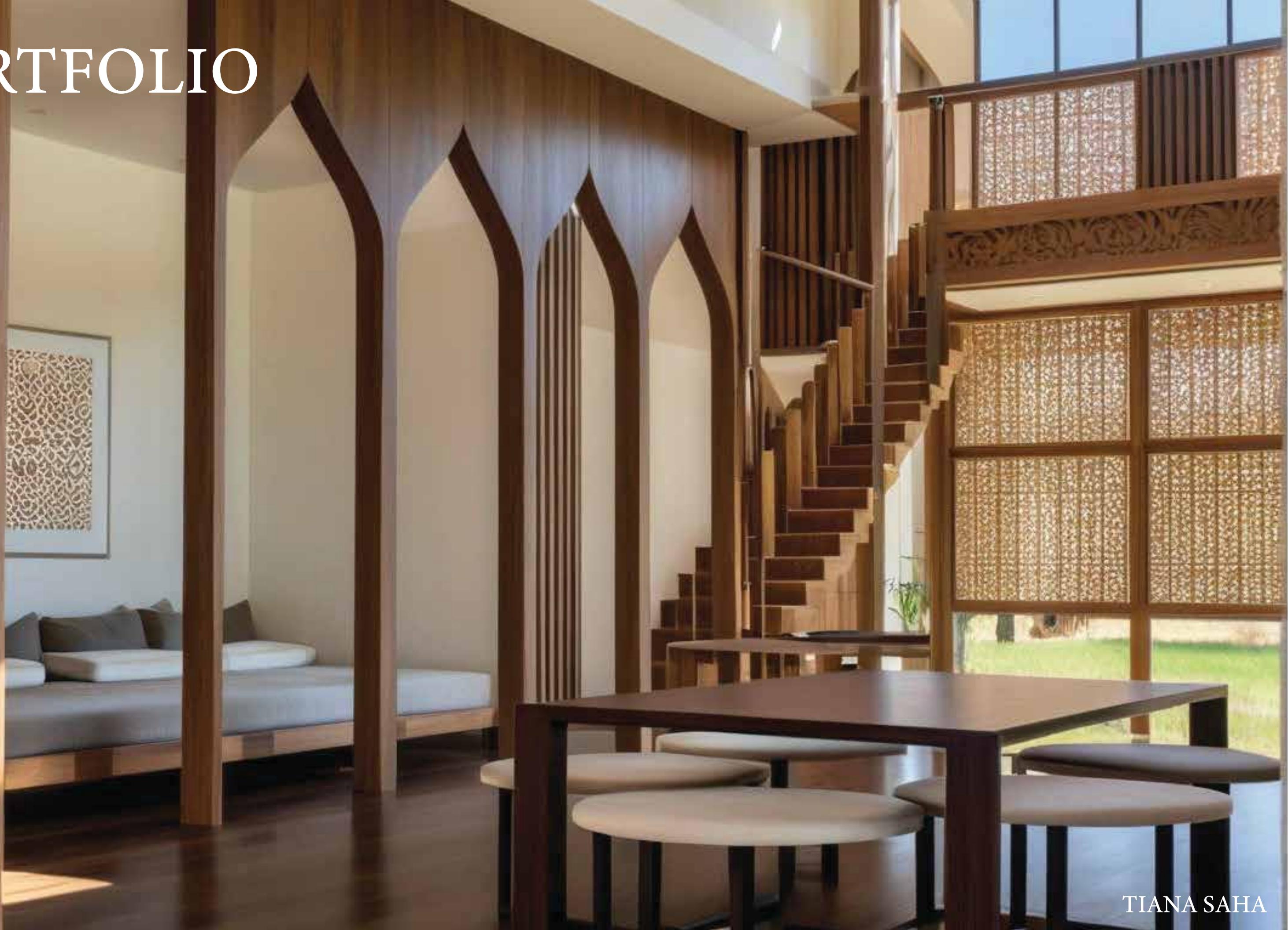


# PORTFOLIO



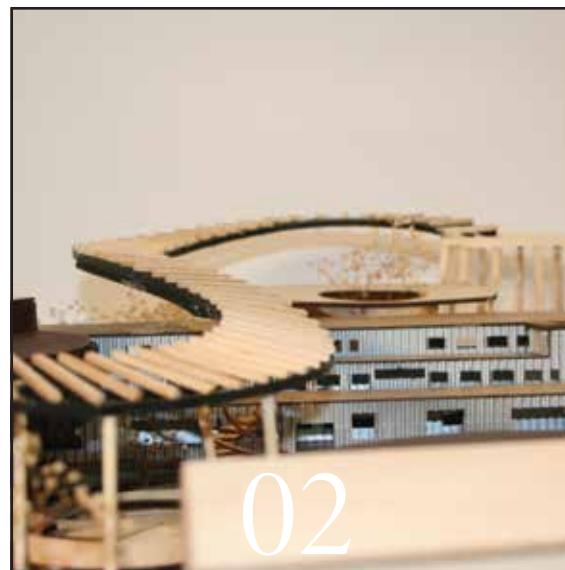
TIANA SAHA

# TABLE OF CONTENTS



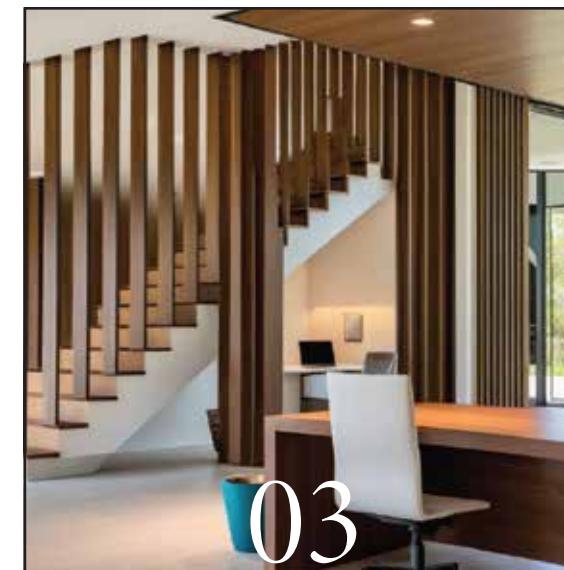
01

FIELD MAP  
ANALYSIS



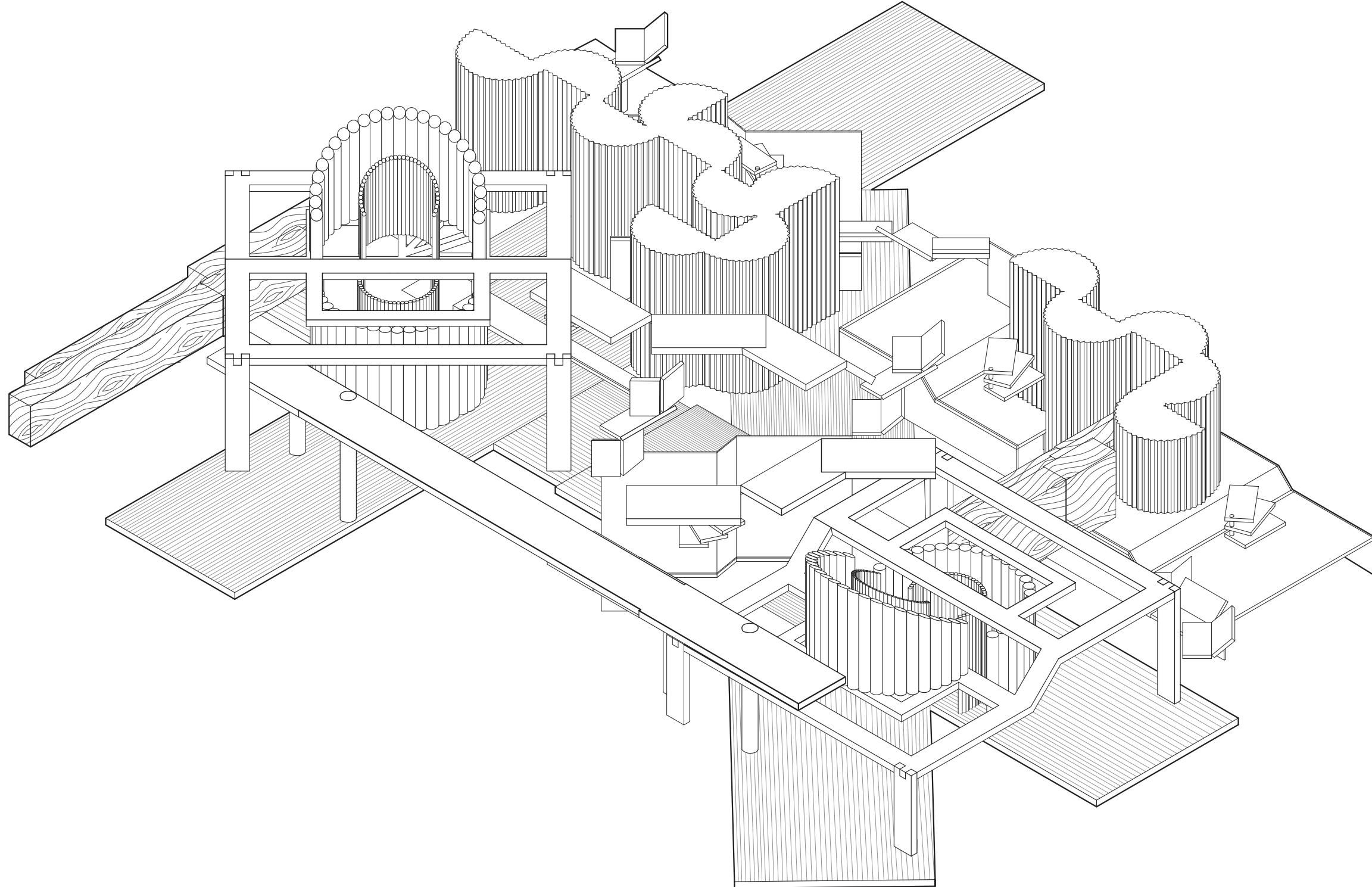
02

ENVIRONMENTAL  
MIDDLE SCHOOL



03

SUNDARA VANA



## Element Analysis | Field Map

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01



## Element Analysis | Field Map

**Semester:** 3rd

**Duration:** 3 weeks

**Type:** Academic Project

**Location:** Pittsburgh, Pennsylvania

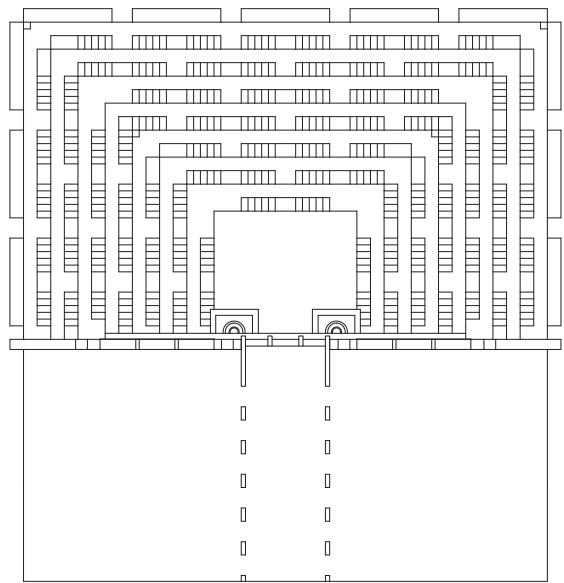
**Category:** Design Experimentation

**Collaboration with Ejoo Kang**

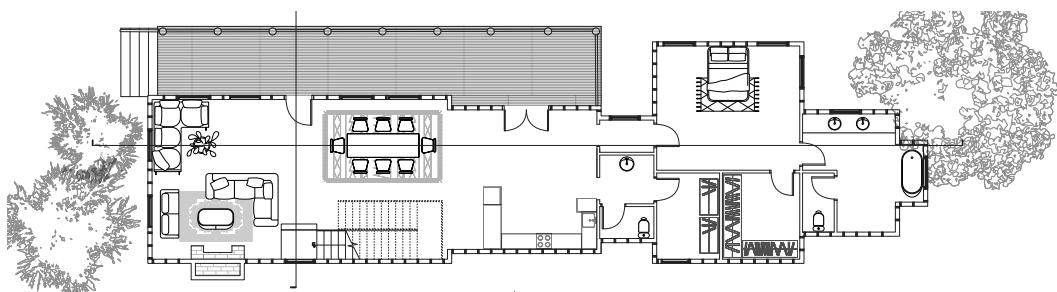
