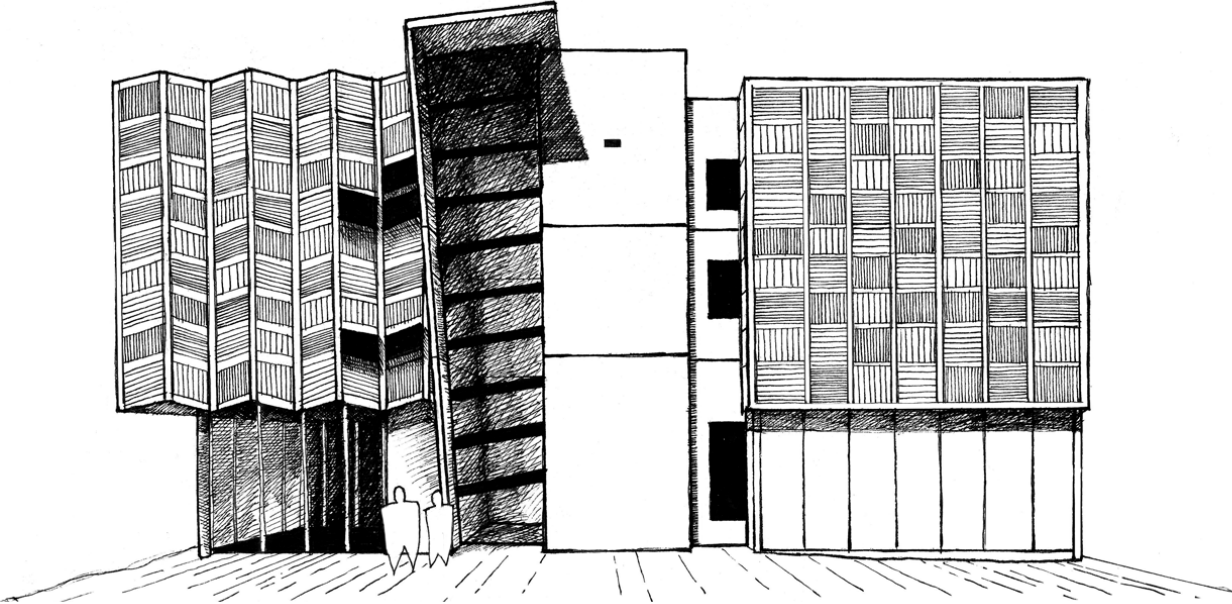


Portfolio.

Charlie Liu.



No architectural work exists in isolation.

To design and build something is to either discover or make a hole in the larger fabric, then to fill that hole with recycled and upcycled ideas.

Architecture is an assemblage of cultures, technologies, practices, and spaces. To me, this collection of projects highlights that design does not exist without the existing cultural, spatial, historical, and ecological conditions.

San Giorgio Maggoire, Venice, Italy	4
Tomkins Cove, NY	20
The Bronx, NY	38
Manhattan, NY	56
Avery Hall 700, NY	68
Everything Else	92

Unearthing Entanglements: An Axis of Experiences

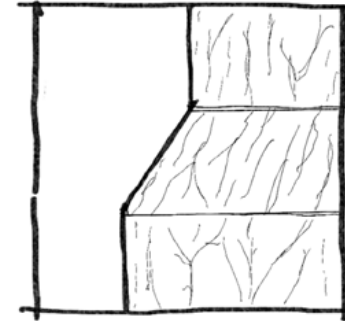
Joint Architecture/Historic Preservation Studio
Crits: Mark Rakatansky & Jorge Otero-Pailos
Venice, Italy, 2022

This studio engages the climatic, material, and cultural entanglements of Teatro Verde as an effort to transform an island that has historically been driven by mixed and conflicted identities. Within the performative nature of this venue and under the premise that the theater is to be (re)commissioned, it is impossible to overlook the significance of (re)construction and (re)storation of the theater itself.

This project understands construction and reconstruction as an intrinsic part of the entanglements that Teatro Verde faces; and aims to enact that narrative spatially through a series of pavilions. The pavilions, on top of reactivating contemporary programming, construct an axis of experiences that help elucidate the realities of the entanglements.

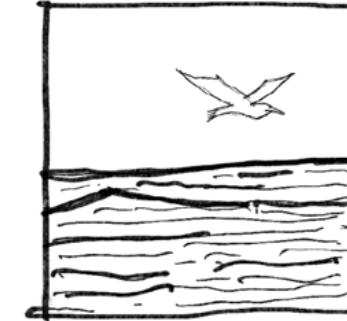
The theater itself is constructed with both reused building debris as well as modern materials such as concrete and marble. Constant maintenance is pivotal in ensuring that it does not go to decay. My design is oriented around the understanding of the constructional and restorative measures at the center of the building and upkeeping of the amphitheater.

material
entanglements



marble

environmental
entanglements

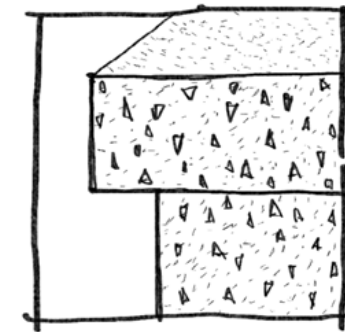


water

socio-historical
entanglements



ties to fascism



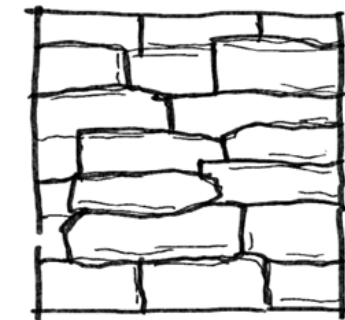
concrete



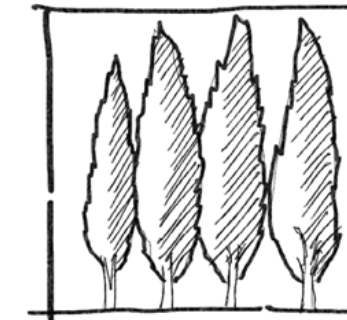
wind



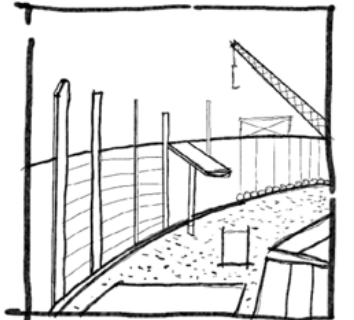
benedictine influence



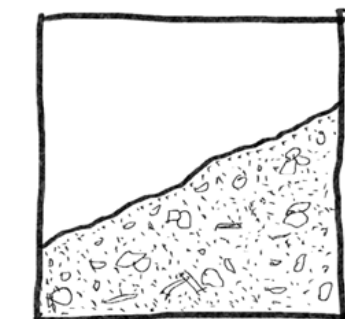
stone



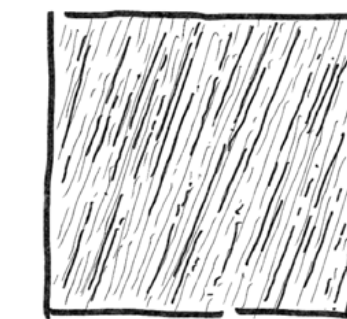
cypress trees



landscape modification



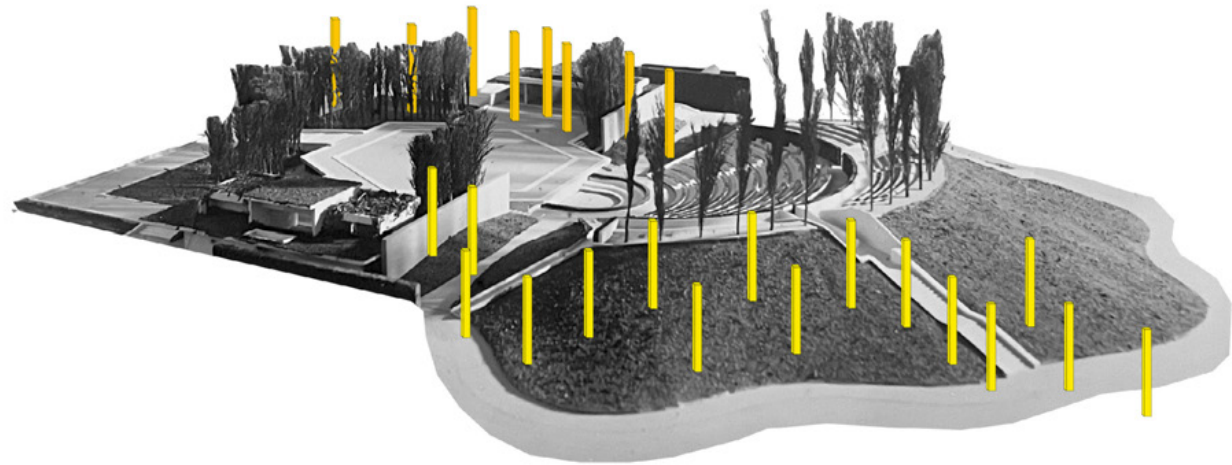
rubble & gravel



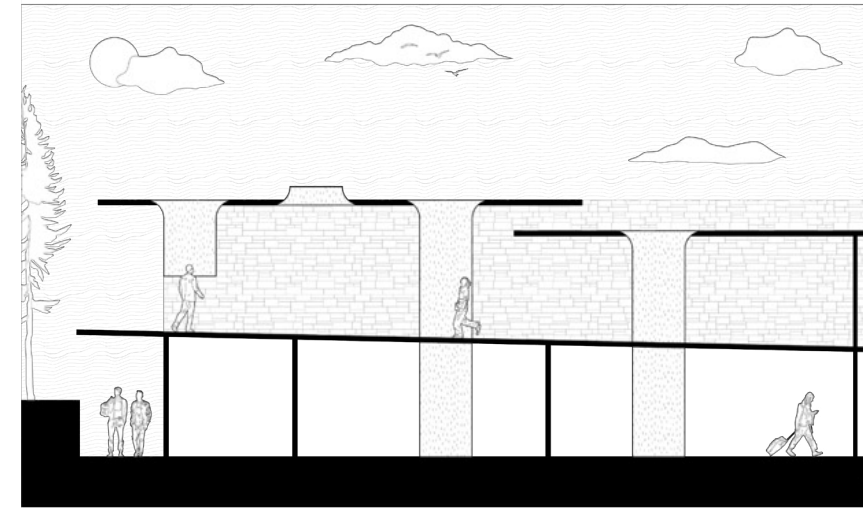
rain



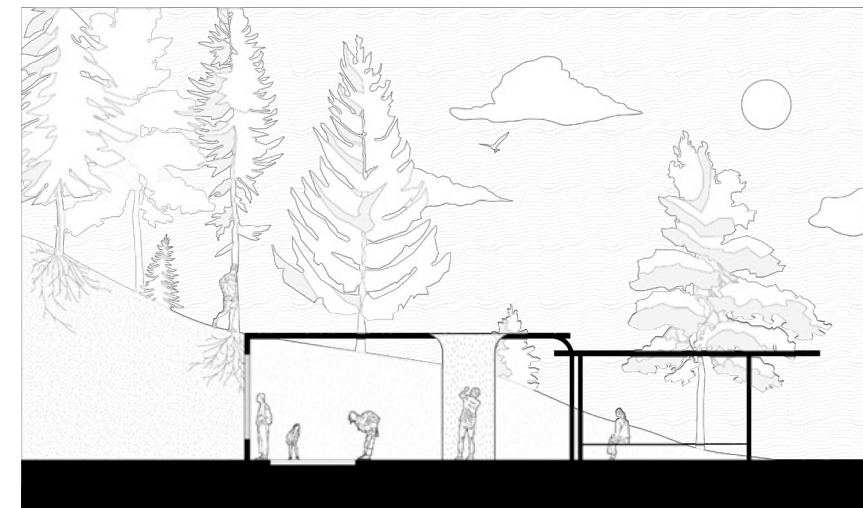
military past



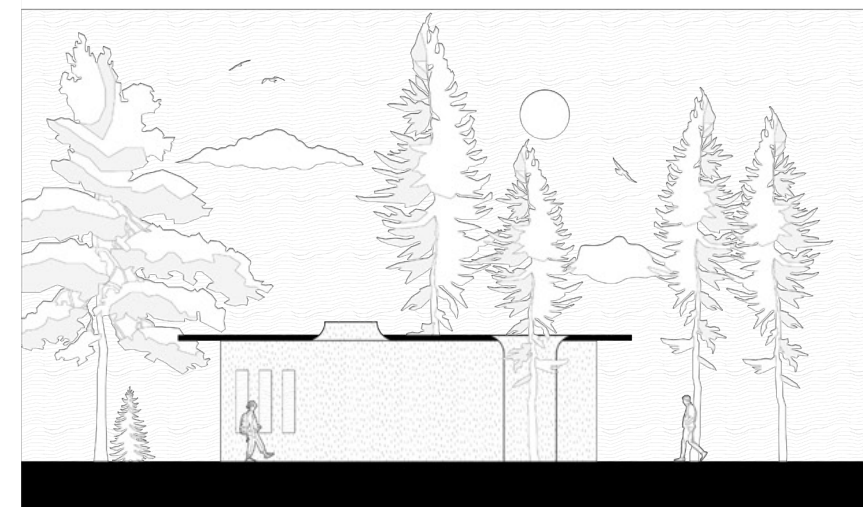
A two-fold experience: one of arrival to and one departure from the theater



