

PORTFOLIO

SUNGJIK KIM

Selected Academic from 2025-2026

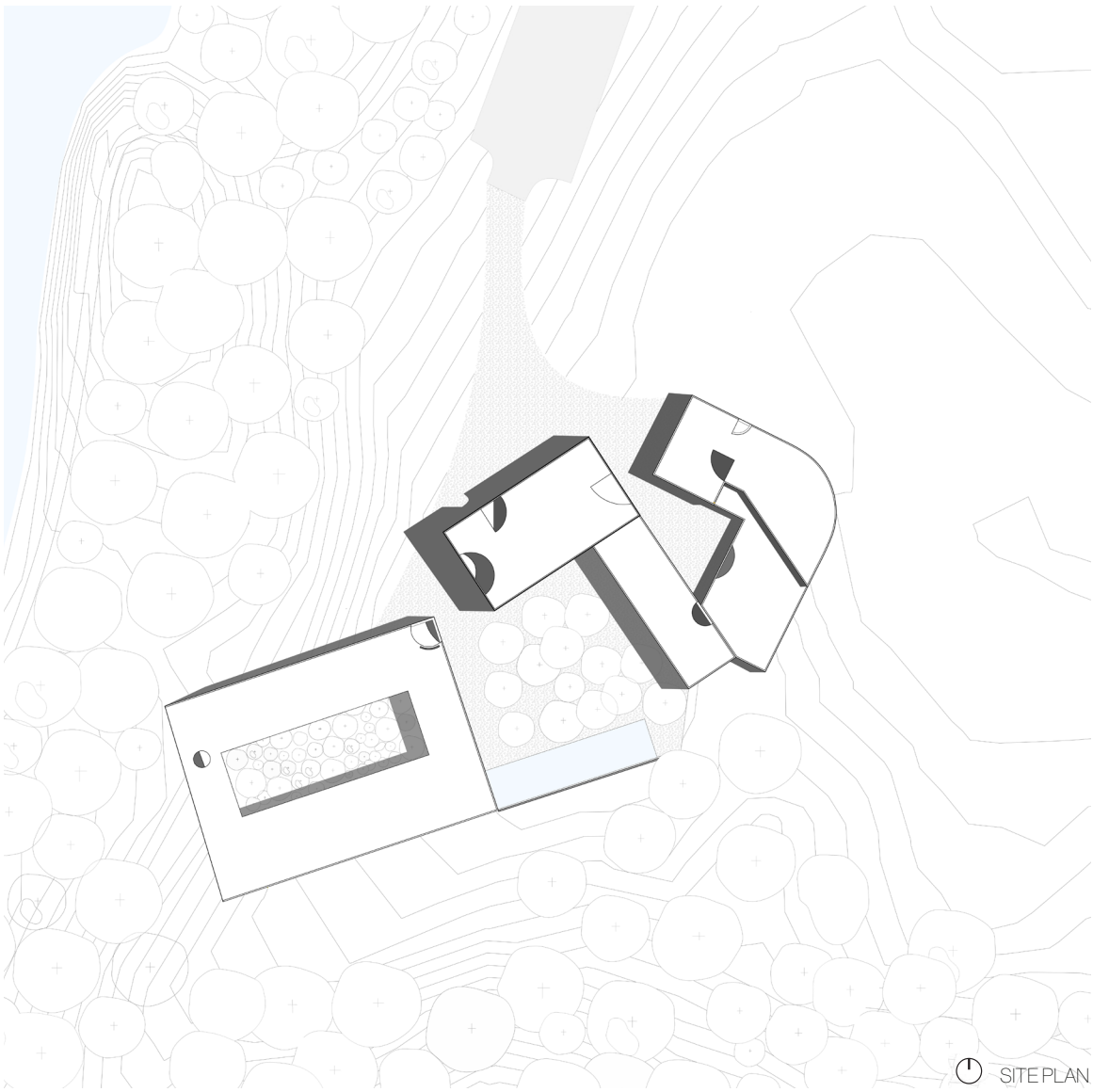
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TO CARVE

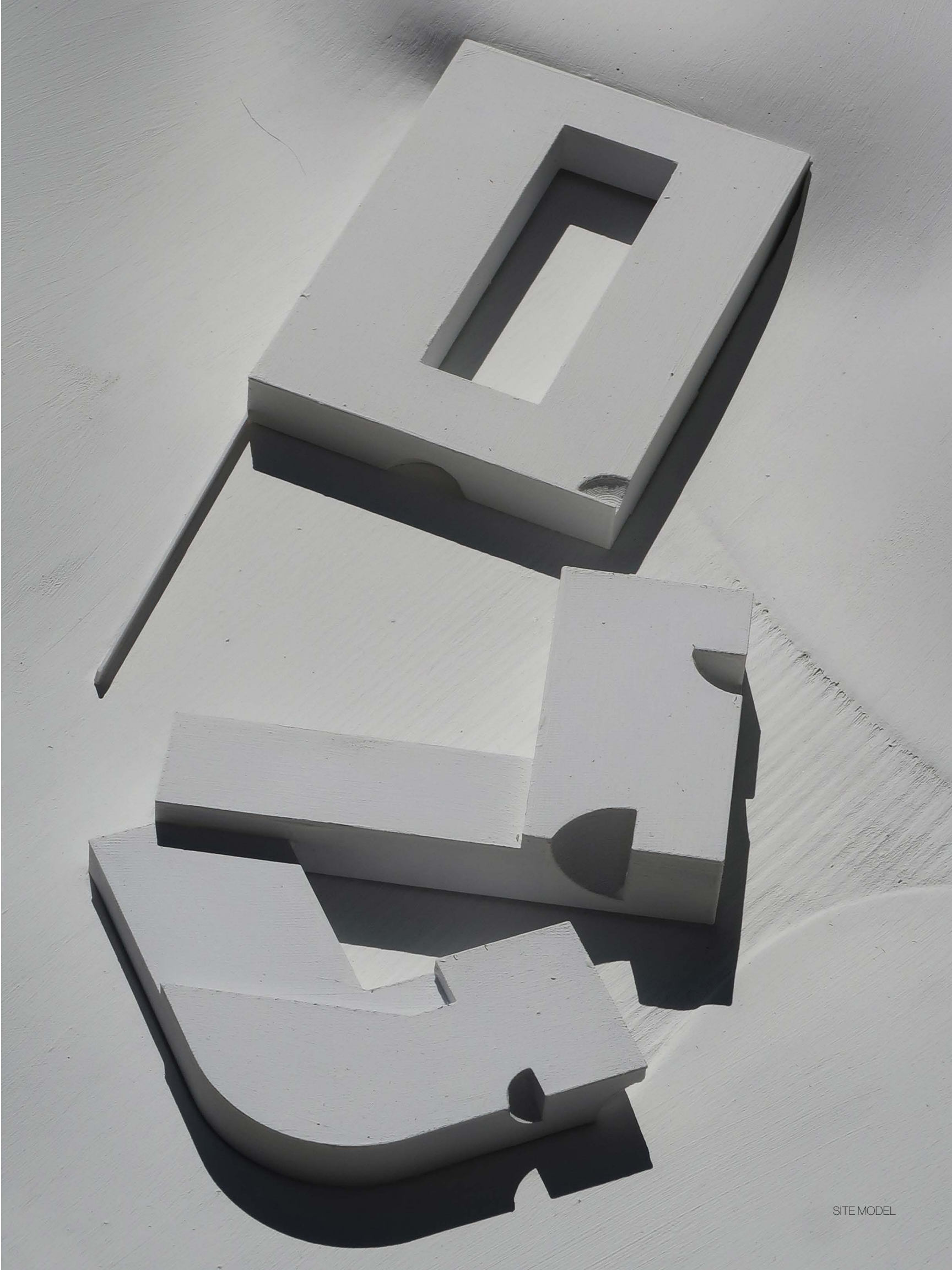
Project : Mixed Used Building; Public Exhibition + Office + Library + Seat Auditorium + Artist Residences + Work spaces | Team Project
Course: Advanced Studio VI
Faculty: Steven Holl + Garrick M. Ambrose
Site: 5720 NY-9G, Hudson, NY 12534
Role: Concept Development, Design Diagram, Architecture Mass and Plan Design & Development, 3D Modeling and Rendering and Physical model
Period: 2026_Spring

