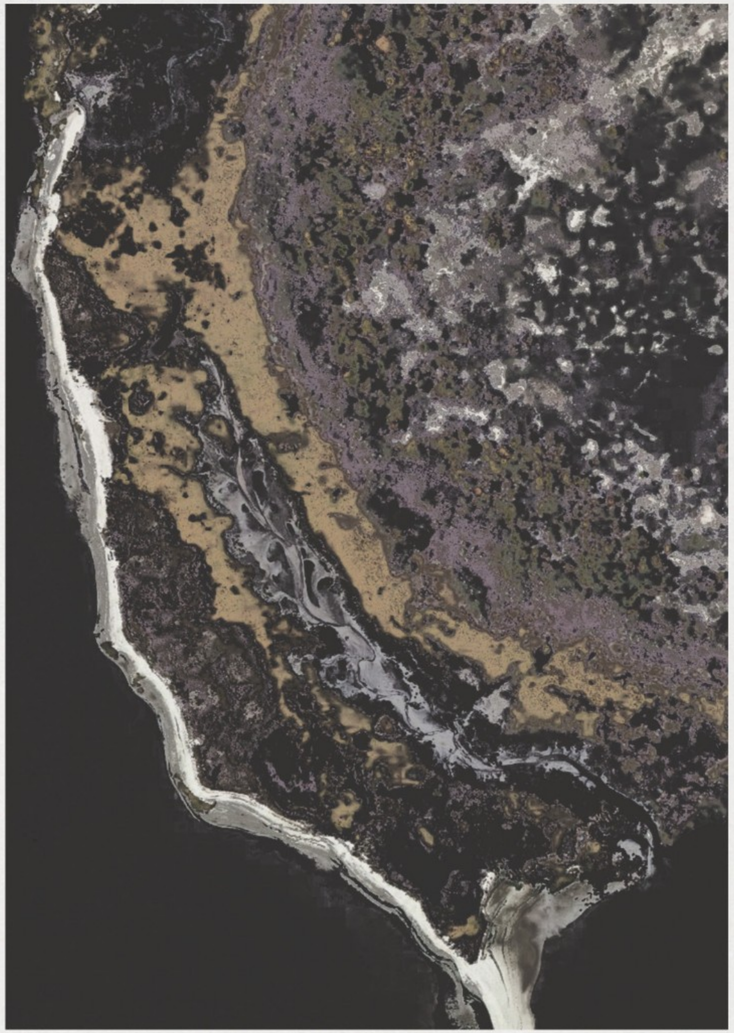
BRYCE EMERSON
COMPREHENSIVE PORTFOLIO
M.ARCH III

IN COLLABORATION

WITH EARTH



"Our ability to perceive quality in nature begins, as in art, with the pretty. It expands through successive stages of the beautiful to values as yet uncaptured by language. The quality of cranes lies, I think, in this higher gamut, as yet beyond the reach of words."

-Aldo Leopold

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LAND

"Land, then, is not merely soil; it is a fountain of energy flowing through a circuit of soils, plants, and animals."

— Aldo Leopold, A Sand County Almanac, 1949

The ground beneath us functions as more than a structural foundation; it is a dynamic system, a repository of ecological processes and historical layers, continuously shaping and being shaped by human and environmental interactions. Soil, often overlooked in architectural discourse, serves as the critical interface between built environments and natural systems, bearing the weight of human intervention while simultaneously supporting life-sustaining processes.

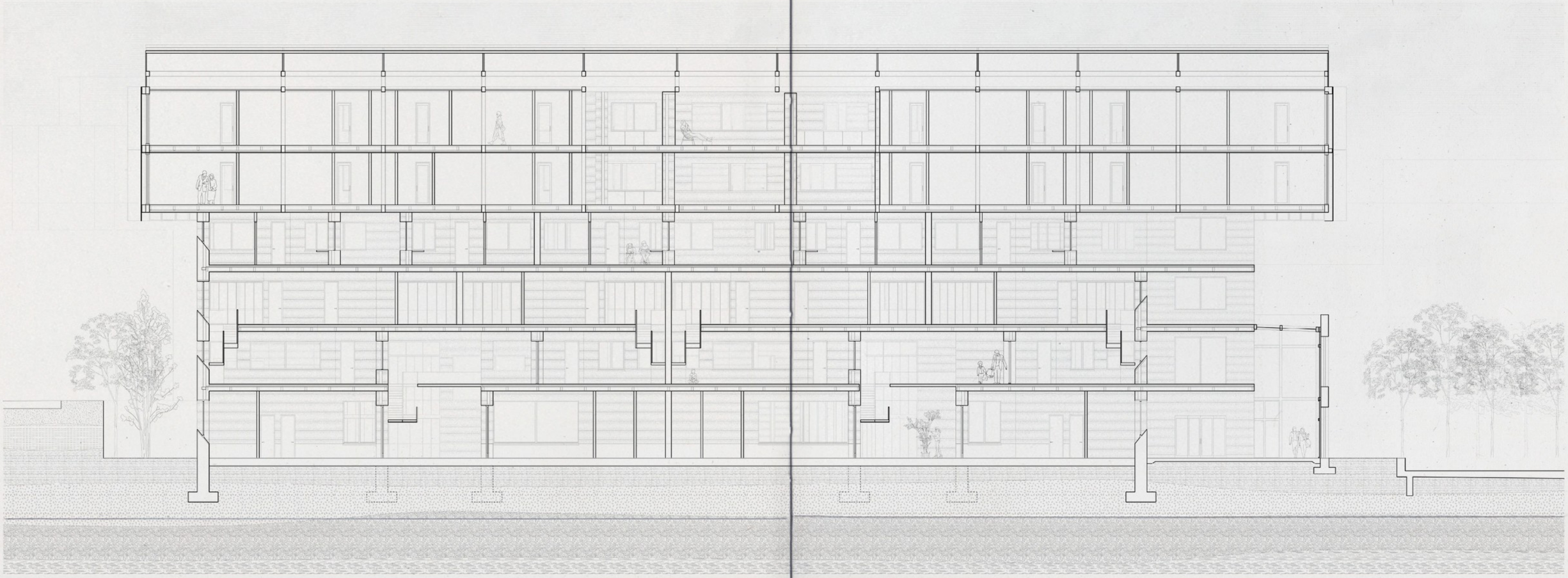
Engaging with soil in design necessitates an acknowledgment of its agency as a living system one that evolves, responds, and records the impacts of time and human activity. Far from inert, soil acts as a medium of transformation, embodying the intersection of ecological resilience and anthropogenic influence. Its capacity to absorb, sustain, and regenerate underscores its significance in addressing pressing challenges such as urban expansion, climate adaptation, and environmental restoration. Architectural practices must critically engage with the ground as an active participant in design, recognizing its material and ecological complexities.

By grounding architectural ambitions in the living systems of soil, the discipline can foster a more integrated and sustainable relationship with the environments it seeks to inhabit and transform.

IN TERRA

In Terra is a multi-family housing project that aims to address the intersection of the housing crisis and the adverse effects of climate change in New York City. As summer temperatures rise, the use of mechanical air systems continue to increase and become not only a financial burden on residents, but contribute to an over consumption of energy usage. This continuation of a reliance on mechanical energy as a response to rising temperatures exacerbates the effects of both the climate and housing crisis in New York City. As a response, this project explores non-mechanical methods of addressing rising temperatures and climate control within buildings. The main method is the use of rammed earth which behaves similar to a heavyweight masonry and has a high level of thermal mass. The units and their design are responsive to the surrounding demographic of the area and explore an arrangement of non-traditional housing types. These include units for multi-generational households, single household units with shared living spaces, and communal style living space studios.

PARTNER: JESS KUNTZ



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Housing requirements range from spacious units for extended families on the lower level including a two story duplex with shared garden outdoor spaces, single bedroom units for couples and single unit households, and a communal living spaces for individuals seeking a close-knit community which is located on the 5th and 6th floor and has shared kitchen and living spaces.

01 Ground level poinsettia room

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02 Second level shared living space

03 Duplex unit living space

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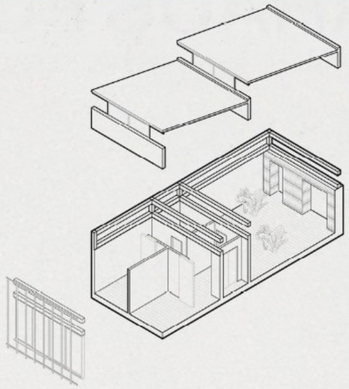
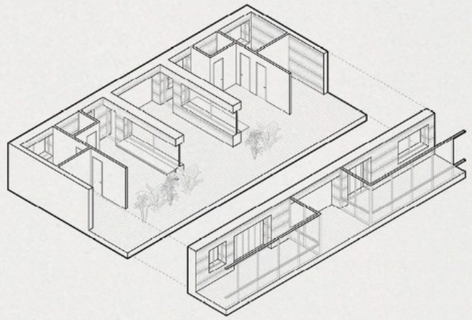


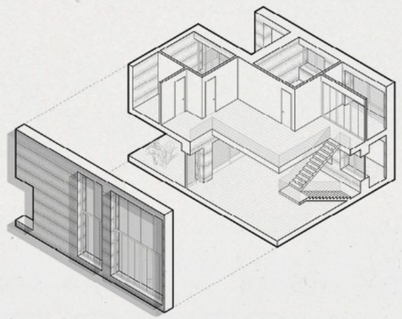
Studio / one bedroom. This unit typology is comprised of flexible units that utilize screens and sliding doors to give the resident autonomy over the organization and layout of the unit. Located on fifth and sixth floor.

02



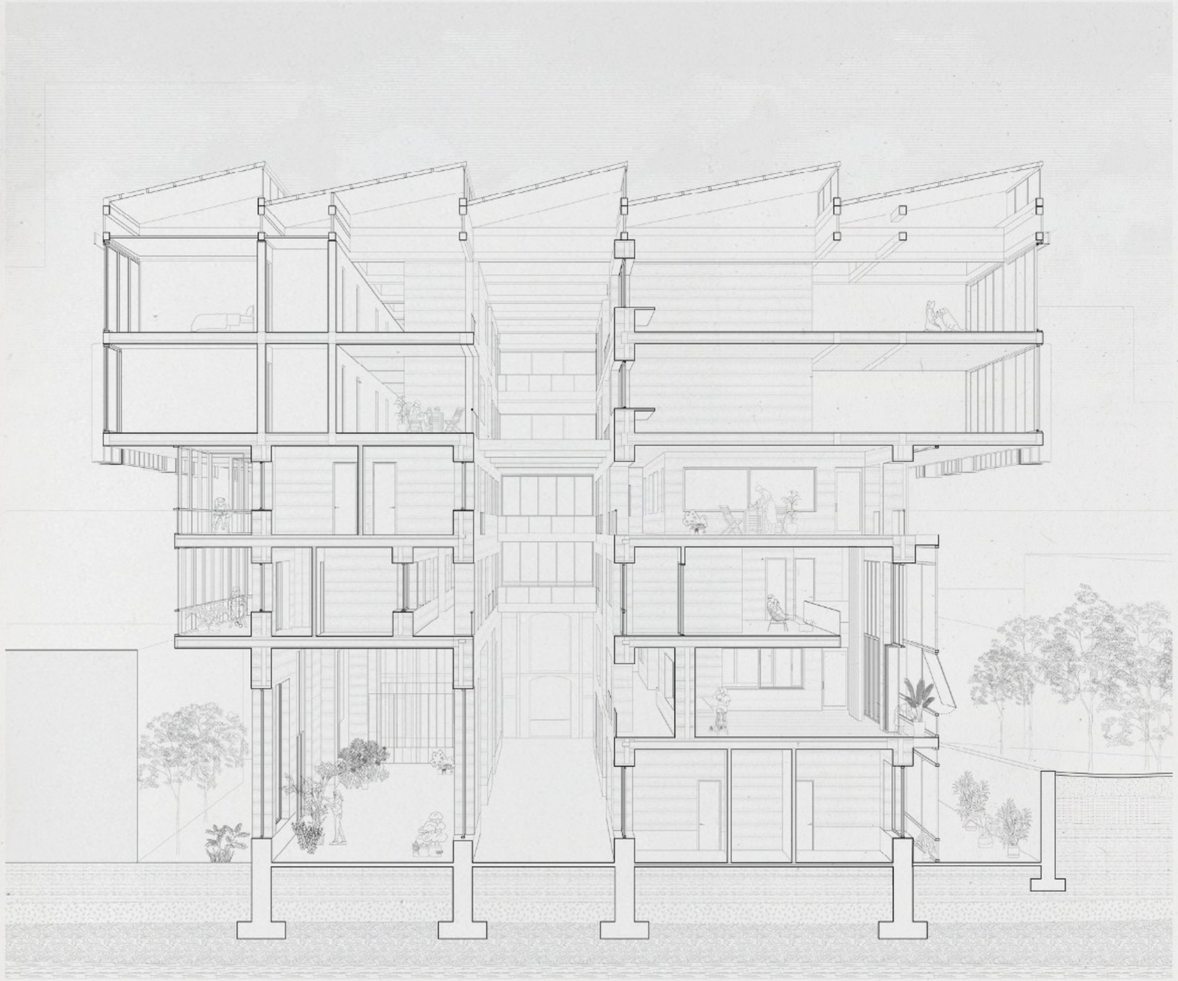
One / two bedroom. Designed for couples and single unit households. This unit typology is organized around an operable extended semi-conditioned living space. Located on first, third, and fourth floor.

03



Two / three bedroom. Designed for larger and extended family intergenerational living. This unit typology is a two-story duplex with private access from the ground floor.
Located on second and third floor.

01 Community Style Living Units (5th and 6th Floor)
02 Single Household Units (Ground, 3rd, and 4th Floor)
03 Duplex / Two-Story Unit (2nd and 3rd Floor)



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The formal qualities of the building are designed to maximize the efficiency of mitigating climate and temperature control. In addition to the use of rammed earth, each unit is open on two sides to allow for cross ventilation. The large canopy structure made of light-weight wood construction that shades the units below and protects the rammed earth from the elements.