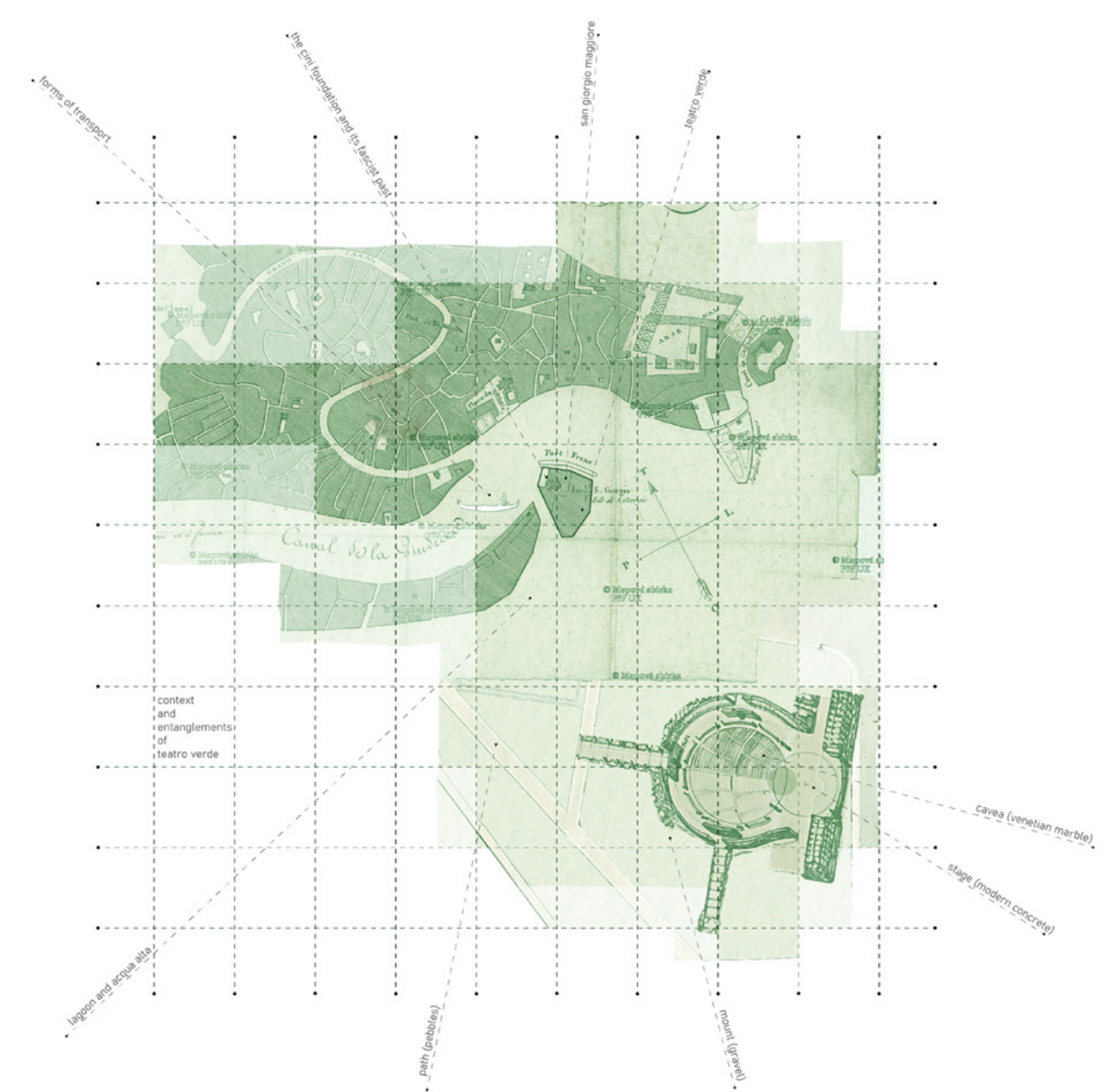
Engaging the existing fabric



Engaging the landscape

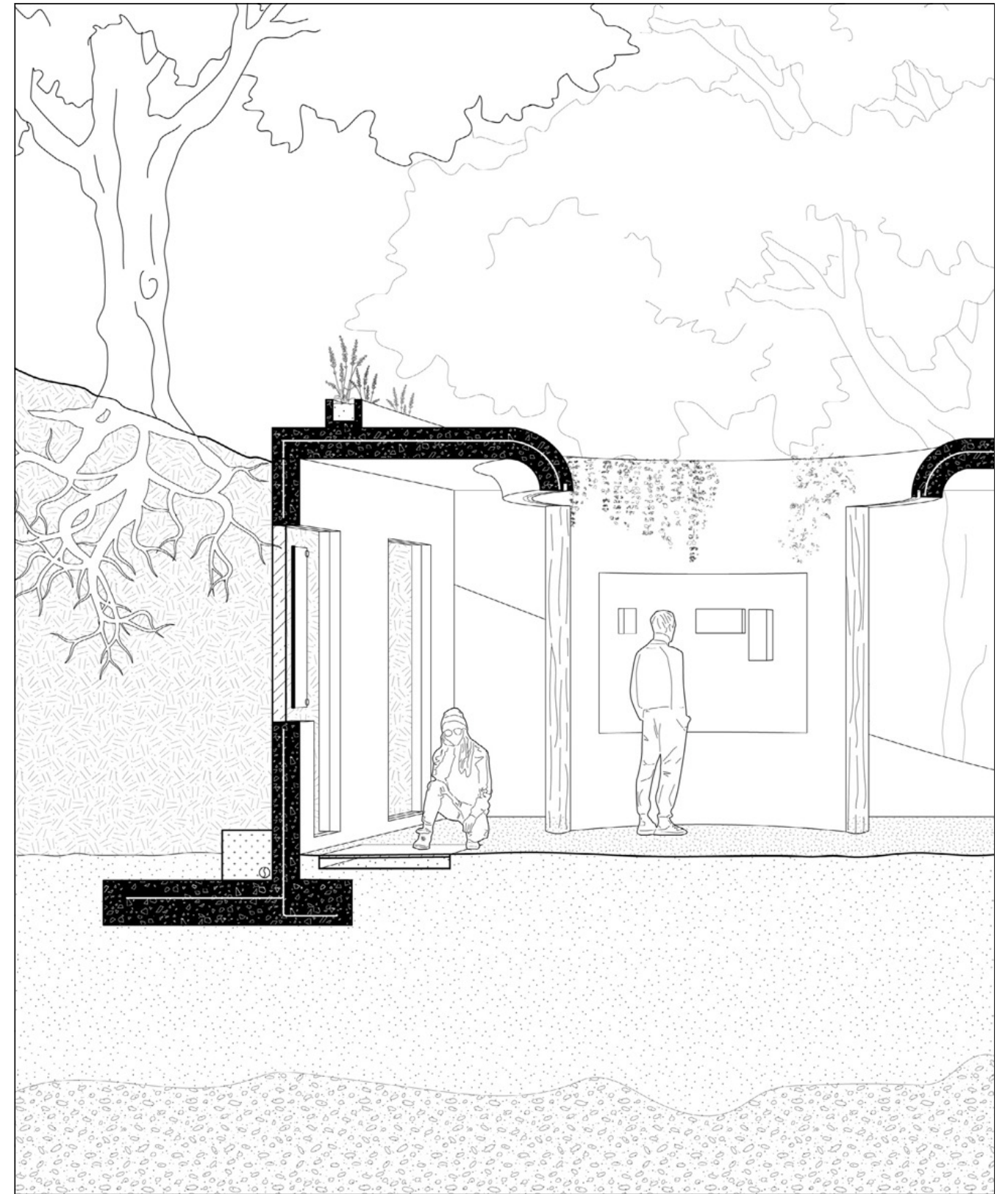
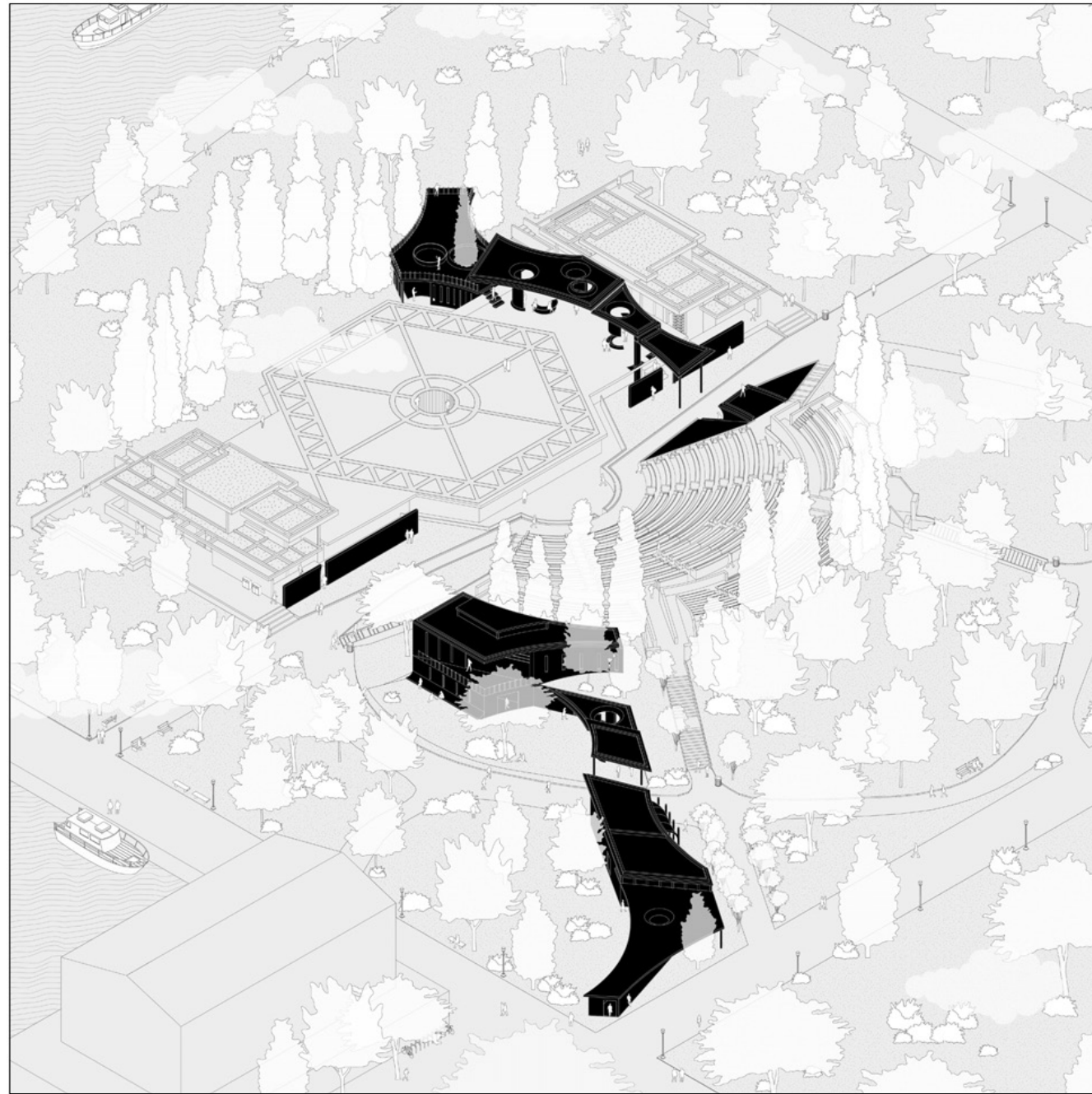


Engaging nature



The map reflects upon the contexts and the multitude of entanglements of teatro verde. The pavilions (left) follow the sequence of arrival and departure, each narrating a specific entanglement, exposing layers of information that are previously unseen.

(Right) the excavation on the existing mound exposes rubble, gravel, and bricks used, in turn unearthing a layer of material entanglement.





[earth]



[concrete]



[water]



Section drawing overlaid on the original longitudinal section drafted by Luigi Vietti.

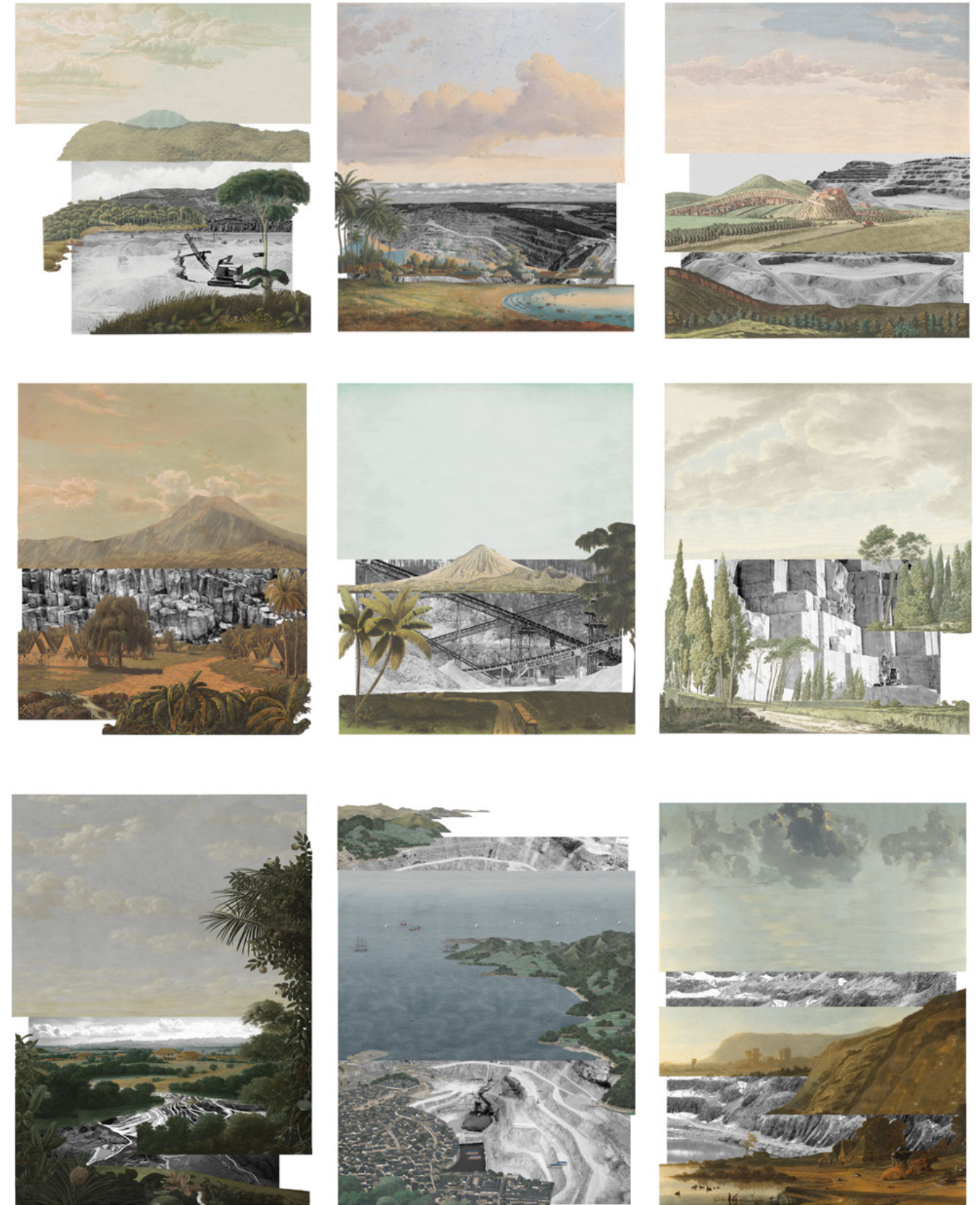
100 Years of Flood: The Making of a New Picturesque

Architecture/Urban Planning Joint Studio
Crits: Pedro Rivera & Ubaldo Escalante
Collaborators: Isaac Kouzman & Ruiqi Zhu
Tomkins Cove, NY, 2022

In an age of unprecedented ecological and climatic crisis, underutilized and abandoned infrastructures need to be embraced as critical pillars of transformation. The studio vision is to use stranded assets as vehicles for fostering a more equitable built environment. This project stems from an acknowledgement of quarries as assets with great potential. The montage to the left explores how the industrial sites are integral parts of the landscape, but are often dismissed and masked behind the typical 'picturesque.'

Hudson Valley is home to the idea of the 'new picturesque.' Interestingly, the picturesque landscape created by the wealth of the industry is championed but the industrial landscape itself is often not. The goal of the proposal is three-fold; it aims to bring ecological health to a site that was made lifeless by human and, to commemorate the heritage of industrial quarrying that for centuries have been pivotal in the local economy, and to celebrate a new picturesque inspired by the industrial landscape.

The challenges as well as opportunities of Tomkins Cove Quarry are both embedded in the notion of temporality. Within the next hundred years, water level will slowly but surely rise in the excavated site; and by 2117, it will be filled with water. This provides us with an interesting framework to work with, as the rising water is an ecologically unique opportunity to engage with.



Disruption of **viable topsoil** ----- Disruption of existing movement of **surface and ground water** ----- Decrease of **economic value** of adjacent land ----- Fatalities/injuries from **illicit uses**

Noise pollution ----- Loss of **natural habitats** ----- Industrial **waste** ----- Damage to **biodiversity** ----- Generally **infertile** land

Air pollution from dust/chemicals ----- Water contamination



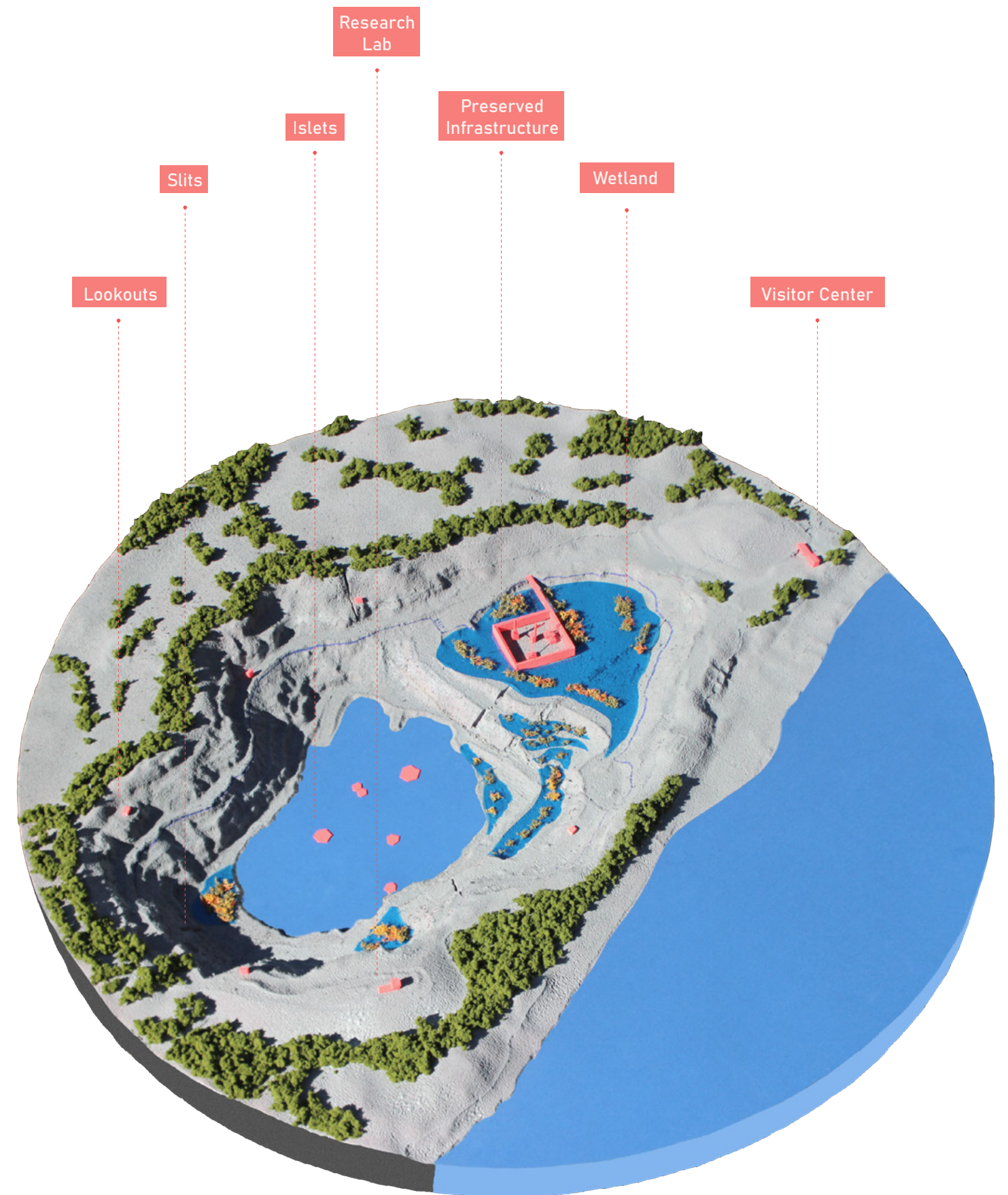
2010
Profit-centric subtraction

2030
Ecologically responsible addition



Reuse of on-site material ----- Protection and preservation of existing infrastructure ----- Remediation and revegetation on soil

Removal of industrial waste ----- Resculpt rocky surfaces ----- Facility of **water** passage and collection ----- Introduction of **flora and fauna**