Located two hours from New York City, the Berggruen Institute Hudson Valley is conceived as an architectural retreat where art, research, and nature converge. As a new branch of the global think tank, it supports residencies, workspaces, exhibitions, events, and performances for artists, writers, musicians, scientists, and technologists. The project carves the entire architectural form and its surrounding site as one continuous landscape operation. Spherical carves shape light, circulation, façades, ground, and three courtyards, creating contemplative spaces where interdisciplinary dialogue and new cultural ideas can emerge carefully within its natural context.

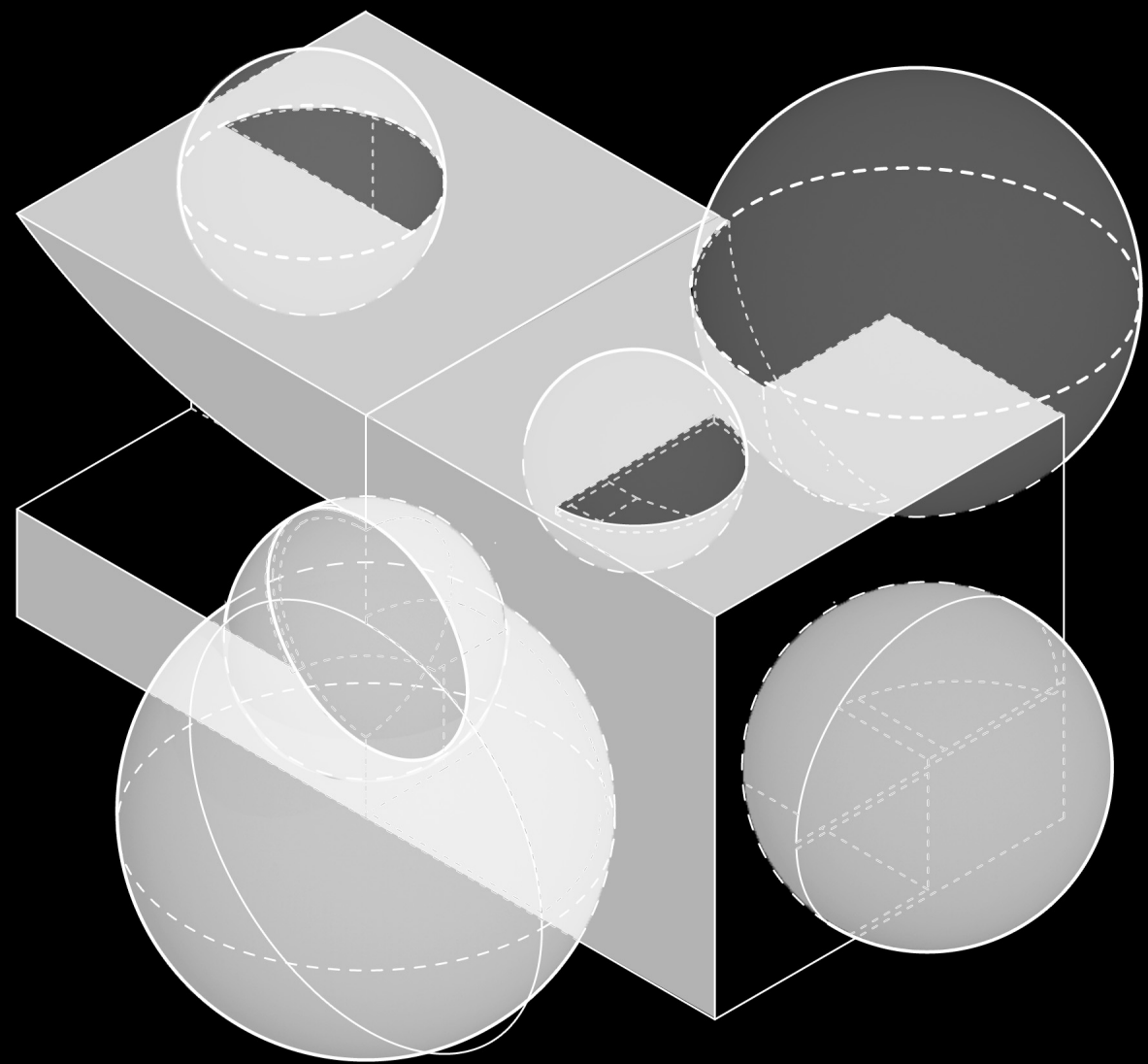


Courtyards Between Building and Landscape

Set into the site, three courtyards mediate between architecture and landscape. One is an empty gravel void, another is planted with Hudson Valley apple trees, and the third remains a private courtyard for internal users. They anchor the building to the site while shaping relationships between exterior, interior, and nature.