Through the transformation and analysis of spatial interactions derived from two precedent floor plans, this project investigates how elements define and reshape a field. By mapping the relationships between points, lines, and planes, the design translates two-dimensional drawings into a layered three-dimensional model. The resulting field map reveals implicit and explicit forms, exploring how figure and ground interact to produce depth, structure, and spatial rhythm. This work emphasizes the craft of reading and constructing space through abstraction and material interpretation.



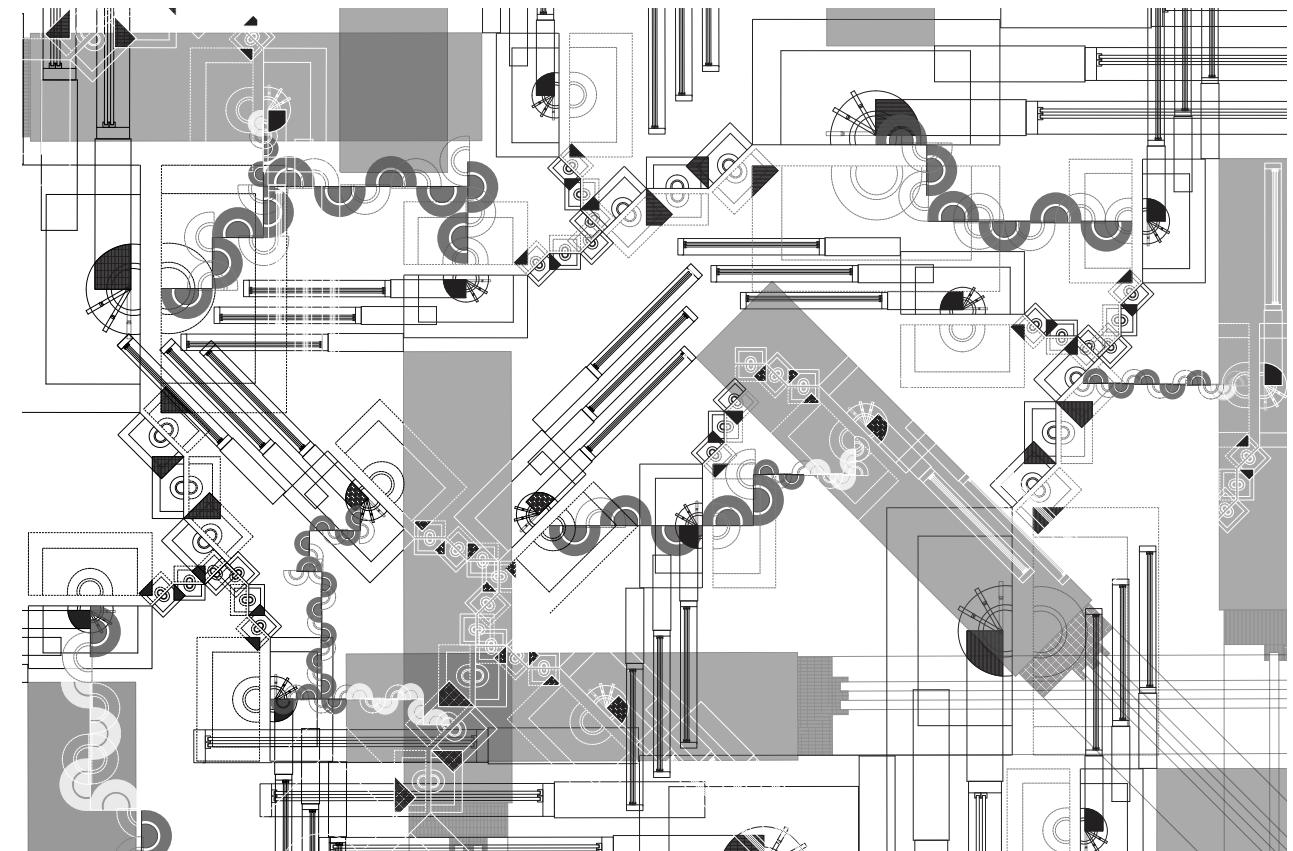
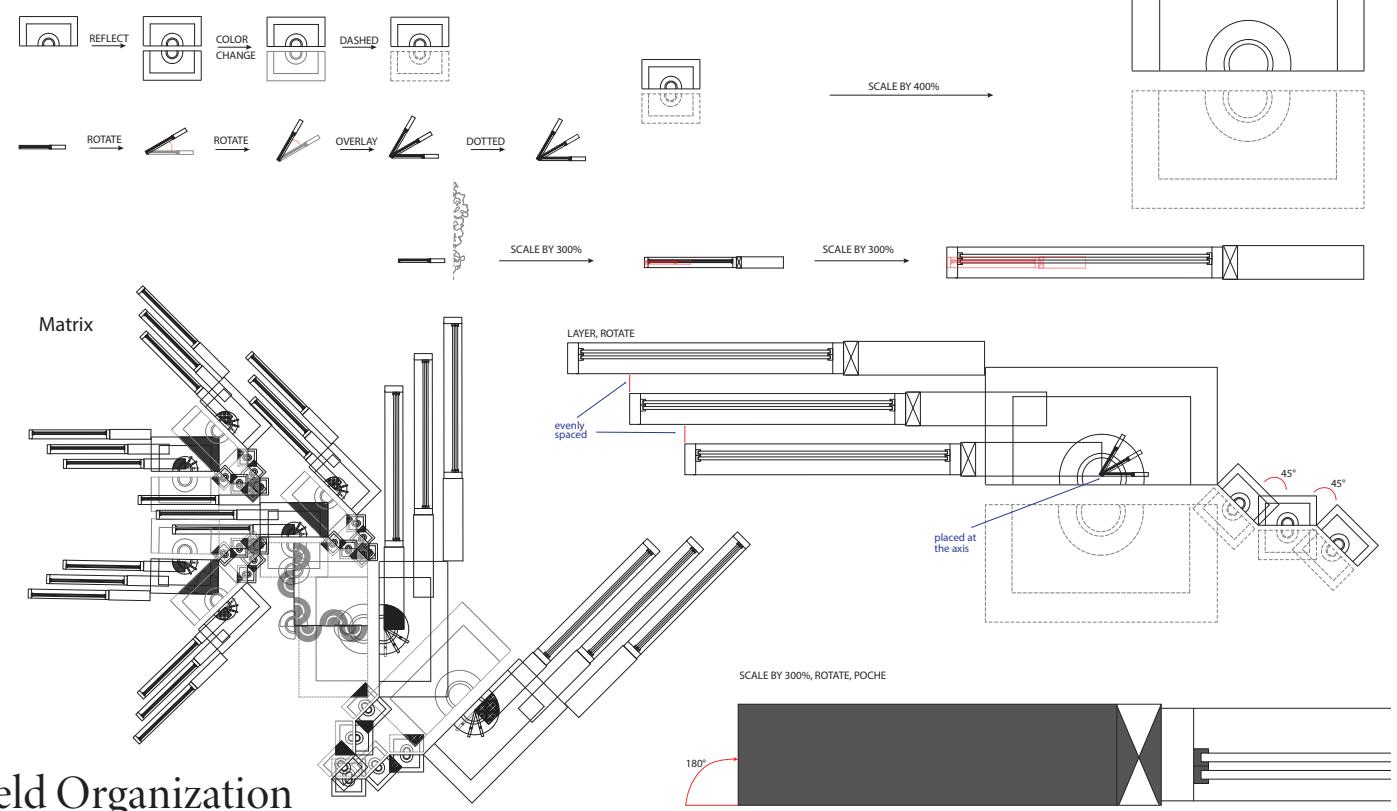
# Precedents