04 North / South Section Perspective

01

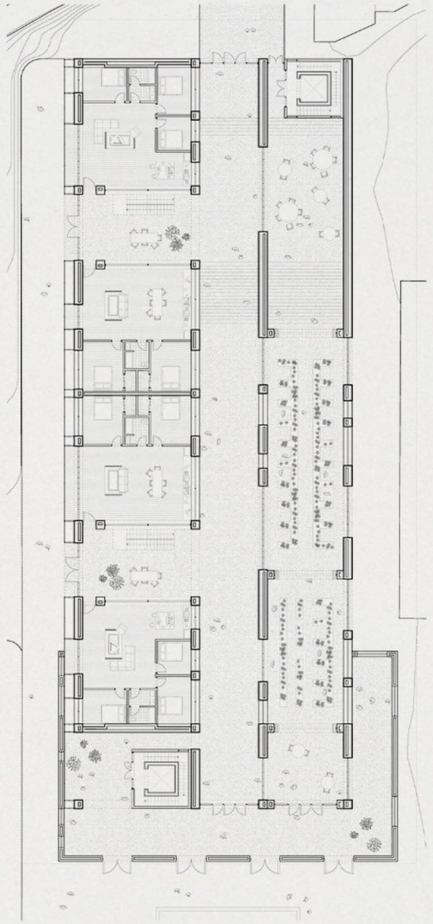
02

01 Physical model photo northwest corner
02 Physical model photo south facade
Physical Model: Corrugated Cardboard, Basswood, Card stock, Glassine

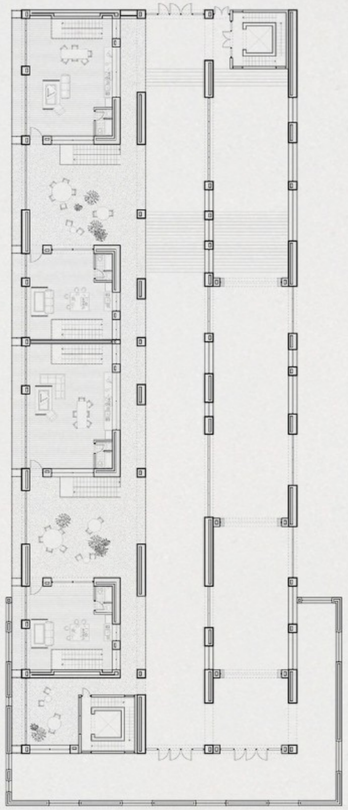
03

04

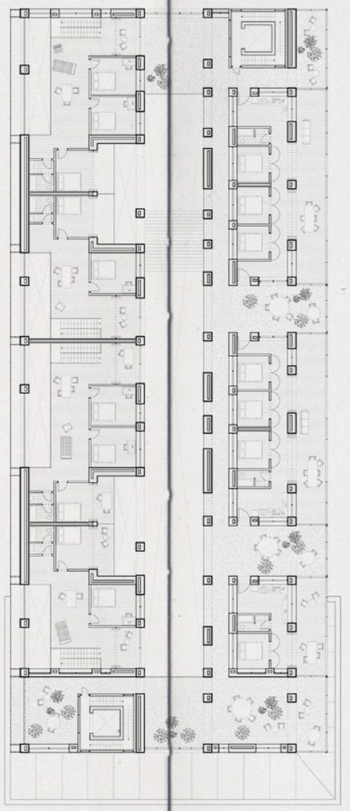
03 Physical model photo interior thermal garden
04 Physical model photo interior upper level of duplex



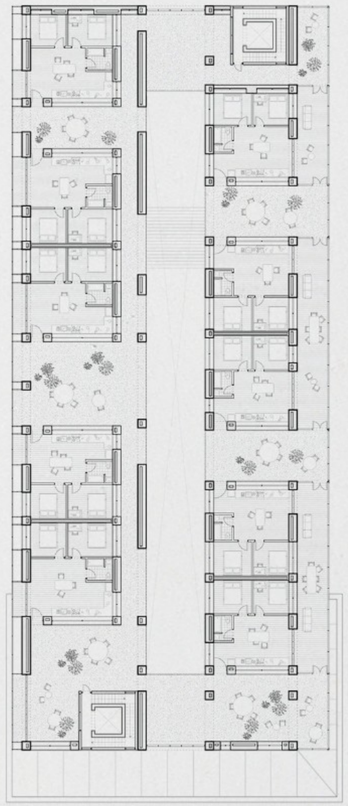
Ground Floor



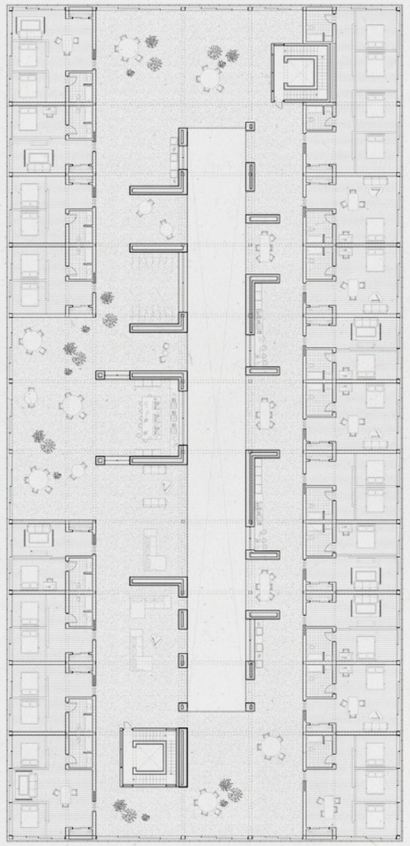
Floor 02



Floor 03



Floor 04

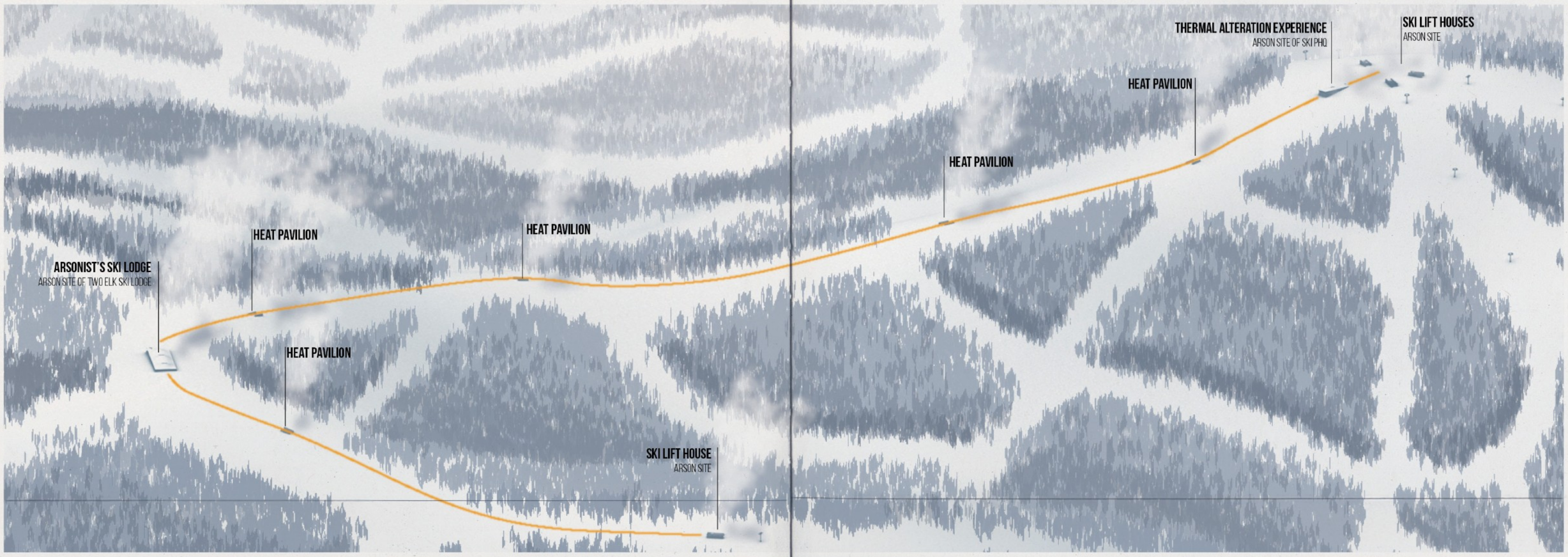


Floor 05 / 06 - Communal

The ground floor is comprised of four single household units with private access. A main staircase connects the street above to the ground floor public space which contains a large greenhouse and lobby space. Recognizing the multifaceted nature of Harlem's residents, the design approach prioritizes flexibility and exclusivity. By introducing "non traditional" housing typologies, such as communal and multi-generational units, the design aims to address the specific needs of this dynamic demographic, fostering a sense of belonging within the community through the use of shared thermal delight.

APRES-SKI ACTIVISM

The main theme of the project speaks to corporate social/environmental injustice and how architects can use their position to design for the 1% in a way that is confrontational to the user. Specifically, this project is to be confrontational about the unseen damages of corporate leisure. This is achieved through designing nuances that slightly alter experiences that one would expect when partaking in corporate leisure, in this instance the activities of ski leisure. The guiding event that was researched to understand the forms of damage was the arsonist attacks of 1998 on the vail ski resort. The Earth Liberation Front carried out these attacks as a protest of the expansion of the ski resort into an endangered species territory. The forms of damage that were exposed through this project were environmental damage as done by the resort but the environmental consequences of arson that ELF contributed to. By using the languages of arson (the intimate relations to heat, the visual properties of smoke, and the planned trail taken by the arsonist) these interventions create a thermal experience that is integrated into the traditional languages of ski leisure. Each of these interventions are connected through the process of a geothermal energy processing (marked by the orange trail on the map). Geothermal energy processing was used for the reason that the necessary scale makes a significant impact on the experience of the building. It also confronts the user with the acknowledgment of climate change, an issue that corporate leisure contributes to significantly. The process also generates a significant amount of heat and steam which are used as an organizational strategy and a way to alter the typical experiences of ski leisure and become a visual alteration to the landscape and to the experiences of the skier.



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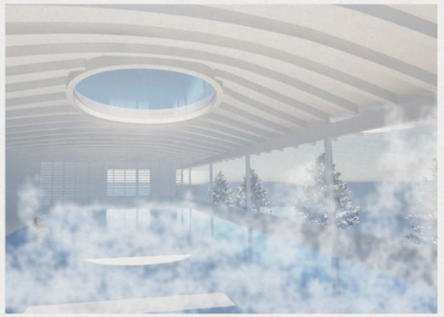


05

Eco-terrorist thermal trail experience

The interventions occur throughout a designated trail the arsonist took the night of the attack marked by pavilions that use steam and heat as a tangible marking system to guide circulation along the trail. Each of the sites of impact are marked by a series of interventions along the trail. The Thermal Alteration Experience marks the site of the Patrol Headquarters and uses heat steam and a spa experience as a way to alter the human micro-climate through a linear process of temperature changes that alter the temperature of the user at a similar ratio to the process of a burning building. Each of the ski lift houses that were burned are also marked using a process of unloading into a cloud of steam which create a disorienting experience for the user after disembarking from the lift.

01 Alteration of human micro-climate heat mapping
02 Exterior render of ski lodge
03 Interior render of steam experience inside ski house drop-off
04 Thermal alteration experience building
05 Interior render of thermal alteration bath

06

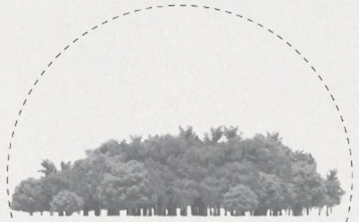
The ski lodge is the main intervention of the thermal experiences as it is the embodiment of ski culture and corporate leisure. The ski lodge plays a vital role in the après ski experience by offering a welcoming space for socializing, providing food and refreshments, hosting entertainment, facilitating relaxation, and offering practical amenities. It is an integral part of the après ski culture and contributes to the overall enjoyment and sense of community associated with corporate leisure. By integrating slight nuances into the design of this space that is held in high regards to the occupants and users, it has a most significant impact on the apres ski experience.

06 Axonometric thesis drawing showing interworkings of geothermal power facility inside ski lodge

The typical programs of the ski lodge are redesigned to be arranged and designed to accommodate the necessary components of the geothermal energy extraction process. The spaces are organized around principles of heat and the human micro-climate. As the user progresses through the lodge, the proximities to higher temperatures alter the time spent at each location which alter the overall experience of the apres ski.

APPRx

The Appalachian region faces an impending health crisis stemming from years of exploitation by the coal industry and subsequent disinvestment, leading to a lack of financial stability and widespread food deserts. This legacy has contributed to entrenched health disparities, with communities grappling with high rates of chronic diseases like heart disease and diabetes, perpetuating a cycle of poor health outcomes in the region. Embracing an interdisciplinary ethos, this initiative integrates agricultural methodologies with pharmaceutical science to confront prevalent health challenges within the region. Focusing on combating the widespread incidence of heart disease and the overall low quality of health with the introduction of bio-pharmaceutical agricultural production; the project aims to deploy rigorous scientific inquiry and strategic land reclamation practices of coal mines that were abandoned by mining companies. The ultimate goal is not only to ameliorate environmental degradation but also to create a sustainable ecosystem conducive to human well-being. Through the use of agriculture, medicine, and environmental reclamation, App/Rx seeks to not only serve holistic land-use strategies but also exemplify pathways for ecological resilience and public health enhancement in analogous contexts.

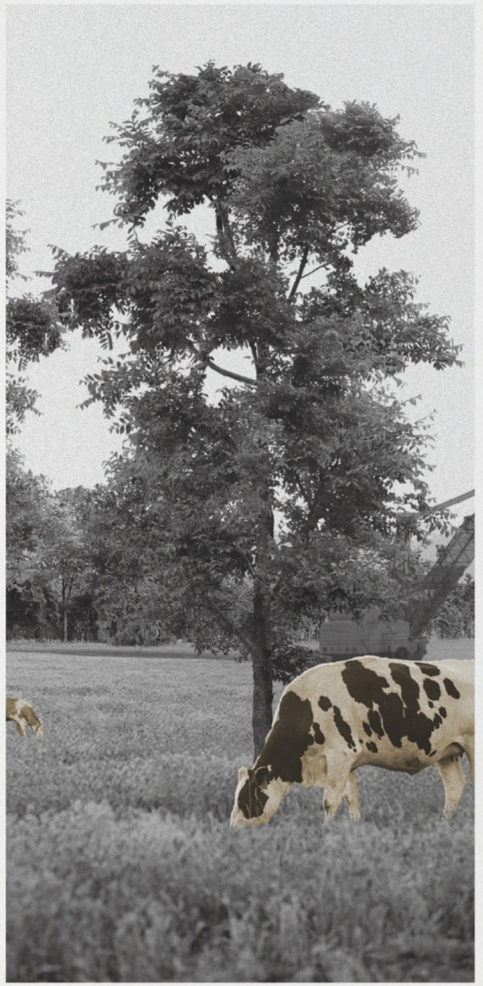


The Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code Section 2710 et. seq.)

Many coal mining companies will avoid the mandatory responsibilities of land reclamation after coal extraction by filing for bankruptcy leaving behind acres of exposed land and hazardous equipment.

