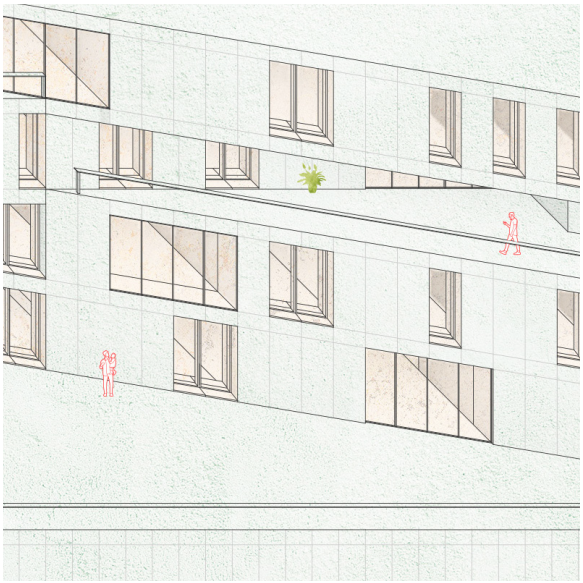


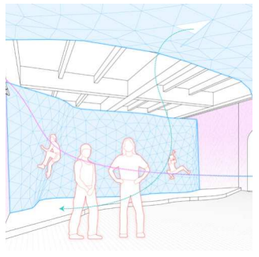
CLAIRE NAVIN

Selected Works 2022 - Present

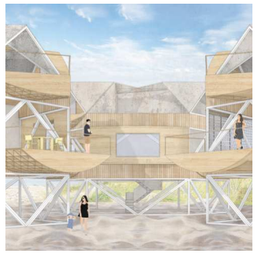
Summary

Studio Projects

ReHarvest Tower
Infrastructure



Breath + Balance
Gym



Ocean's Edge
Motel

Rooted
Co-Living

NYU Nexus
Library

Reframing Inwood
Ramp & Lookout

Technical Studies

Restorative Grounds
Civic Pavilion

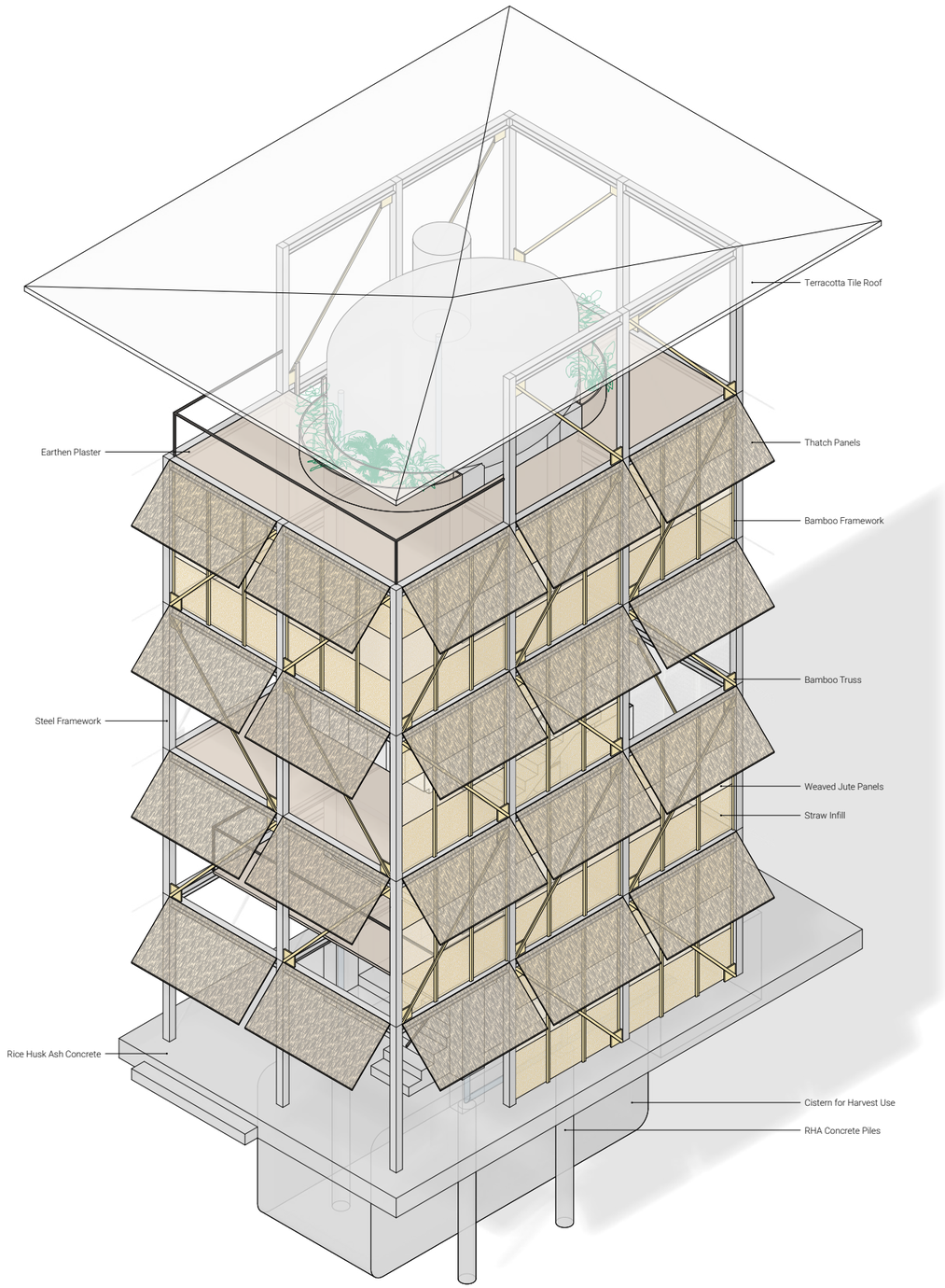
Bathhouse
Wellness Center

01 | REHARVEST TOWER | INFRASTRUCTURE

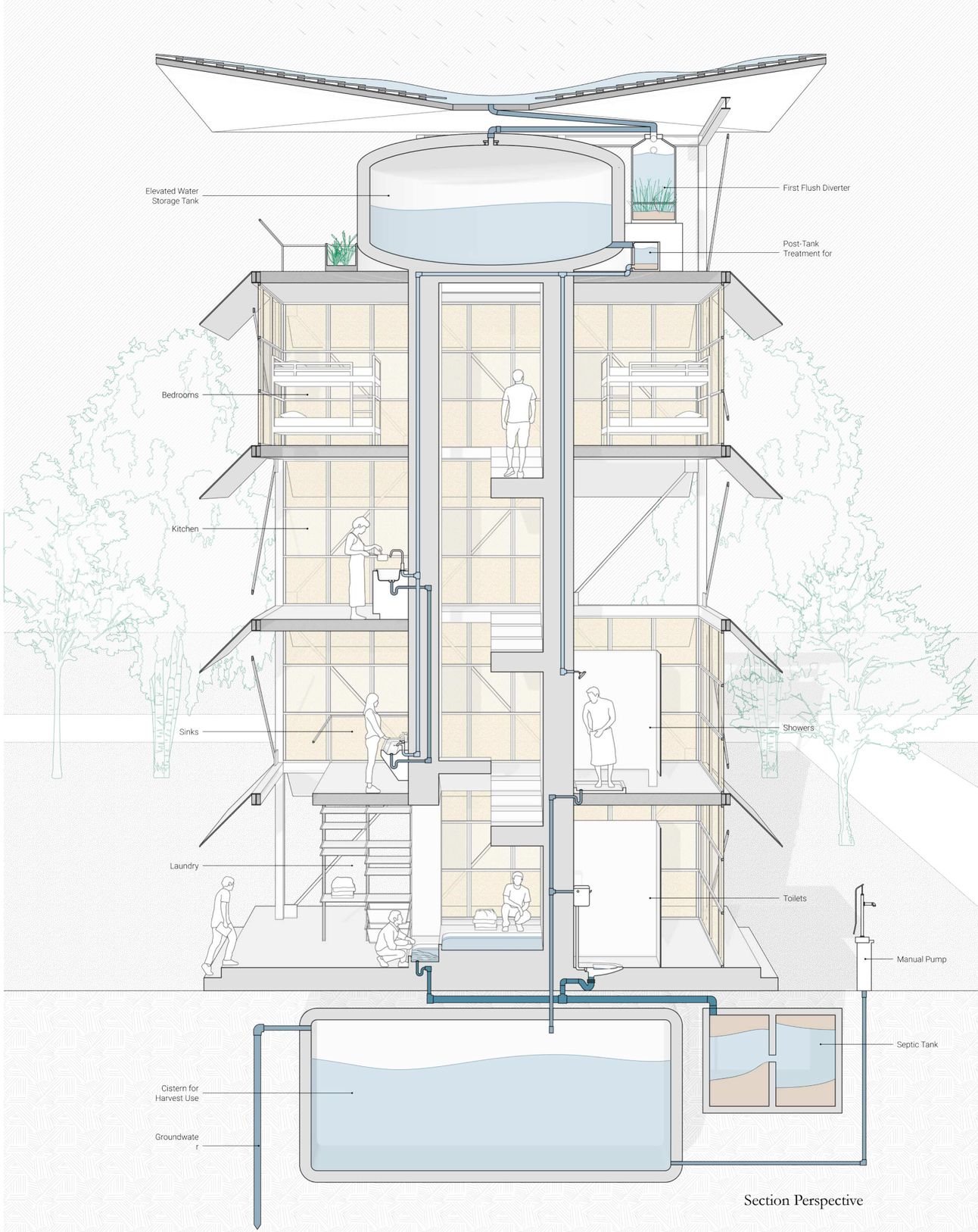
Advanced VI | Vital Studio
Semester: Spring 2025
Instructor: David Benjamin
Location: Punjab, India
Partner: Gabriela Ramos

ReHarvest Tower is a rural infrastructure prototype that reimagines how water, time, and agricultural waste can be transformed into architecture. Located in Punjab, India, where intensive rice–wheat farming has led to groundwater depletion and hazardous stubble burning, the tower integrates rainwater harvesting, material reuse, and seasonal housing into a single vertical system.

The project repurposes rice husks into low-emission concrete and compresses straw into biodegradable wall panels. Water is collected via an inverted roof, distributed by gravity, and recycled through domestic uses before entering an underground cistern for irrigation. Seasonal housing is integrated into the structure, providing shelter for migrant workers while elevating the tank to optimize pressure. Designed to align with the farming calendar, the tower delays the urgency of the harvest cycle, creating time to compost rather than burn agricultural waste—turning rural byproducts into architectural resources.

