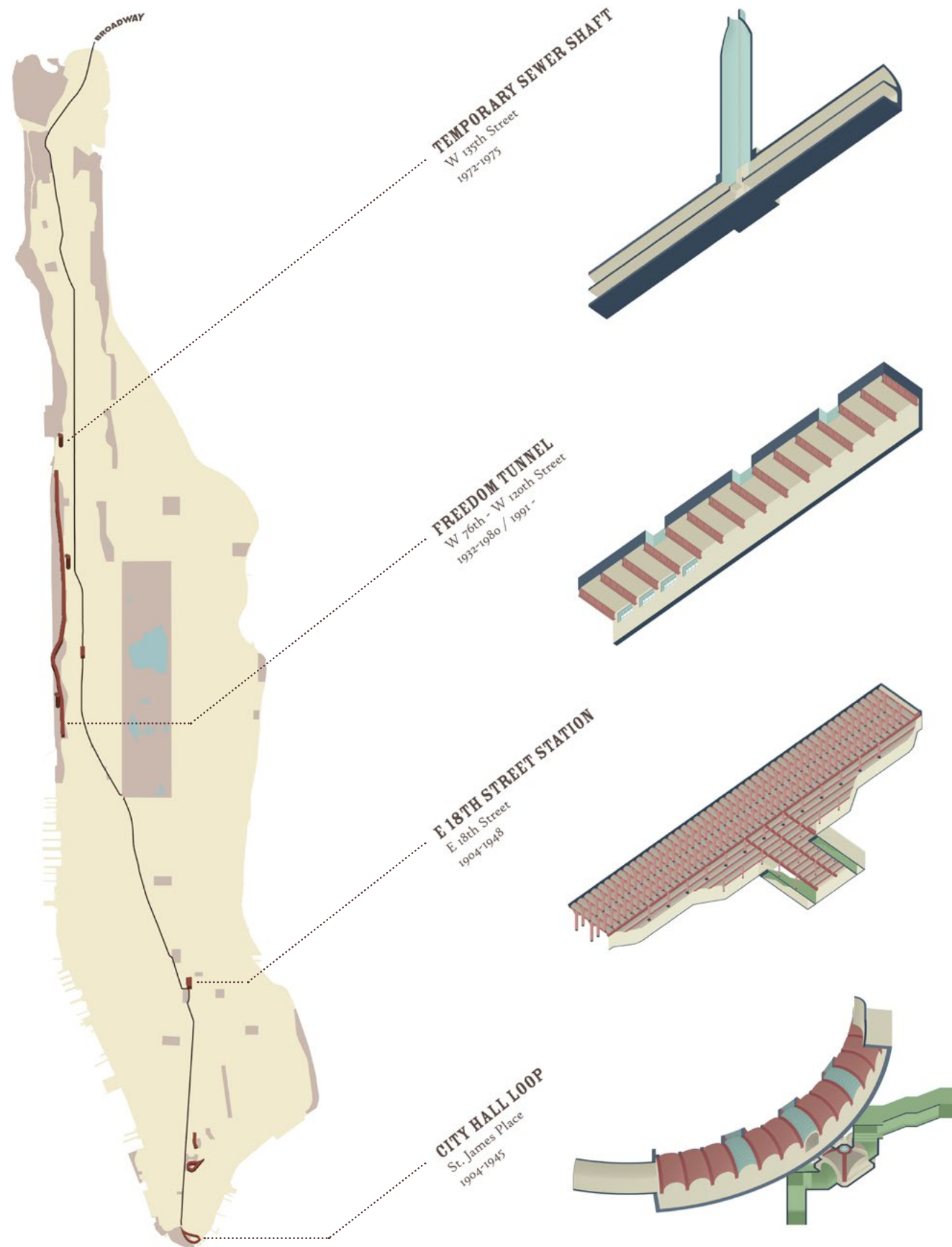


Trash Pickup and Commercial Deliveries



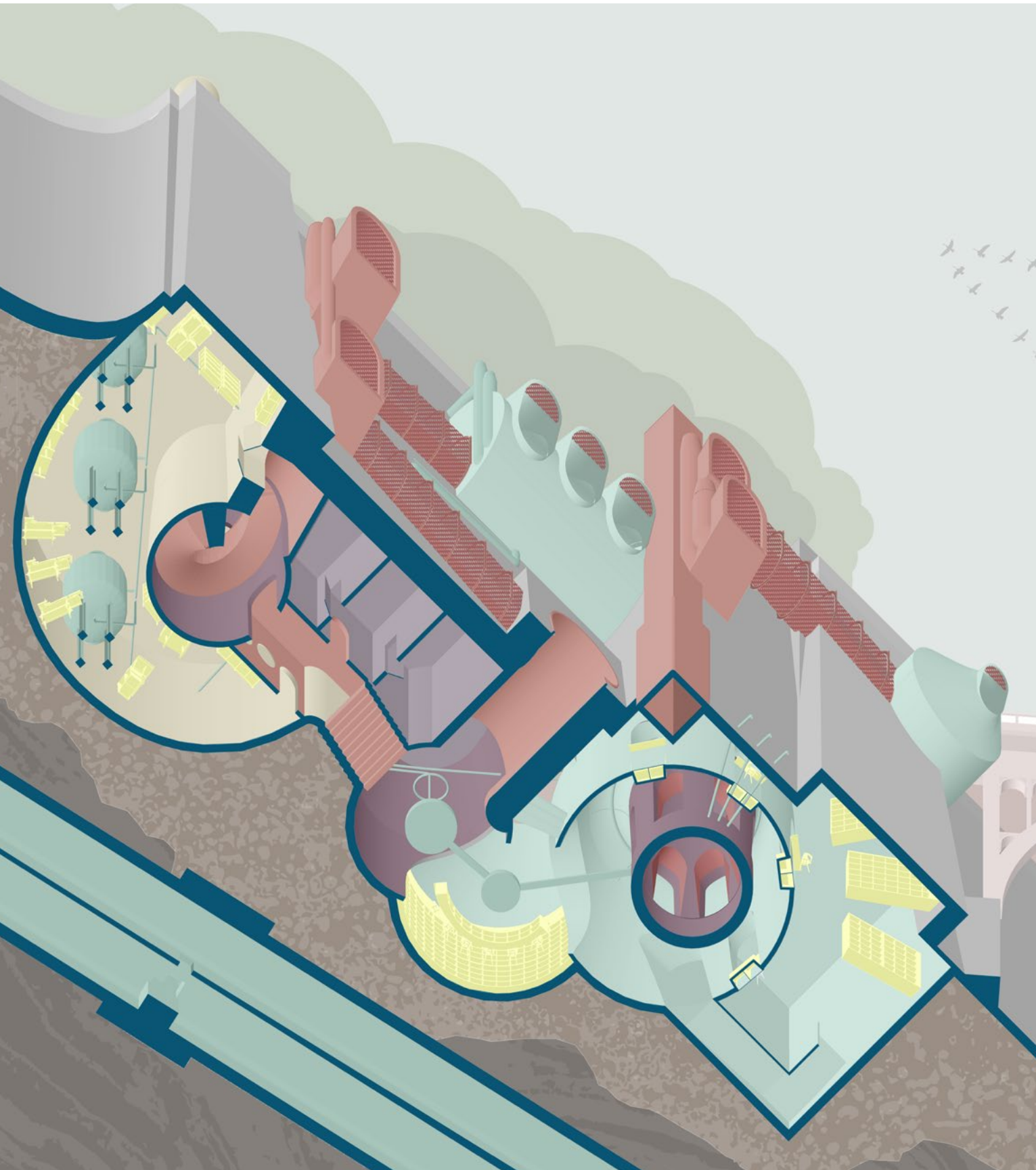
Stoop Ecology; Interior Doldrums

The streets surrounded Montefiore Plaza become a living room for residents, who would prefer to socialize in their only common space rather than be shut up in small apartments.



Typological studies of defunct underground infrastructure

A series of typological studies uncovered several interstitial and leftover underground infrastructural spaces along the length of Broadway. The temporary sewer shaft at the end of 135th street behind the hundred-year old retaining wall held promise as a site of intervention to stitch together Hamilton Heights with the Manhattanville waterfront.



Worm's Eye Plan showing the library and workshop



Overall Axonometric showing plazas and procession

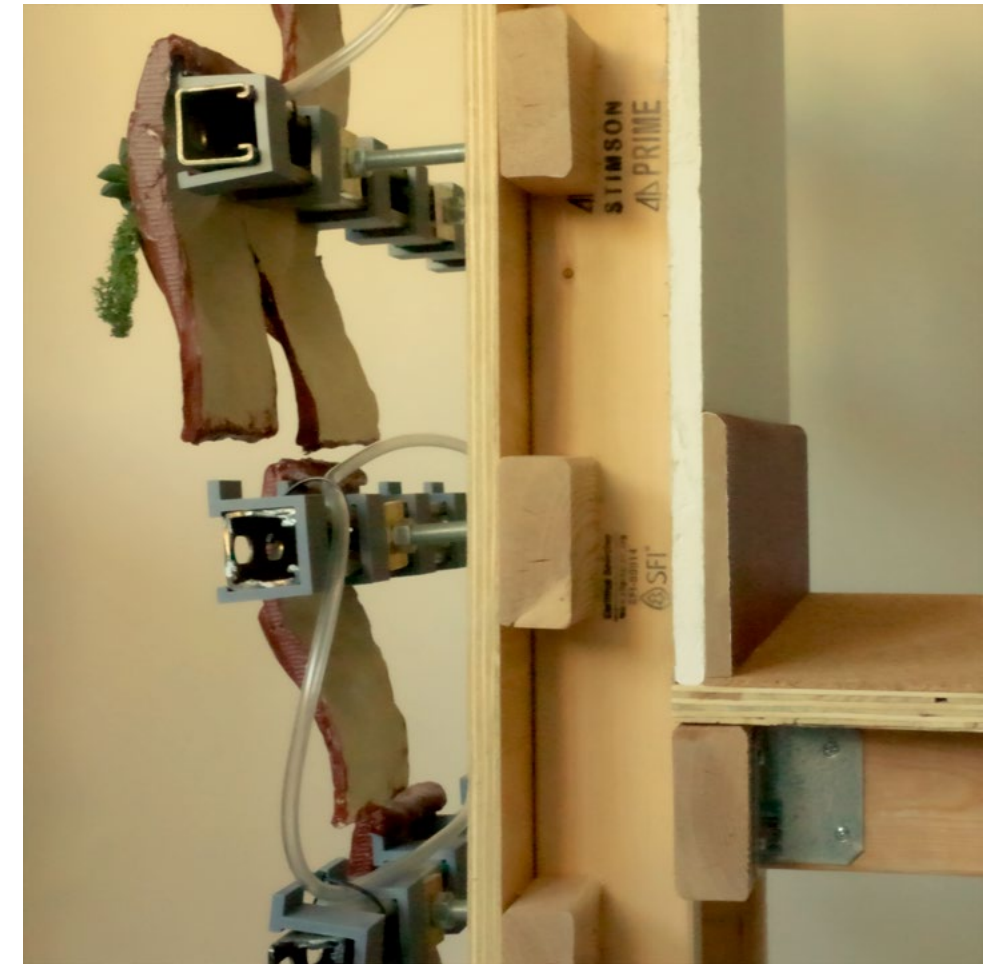
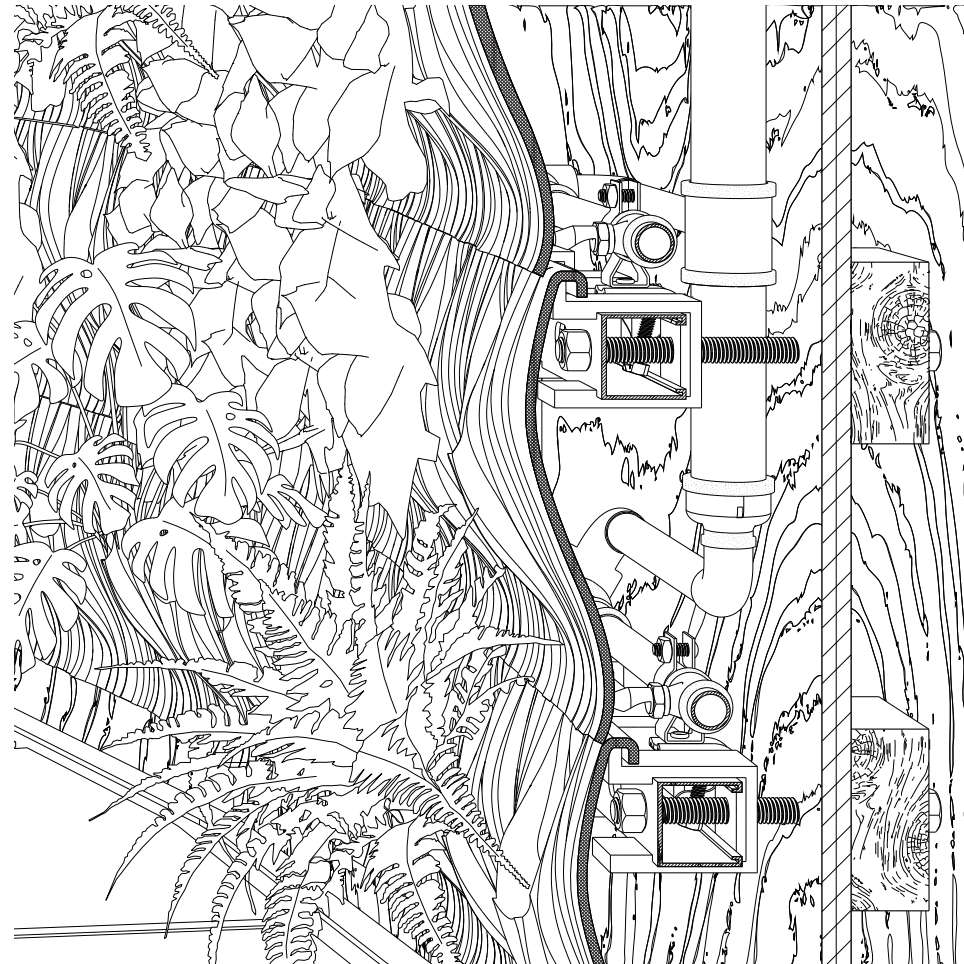
Whereas the wall and its several stories of steps have separated the Hamilton Heights from the waterfront for a century, the dormant shafts behind the wall could be used not only as a means of passage to the waterfront, but also as a celebratory gateway, positioned as a hub for community arts, creative study, performance, and play.