Chand Baori

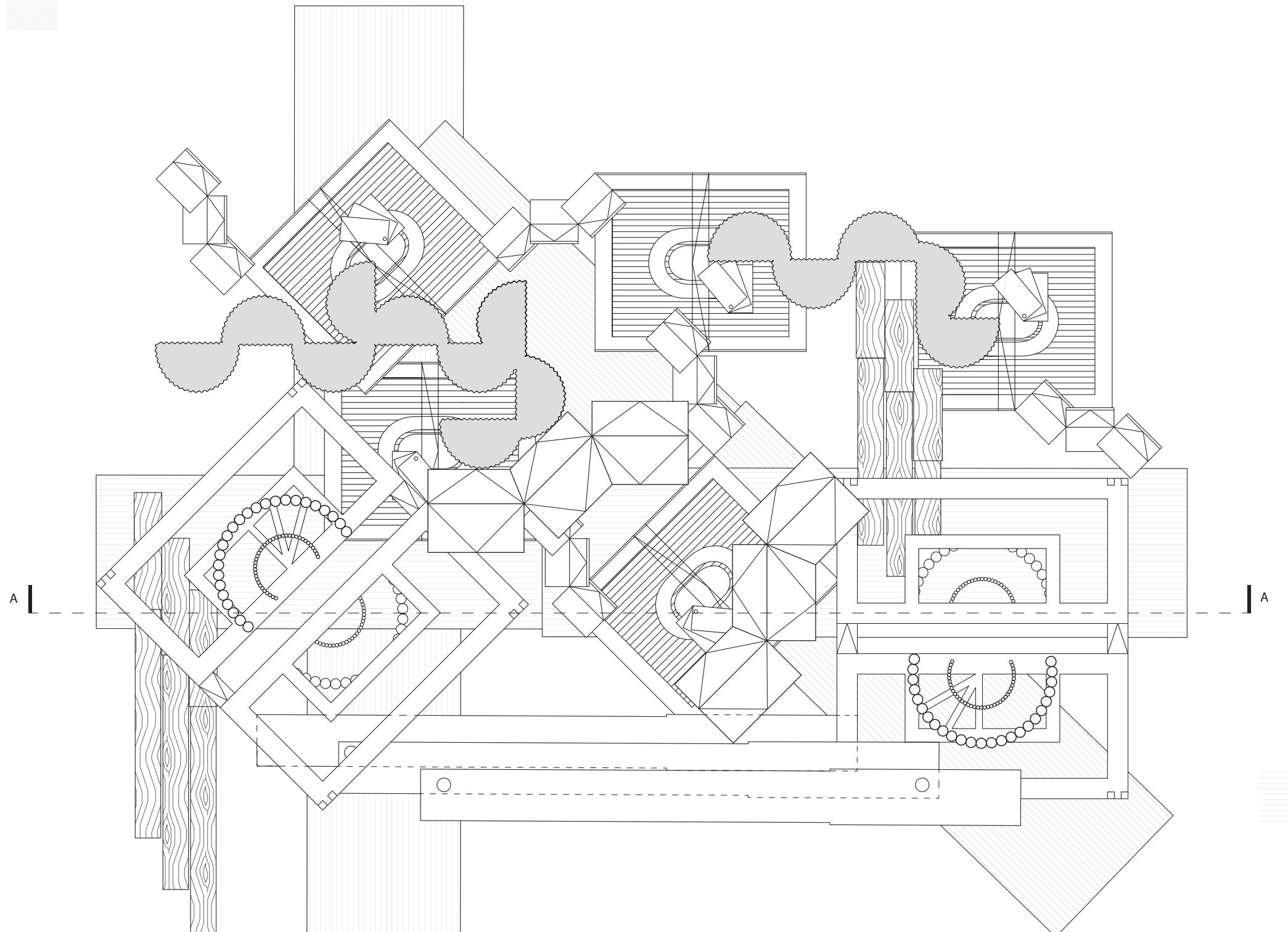


Charleston Side-Yard

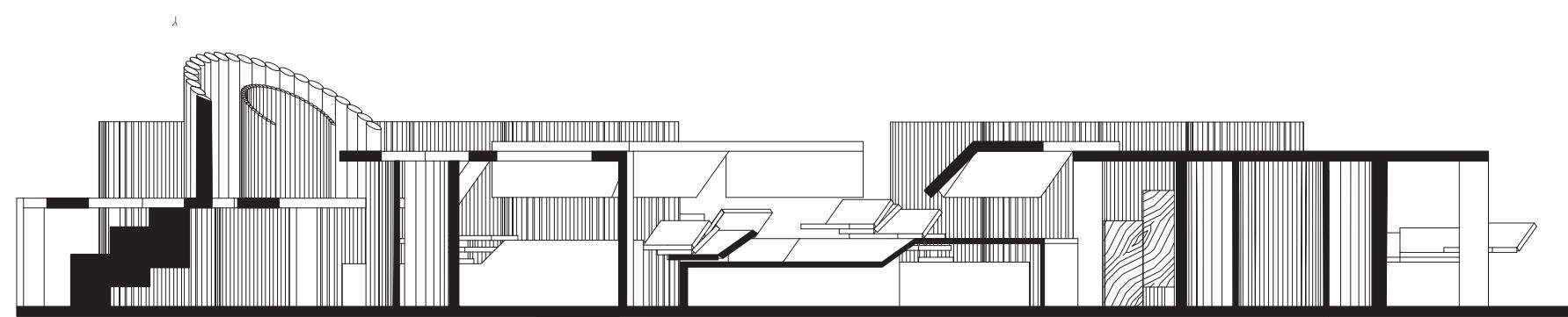


Field Map

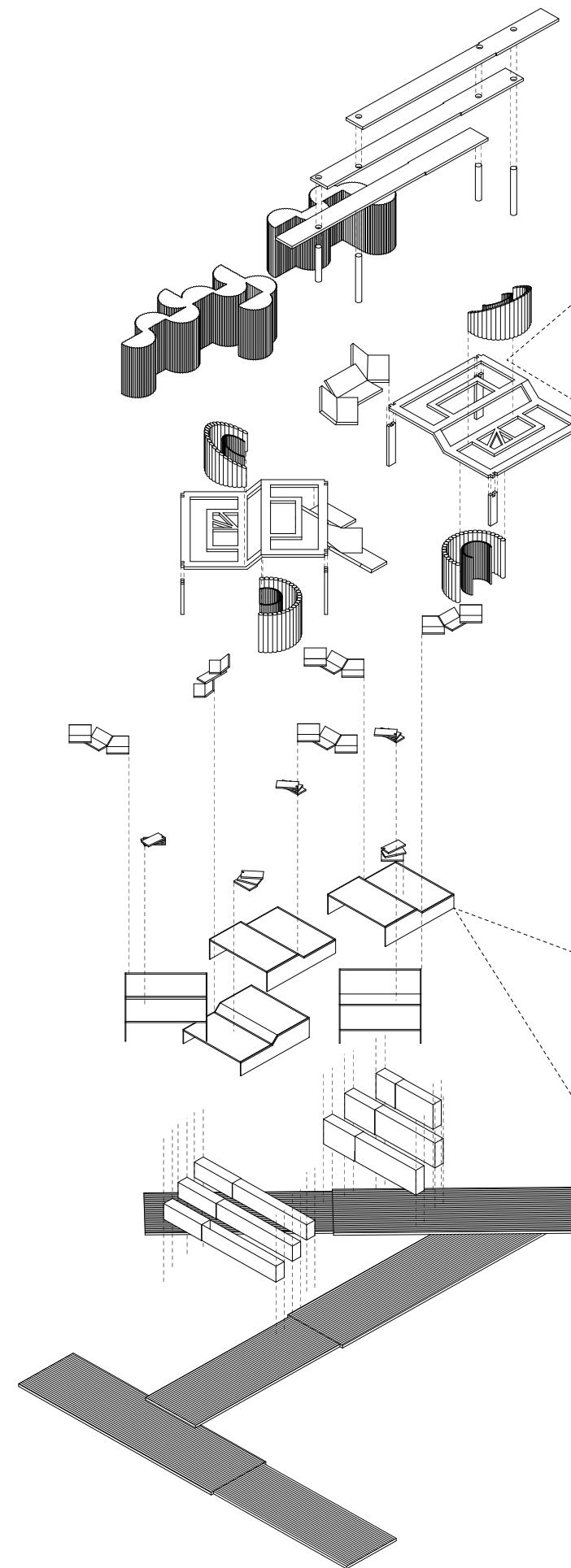
# Field Model



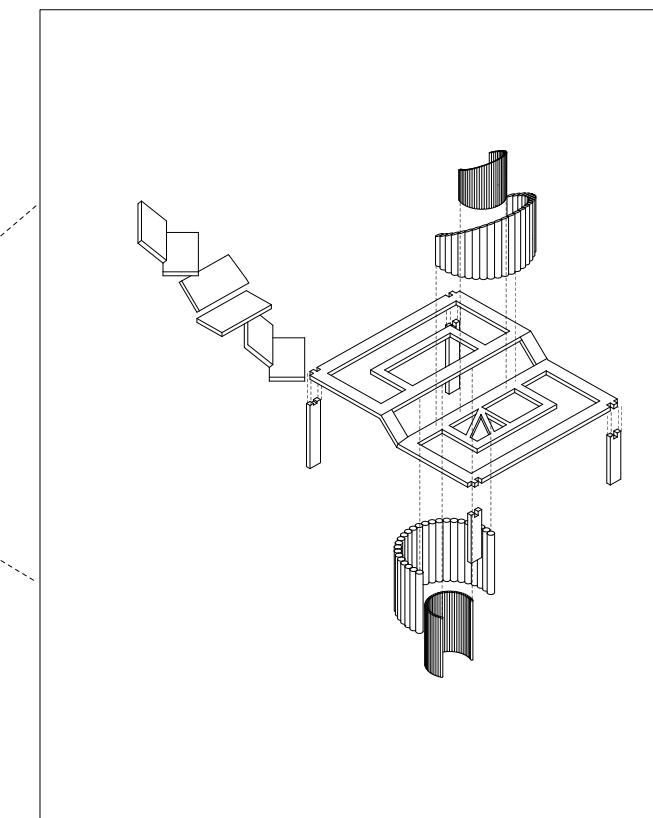
Plan



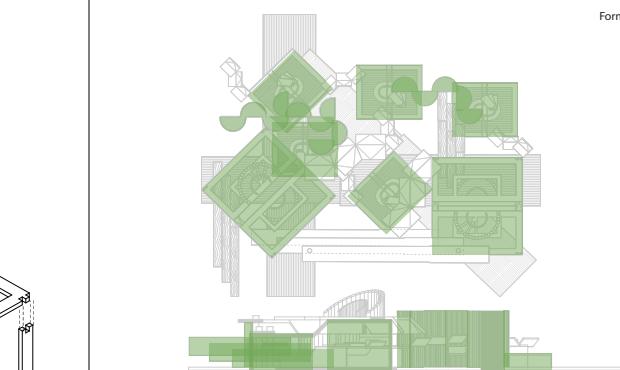
Section A



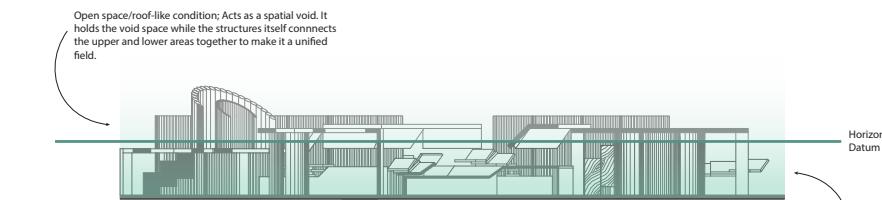
Assembly Diagram



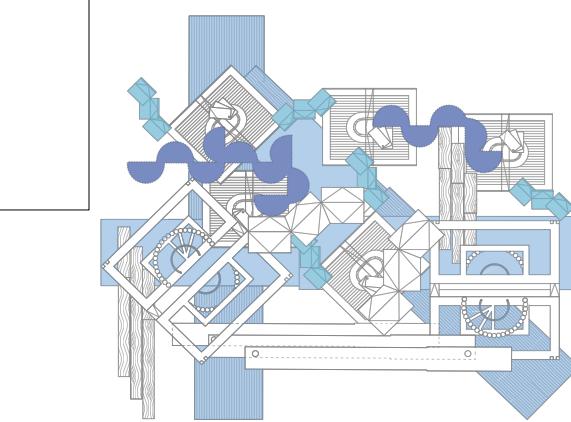
## Structure Diagrams



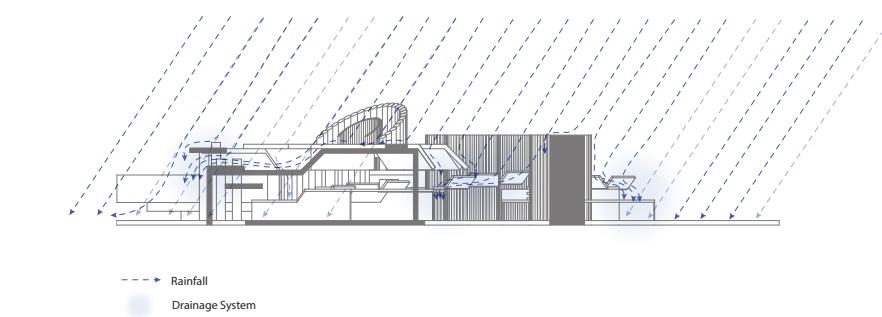
Form/Geometry