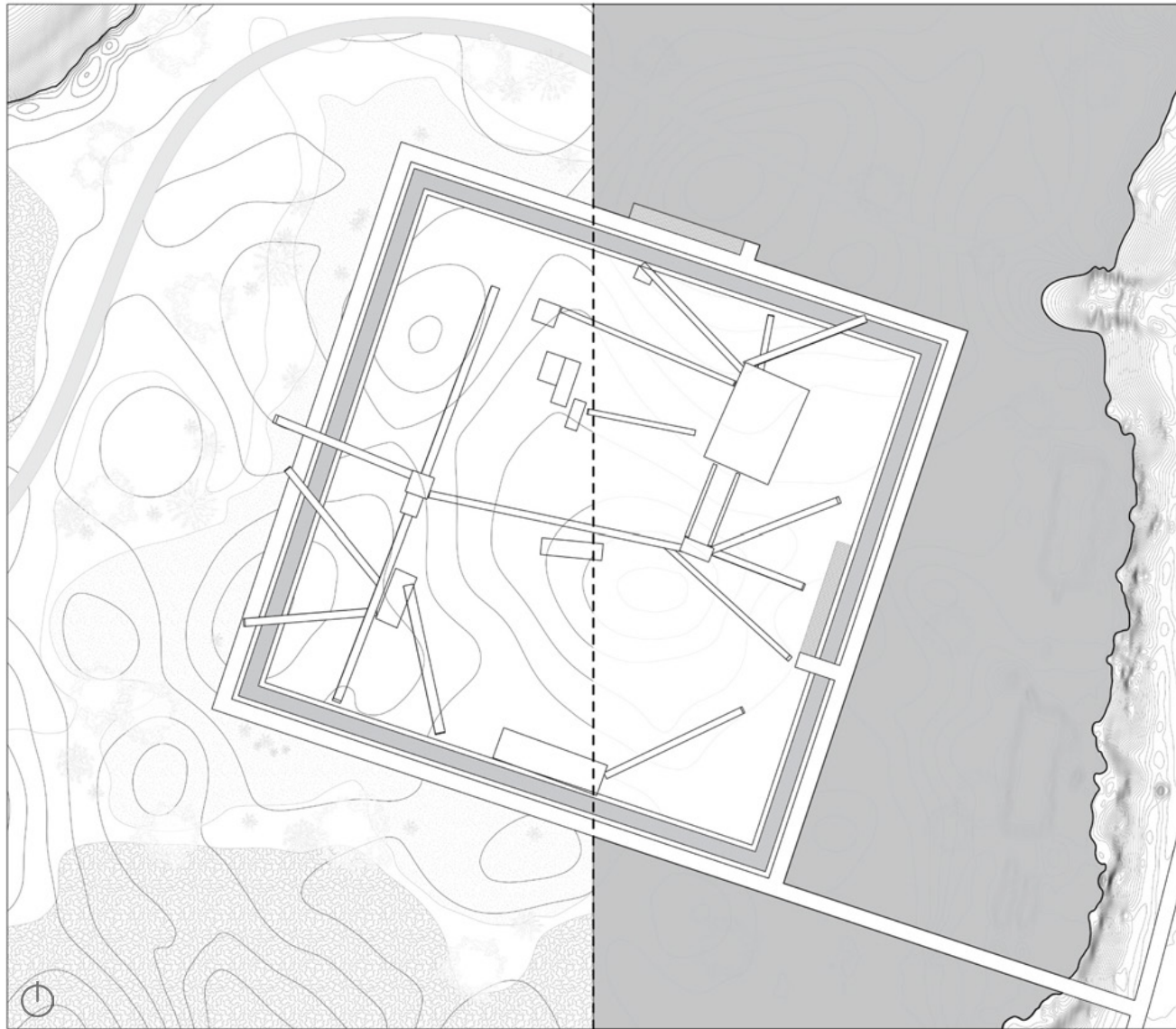




2022



2117

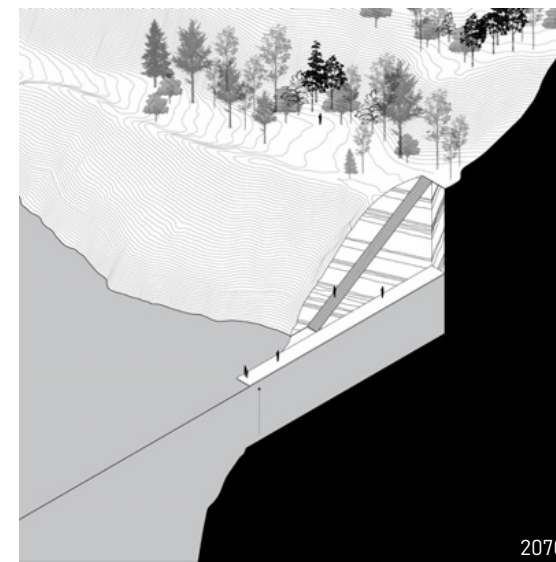
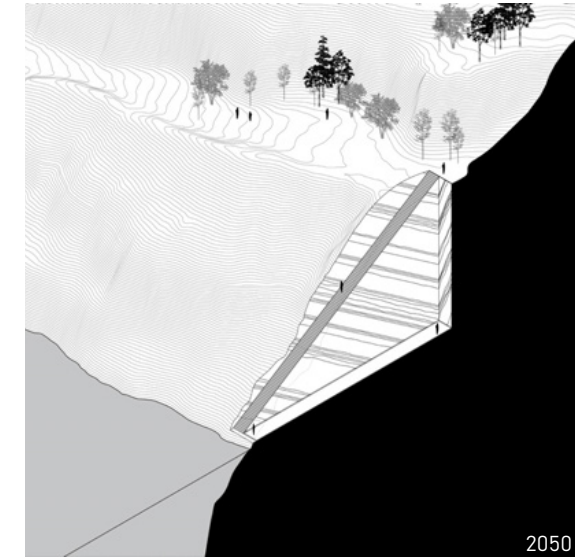
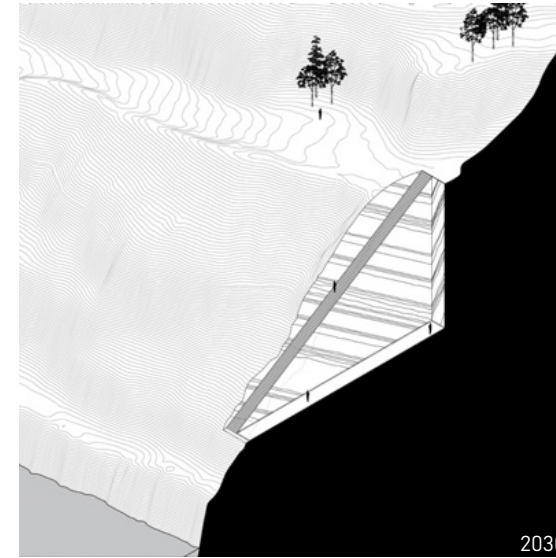


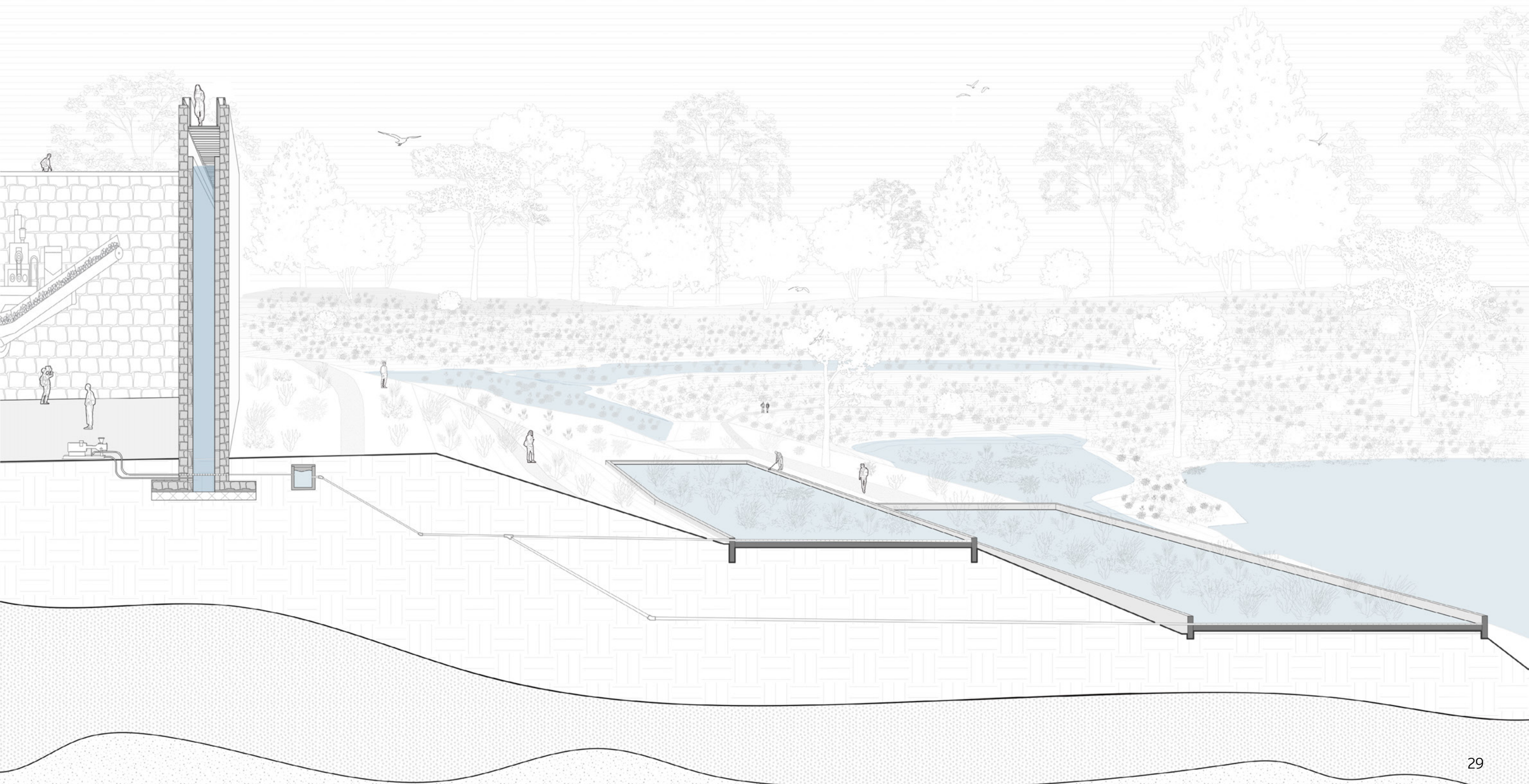
Walls

The wall preserves the existing machinery from the rising water. Within it a reservoir collects fresh water for irrigation. It is symbolically a window into the past.

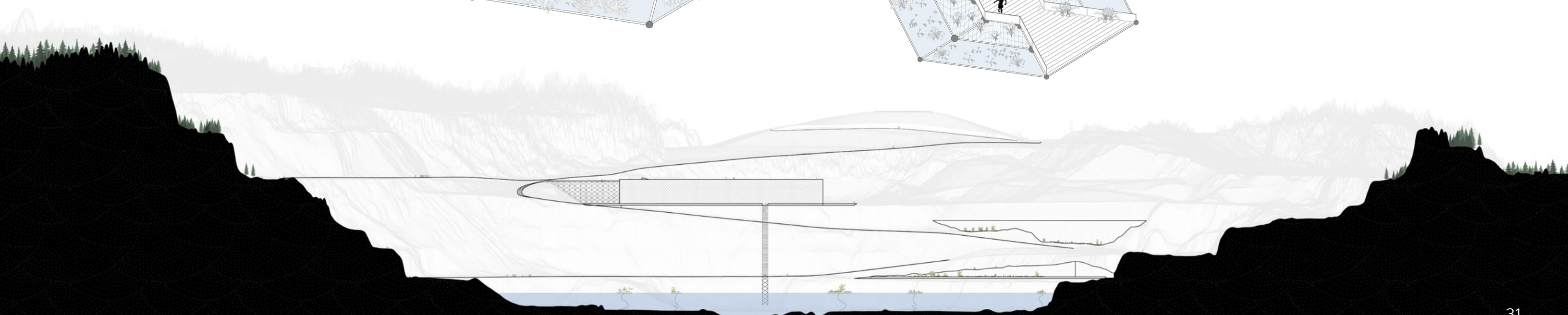
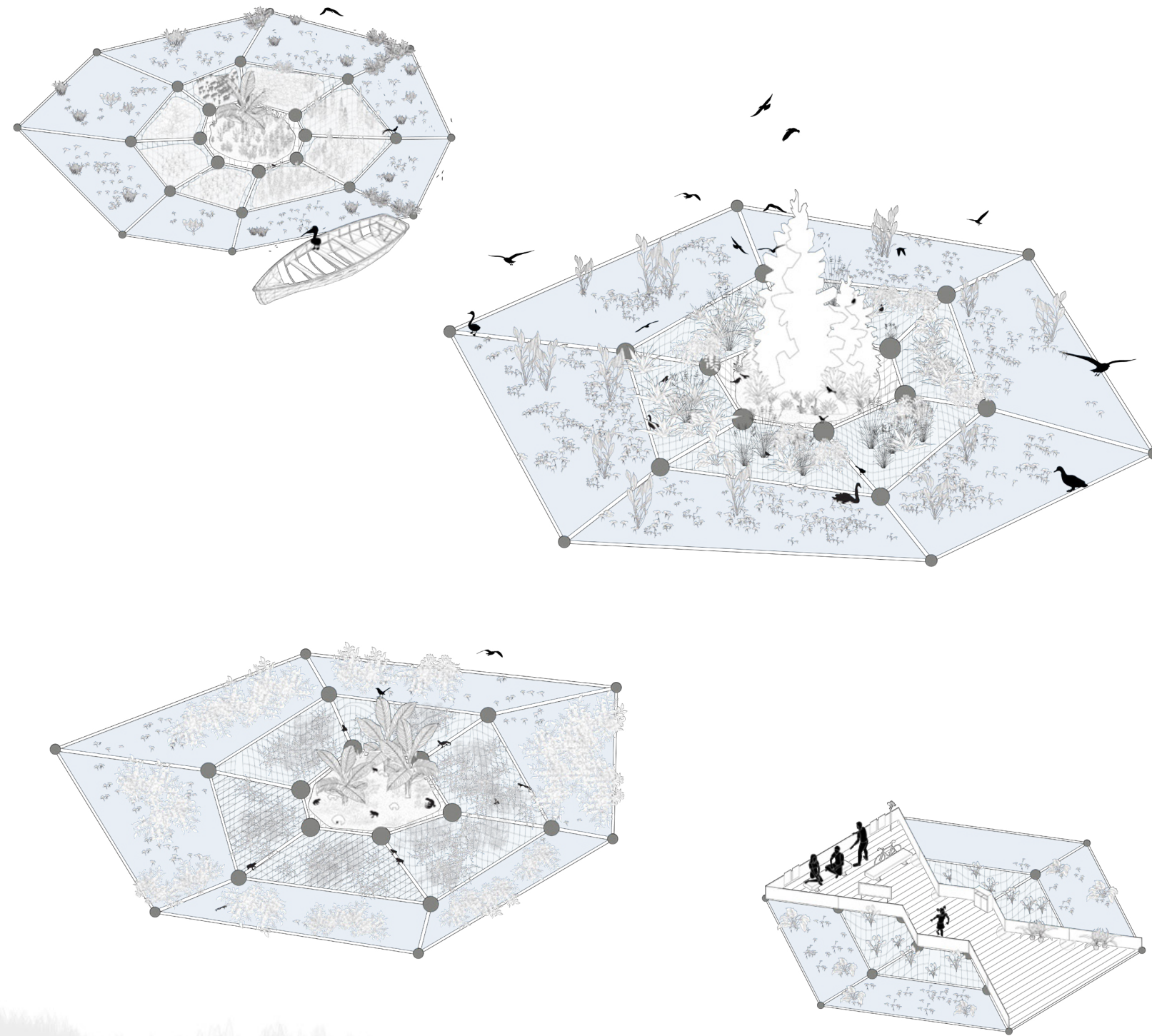
Slits

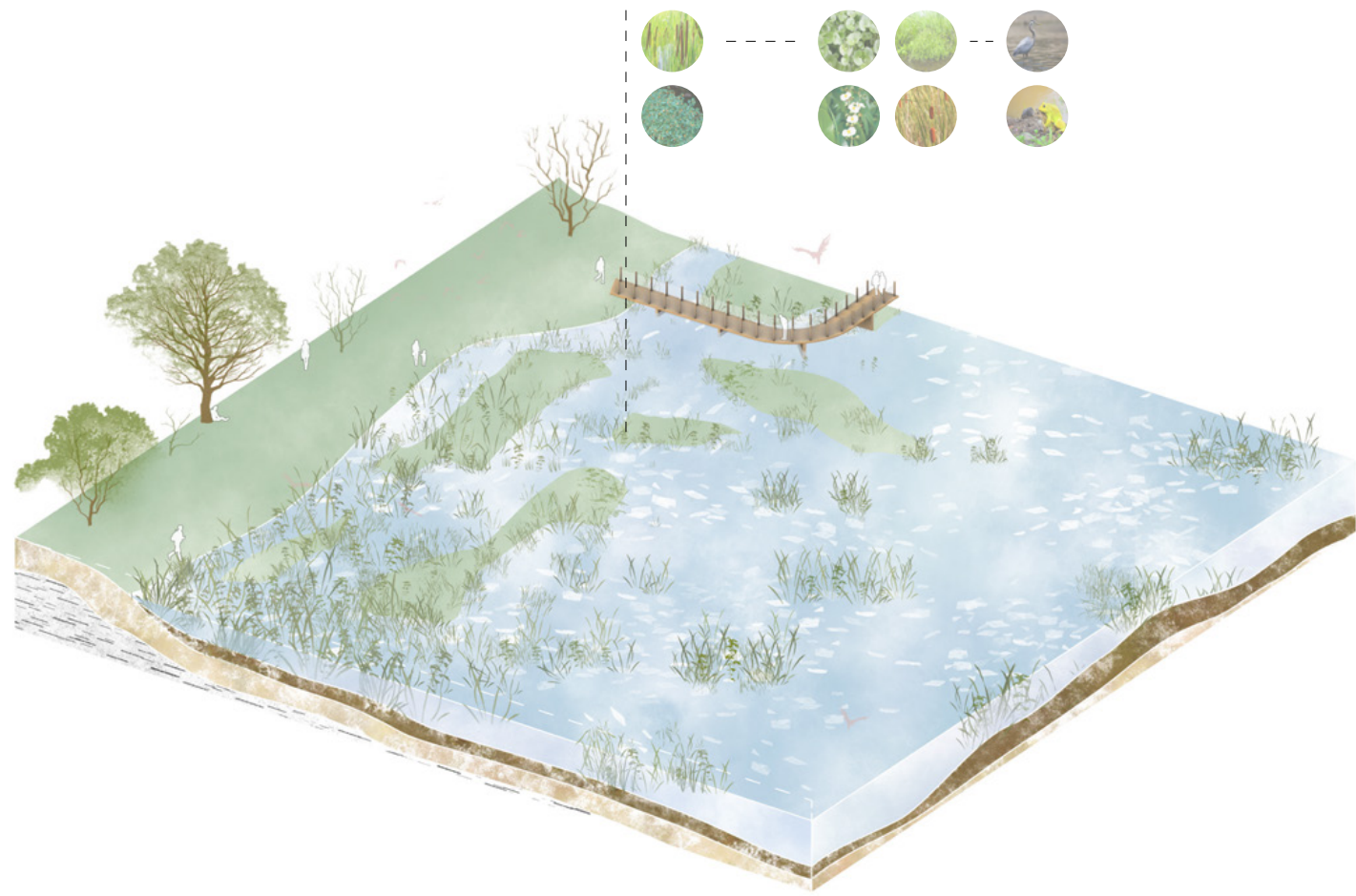
Surgical incisions in the rock facilitate vertical foot traffic, water movement, as well as allow spaces where visitors can experience the depth and magnitude of the earth.





