CHRISTOPHER SCHEU

Architecture Portfolio
May *2023*

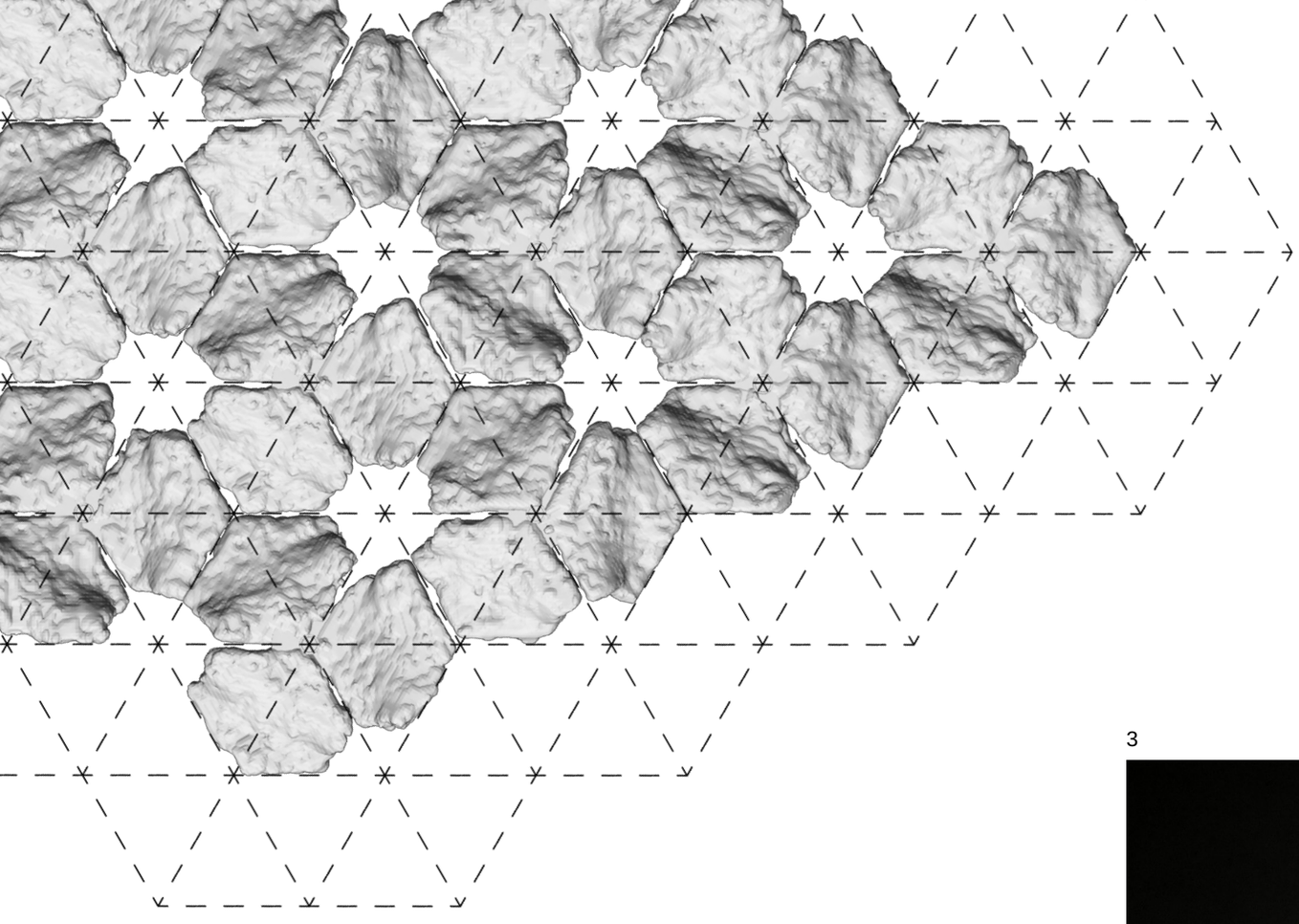
Columbia GSAPP
New York, NY

Contents

A Weighty Cloud

A Weighty Cloud
Crit. Joshua Jordan

A three dimensional tiling system that imitates clouds in both form and structure.



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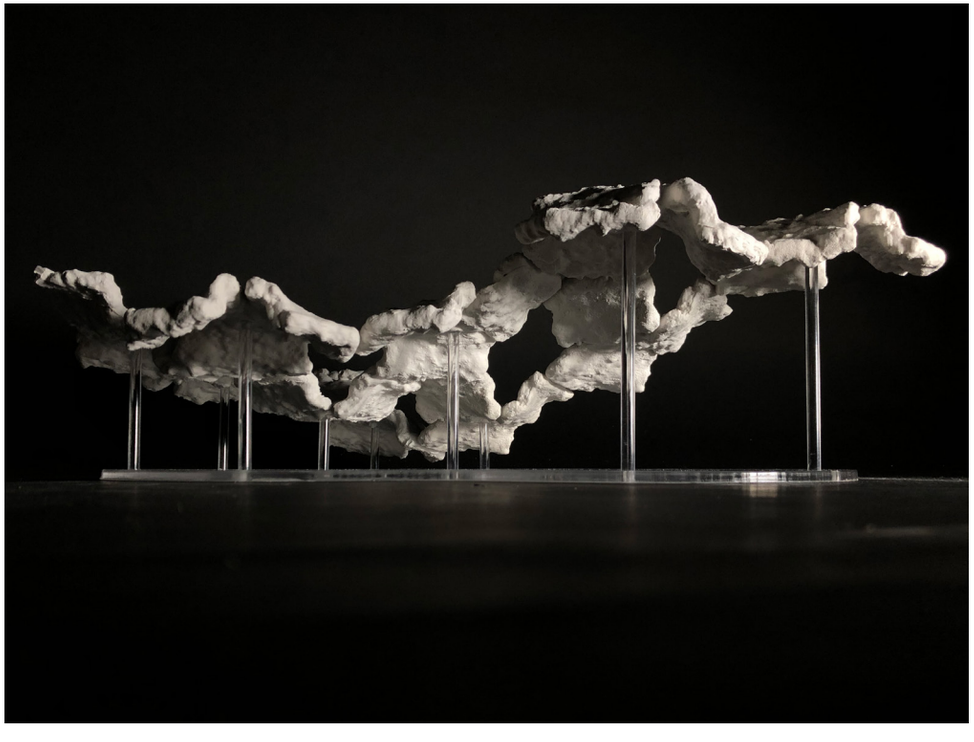
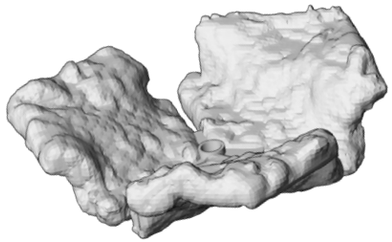


Cast in Hydrocal, this tiling system imitates the form and structure of clouds. Two tiles that can be oriented by rotating or flipping them upside down create a system that can be arrayed outward along the x, y, plane, but also switch to different z planes, spaced apart by equal increments. The system is arrayed on a six-sided grid that allows for variability in the vertical dimension that mimics hills as opposed to the standard four-sided one which only allows for wave like patterns to emerge. In other words, as one expands the tiling system outward the two pieces can fit together to create bulges and dips that when viewed from afar imitate the free-flowing nature of clouds.



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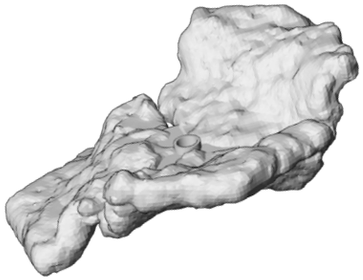

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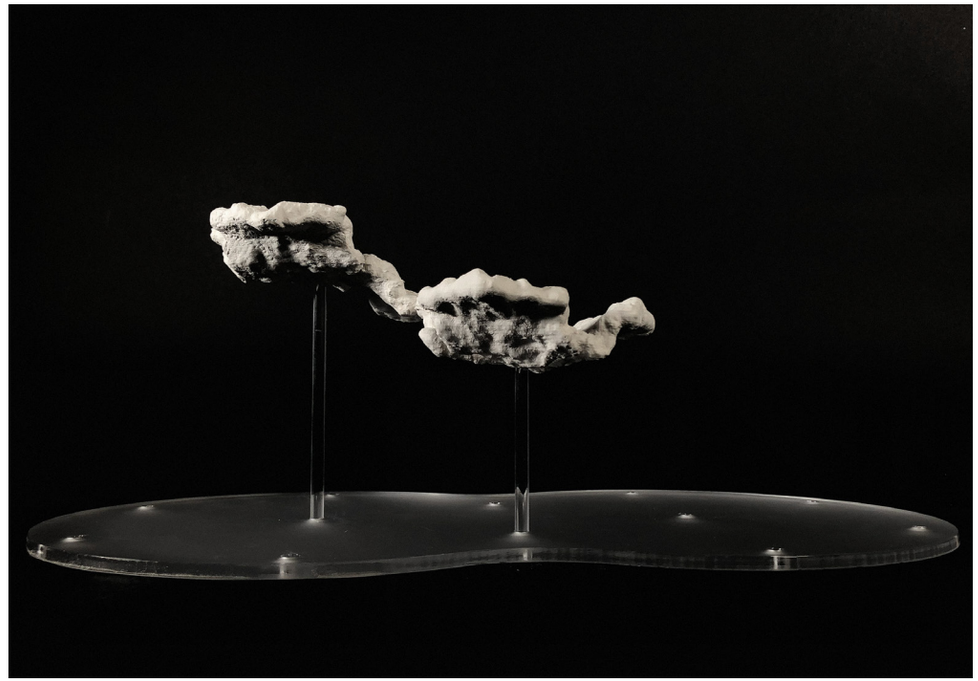

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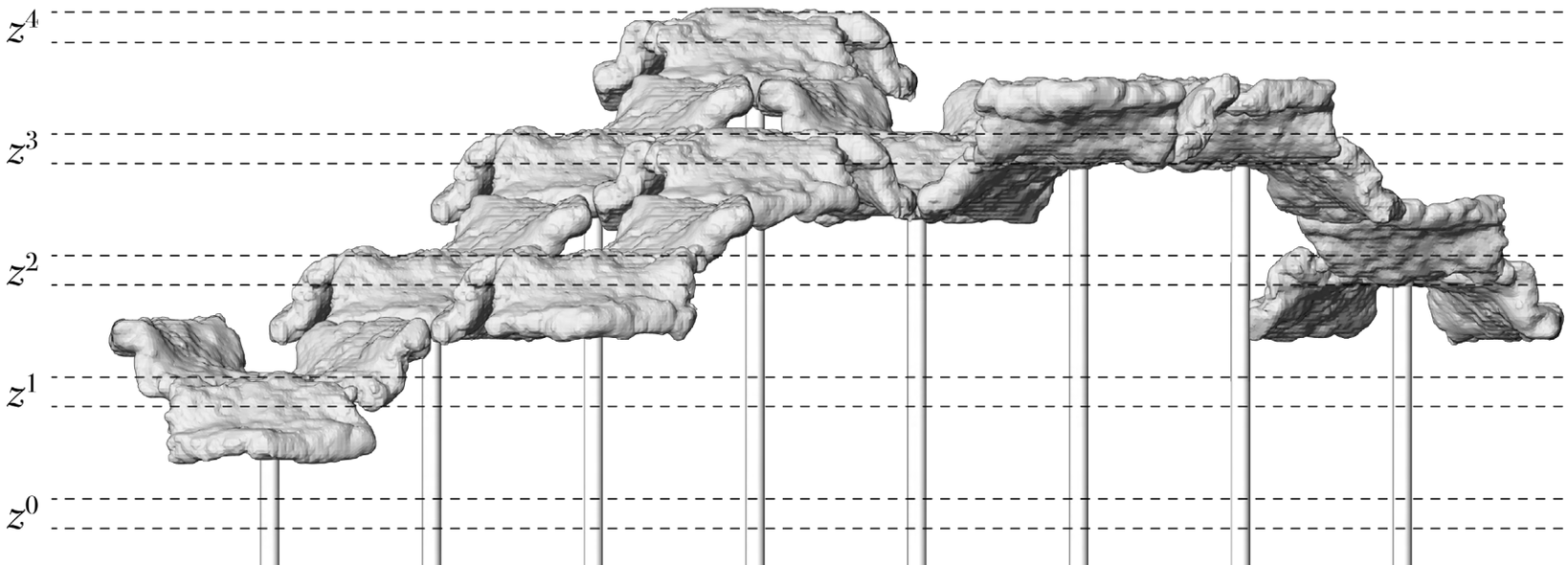


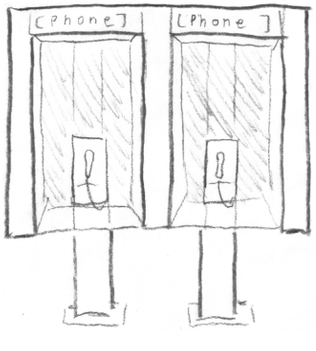
8

8

Inwood Innovation Hub

Inwood Innovation Hub
Crit. Joshua Uhl

Inwood in many ways is a place that resembles a neighborhood nestled in one of New York's outer boroughs rather than in Manhattan. Yet at Manhattan's northern most point, this neighborhood is bustling with activity, especially among the Dominican population that has been continuously pushed upward from Washington heights into the reaches of Inwood and the Bronx. This project proposes converting an abandoned car dealership, now functioning as a parking garage, into a urban integrated set of shared office spaces geared towards the younger immigrant population living in and around the area. The converted building will allow people to gather to test ideas in a place thats geared towards encouraging collaboration and innovation.