Building Section



Section detail of library grotto



The center's main reading room lies at the base of the defunct sewer access shaft, with a circular gallery radiating about its edge, whose walls use a system of hanging planter tiles with integrated irrigation, cladding the grotto-like space with a mat of moss and ferns fed by water recycled from storm water systems of the streets above. I constructed a full scale mockup of the scheme, with a working irrigation system running behind tiles press molded from clay in a CNC-cut plaster mold. The tile assembly was attached to a basic wall framing, and drained out through a polished concrete channel in the floor.



Model studies



Gallery space

Hosting a rotation of musical and dance performances, local artists-in-residence, community read-alongs, and classes in painting, wood working, and digital fabrication, the wall becomes a vector of in the newly united neighborhoods.



Public living rooms, day time



Public living rooms, night time

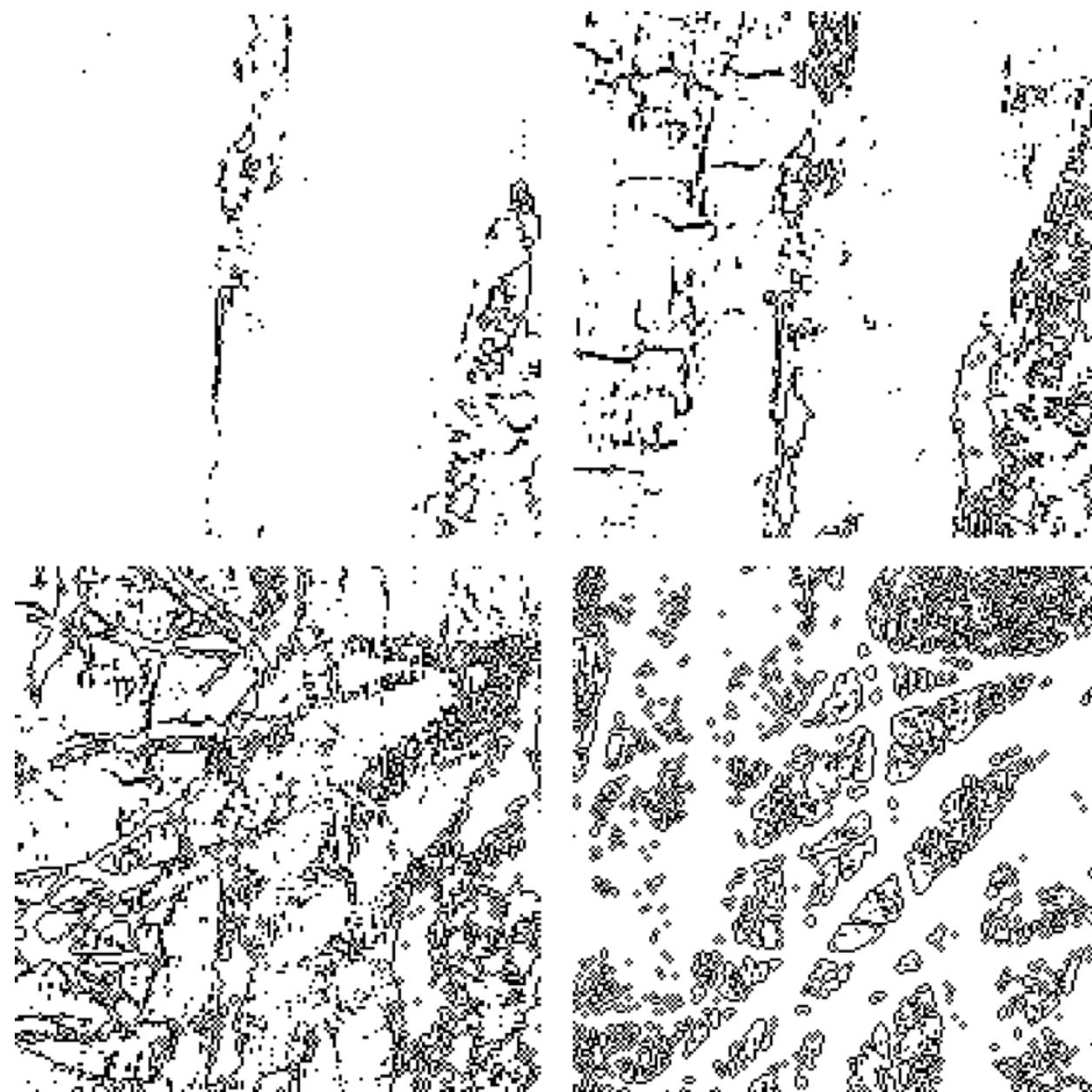
INTERSPECIES SANCTUARY

Core Studio II

Critic: Karla Rothstein

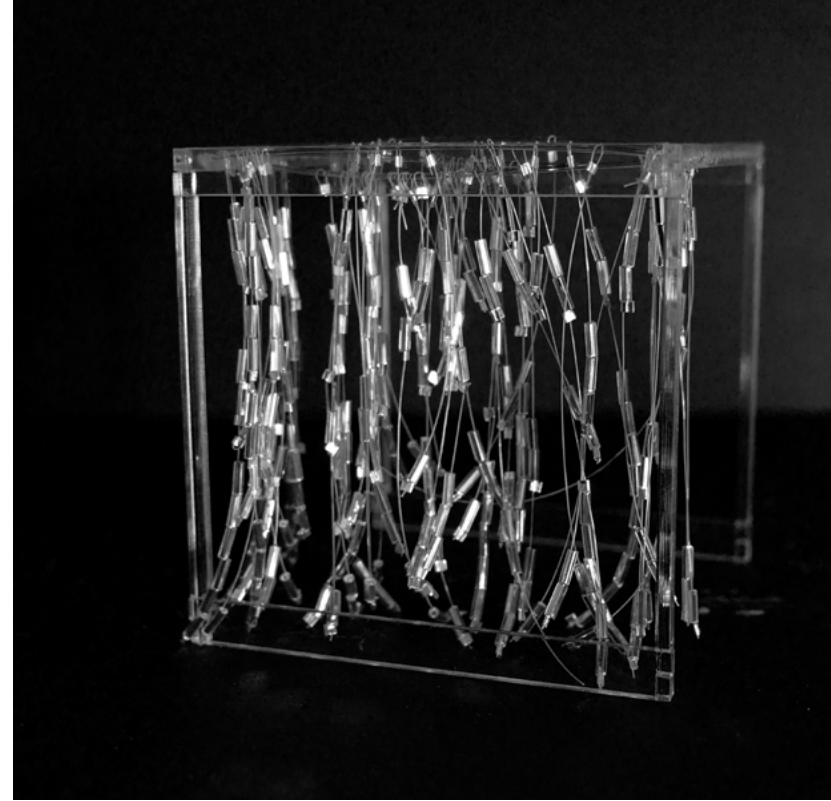
Spring 2020

A proposal to reanimate an abandoned public school in the East Village. The mass of the existing school is eroded into a cascading series of terraces, and a vine-like thicket of piers and beams emerges, defining a forest canopy between the two long bars of the building's original H-configuration. The intervening land between 9th and 10th streets becomes an intermittent marsh, an alluring *terra incognita* for children to discover their wonder, curiosity, and respect for all the living things which come to inhabit the canopy above and the soil below.