SITE MODEL



CONCEPT DIAGRAM



ARCHITECTURE STUDY MODEL, FRONT FACADE



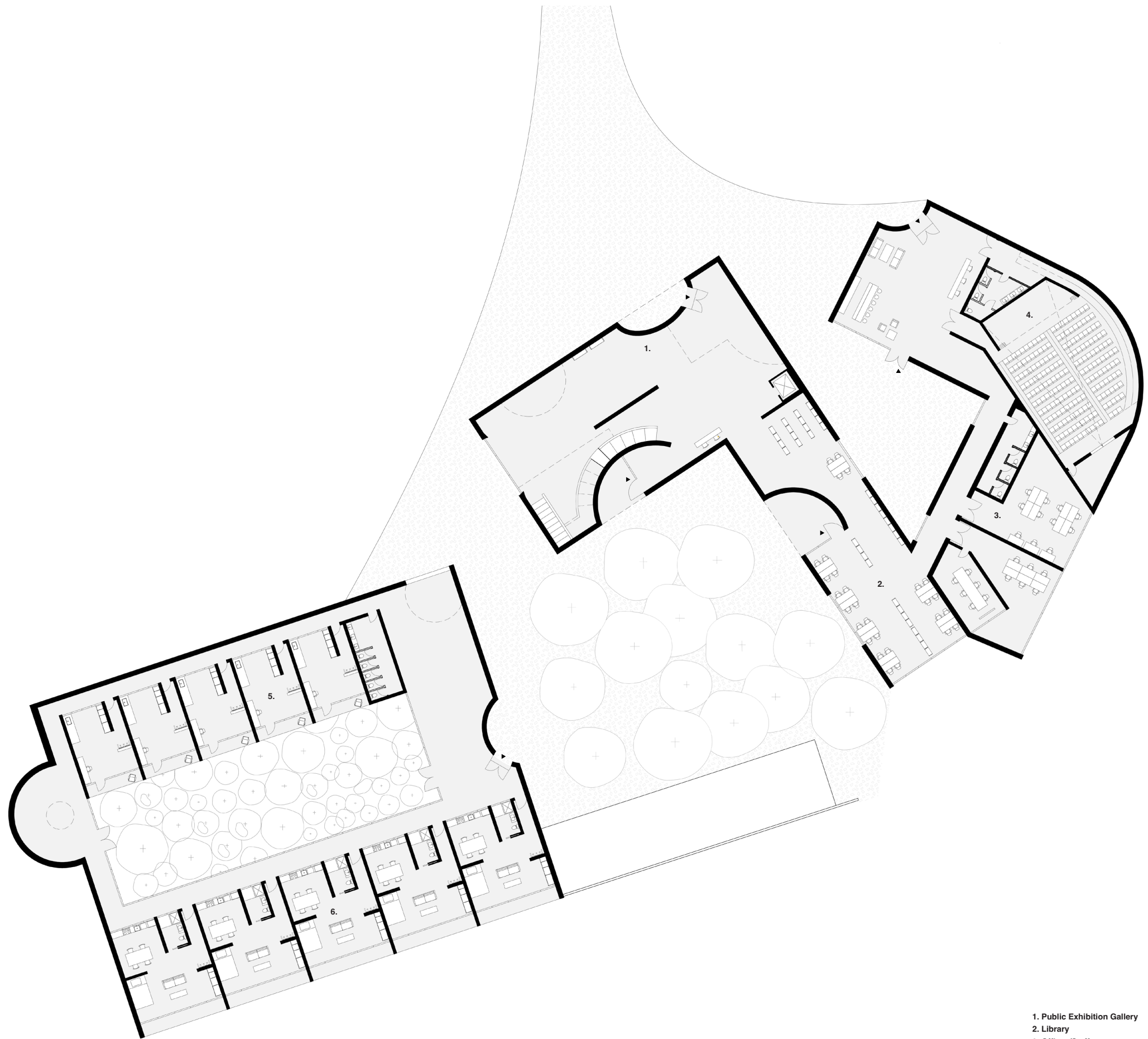
ARCHITECTURE STUDY MODEL, REAR FACADE



MAIN ENTRANCE VIEW

Sphere-Carved Spatial Relationships

Through sphere-carving studies, the project examines how the building's exterior and interior are cut, shaped, and organized. These carved voids bring natural light into the space, clarify circulation, and connect people to three courtyards. The study transforms simple geometry into practical spatial relationships between form, movement, light, site, and experience.



- 1. Public Exhibition Gallery
- 2. Library
- 3. Offices/Staff
- 4. Auditorium
- 5. Studio Work Spaces
- 6. Artist Residences



SCALE: 1/16" = 1' - 0" (IN FEET)

0 8' 16' 32'