01

01 Life cycle assessment of coal



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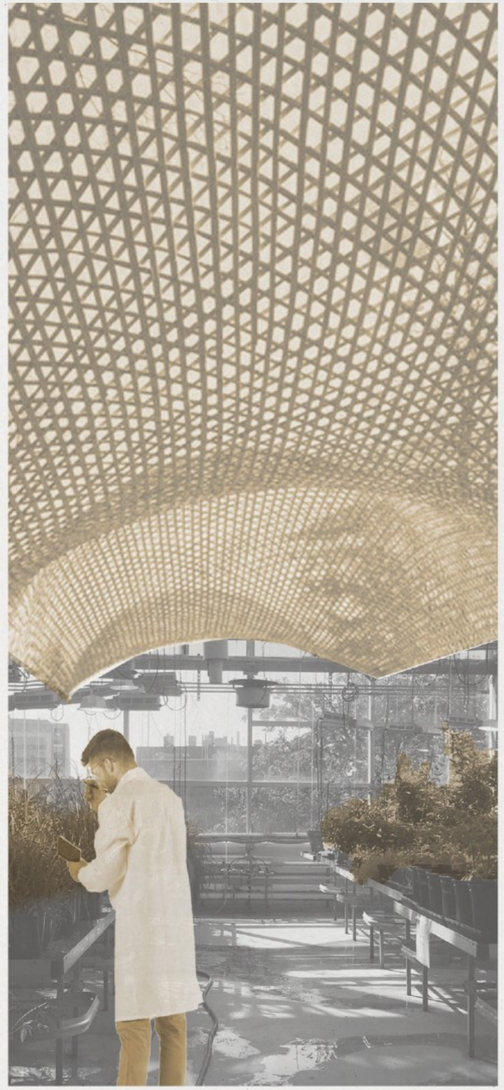
02 Perspective of agroforestry intiative
03 Sustainable farming practices and education



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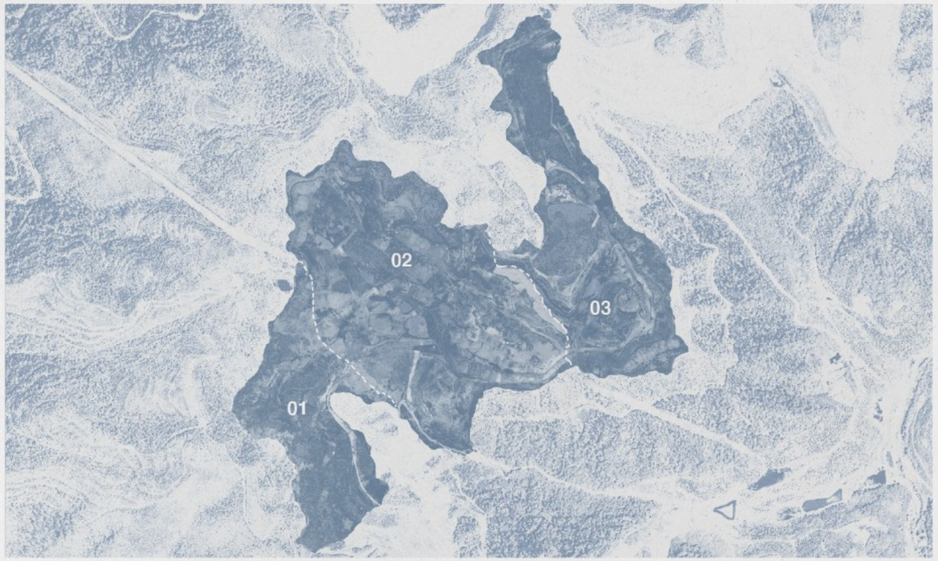
02

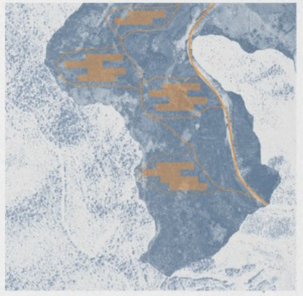
The new proposal will use the existing infrastructure left behind by the coal mining company as well as new builds to house a variety of programs related to agricultural reclamation. The three parts of the project aim to address time in a multitude of scales. The first being a 1-3 year timeline surrounding controlled environment and greenhouse farming which will provide a quick turn around fro investment. The second will be on a timeline of 1-5 years and focus on sustainable farming techniques for land remediation. The third will be on a timeline of 5-20 years focused on reforestation of indigenous plants and native tree species.

01 Research lab facility for pharmaceudical plants
02 Agroforestry trail and base plantings



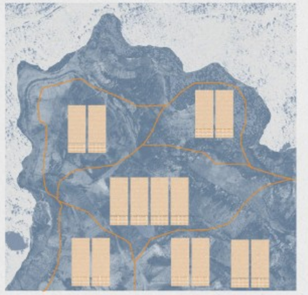
SITE: HOBET MINE, KY/VA BORDER
3 Part Initiative

Site Map



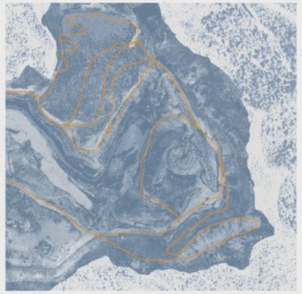
01 CONTROLLED ENVIRONMENTS

Controlled environment spaces and greenhouses create ideal conditions for cultivating bio-pharmaceutical plants typically found in other climates, expanding the range of medicinal flora accessible for production. By simulating optimal growing conditions, these spaces enhance agricultural diversity and economic potential while reducing reliance on imported goods and minimizing ecological footprints associated with transportation.



02 SUSTAINABLE FARMING

In tandem with the proposal for the introduction of bio-pharmaceutical based agricultural production; The introduction of sustainable farming practices, such as Alley Cropping and SilvoPastures not only provide local community food deserts, but also act as a catalyst for the bio-remediation of the exposed soil. The introduction of livestock to the area increases the nitrogen levels in the soil which rapidly accelerates the timeline of land reclamation.



03 FOREST FARMING

Forest farming involves cultivating high-value crops within a managed tree canopy, a practice also referred to as multi-story cropping in certain regions. This approach to crop production strategically utilizes both vertical space and the interactions among plants and micro-climate conditions. The introduction of a dense forested areas provides ideal micro-environments for more fungal development which is used in a wide variety of drug treatment.

WATER

We live in the time of wetness, a wetness that is everywhere before it is water somewhere. It aligns us to a design imagination that accommodates fluidity, openness, and complexity.

- Mathur / Da Cunha

The built environment exists in constant negotiation with natural forces, shaping and being shaped by the fluctuating dynamics of climate and landscape. As environmental conditions grow increasingly volatile, with intensifying cycles of drought, excessive rainfall, and rising sea levels, design must shift from an ideology of control to one of collaboration. Historically, human settlements have sought to impose order through rigid infrastructures and static boundaries, yet the accelerating uncertainties of climate change reveal the limitations of this approach. A truly resilient built environment must be adaptive, capable of responding to shifting conditions with intelligence and flexibility.

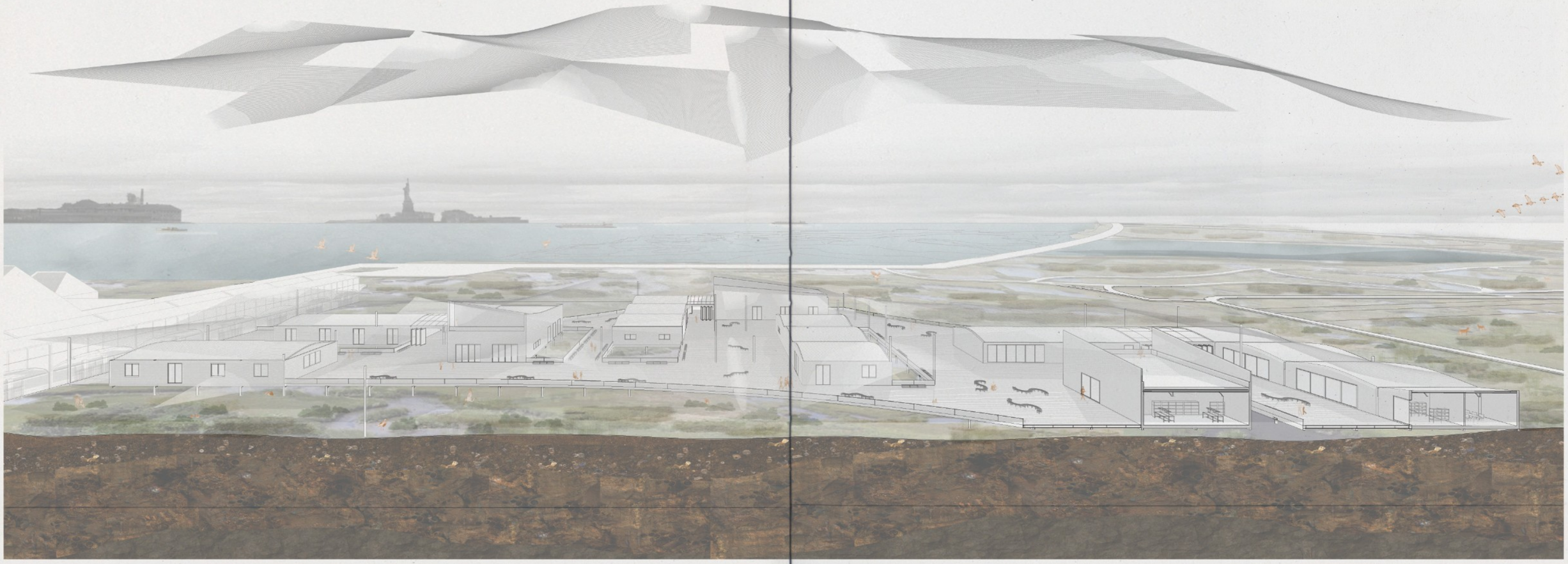
Rather than resisting change, architecture, landscape, and urban systems must engage in a dialogue with environmental forces, designing with rather than against evolving conditions. Built systems must anticipate and absorb climatic variability through flexible structural strategies, integrated natural buffers, and spaces that accommodate cyclical transformation. At an urban and territorial scale, this requires moving beyond extractive and static infrastructural models toward approaches that operate in symbiosis with ecological processes.

To design for an era of environmental flux is to accept that permanence is an illusion and that the built environment must be conceived as an evolving entity rather than a fixed condition. The challenge is not to impose stasis upon a mutable world but to cultivate a spatial and material language attuned to change. By engaging with natural forces as active collaborators rather than adversaries, architecture and urbanism can transcend the limitations of rigidity, creating environments that are not only sustainable but intrinsically responsive to an uncertain future.

SALT SCAPE

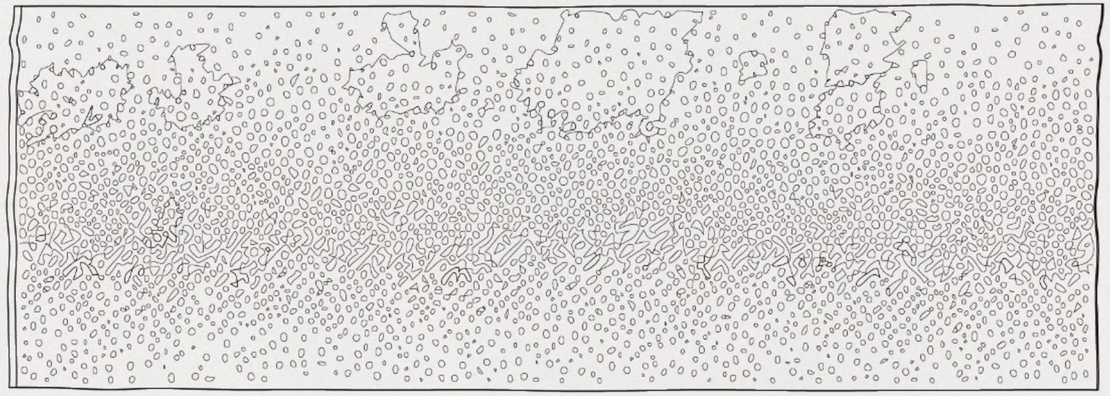
Saltscape is a rehabilitation area for the once naturally occurring salt marshes of the Hudson Estuary. The project is situated on an existing abandoned train station and is located along major migratory paths for both birds and fish. As a way to reintegrate the site into its natural contexts, the naturally occurring properties of salt serve as a catalyst for connecting human activities and ecosystem restoration efforts. The project is organized along multiple datums: a large netscape draped over existing and new structures such as a raised boardwalk which provides protection of the habitat restoration along the ground. These datums act as layers of interaction and protection between the human and natural ecologies. The highest datum, a net soft-scape, accumulates crystalline salt formations creating a natural shading device for the levels below. The middle datum, which uses existing and new structure on the site, is on an elevated platform above the marshland restoration and houses the wildlife research and rehabilitation labs. The lowest datum is a complete restoration of the natural marshlands native to the surrounding area.

PARTNER: MARIA JESUS



Salt Clay Brick Construction:
Concrete Alternative to Address Effloresence and Coastal Deterioration

The new structures on site are constructed of salt clay bricks which continue the language of salt but also work with the forces of the impending salty coastal winds rather than deteriorating under these conditions (a sustainable approach to addressing the effects of efflorescence)



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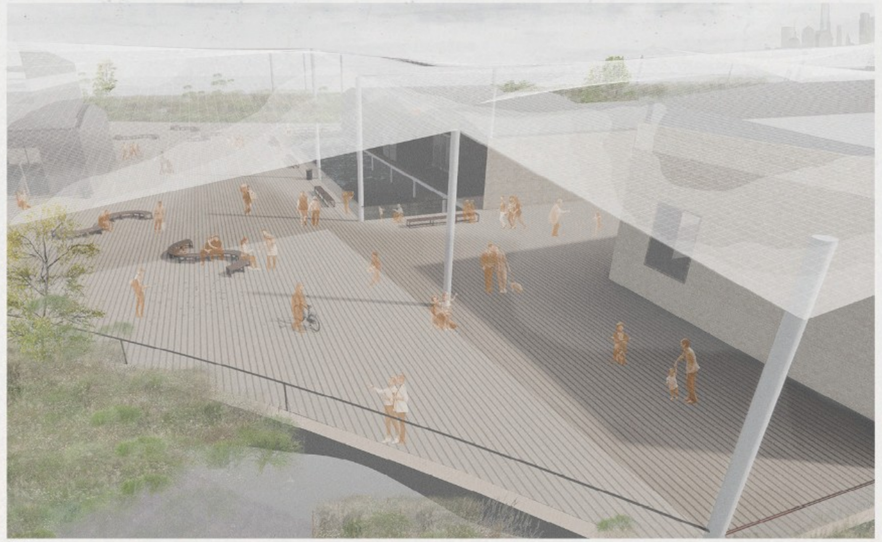
01 Section of final salt clay brick showing details of material composition
02 Physical study models and tests of salt different salt clay bricks

03

03 Perspective from small animal in marshland - during wet season , little to no salt accumulation



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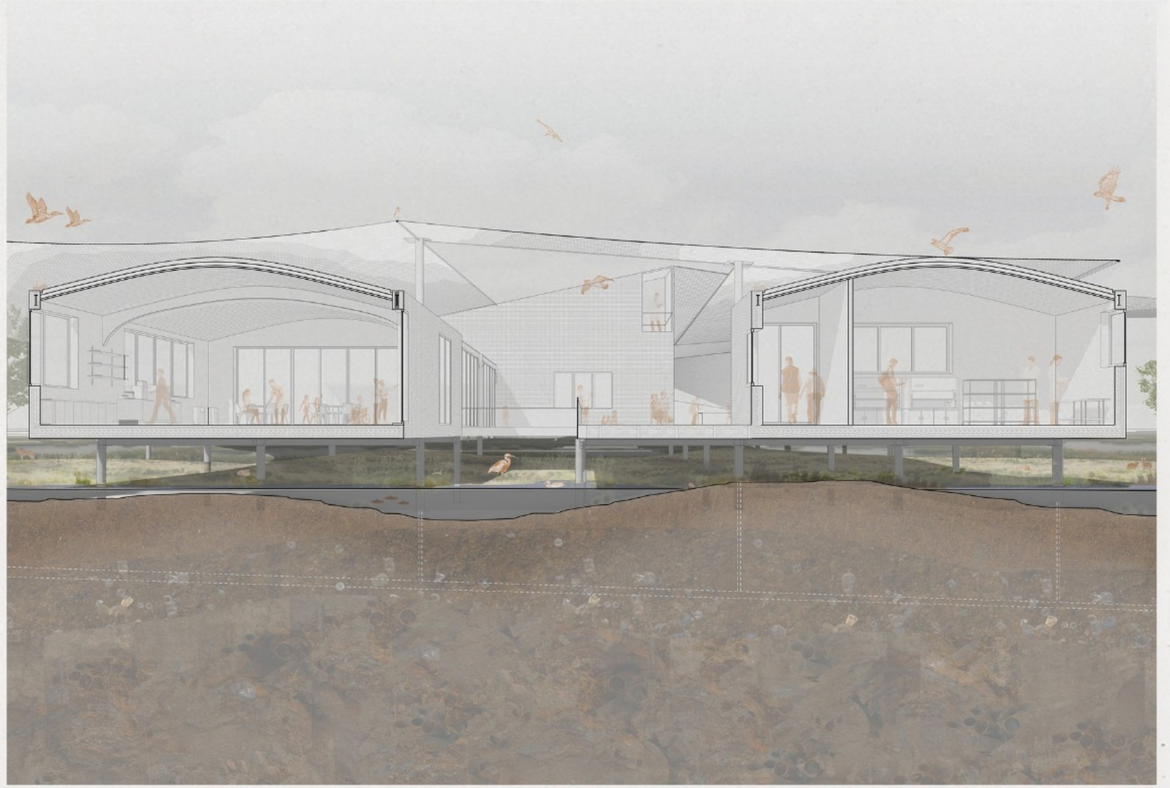
01 Bird perspective - render during dry season, max. salt accumulation
02 Internal perspective of semi-conditioned public space

The formation of salt fluctuates with the wet and dry seasons of the region. During the dry season, more salt crystallizes forming a natural shading device. During the wet season, the salt is dissolved from the let allowing more light to penetrate to the raised platform.