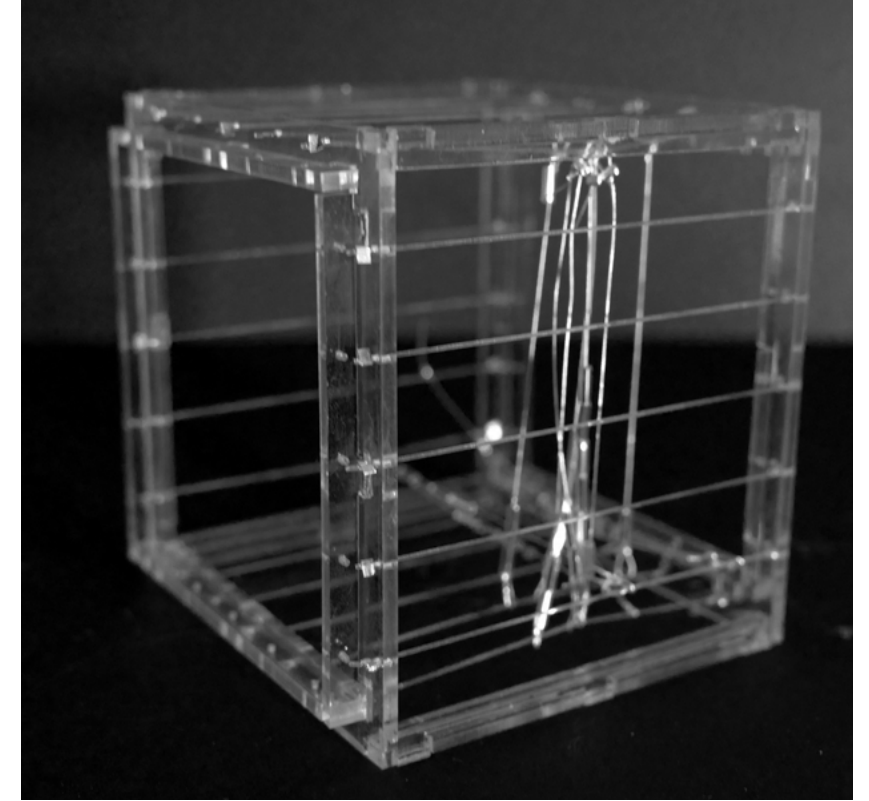




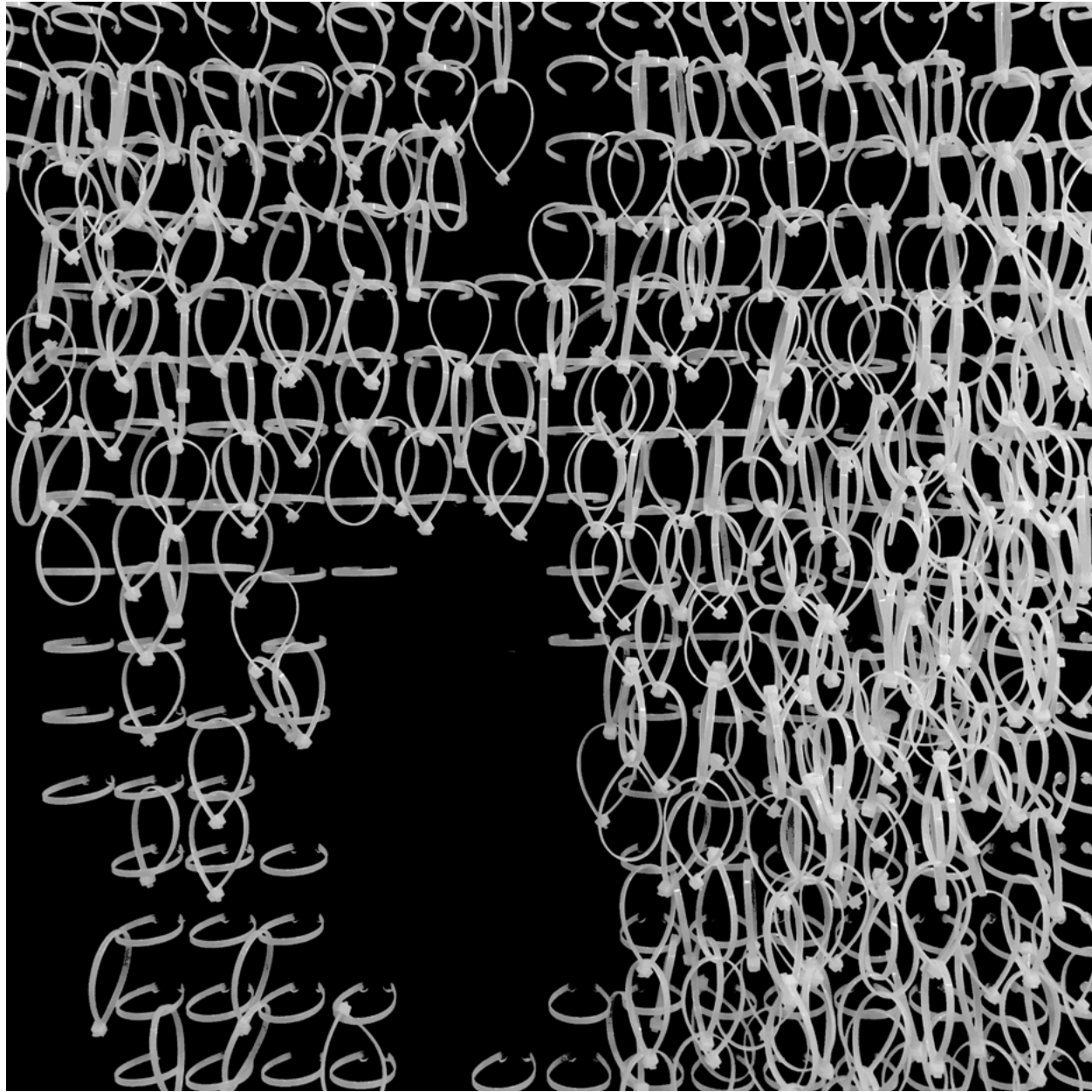
A series of initial studies in the abstraction of the natural processes of generation, accumulation, and decay.



Using the cellular automaton, the “Game of Life,” I generated a three-dimensional binary pattern of cells.

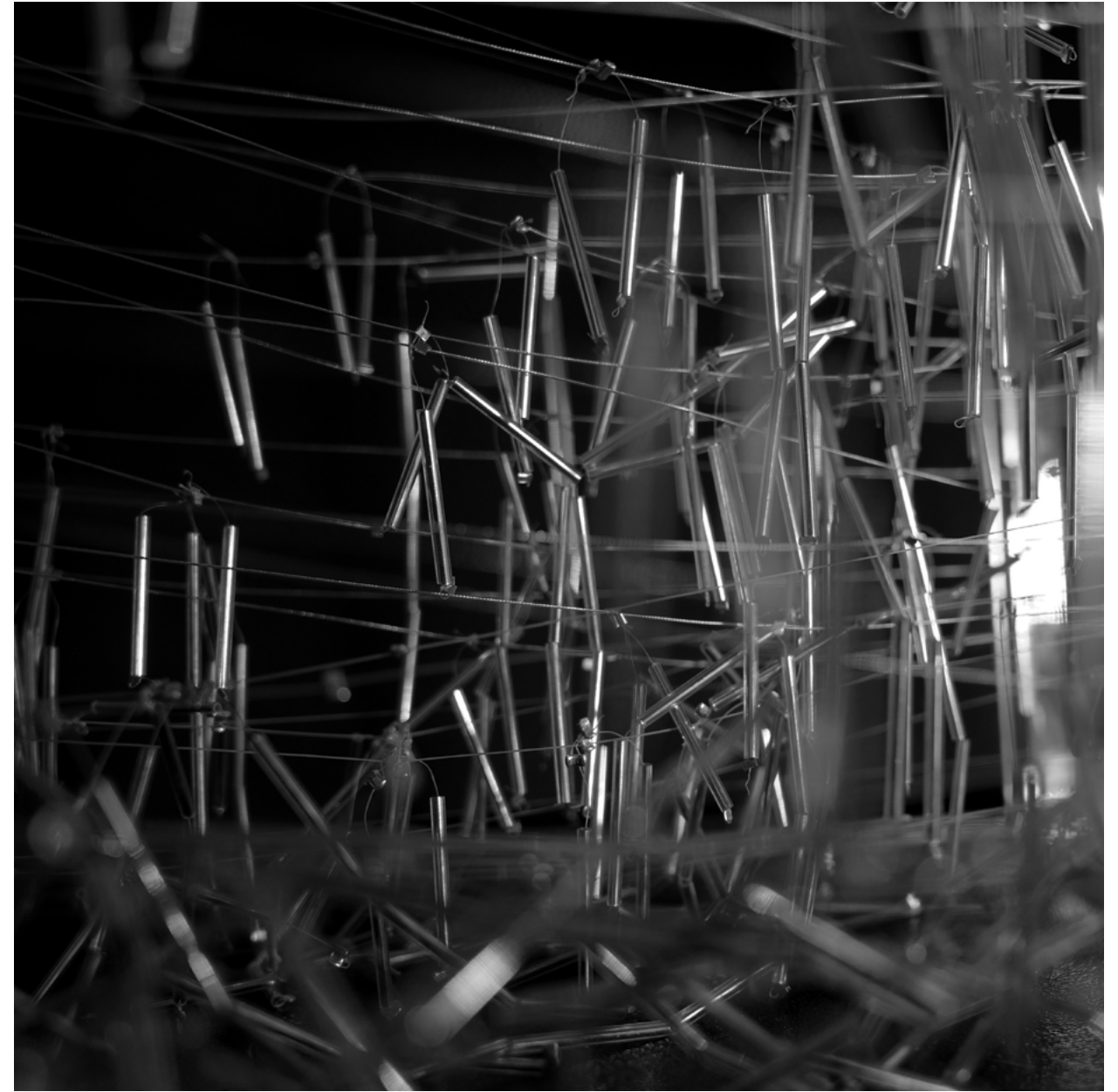


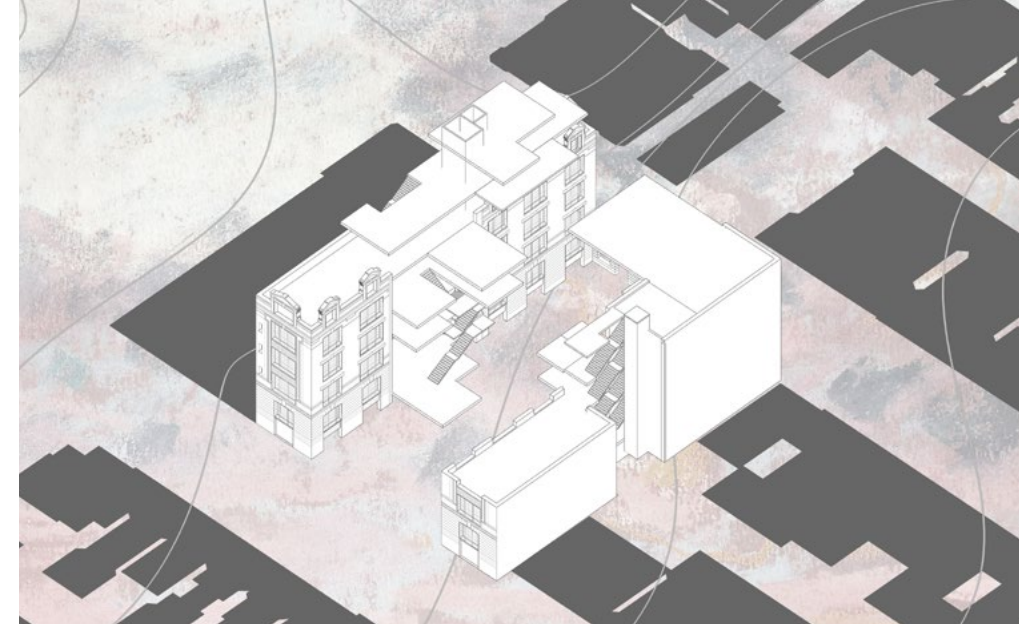
I then experimented in systems of beading and hanging to spatially encode the matrix generated by the automaton to create matting and indeterminacy.