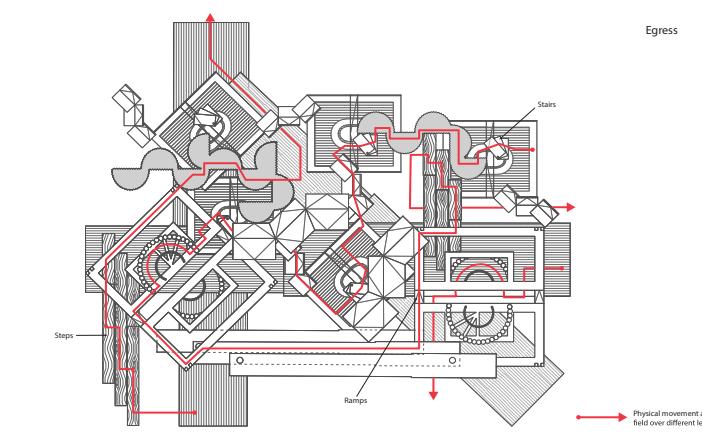
Datum



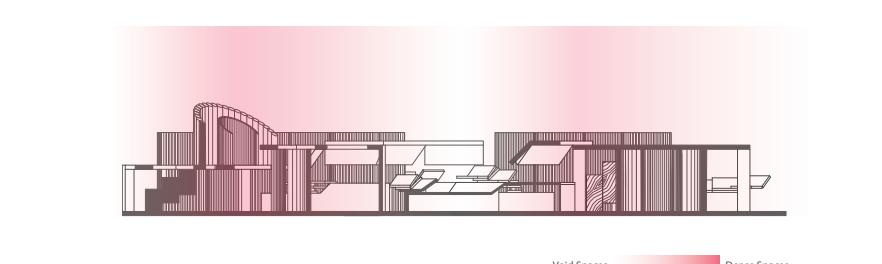
Circulation



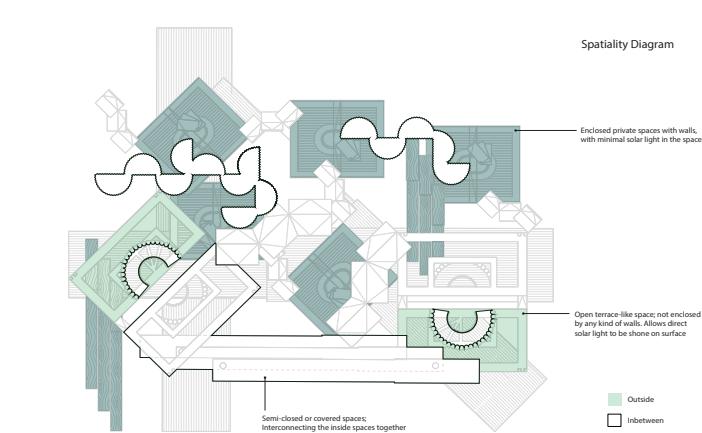
Rain/Water Drainage



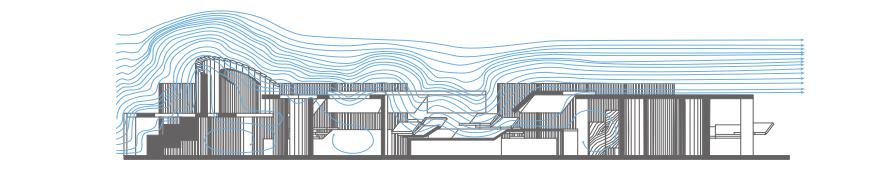
Egress



Porosity/Density Field

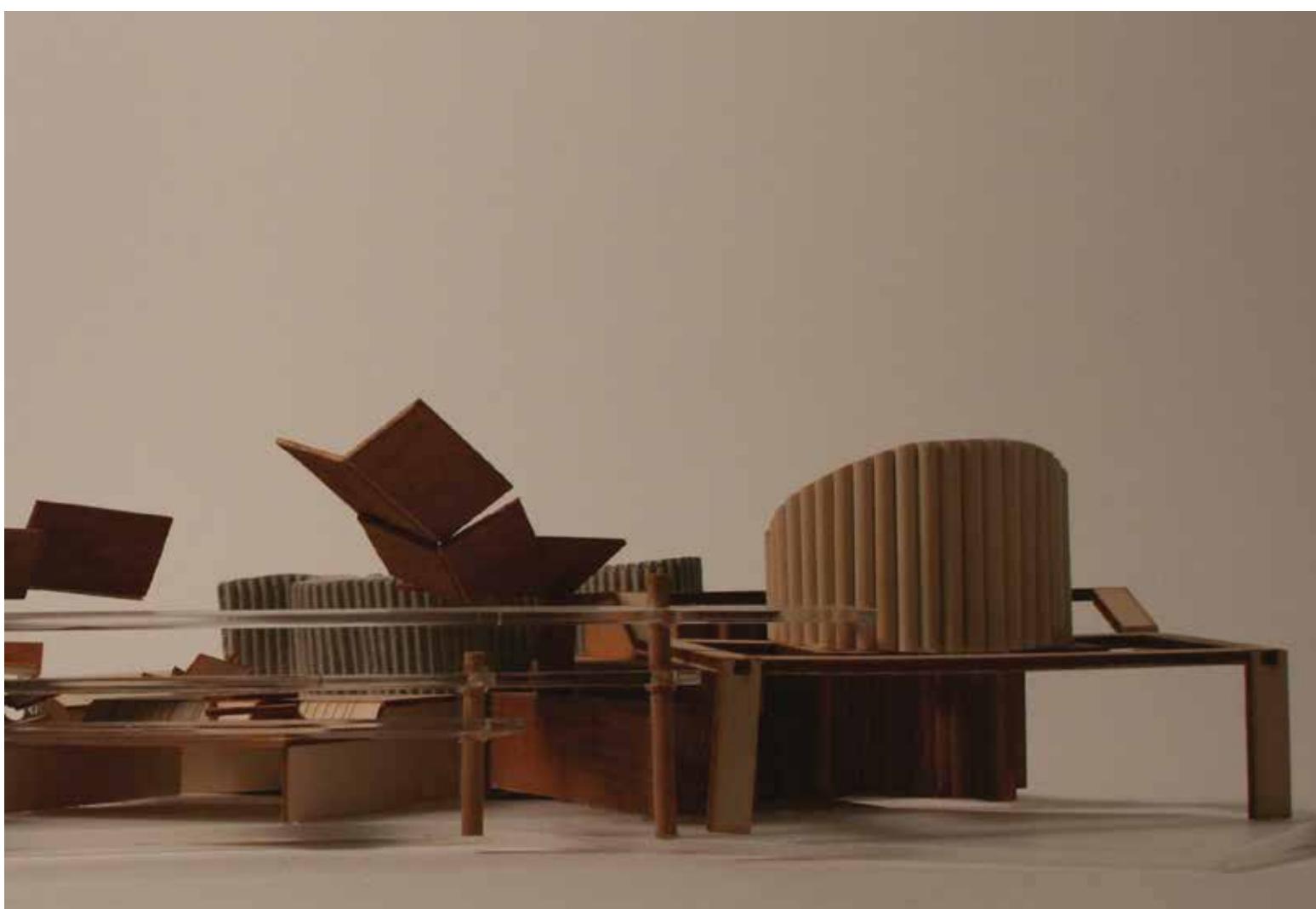


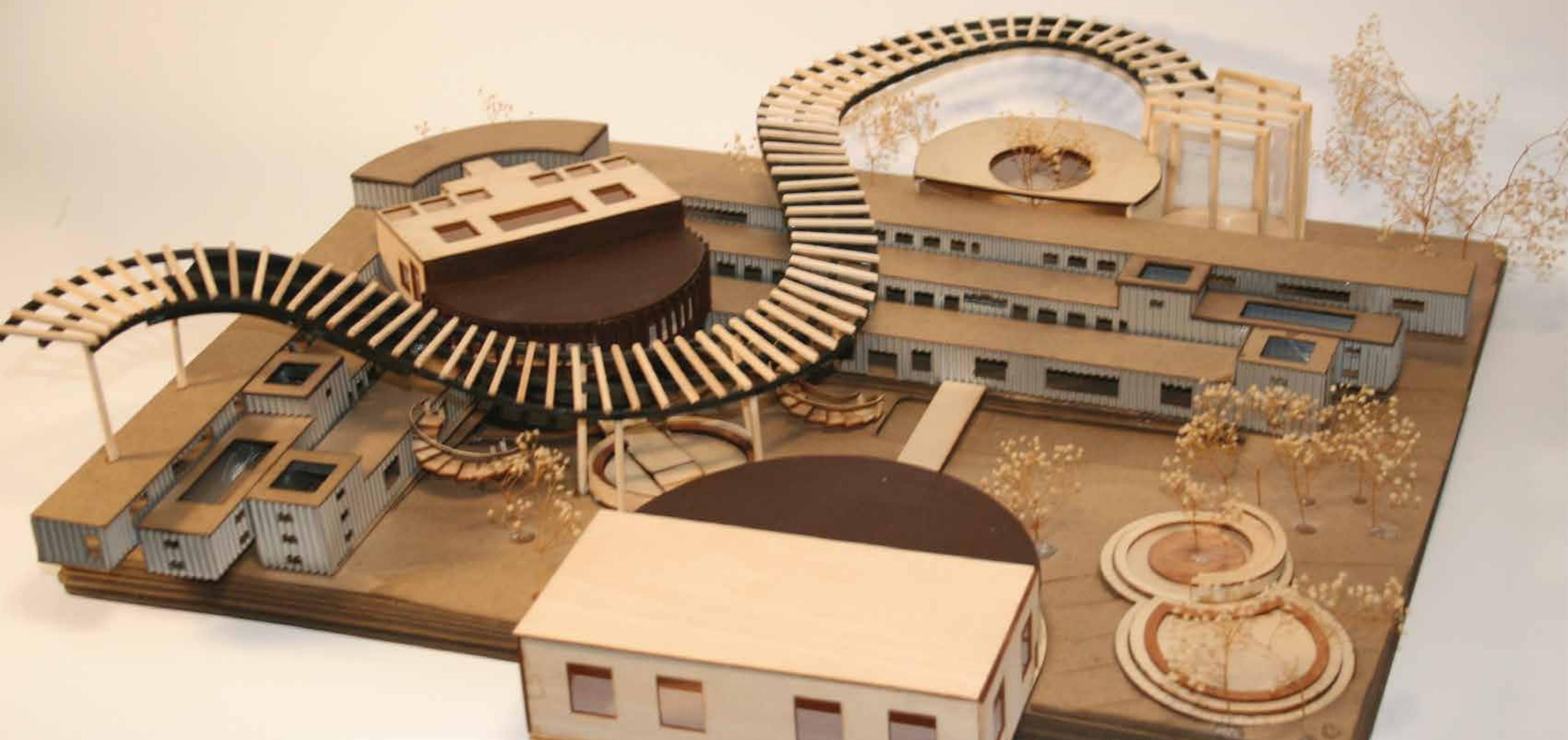
Spatiality Diagram



Climate Diagrams

## Field Model Views





## Designing Through Field Work | Plant Conservatorium



## Designing Through Field Work | Middle School

**Semester:** 2nd

**Duration:** 5 weeks

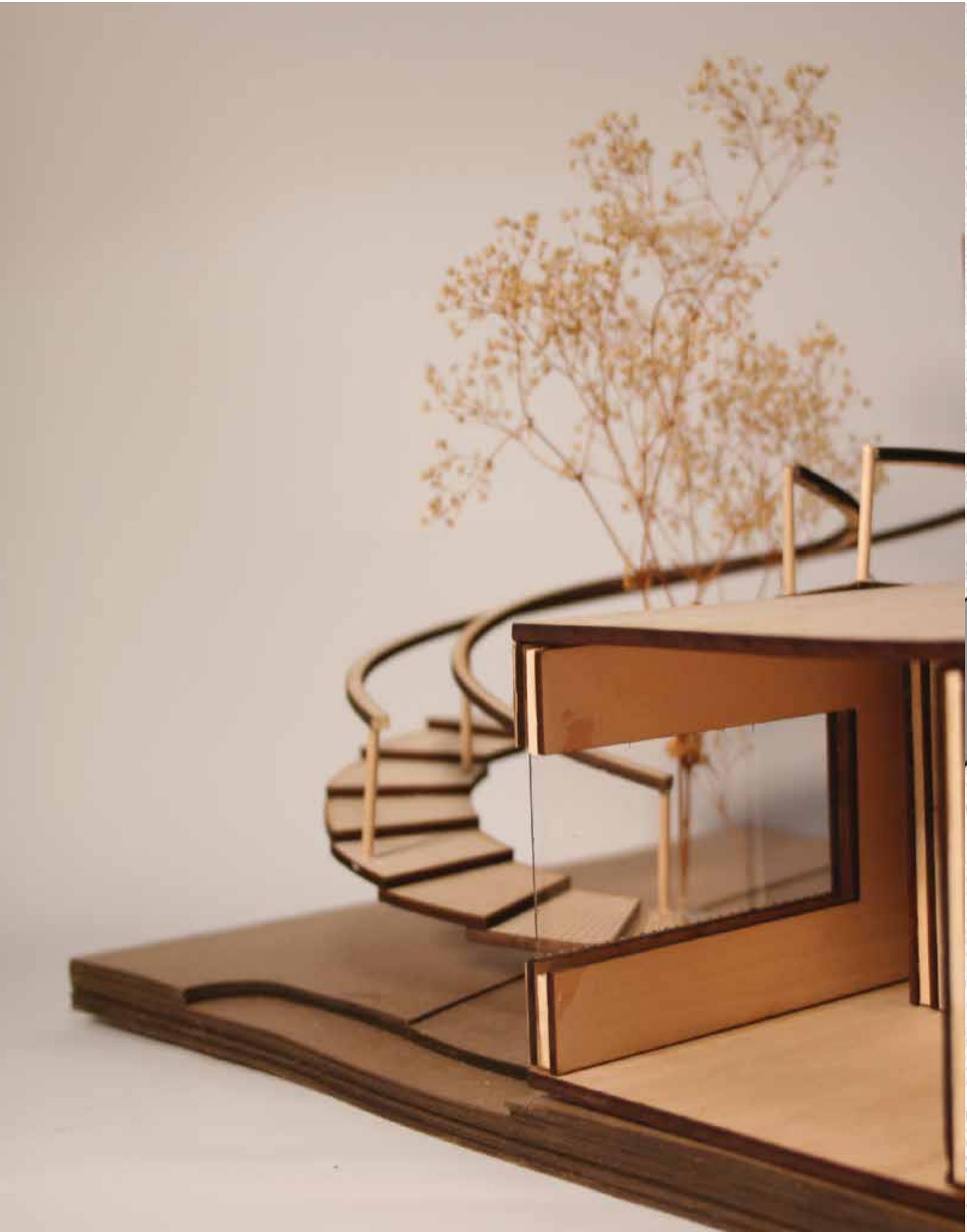