03

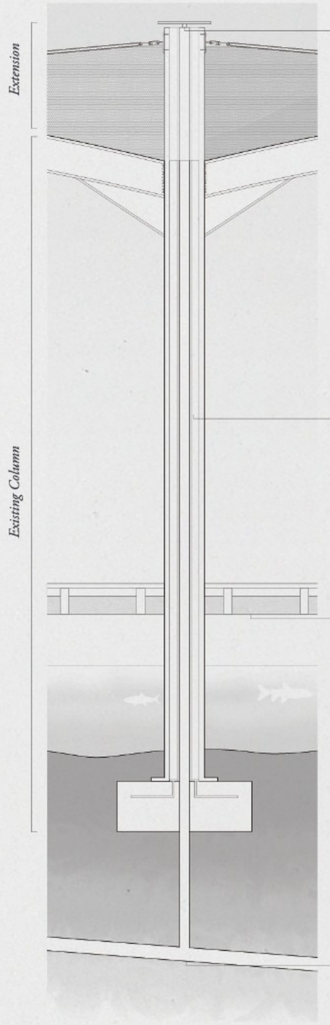
03 Physical Model



01

Through the use of the existing drainage the landscape is flooded with brackish waters creating tide pools and salt secretions for the use of inhabiting animals. The willed properties of the new and existing architecture allow for the wild properties of salt, necessary for the life of humans, animals, and landscape, to perform many responsibilities throughout the site.

01 Short Section Perspective



Deflector
Brackish water brought up from reversed drainage system is deflected onto netscape to be distributed for crystallization process

Reclaimed Structure
Columns are reinforced with bundled iron rail tracks found on site and casted in salt based concrete

Raised Platform
The raised platform allows for the ground underneath to remain protected for restoration and provide shelter for vulnerable fish and prey

Passive Water Pumping System
The existing drainage system is connected to the cove and uses a passive pressurized system to pump water to top of netscape

02

02 Column Detail

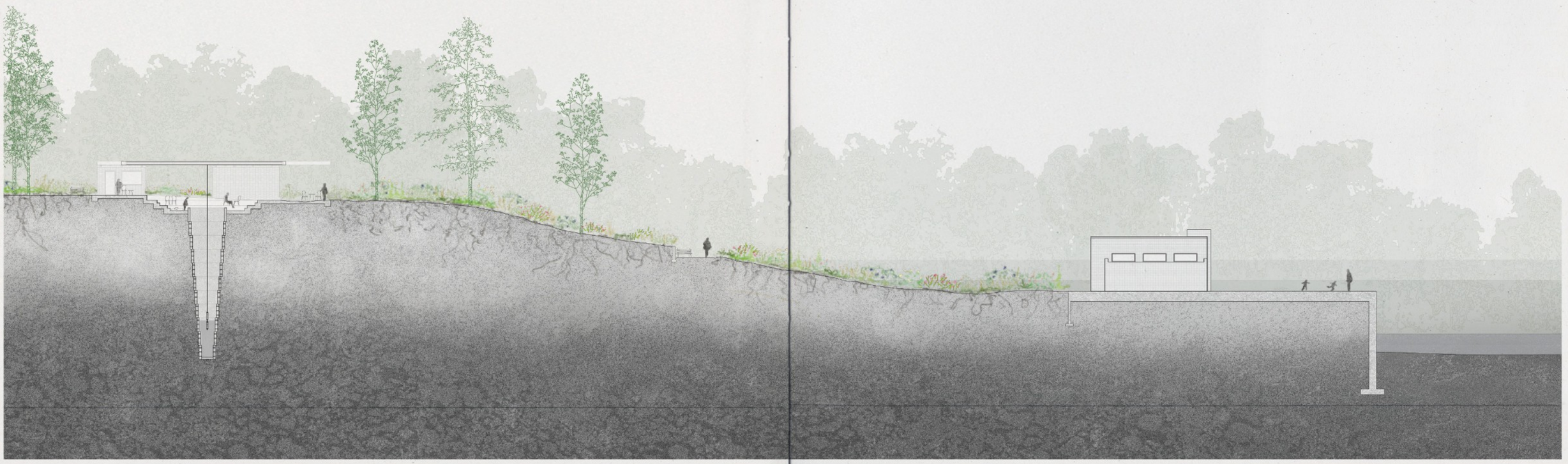
The plan is organized around three nodes that are representative of the naturally occurring portions of a salt marsh: marine, low marsh, and high marsh, all with respective research and rehabilitation centers. The existing structural grid is reinforced through the enclosed structure that include, research labs, classrooms, and rehabilitation facilities. The raised platform connects the ferry building on site and public park and provides circulation throughout the site. The existing infrastructure is used for terra forming on site to encourage the development of the marshland restoration.

01 Site Plan

NYC IS A VERNAL POOL

NYC as a Vernal Pool: Re-thinking Nuisance Flooding explores the potential of nuisance flooding as an opportunity to address both ecosystem health and urban quality of life. Drawing inspiration from vernal pools, seasonal wetlands that provide critical ecological functions through alternating cycles of flooding and dryness, the project reimagines New York City's historical identity as a wetland within the harsh urban landscape of today. By understanding vernal pools' role as overflow systems that support native species and cyclical biodiversity, the research investigates their relevance to urban hydrology and flood management. Centered on a high-nuisance flooding corridor in Longwood, Bronx, the project envisions adaptive infrastructure that integrates ecological principles to create resilient, multifunctional spaces for both natural systems and urban communities.

PARTNER: TRELLA ISABEL LOPEZ



01

Final presentaiton for studio layout
Drawings printed and inked on mylar layered to highlight the intersections of water and people.

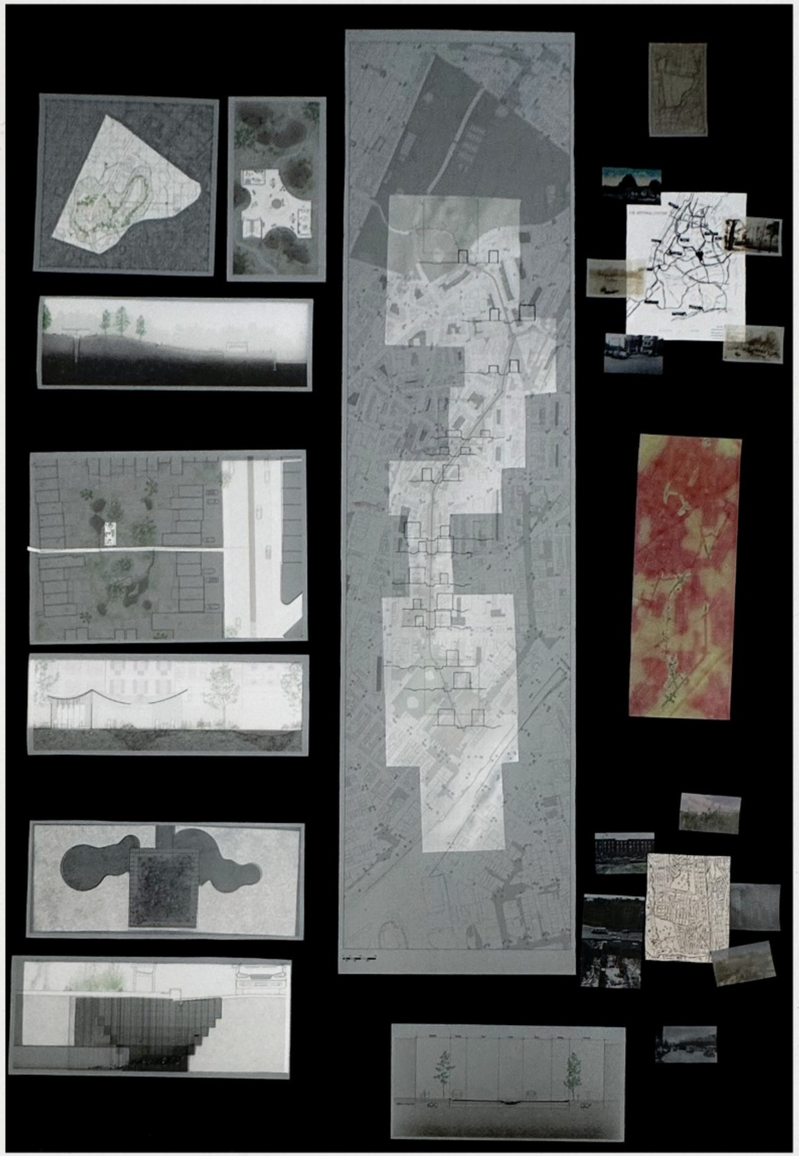
LEFT:

Drawings of interventions at multiple scales corresponding to flooding corrridor to the right

MIDDLE:

Map and sectional variations of nuissance flooding corridor in Longwood, Bronx.
RIGHT: Archive of historical planning documents link to present day stormwater mismanagement

01 "Water Map" of NYC



02

01 Large Infrastructure Plan (Extreme Response)

This proposal leverages large green infrastructure to manage extreme flooding by redirecting stormwater into parks, temporarily flooding them until water naturally recedes.

02 "Pocket Wetland" Typologies (Moderate Response)

Pocket wetlands are proposed in underused courtyards and greenspaces, redirecting stormwater into man-made vernal pools to naturally filter and manage runoff.

03 Existing Infrastructural Adaptations (Continual Response)

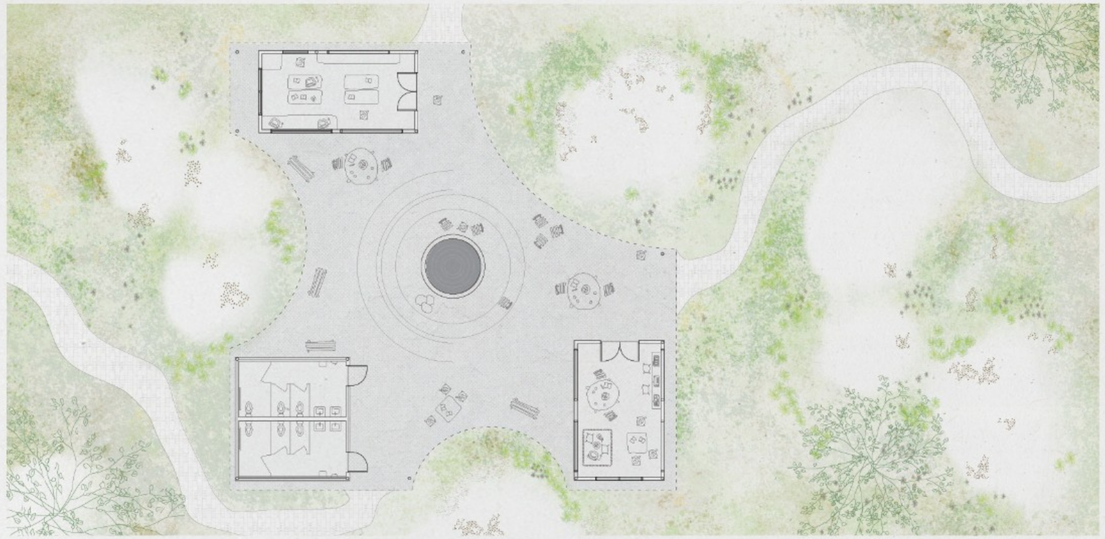
Existing NYC stormwater drains are enlarged and surrounded by permeable soils to prevent street flooding by delaying overflow into the combined sewage system.

02 Final layout of archive

01

Large Infrastructure Plan (Extreme Response)
During extreme flooding scenarios, stormwater is redirected via the canal system into low lying areas in the park dilineated by flood tolerant landscaping. A new masterplan for the park driven by this floodplan is overlayed and water monitoring stations replace exisitng social spaces in the park as a way to educate the public about issues surrounding living with water in the city.

01 Site map of large infrastructural plan



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02 Plan of water monitoring station
03 Section of water monitoring station and lake

"Pocket Wetland" Typologies (Moderate Response)
Pocket wetlands in underused urban spaces filter stormwater and collect rainwater for evaporative cooling centers, transforming these areas into social spaces. This design helps address unequal cooling access in historically disinvested neighborhoods during extreme heat, offering both environmental and community benefits.

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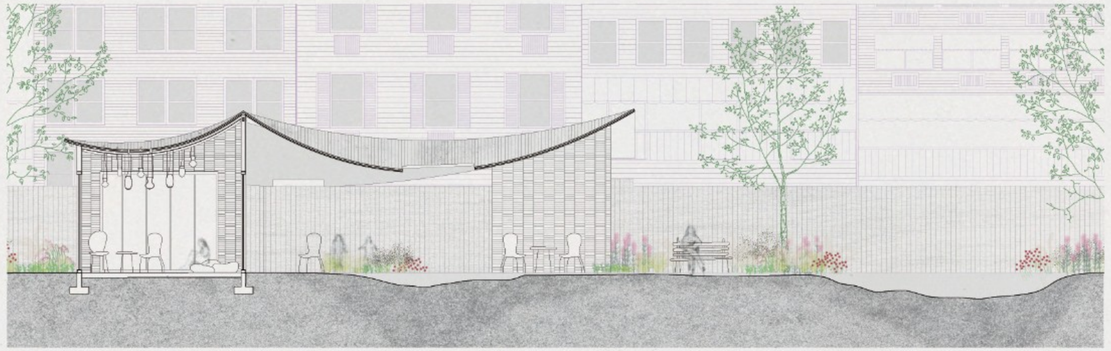

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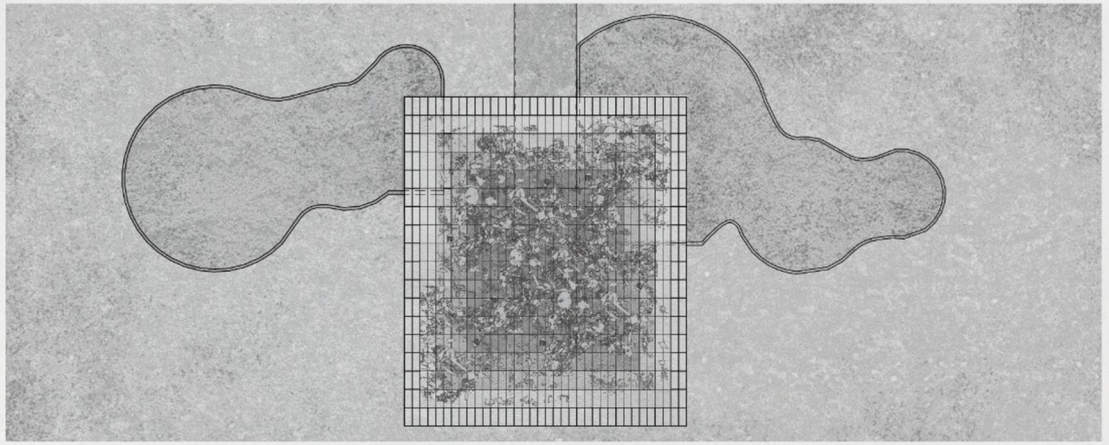
01 Site map of pocket wetland
02 Section of social cooling center



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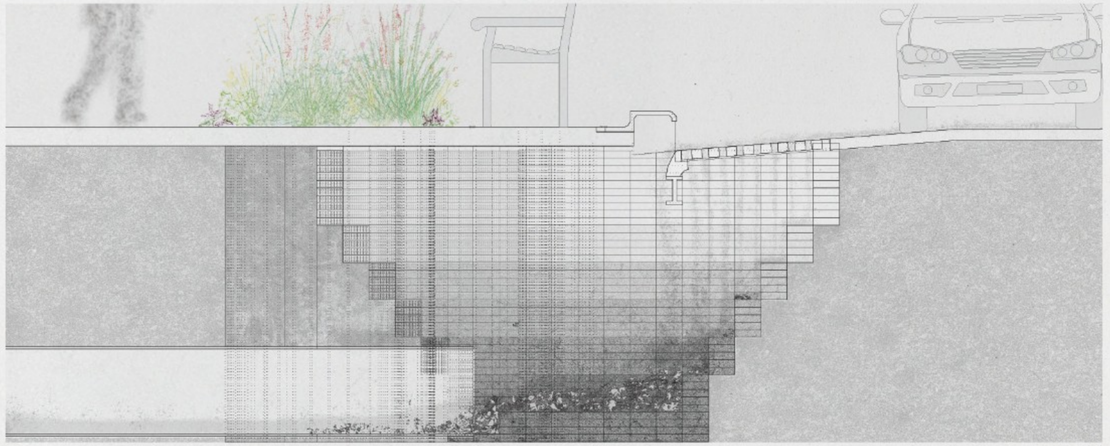

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Existing Infrastructural Adaptations (Continual Response)
New York City stormwater drains are enlarged and paired with permeable soils to reduce street flooding, prevent sewer overflows, and ease strain on aging infrastructure. This approach also enhances urban resilience by managing heavy rainfall more effectively and mitigating pollution in nearby waterways.