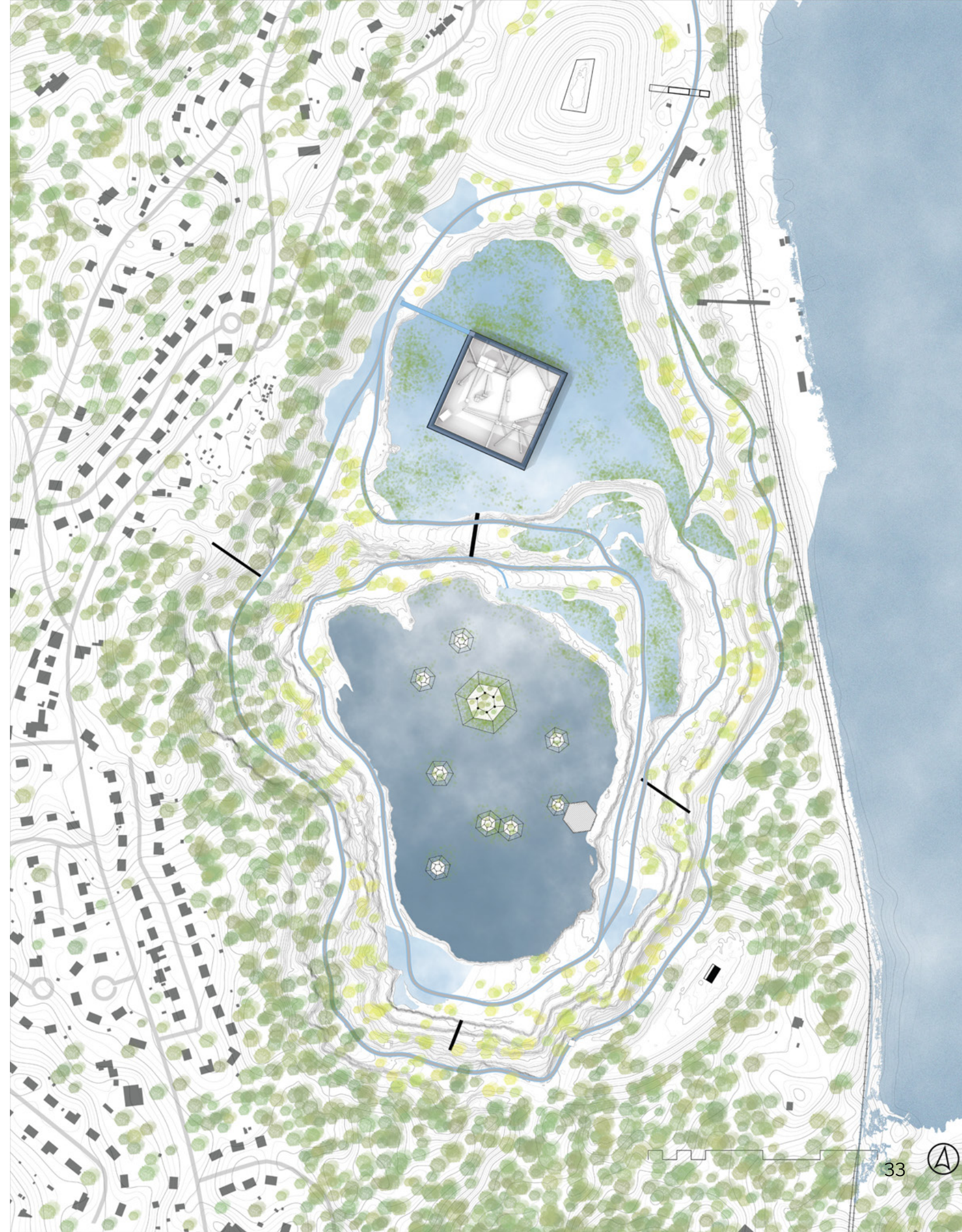
The system of floating islets, made up of recyclable polyethylene modules, accomodates different species of flora and fauna. Mesh-like textile constructs porous surfaces for aquatic plants to grow, which in turn become food sources for local wildlife.



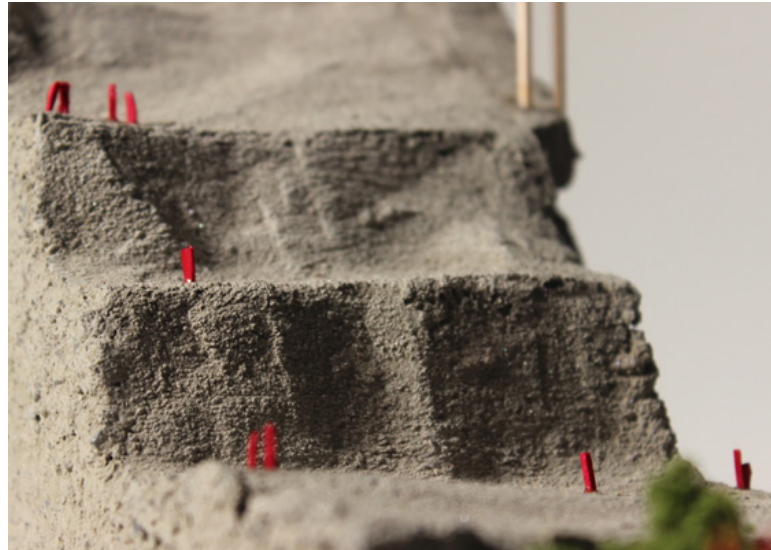


Wetlands

The ever-changing water is of great importance. The goal is to bring life back to the previously lifeless industrial site by introducing local wetlands to the quarry.







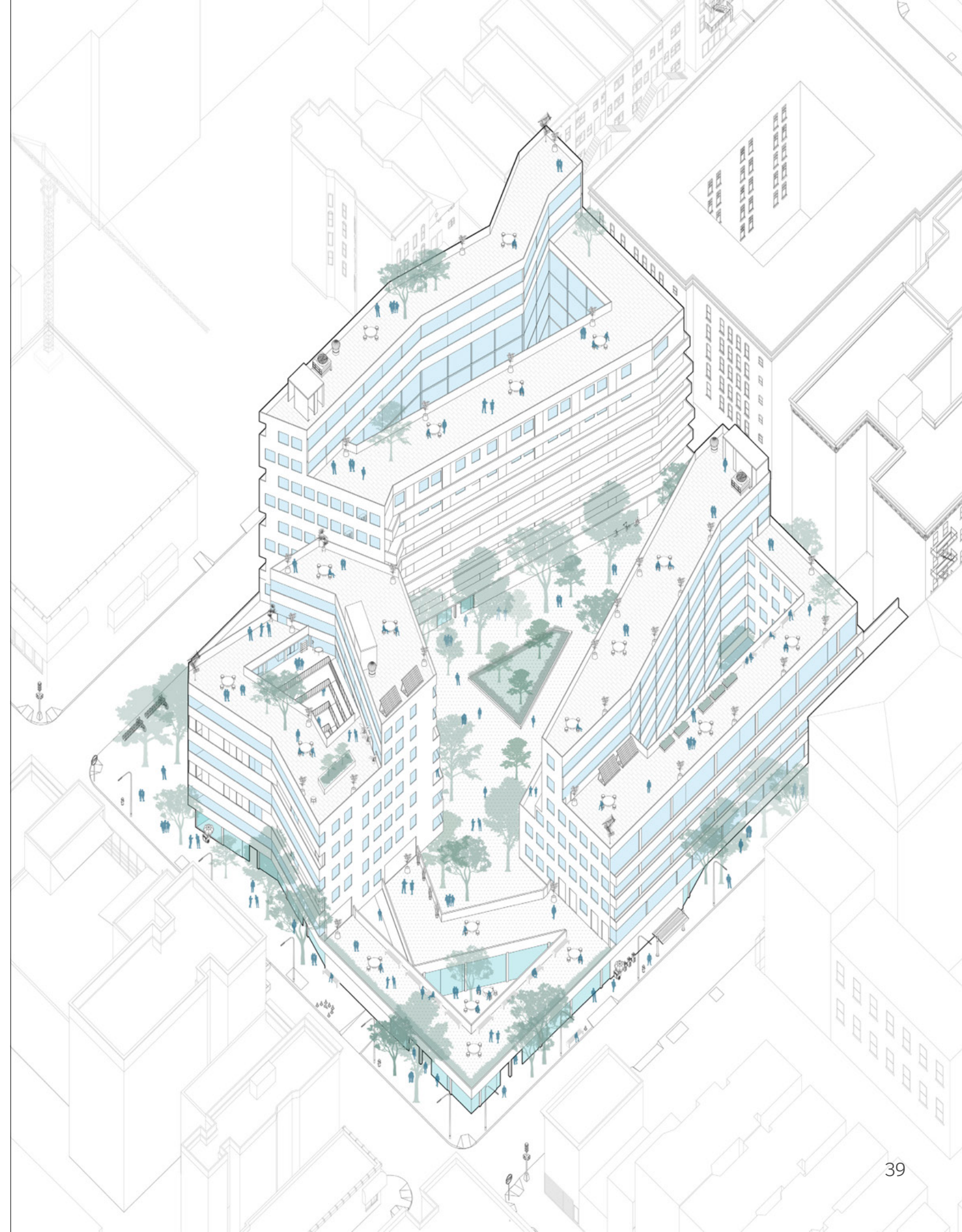
Build *Bridges*, Not Walls

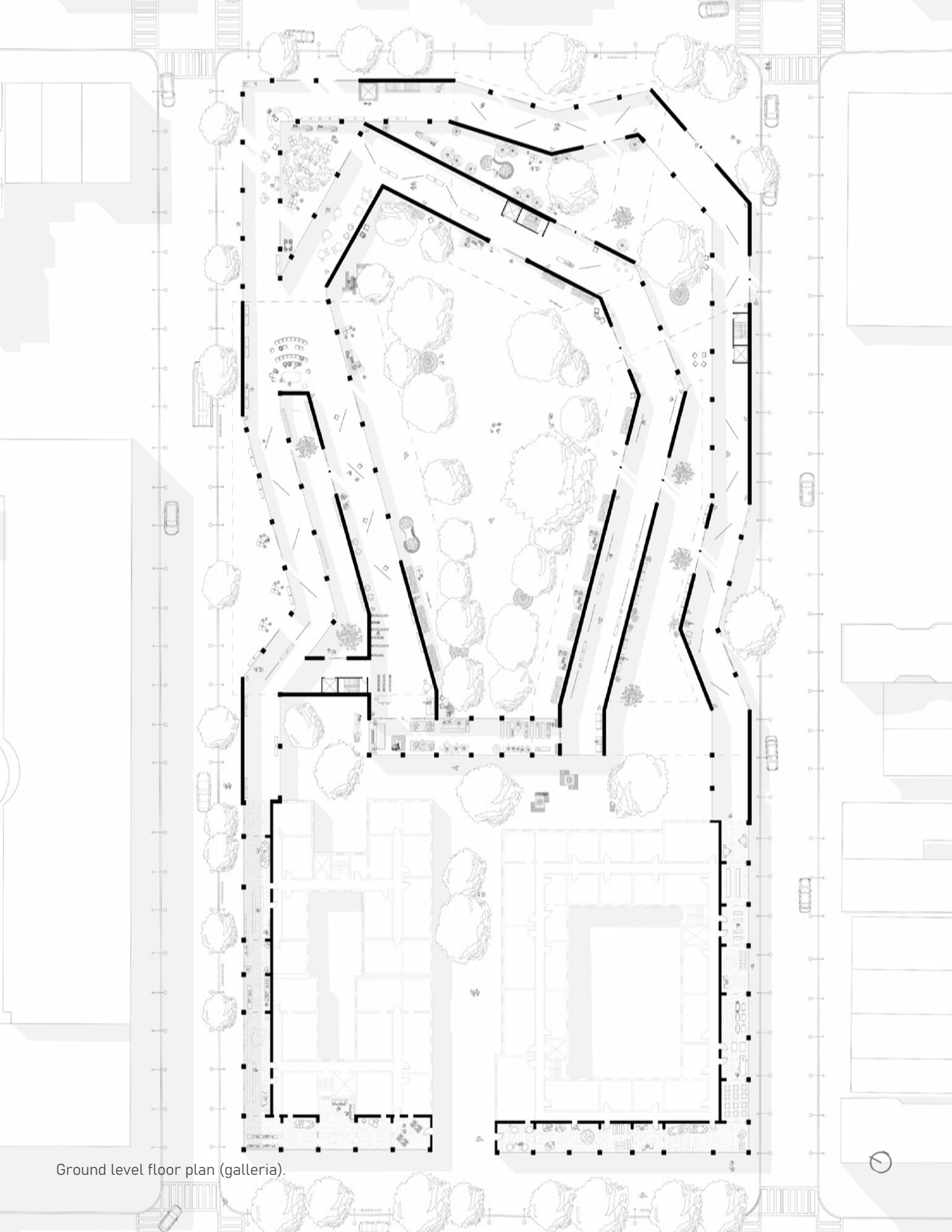
Housing Studio
Crits: Eric Bunge
Collaborators: Mingyue Zhang
Bronx, NY, 2021

The commercial and residential block situated between Courtlandt and Melrose Ave in the Bronx has become an enclosed and neglected piece of land. However, despite this, the community events that take place on the streets surrounding the block are full of life, creating a stark contrast to the area itself.

This project aims to reimagine the site as a fluid extension of the street, rather than a block defined by rigid boundaries. To achieve this, a winding and transparent galleria penetrates the ground level, with three housing projects nestled on top of it.

The Bronx Documentary Center (BDC) currently serves as a cultural institution on the lower west corner, with a mission to revitalize and unify the community. By spatially and programmatically dispersing and amplifying the BDC, it will become an enlarged cultural institution for the local arts scene and a hub for the newly envisioned housing projects.

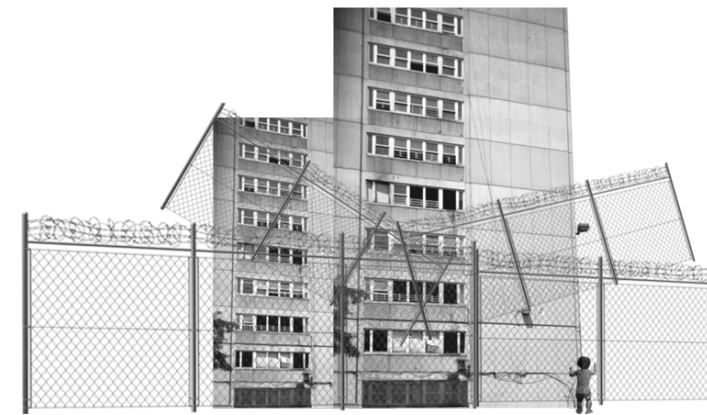




Ground level floor plan (galleria).



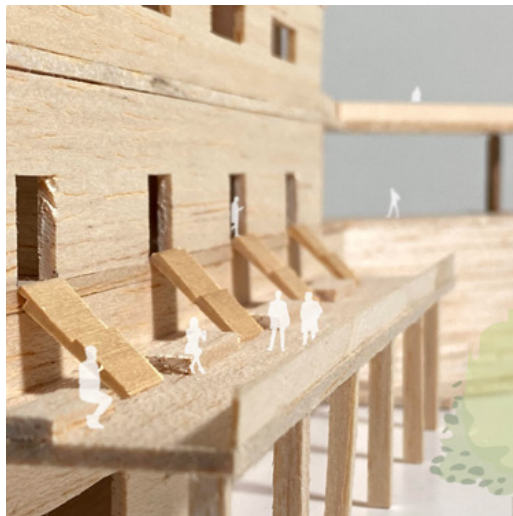
Streets as space of spontaneous vibrancy.



Block framed by division and isolation.

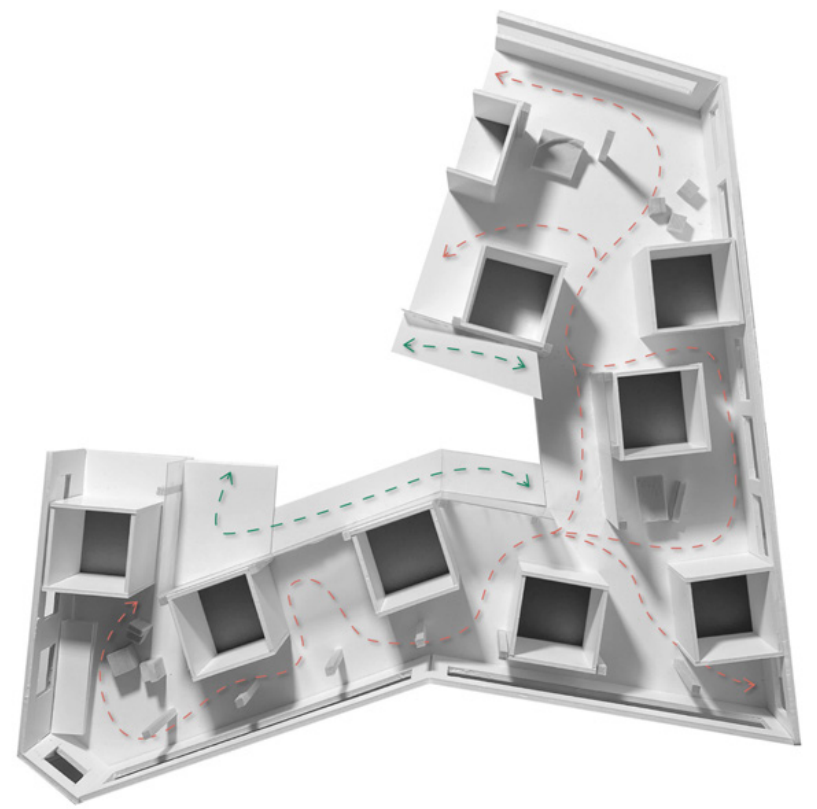


What if the streetscape extends and activates the site?



'Porosity' induces a fluid set of spaces.

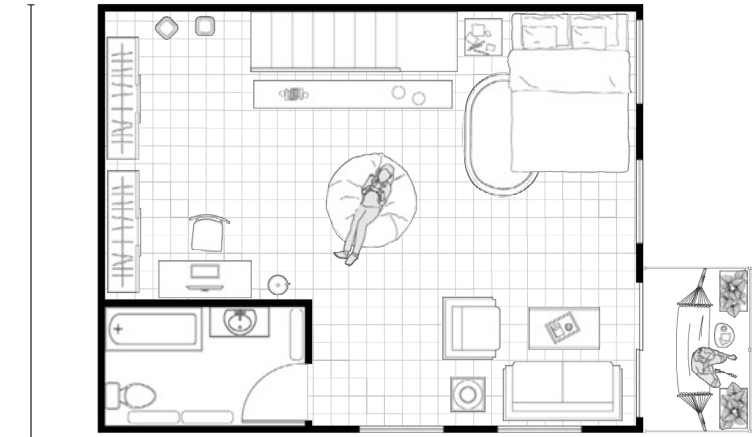




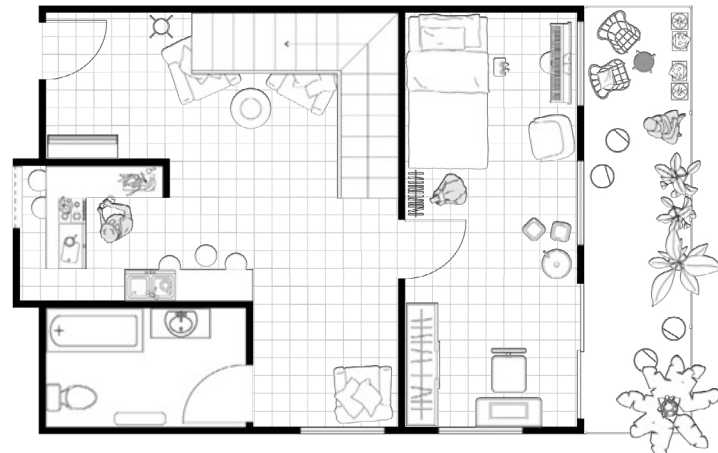
Study of internal circulation.



The galleria as an organic continuation of the streetscape.