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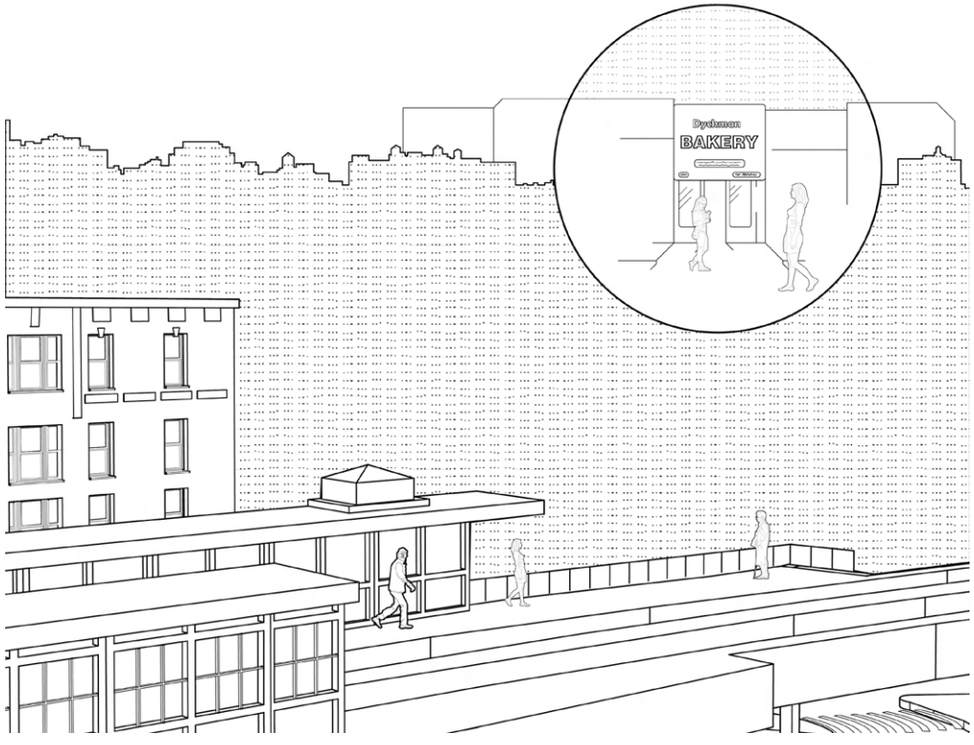
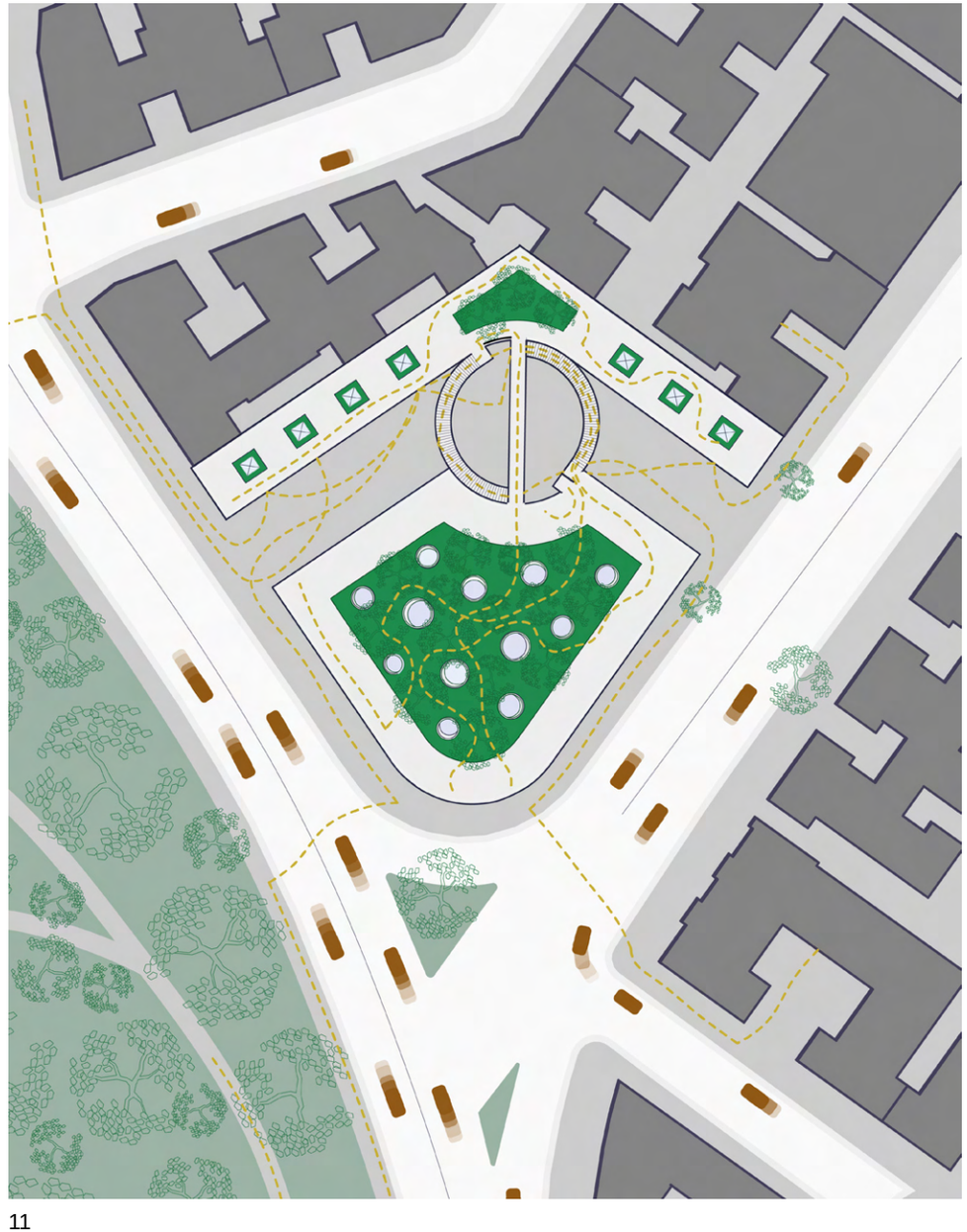


10

One of the important aspects of this location that now houses a parking garage is its access to two public transit lines and as well as two major travel arteries, Broadway, and Dyckman Street. Similarly its relatively connected to the heart of Inwood, just a few blocks north along Dyckman. This ideal location enables people to both meet in the context of the neighborhood as well as travel further to downtown Manhattan if need be. Additionally, the roof of the building serves as a extension of Inwood Park, located to the West.



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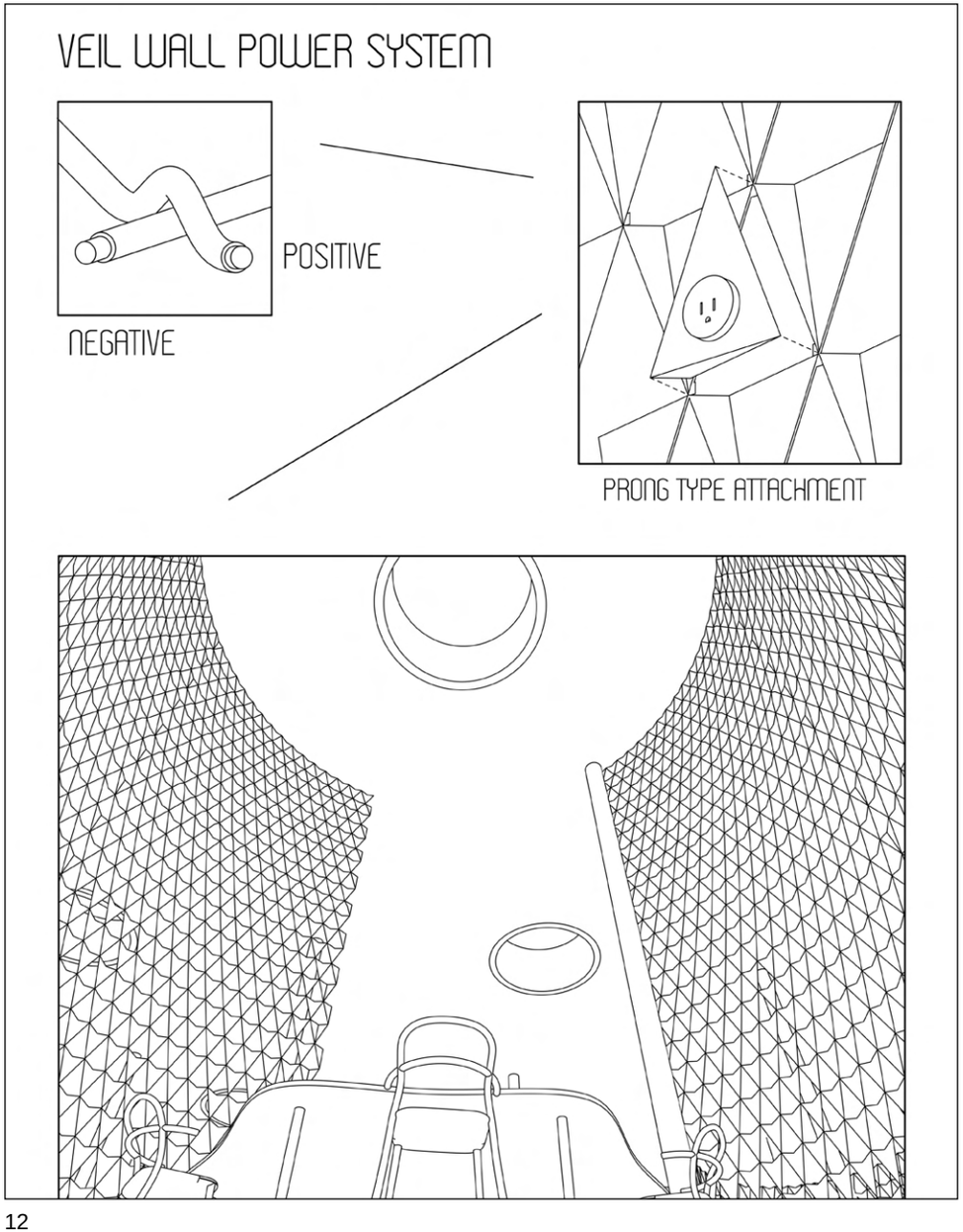
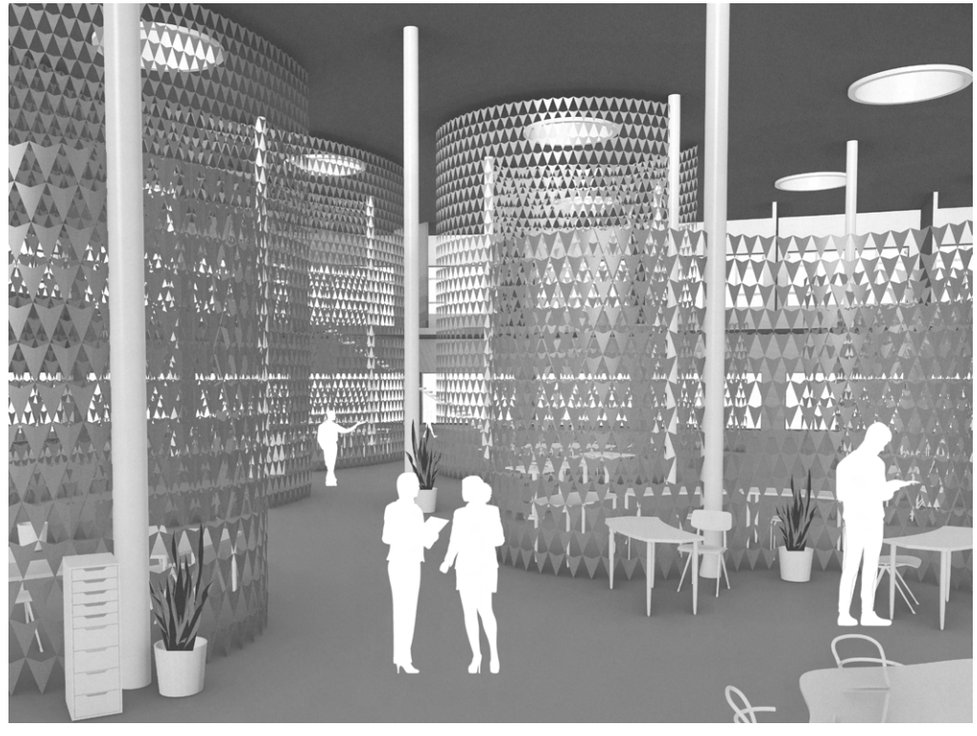

VEIL WALL POWER SYSTEM
POSITIVE
NEGATIVE
PRONG TYPE ATTACHMENT

12



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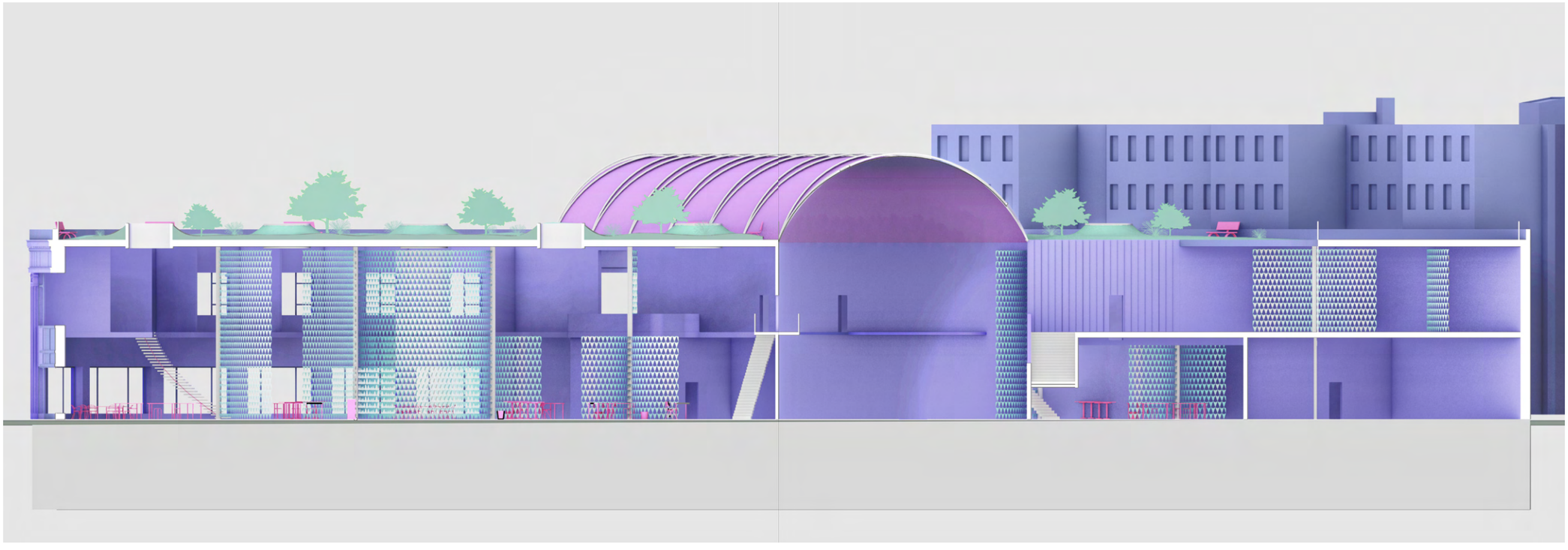
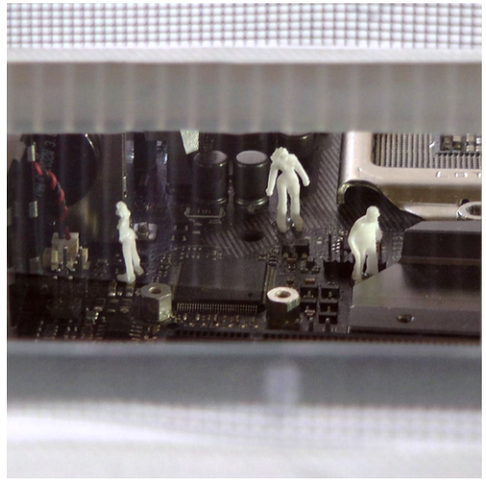


14

A notable feature of this project is the addition of power supply into the interior and exterior of the building. As part of the urban strategy this is meant to encourages people to gather and work in an open and informal way. The rooftop facilities are to remain open to the public while the interior can be used to rented office spaces. The through way between the building takes advantage of a feature of the buildings location on the end of an acutely angled corner, namely the inclination to cut the corner.



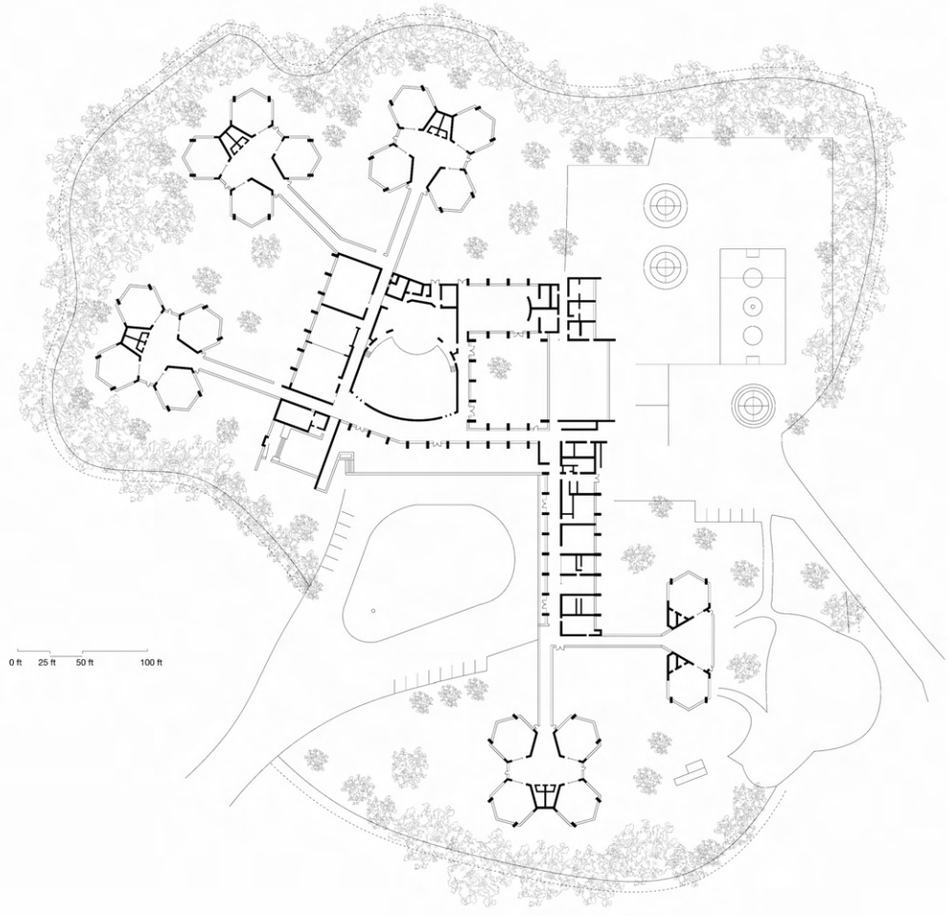
15

Heathcote Elementary

Heathcote Elementary
Professor: Erica Goetz

An modernist elementary school designed by Perkins and Will for the town of Scarsdale, NY.