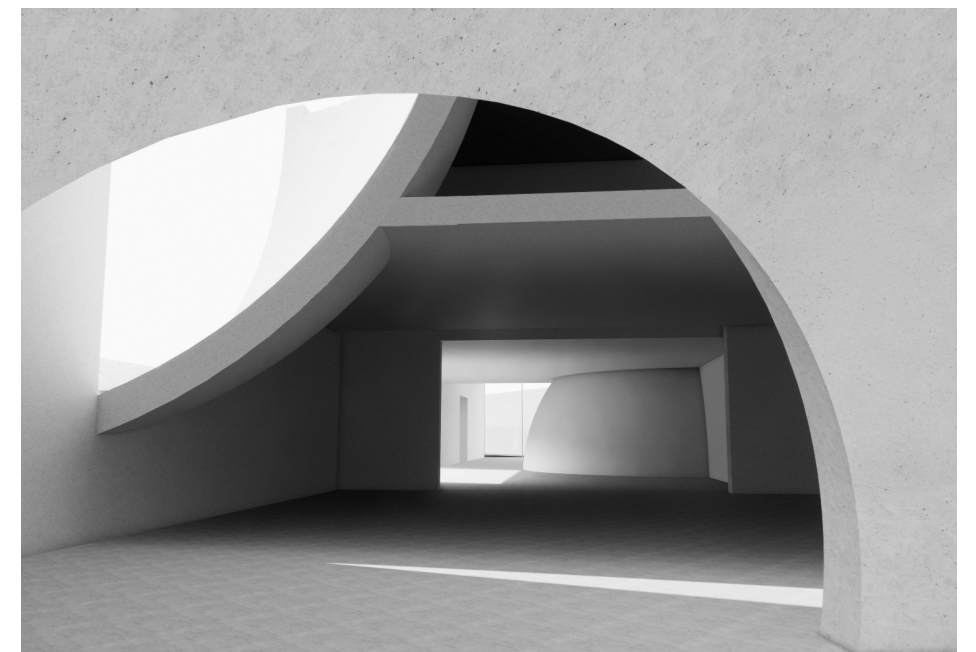
Ground Floor Plan



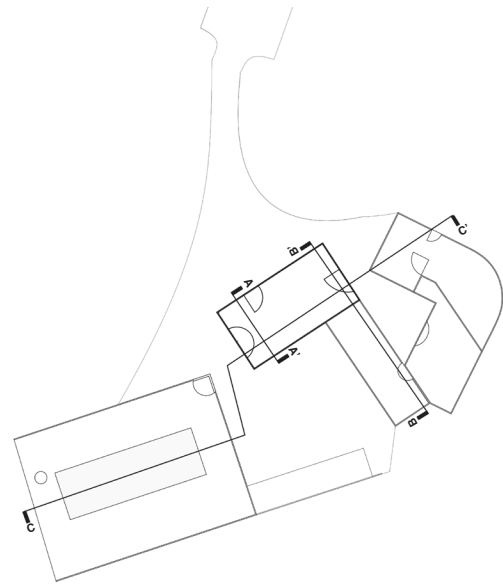
MAIN CENTER COURTYARD



PRIVATE COURTYARD



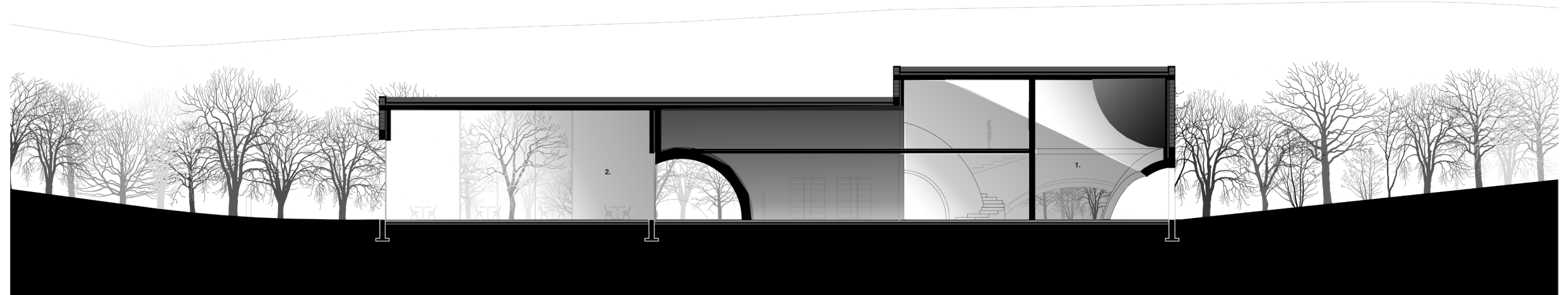
PUBLIC EXHIBITION MAIN ENTRANCE



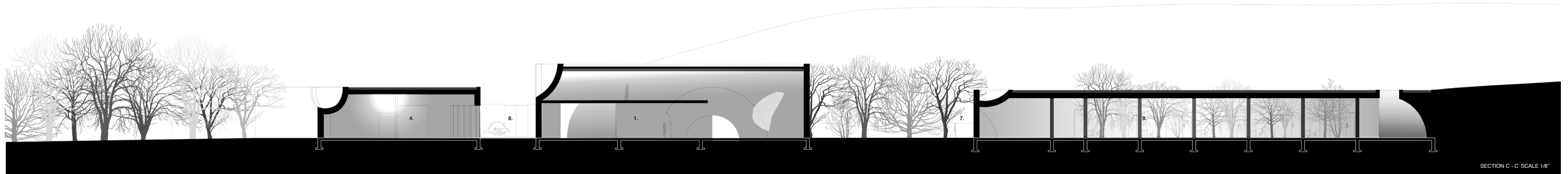
- 1. Public Exhibition Gallery
- 2. Library
- 3. Offices/Staff
- 4. Auditorium
- 5. Studio Work Spaces
- 6. Artist Residences
- 7. Public Courtyard
- 8. Semi-Public Courtyard
- 9. Private Courtyard



SECTION A - A' SCALE 1/8"



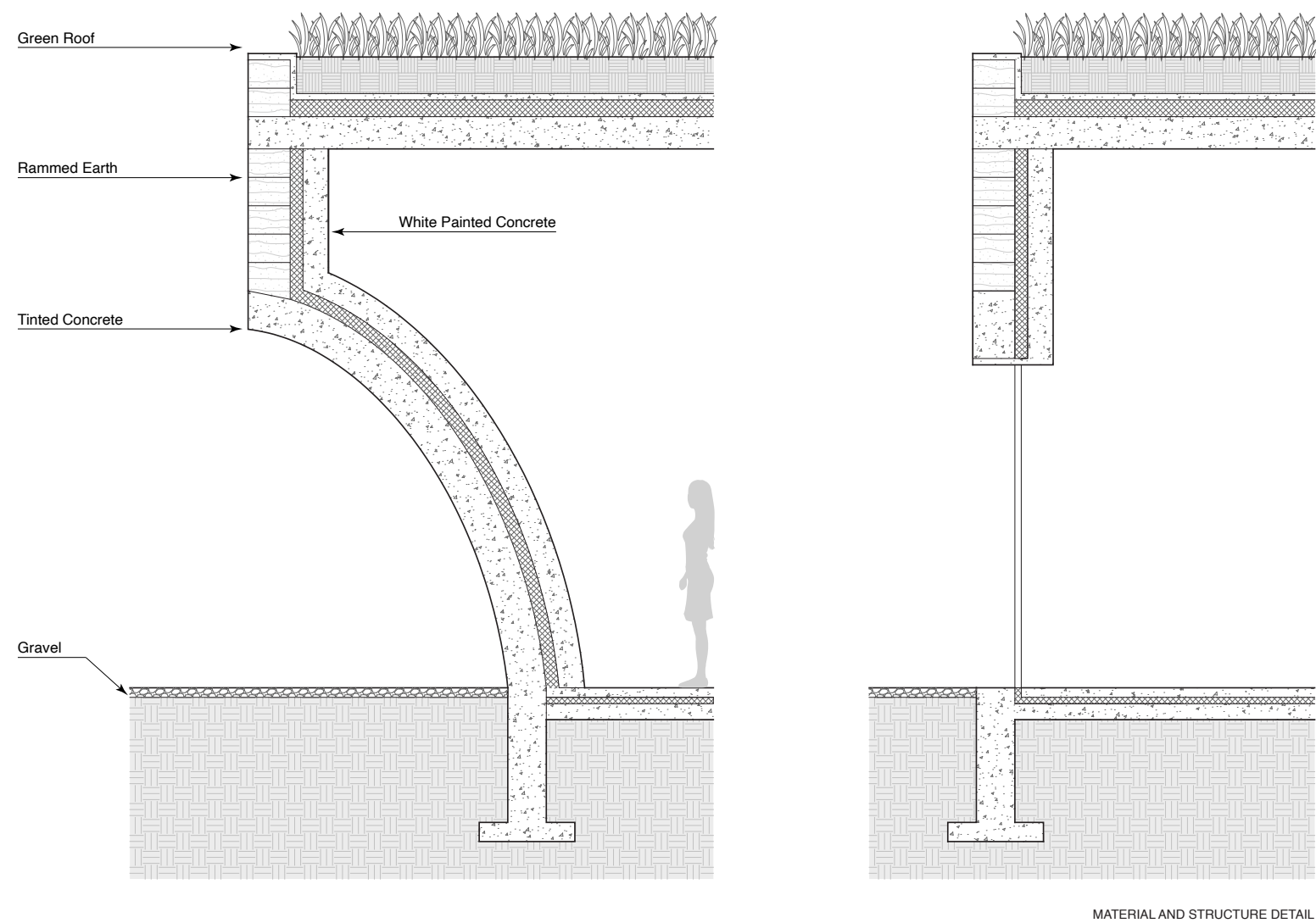
SECTION B - B' SCALE 1/8"



SECTION C - C' SCALE 1/8"

Carved Spaces, Connected Courtyards

Spaces formed through carving become more than voids; they operate as structural elements, light wells, and spatial connectors. These carved spaces bring natural light deep into the building while organizing movement across the project. Together, they complete a continuous circulation system that links the three courtyards, programs, and site.



Sustainable Material, Structural Form

The project uses rammed earth as a sustainable material to define walls, texture, and spatial atmosphere. While the spherical forms are constructed with concrete to reinforce structural clarity and stability, rammed earth organizes the surrounding spaces, creating a grounded material language that connects architecture, sustainability, and the site more directly.