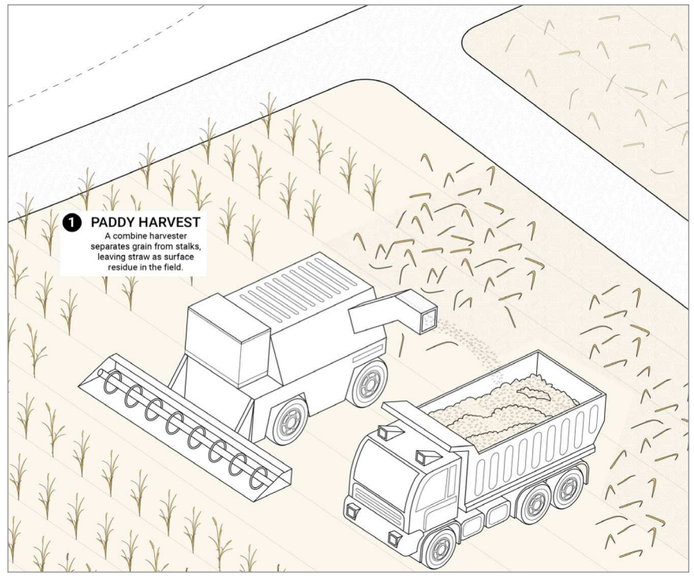


Axonometric

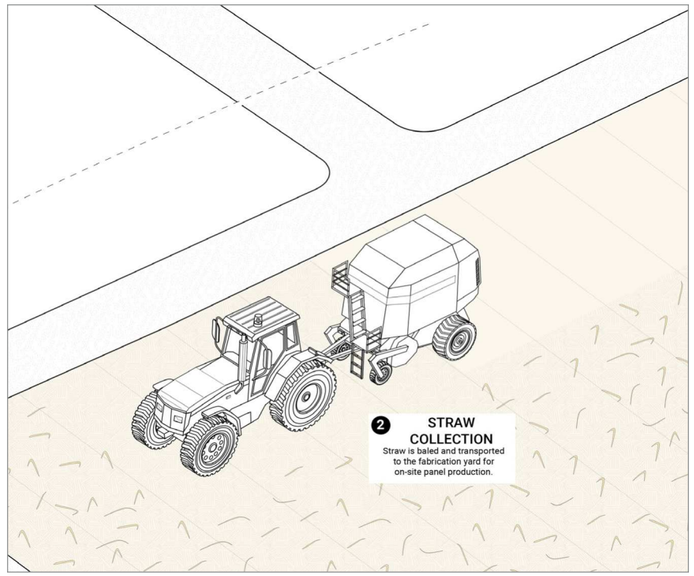


Section Perspective

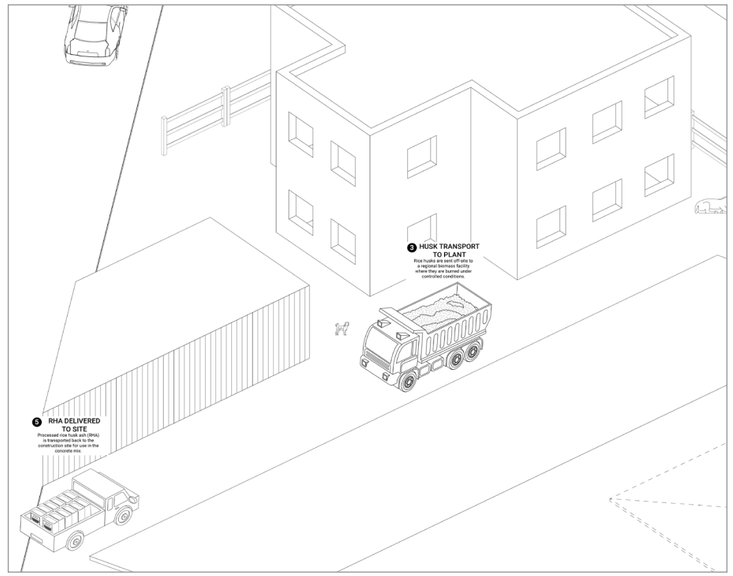
Construction Sequence



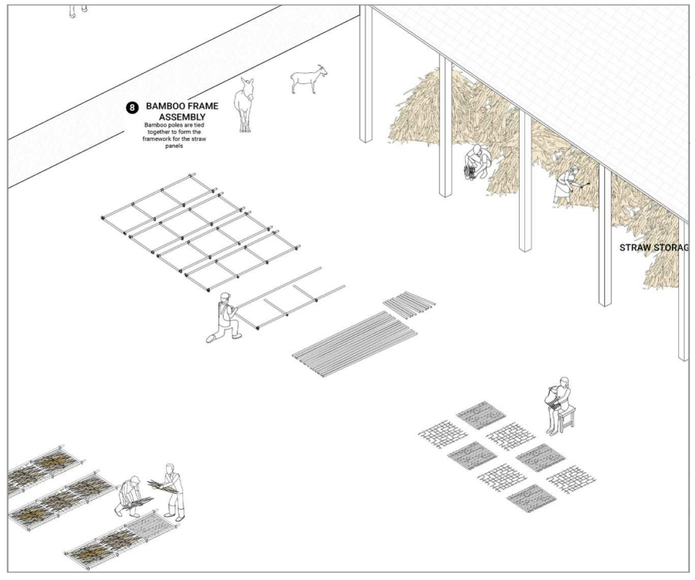
Paddy is collected. Straw is left behind on the field.



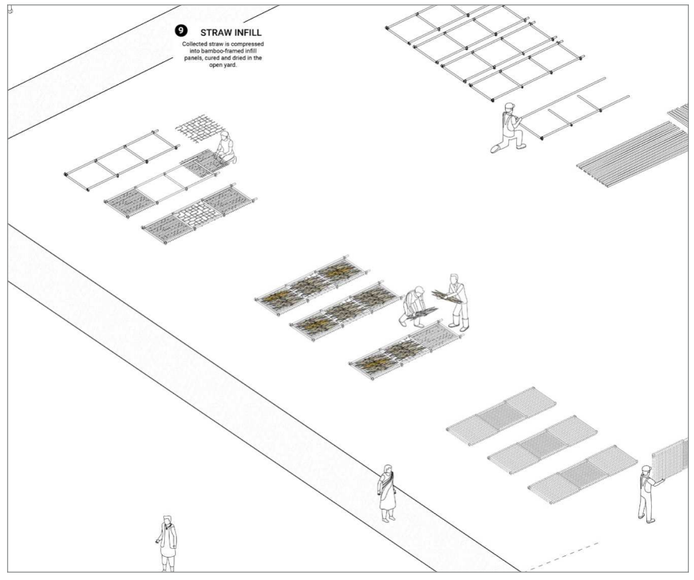
Straw is baled and stored.



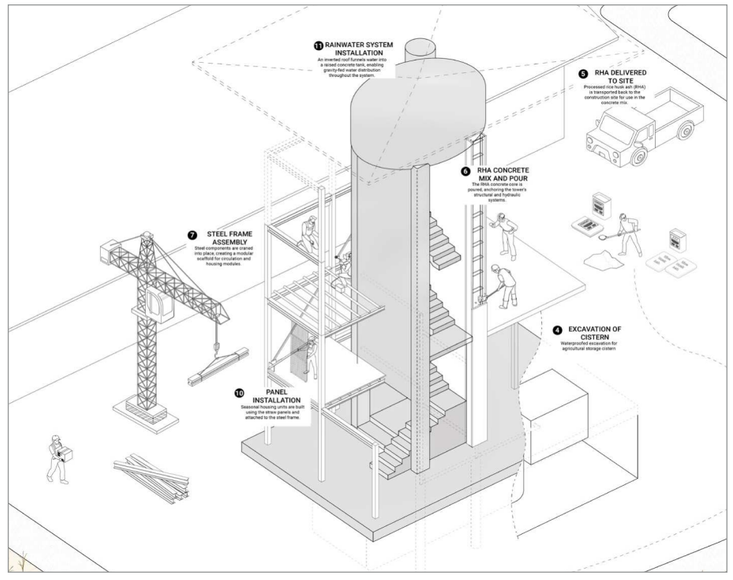
Husks are sent off-site to be turned into ash. That ash returns as a concrete additive.



Bamboo frames are assembled.

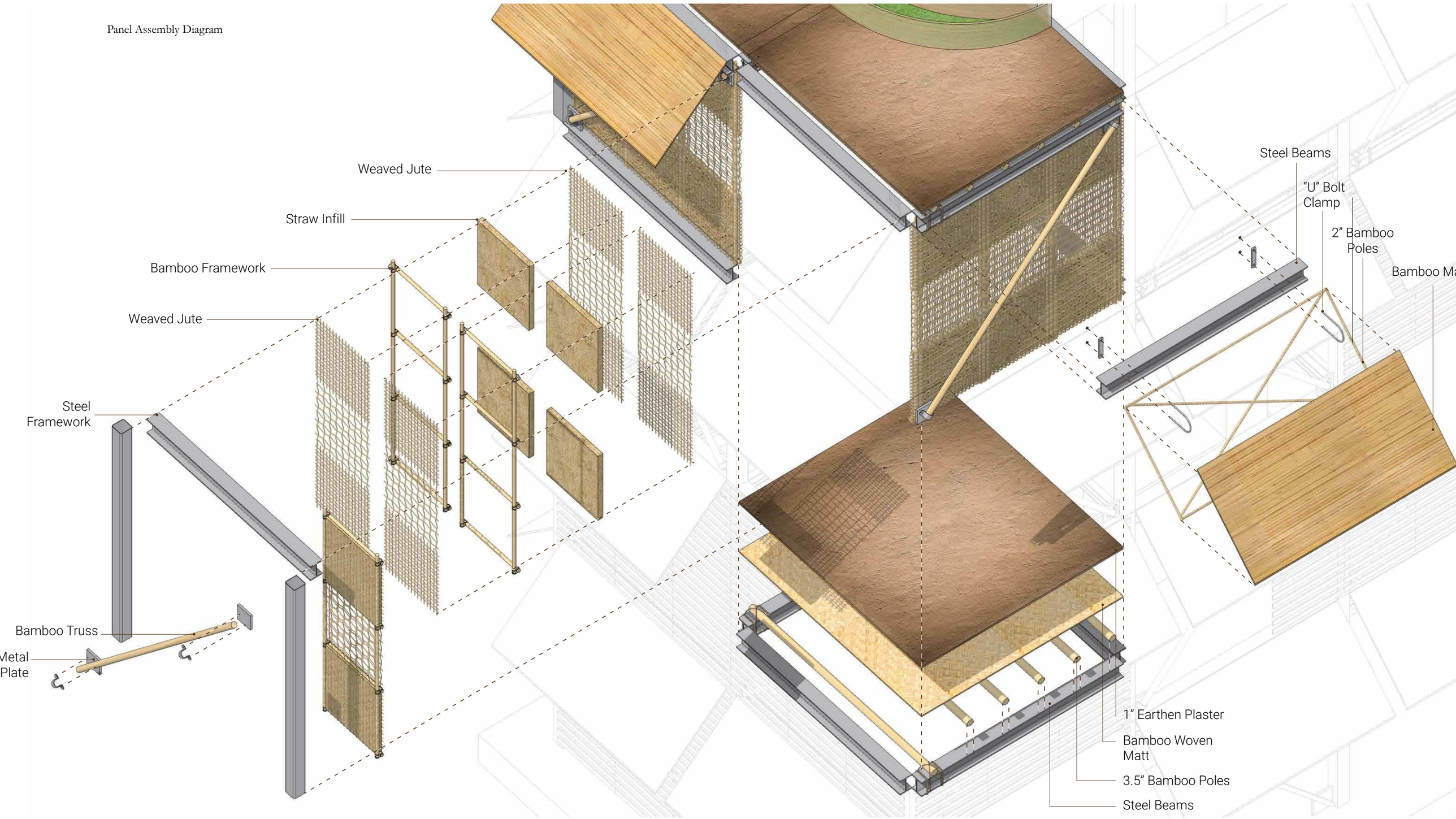


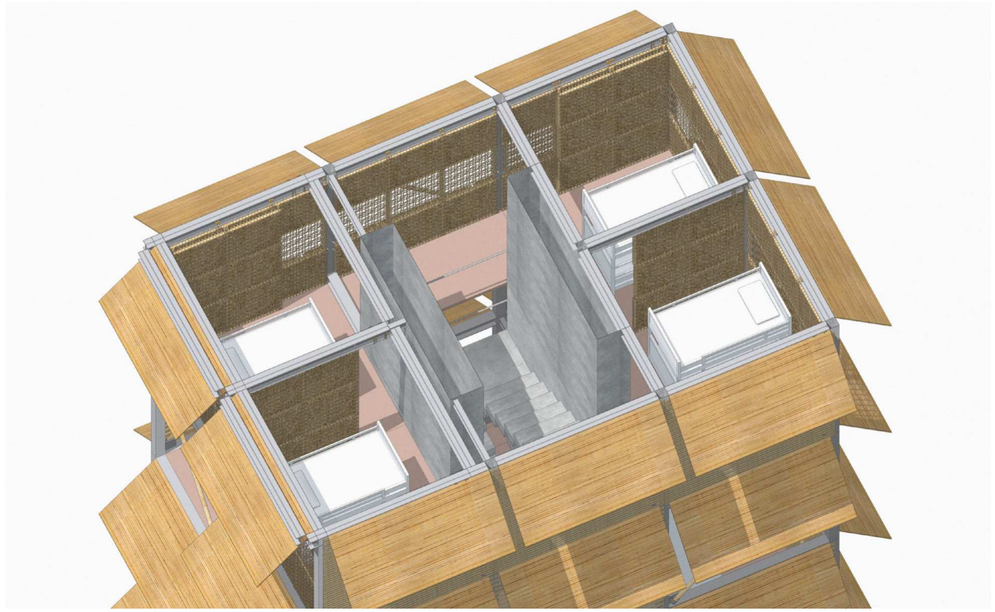
Straw is infilled, creating the insulated panels.

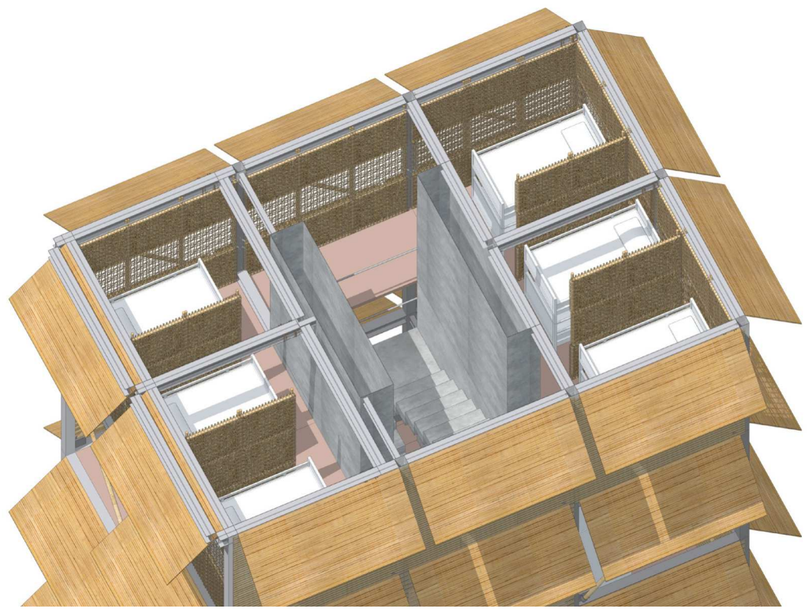


Ground excavation starts for the underground cistern. RHA concrete is mixed and poured. Steel is added, panels are attached, and the tank lifted.