**Type:** Academic Project

**Location:** Pittsburgh, Pennsylvania

**Category:** Public Institutional Design

**Collaboration with Ejoo Kang**

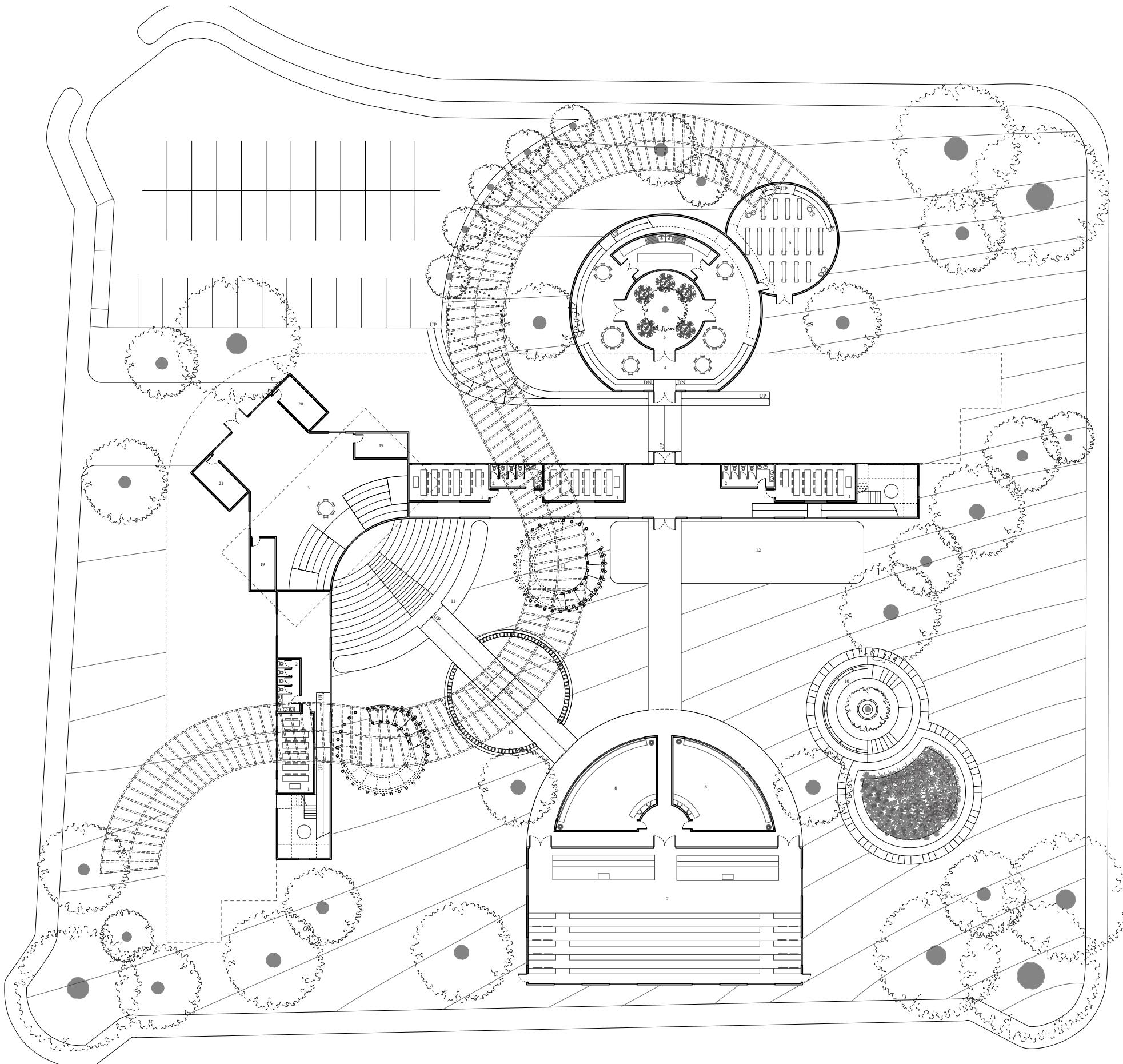
Developing directly from the previous project - the field map analysis of spatial interactions, this environmental middle school translates abstract relationships between points, lines, and planes into a functional "learning landscape". The design's language and materiality evolve from the physical model, where the specific arrangement of Rockite columns and wood tones inspired the contrast between structural indoor classrooms and organic outdoor learning spaces. Organized along three dominant axes extracted from this model, the project integrates split levels and sustainable strategies—such as natural ventilation and water management—to connect students with nature while promoting independence and community engagement.