SWEAT TRANSITION

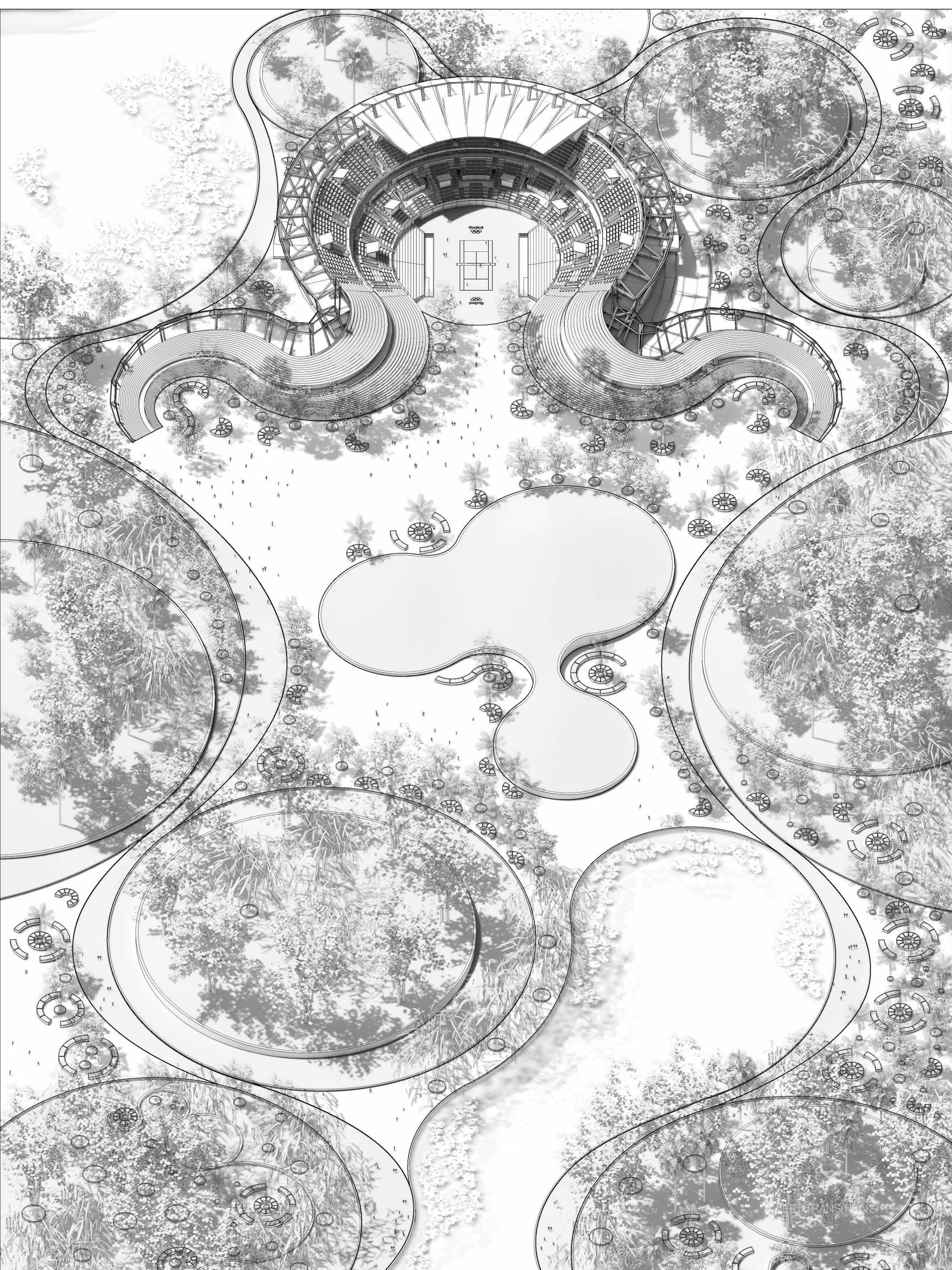
Project : Landscape Design + Retrofitting Sport Complex + Eco-bricks | Team Project
Course: Advanced Studio V
Faculty: David Benjamin
Site: Rio de Janeiro, Brazil
Role: Concept Development, System Design Diagram, Material Research, Plan and Design & Development.
Period: 2025_Fall

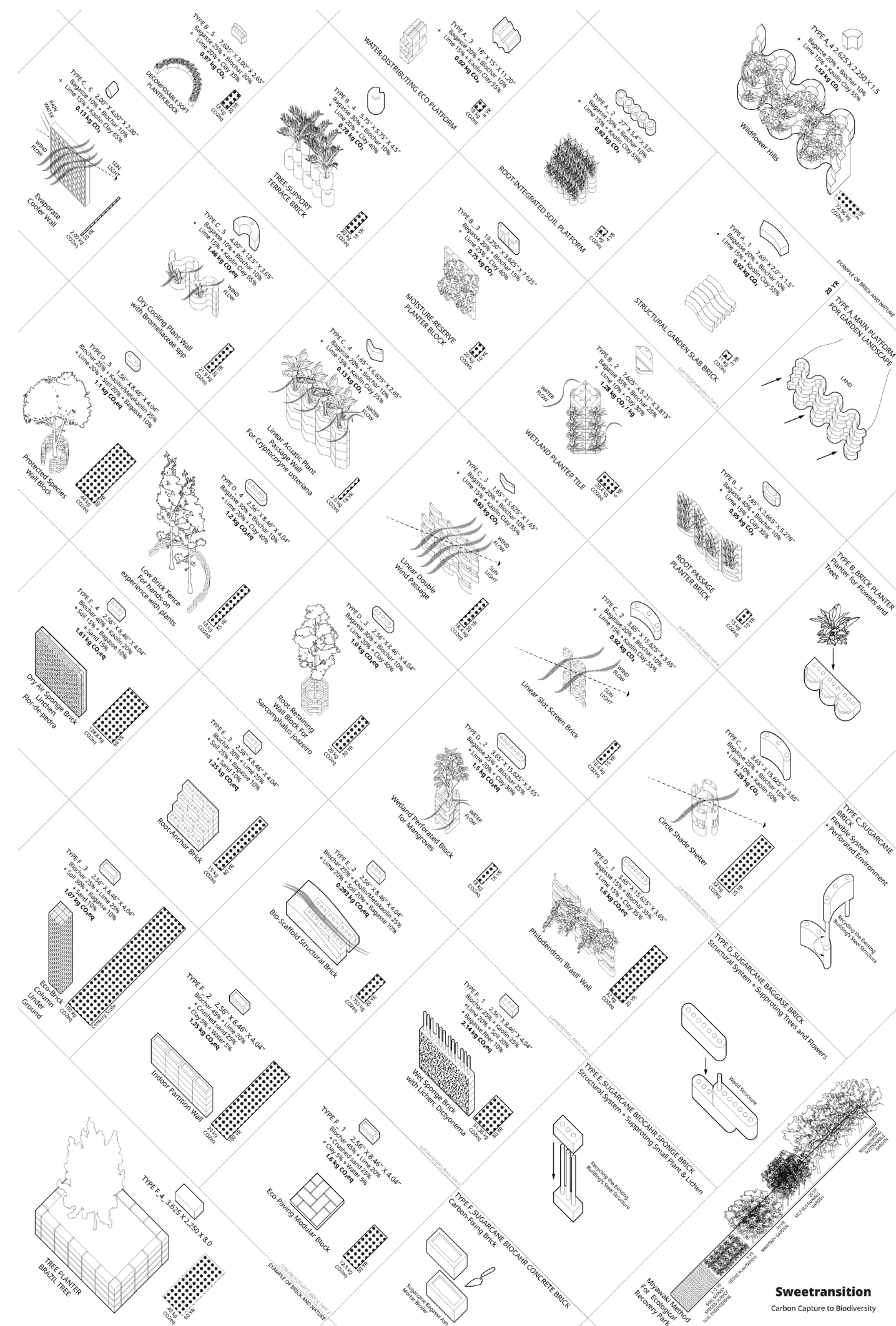
To address Rio de Janeiro's climate crisis, this project repurposes Brazil's abundant sugarcane bagasse as a sustainable building resource. Using its carbon-sequestration potential, bagasse is transformed into eco-bricks for architecture, infrastructure, and landscape systems. At Barra Olympic Park, an underused tennis stadium is retrofitted into a production hub, connecting material innovation with urban regeneration. The eco-bricks form a dynamic edge that organizes new programs, supports biodiversity, and restores ecological habitats. Through phased implementation, the project balances human activity with natural systems, transforming the park into a productive carbon sink and strengthening Rio's long-term climate resilience.