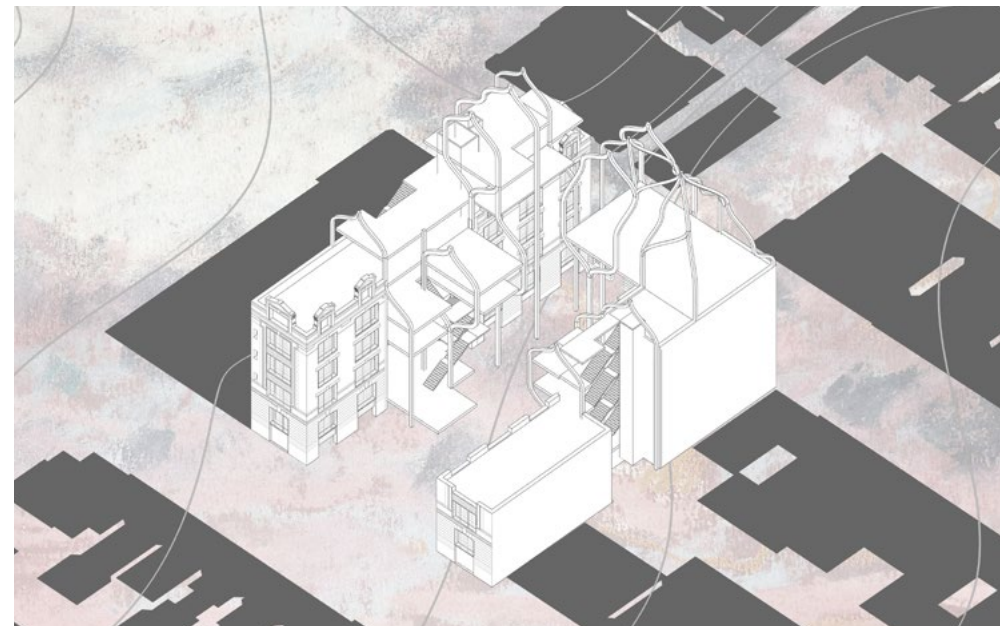
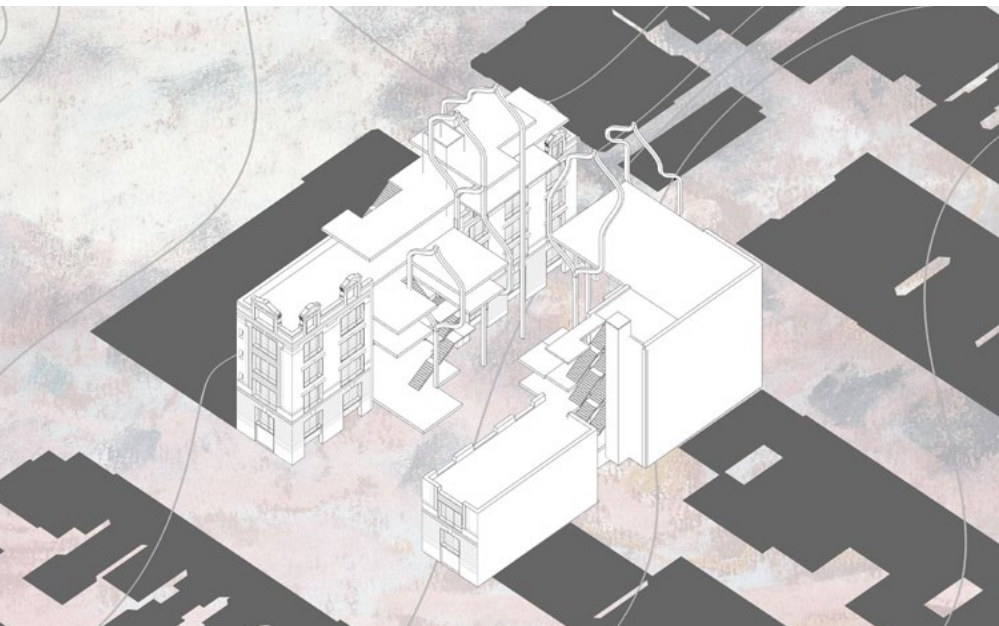
Hanging studies with zip ties and beads.

Spatially encoding the generated pattern created unexpected effects, which became a translation of the organized complexity of natural systems.

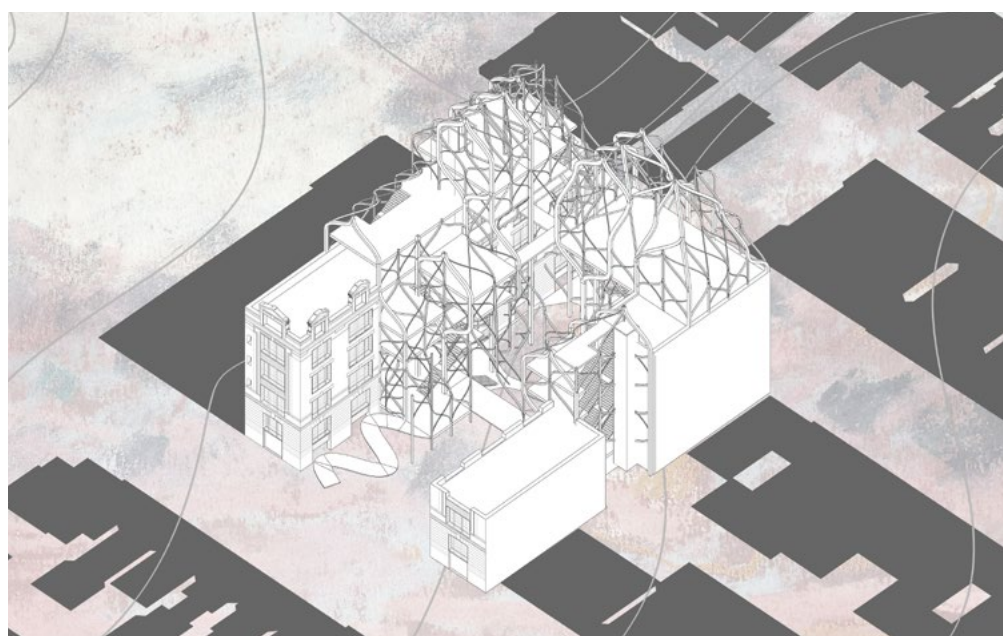
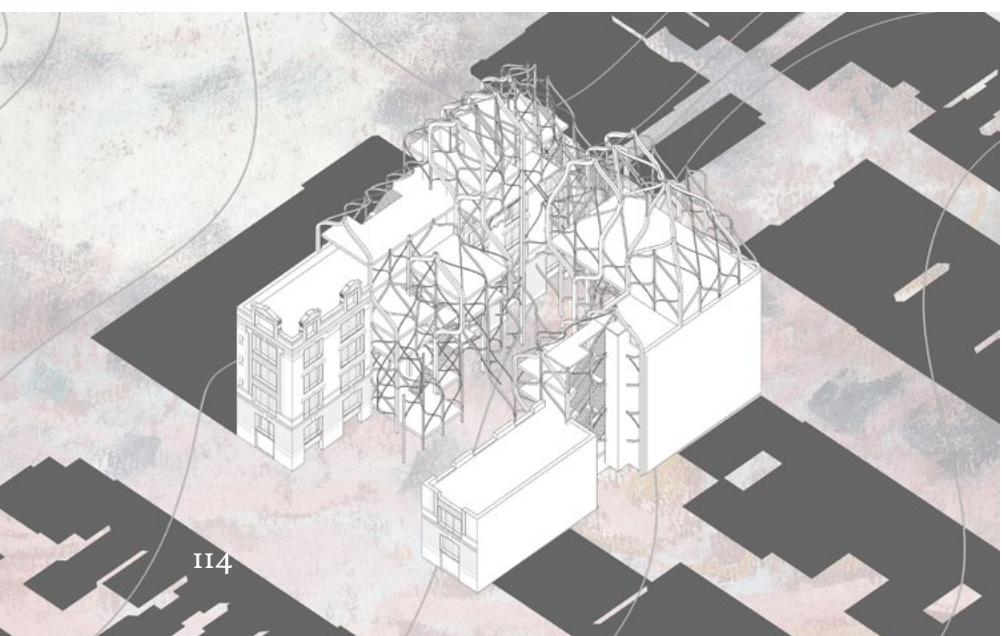
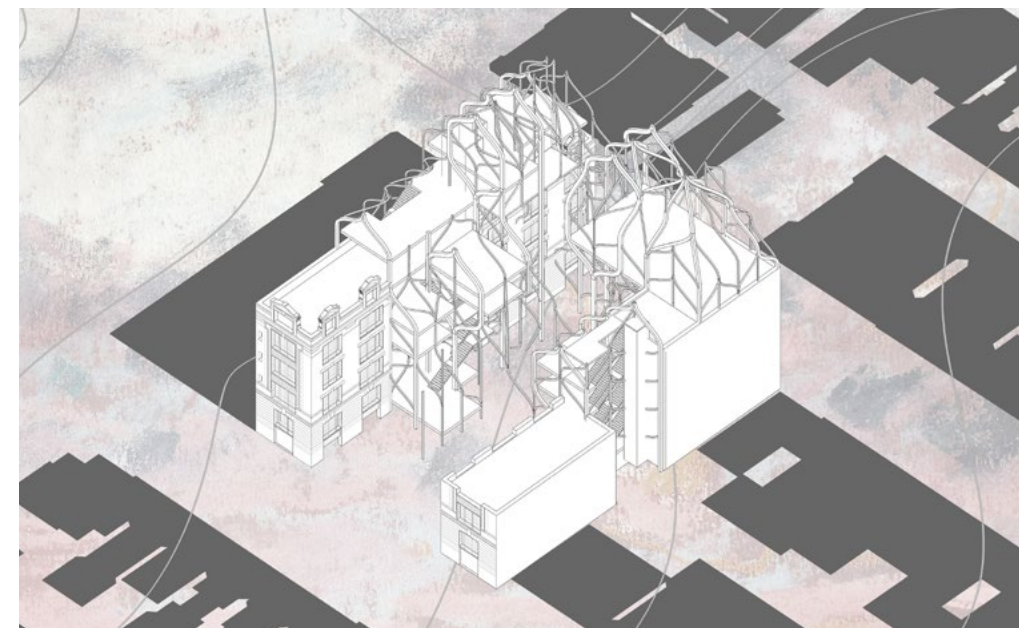
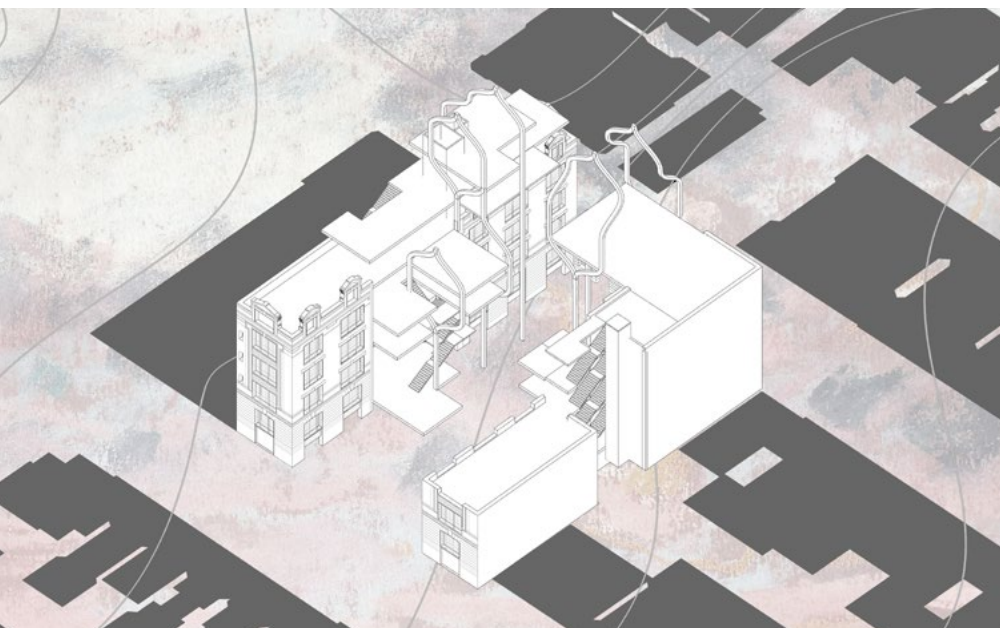
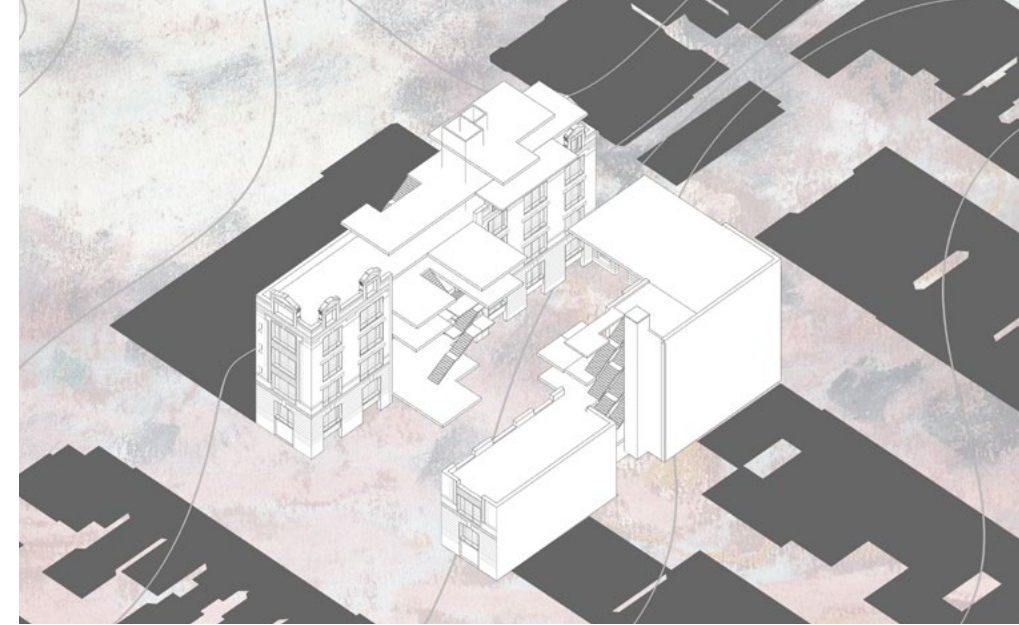
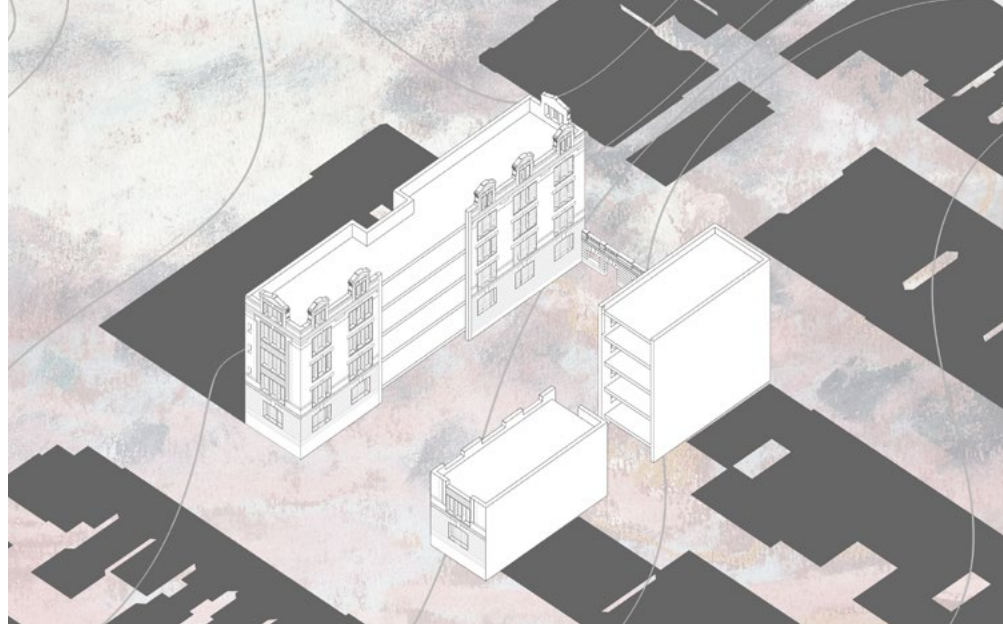
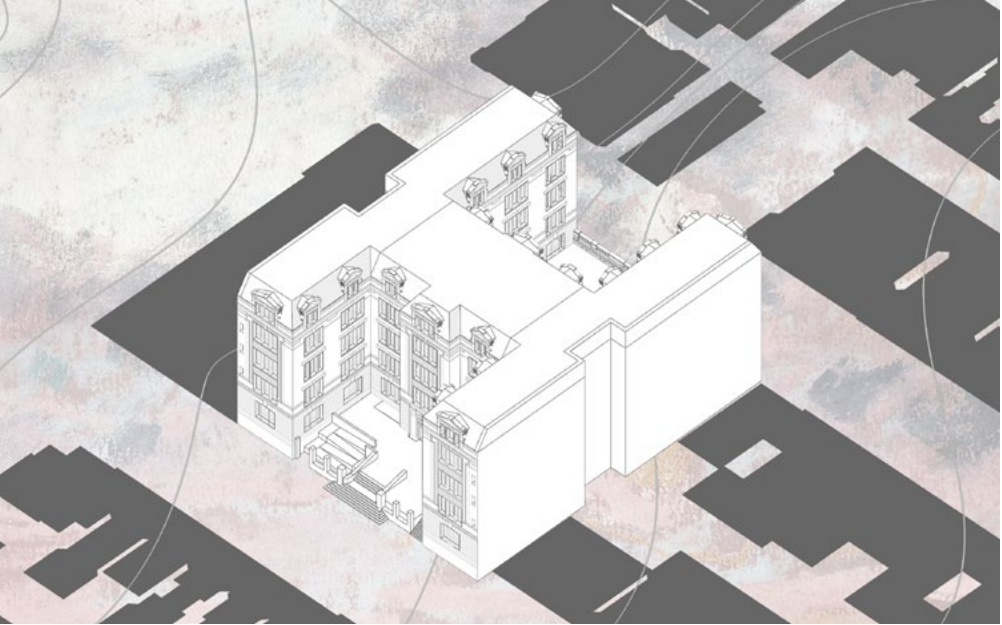