03 Plan of wetland catch basin
04 Section of wetland catch basin

RED HOOK GLASS FLOAT

The Red Hook Glass Float is a floating landscape that focuses on supporting multiple wetland ecosystems via a multiple level systematic approach. The float will consist of two levels above the water line and a level below. The first level above the water will be in contact with the surface of the water and will consist of 8 standard glass bottles supported by a wooden crate structure and planted with salt grass. This level will attract smaller aquatic life such as crabs, insects, and sea birds. The second level above the water will be an interchangeable system to allow for versatility. The current proposal is an elevated bird perch made of a reed structure to keep sea-birds from nesting in surrounding wetland restoration floats. The float will also serve as a buoy for the kelp farm and attach to the support lines underneath, which creates the lowest level of the ecosystems supported. To align with the mission of the RETI center, the float will utilize locally sourced and recycled materials, as they have in previous projects, such as recycled bottles for buoyancy, and wood for structural elements. The form will be modular in design based on a mold system to allow for easy construction and assembly on site by RETI center volunteers and students.

PARTNER: TOMMY WANG

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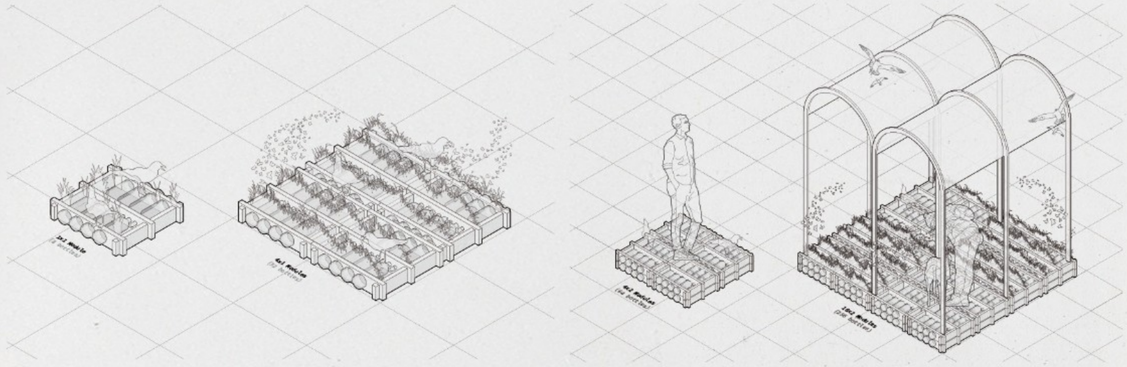
01 Float deployed in Redhook Terminal
02 Float deployed in Redhook Terminal



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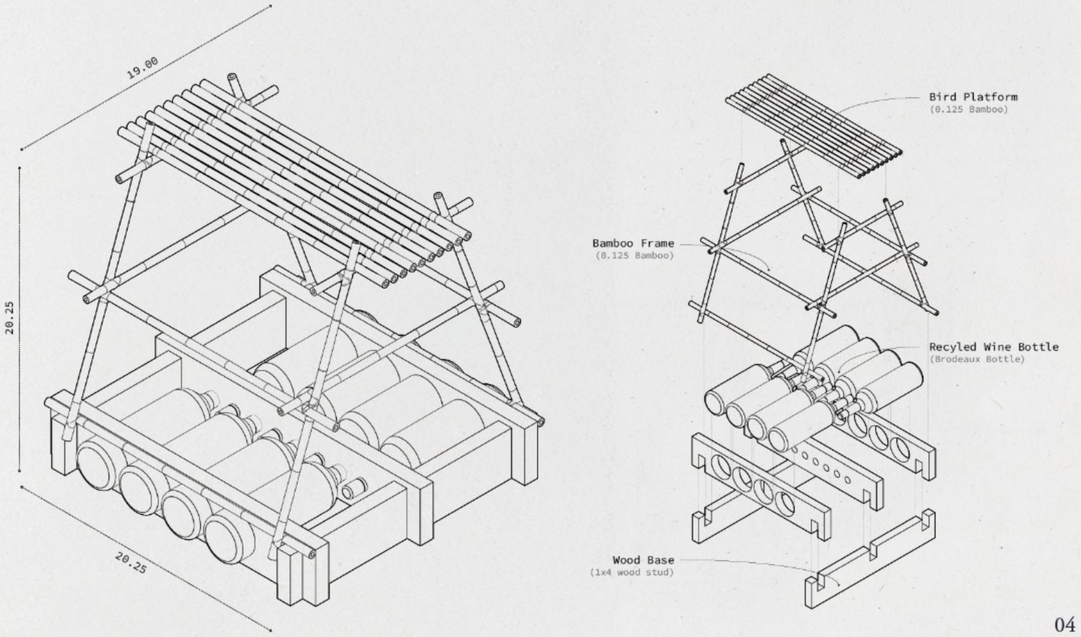

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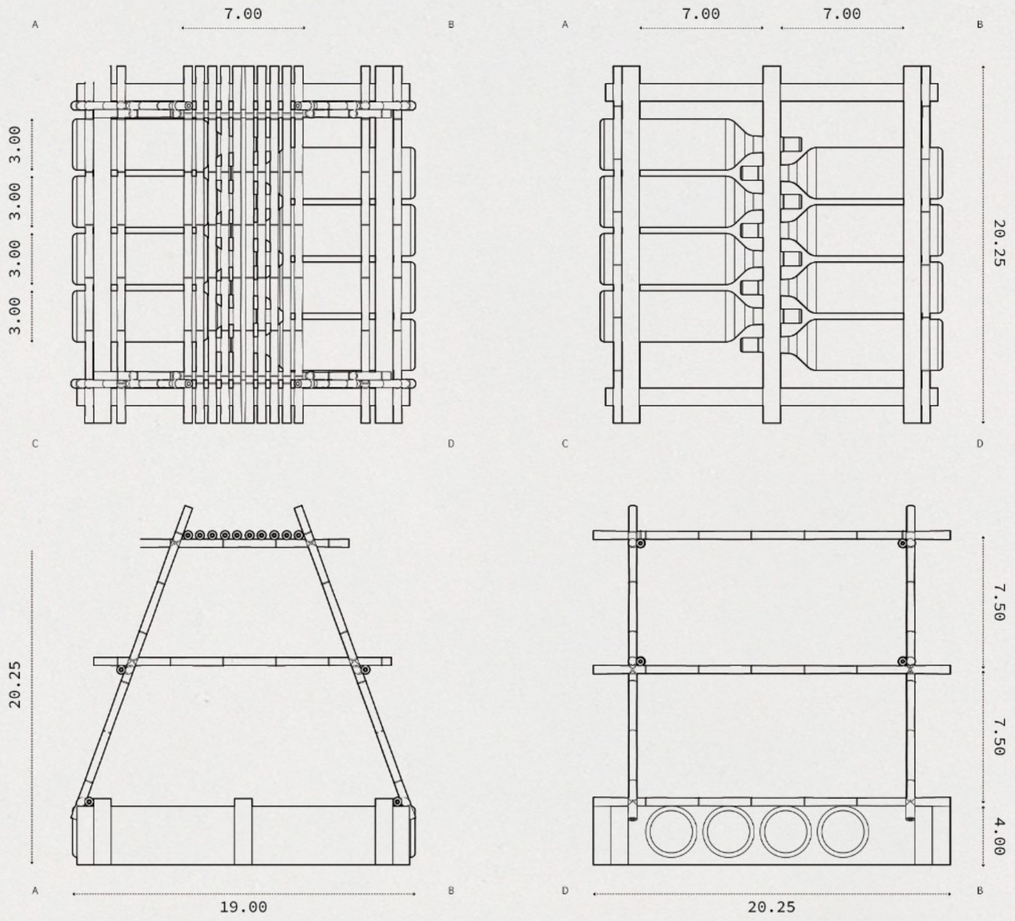
03 Scalability drawings
04 Shop drawing of float



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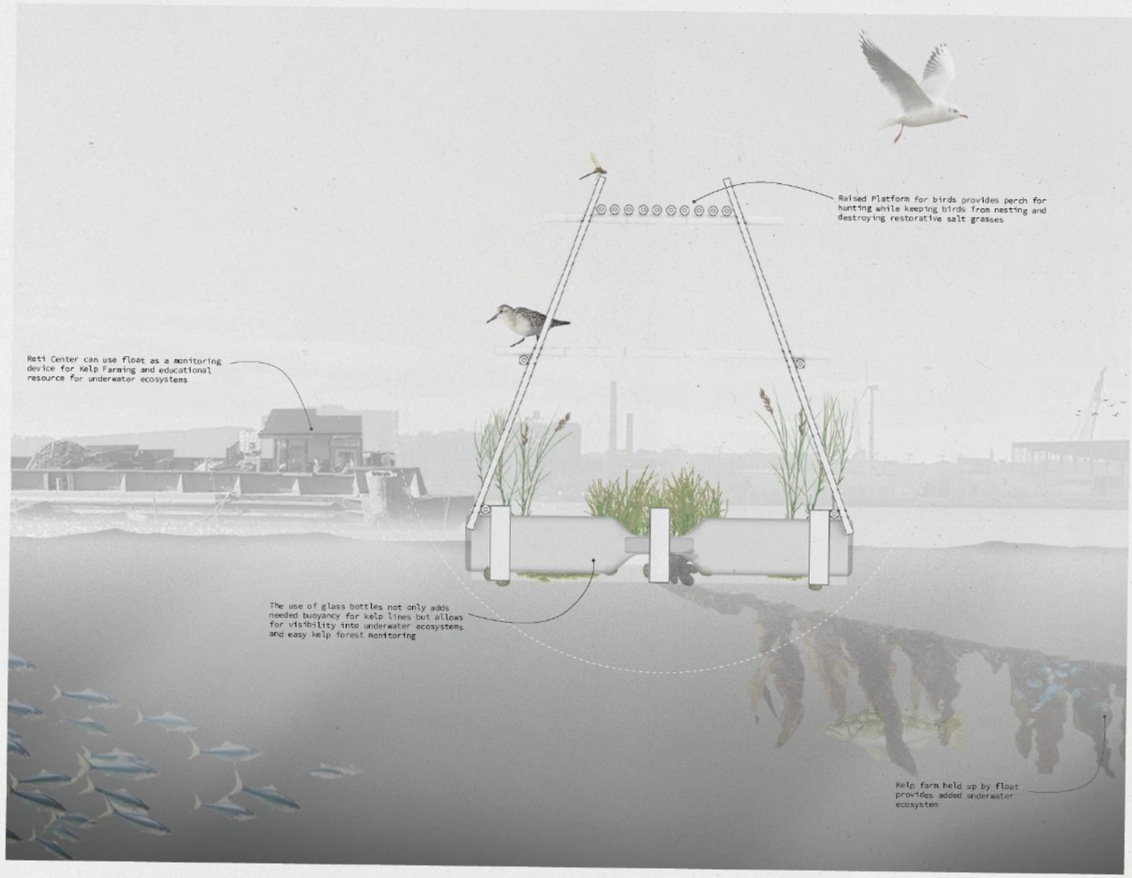
01 Dimension shop drawing cont.

The float is designed for two main ecosystems. Common sea birds are provided a perch for hunting prey in the water and partially submerged areas on the float. An underwater ecosystem is created through the use of the float as a buoy system for the kelp farming lines below.



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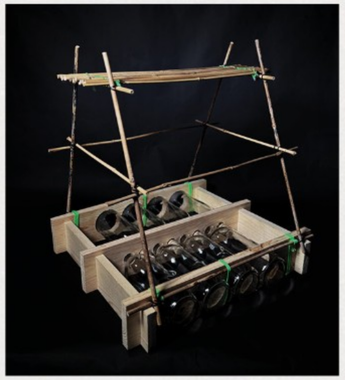
02 Vertical ecosystem diagram



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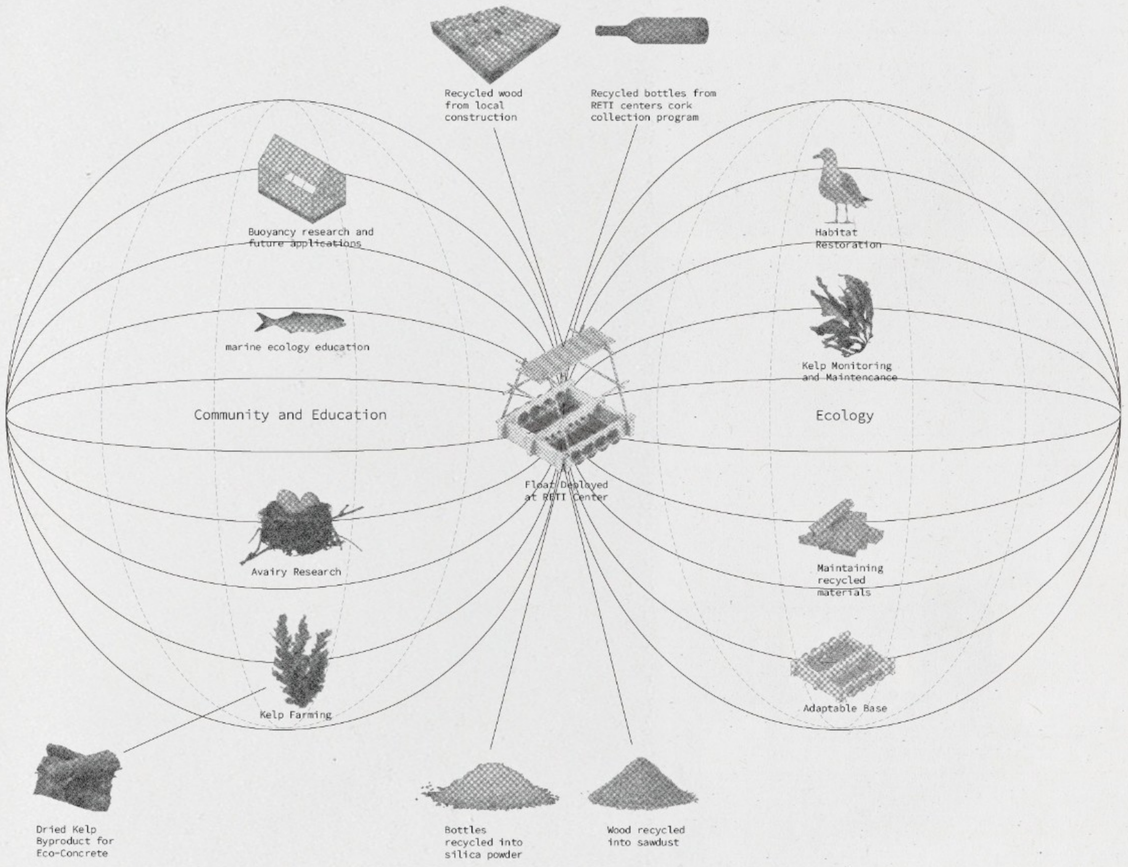
The Red Hook Glass Float not only introduces a multi-tiered ecological habitat, but also serves as a dynamic interface between built and natural systems within the intertidal zone. By engaging the fluctuating tidal levels of the New York Harbor, the float invites interactions between marine and terrestrial species, providing refuge and nourishment at various heights of the water column. The inclusion of salt grass on the bottle-supported lower deck contributes to shoreline stabilization and nutrient absorption, echoing the functions of natural salt marshes. Meanwhile, the submerged level integrated with the kelp farm enhances underwater biodiversity and promotes water filtration through macroalgal growth, supporting the larger regional effort toward marine habitat restoration and carbon sequestration.