From Bagasse To Ecological Bricks

This project proposes the possibility of transforming Brazil's sugarcane bagasse into bricks that can reshape the park as a new ecological landscape. By producing physical brick prototypes, the research tests whether these materials can support living organisms, plant growth, and habitat formation, connecting material innovation with environmental regeneration.





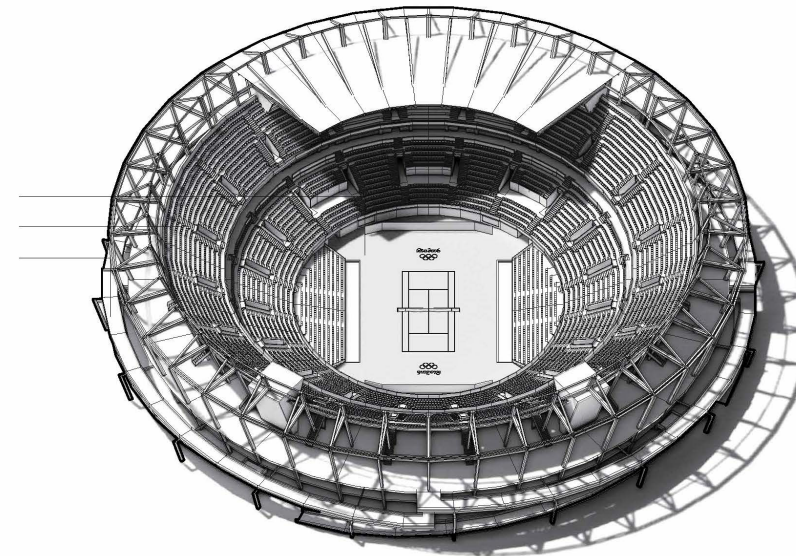
Brazil's sugarcane system transforms agricultural waste into architectural material. Sugarcane bagasse is collected, processed, and compressed into bricks that can be used for walls, landscape edges, and ecological infrastructure. Over time, these bricks support natural growth and gradually return to the environment, creating a circular material life cycle.



Sugarcane Bagasse Brick Prototype

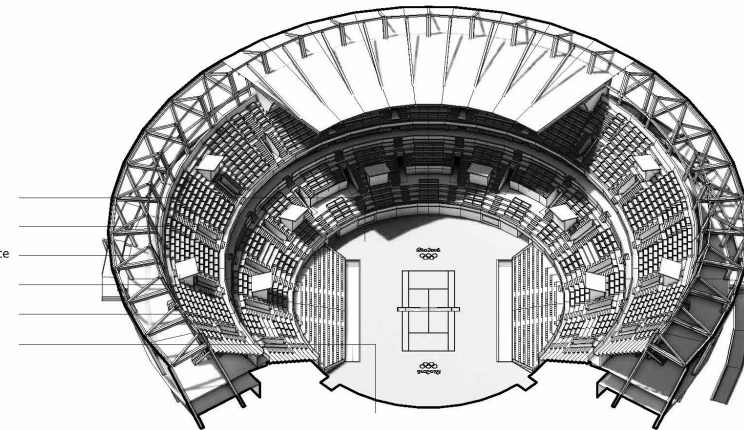
2016 Olympic Stadium

- A. Tennis Court
- B. Seating Area
- C. Circulation Ramp



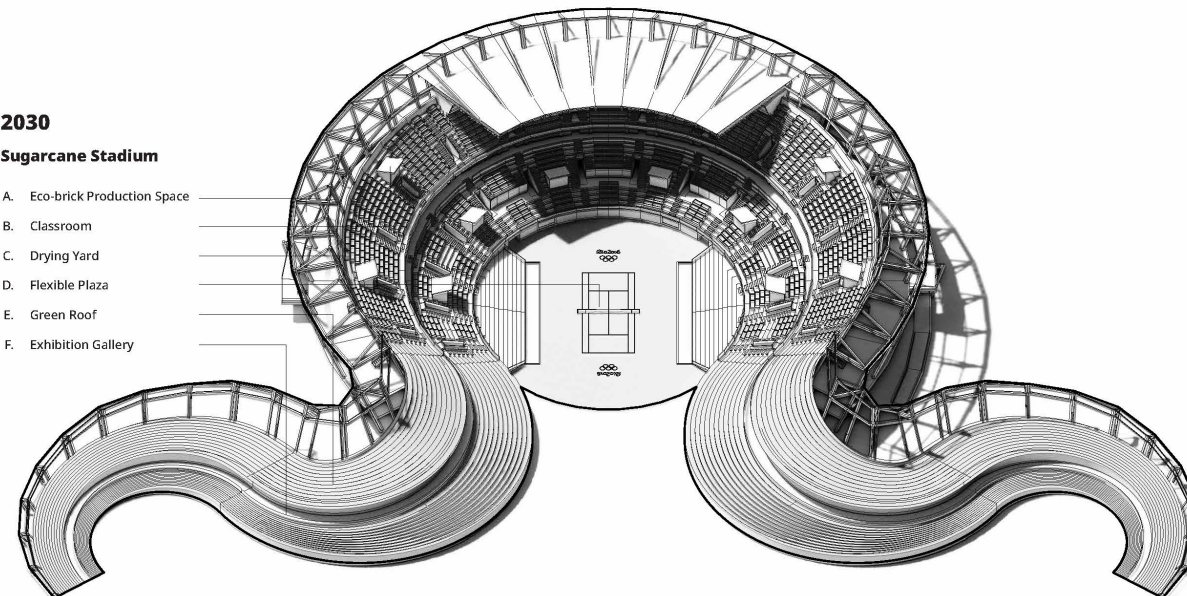
2025 Transition Stadium

- A. Tennis Court
- B. Seating Area
- C. Eco-brick Production Space
- D. Classroom
- E. Drying Yard
- F. Flexible Plaza