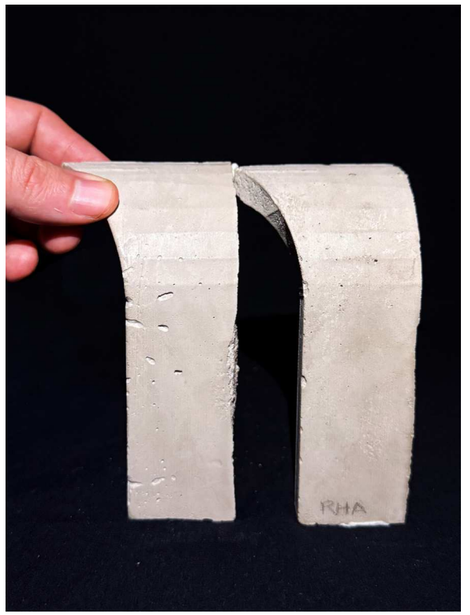
Panel Assembly Diagram







Adaptive Housing Assembly



Material Performance: Concrete vs. RHA Concrete

02 | BREATH + BALANCE | GYM

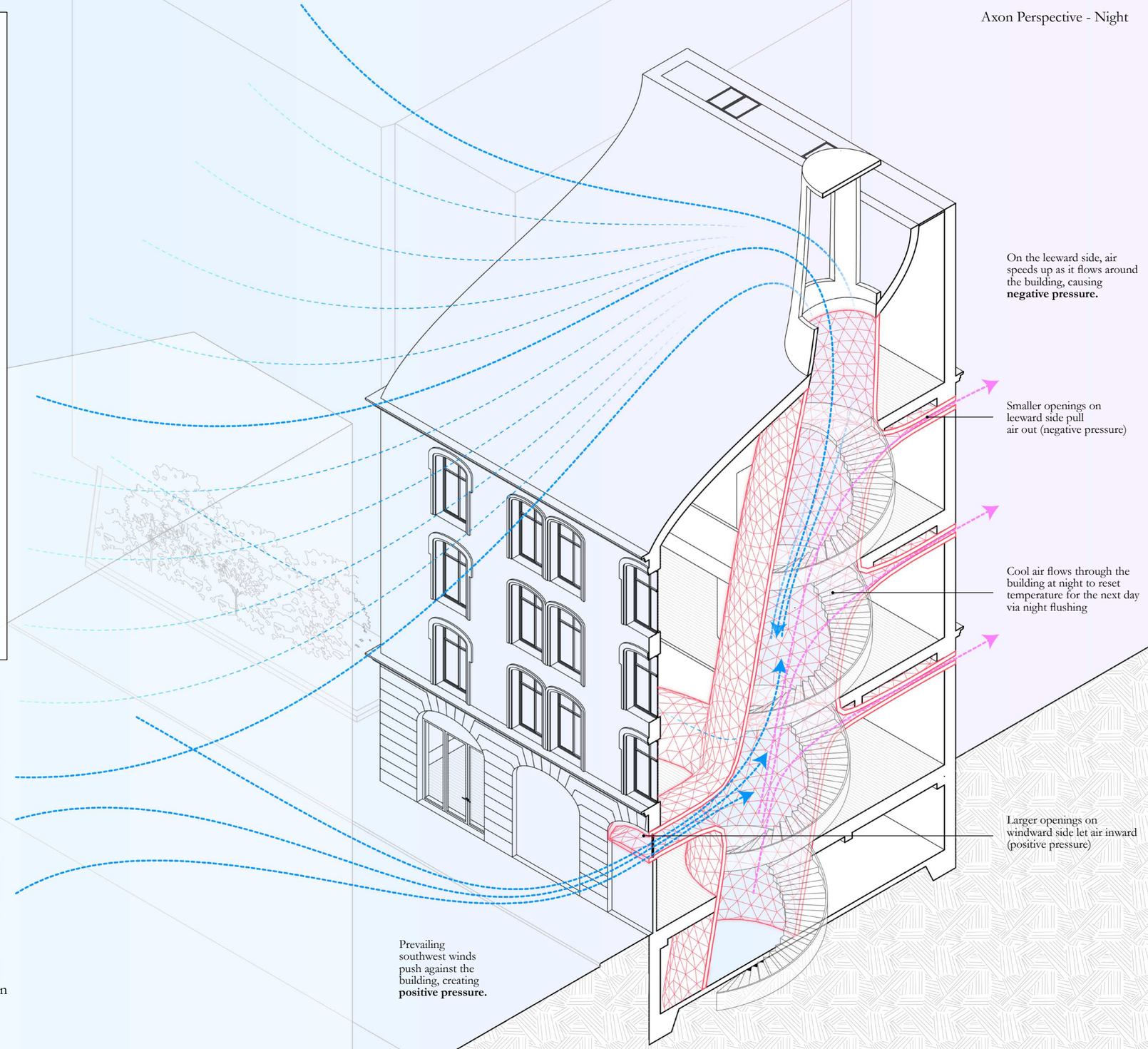
Advanced V | How to Live in Paris in 2100
Semester: Fall 2024
Instructor: Philippe Rahm, Mariami Maghlakelidze
Location: Paris, France
Individual Work

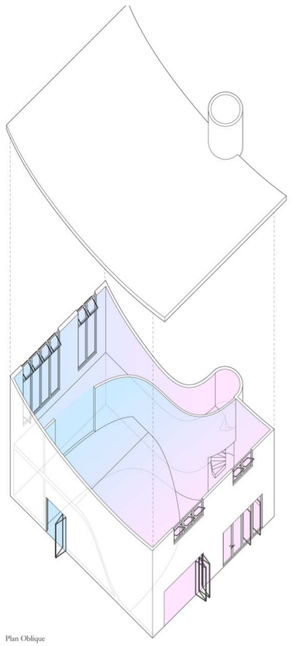
Paris faces rising temperatures and increasing energy consumption, making traditional gym environments reliant on mechanical cooling systems unsustainable and inefficient. As heat waves become more frequent, the need for innovative, low-energy cooling solutions is urgent.

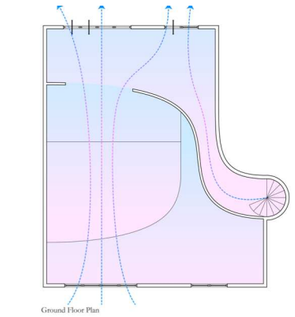
This project reimagines the gym experience by eliminating reliance on carbon emissions and prioritizing natural ventilation. Situated in an existing building, it retains the original shell while transforming the interior and replacing the mansard roof with a tapered roof. Leveraging Paris's weather patterns, the design integrates the Venturi effect, stack effect, and night flushing to achieve passive cooling. At its core, a central rock wall made of stone thermal mass panels regulates indoor temperatures by absorbing cool air at night and releasing it during the day. Doubling as circulation and a passive ventilation system, the wall's aerodynamic form enhances airflow, using wind pressure to expel heat and draw in fresh air. This approach challenges dependence on energy-intensive cooling, showcasing passive strategies as climate-responsive solutions.

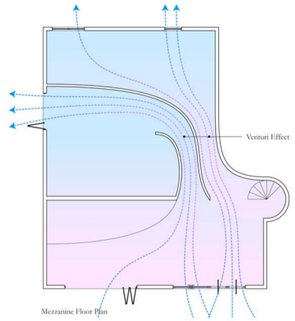
Site Plan

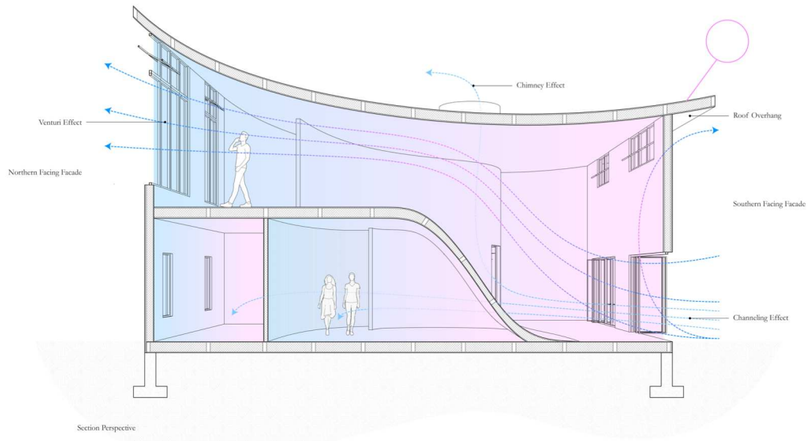
Axon Perspective - Night





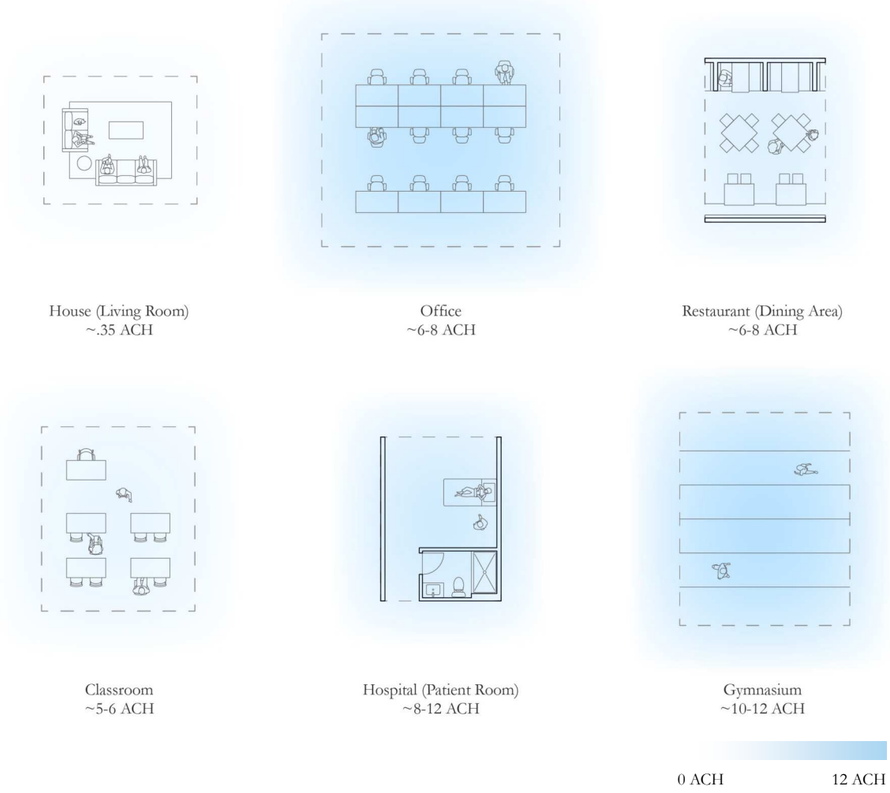




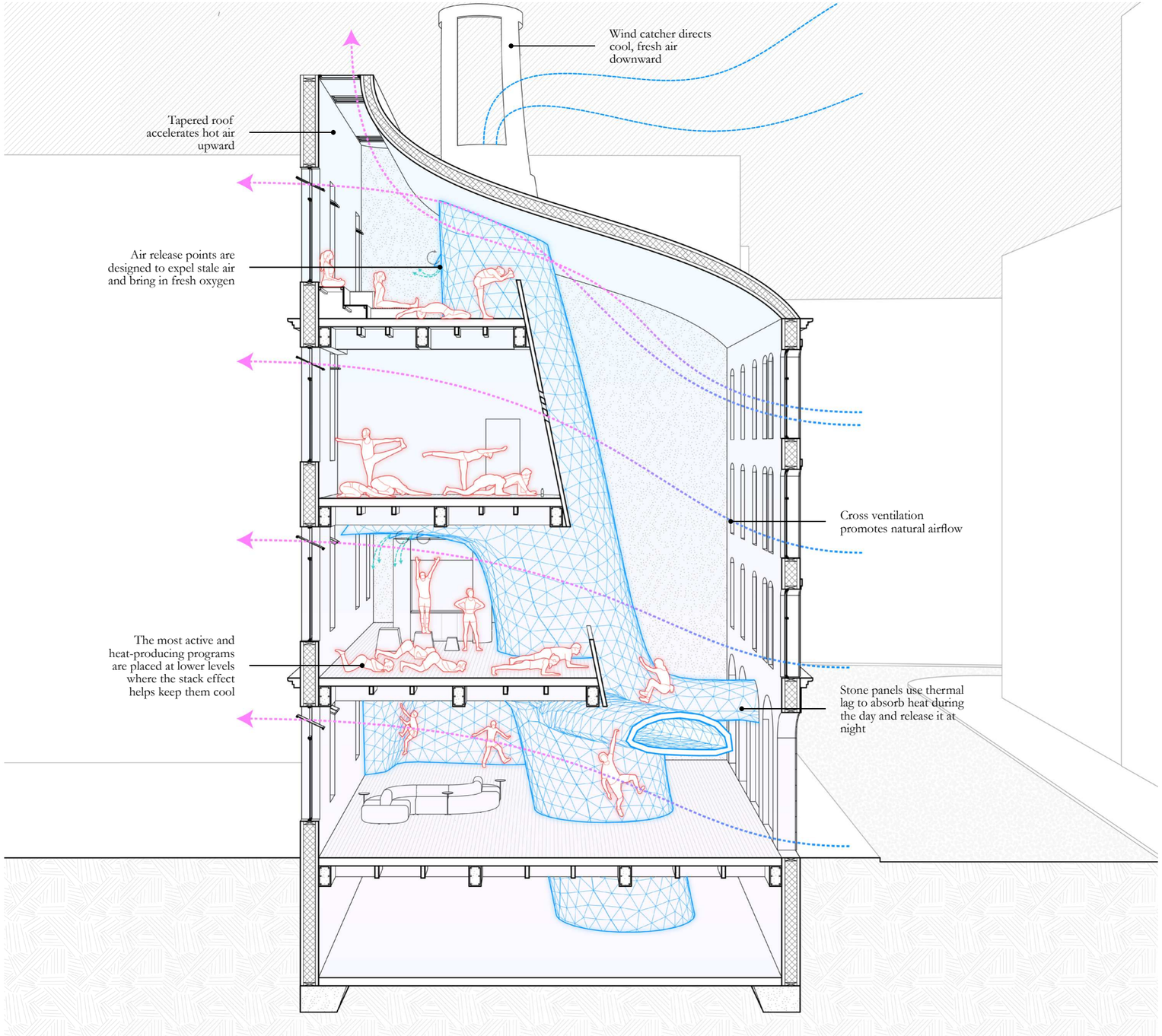


An early design exercise illustrates how pressure dynamics can be used for natural cooling. By compressing airflow in both plan and section and through the strategic placement of openings, the pavilion accelerates air movement, ensuring steady convection. This approach leverages the Venturi effect and stack effect to optimize airflow efficiency.

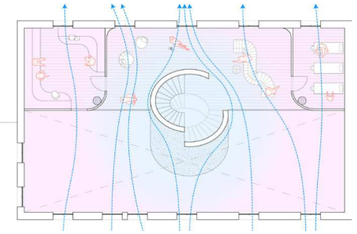
VO2 Max is the measure of maximum oxygen a person can use during physical activity. During exercise, people can consume up to 500 times more oxygen than at rest.