01 Model Photos



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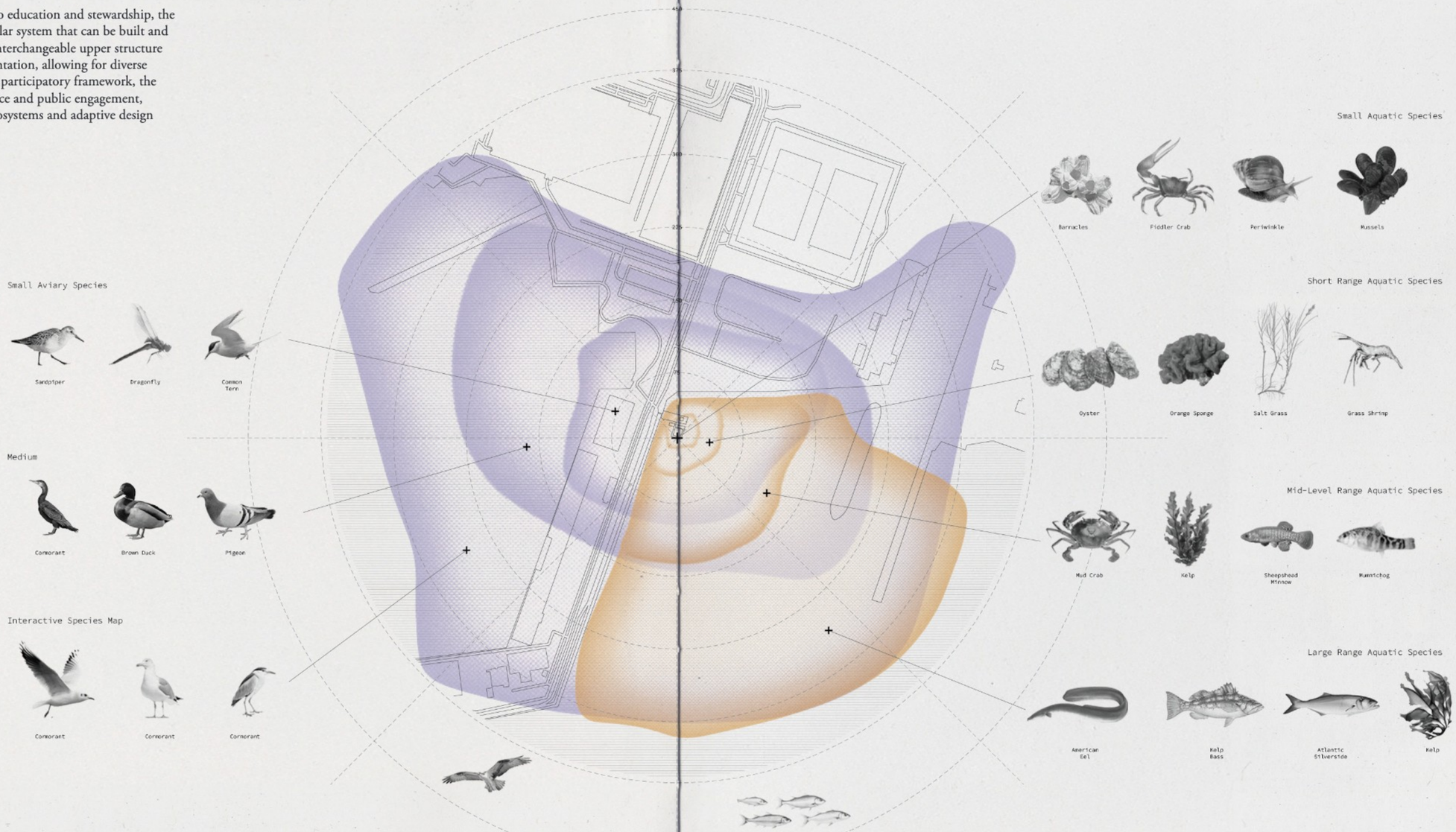
02 Materials and byproducts

Rooted in the RETI Center's commitment to education and stewardship, the Red Hook Glass Float is designed as a modular system that can be built and maintained by students and volunteers. Its interchangeable upper structure supports seasonal adaptability and experimentation, allowing for diverse ecological functions over time. Through this participatory framework, the float becomes a tool for both climate resilience and public engagement, fostering hands-on learning about coastal ecosystems and adaptive design strategies.



01 Ecosystem diagram

AIR

Air is not simply the medium of breath but the material of life itself. The tension between closed and open forms, sealed and porous surfaces, forms the very framework of existence. To live is to breathe, to be permeated by air, to be shaped by it.

- Peter Sloterdijk

Air, as both material and condition, constitutes an elemental stratum through which all terrestrial life is mediated. It is at once atmospheric and affective, simultaneously a vector of planetary processes and a register of the intimate. Its presence, though often abstracted into invisibility, structures lived experience across temporal and spatial scales, from the breath of the individual body to the circulatory logics of global climate systems. Within the context of environmental transformation, air emerges not as inert backdrop but as an active participant in the production of space, subjectivity, and ecological precarity.

The atmosphere, once conceptualized as boundless and self-regulating, is increasingly legible as a site of crisis and contestation. Accelerated anthropogenic disturbance through carbon emissions, deforestation, and extractive industrialization has rendered air thick, volatile, and unevenly distributed in its risks. The act of respiration becomes an embodied encounter with political geographies, where exposure is mediated by structures of race, class, and capital. Air is no longer a neutral medium but a terrain of struggle, bearing the historical sediment of infrastructural violence and environmental neglect.

To theorize existence in relation to air requires a fundamental recalibration of how environments are conceived and inhabited. Air resists enclosure, transcends territorial boundaries, and implicates the subject in diffuse yet inescapable networks of interdependence and harm. It troubles the binary between interior and exterior, situating the body as porous and co-constituted by its milieu. In this frame, spatial practices must attend not only to form or ground, but to the volumetric, the atmospheric, and the immaterial conditions that structure planetary habitability. Air, in its instability and indeterminacy, becomes both a figure of crisis and a critical site through which to rethink relationality, responsibility, and the ethics of co-existence.

CEMETERIAL POROSITIES

Green-Wood Cemetery is a host of transient multitudes that are responsive to its ecological seasonality and the in-flux cultural grief practices of its urban context. Woven into the living fabric of the cemetery are a series of terramation nodes that reconceptualize death as an ecological and inter-relational process. Informed by multiscalar interdependencies, from cellular senescence to cultural rituals of grief, these regenerative interventions cultivate porous, adaptive spaces that honor the emotional complexity of mourning. The proposal positions grief as a spatial, temporal, and ecological process, unfolding within the Dell Water's landscape of continual transformation. Intentional care for the deceased, those living and grieving, and the grounds of the cemetery frame a responsive landscape with gradients of privacy and collectivity. A material library, harvested from Green-Wood's 478 verdant acres, cultivates and supports the process of terramation, which re-envisions care for the deceased by facilitating an ecologically sensitive process that is both dignifying and able to be sustained by the grounds of the cemetery. Perpetual care is redefined through spatial practices that invite visitors and nature to interact and care for one another, furthered by the woven materiality of the structure itself which necessitates maintenance and adaptability directed by fluctuations in its natural context. In celebration of Dell Water's blooming seasonality, a constructed, adapted landscape unfolds and transforms with its visitors who are afforded the space to contemplate, reflect, heal, and breathe.

PARTNER: JORDAN HOWARD

01

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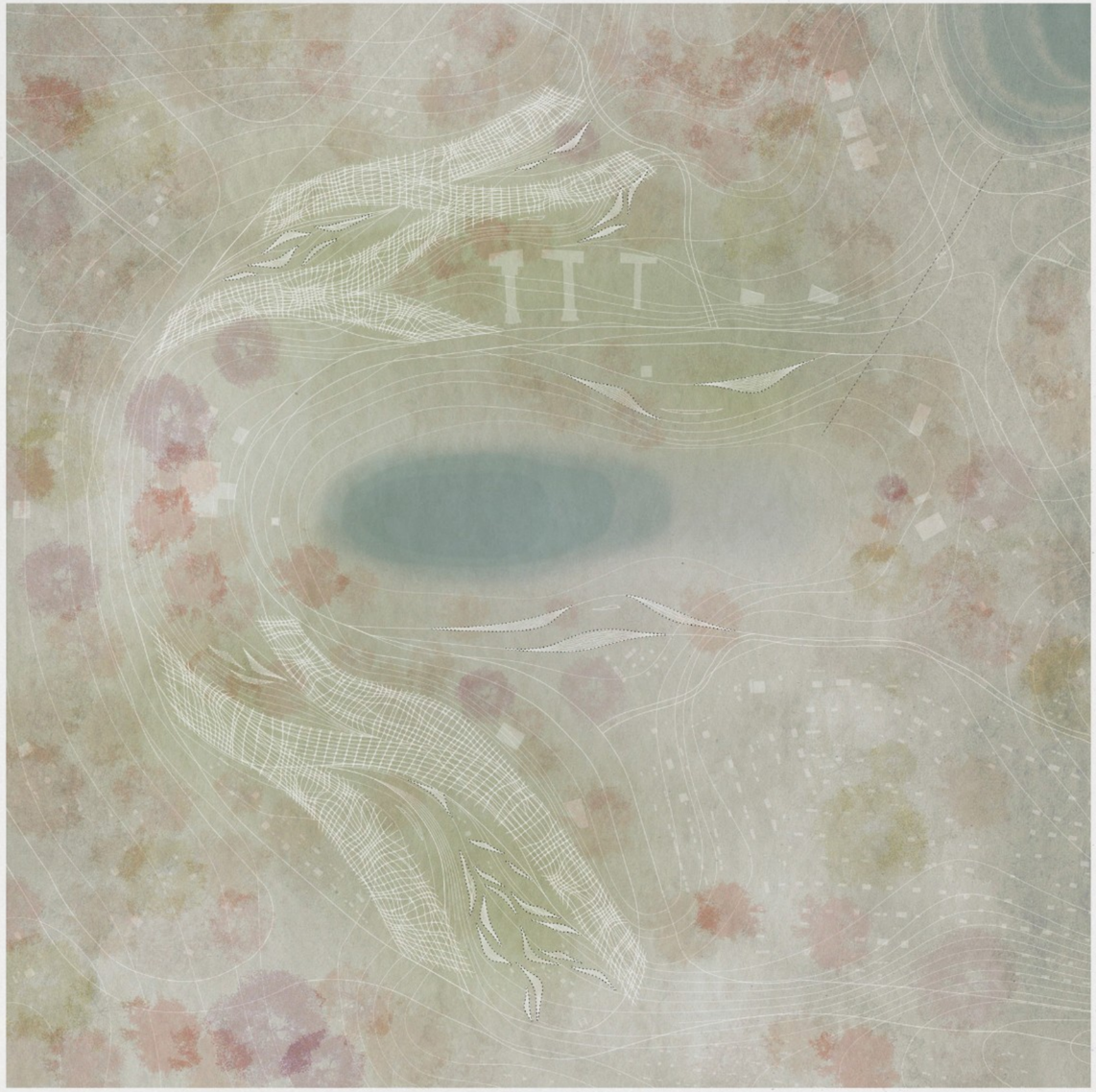
Translating the four-dimensional, operational, and performative qualities of our material and spatial experiments into a tranlational guide for drawing, we emphasize the specific behavioral interactions that arise from the conceptual framework of Bloom; namely regeneration, diffusion, and dispersion. These are counterbalanced by the principles of Saturate, which foreground conditions of concentration and aggregation, generating dynamic tensions between ephemerality and density across temporal and spatial scales.

The project's form is conceived through a terraced response to the existing contours of the Dell, integrating with the site's natural topography to create an occupiable, ecologically sensitive terrain. These terraces are not merely infrastructural but choreograph a spatial gradient, from open, social gathering spaces to more private, introspective zones, woven seamlessly into the landscape. Rather than reinforcing a conventional front-of-house/back-of-house dichotomy, the design frames the terramation process as a visible, participatory act of care. Building maintenance and the rhythms of decomposition are revealed through secondary pathways that edge and intersect social spaces, emphasizing transparency and inviting communal engagement with the cyclical processes of death and renewal. This spatial logic foregrounds the intimacy of labor, ritual, and transformation as part of the site's everyday life.

01 Operative translational guide for representation
02 Material studies of flow, gradient, bloom, and shift



03

02 Site plan

01

The building's form blooms from the terraced landscape, unfolding organically in dialogue with the site's contours. Its architecture is not imposed but emerges, rising from the earth and folding back into it, articulating a continuous exchange between built and natural systems. This undulating form creates a sequence of interwoven spaces that accommodate both communal gathering and individual retreat, reinforcing the project's gradient of social and private experience.

Along the interior surfaces of these folded walls, the terramation process is quietly embedded. Accessible through latched openings, these cavities house the bodies enveloped in natural fiber cloths, with all surrounding organic matter enclosed in breathable bioplastic membranes that ensure containment while facilitating decomposition. In this way, the architecture performs as both vessel and environment (concealing and revealing, protecting and transforming) framing death care not as a hidden operation, but as a shared, intimate cycle of care, return, and renewal.

02

01 Section of terramation node showing NOR process and materiality of structure
02 Physical model photo of node

03

The choice of wattle as a structural and infill system is both materially and ecologically intentional. By repurposing excess woody biomass gathered from the Dell, the wattle structure directly engages the site's material surplus, transforming what is typically considered landscape debris into a performative architectural element. Wattle's open, interlaced form facilitates natural airflow, which is critical for the terramation process, ensuring aerobic decomposition and the proper regulation of temperature and humidity within the nodes.

Beyond its functional contribution, the use of wattle reinforces the project's commitment to cyclical material practices and site-responsive construction. It embodies a low-impact, regenerative building logic that aligns with the ethos of care. Care for the body, the site, and the broader ecological system in which both are embedded.