2030 Sugarcane Stadium

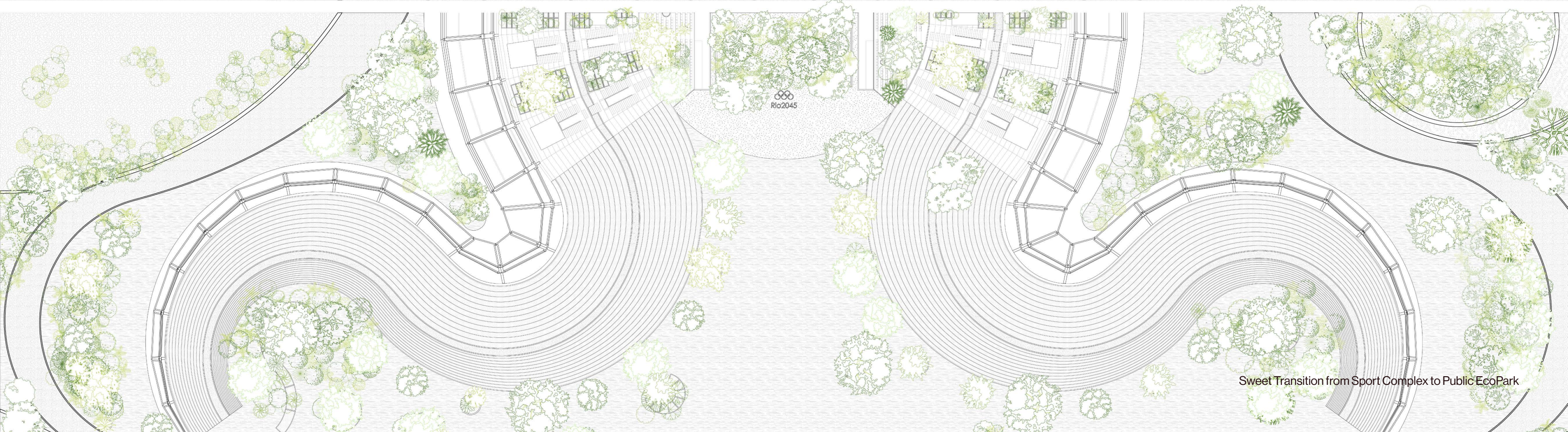
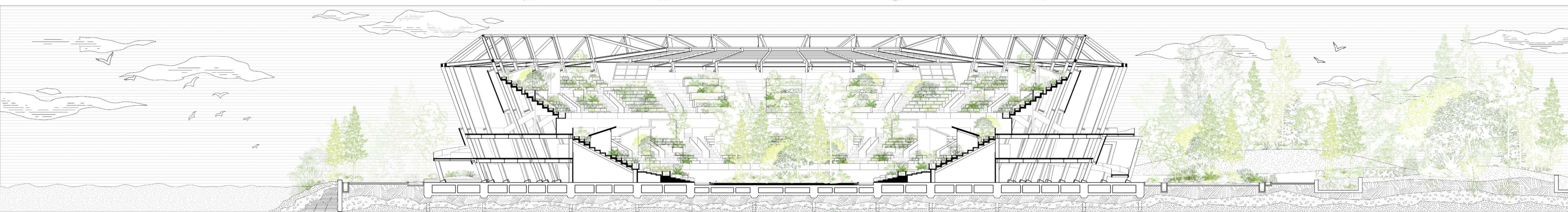
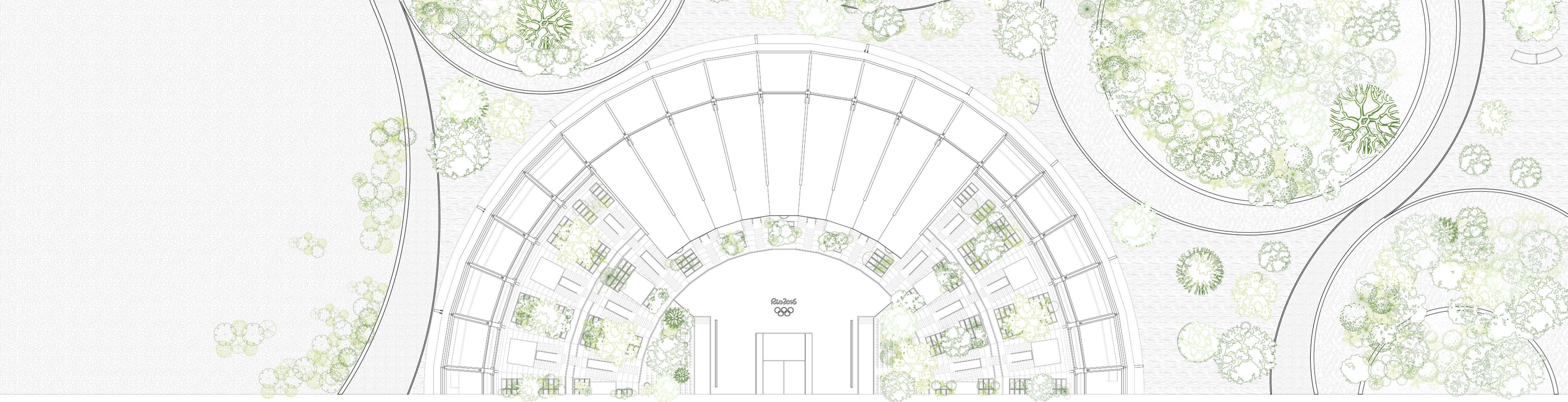
- A. Eco-brick Production Space
- B. Classroom
- C. Drying Yard
- D. Flexible Plaza
- E. Green Roof
- F. Exhibition Gallery



Sweet Transition for Stadium

Sugarcane Bricks for Stadium Regeneration

Using diverse sugarcane bagasse bricks, the project transforms a problematic, underused stadium into a new public park. Applied to existing sports infrastructure, the bricks redefine walls, edges, seating, and landscape systems, gradually shifting the site from a closed athletic venue into an open ecological and civic space for public life.



Architecture as object Architecture for objects

Project : Collective Housing | Team Project
Course: Summer Design Studio
Faculty: Neeraj Bhatia
Site: New York
Role: Concept Development, System Design Diagram, Material Research, Plan and Design & Development.
Period: 2025_Fall