16



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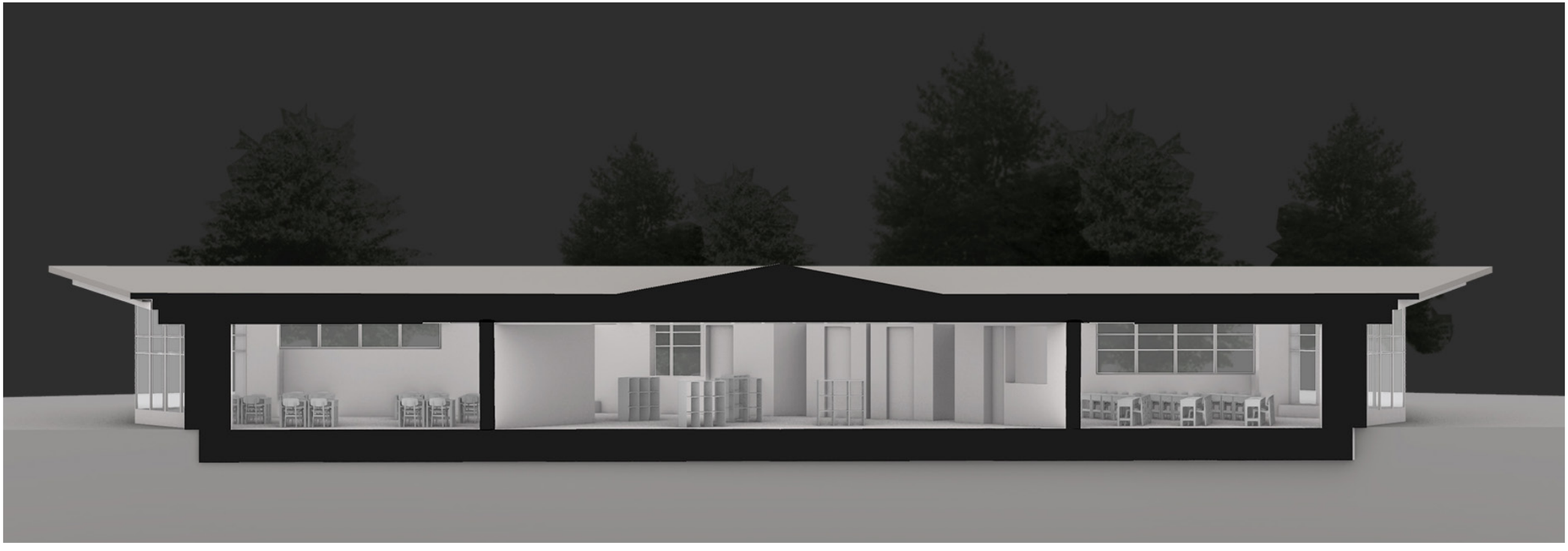
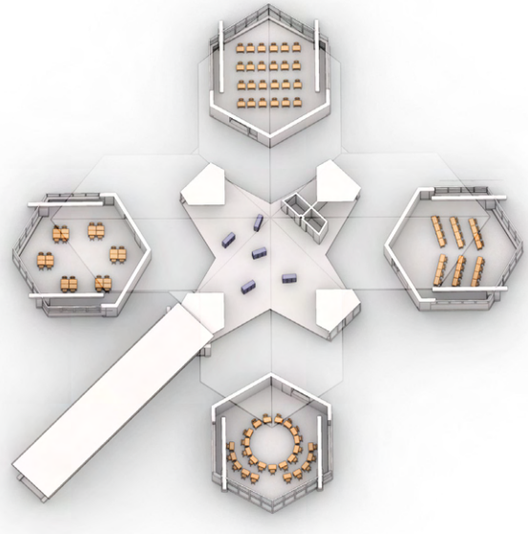


19

This elementary school was designed so that its long wings reach into the woods of the sprawling landscape of Scarsdale, NY. For a neighborhood of considerable wealth, this project makes use of affordances of building in a scarcely populated wooded area. The classrooms form hexagonal clusters of four, each room containing large floor to ceiling windows that open to the surrounding woods. The hexagonal shape accommodates a variety of classroom arrangements. Along the corridors, colored glass panels are placed so that children can see what the world likes like in a red or yellow hue.



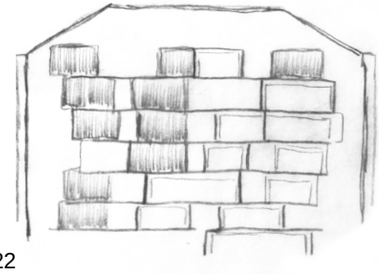
20

21

P.S. 64

P.S. 64
Crit. Erica Goetz

This elementary school is located in the a renovated building in Manhattans East Village. The central H shape of the original building is replaced with a container of stacked classrooms that form a coral like structure. The wings of the H are converted into vertical gym spaces that allow children to circulate through the building in a more free flowing manner. The concrete floors are replaced with grated floors to emphasize the verticality of the space and provide line of sight from lower levels to upper levels and vise versa.



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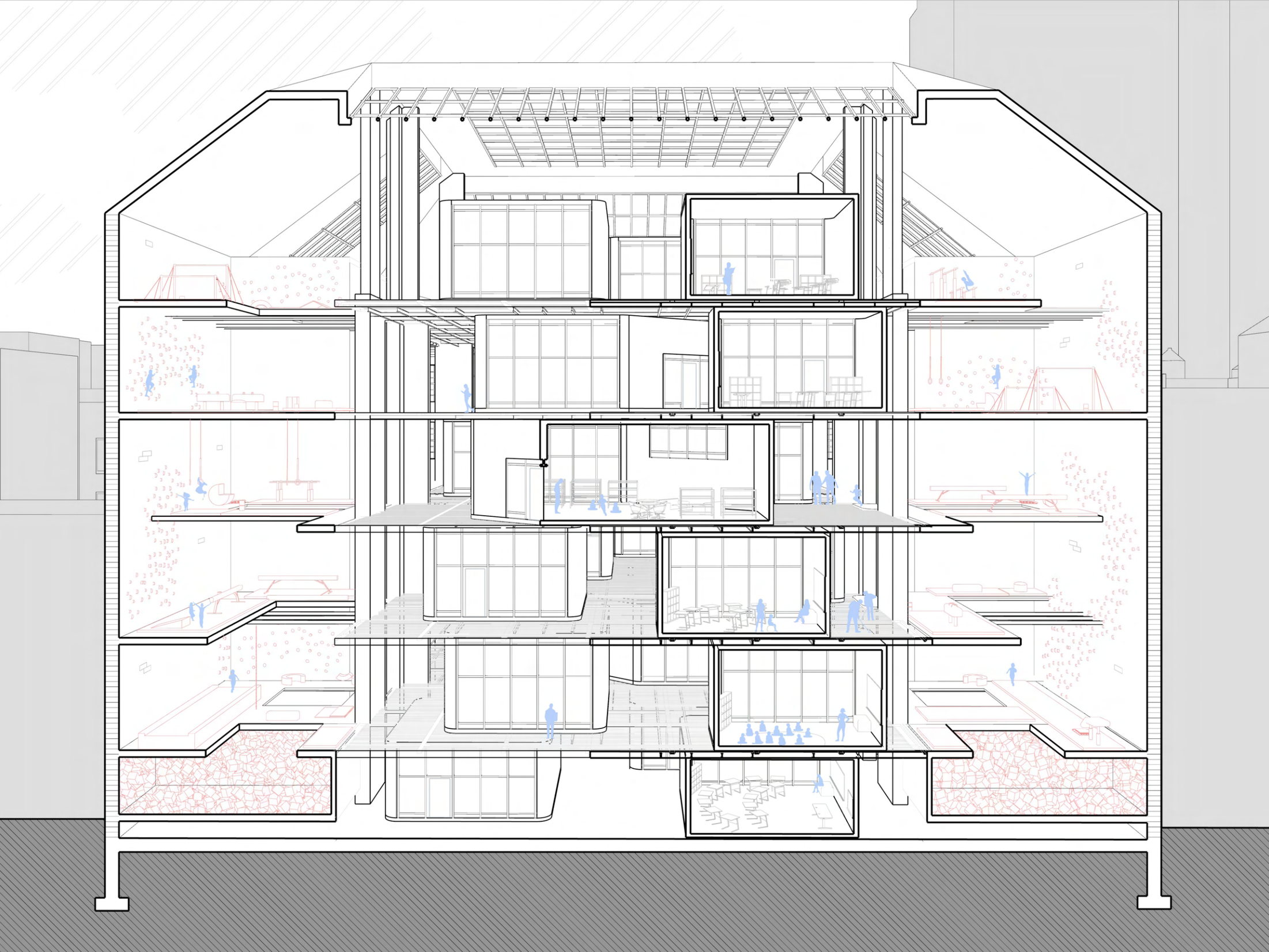
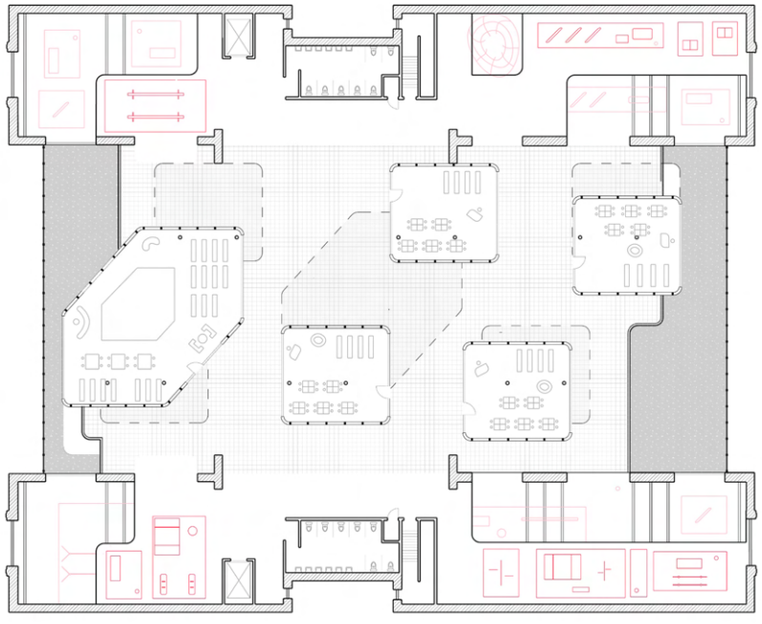
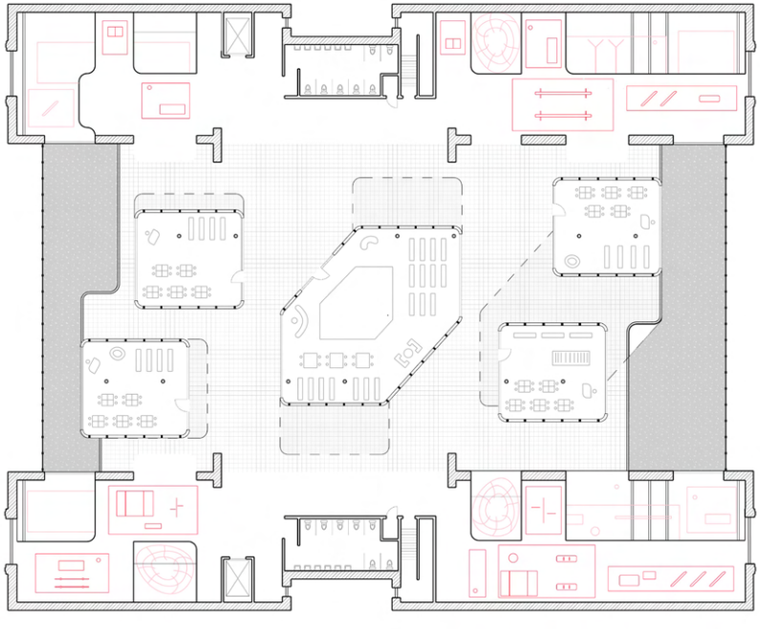
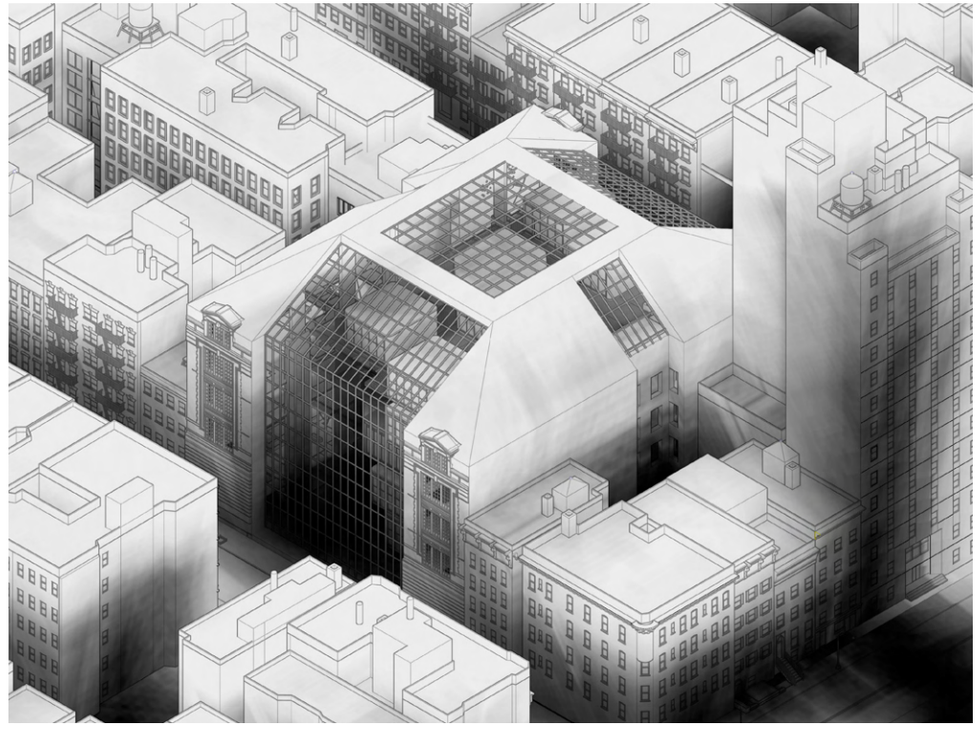




FLOOR 3



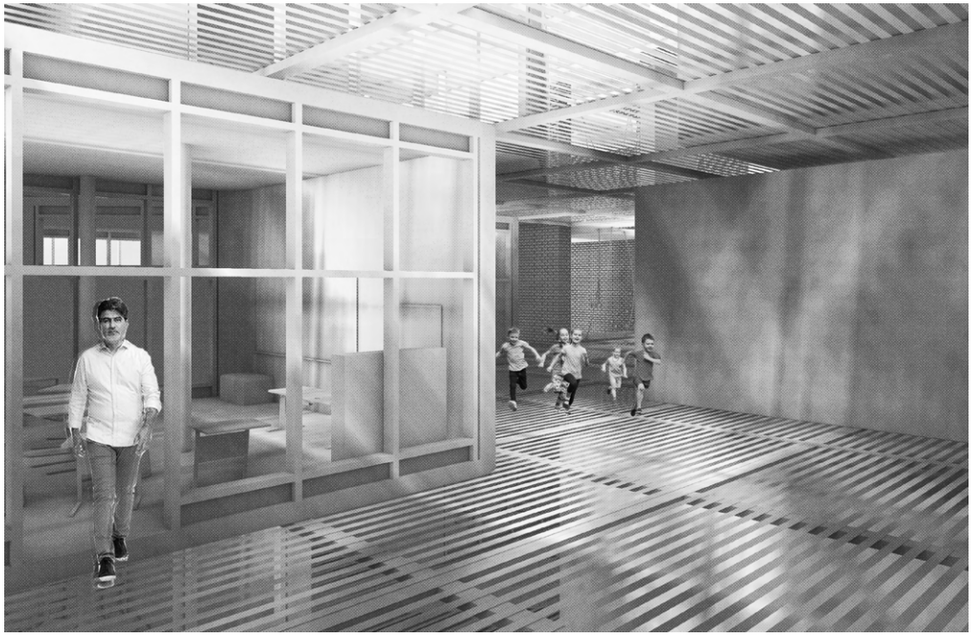
FLOOR 6



25

◀ 24

A vertical gym school is a concept that combines a traditional school with a gymnasium to create a unique, multi-level educational and athletic facility. This vertical design maximizes the use of limited urban space, making it a viable option for densely populated areas, such as the East Village. The classrooms stack and oscillate back and forth across different floors to create the effect of coral or stacked blocks. The gym space occupies the wings of the building and can also be used for circulation.