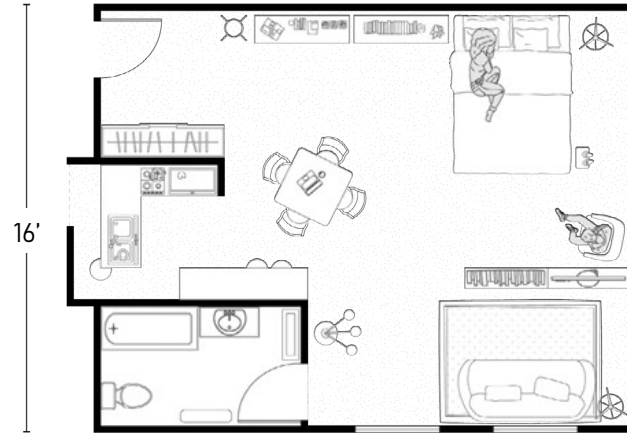
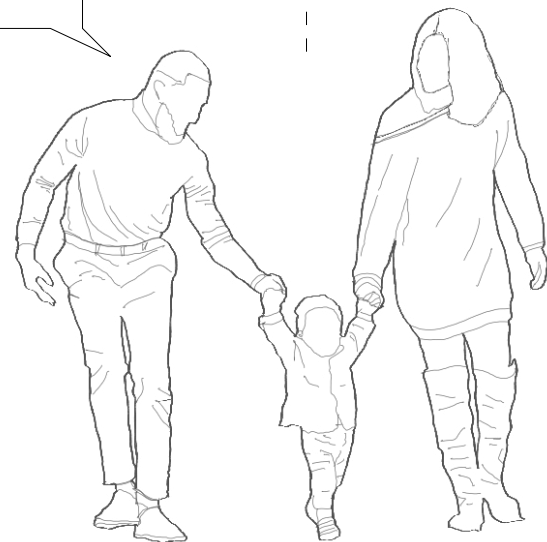
32'



26'

large units (2-bedroom)

We are a family of 3 and I run a local deli on this block.

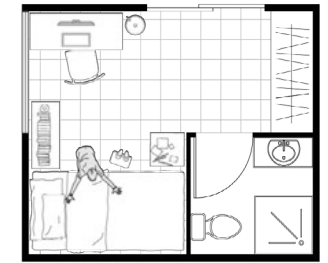


16'

22'

small units (studio)

My fiancée and I work in a furniture store a block away.



10'

12'

rooming units (micro studio)

I am a painter and I host public workshops outside of my room.

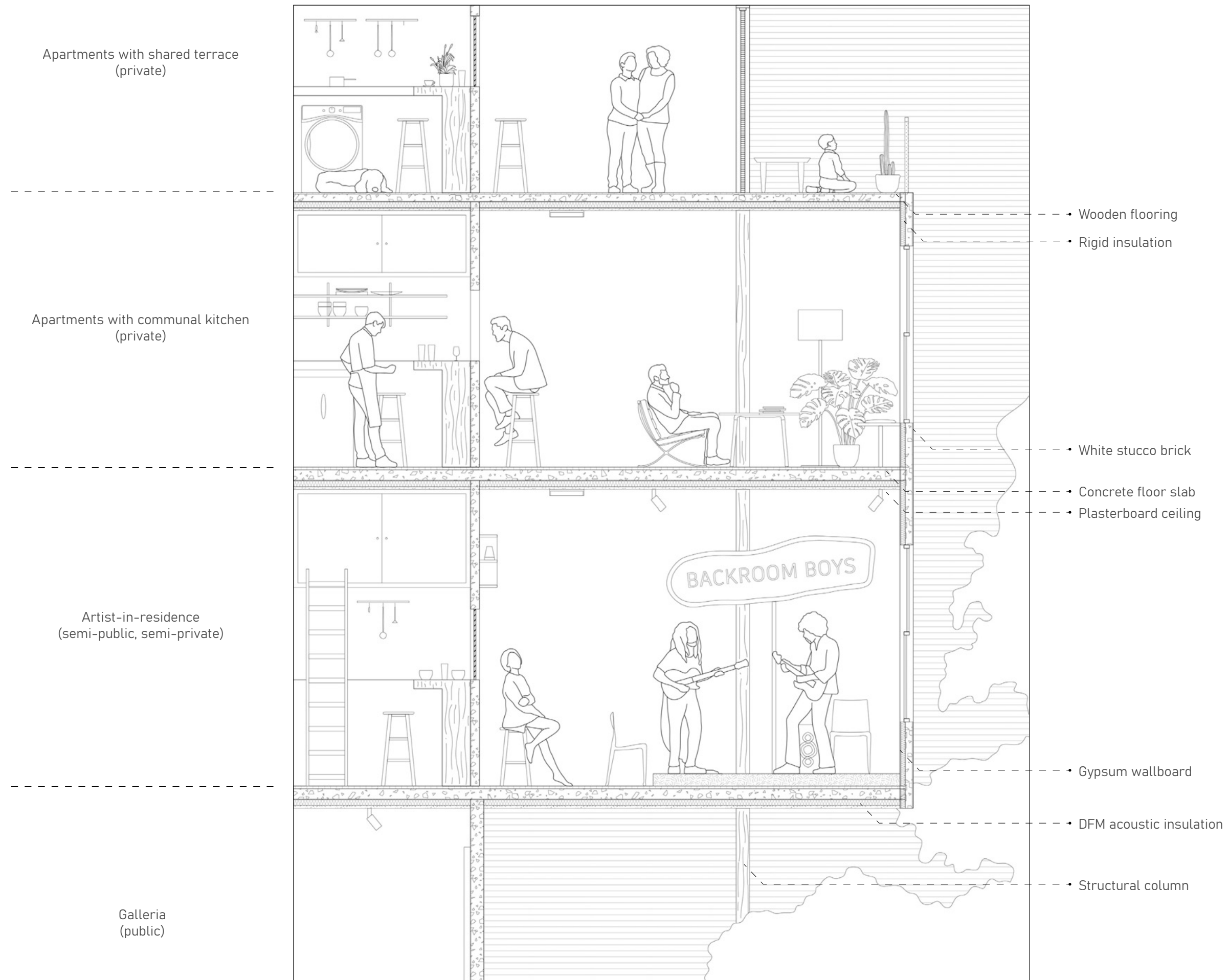


I am a freelance musician and I also teach at the public school next door.



I am a sculptor and my home is my studio.







communal rooftop

rooming units

shared balconies

theatre

large units

music lounge

medium units

open-air atrium

extended sidewalk

auditorium

open courtyard

exhibition space

central lawn

guest lounge

sheltered garden

maker space



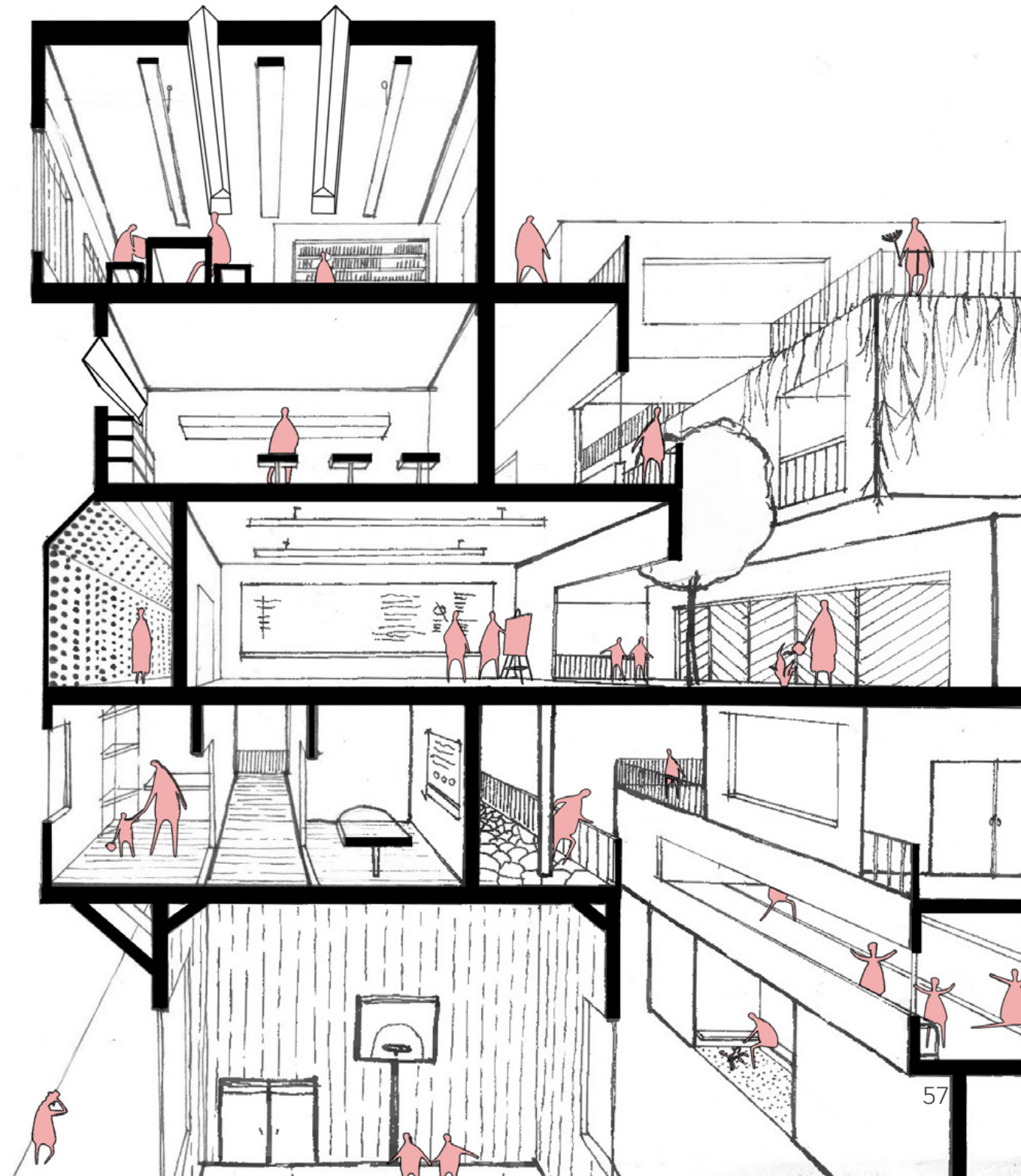
Interior of a rooming unit and communal space in the west building.

Protean Shell: Upcycling P.S.64

Aptive Reuse Studio
 Crits: Miku Dixit
 Manhattan, NY, 2021

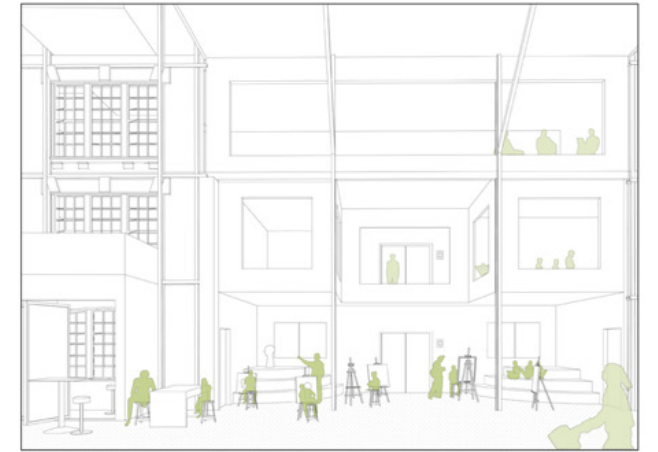
The project is an attempt to upcycle the existing PS-64 building located in East Village. Site study on the site acoustics unveils a latency of a new modern art school with an optimized learning environment, where the traditional barriers between school and non-school life are increasingly blurred. The institution, on top of being a host of academia, becomes a social and cultural venue that serves the community and beyond.

The need for exposure and reciprocity to the urban public life leads to a need for fluidity and porosity, which in turn brings up the need to reconfigure the existing building. Removal of old divisions between spaces in PS-64 allows an exponentially more transparent and malleable set of space. In order to do so, a pre-fabricated steel frame superstructure is introduced both for structural stability and opportunities for additional cantilevered space.

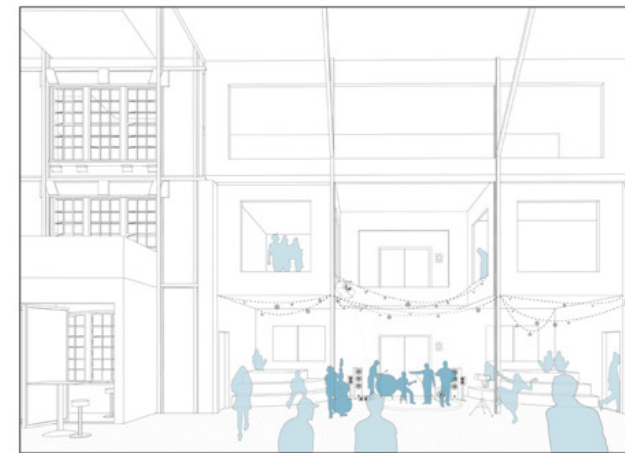




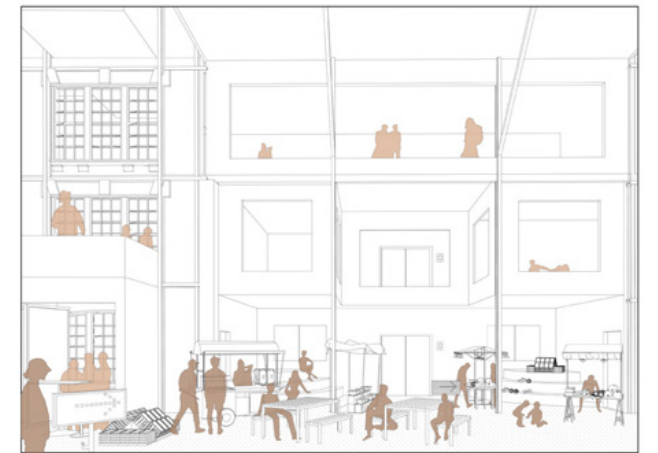
Open-Air Dining/Social Space
Monday 13:00