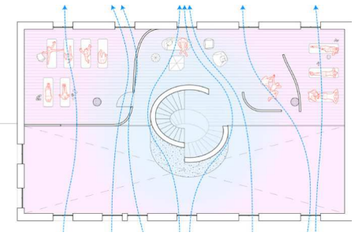
Air renewal rates, measured in 'air changes per hour' (ACH), differ due to room size, occupancy levels, and pollution sources. Proper air renewal is important to ensure a steady supply of oxygen, especially in spaces with high occupancy or high activity, like fitness spaces.



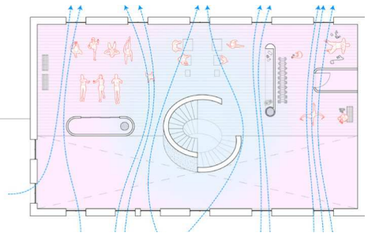
Section Perspective - Day



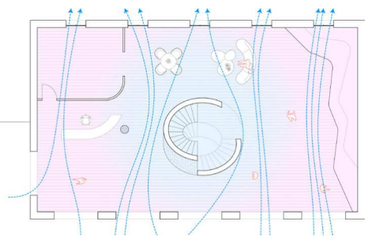
L4 - Recovery



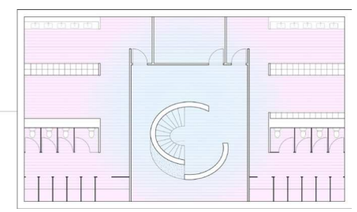
L3 - Yoga/Pilates



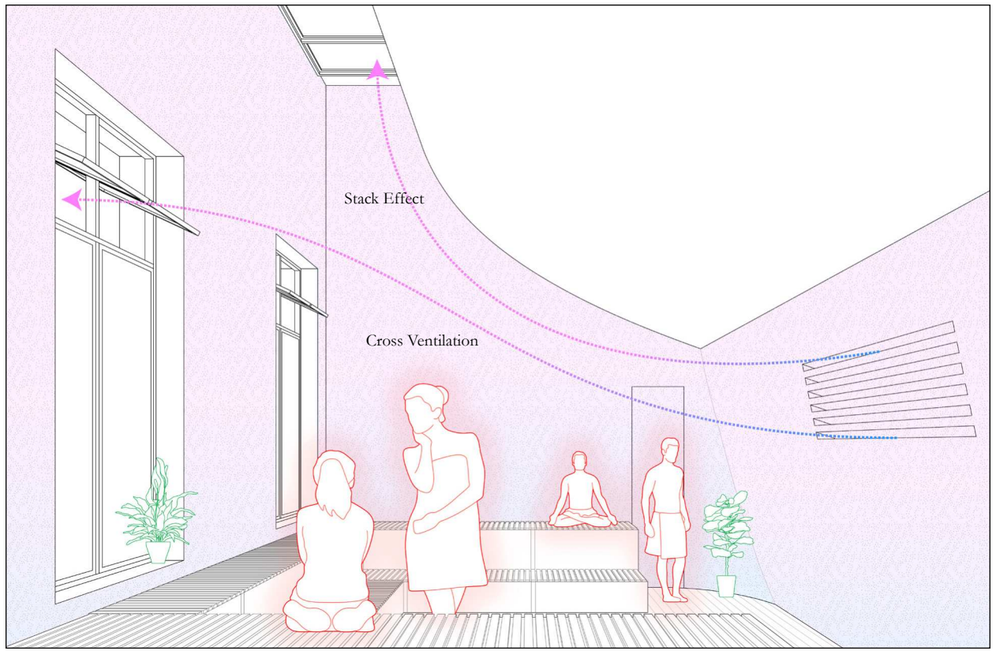
L2 - Strength Training



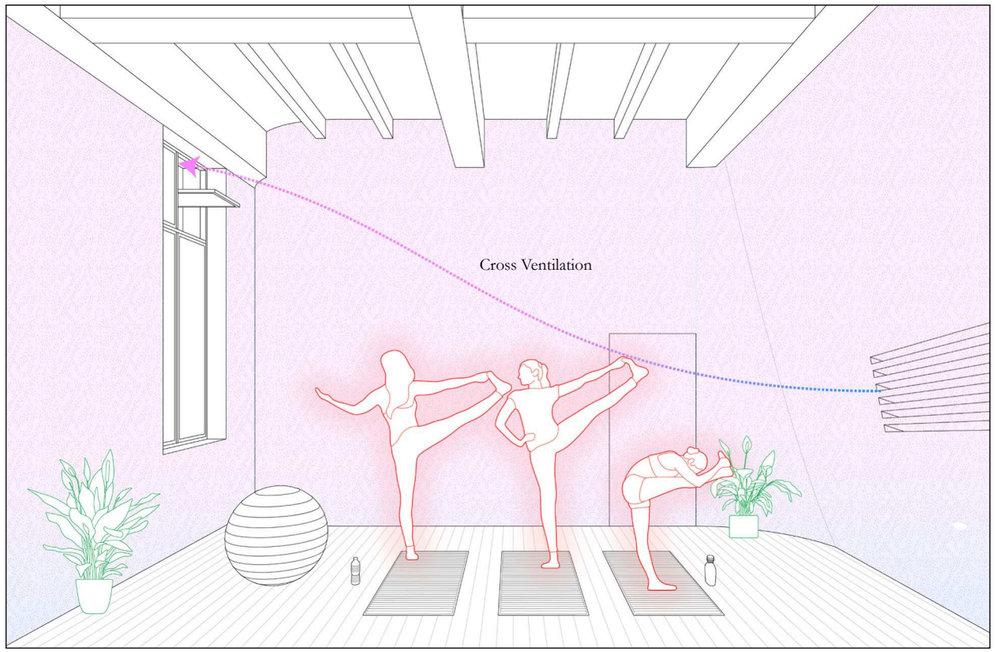
L1 - Climbing



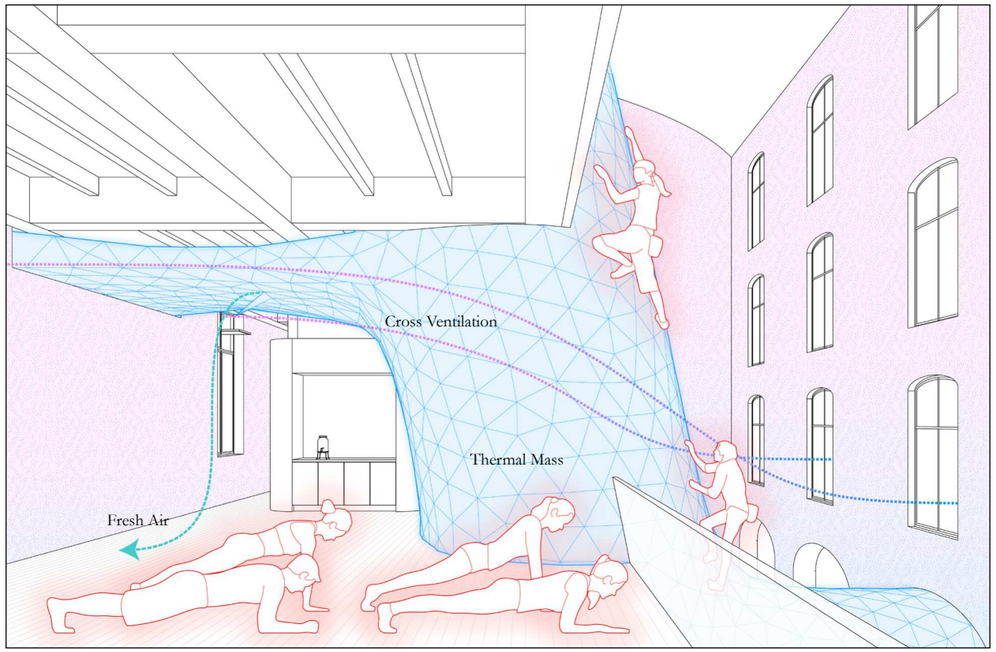
LL1 - Locker Rooms



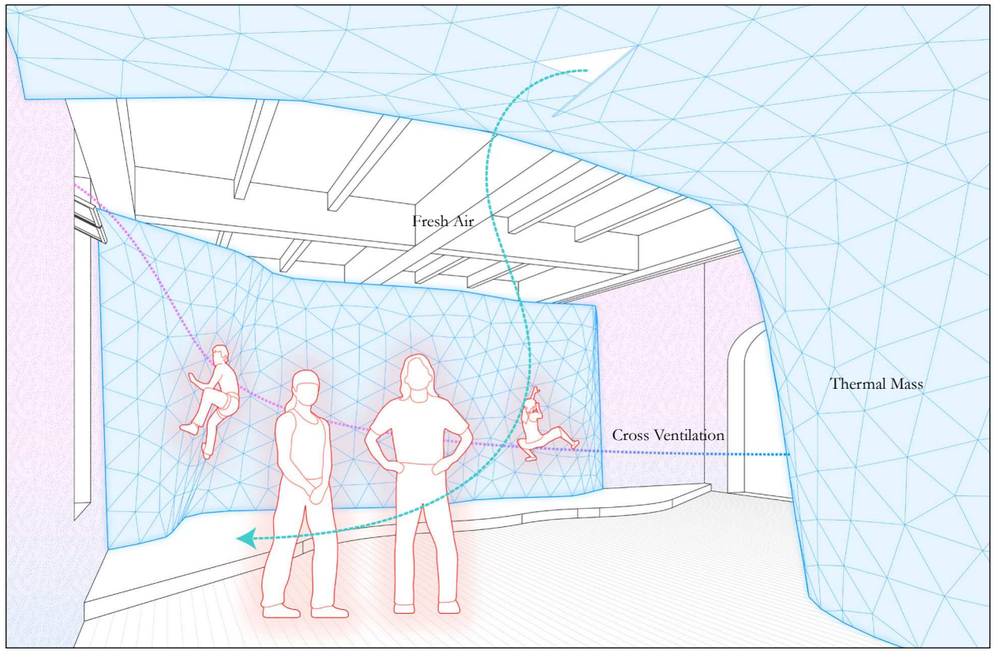
Perspective: L4 - Recovery



Perspective: L3 - Yoga/Pilates



Perspective: L2 - Strength Training



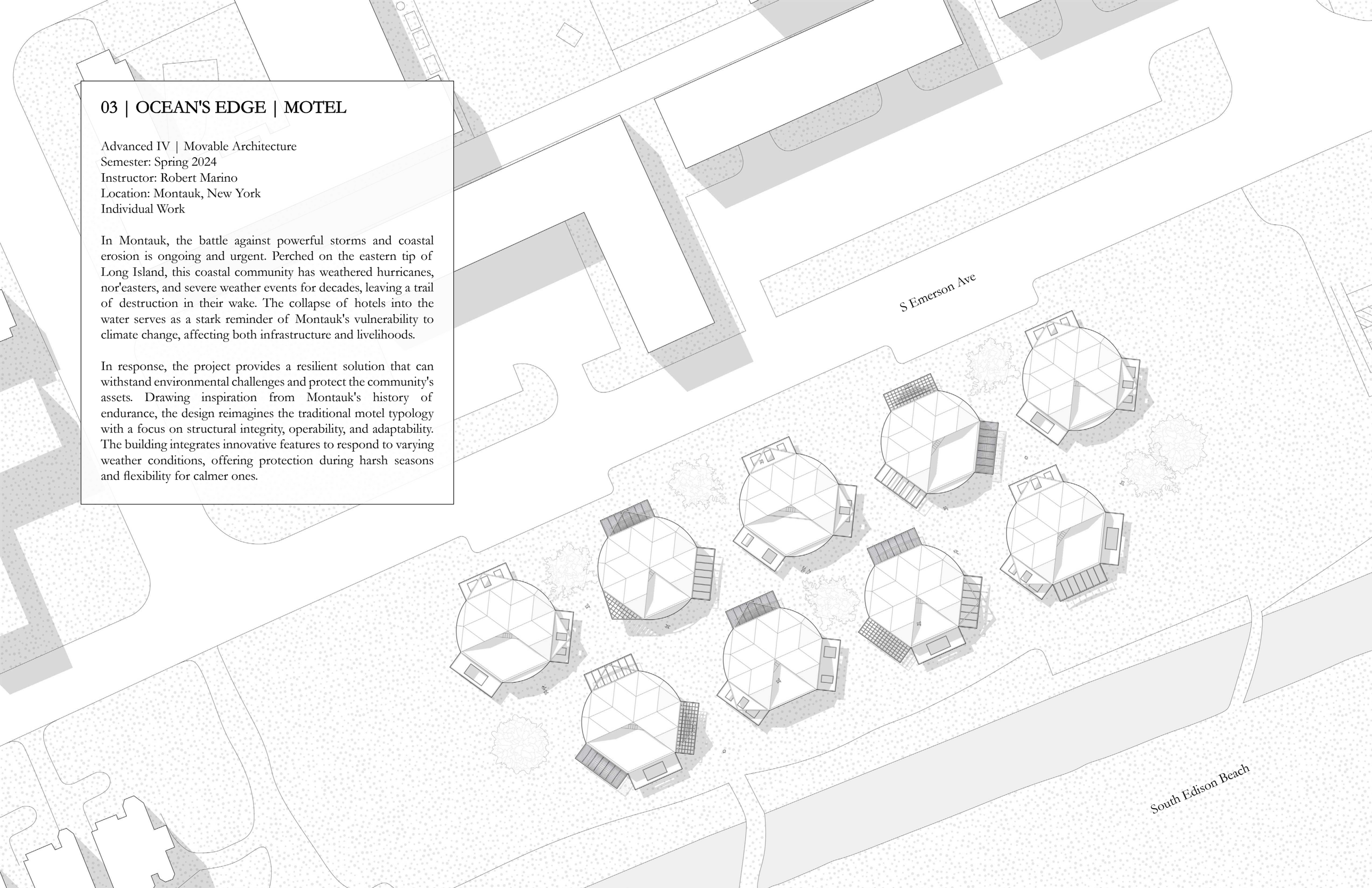
Perspective: L1 - Climbing

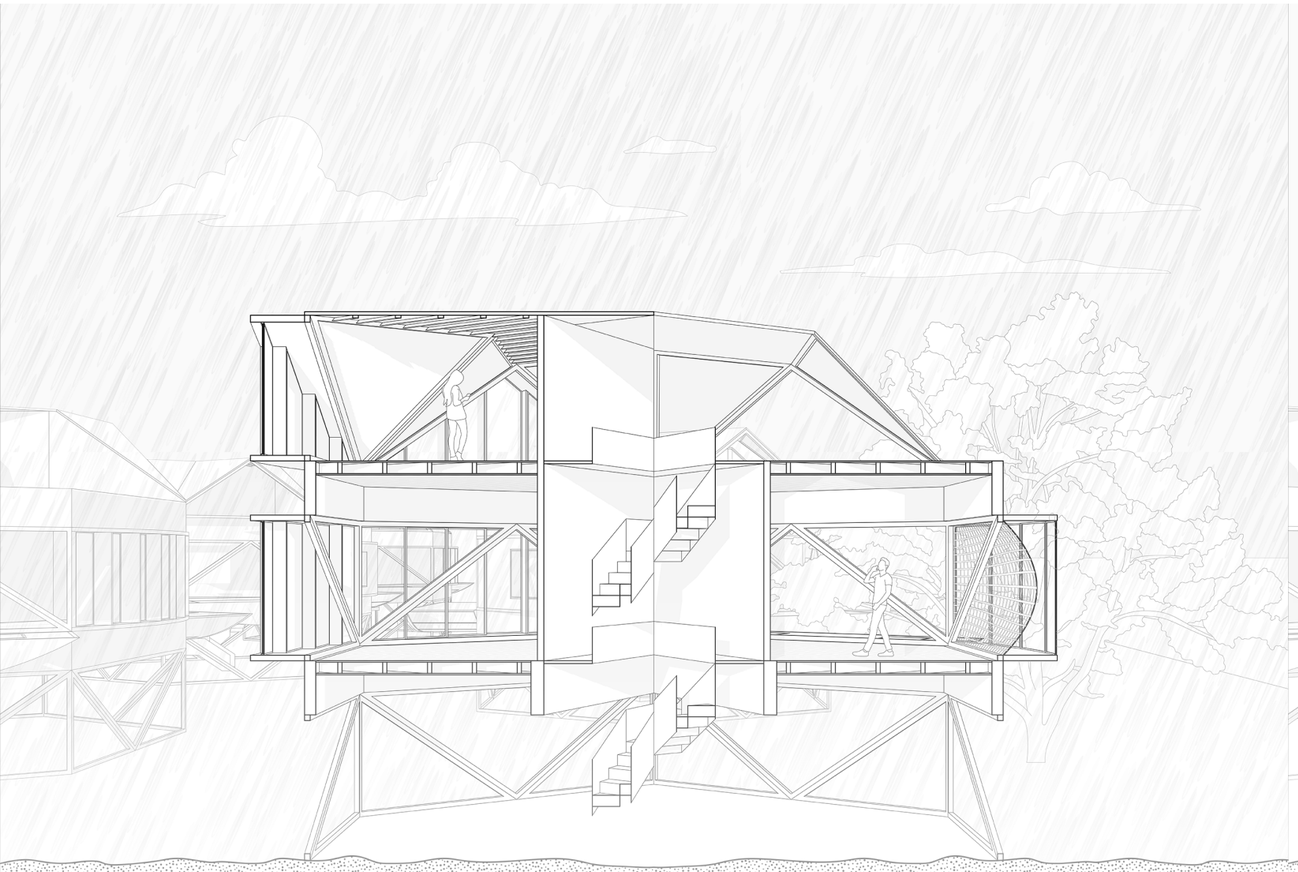
03 | OCEAN'S EDGE | MOTEL

Advanced IV | Movable Architecture
Semester: Spring 2024
Instructor: Robert Marino
Location: Montauk, New York
Individual Work

In Montauk, the battle against powerful storms and coastal erosion is ongoing and urgent. Perched on the eastern tip of Long Island, this coastal community has weathered hurricanes, nor'easters, and severe weather events for decades, leaving a trail of destruction in their wake. The collapse of hotels into the water serves as a stark reminder of Montauk's vulnerability to climate change, affecting both infrastructure and livelihoods.

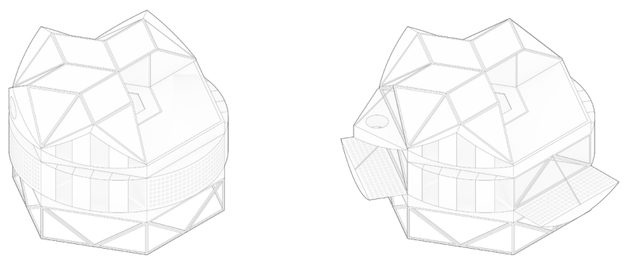