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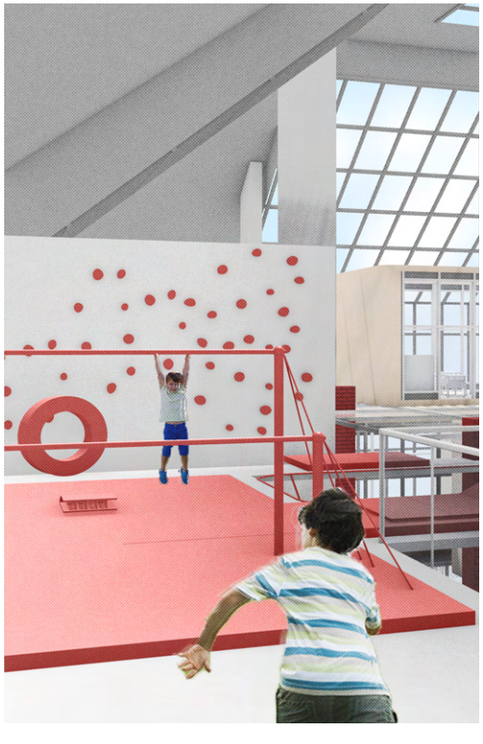

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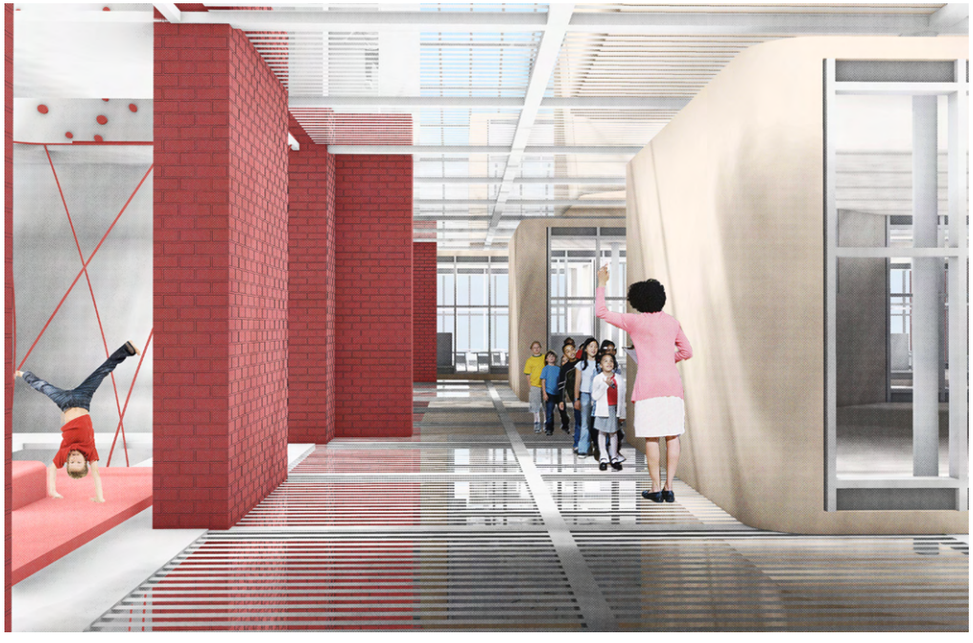


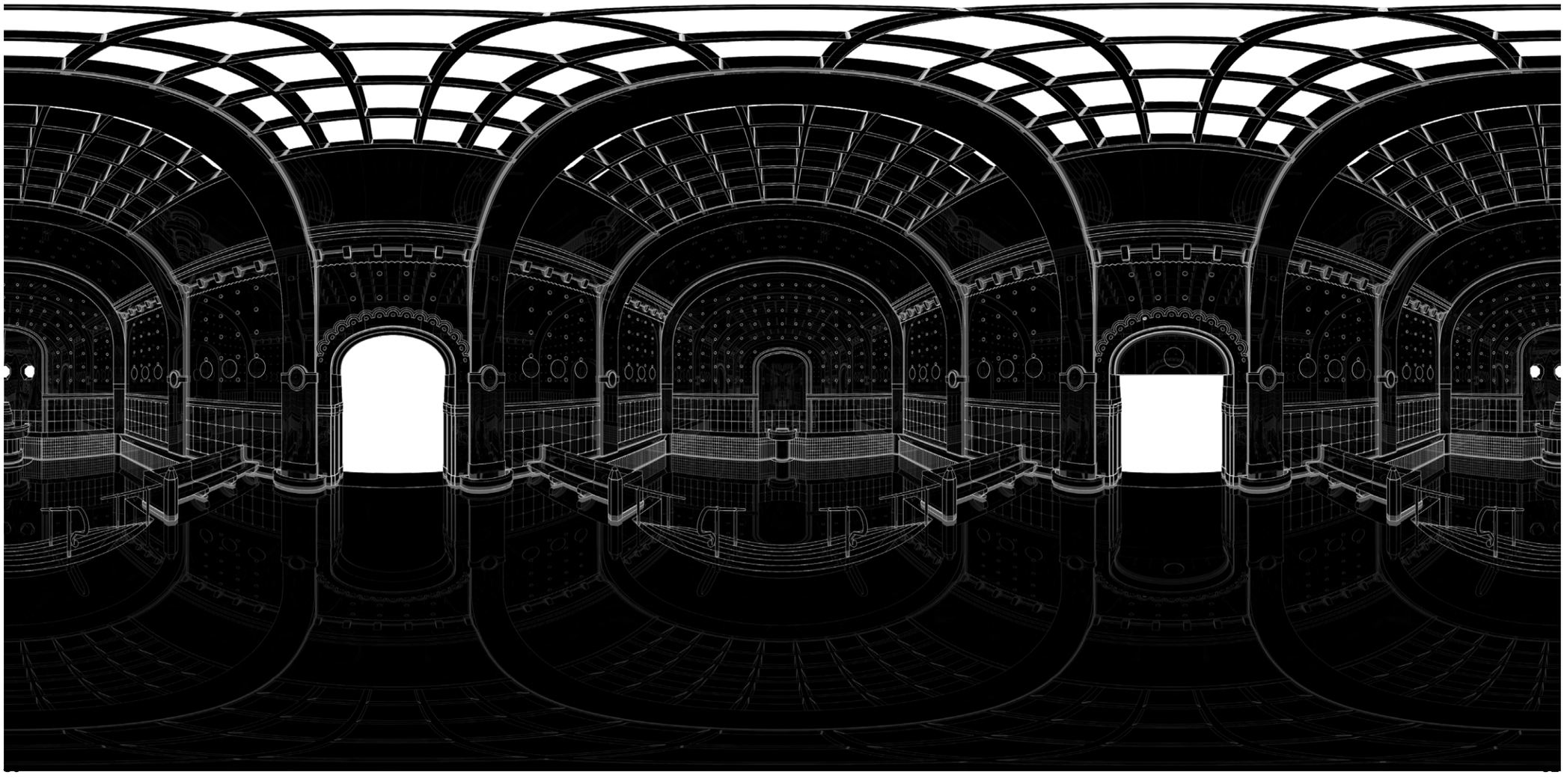
28

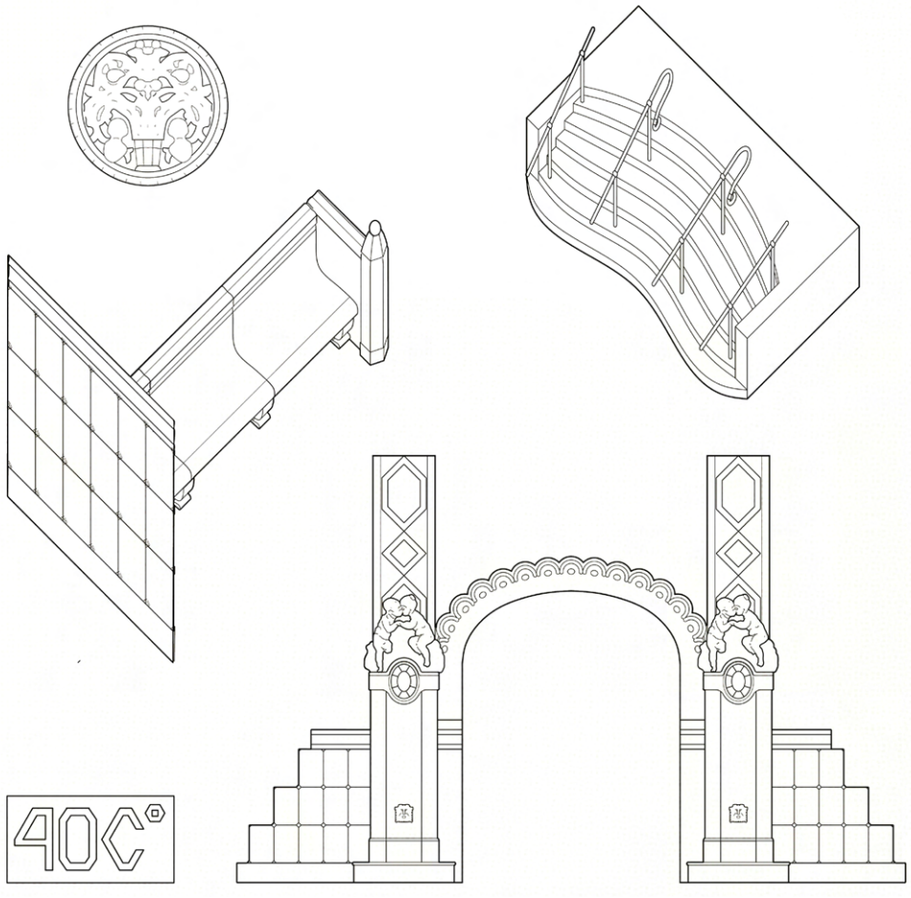
This project questions the traditional organization of school buildings with the integration of the various programs into the central grated area and the areas involving more active movement are relegated to the perimeters of the building. While there may be some concerns with the feasibility of such an approach for noise concerns, implementation of appropriate noise dampening materials would allow for children to learn and flourish in an environment that privileges health of body as well as health of mind.

Gellért
Thermal Bath

Gellert Thermal Bath
Crit. Farzin Lotfi-Jam

A study into the formal qualities of and historical reflections of an early 19th century Hungarian Thermal Bath





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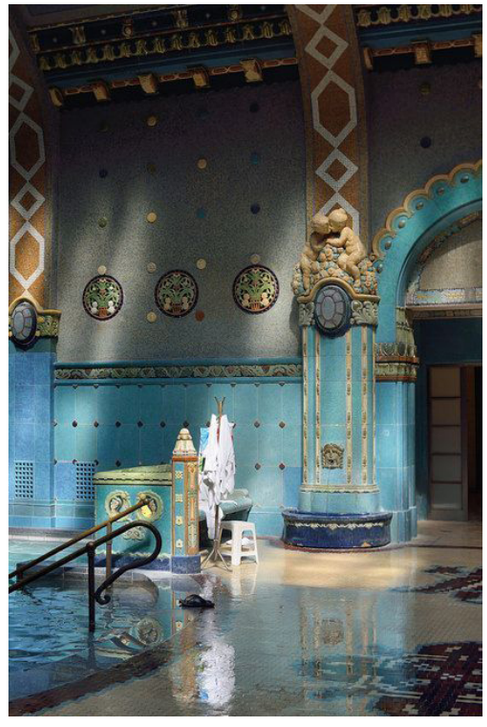

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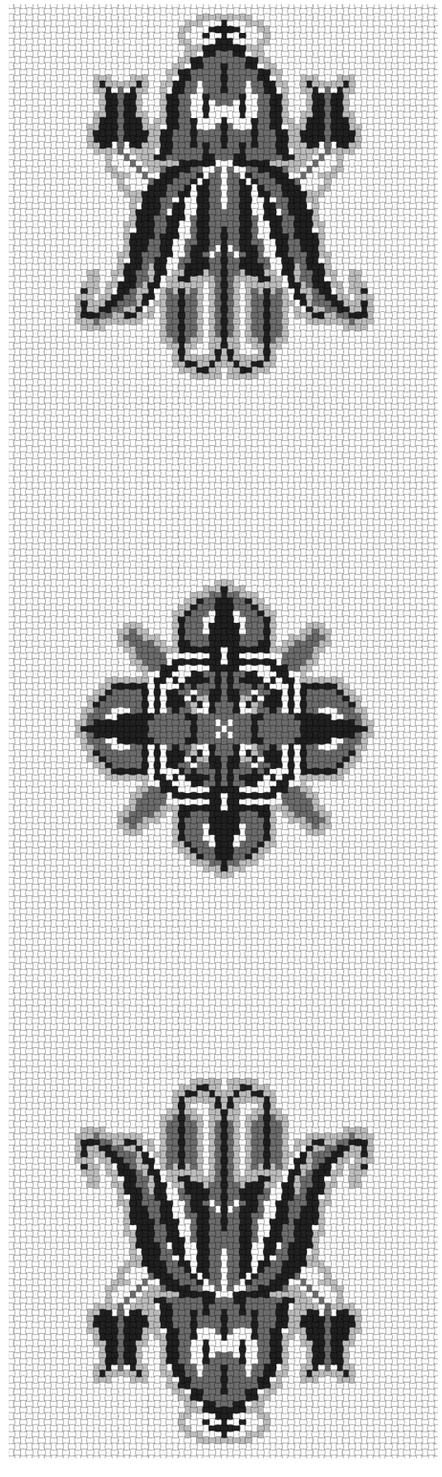


31

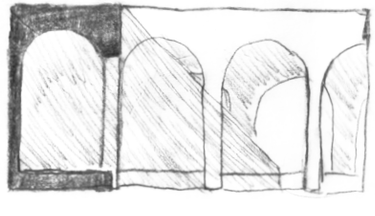
This thermal bath was being constructed as World War I was breaking out, and was finished despite the context of the war. It contains a lot of late art nouveau imagery, and serves as a testament to the end of a style that largely wanned after the onset of the war. The aquatic imagery informs both the form of features such as the chairs and stairs, but also the sculptures that adorn the fountains mermaids and cupids. The thermal bath is heated naturally within the earth and the immersive reflective representation is to express the mythical quality of the space.

Breathable Corridors

Breathable Corridors
Crit. Galia Solomonoff
with Becca Farris

Situated in Melrose, Bronx, this affordable housing project focuses on the role of natural ventilation in housing construction. An expansive interior courtyard in combination with cross ventilated single loaded apartments allows for air to travel freely throughout the apartments. The addition of vegetation in the courtyard and along the corridors provides a degree of air filtration in an area that is otherwise highly susceptible to the development of asthma in children. While the project remains within the acceptable range of square footage considered to be affordable housing for each of the units, it seeks to provide a quality of living through access to clean air that is that is often overlooked in housing projects.