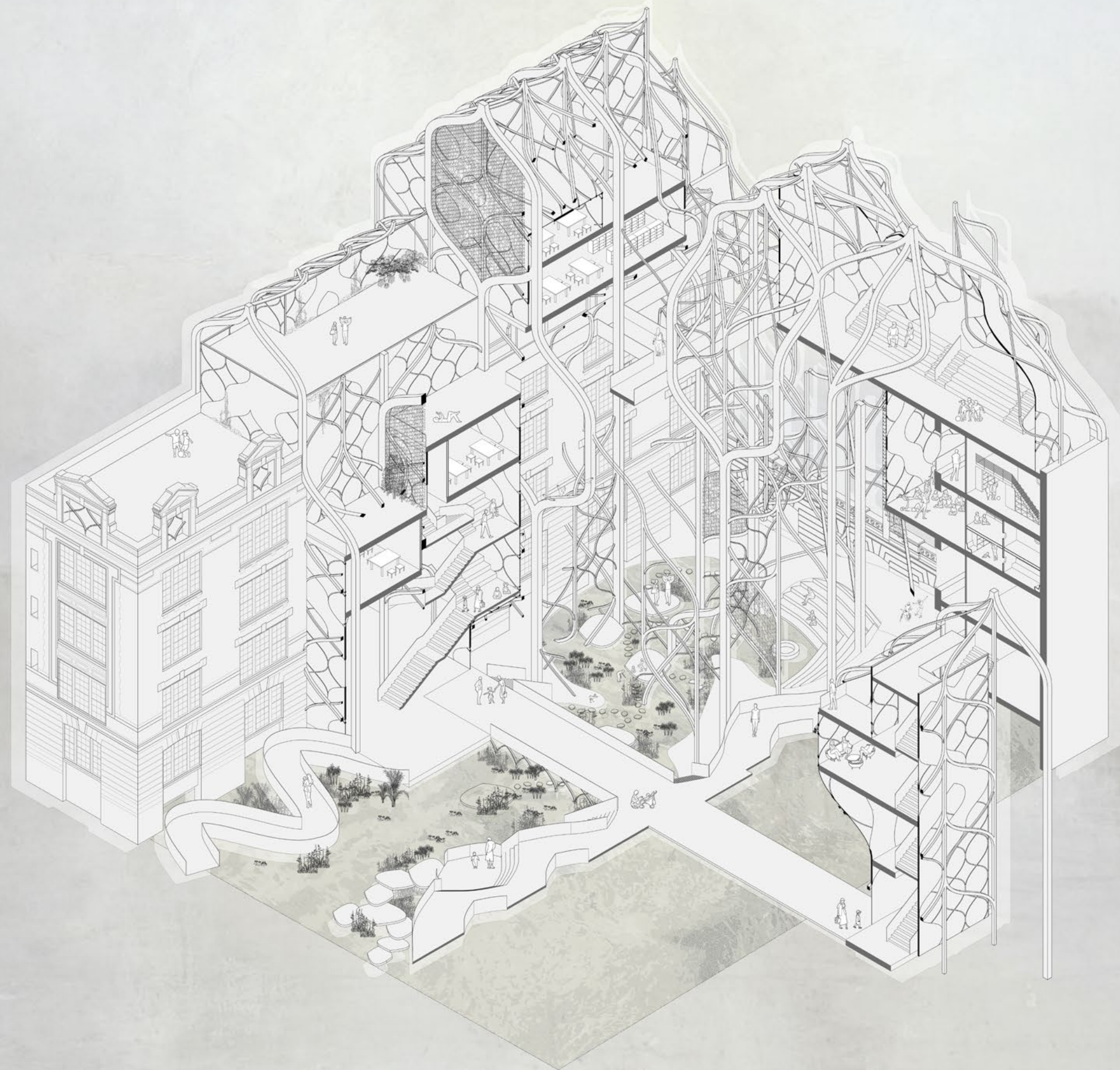


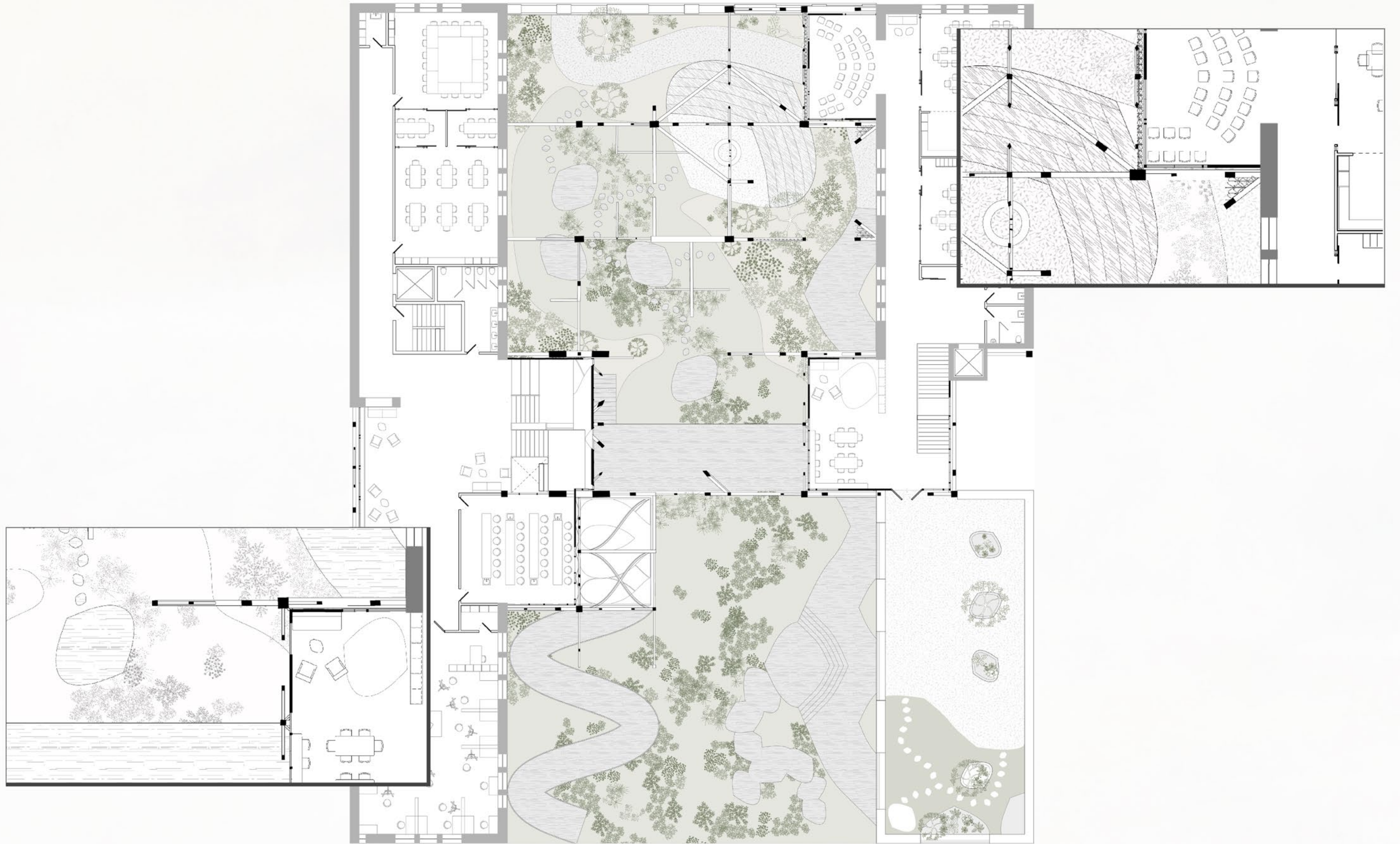
The existing school building is first eroded, then a thicket of piers and beams emerges. Using salvaged brick for the aggregate, the porous concrete's many intersections become the site of an emergent ecology.