In response, the project provides a resilient solution that can withstand environmental challenges and protect the community's assets. Drawing inspiration from Montauk's history of endurance, the design reimagines the traditional motel typology with a focus on structural integrity, operability, and adaptability. The building integrates innovative features to respond to varying weather conditions, offering protection during harsh seasons and flexibility for calmer ones.





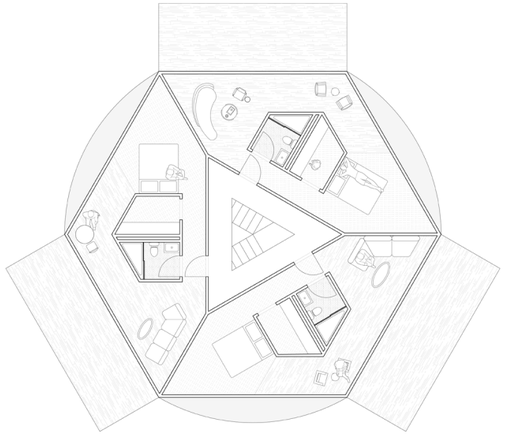
Section Perspective - Severe Weather Conditions

Section Perspective - Calm Weather Conditions

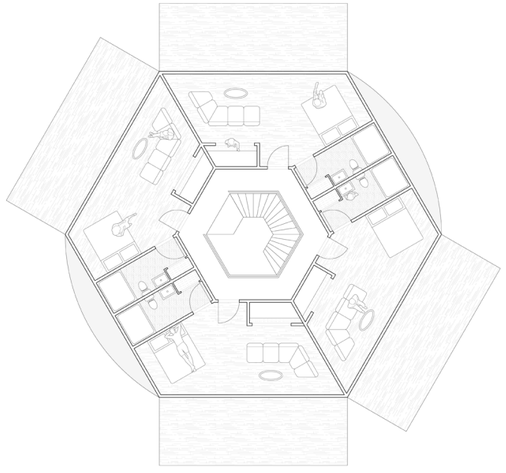


Elevated above flood risk, the building is designed for resilience against Montauk's unpredictable conditions. During storms, the building takes on a round, aerodynamic shape in plan with operable curved panels that provide protection. During calmer weather, the panels open to invite interaction, allowing the structure to adapt to varying environmental conditions.

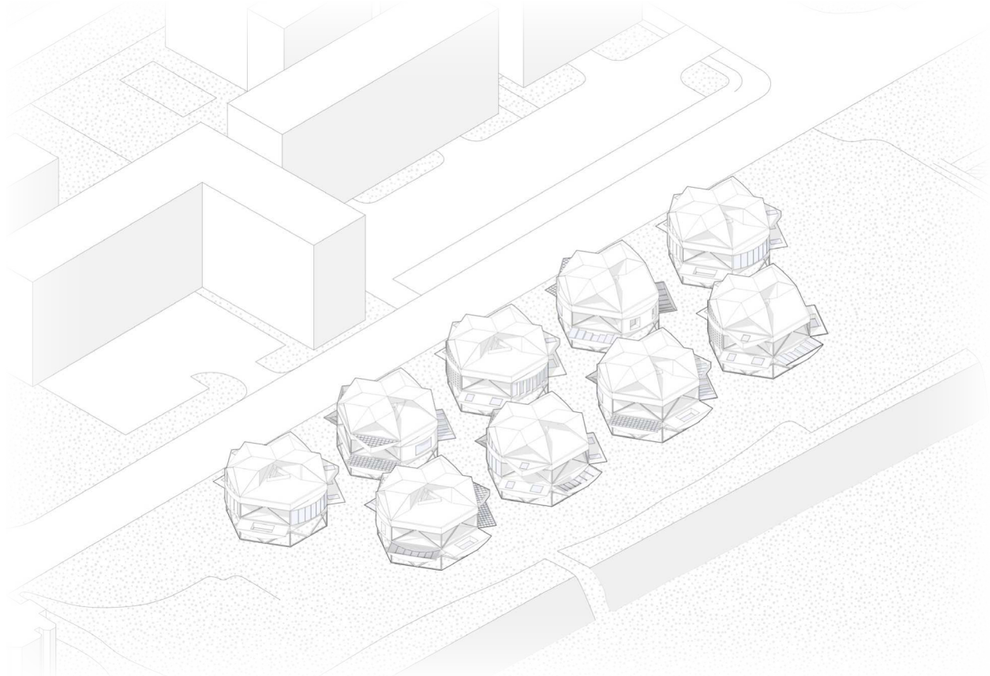
Through the use of triangular and hexagonal forms in both plan and elevation, renowned for their strength and stability, the architecture provides a robust defense against harsh weather conditions.



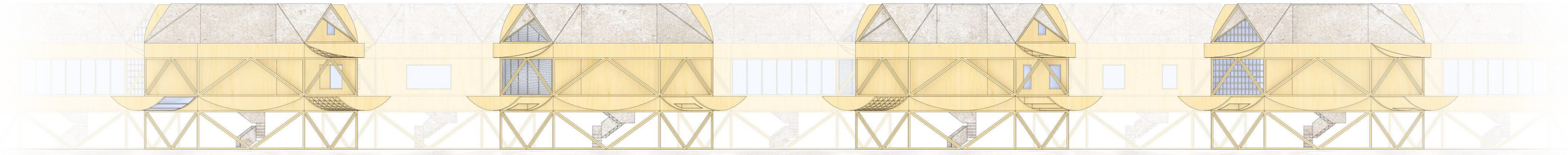
Plan Option 1: 3 Units Per Floor



Plan Option 2: 4 Units Per Floor



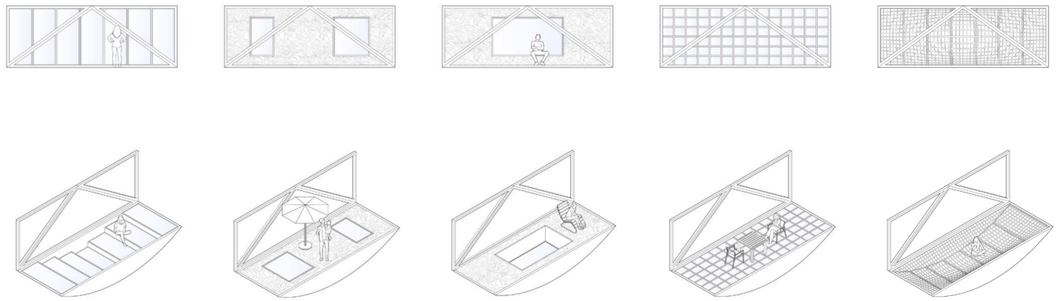
Axon



Elevation

The building's typology strikes a thoughtful balance between high-rise and single-family models, with 6-8 units across two stories. This middle-ground approach fosters a sense of community while maintaining privacy, offering an apt solution for Montauk.