32



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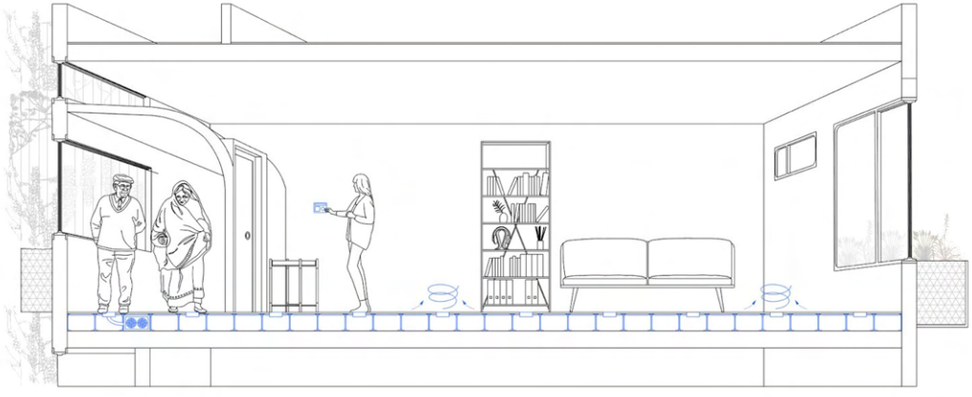
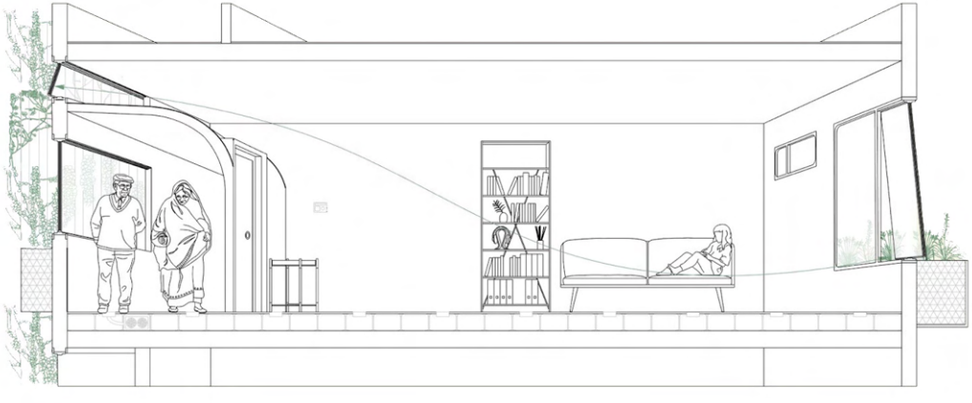
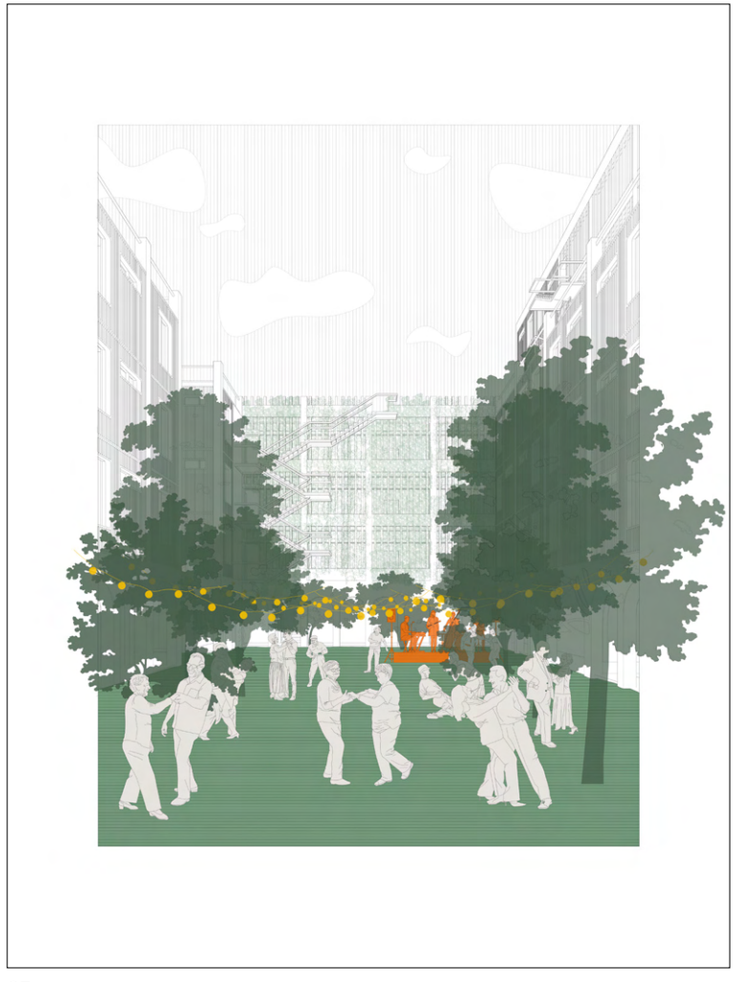


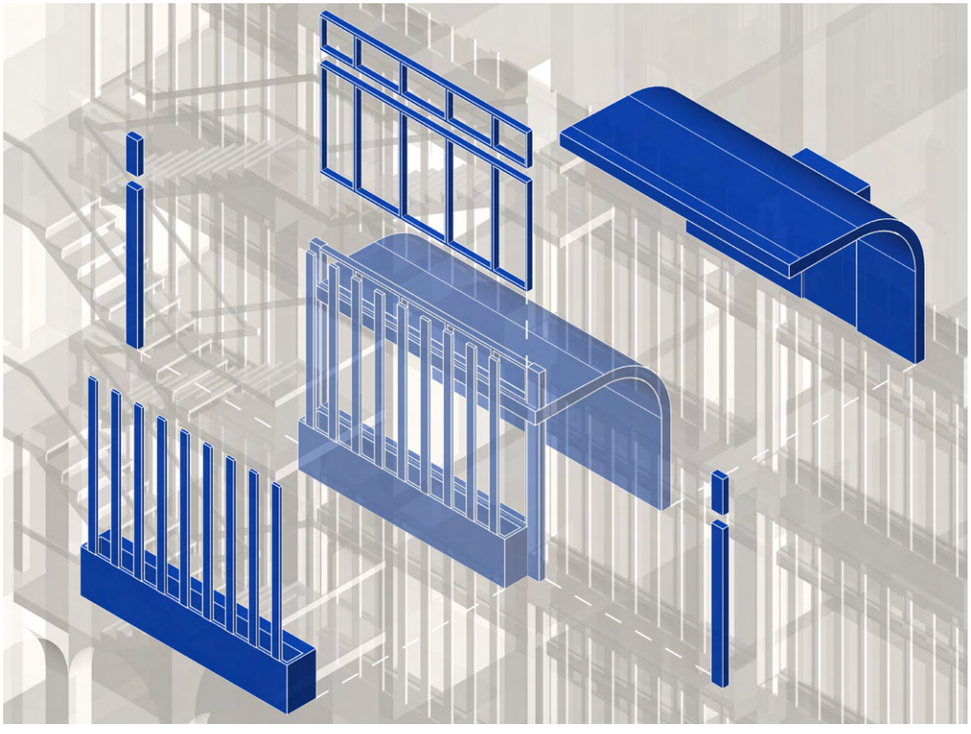




35

◀ 34

While there are an abundance of parks in the Bronx, many factors can inhibit residents from being able to use them, especially during later hours. The large interior courtyard seeks to provide additional park space where residents can commune in a semi-public place. The courtyard in coordination with the ventilation strategy provides a connection to between the interiors of the apartments and the exterior of the building as well as the surrounding area. This area can be used by residents of the building as well as occasionally by members of the surrounding community.



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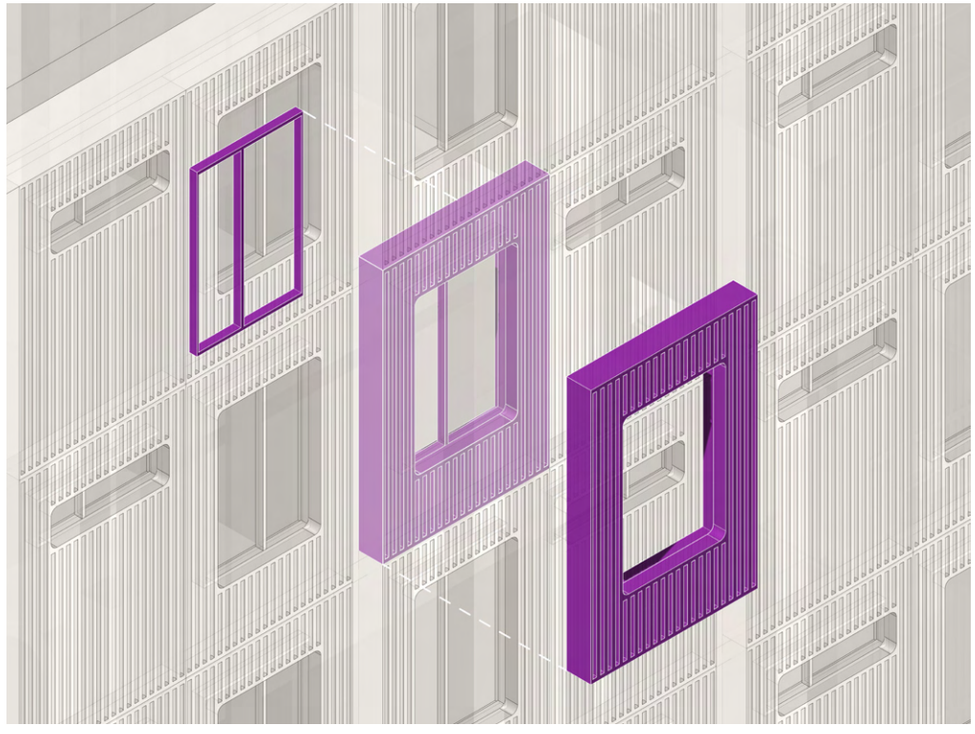

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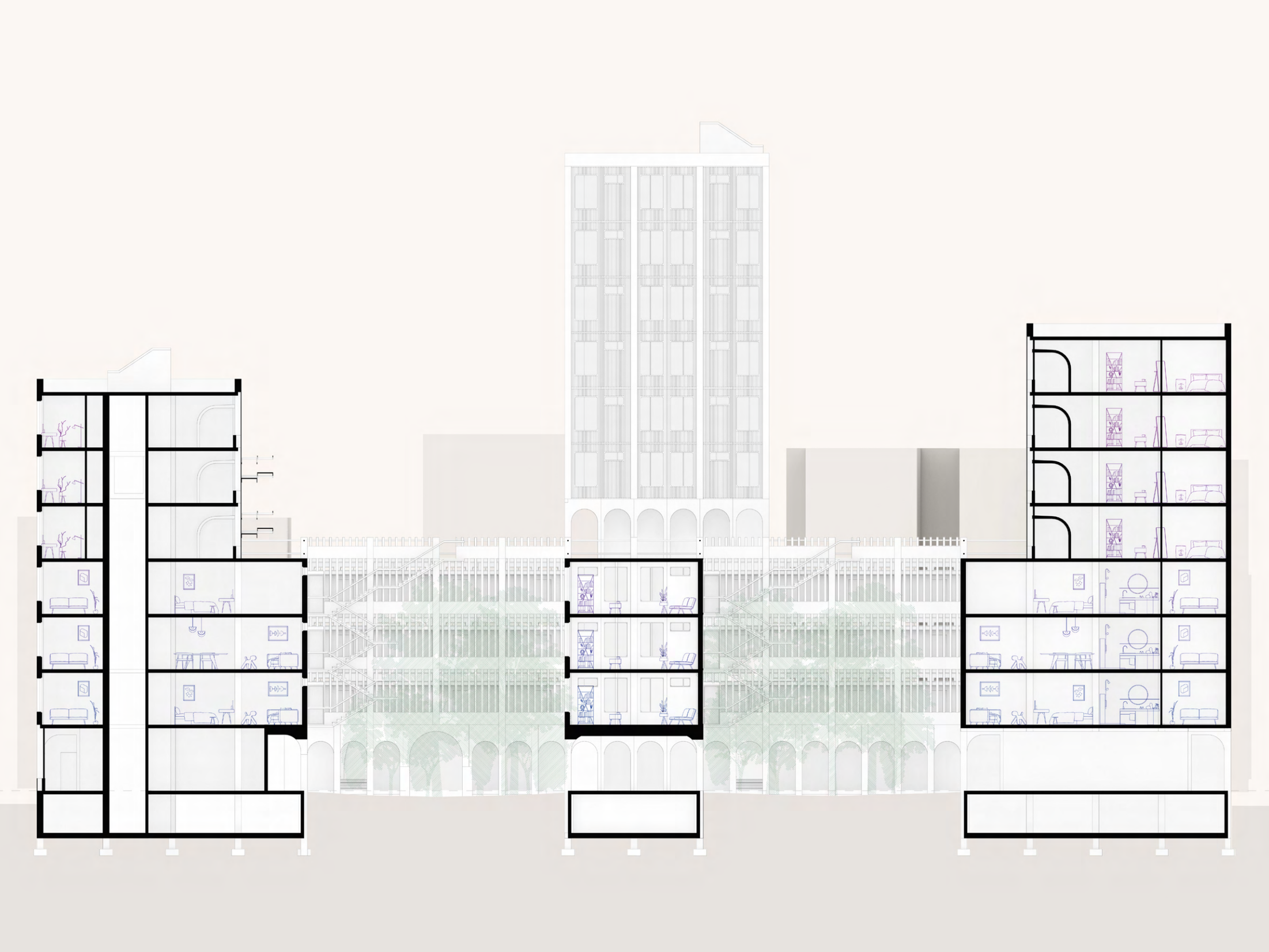
The ventilation approach additionally prevents against the build up of mold and other indoor air pollutants that have a tendency to build up indoors in rooms with poor air circulation. The novel approach of lowering the ceiling of the single loaded corridor so that the apartments can have access to cross ventilation is implemented for all of the apartments along a single loaded corridor and without other opportunities for ventilation such as on the corners of the building. This also has the potentially to both reduce CO2 emissions and save on energy bills due to alternative method of cooling provided by natural ventilation.

39



(Is)landscapes:
Learning with Sediment

(Is)landscapes: Learning with Sediment
Crit. Elise Hunchuck and Marco Ferrari

This project proposes an alternative to dredging as a way of living with and within the Danube watershed. Building off of a historical instance when sunken lumber from a ship caused the Danube river and its islands to shift dramatically over a relatively short amount of time, this project speculates about the potential for fluvial islands to act as sensors to greater imbalances in the ecosystem, and discarded lumber to serve as the means for generating these islands. Because the Danube river forms the border between many of the nations along it, the (at first) unpredictable outcomes resulting form engaging with the watershed in this way would require a way to readdress the contemporary idea of the border. Instead of a fixed line, it would be treated as a mutable zone.