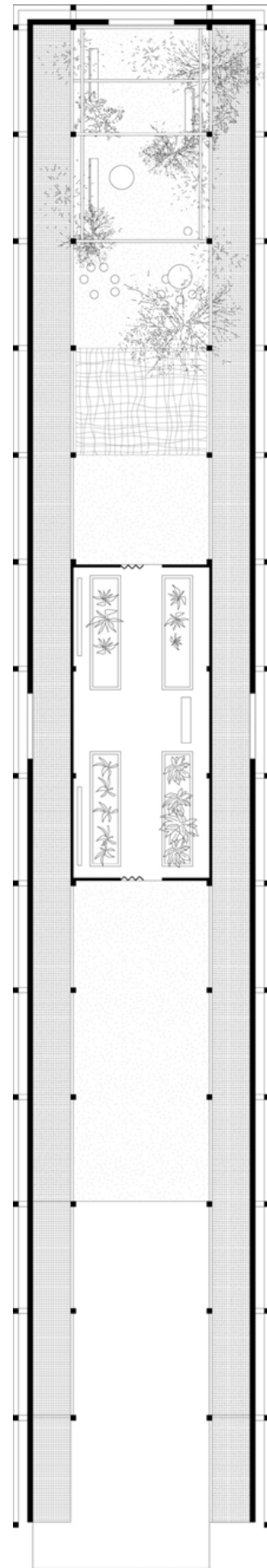
Outdoor Art Studio
Tuesday 10:00

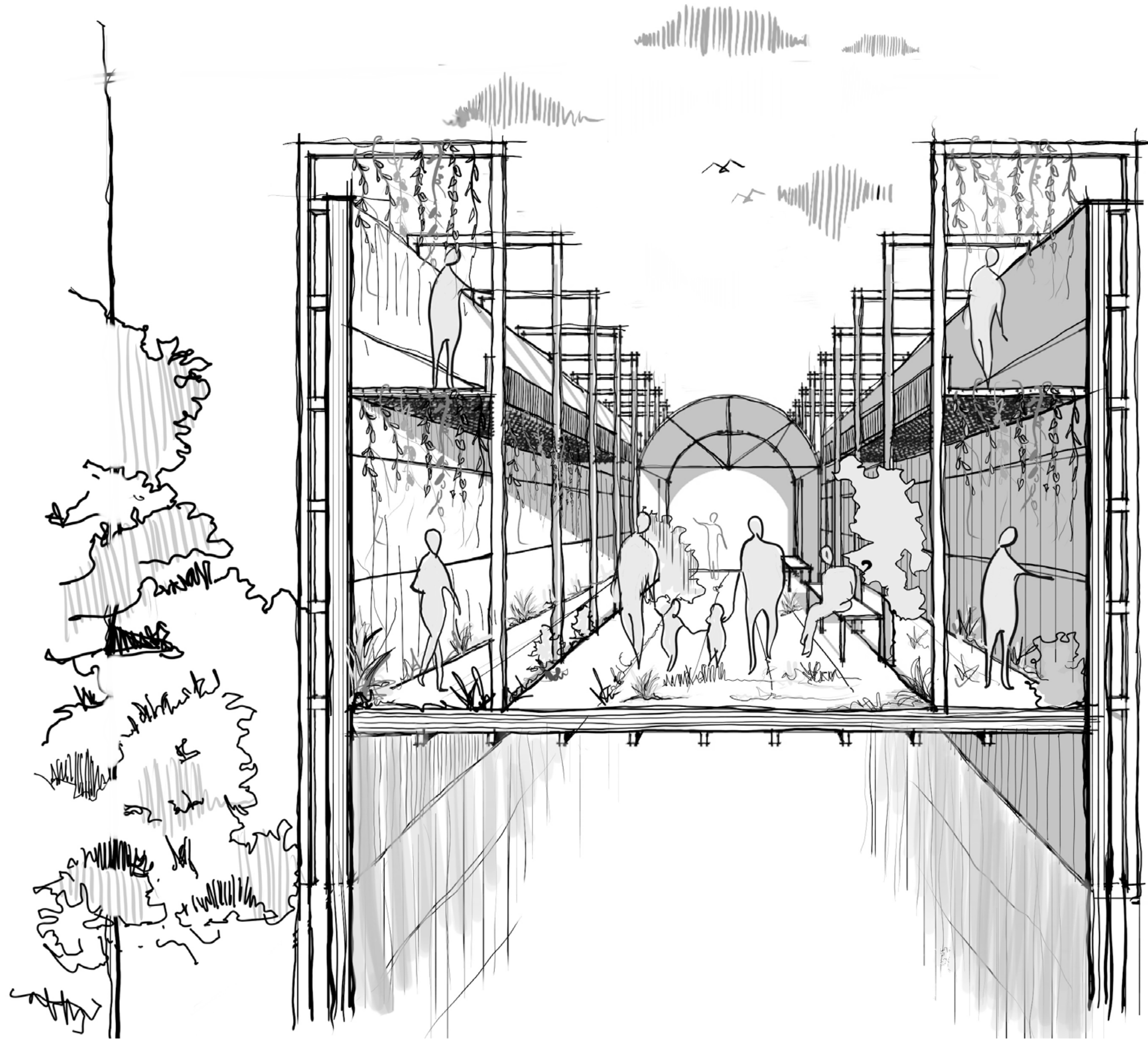


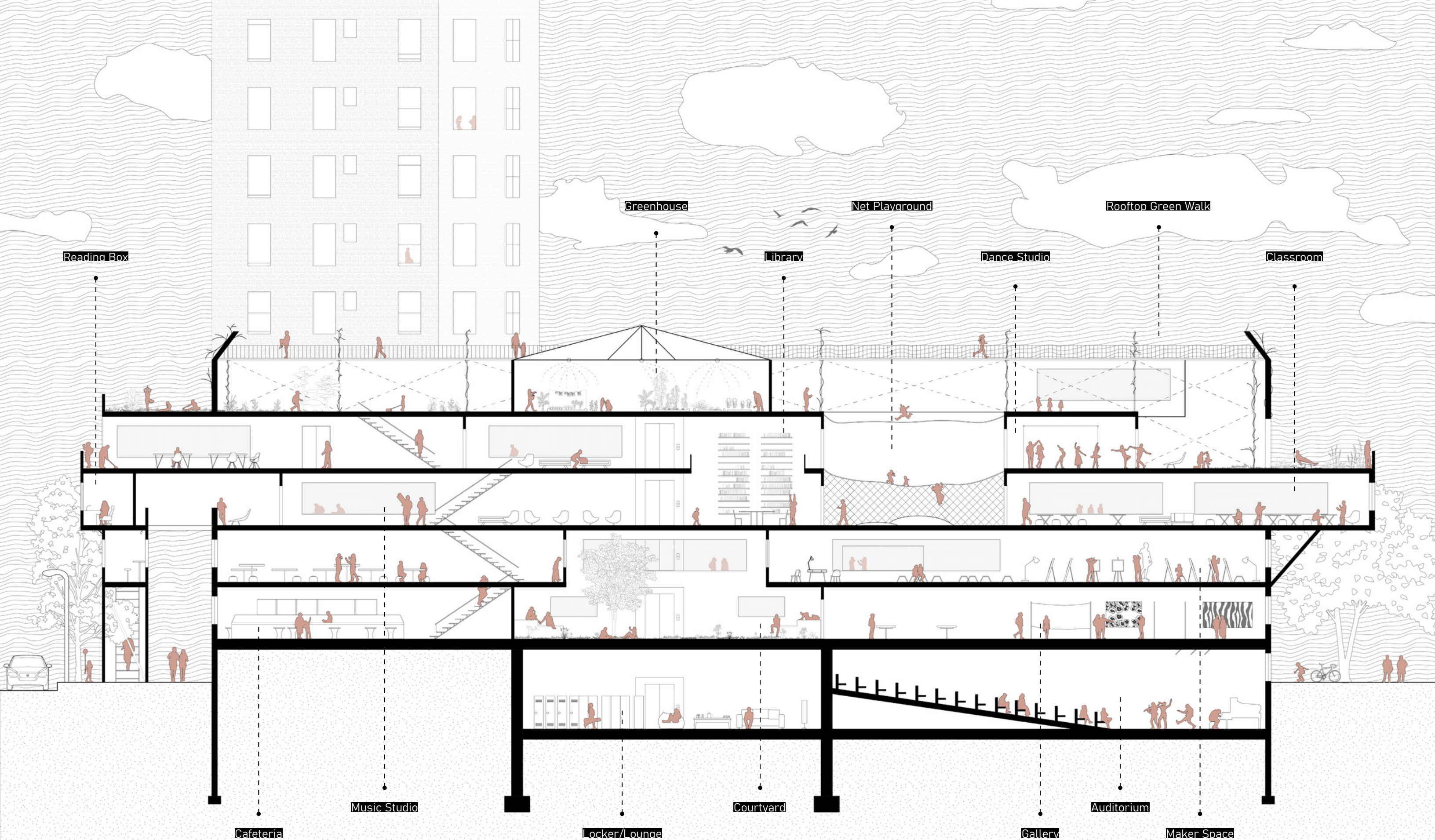
Performance Space
Friday 19:30



Farmer's Market
Sunday 14:00







Reading Box

Greenhouse

Library

Net Playground

Dance Studio

Rooftop Green Walk

Classroom

Cafeteria

Music Studio

Locker/ Lounge

Courtyard

Gallery

Auditorium

Maker Space



Making. Arrangements.

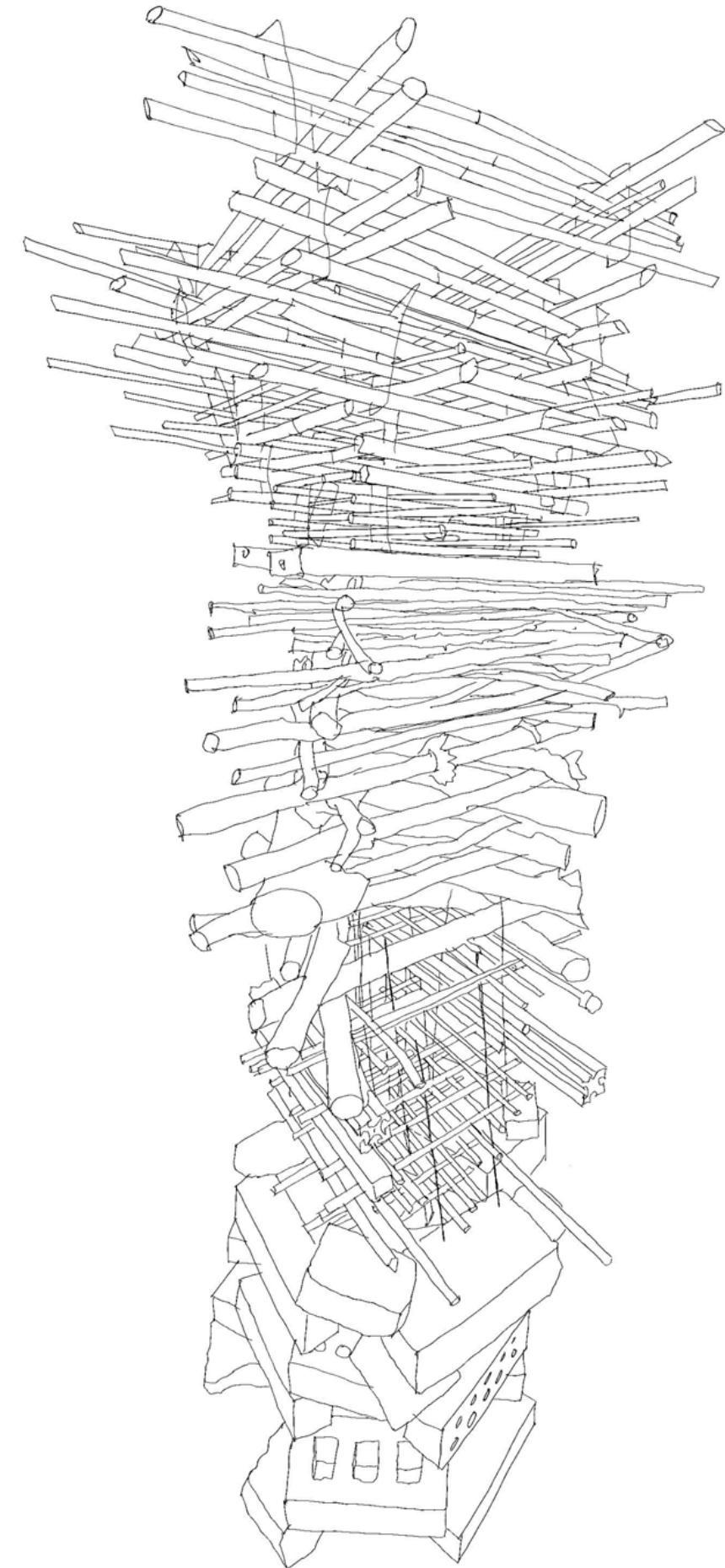
Self-Discovery Studio

Crits: Ada Tolla, Giuseppe Lignano

This studio encourages the creation of a visual, material, and verbal archive of my own preoccupations and reflections from my life within and beyond the design world. It resists scholastic postures and standardized solutions, instead pushing an original and authentic self-expression that is deeply embedded in our mental realms. The endeavor centers around exploring our respective identities, memberships, and default belongings as well as pushes me to be more conscious of my own patterns and thoughts, and even more critical of the educational, cultural, and structural biases that surround me.

Of the many materials that exist, masonry, metal, wood, and plastic are among the most evocative, by prevalence, by physicality, and by emotions attached. This project is a four-part endeavor that addresses each of these materials individually and at last collectively. My object comes from my curiosity of and fascination about the process of collecting, archiving, and cataloging, I work simultaneously within the realms of sourcing materials and constructing volumes.

I produce a six feet tall structure and a book that documents the making and thinking of the object. The sculpture is built through a sequence of material and spatial constructs, an iterative exploration through making. I embrace discoveries and mishaps throughout, using them as opportunities to re-evaluate and rethink my object(s).



preface.

in compiling this book, the one aim, if there was one at all, was to collect and bring together objects of various backgrounds and stories. it was, shameless to say, a haphazard collection of things, gathered at random from doubtful sources, that has been made up from sudden bursts of intuition, often came at unexpected times.

i have always been a collector of sorts, not of great valuable things, but of items i hold dear to my heart: film cameras, vintage nikes, snow globes, cacti and succulents. upon embarking on the journey of this studio, it did not at first occur to me that it is again an endeavor of growing a collection and catalogue of things.

in my initial quest to source masonry, i was overwhelmed by the multiplicity of shapes, colors, sizes, and weights of a single material. on the spur of the moment, i grew fond of collecting as many variations of a given material as i could.

and it wasn't easy.

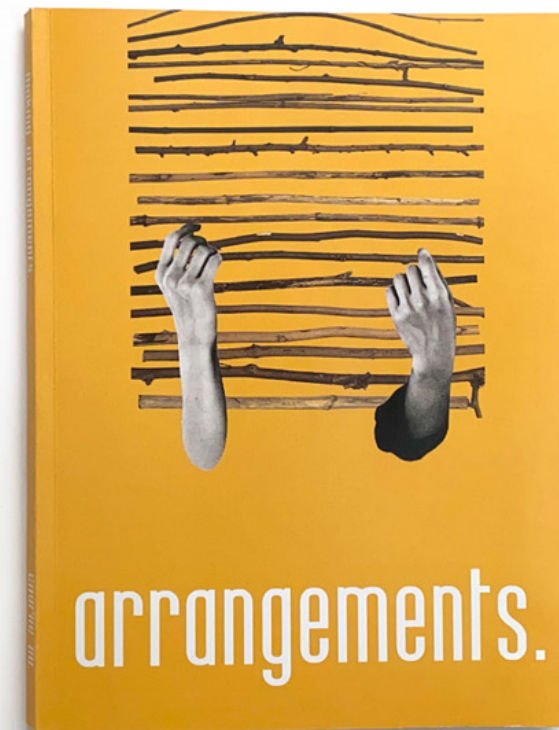
to me, amassing and hauling objects took way more time and effort than actually putting the pieces together. i had spent hours and hours meandering in the parks, walking with my head down on the sidewalks, ritually checking out the recycling area in the basement, and occasionally trespassing on the construction sites.

it was, however, a process that i took profound pleasure in. the discovery itself was as inspiring as can be. through learning to appreciate the innumerable materials that we discard day-to-day. i became a person more attentive to the environment, more attuned to nature, and less enveloped by the digital world.

it was certainly not painless to work with minimal adhesives. pieces fell simply by pure mischance. eventually i learned how to work with the inherent characteristics of each material. by stacking individual pieces up i was able to create something else entirely peculiar.

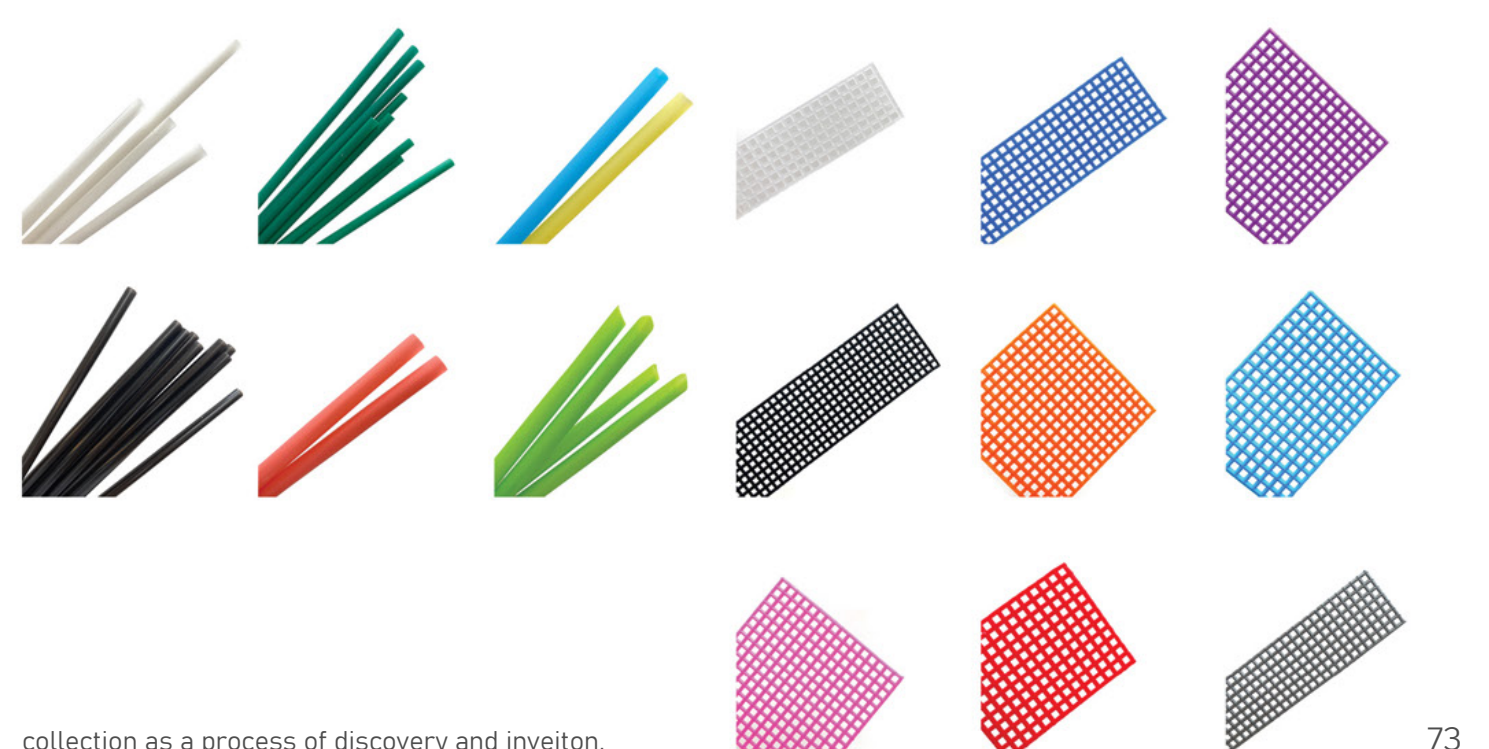
so why is archiving important? because archives tell stories, increase our sense of identity, and enhance our understanding of individuality and collectivity.

the endeavors that came with the making of this book were unexpected. an architecture student no more, i became a scrounger, a scavenger, a forager, a lover of all things weird and wonderful. and i wouldn't have it any other way.



The book as a prospective monograph.