The existing school building is first eroded, then a thicket of piers and beams emerges. Using salvaged brick for the aggregate, the porous concrete's many intersections become the site of an emergent ecology.









PANDLION HALIAETUS

A diurnal, fish eating bird of prey with a cosmopolitan range.
Builds large nests from sticks and atop platforms on the building's roof.
Hunts in the nearby estuary.

CAMPSIS RADICANS

A climbing vine native to eastern North America with large flowers
Grows in planter basins embedded on the concrete structure.
Enjoys full sun, and attracts hummingbirds.



NYCTICORAX NYCTICORAX

A migratory heron who who lives at the water's edge.
Nests in at the border of wetlands, in the notches of the structure.
Forages for food in flooded fields and marshes.

PLEOPELTIS POLYPODIOIDES

An evergreen epiphyte fern from the Eastern and Southern states.
Grows without soil in the porous outer layer of concrete structure
Drought resistant survivors will revive at the touch of water.

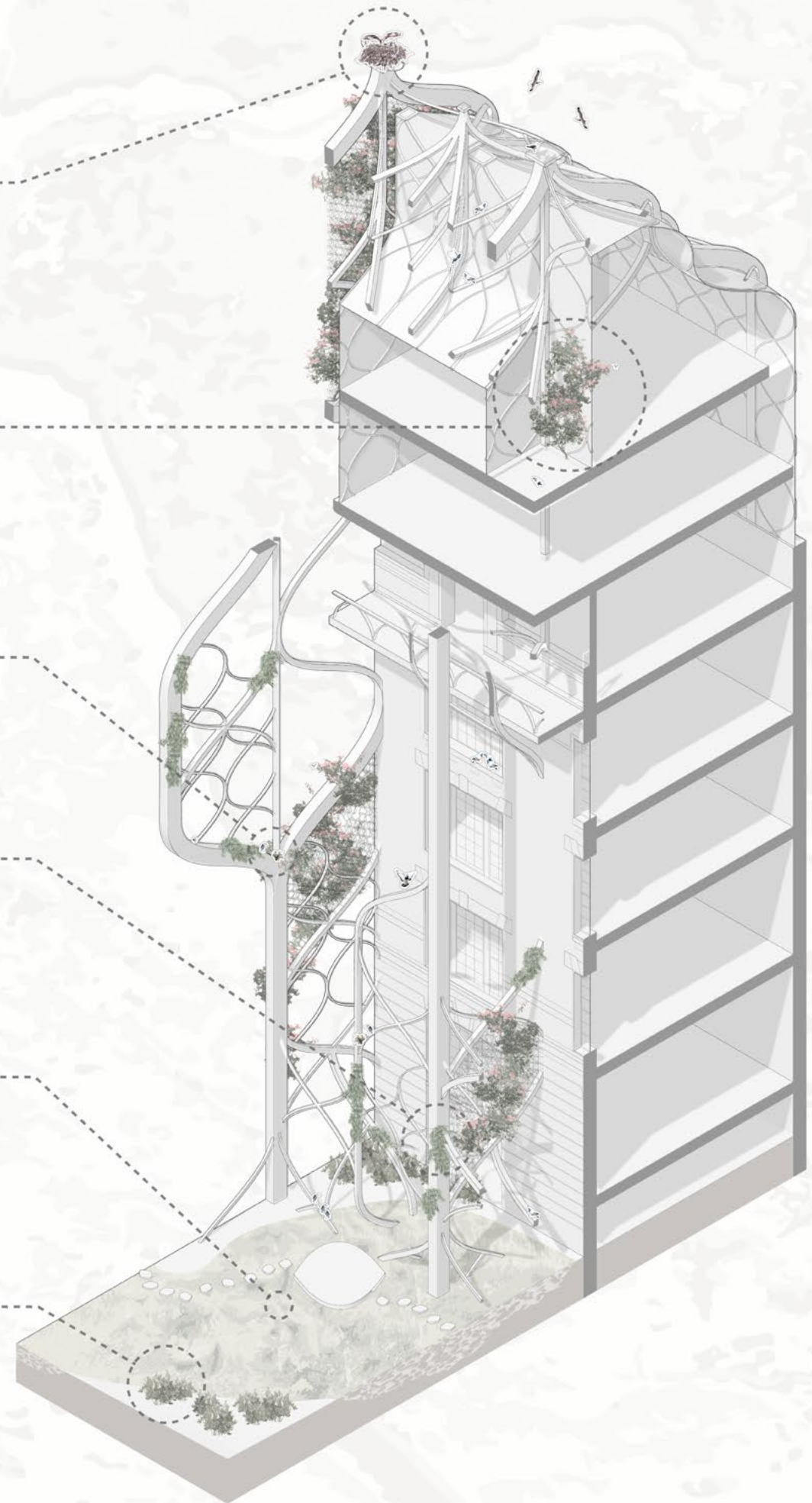


UCA PUGNAX

A fiddler crab native to the northeast.
Lives in among the roots of plants in the brackish marsh.
Its burrows alter the chemistry of the soil, encouraging plant growth.

IVA ANNUA

A flowering shrub related to the sunflower.
Forms the edge of the marsh where it does not flood.
Defines the upland border of wetlands and controls erosion.





The building becomes obscured beneath the accumulation of a vertical ecology. It comes to constitute a pedagogy of germination, growth, and decay. A lesson as arresting as any to be inscribed on the blackboard can be found outside the window. If pupils know to look, the fabric of the school itself can teach them ways to see. The relentless cycles of living systems aggregating and disintegrating, becoming and unbecoming, engender in their witnesses an epistemology rooted in biopsychosocial well-being.

MELROSE CARVE

Core Studio III

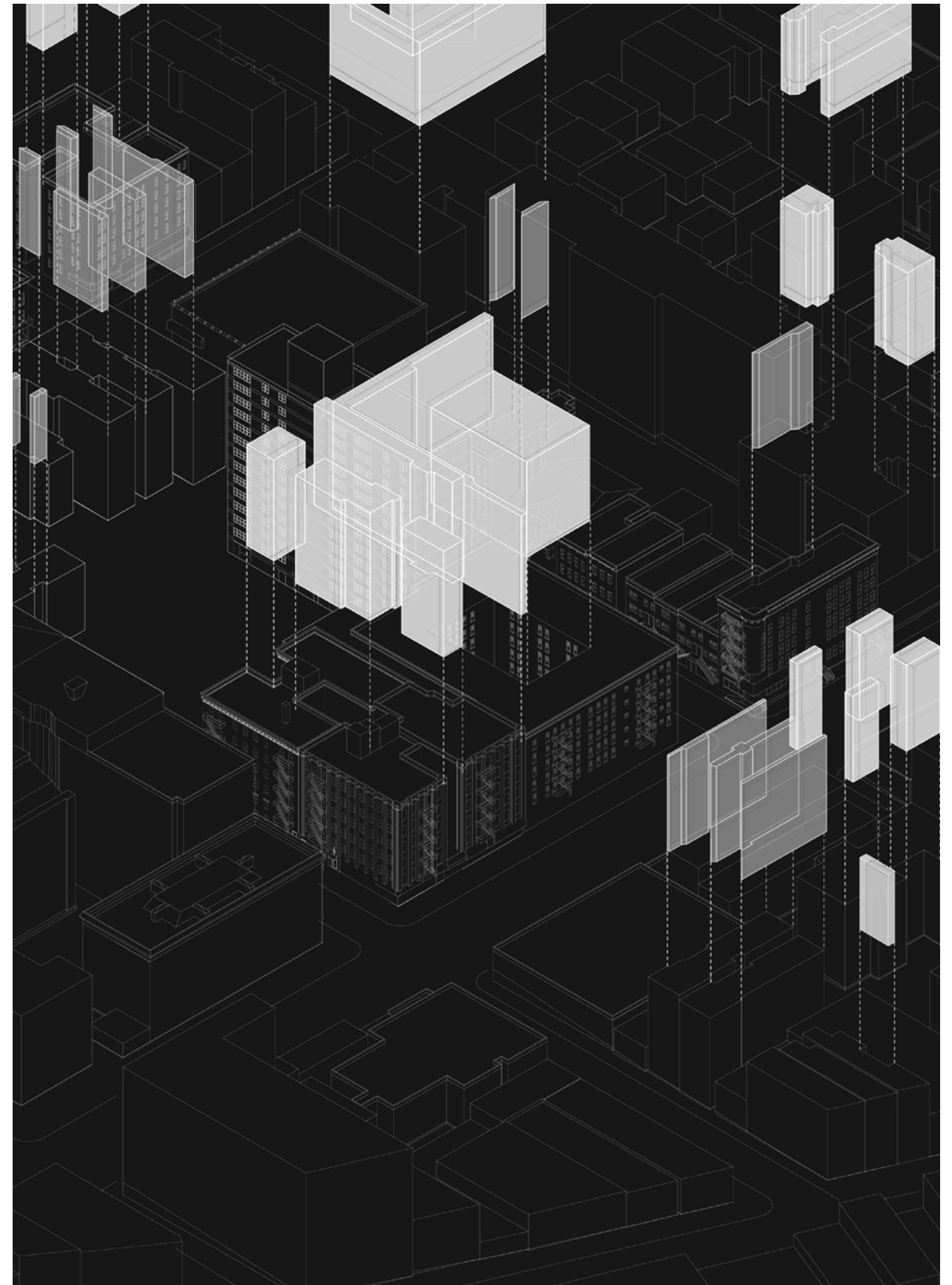
Critic: Erica Goetz

Partner: Andres Alvarez Davila

Fall 2020

A housing project in the South Bronx which introduces a sculptural carve into the fabric of the city block. The project mediates between the domestic and urban scales by inviting the neighborhood into the park and performance venues at the heart of the building. It contends that the space of air can not only be shaped in a way that provides fresh air and light, but it can also become a medium to enhance the relationship between residents, their neighbors, and the city.