Section Perspective I

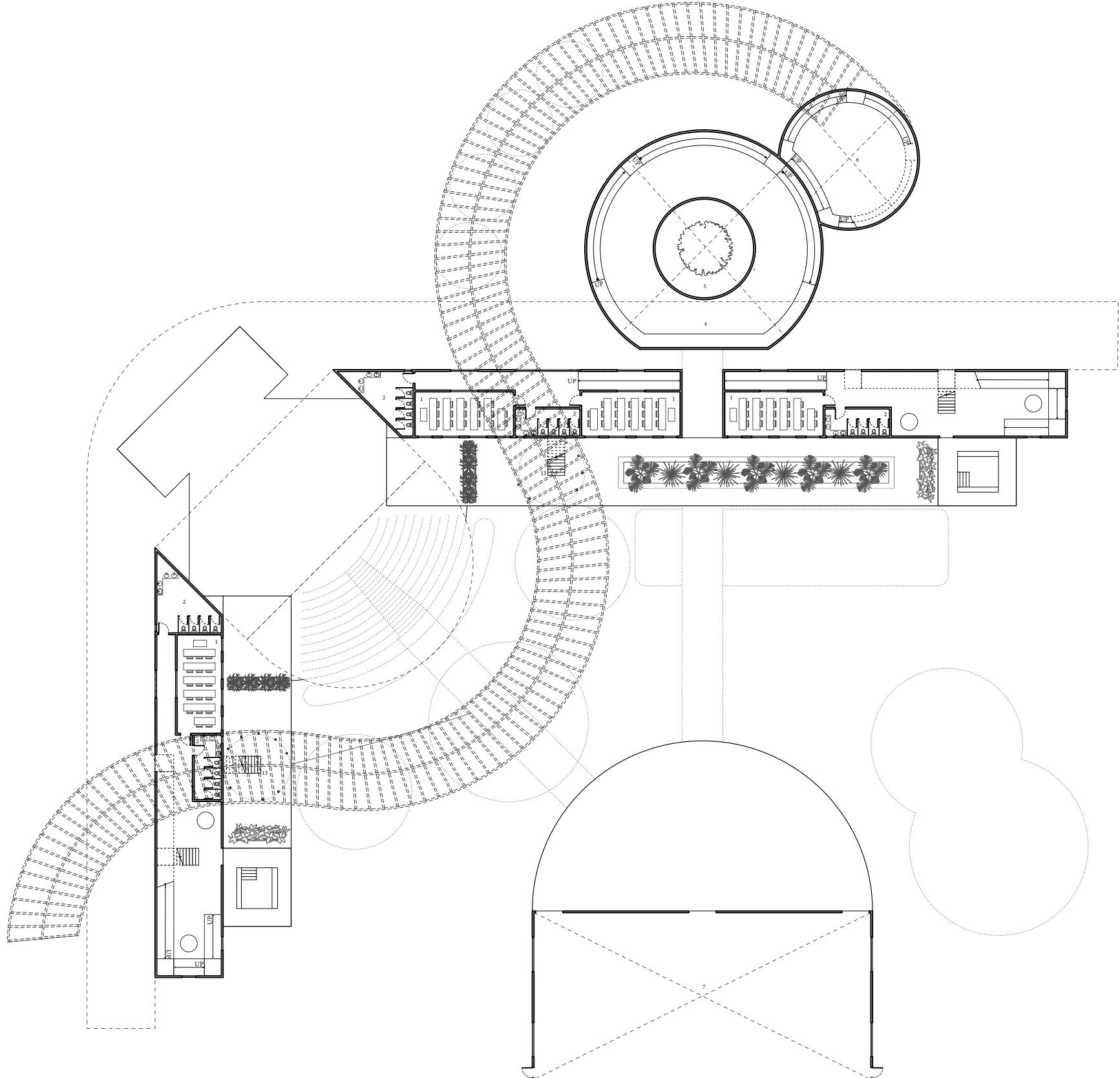


Legend

- 1. Indoor Classroom
- 2. Student Bathroom
- 3. Lobby
- 4. Cafeteria
- 5. Courtyard
- 6. Library
- 7. Multipurpose Room
- 8. Maker's Space
- 9. Amphitheater
- 10. Community Garden
- 11. Rain Garden
- 12. Detention Pond
- 13. Outdoor Classroom
- 14. Greenhouse
- 15. Staff Office
- 16. Staff Resource Library
- 17. Staff Conference Room
- 18. Staff Bathroom
- 19. Storage
- 20. Mechanical Service
- 21. Maintenance
- 22. Waste
- 23. Administrative Room
- 24. Lab

Ground Floor  
1/16" = 1' - 0"

Plans



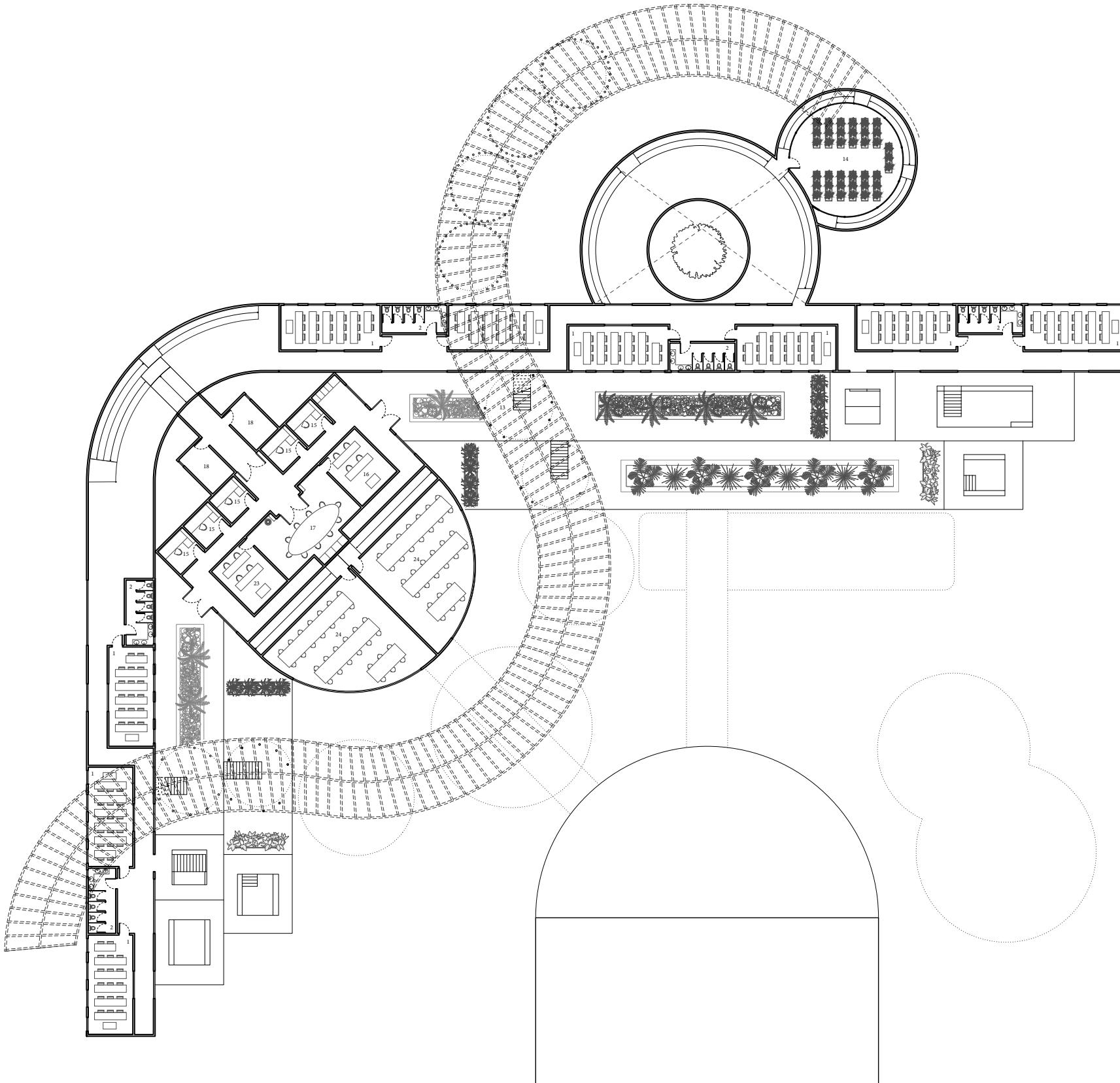
#### Legend

- 1. Indoor Classroom
- 2. Student Bathroom
- 3. Lobby
- 4. Cafeteria
- 5. Courtyard
- 6. Library
- 7. Multipurpose Room
- 8. Maker's Space
- 9. Amphitheater
- 10. Community Garden
- 11. Rain Garden
- 12. Detention Pond
- 13. Outdoor Classroom
- 14. Greenhouse
- 15. Staff Office
- 16. Staff Resource Library
- 17. Staff Conference Room
- 18. Staff Bathroom
- 19. Storage
- 20. Mechanical Service
- 21. Maintenance
- 22. Waste
- 23. Administrative Room
- 24. Lab

Second Floor

1/16" = 1' - 0"