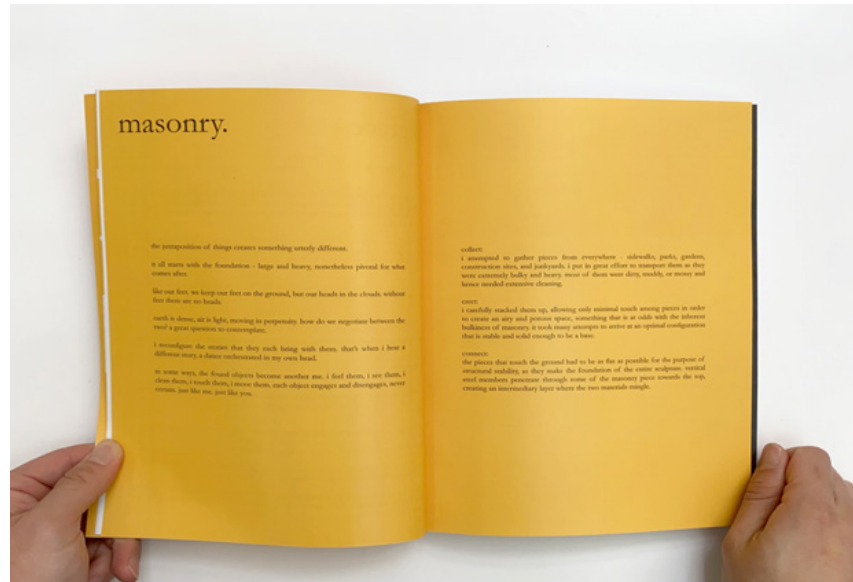


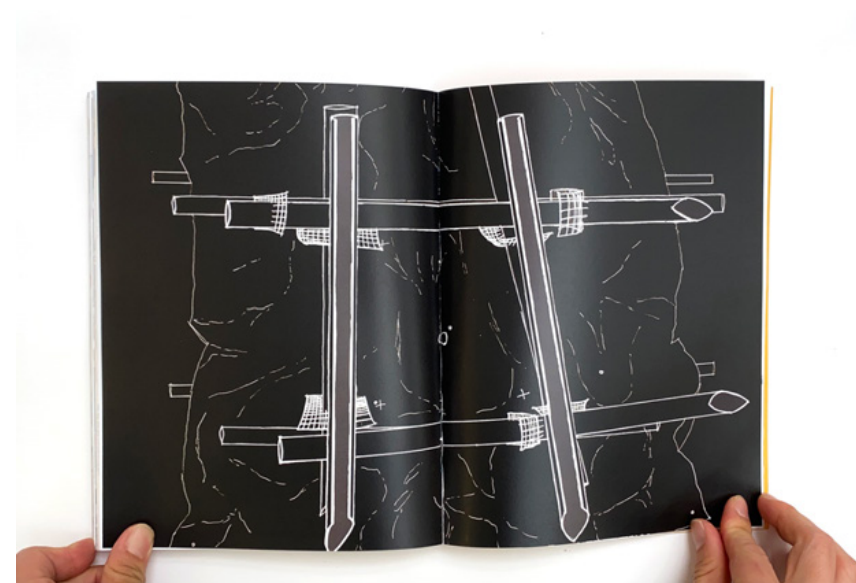


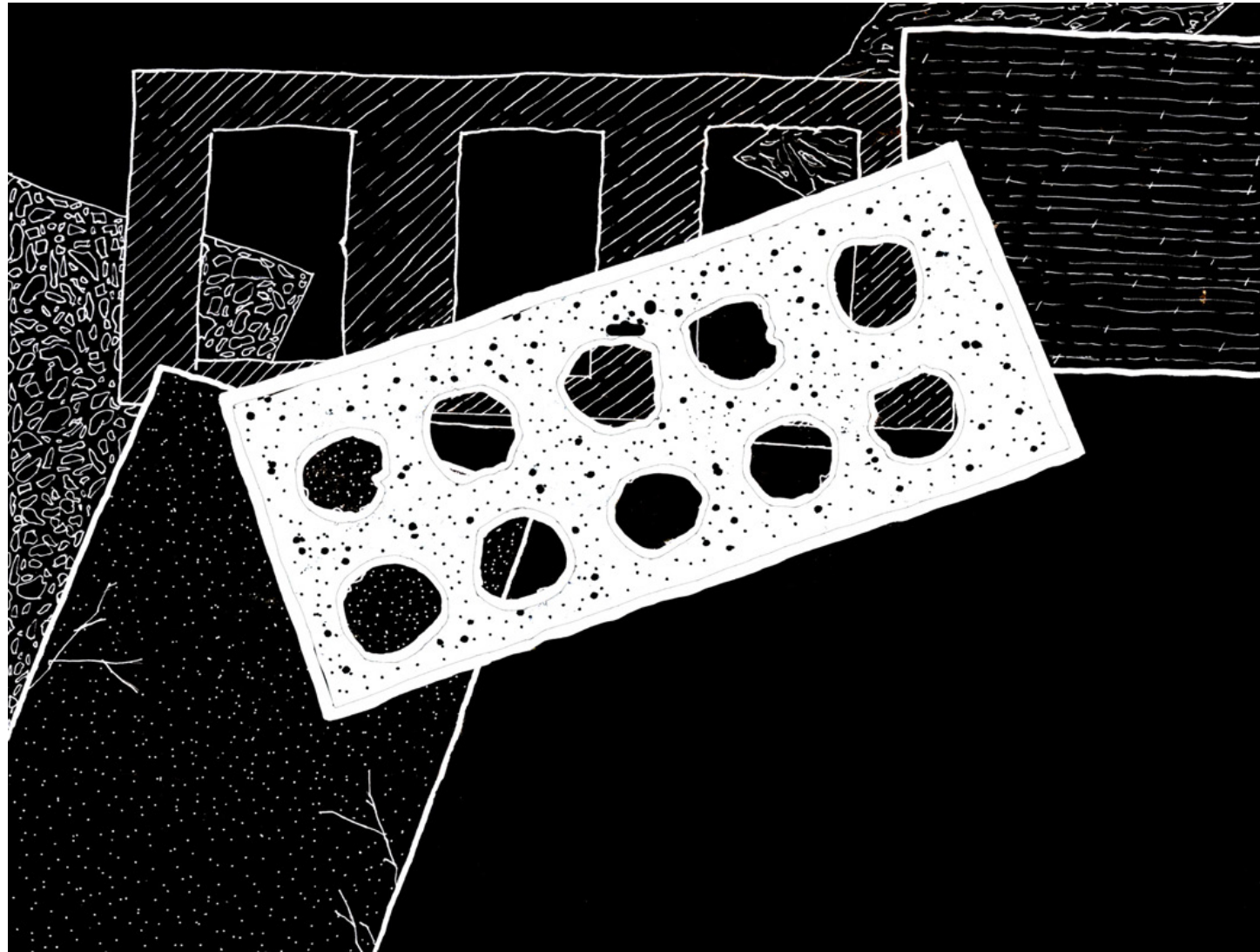
collection as a process of discovery and invention.



what is an architecture?
*AI-generated building.



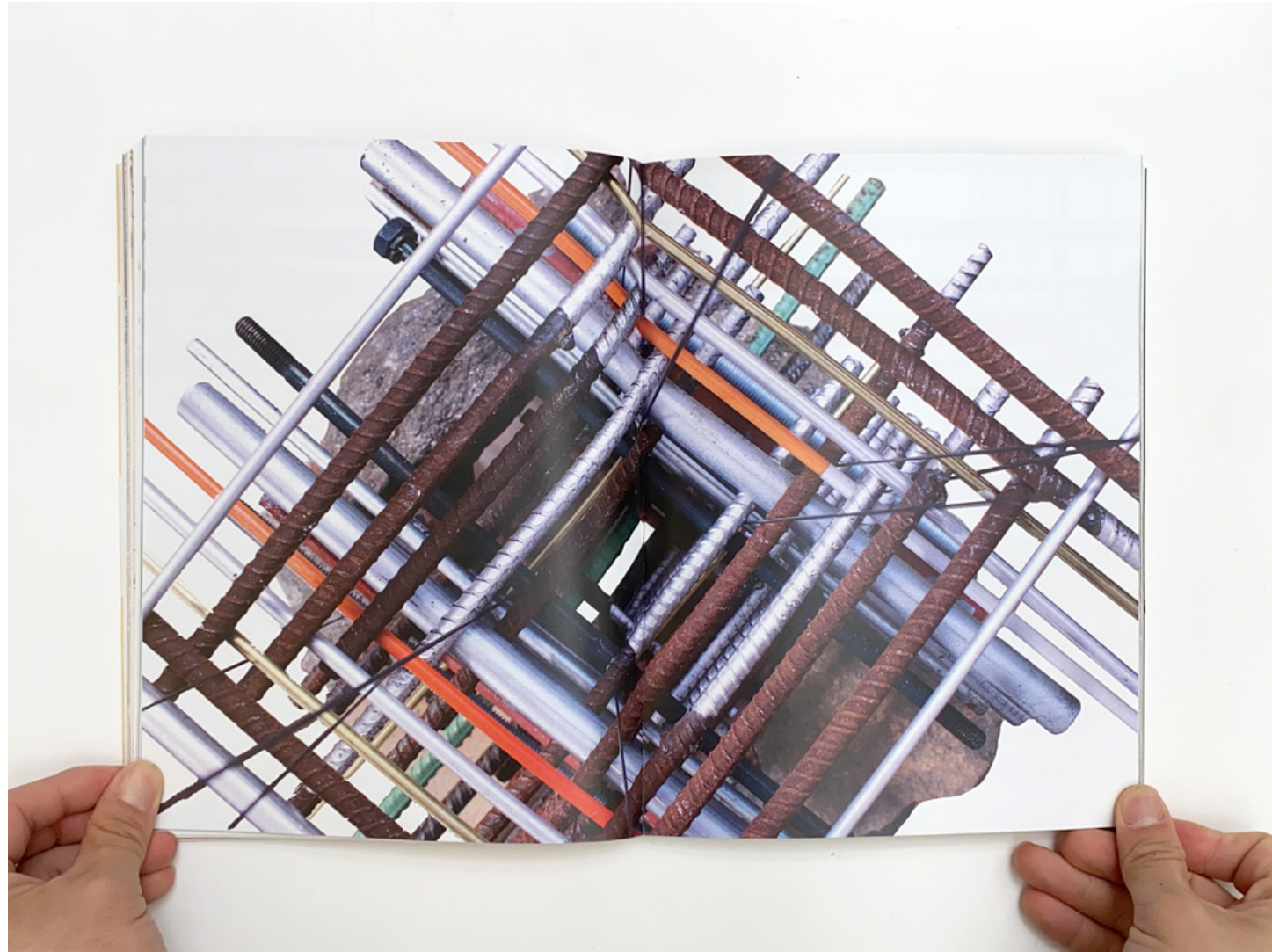




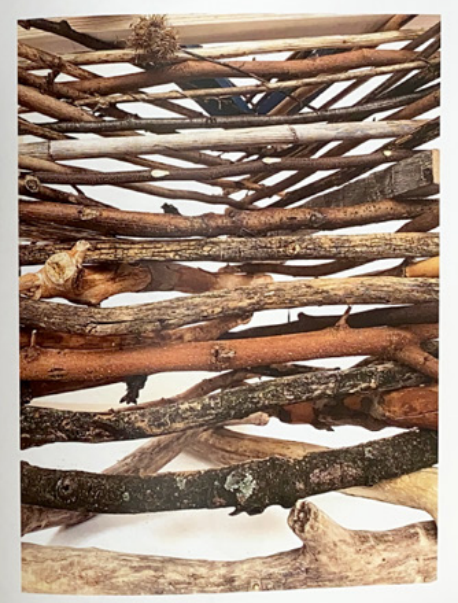
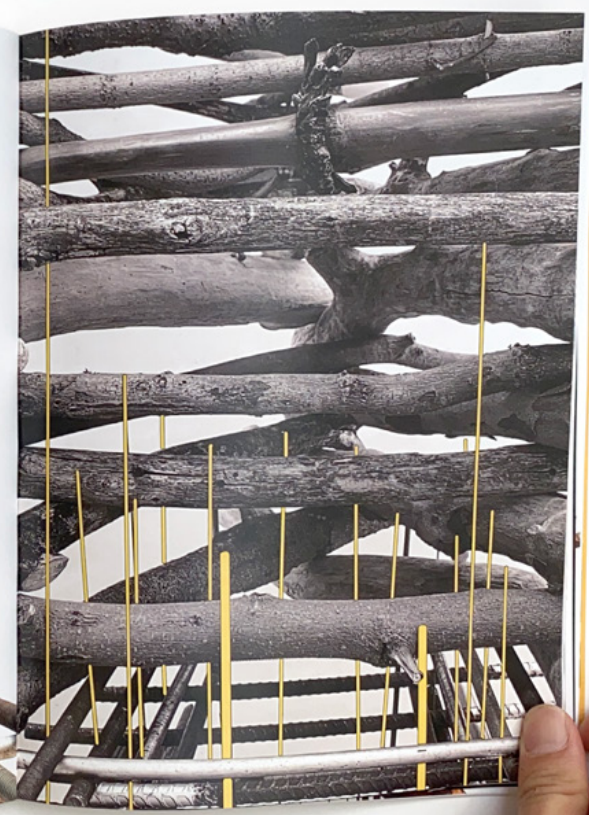
1:1 section of the masonry object.

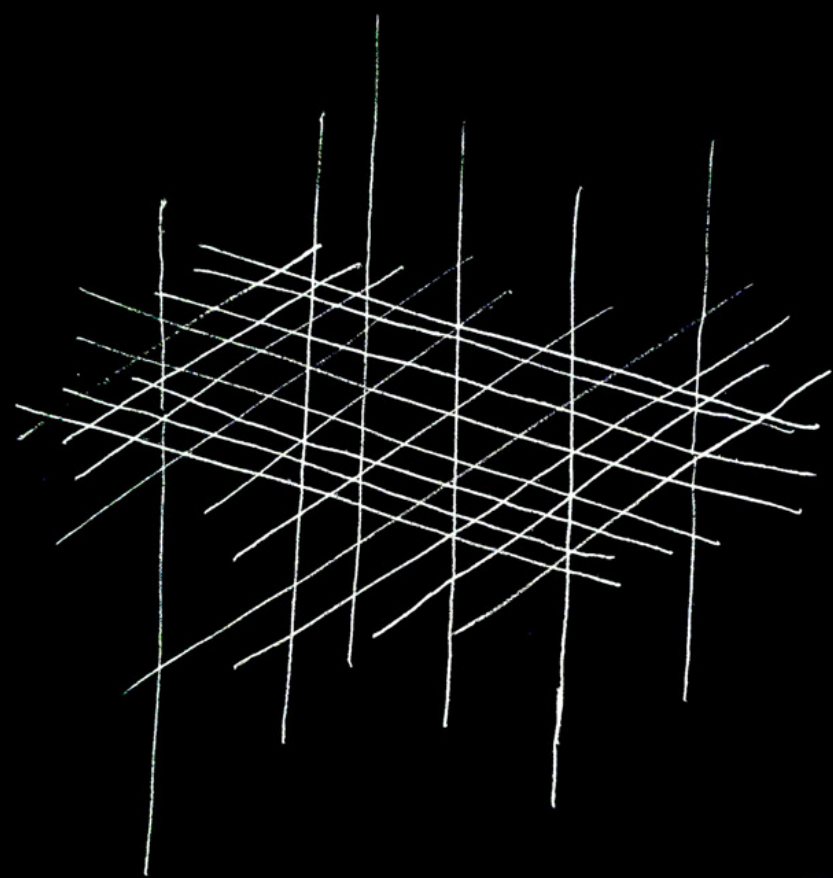
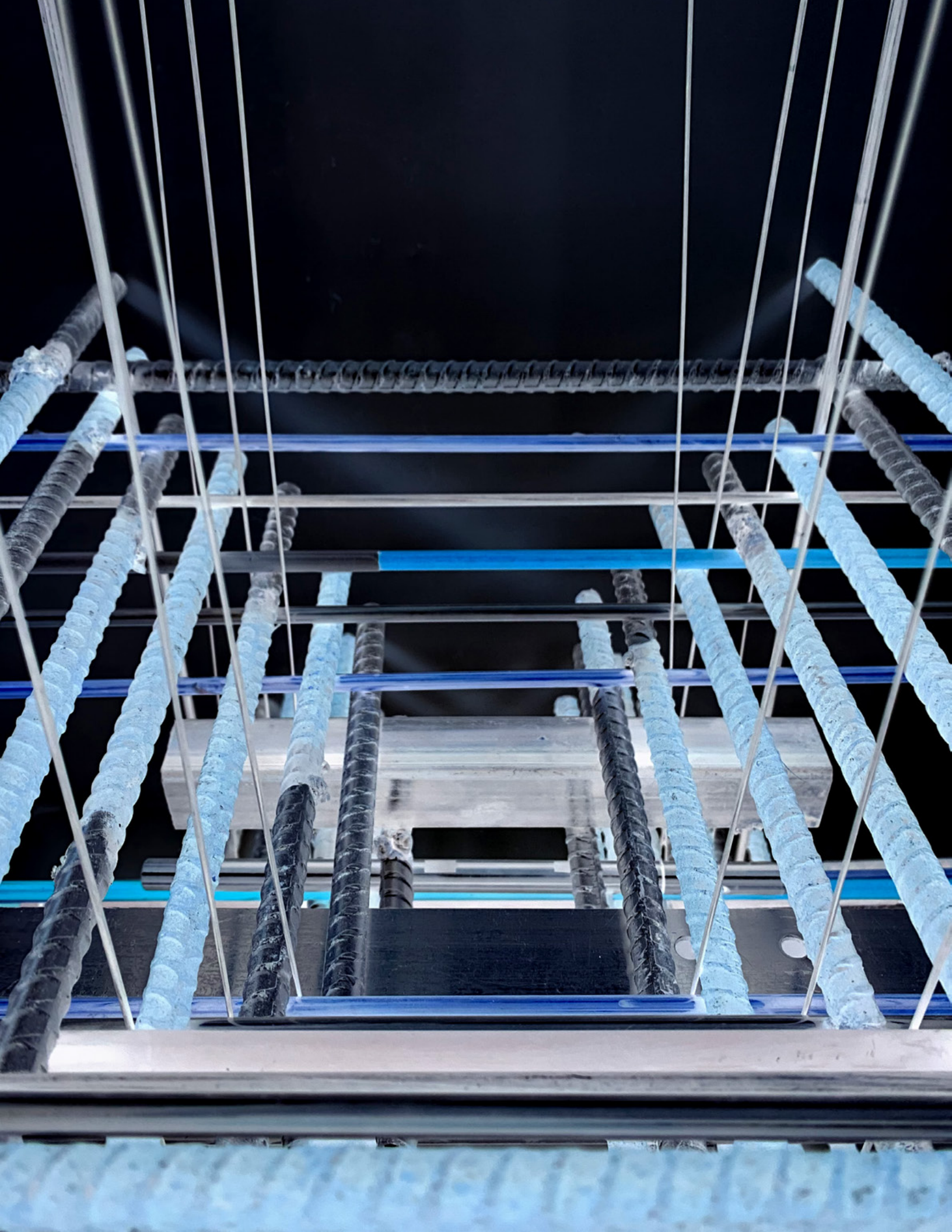


1:1 section of the wood object.