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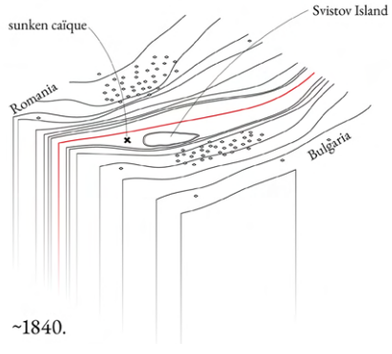
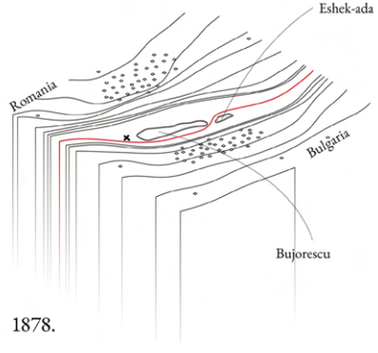
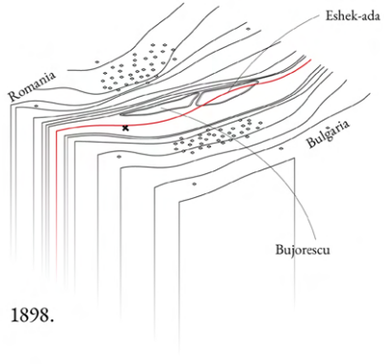
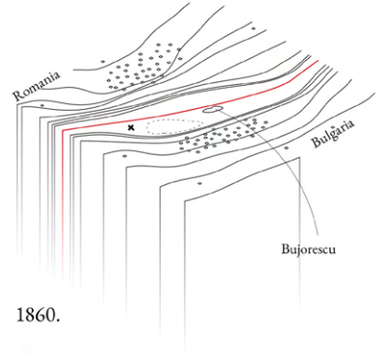
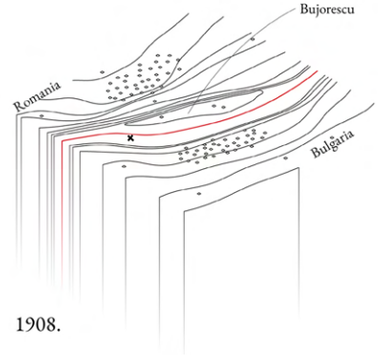








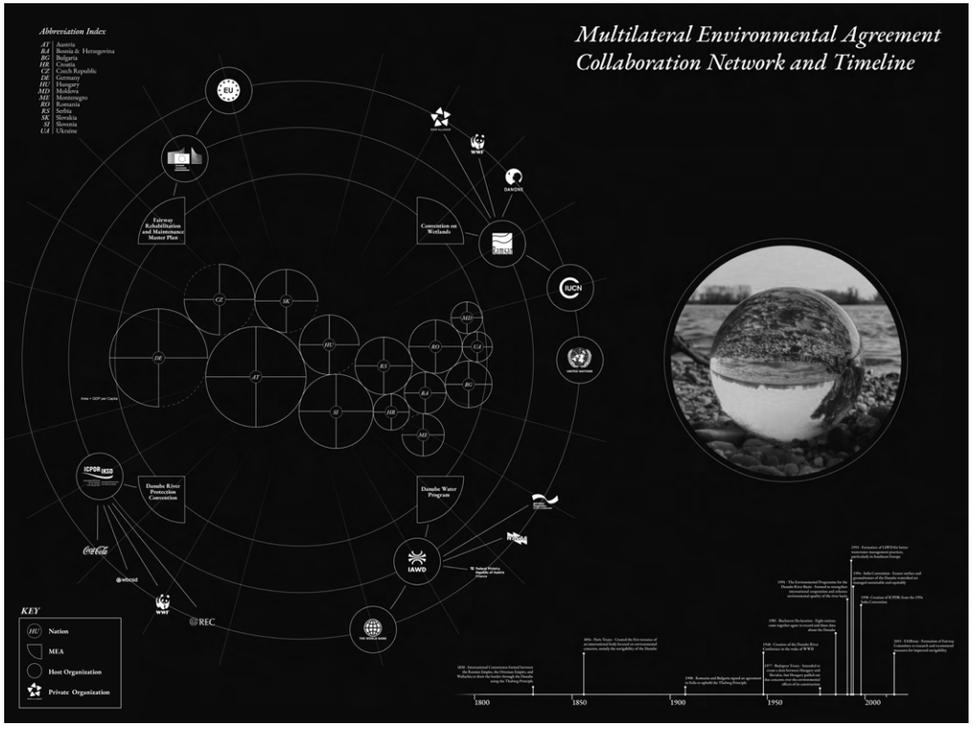


Often political boundaries are drawn in relation to environmental features, such as mountains, forests and rivers, and human created features such as settlements and infrastructures. Occasionally, they are drawn with little regard to either of these features such as in the American West, where some state boundaries are perfectly straight lines. Nevertheless, the very drawing of these boundaries is reflective of a conceptual framework that positions individuals as separate from nature, and therefore free to knowingly treat it as kindly or unkindly as each situation demands. Likewise, the development of advanced methods of resource extraction, processing, and dispersal allows for continuously growing populations with greater capacities for self-preservation.

At the same time it is impossible to consider humanity as completely embedded within our environment with little to no perception of boundaries. We can expand our scope of understanding of the relationship between variables to incorporate ecological concerns, but ultimately we're moving towards the creation of an expanding system that still accounts for each element in terms of its boundaries and its relation to other elements.

This phenomenon is clearly observed in the relationship between nations, and international organizations that work to produce MEAs, or Multilateral Environmental Agreements. These agreements leverage the transnational boundaries of environmental entities to systems of obligation that operate in and across each of the member nations. This approach leverages the current political system to create a set of obligations in order to coordinate efforts for the purpose of understanding and nurturing certain environmental bodies.

One such environmental body is the Danube River Basin. It stretches across 19 nations and occupies a significant portion (>2000km²) of 14 of them. Organizations such as the European Commission, the ICPDR, and RAMSAR have enlisted members from these nations, as well as independent parties to draft MEAs. In addition to consolidating research, they mandate a set for specific sites, and a set of obligations for those sites. Within the Danube Watershed, some of the



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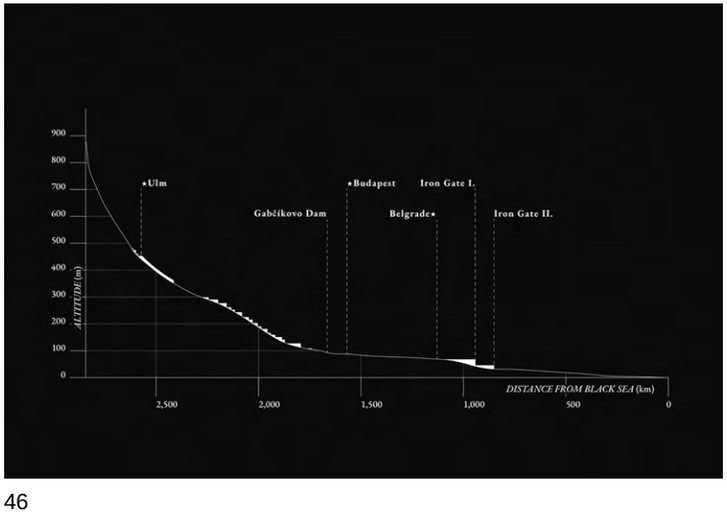

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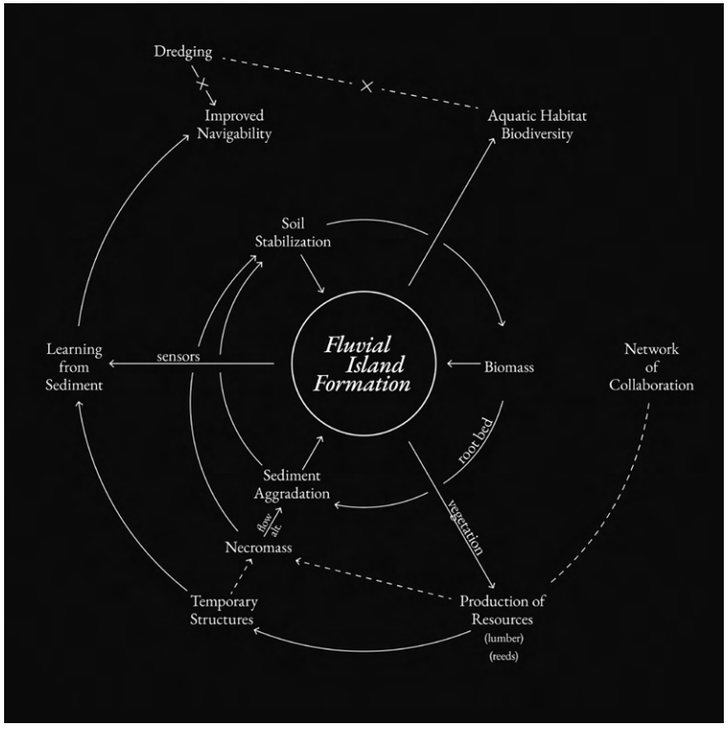
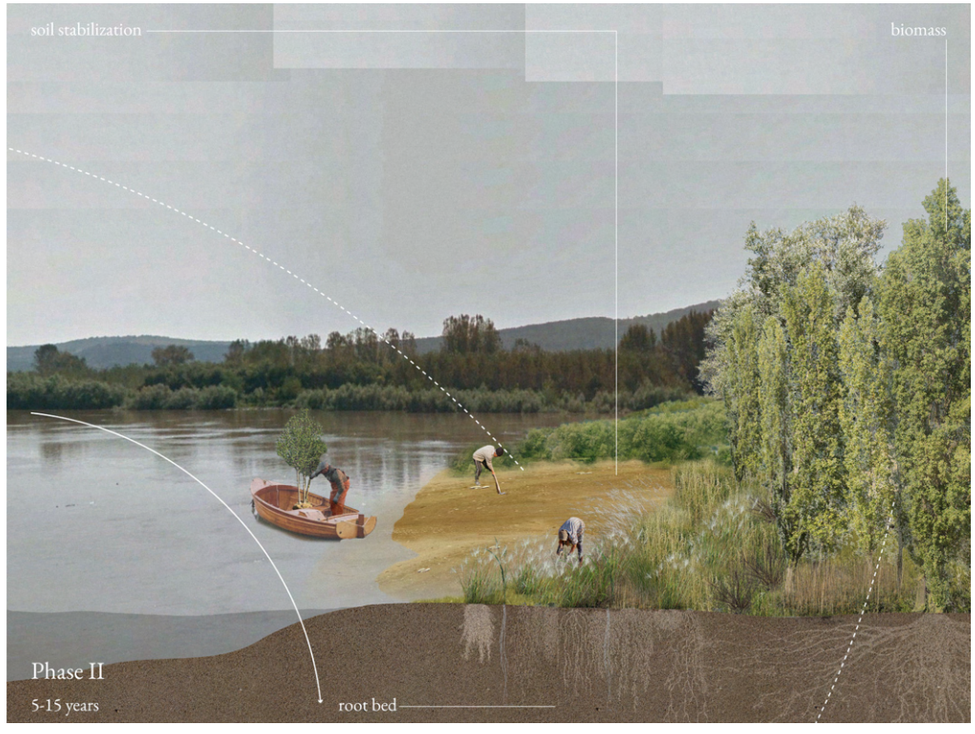


47

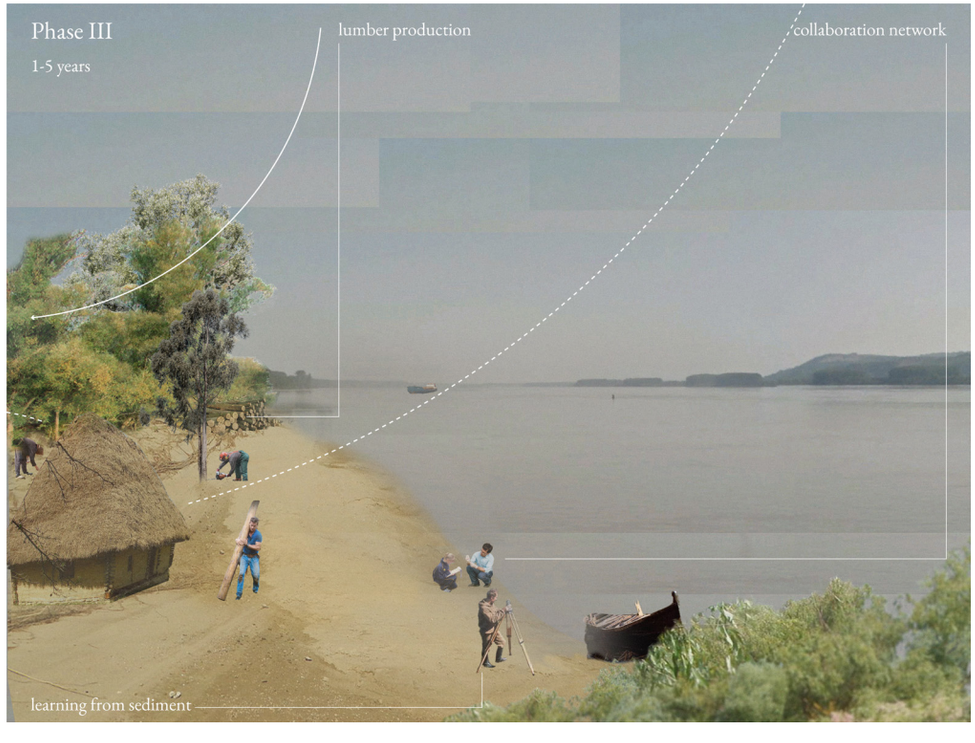
sites are contained within a nation's borders and some are transboundary. Each nation, although operating as independent political bodies, are necessarily entangled with its surrounding countries politics, economics, and ecosystem. How far does this entanglement reach?

Through analyzing the system of international organizations responsible for creating MEAs operating within the Danube watershed, and mapping the flow of economy through those organizations, one can gain a better understanding of the way in which power dynamics both affect the watershed and are affected by it. In examining these relationships one can speculate about the potential for transnational collaboration that addresses some of the issues currently present in the Danube, while challenging some of the current mechanisms of transnational collaboration that exacerbate inequality.


necromass
flow alteration
sediment aggradation
Phase I
1-3 years


soil stabilization
biomass
Phase II
5-15 years
root bed


aquatic habitat biodiversity
improved navigability
Phase IV
1-X years
temporary structures


Phase III
1-5 years
lumber production
collaboration network
learning from sediment

Measured Displacement

Measured Displacement
Crit. Emanuel Admassu
with Jasper Lai

Measurement has served as a tool that enables extractive practices and the sustained imbalance between nations which have led to the contemporary archive museum. Germany's ethnography museums vast collection of artifacts (many of which were acquired under dubious circumstances) are being moved to and displayed in a reconstruction of a 18th century Prussian palace known as the Humboldt Forum. This project engages with the history of measurement and the act of assigning a number to the experiential phenomena embodied in climate. By inverting the system of climate control into one of climate simulation, the displacement of the housed artifacts is seen as well as felt.