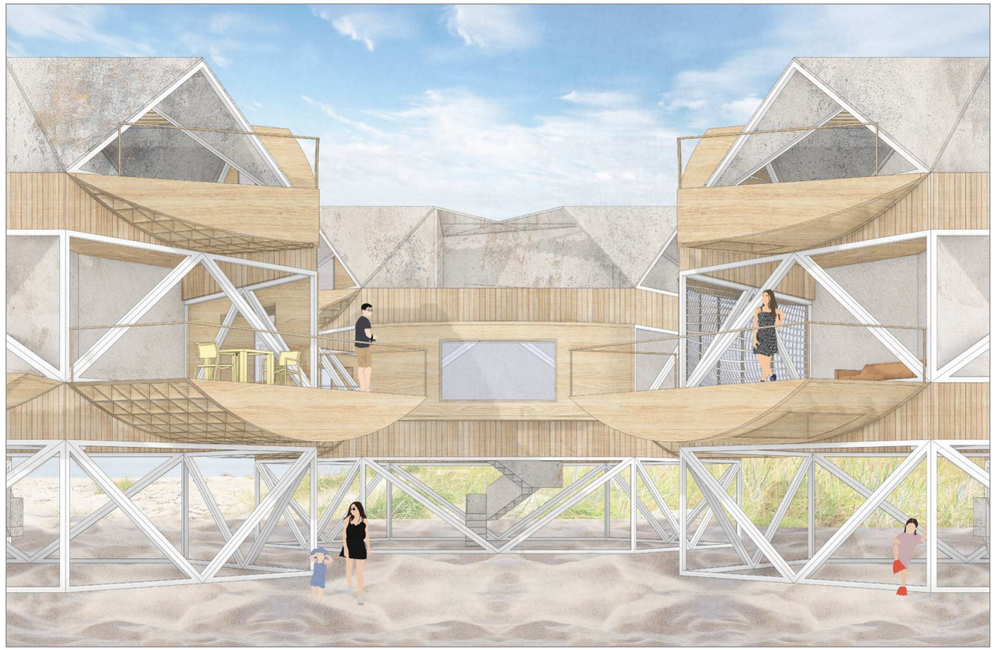
Panel Types



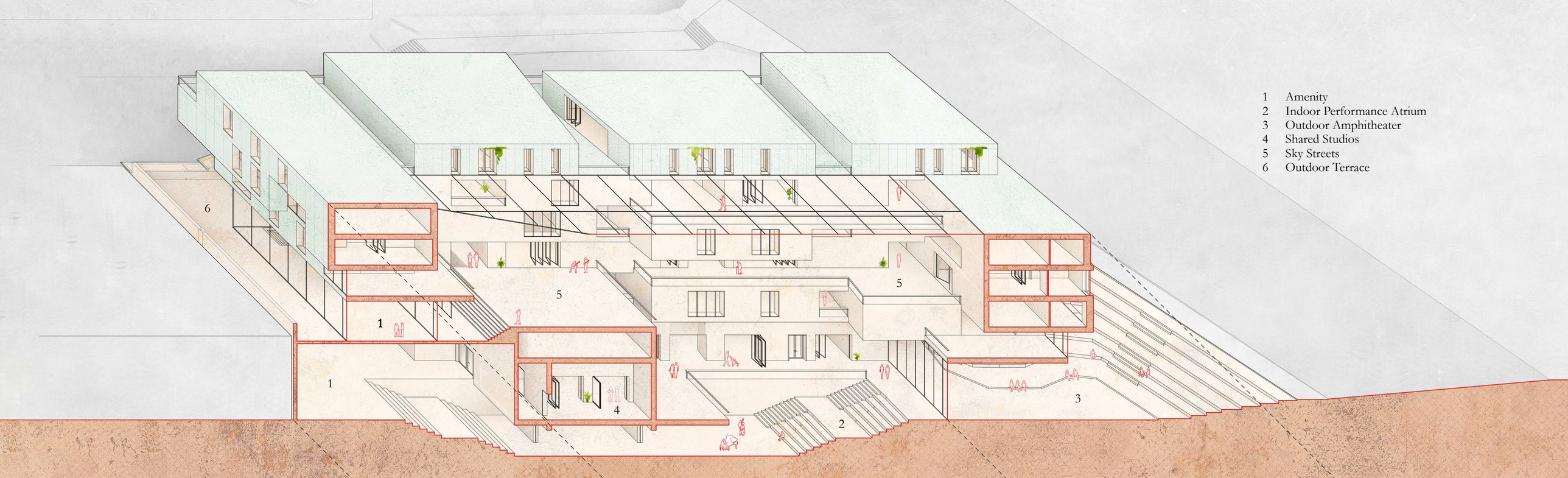
Stepped Windows | Two Windows | Window Seat | Waffle Window Panels | Net

The physical model emphasizes the interplay of geometric forms, reinforcing its strength and ability to adapt to Montauk's challenging coastal conditions.

Interior Perspective



Exterior Perspective



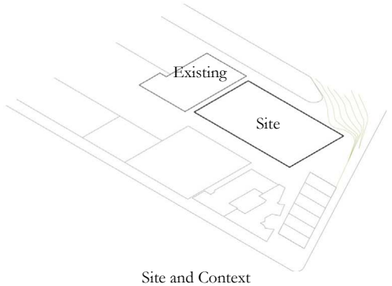
04 | ROOTED | CO-LIVING

Core III | Earthly Delight
Semester: Fall 2023
Professor: Erica Goetz
Location: Harlem, New York
Partner: Luyan Li

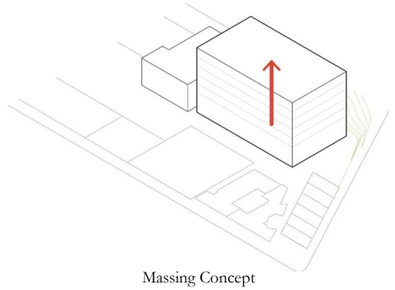
Harlem is at risk of both the immediate impacts of climate change, including extreme weather, flooding, and air pollution, and the gradual erosion of its vibrant cultural identity amid evolving demographics and a changing entertainment district.

In response, *Rooted* aims to achieve both infrastructural resilience and cultural stewardship, championing co-living spaces tailored for artists and entertainers within an earthly design. The project not only preserves Harlem's cultural roots but also fortifies its future, embodying the spirit of Harlem in a forward-looking endeavor.

Section Oblique

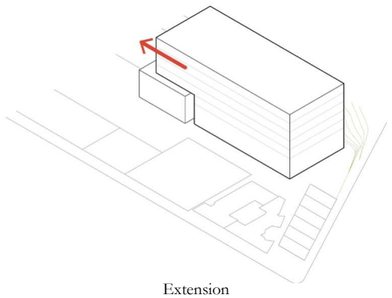


Site and Context



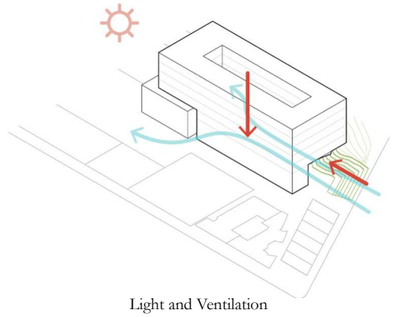
Massing Concept

Strategy targets 60% lot coverage and development of six floors, aligning with FAR calculation and buildable square footage



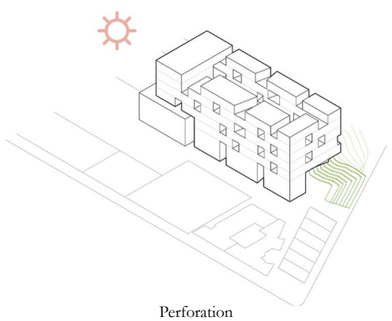
Extension

The building optimizes site potential by extending over the existing structure



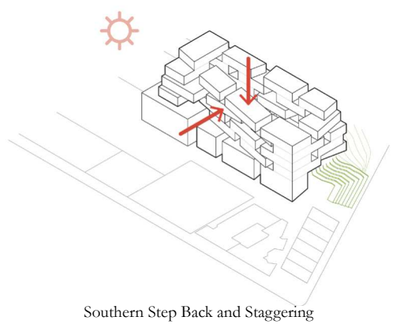
Light and Ventilation

A central courtyard and eastern entrance are designed to enhance airflow and lighting



Perforation

Openings improve cross ventilation, increase day-lighting, and foster vibrant communal spaces



Southern Step Back and Staggering

A step back maximizes solar exposure and creates a dynamic terrace system; staggering creates meandering sky streets

Positioned at the intersection of 128th and Convent Ave on the site of an abandoned building, this project transforms a once lifeless area into a vibrant hub. It features an outdoor amphitheater, indoor performance atrium, and connecting throughways, repurposing the existing building for amenity spaces and leveraging the natural slope for the amphitheater, embracing a self-cooling strategy that promotes temperature regulation.

Inspired by porous and sculptural study models, the design prioritizes art-sharing programs in the in-between spaces. The integration of housing floors with distinctive shared spaces cultivates a sense of community among artists, igniting creativity in shared living spaces that blend indoor, semi-indoor, and outdoor environments.

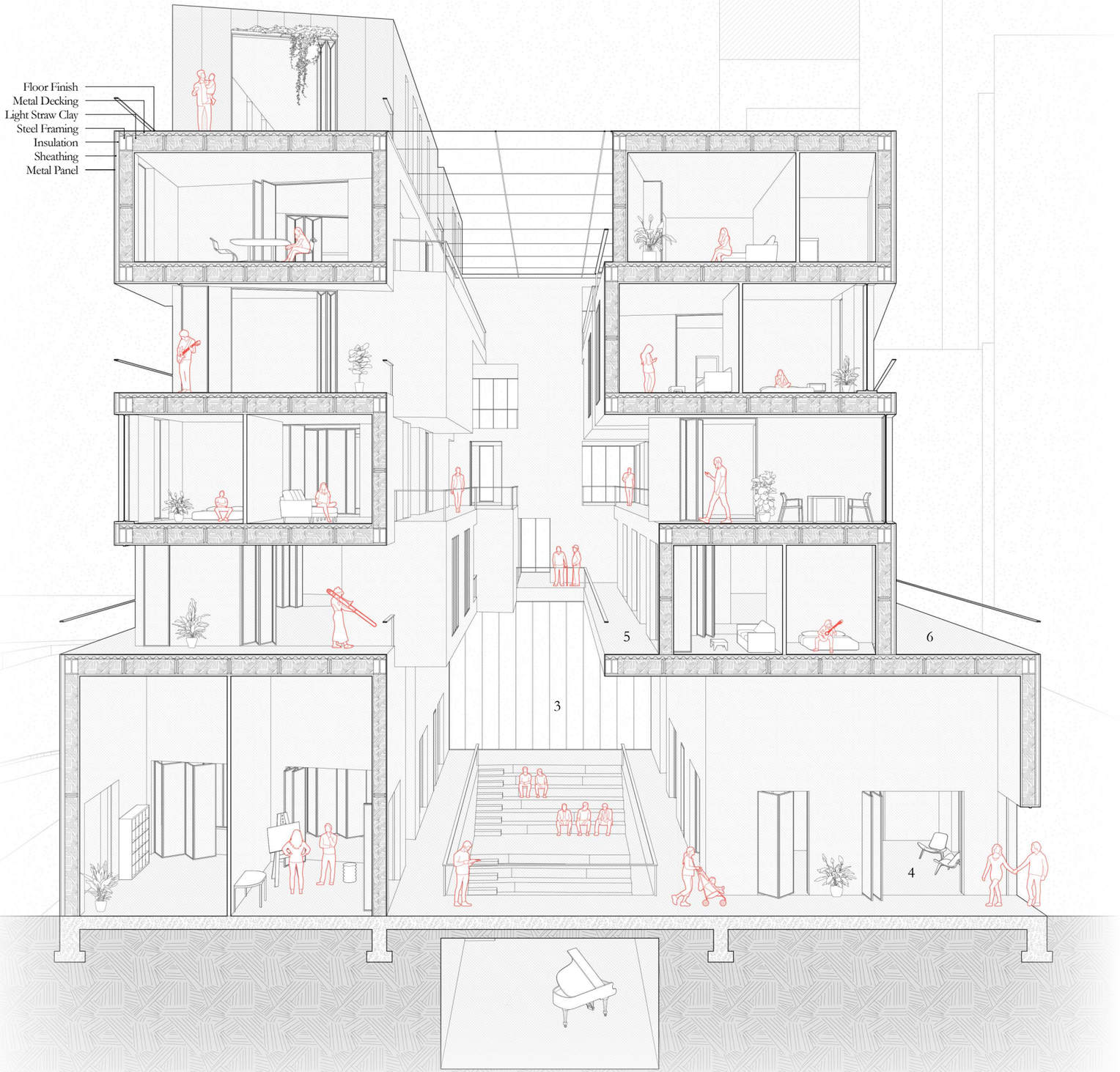
First Floor Plan

1 Amenity
2 Indoor Performance Atrium
3 Outdoor Ampitheater
4 Shared Studios

1 Amenity
5 Sky Streets
6 Outdoor Terrace

Third Floor Plan

Fourth Floor Plan

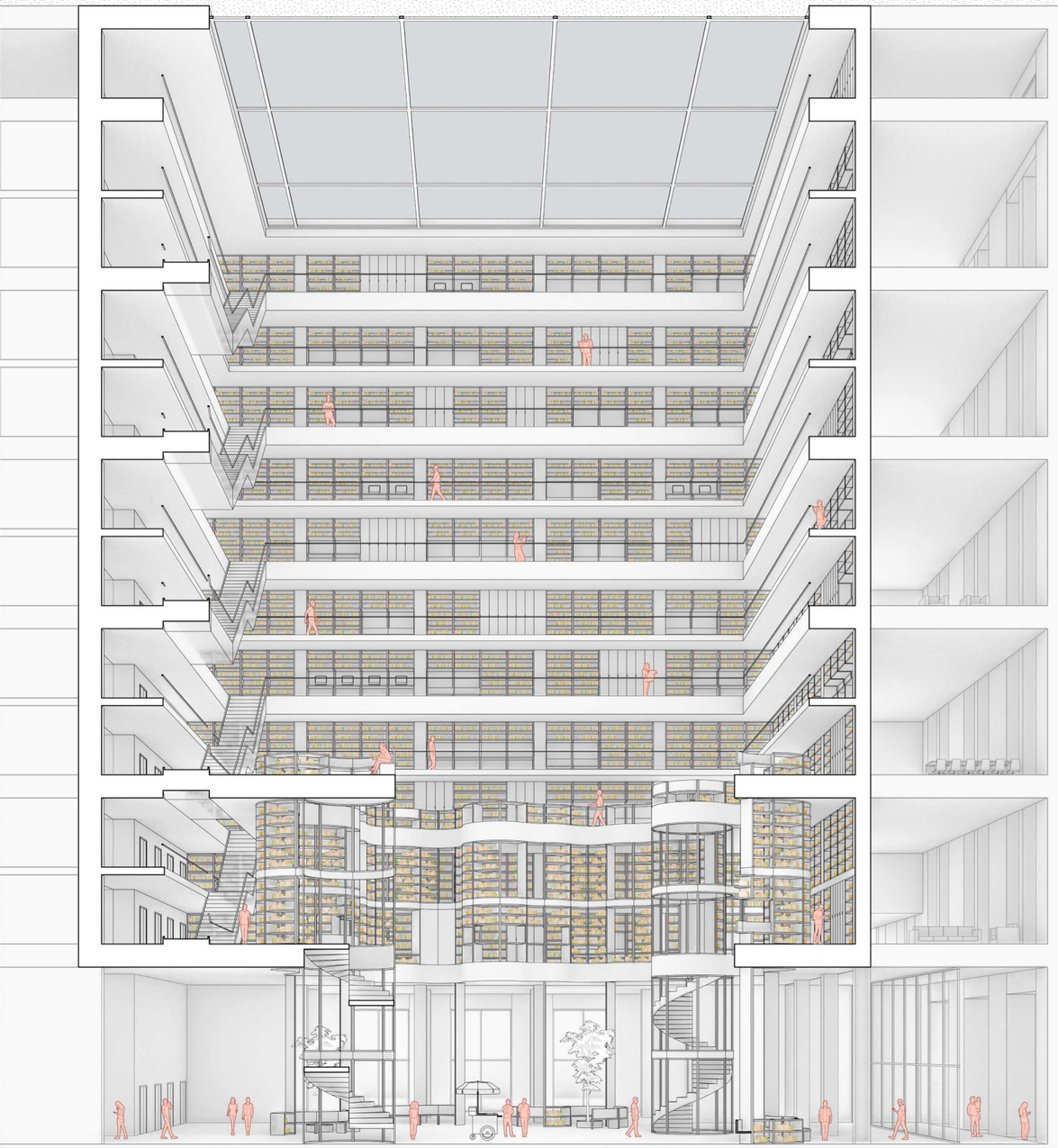


The project delves into sustainable construction methods, identifying light straw clay for its insulation, structural benefits, and eco-friendly properties. This material choice addresses longstanding environmental injustices ingrained in Harlem, offering a solution that moderates temperature and reduces energy needs.