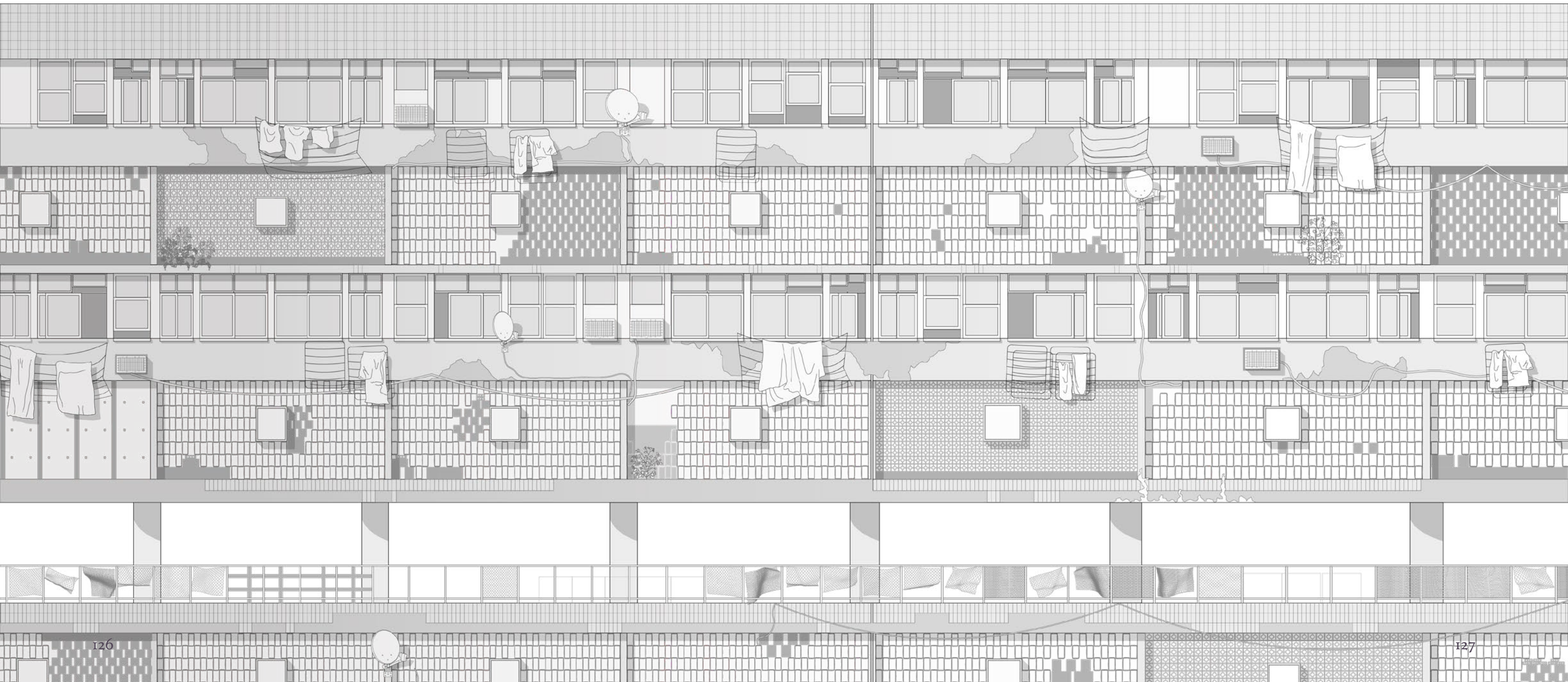
The massing strategy offers an alternative to the adhoc collection of generally unusable small lightwells and air shafts in the interior of blocks resulting from speculative development practices. As a key massing principle, the sky exposure plane is reversed, carving a light-filled void in the interior of the lot, and creating a reciprocating row of undulating, stacked bars that carve out the main voids of the building.



Mapping light wells pre- and post-1901 zoning ordinance

We began by studying the Pedregulho housing project in Brazil: an optimistic model for working class housing, whose social vision gave way to deterioration and neglect. The objects embedded in its facade - laundry, AC units, satellite dishes - became an index of the ways of life that evolved as a result. This drawing keeps a record of lives lived at Pedregulho.

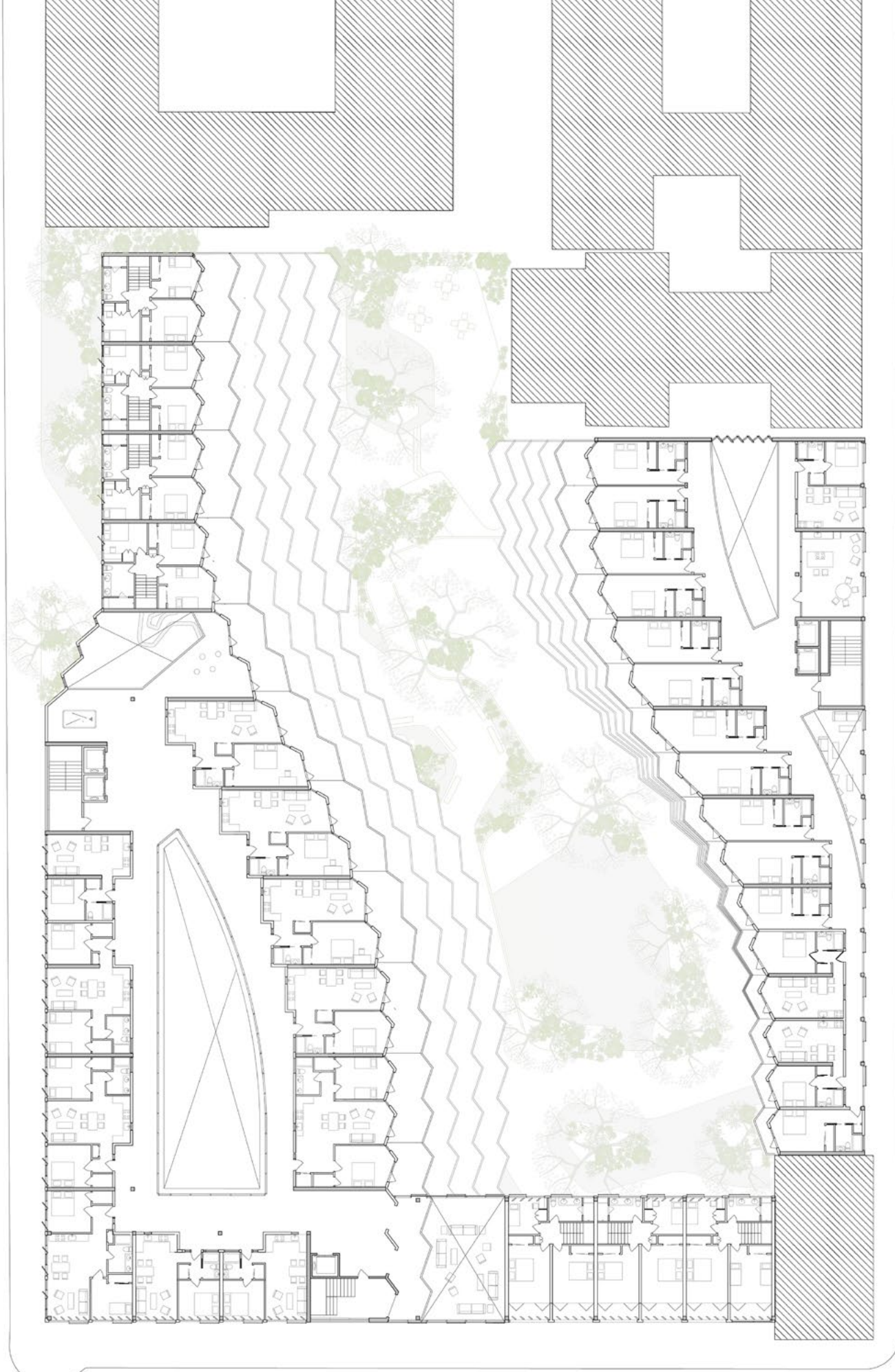
Precedent Study: reading the interior life of a building through its facade



Site Axonometric contrasting the street wall with the central 'carve'



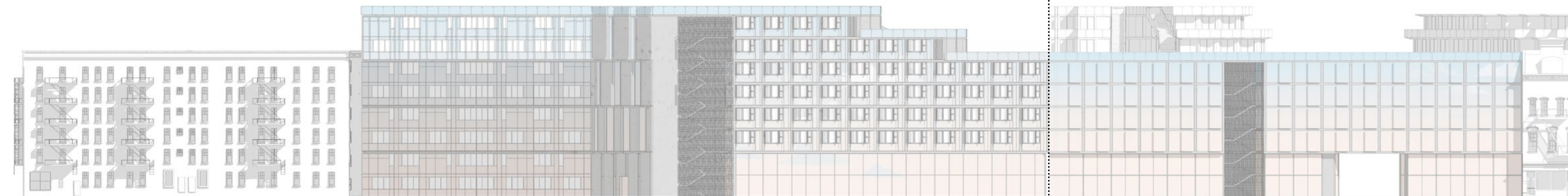
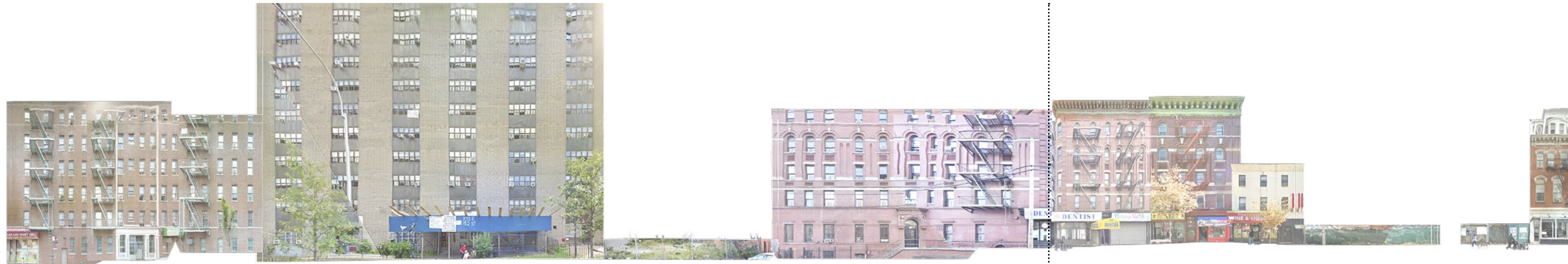
As a key massing principle, the sky exposure plane was applied in reverse, carving a light-filled void in the interior of the lot. The northern bar houses units for different demographics, while the southern bar is a dedicated senior center, replacing the urbanistically hostile one currently on the site.



Typical Floor Plan, Sectional Massing Diagram

In both the senior center and the housing project proper, circulation is organized around atrium or courtyard spaces, while generous corridors and a spattering of communal spaces--ranging from interior playgrounds in the northern bar to communal kitchens in the senior center--allow ample opportunities for socialization, and dissolving the borders of each unit, allowing life to spill onto balconies and into the wide gallery corridors.

Unfolded elevation of existing conditions and proposed facade 'street wall'



E. 152nd Street

Courtlandt Avenue



The destruction of the older fabric in the South Bronx and replacement with low rise commercial and housing has resulted in an unexpected visibility of the designed voids in the built fabric - a result of the speculative development that took place 100 years ago, constrained by laws that govern access to light and air.