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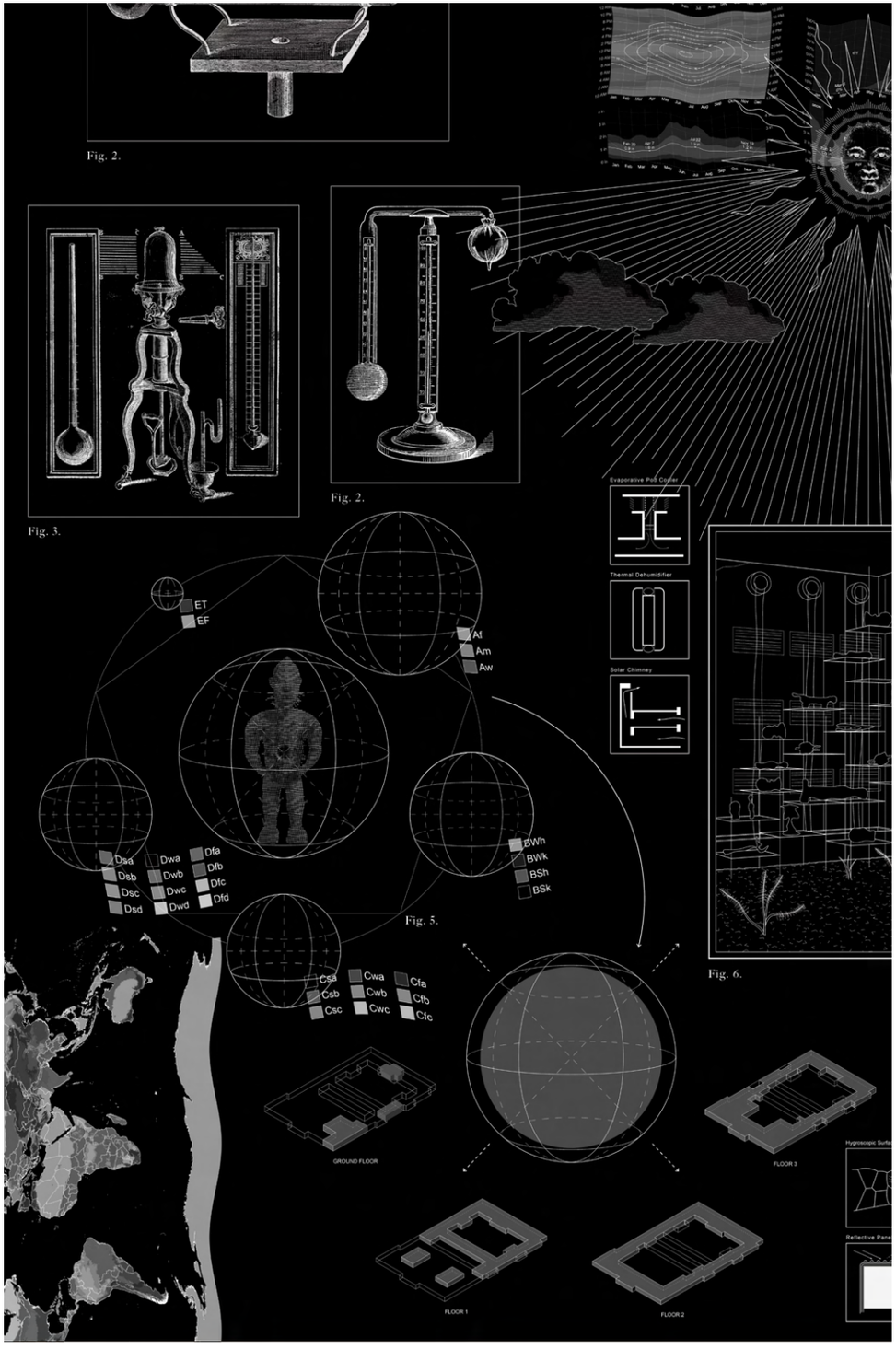
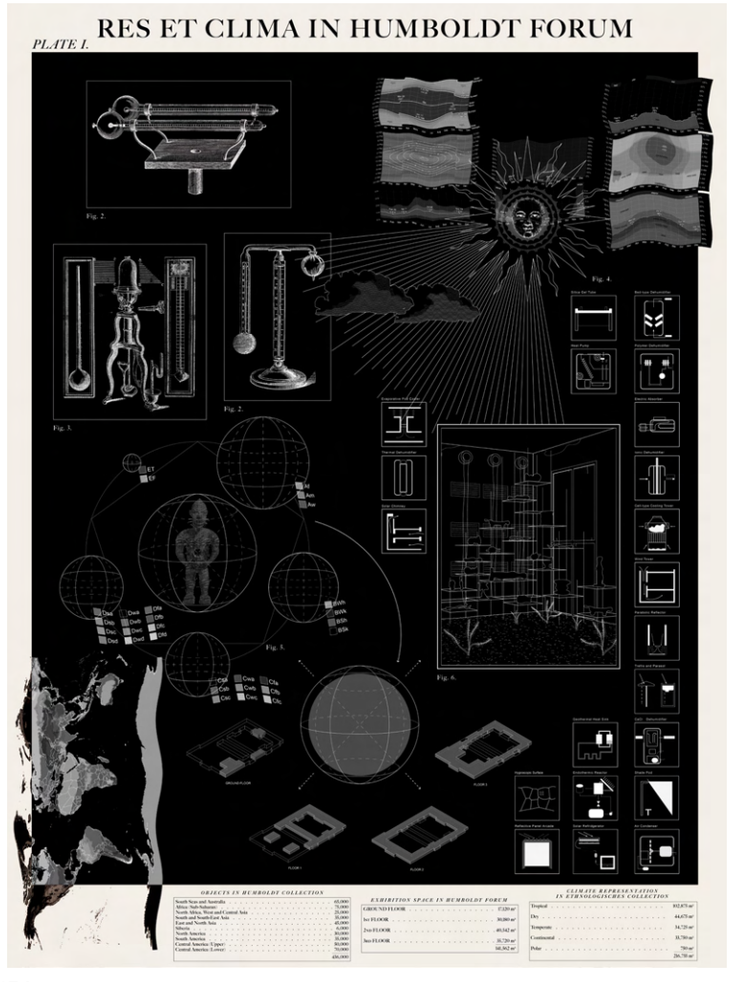
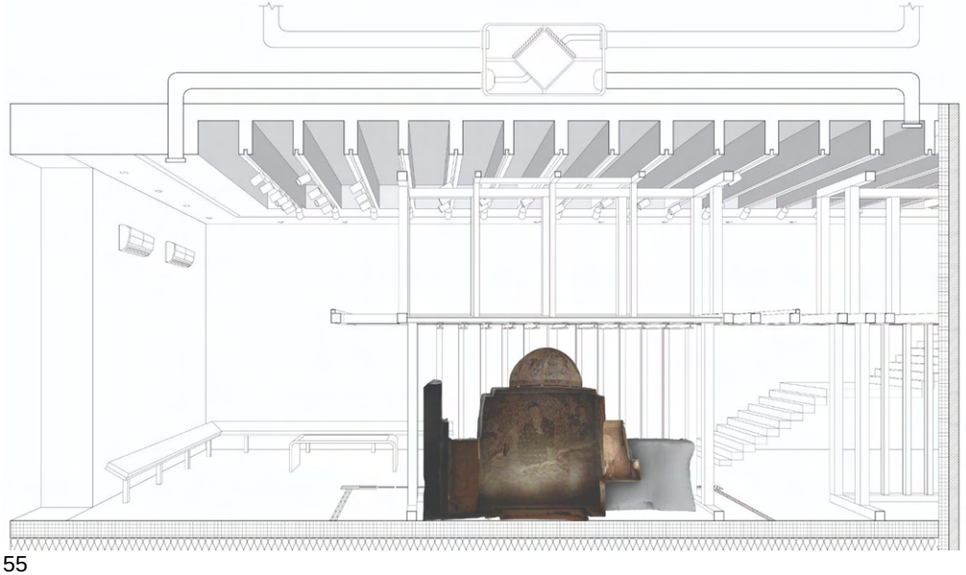




◀54

Imagining each of the objects in the collection embodying the climate from where they originate, the tools to reproduce these conditions are understood in relation to the history of measurement as a means of producing a universalizing ideology. Considering the possibility that the volume of objects out sizes the volume of exhibition space, a calculation is made to determine how the exhibition space might need to expand in order to publicly accommodate the collection they have amassed. The tools needed to create simulated climate conditions are laid out in relation to the metrics they produce and the ideology they maintain.



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The Kizil Caves were numbered, photographed, documented and eventually significantly damaged by tearing pieces from them to take back to Germany during the Turfan expeditions in the earlier part of the 20th century. The pieces of cave, which are geometrically varied due to their organic nature were then reconstructed in the museum with the implementation of Cartesian logic in the construction of the frame. Additionally the existing room is highly climate controlled, which can be understood as an extension of the desire to produce measured, objective knowledge though archive and preservation.

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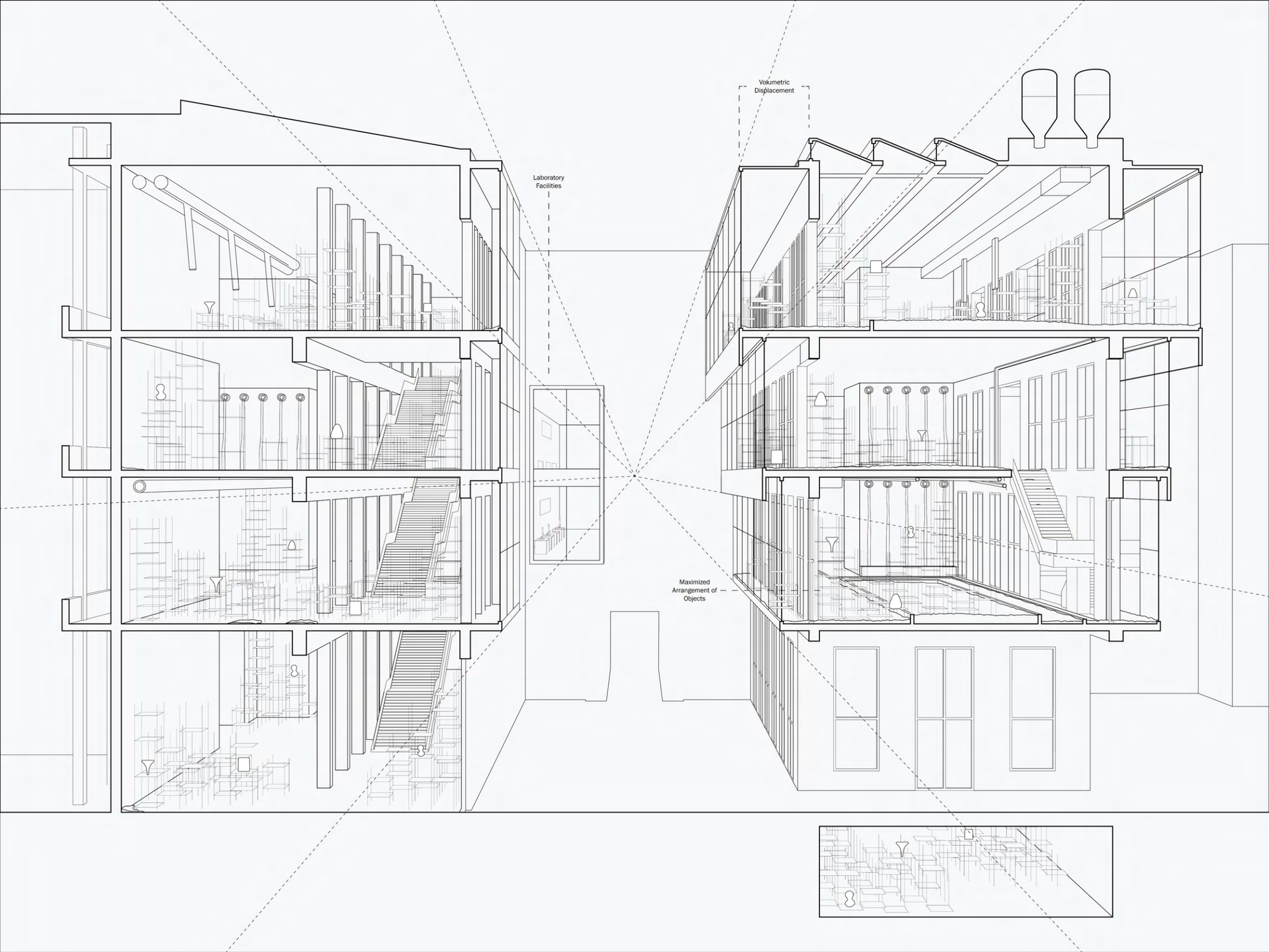
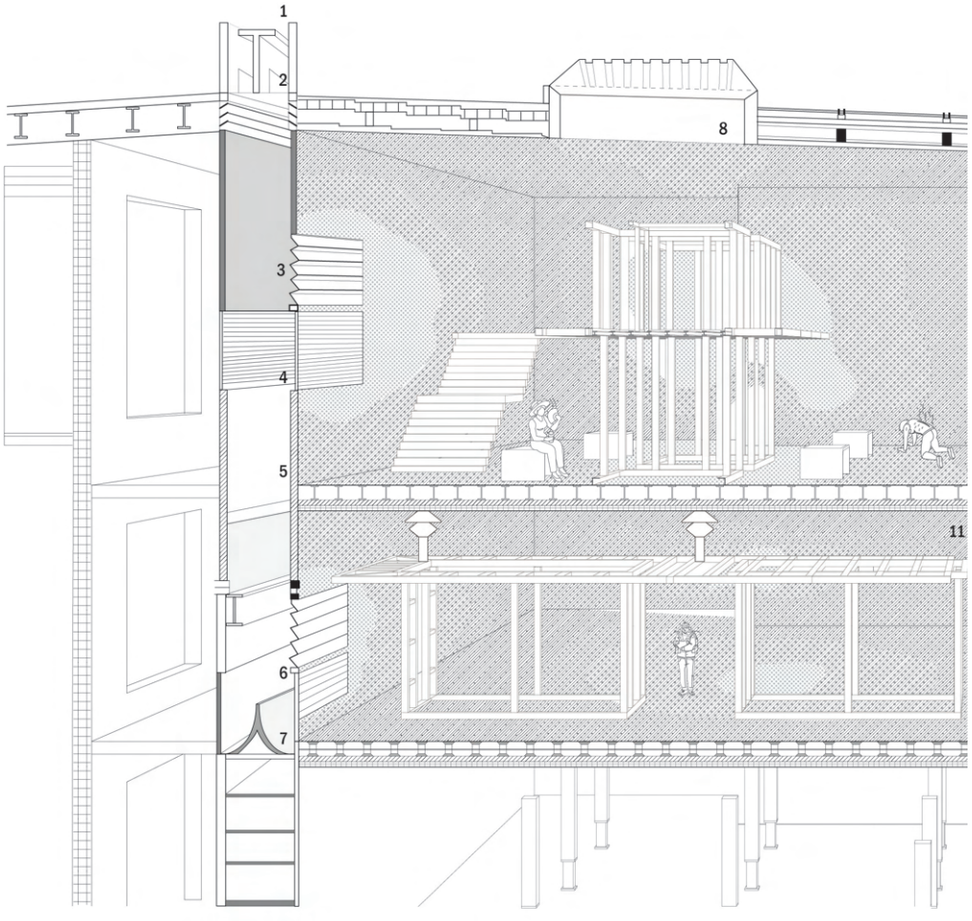
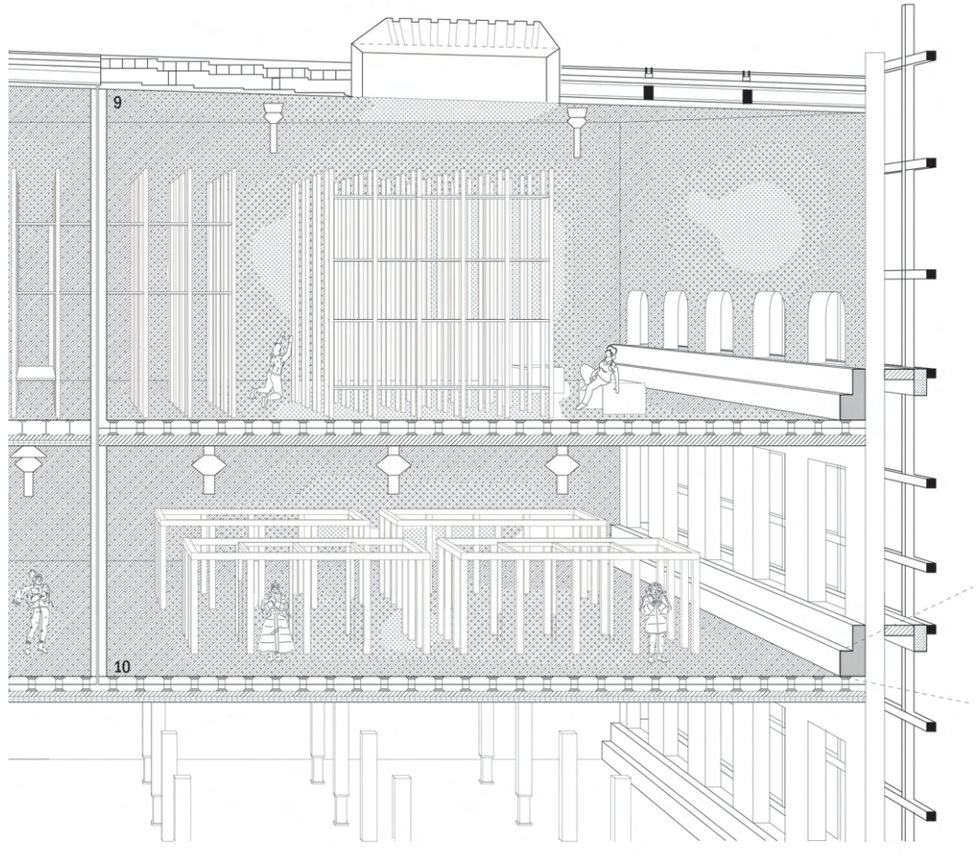

Volumetric
Displacement
Laboratory
Facilities
Maximized
Arrangement of
Objects





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The simulation of various climate conditions in a field of space within the museum produces at times discomfort for the viewer and potentially strains the capacity for maintaining the buildings interior leading to eventual decay. In this sense objects become weaponized as a means to facilitate a negotiation between associated parties regarding provenance and restitution. The climate zones at times contradict one another and lead to frictions that require collective action in order to resolve them.

Islamberg & Wayfaring

Islamberg & Wayfaring
Adv. Studio IV | Professor Ziad Jamaleddine
with Mingyue Zhang and Yuli Wang

This pilgrimage through the mountains of upstate New York centers on both spiritual and environmental flourishing. The small town of Islamberg in coordination with FUDR, a local river protection organization, work to create a series of trails that enable both spiritual and environmental flourishing. One removes a rock from an abandoned quarry site, now fashioned into a shrine, and carries it with them along to trail to deposit into a gabion wall, that is gradually filled to enable more direct engagement with environmental issues of the area such as the overpopulation of knotweed, or the choked water transportation system along roads. This in turn fulfills the charitable obligation practiced by residents of Islamberg.