1 Amenity
2 Indoor Performance Atrium
3 Outdoor Amphitheater
4 Shared Studios
5 Sky Streets
6 Outdoor Terrace

Section Model - Exterior

Section Model - Interior

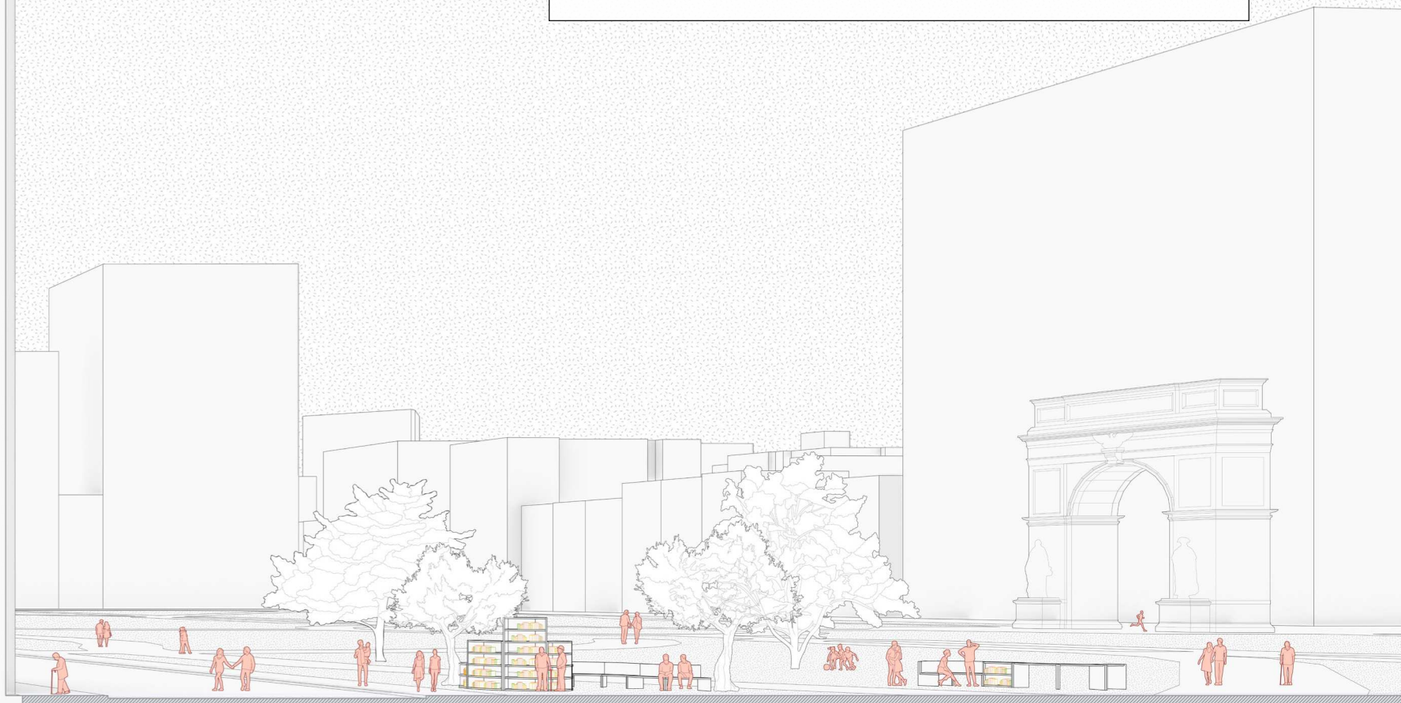


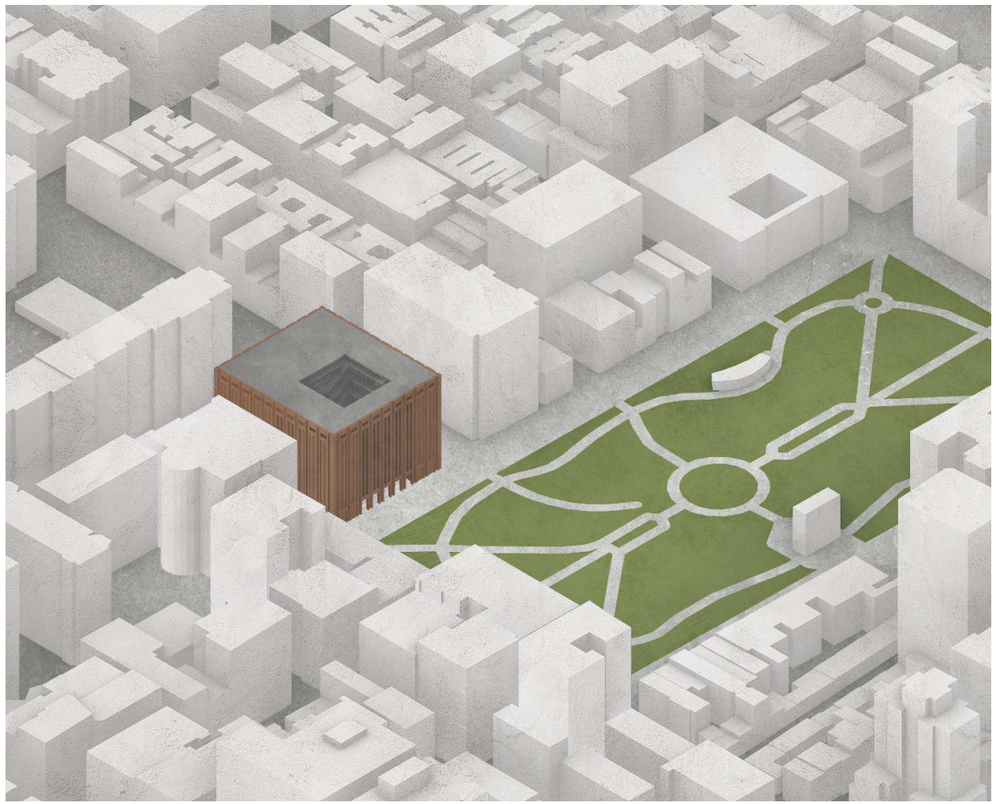
05 | NYU NEXUS | LIBRARY RENOVATION

Core II | Damage Control
Semester: Spring, 2023
Professor: Esteban Debacker
Location: Greenwich Village, New York
Individual Work

NYU's continuous expansion as a major landowner in New York has often sparked opposition from local residents, straining its relationship with the community. While the university enriches the city's cultural and economic landscape, spaces like the Bobst Library remain largely inaccessible to the public.

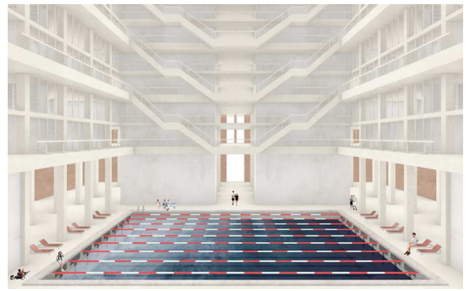
In response, *NYU Nexus* reimagines the library's atrium as a public hub, centralizing resources for both students and the broader community. A modular shelving and furniture system creates a flexible, street-like environment for learning, gathering, and storage, while freeing up surrounding floors for dynamic study spaces. By expanding access and fostering interaction, the project challenges the traditional university-community model, transforming Bobst into an inclusive, shared space.





Bobst Library sits at the heart of NYU's campus yet remains largely closed off to the public. The study on the following page examines how its atrium could serve as a shared space, fostering interaction between the university and the broader community.

+ Climbing Wall

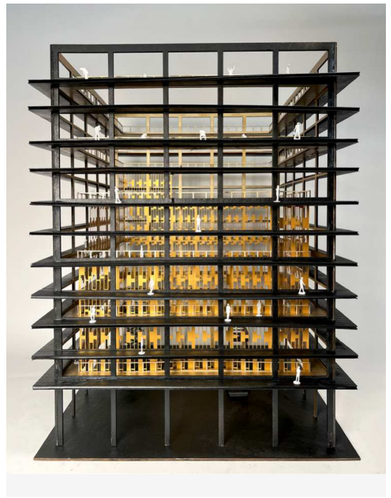


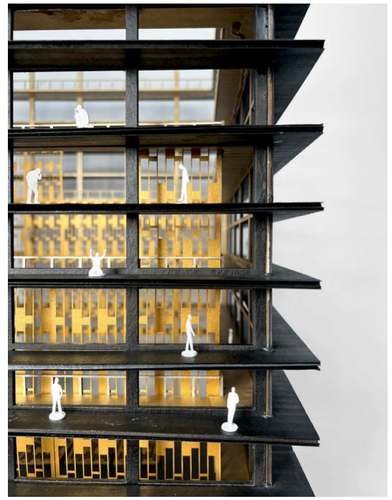
+ Pool

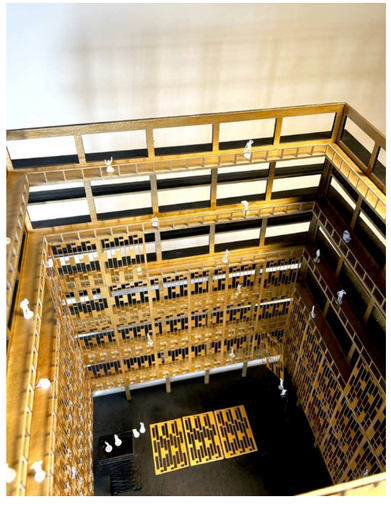
+ Social Mezzanine

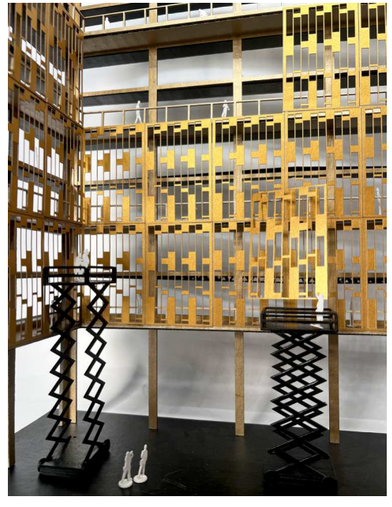
+ Green Space

Program Study









An early modeling exercise underscores how the Bobst Library's introverted design contributes to student stress and reflects NYU's broader struggle with mental health and community engagement. *NYU Nexus* builds on this critique by reimagining the library's atrium as an open, inclusive hub that bridges the gap between students and the surrounding city, challenging the university's historically insular approach to space.

Iterative Model

Interior View

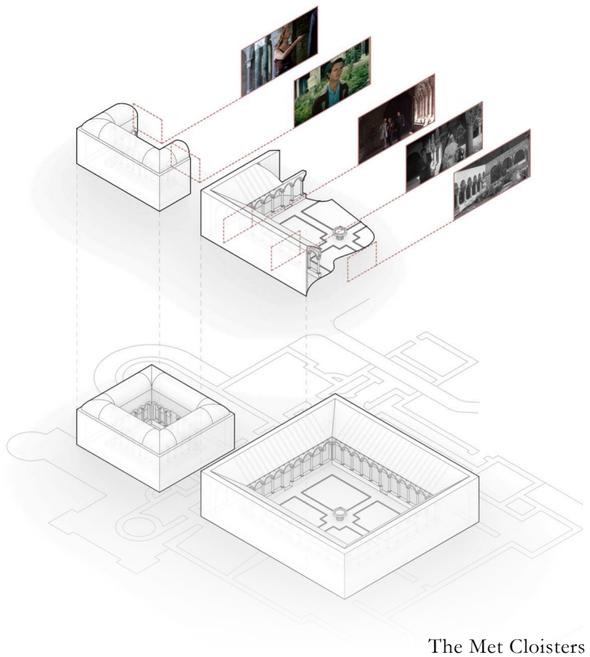
06 | REFRAMING INWOOD | RAMP & LOOKOUT

Core I | Elsewheres
Semester: Fall 2022
Instructor: Patricia Anahory
Location: Inwood, New York
Individual Work

In the early 1900s, movie producers targeted Northern Manhattan for its undeveloped and versatile landscape. Today, films continue to depict sensationalized views of the neighborhood, painting a picture of a dangerous, crime-ridden, and sometimes fantastical place and raising questions about how framed narratives manipulate perceptions.

Reframing Inwood proposes a ramp system and dynamic lookout that maximizes visibility and curates views of Inwood. Despite challenges posed by Inwood's undulating landscape, this intervention offers an alternative path and experiential journey from Broadway to The Met Cloisters. By reorienting users toward a cityscape that has been historically marginalized on screen, Reframing Inwood seeks to challenge perspectives, celebrate downtown Inwood, and unite the neighborhood's divided community.