03 Model photo of sectional landscape condition
Model: Found landscape trimmings, soil, rock, and glycerine

01

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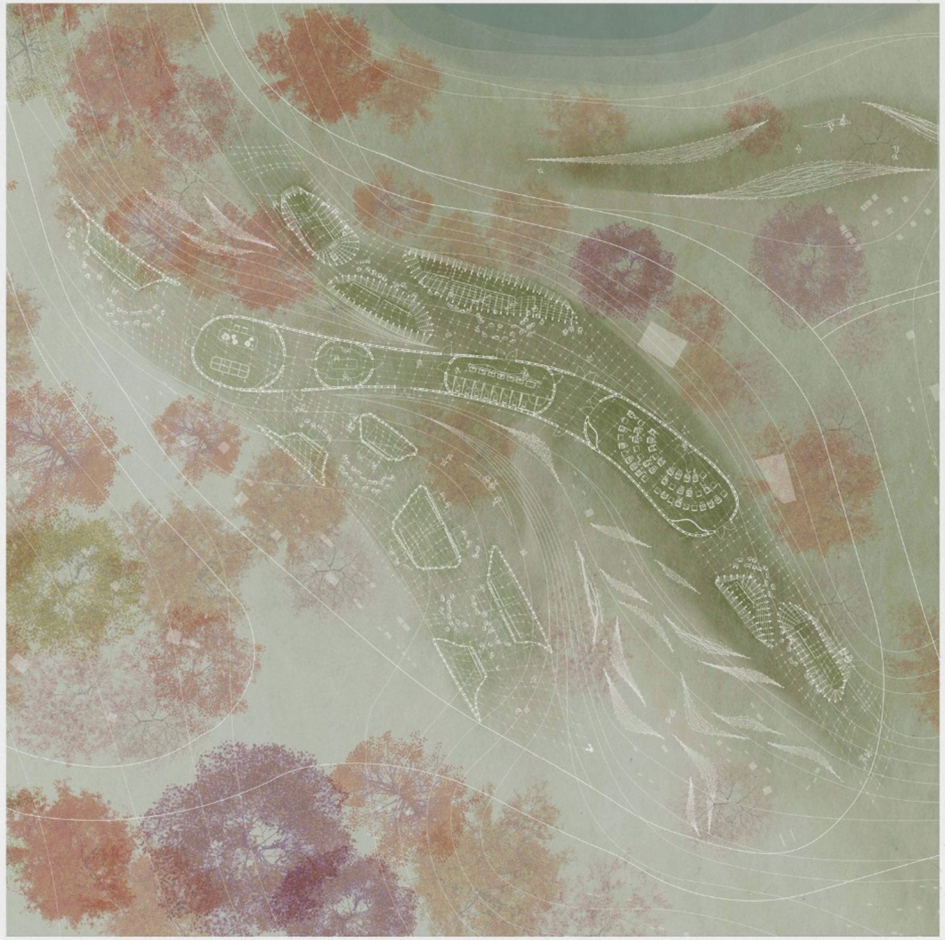
The architectural system is conceived not merely as a human-centered intervention, but as an active collaboration with nature, both in its material logic and ecological role. The wattle structures, composed of gathered site detritus, offer more than structural integrity and airflow for terramation; they create porous niches and sheltered interstices that welcome habitation by birds, insects, and small mammals. In this way, the architecture extends its function beyond human rituals of mourning, participating in broader cycles of habitat-making and biodiversity support.

Situated along the Atlantic migratory flyway and embedded within the Harbor Hill Moraine, the project acknowledges its position within a geologic and ecological corridor historically bypassed by urban development yet critical in the formation of New York City's cemeterial belt. This elevated ridge has long served as a navigational aid for migratory birds and remains one of the few contiguous stretches of green infrastructure in the region. The proposal embraces this context, designing not only for the human experience of death and remembrance but for seasonal rhythms, animal movement, and atmospheric passage. The resulting architecture is one of cohabitation, an open system in dialogue with the land's memory, its evolving ecologies, and the unseen multitudes that pass through it.

01 Perspective of building across Dell Water
02 Framing of Dell from within the building



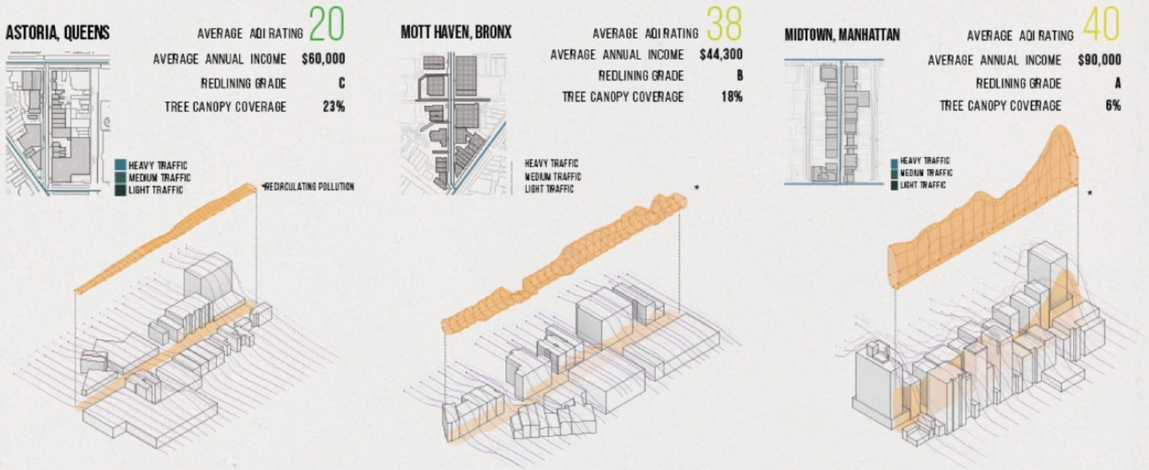
03

The design orchestrates a fluid procession through the Dell, reflecting the nonlinearity of grief. Terraced paths frame shifting views—toward canopy, ground, and distant landscape, offering moments of stillness and perspective. These spatial cues accommodate diverse mourning practices, allowing each visitor to navigate loss in their own time. The landscape becomes both guide and witness, holding space for renewal through movement and remembrance.

03 Detail plan of south terraces showing interior spaces and roof structure

BEYOND THE GREEN WALL

Air quality inequality is a rising concern as climate change and social inequality overlap. Marginalized communities, often low-income neighborhoods or minority populations, tend to bear a disproportionate burden of environmental pollution, including poor air quality. Factors such as the location of industrial facilities, waste sites, or highways near these communities can lead to increased exposure to harmful pollutants. Many tactics such as green walls and "sustainable architecture" have attempted to address this concern but lead to green washing and exacerbate current conditions. Air purification systems currently on the market are not only expensive and inaccessible to low-income groups, but only filter out larger particulate matter which is only a fraction of the compounds that pollute the air.

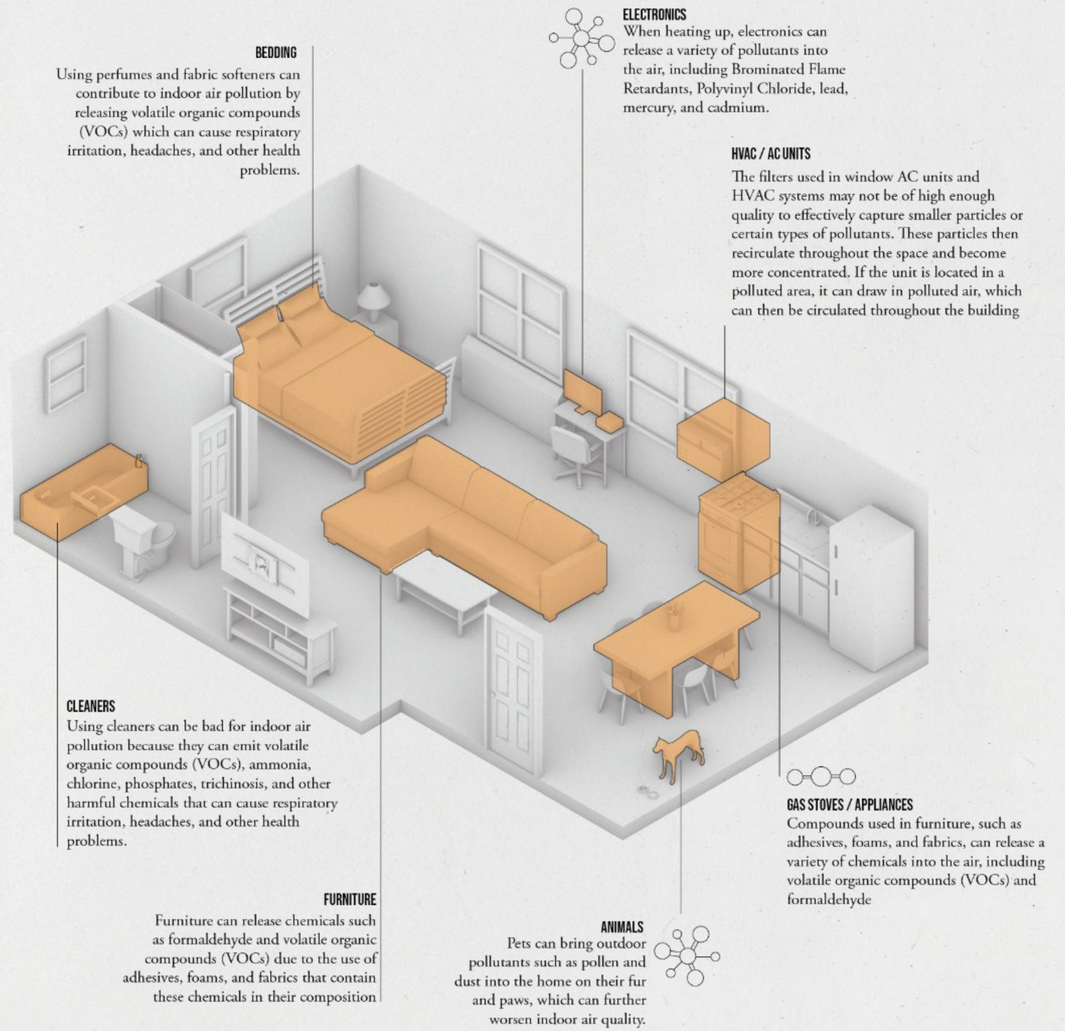


Urban canyon effect and air pollution

Socio-economic and urban typology conditions become catalysts for increasing and concentrating air pollution within certain areas throughout a city. This study focuses on 3 neighborhoods within New York City that all have high Air Quality Index ratings (AQI) significantly above the appropriate level (a rating of 10 AQI) as recommended by the World Health Organization. An urban canyon is the phenomenon that is formed based on the ratio of height and proximity buildings. The closer and taller buildings are to one another, creates a recirculation of air which traps and concentrates pollution between buildings creating a micro-environment within the city.

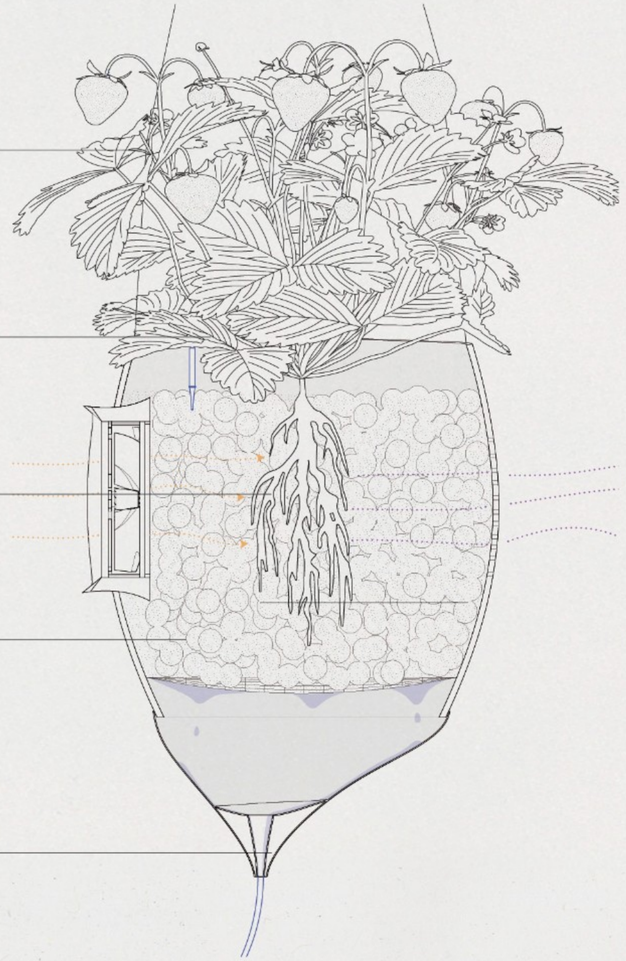
Interior Pollutants

Many Common household products are the cause of poor air quality in the home and any interior spaces. When chemicals are used in the process of production, especially affordable furniture, the adhesives and plastics slowly off gas post-production which become recirculated throughout interior spaces.



"The Tulip"
Biophillic air purification system

This biophillic air purification system is designed to work more efficiently than other typical air purifiers on the market or passive techniques such as the "green wall". In addition to the process of photosynthesis, which uses the upper part of the plant to purify air, this air purification system utilizes the roots of the plant which has been proven to effectively remove Volatile Organic Compounds (VOCs) and other smaller particulate matter otherwise left unfiltered by on the market purification systems and basic filtration systems in HVAC systems.



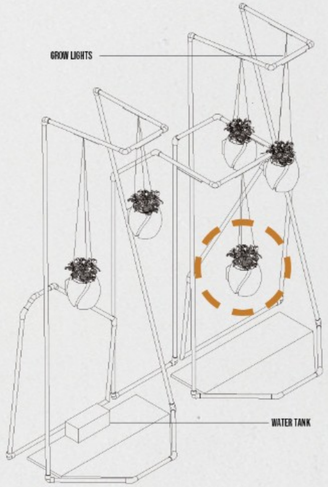
Edible Plants
While also purifying the air of Carbon Dioxide via photosynthesis, the plant will provide an extra layer of available nutrients by producing edible fruit.

Water Dispenser
The water dispenser allows for the purification system to be self sustainable and low maintenance

Fan
A fan is used to push the polluted air through the root system which is more successful in purifying the air rather than pulling air through the root system

Expanded Clay Balls
Expanded clay balls are used in lieu of soil to accommodate for better airflow through the root system of the plant. By using expanded clay, the water remains cleaner for a longer duration of time and prevents mold and mildew from growing requiring minimal maintenance.

Funnel
The funnel is used to capture excess water and is recirculated back into the system to avoid any water waste



01 Overall installation
02 Collective grouping
03 Individual unit

SOCIAL

Space is not neutral. It is a product of society's power structures, a place where social relations are both inscribed and contested. Architecture and urban design are not just about creating physical spaces, but about shaping the social order and the way people interact within those spaces.

- Henri Lefebvre

Spatial practices are inseparable from the socio-political conditions in which they are formed. The built environment actively shapes collective experience, emerging not as a static form, but through ongoing negotiations and contested meanings. Design, rather than imposing form upon inert space, is a contingent process shaped by the rhythms and relational structures of those who inhabit and transform it.