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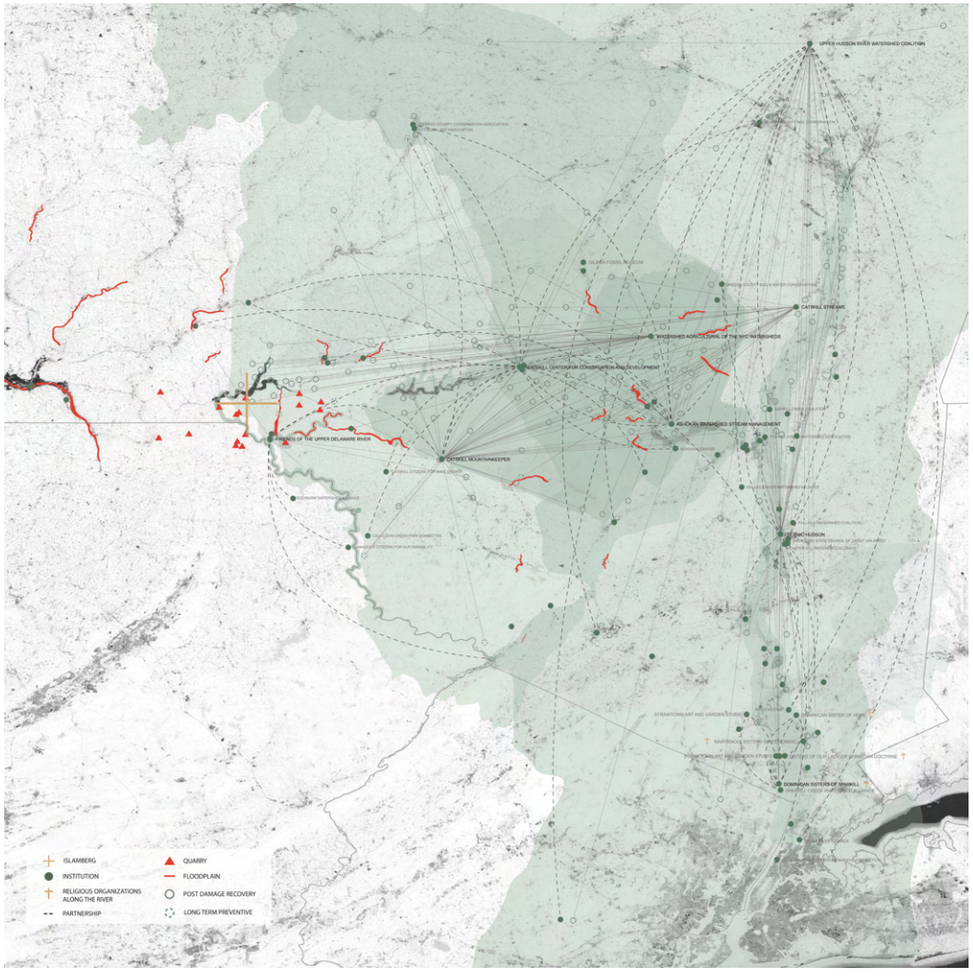

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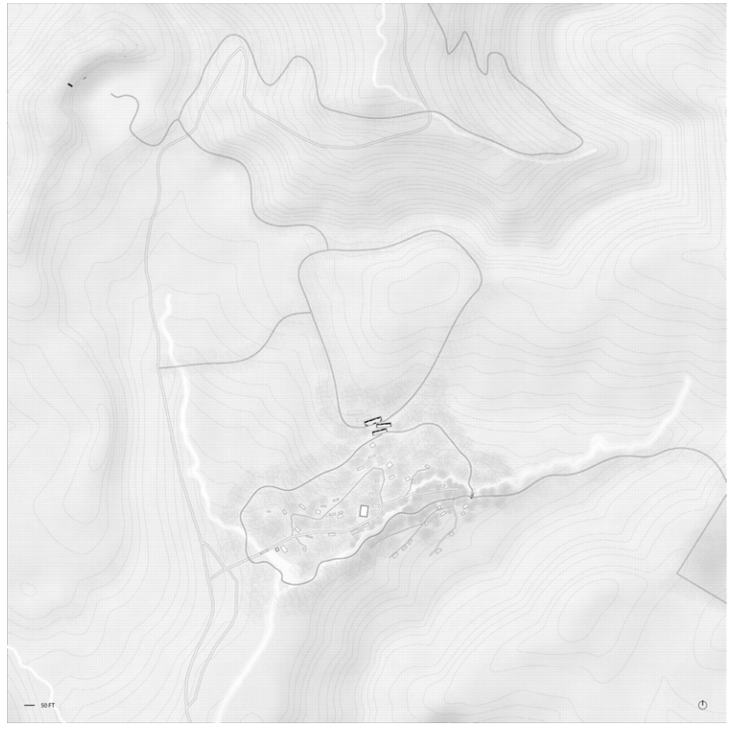

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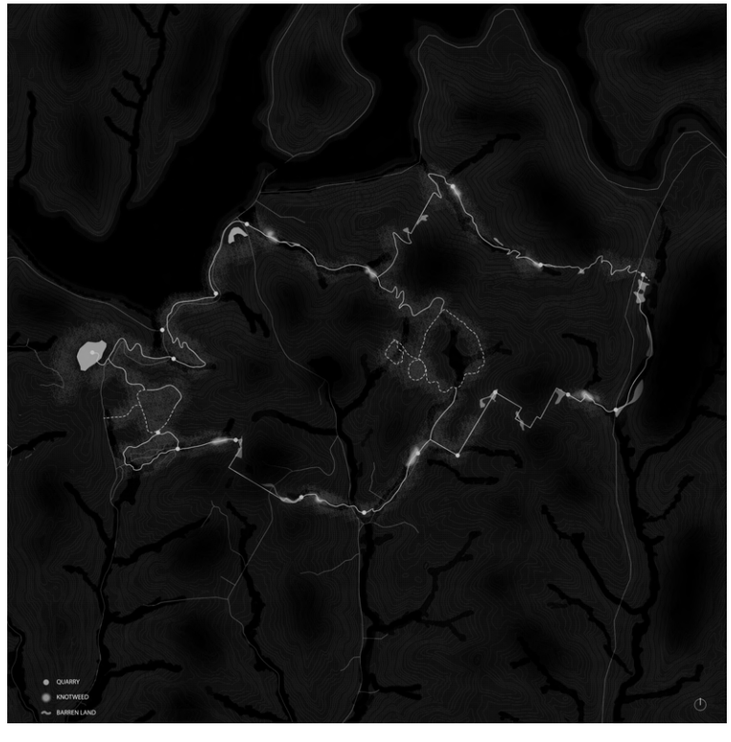

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There are a number of pressing ecological issues in around the rural hamlet of Islamberg. Among them are abandoned quarries, which leave massive craters in the earth, poorly functioning flood planes, erosion caused by the sediment imbalance of the watershed, and proliferation of highly invasive species such as knotweed. There also exists a network of charitable organizations engaging with these issues in both short and long term scales. The proposed trail will allow residents from the town of Islamberg to enter into the existing charitable network, and assist in intervening in their surrounding area.

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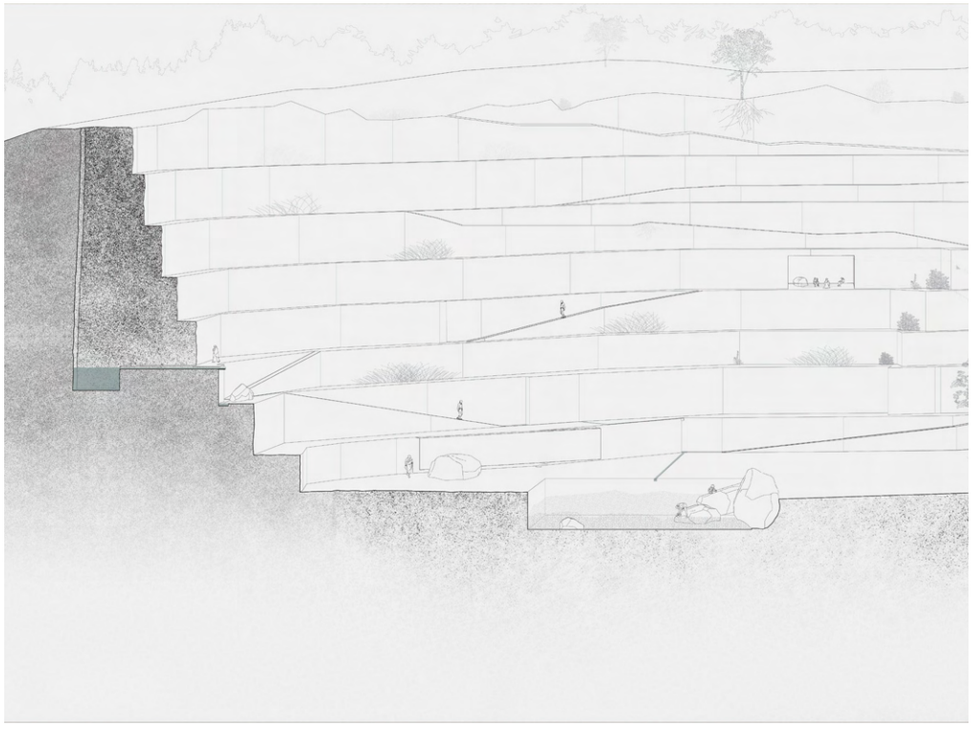

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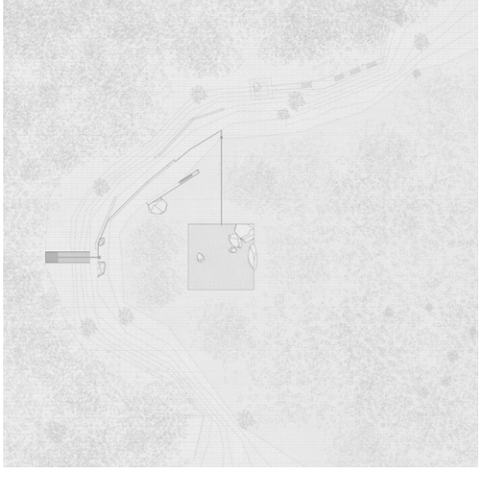

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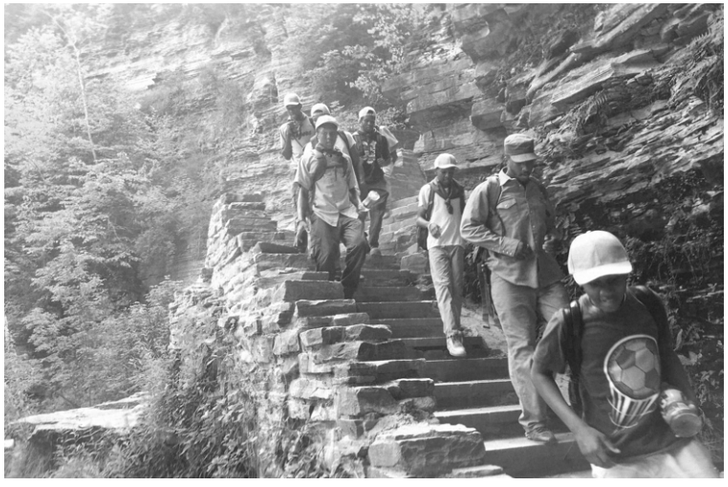
The Waqf puts mandates that the trail-scape is maintained in perpetuity, however the size and reaches of the trail are determined by the ecological areas of intervention. As problems are resolved or new issues arise, the trails are able to expand and contract to accommodate them. Likewise, this requires a regular engagement with the surrounding ecologically and a continual determination of where problem are or are likely to arise. The scale and the means of intervention are therefore expected to change but the engagement with the surrounding environment is consistent over time.



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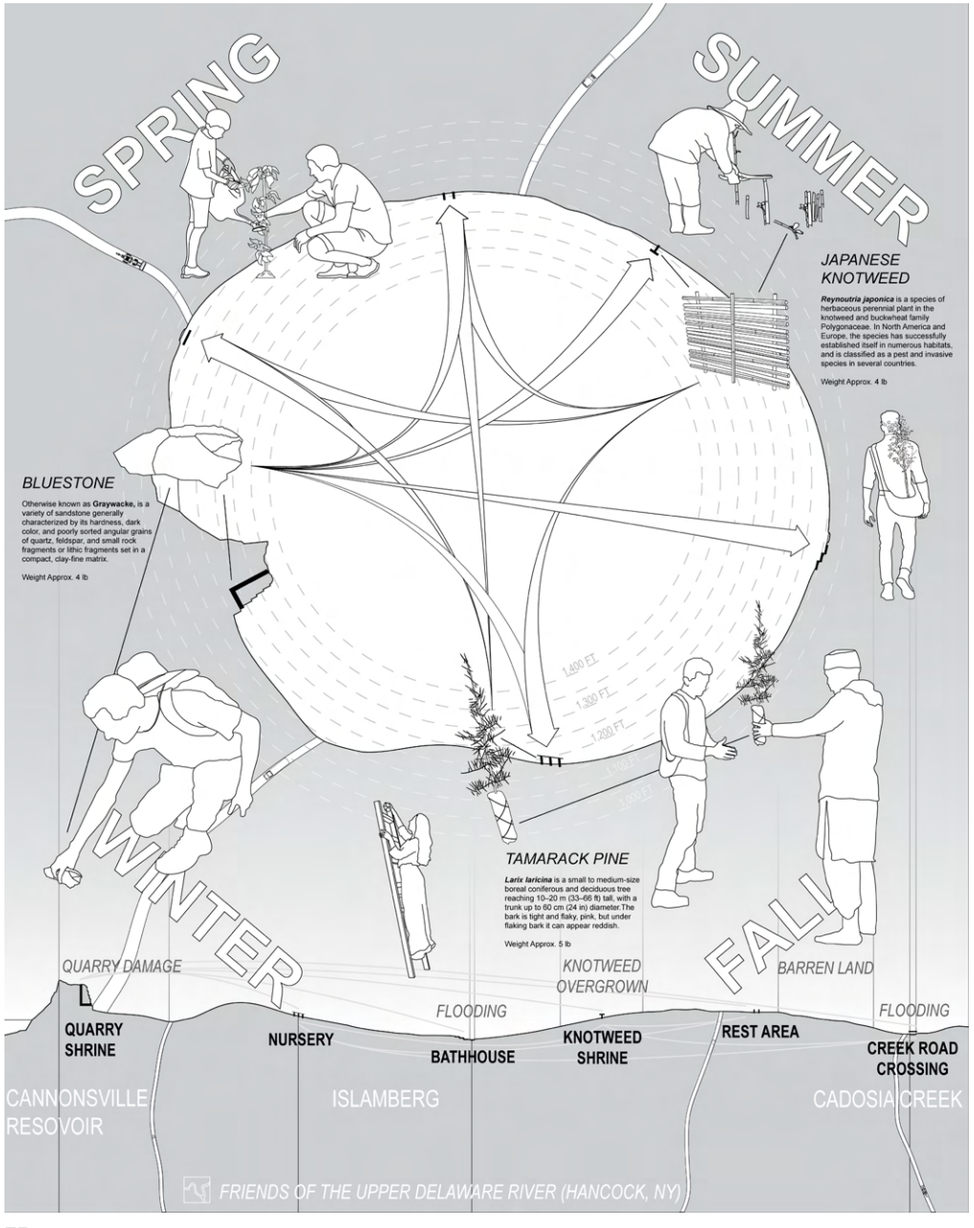
SPRING
SUMMER
WINTER
FALL
JAPANESE KNOTWEED
Reynoutria japonica is a species of herbaceous perennial plant in the knotweed and buckwheat family Polygonaceae. In North America and Europe, the species has successfully established itself in numerous habitats, and is classified as a pest and invasive species in several countries.
Weight Approx. 4 lb
BLUESTONE
Otherwise known as Graywacke, is a variety of sandstone generally characterized by its hardness, dark color, and poorly sorted angular grains of quartz, feldspar, and small rock fragments or lithic fragments set in a compact, clay-fine matrix.
Weight Approx. 4 lb
1,400 FT
1,300 FT
1,200 FT
TAMARACK PINE
Larix laricina is a small to medium-size boreal coniferous and deciduous tree reaching 10–20 m (33–66 ft) tall, with a trunk up to 60 cm (24 in) diameter.The bark is tight and flaky, pink, but under flaking bark it can appear reddish.
Weight Approx. 5 lb
QUARRY DAMAGE
KNOTWEED OVERGROWN
BARREN LAND
FLOODING
FLOODING
QUARRY SHRINE
NURSERY
BATHHOUSE
KNOTWEED SHRINE
REST AREA
CREEK ROAD CROSSING
CANNONSVILLE RESOVOIR
ISLAMBERG
CADOSIA CREEK
FRIENDS OF THE UPPER DELAWARE RIVER (HANCOCK, NY)

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