The Met Cloisters serves as a prime example of how cropping and storytelling allow space to transcend function, as it portrays a museum, medieval castle, monastery, and church across various movie scenes. As a symbol of Inwood's more opulent past, the museum also highlights the divide between the neighborhood's lower-income, Spanish-speaking East side and higher-income, English-speaking West side.



The Met Cloisters

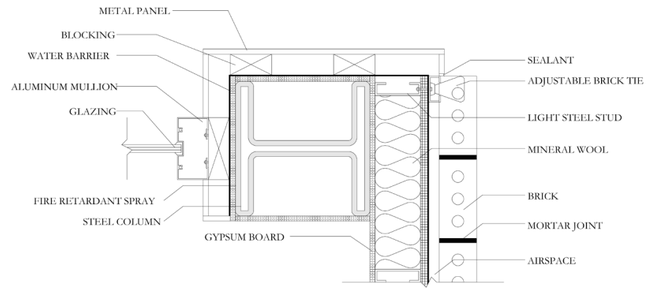
Section Perspective

Plan

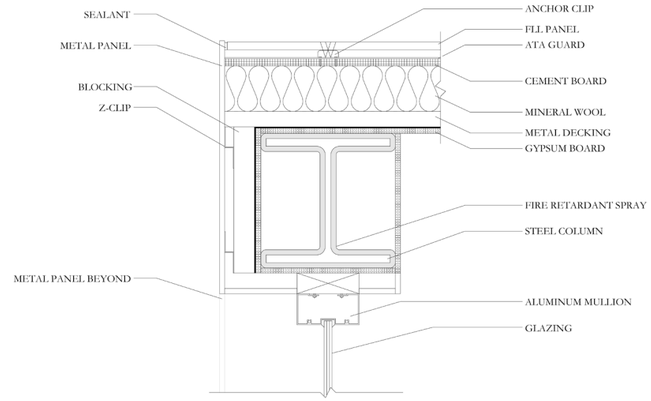
07 | BATHHOUSE | WELLNESS CENTER

Tech V | Construction and Lify Cycle Systems
Semester: Spring 2024
Instructor: Lola Ben-Alon, Tommy Schaperkotter
Location: Morningside Heights, New York
Team members: Marly McNeal, Kate Perez, Gabriela Ramos, Mauro Rodriguez

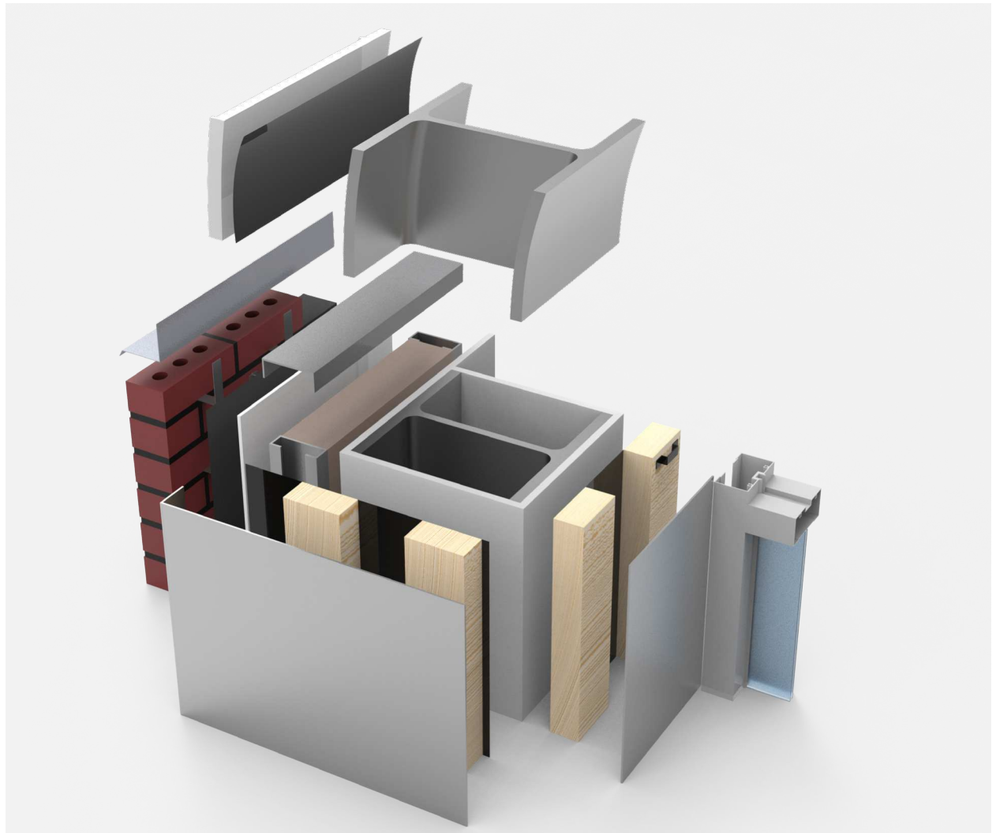
The Bathhouse at 332 W 112th St., NYC emphasizes sustainability, durability, and material efficiency. A comprehensive life cycle assessment guided material selection, comparing energy demand, smog formation, and other environmental factors. BioMason Brick was chosen for its bio-based production, while aluminum was selected for its recyclability and corrosion resistance. To minimize carbon emissions, the aluminum comes from a hydroelectric-powered Canadian smelter, and the BioMason bricks originate from North Carolina. The final design balances sustainability, durability, and cost by integrating recycled and bio-based materials. The project culminates in a 1:1 scale model, constructed with these materials to demonstrate their real-world application and environmental benefits.



Plan Detail



Section Detail



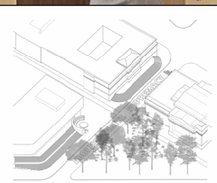
Digital Model

Physical Model

08 | RESTORATIVE GROUNDS
CIVIC PAVILION

Tech IV | Building Systems Integration
Semester: Fall 2023
Instructor: Berardo Matalucci
Location: Newark, New Jersey
Team Members: Bryce Emerson, Jordan Howard, Gabriela Ramos, Anika Tsapatsaris

Restorative Grounds, located in the heart of Newark, NJ, transforms Dr. Martin Luther King Jr. Blvd into a pedestrian-centered civic space while preserving the 2020 Black Lives Matter mural as a permanent, backlit landmark. The design lifts the ground plane to create an occupiable roof, integrating large structural columns that double as planters. A curved glass facade, inspired by the Brooklyn Botanic Garden Visitor Center, enhances natural light and ventilation, while seamless railing-to-glass details blur the boundary between interior and exterior. Prioritizing sustainability and activism, the project fosters community gathering through ecological and architectural innovation.



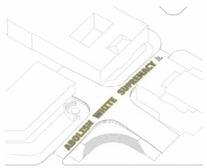
Original site conditions

Lift the site

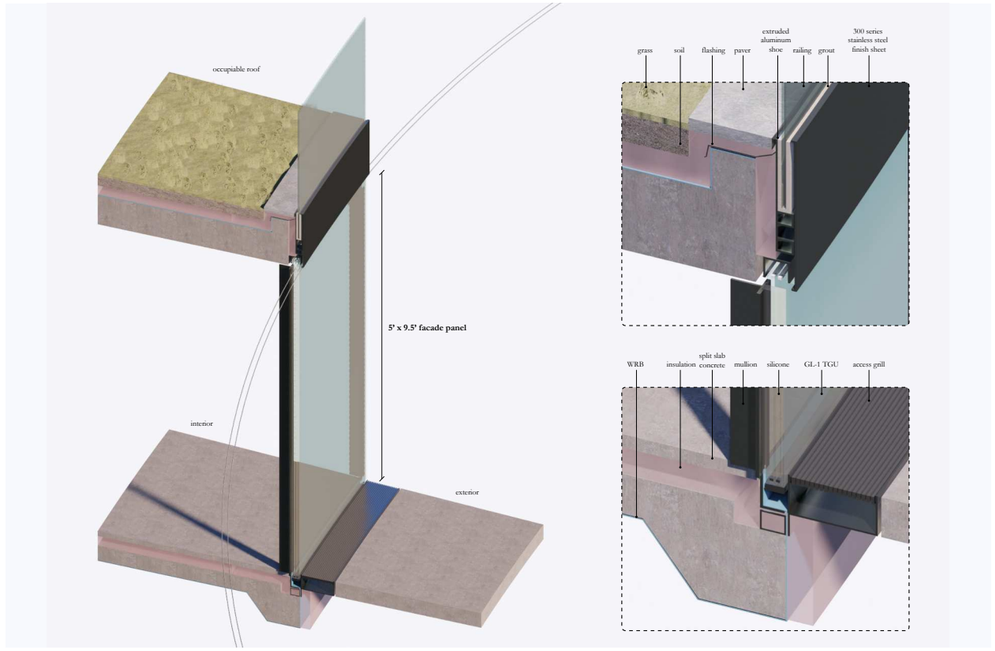
Ground with structural planters

Carve interior public place

Live load support for protests

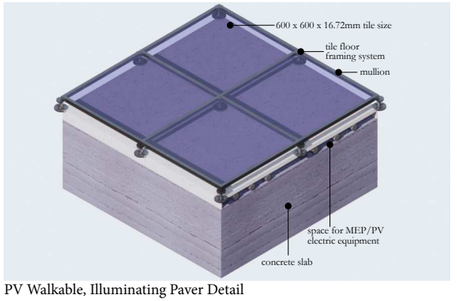


Display text with backlighting

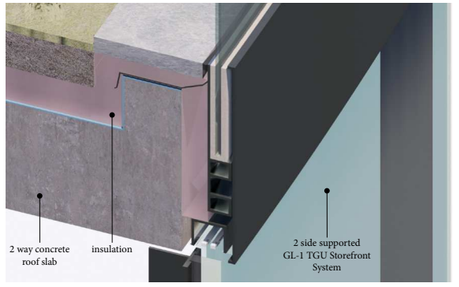


Facade Details

Planter Ventilation Detail

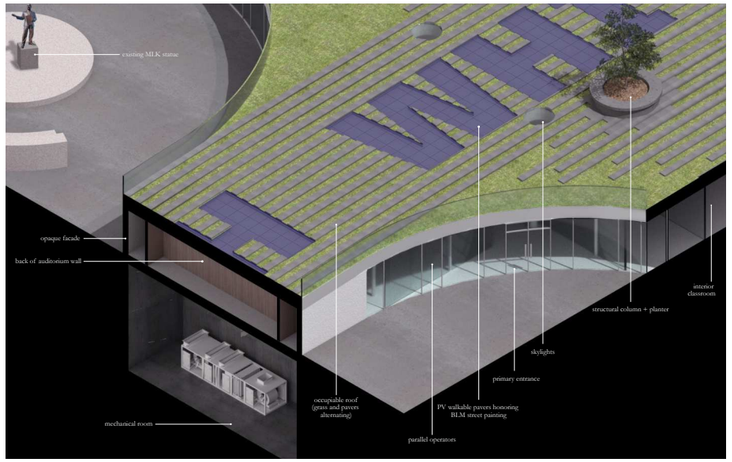


PV Walkable, Illuminating Paver Detail



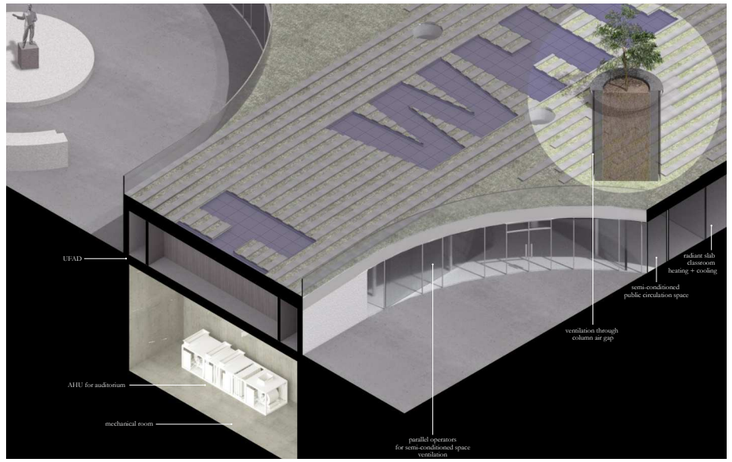
Facade Detail

Envelope and Site Details



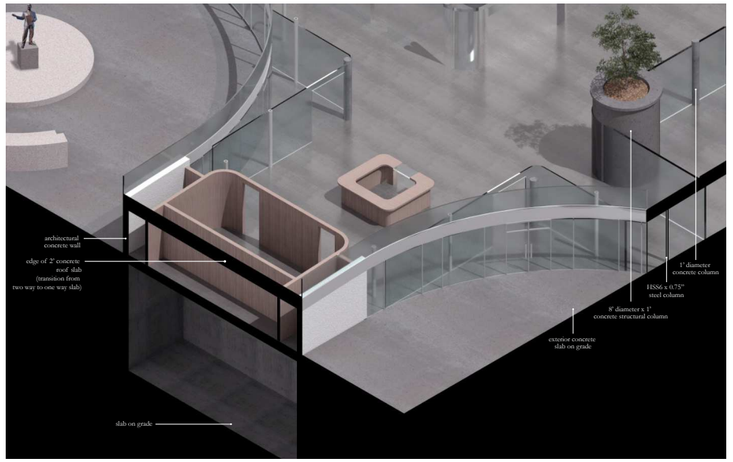
Axon

The building includes an occupiable roof, planter-integrated columns, and PV walkable pavers honoring the street painting, while seamlessly integrating classrooms, a mechanical room, and an auditorium with its cultural context.



Mechanical

The building's mechanical and ventilation strategies include underfloor air distribution, radiant slab heating/cooling, and column air gap ventilation, along with dedicated air handling for the auditorium and parallel operators for semi-conditioned spaces.



Structural

The foundation is a slab on grade, with steel and concrete columns for vertical support. A 2' concrete roof slab transitions from a two-way to a one-way system at its edge.

Thank You

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