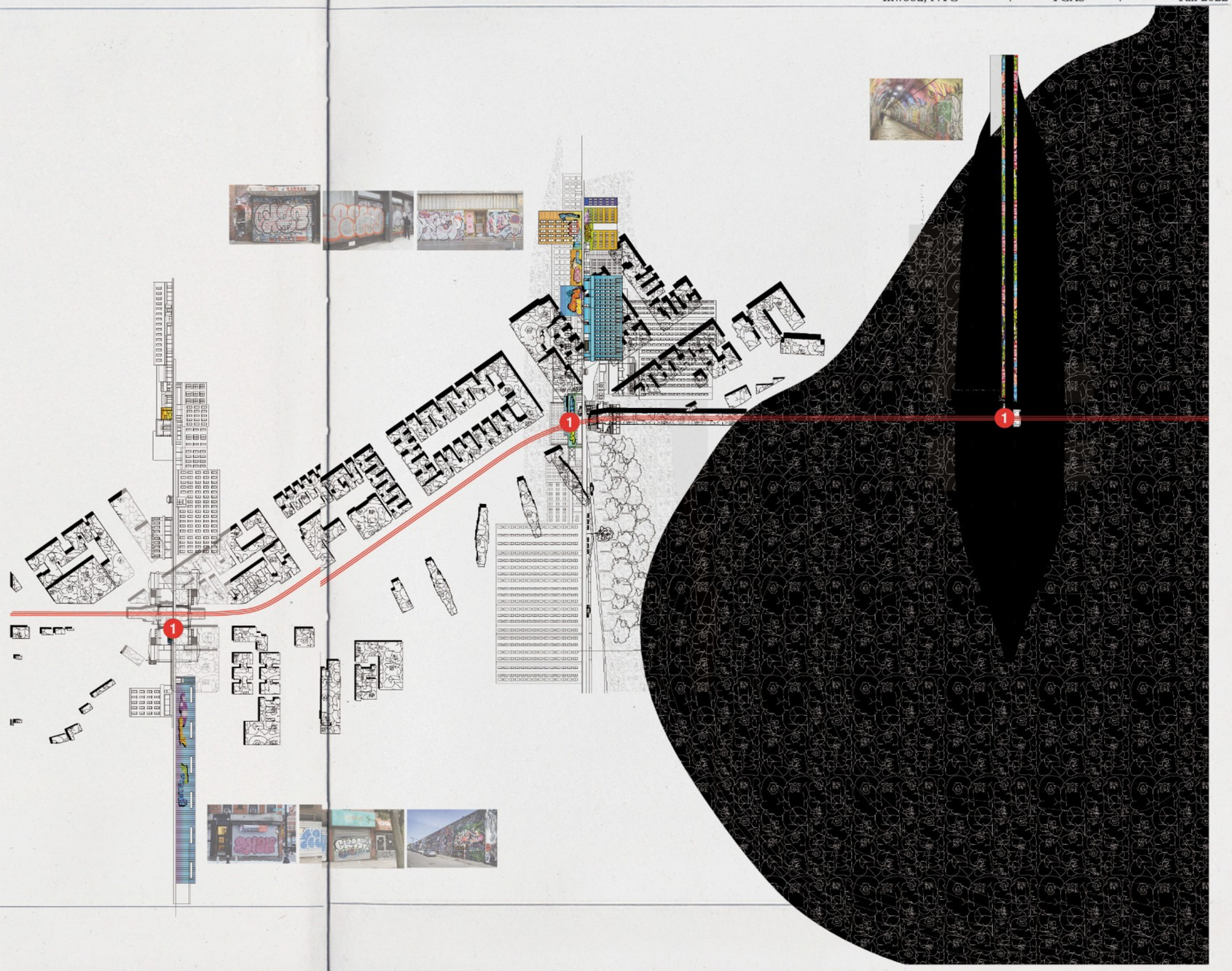
To engage with space is to listen to the material and immaterial dimensions of place, its temporalities, atmospheres, and histories of care and exclusion. It requires the designer to relinquish sole authorship and engage in co-production, where knowledge is distributed and embodied. Architecture becomes porous to other forms of knowing: oral histories, informal economies, and everyday adaptations.

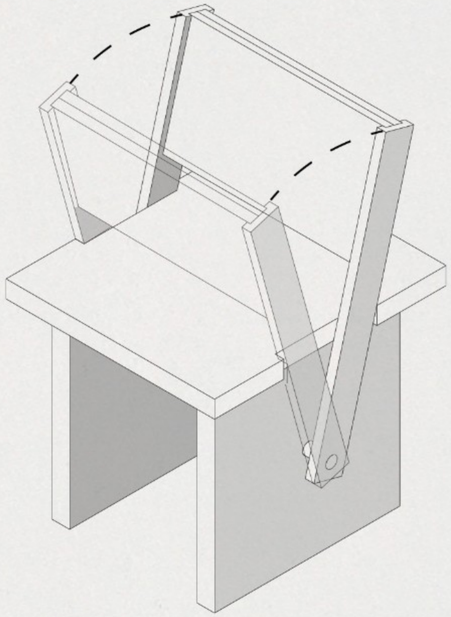
This approach resists closure, embracing indeterminacy and multiple trajectories. Spatial practice cultivates solidarity and responsiveness, leaving space for contestation and reimagination. Design becomes an act of situated listening, attending to the social, temporal, and ecological flows that shape our interactions and coexistence. It does not resolve complexity but holds space for it.

TEMPORAL GALLERIES OF ALTERED SURFACES

By first researching the myth of the sale of Manhattan, I wanted to understand different perspectives of value systems between the two parties in the alleged "sale". During my research, I have understood the value systems of the Dutch to revolve around individualism, possession, and monetary capitalism. Contradictorily, the value systems of the Lenape are centered around more holistic concepts such as community, nature, and equality. I aimed to apply this understanding of value and use the narrative of community as a tool for understanding Inwood. After further investigation and using representative practices; I became interested in a prominent community of Inwood that was centered around the underground art movement of graffiti. A complex network of artist whose craft originated underground in the subway systems. Eventually, the subway bench became a meeting spot and beacon of the movement.
Known as "The Writer's Bench" this physical embodiment of an underground community created a space for graffiti artists, or taggers, to gather and discuss meetups, resolve conflicts, and watch graffiti pass by on the train cars. With the push for the removal of graffiti from the subways through physical erasure and the implantation of laws and regulations surrounding vandalism, came the slow erasure of this arts community. Inspired by this artistic community, I have designed a modular bench, as an homage to the original writer's bench, which challenges the use and understanding of public space while acknowledging the limitations that accompany public ownership. By giving limited authority of the use of the bench through allowing the user to choose the direction and lateral positioning within the sidewalk. The goal of the bench is to challenge the notion of "public space".

Is space truly public if there are limitations on its uses?





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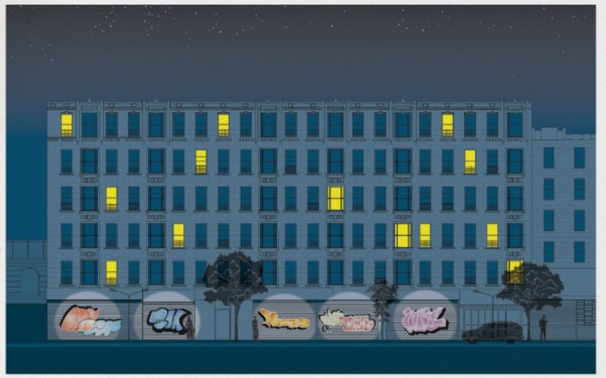
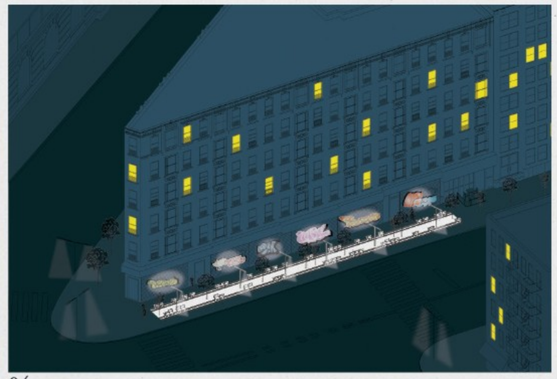
Low-tech design (homage to writer's bench)

This low-tech modular bench is designed to be mass produced at a low cost and easy to assemble as it is intended to be installed by underground artists to occupy and further challenge ownership of public space. The backing of the bench allows for user autonomy to chose the direction to face.

01 Diagram of modular bench
02 Physical model of modular bench system, wood





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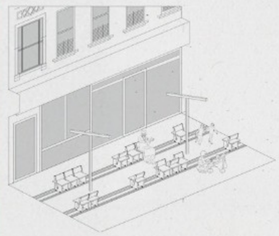

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Night galleries

Commercial roll-down gates are commonly used as canvas for tagging and artwork. As stores close, a shift in the facade becomes apparent as the gates come down the artwork is exposed and creates a shift in the experience of the space creating a gallery of graffiti Some stores welcome the graffiti artists and commission artists to tag their gates with the shop's name.

User autonomy

The modular design of the benches allows them to be joined together to create community spaces during the day while at night they can be arranged to pay homage to the writer's bench and create a space for the underground art community to gather and discuss their work.

03 Day / Night transitional drawing of gallery space
04 Axonometric of gallery
05 Day/night close up axon

FLATBUSH CENTRAL

The Flatbush Central Community Space is the result of a collaboration with the Youth Design Center and is a design build project that prioritizes community involvement and input. This installation was in the front plaza of the Flatbush Caribbean Marketplace and took inspiration from the local vendors. The instillation was designed by the Youth Design Center participants and includes a community herb garden, food pantry, seating, and a lending library. The emphasis is on community garden which includes herbs that are commonly used in Caribbean cuisine and have a strong cultural importance. This five week program aims to teach young designers the importance of considering social and environmental sustainability in correlation with the basic principles of design and architecture.

01

01 Overall Installation

02

03

02 Community Involvement
03 Final Installation

GREENE GARDEN

This 6-week collaborative project with the Octavia Project brought together students from various academic backgrounds to explore the intersection of architecture, fabrication, and social justice. As part of the course, we representing architecture and advocacy guided the students through an immersive design-build process, where they gained hands-on experience in fabrication techniques and learned how to incorporate social justice principles into their design practices. The final project culminated in designing a bench for “Greene Garden,” a local community garden serving as the client.

01

01 Overall Installation

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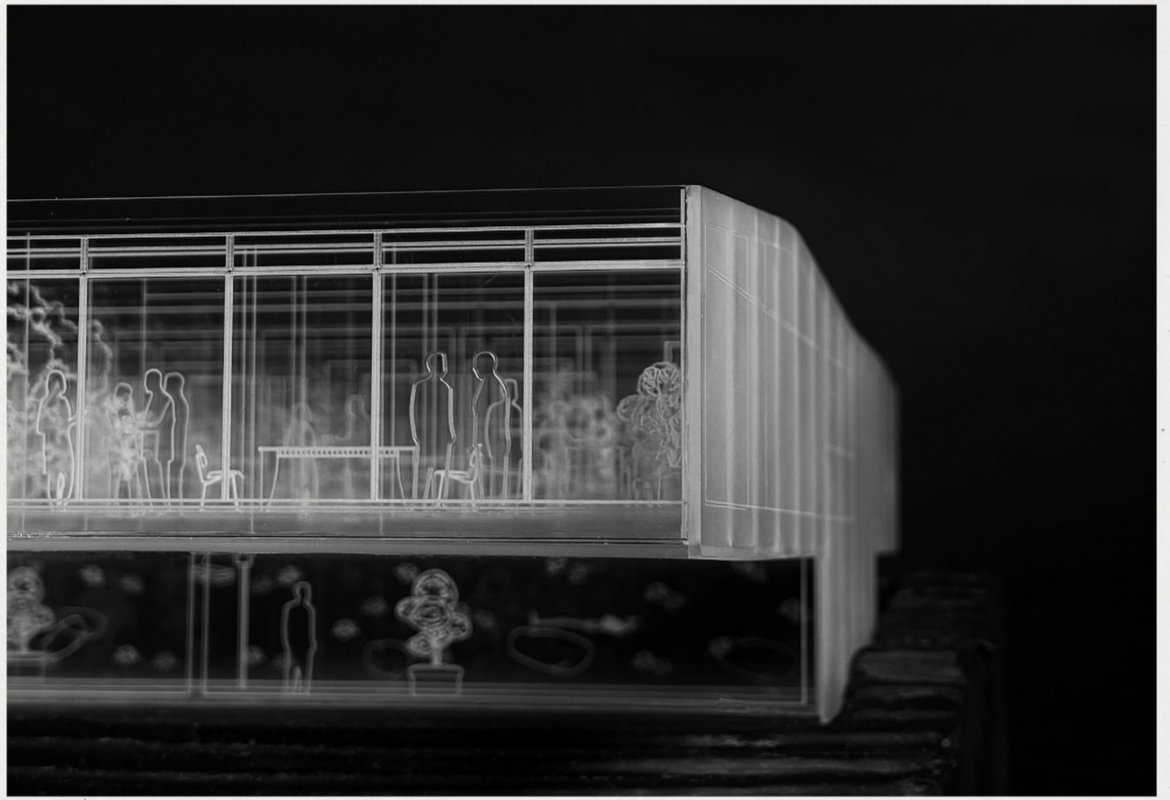
Students worked closely with Greene Garden to understand their unique needs, addressing both the functional and social aspects of the space. The bench design had to align with the garden’s community-focused mission, providing a comfortable, inclusive, and sustainable seating option that enhanced the space as a gathering point for social interaction and collective growth. The project not only equipped students with practical skills but also reinforced the importance of community-driven design in shaping spaces that serve diverse needs.

02 Community Involvement
03 Final Installation

CASA DE VIDRO

During the 1950's Lina Bo Bardi designed Casa De Vidro as a private residence for her and her husband. The house was in the undeveloped rainforest region outside of Sao Paulo. During the time of construction, Brazil was under a strict dictatorship which placed a ban on commodities such as gambling, watching television, and heavy censorship of expressing political views. Also known as "The Glass House" the entire living space of the residence was surrounded in a glass facade exposing the interior spaces to the outside. This design choice in relation to the extreme conditions of the government were a driving factor in understanding Lina Bo Bardi's house through the narrative of surveillance.



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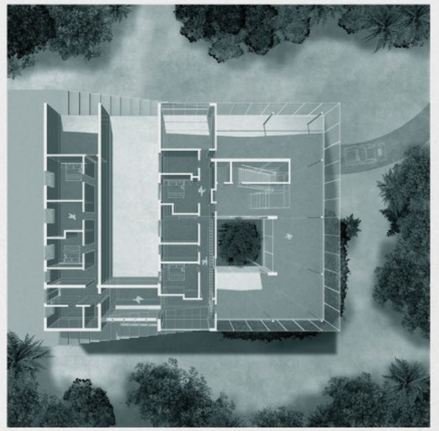
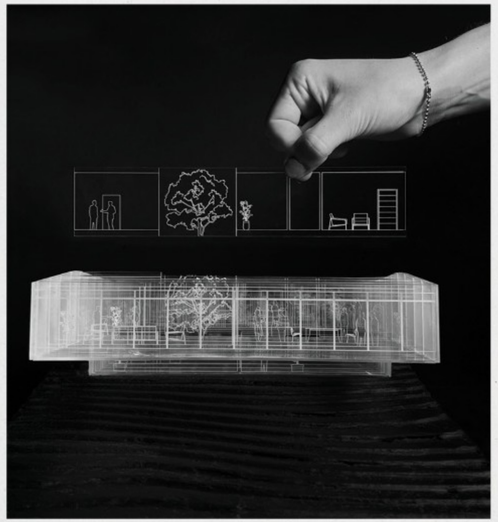
01 Physical model, etched acrylic



02



03

The scale model is a representative model that is a series of transparent sections to better understand the progression of transparency to solidity within the house. When observed from the front, the sections of the house are layered and appear as an X-Ray through the building. Each of the sections are removable from the base model as the viewer of the model is surveying each space of the house as representation of the militaristic government keeping a close surveillance on the people of Brazil.

02 Drawings of CDV
03 Model Photos showing "XRay"

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