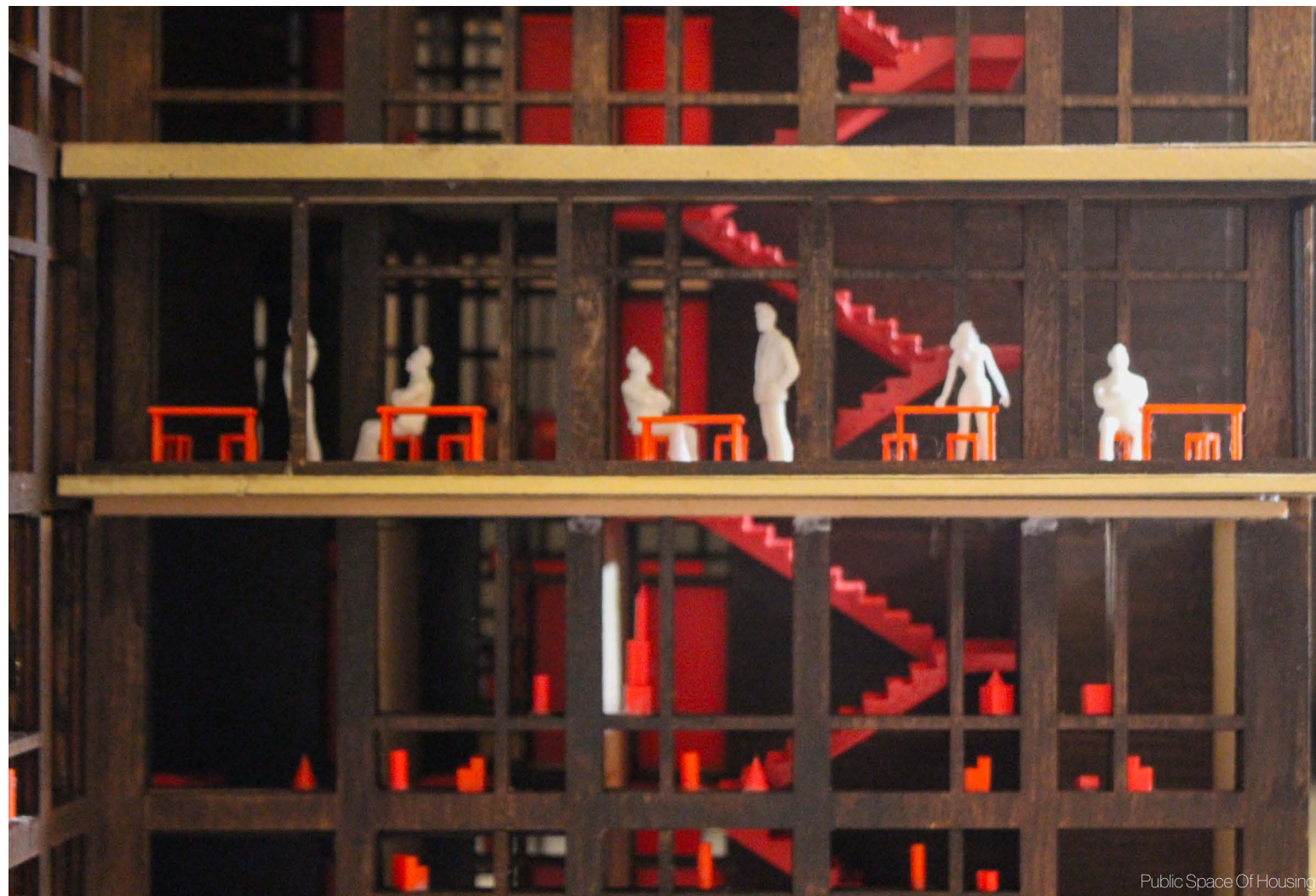
This project rethinks housing not as a fixed product, but as a neutral vessel that is shaped by the lives of its residents. Rather than prescribing a specific lifestyle, the design creates a structured yet flexible framework where inhabitants can define their own ways of living. Focusing on elderly and younger immigrants, the project avoids reducing identity to a fixed architectural image. Instead, it allows personal objects, daily rituals, and individual memories to give meaning to the home. Architecture becomes a quiet support system: not an object that represents life, but a vessel that holds life as it unfolds.



One Cluster of Housing



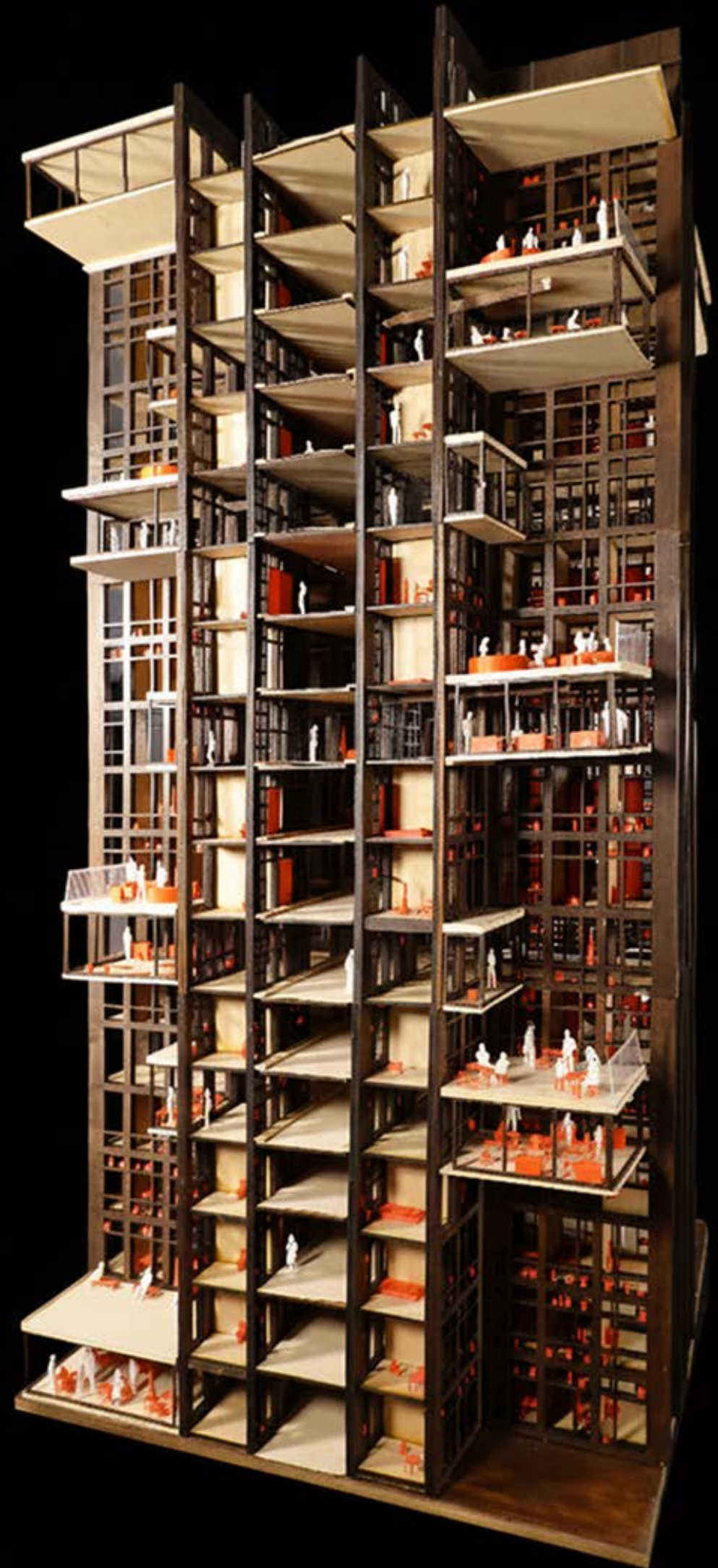
1:50 SCALE MODEL



Public Space Of Housing



1:20 Scale Model of Housing



Symphony of Fermentation

Project : Eddible Exhibition | Team Project
Role: Concept Development, Exhibition Prototype Reserach and Development
Period: 2026_Spring

During fermentation, microorganisms grow, shift in size, and form colonies, constructing hidden architectures within food. As they multiply, they generate sub-
tle vibrations and frequencies that overlap and resonate, producing a continuous field of acoustic activity. Symphony of Fermentation brings these processes
into perception. Through a series of transscalar installations, microbial activity is translated into a layered sonic environment where recorded and live inputs
intersect. Simple mechanical listening devices, inspired by automata, amplify and mediate these signals, allowing visitors to engage with biological processes
that are otherwise imperceptible.