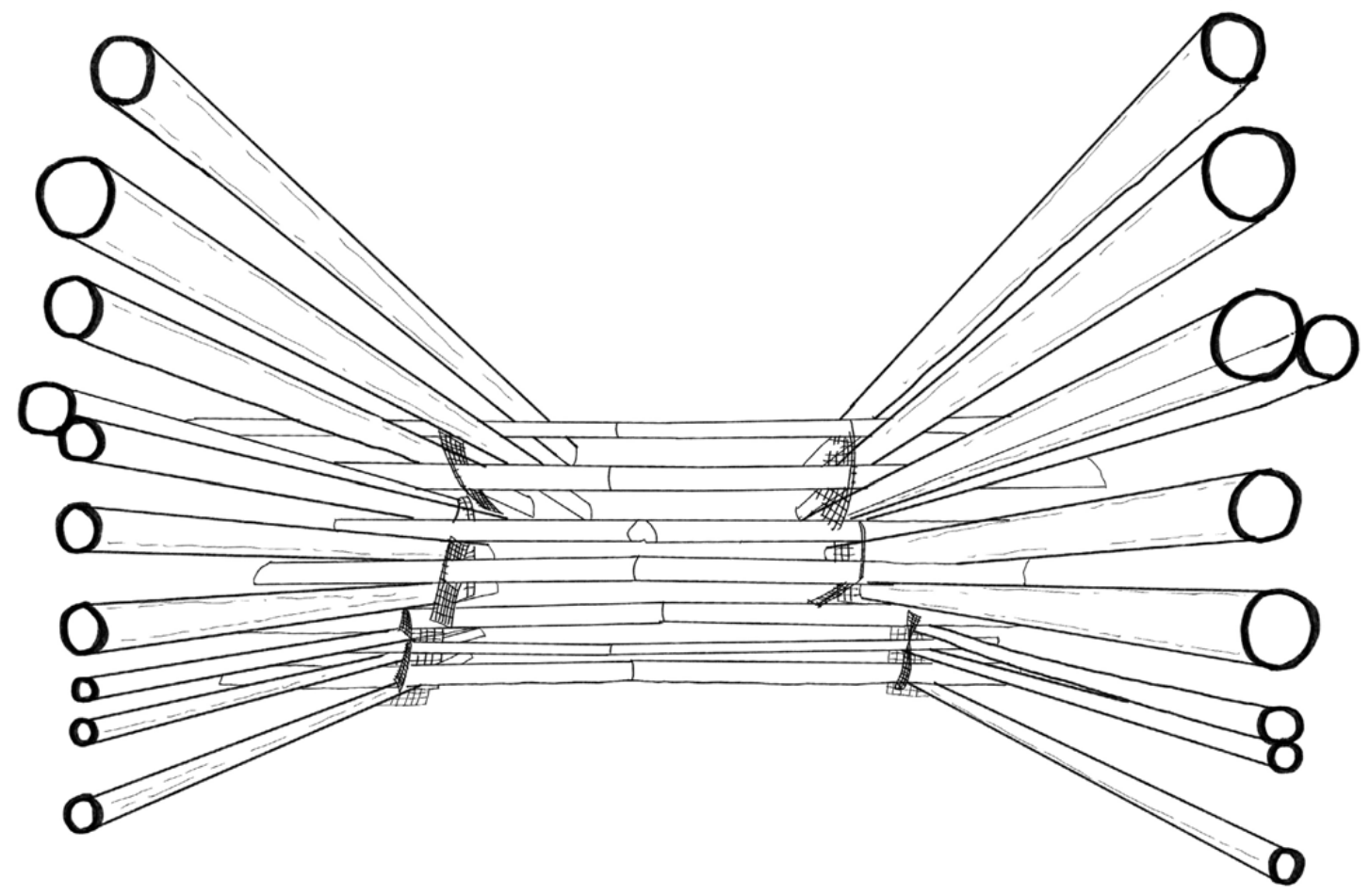
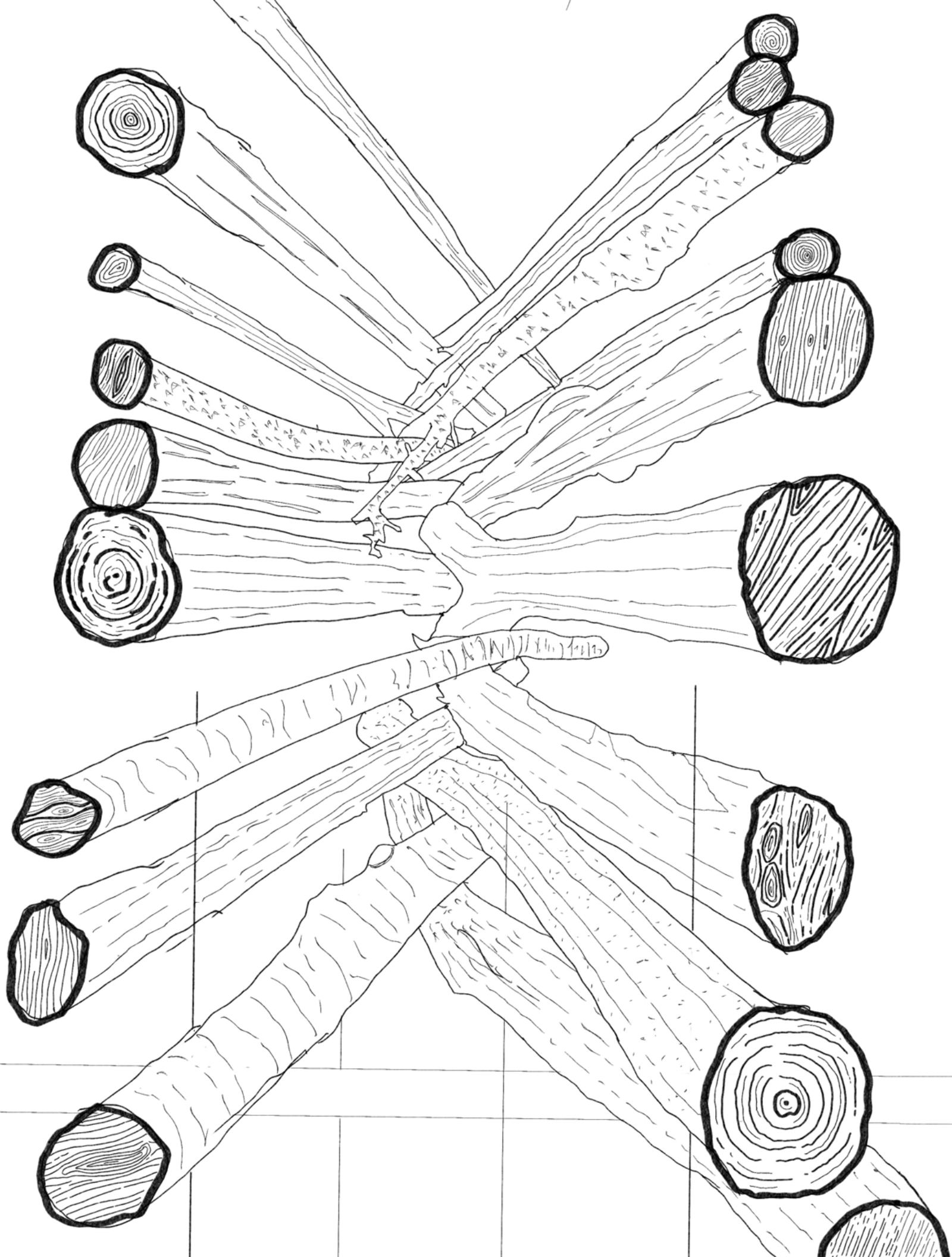
a forest of steel rods
of *interplay*,
of *growth*,
of *reinforcement*.





MONSTROSITY!

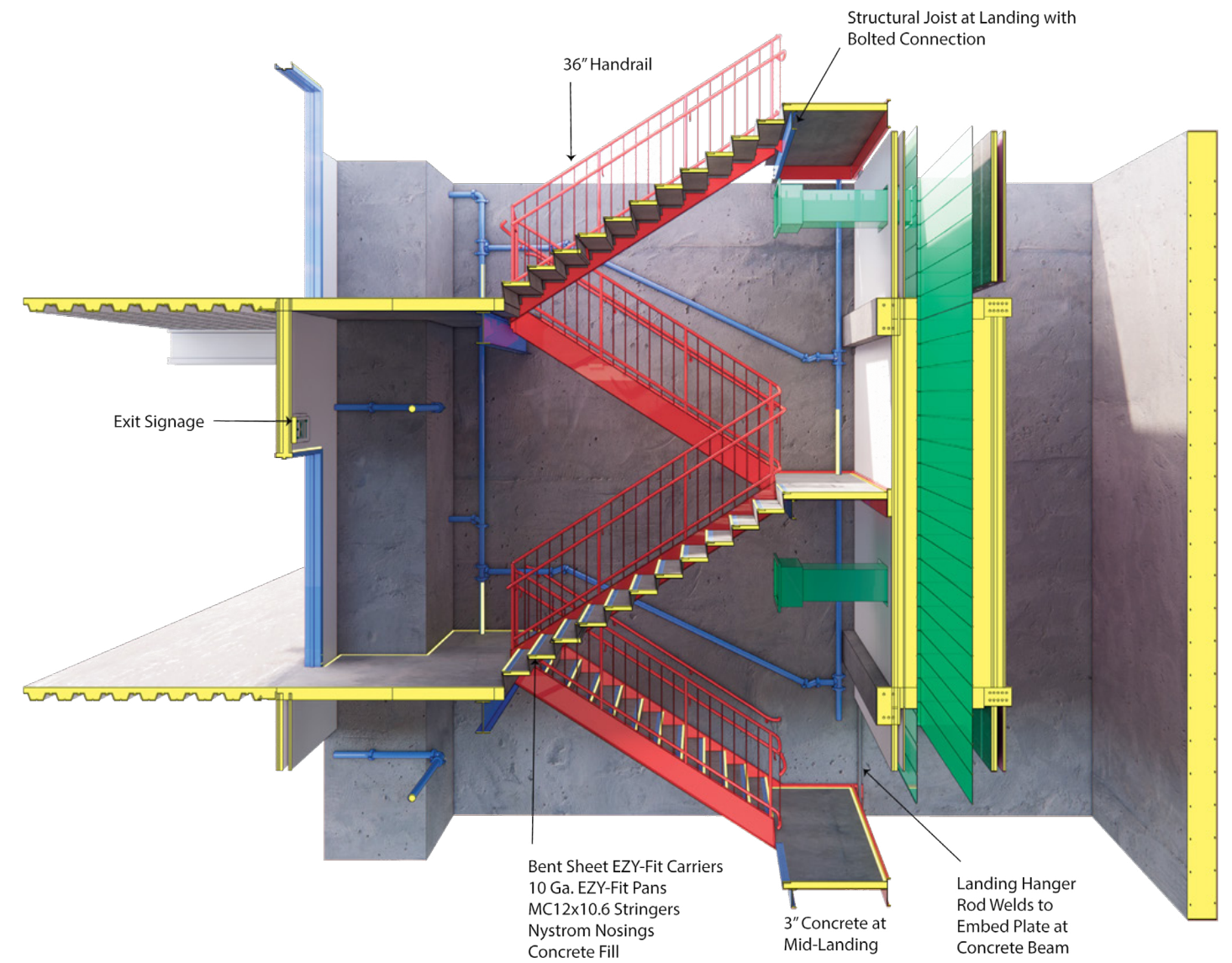


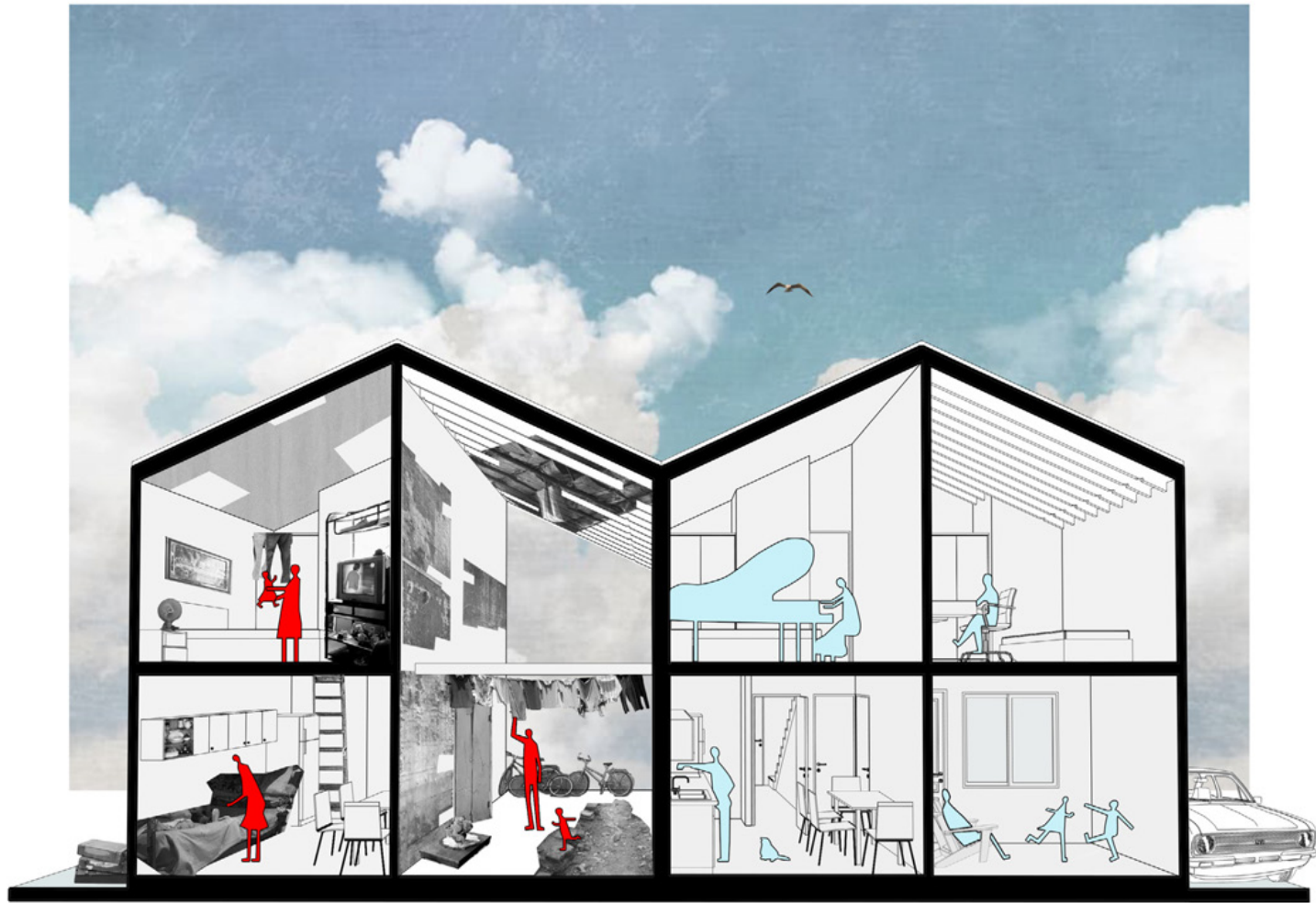


Everything Else

2020-2023

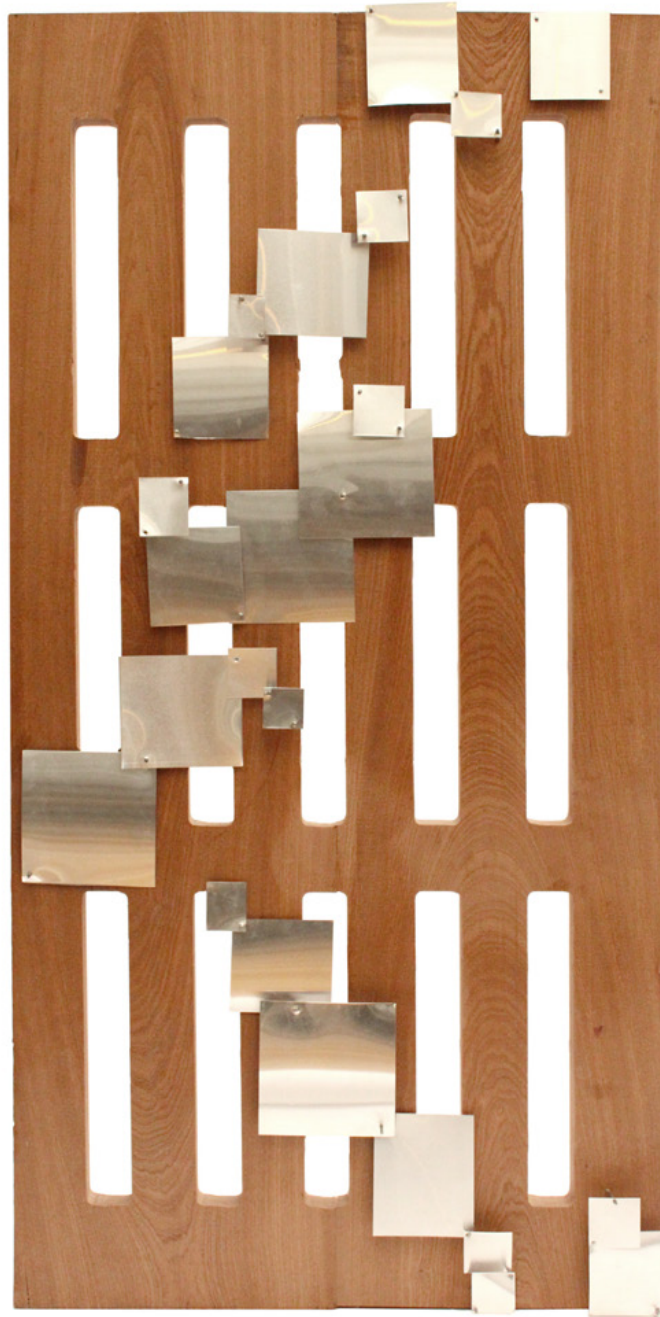
The following section contains select work outside the scope of architecture studios.



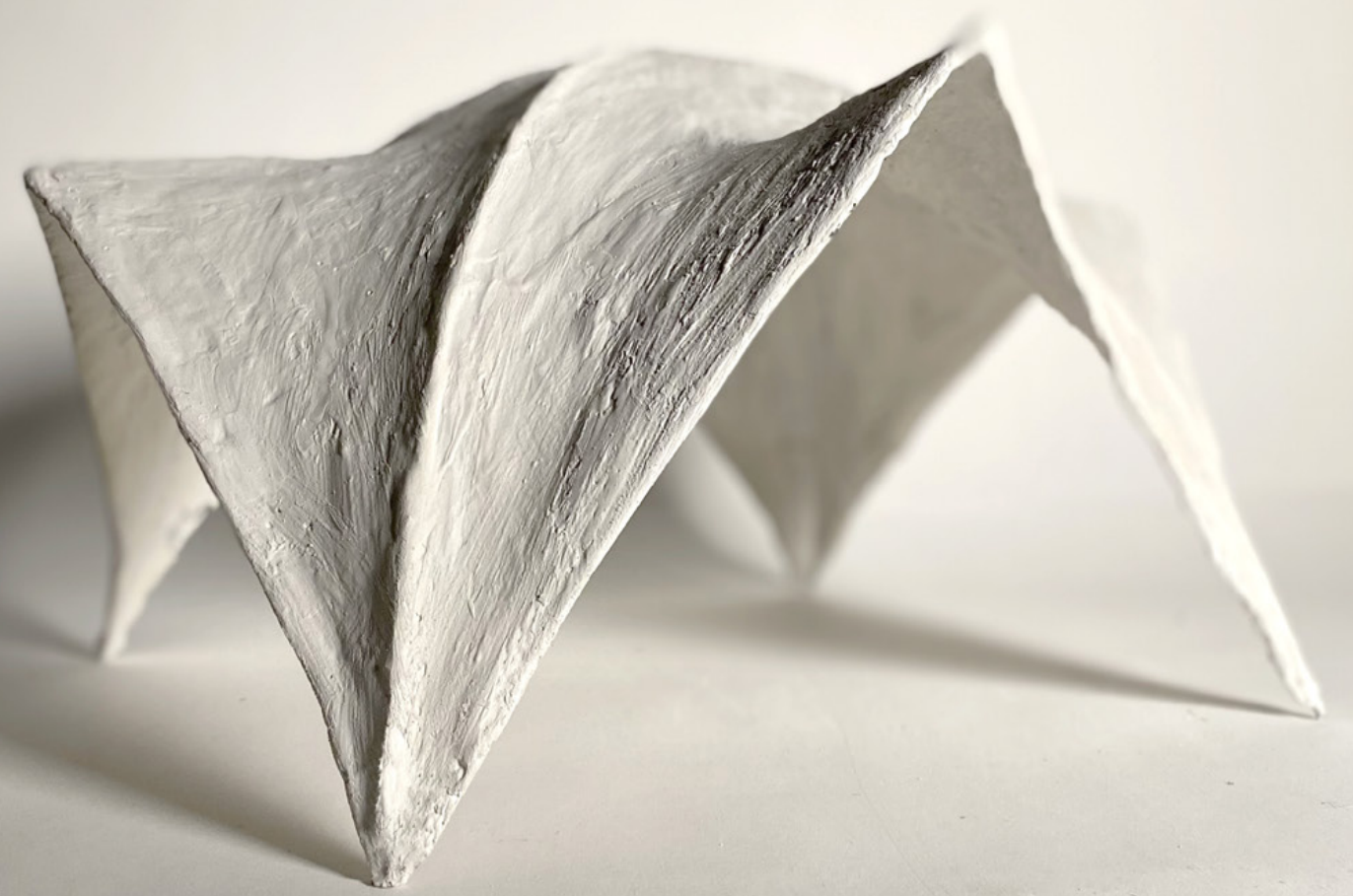




bareness.



softness.



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