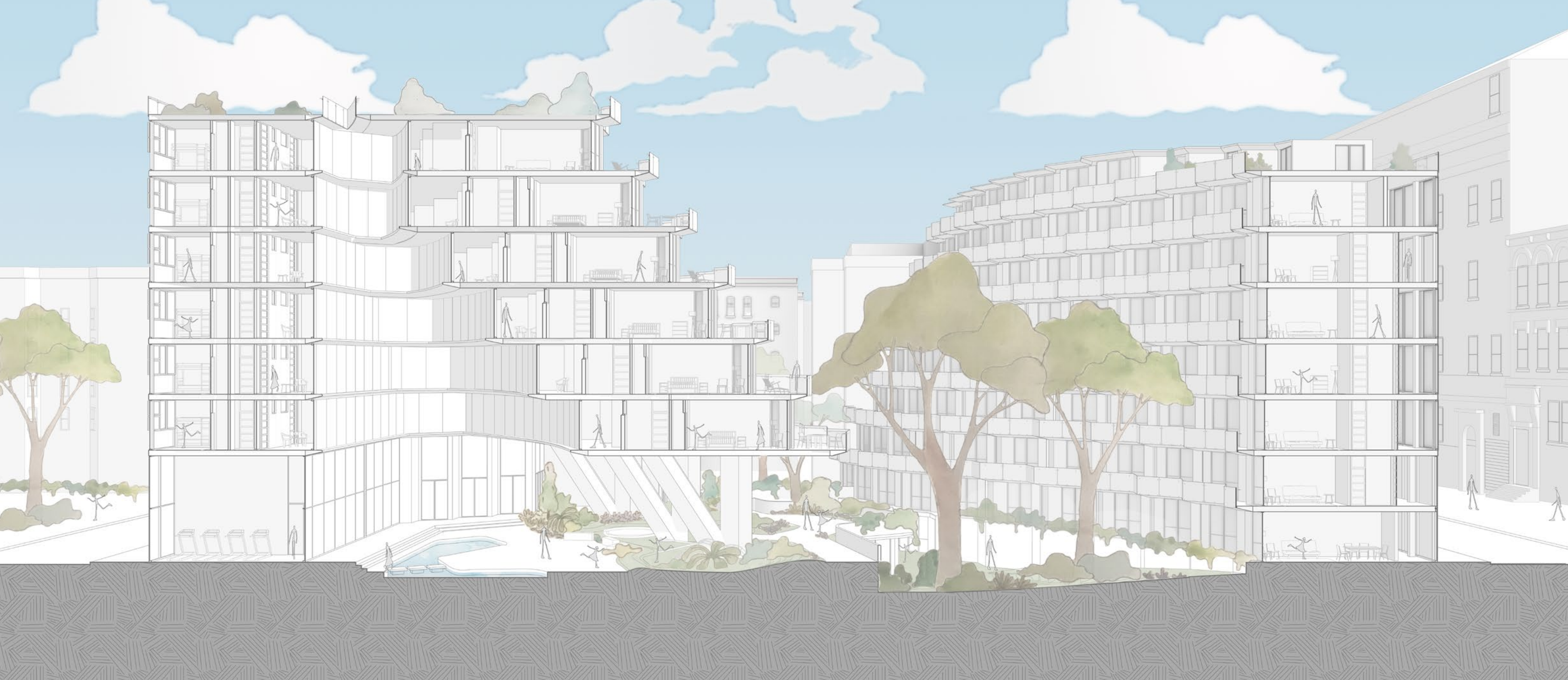


E. 151st Street

Walking around the building, the facade is dissolved and punched at certain key points in which the building engages with its urban context, and spans between the existing structures creating a terraced roofscape.



On the garden level, the senior center's communal dining room opens up to the parkland, and a music school across the way. One descends from the street into a carved landscape that extends the gesture of the building. The landscape becomes an amphitheater looking towards the music performance space and the music school's theater.



Section showing the main atrium and the terraced buildingscape of the carve

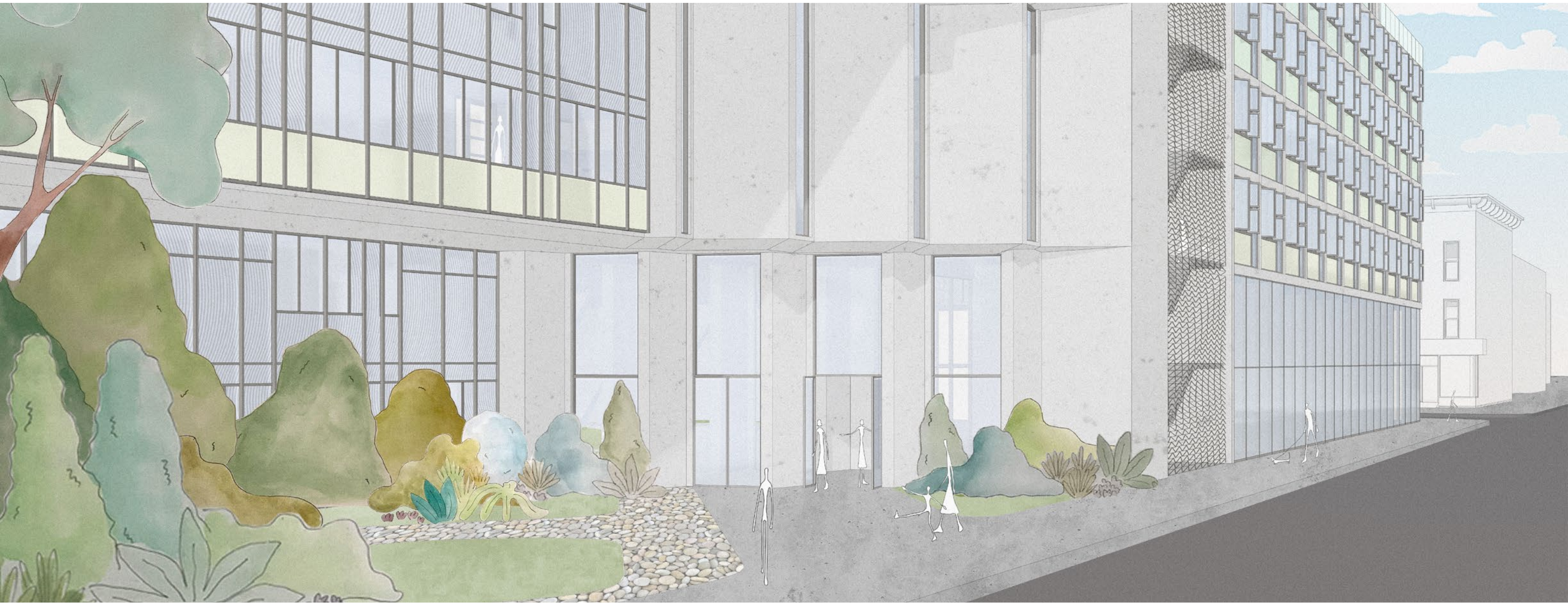
Floating above this public space in the interior of the lot are the units themselves, which are suspended between the urban-scaled void and atrium spaces within the building. The two-sidedness of the unit--looking at the urban and building scale voids-- is important at the multiple scales implicit in the space of air : it allows for views and an experience of circulation that eschews the dreariness of double loaded corridors, and it allows air to circulate and for inhabitants to adjust temperature to their liking.





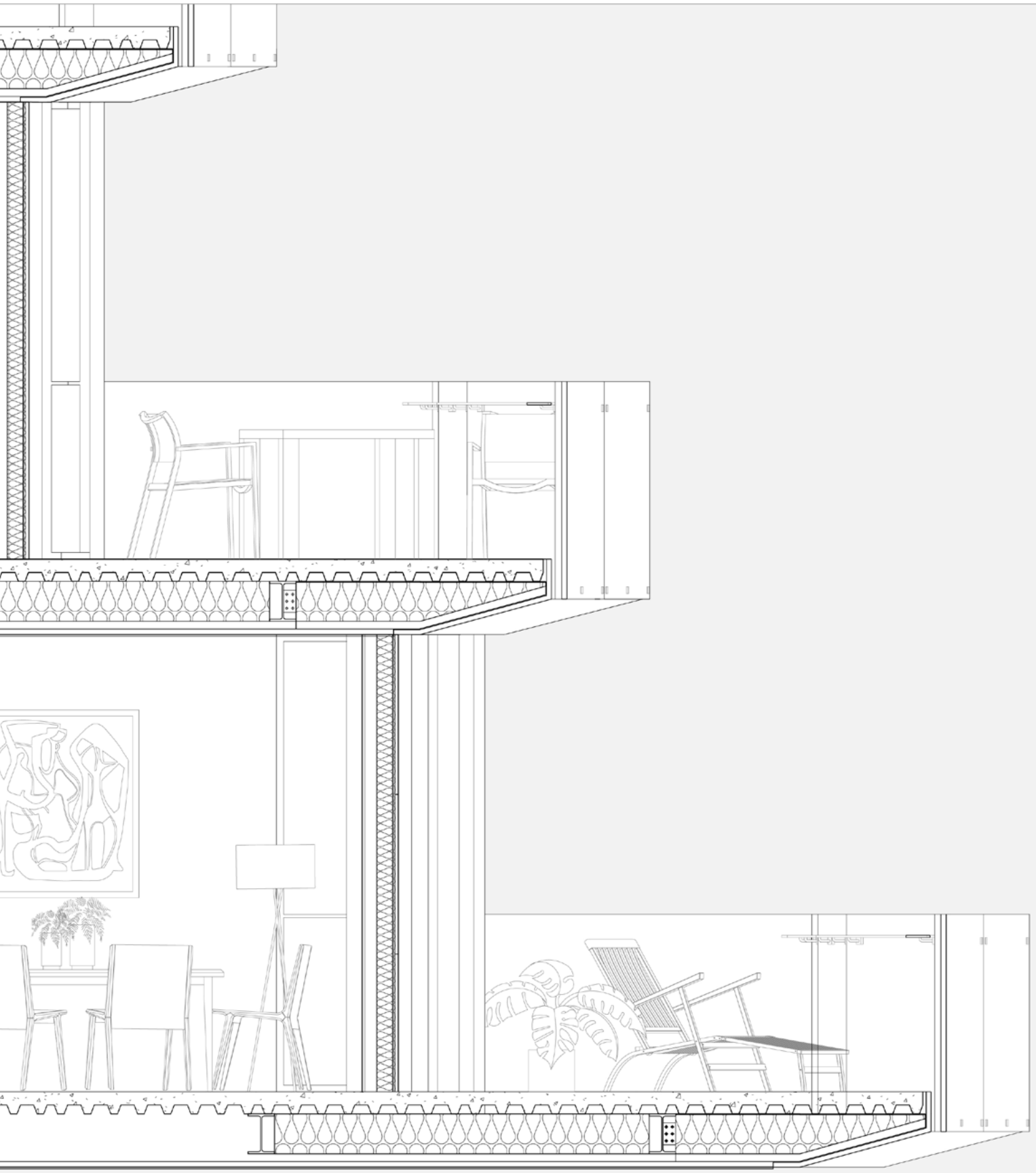
Public entrance and commercial spaces

The public can access the curve from the avenue, which is lined with commercial spaces. Through the entry and the glass facade, the plantings of the park and the faceted curve of the building are visible.

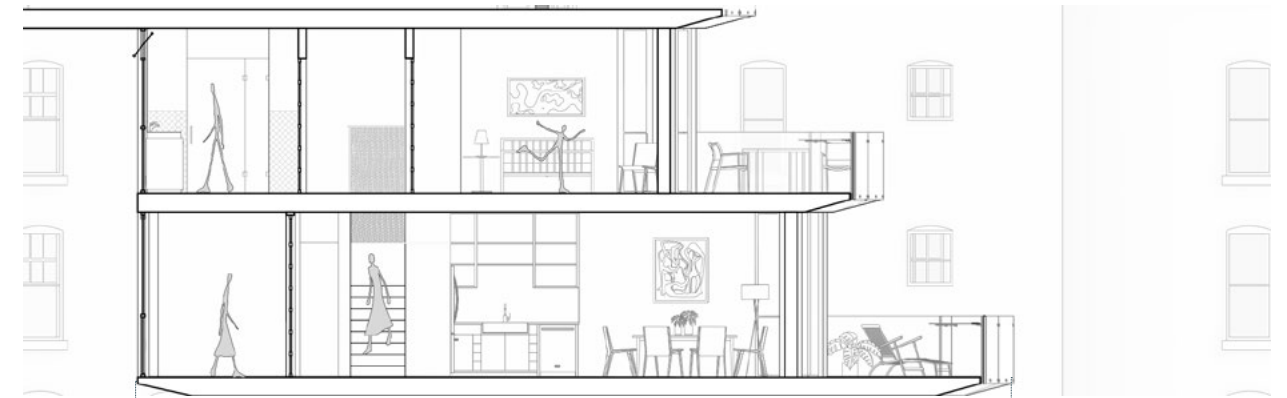


Resident entrance

The entries to residence are on the side streets rather than the main avenue. The building curves inward to signal the entry.



Section detail of terraced balconies



Duplex section: single-loaded breezeways allow for a floor-through configuration



Duplex plan: level two



Duplex plan: level one



Perspective: living on the curve



Perspective: double height common spaces

Double-height common spaces punctuated every other floor, serving dual purpose as laundromats and playgrounds. The interior life of the building is marker by closeness to the air which is carved into the building, and the closeness of the community within.