Plans



#### Legend

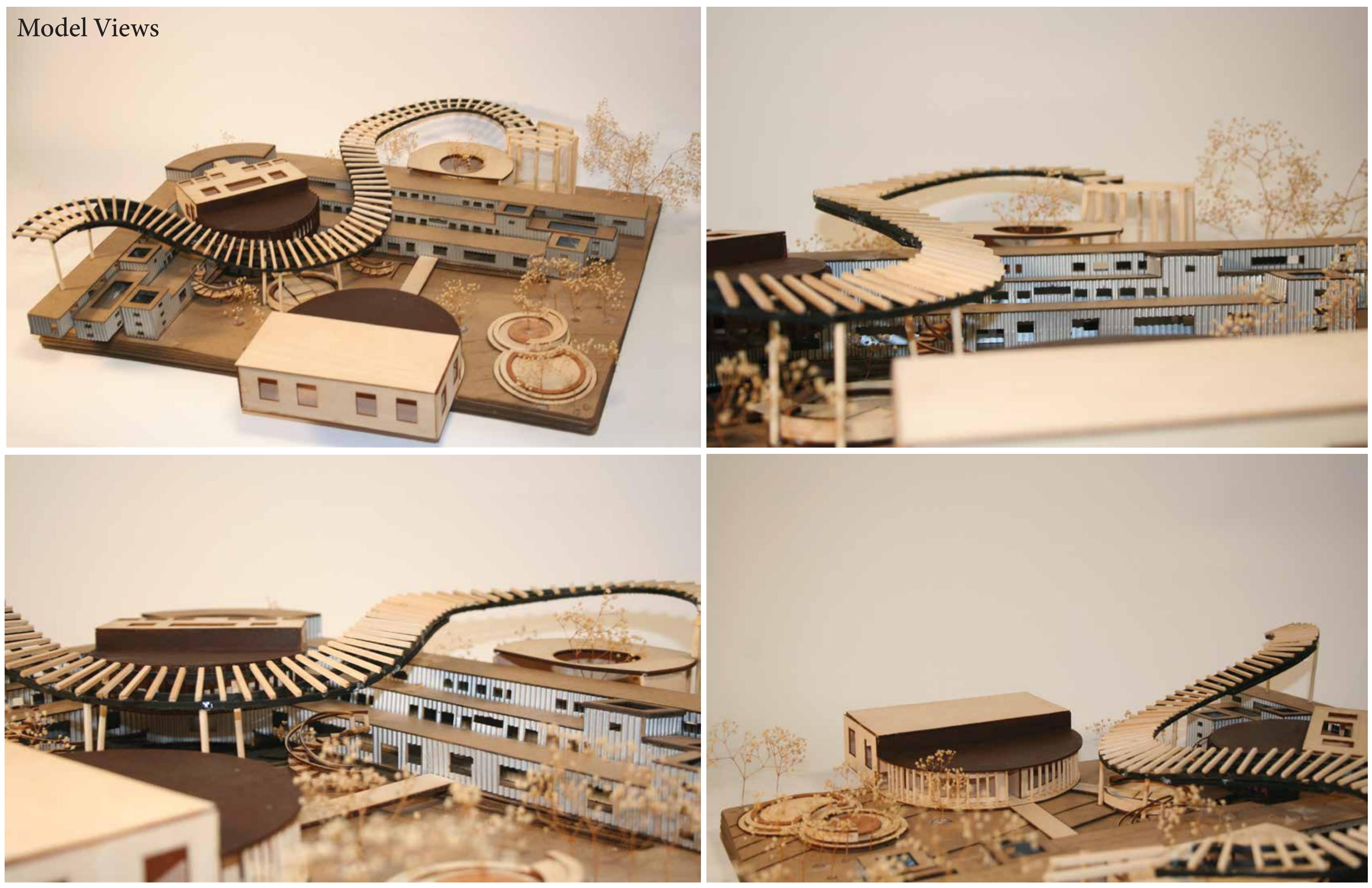
- 1. Indoor Classroom
- 2. Student Bathroom
- 3. Lobby
- 4. Cafeteria
- 5. Courtyard
- 6. Library
- 7. Multipurpose Room
- 8. Maker's Space
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- 14. Greenhouse
- 15. Staff Office
- 16. Staff Resource Library
- 17. Staff Conference Room
- 18. Staff Bathroom
- 19. Storage
- 20. Mechanical Service
- 21. Maintenance
- 22. Waste
- 23. Administrative Room
- 24. Lab

Third Floor  
1/16" = 1' - 0"

Plans

Kang & Saha

## Model Views



## Section Model Views





## The Multi-Generational House | **Sundara Vana**

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03



## The Multi-Generational House | **Sundara Vana**

**Semester:** 2nd

**Duration:** 2 Months

**Type:** Academic Project

**Location:** Kolkata, India

**Category:** Residential Housing

Rooted in the exploration of architecture as a form of storytelling and cultural expression, this project reimagines the home as a site of social connection and spatial dialogue. Drawing from Vastu Shastra principles—the traditional Indian system aligning architecture with natural forces and directional balance—the design emphasizes harmony between function, and human experience. Through spatial sequencing and material expression, the project investigates how domestic environments can embody care, ritual, and adaptability while reflecting the unseen relationships that define inhabitation.



## Creative Exploration

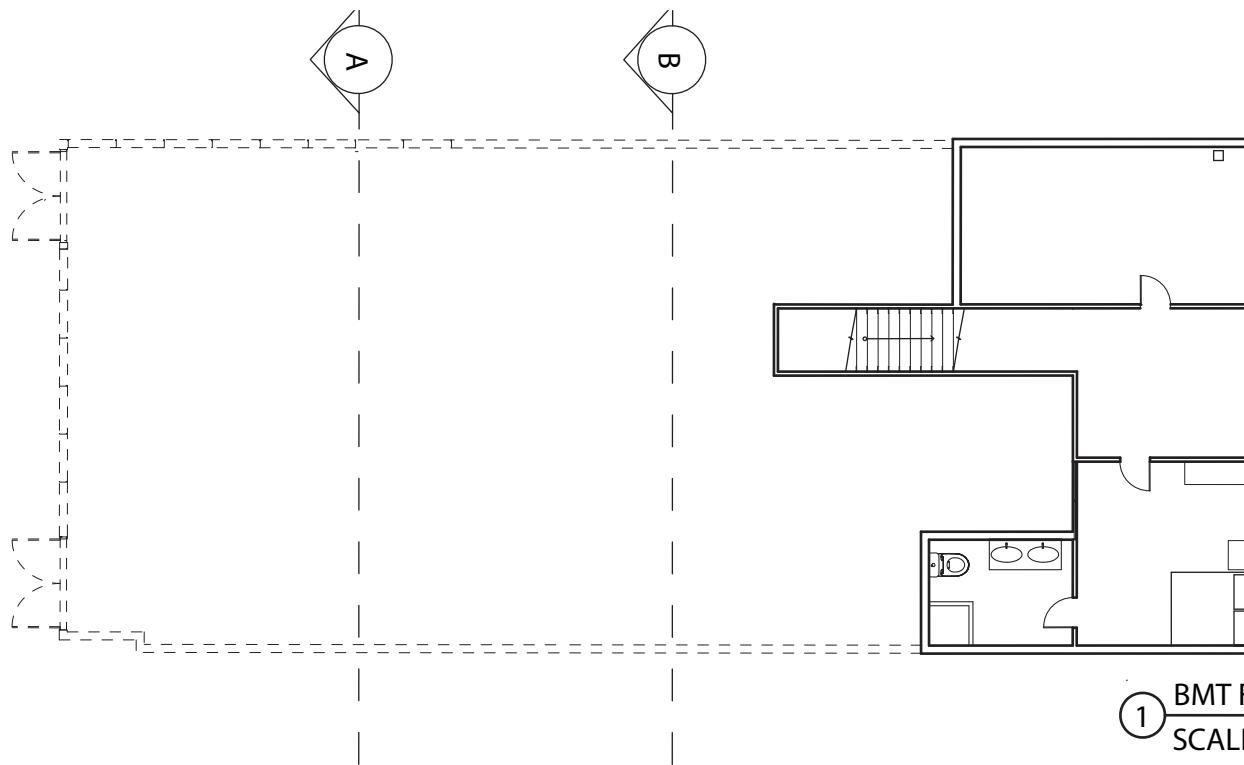


A creative reinterpretation of Vastu Shastra, this project explores spatial balance and energy flow through an adaptable home. The design reveals the fluidity of domestic life and reimagines harmony as a dynamic relationship between space, ritual, and inhabitation.

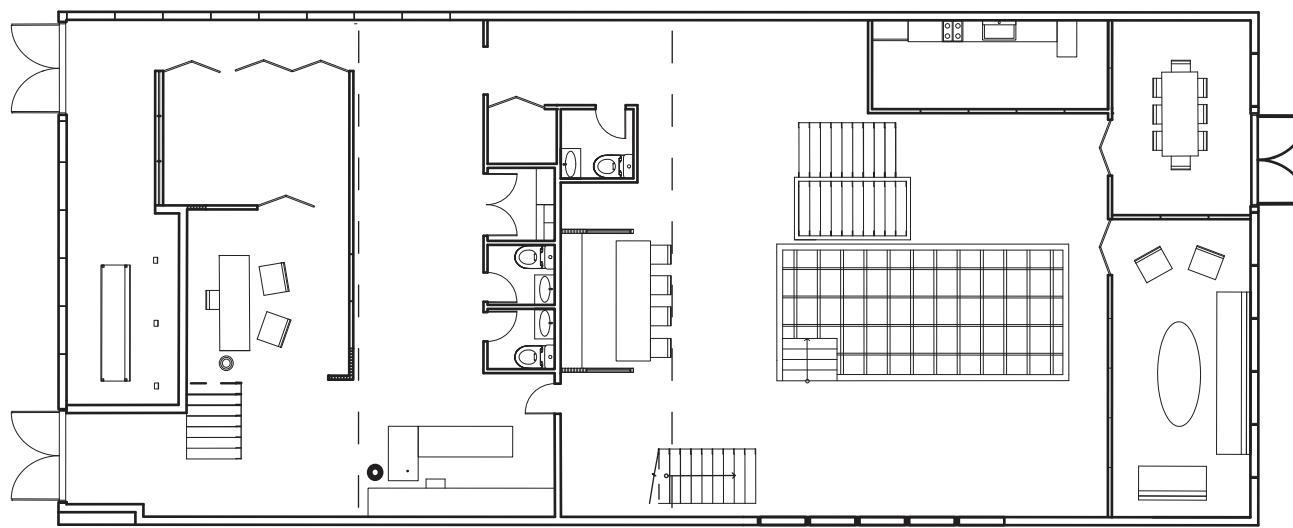
## Final Design



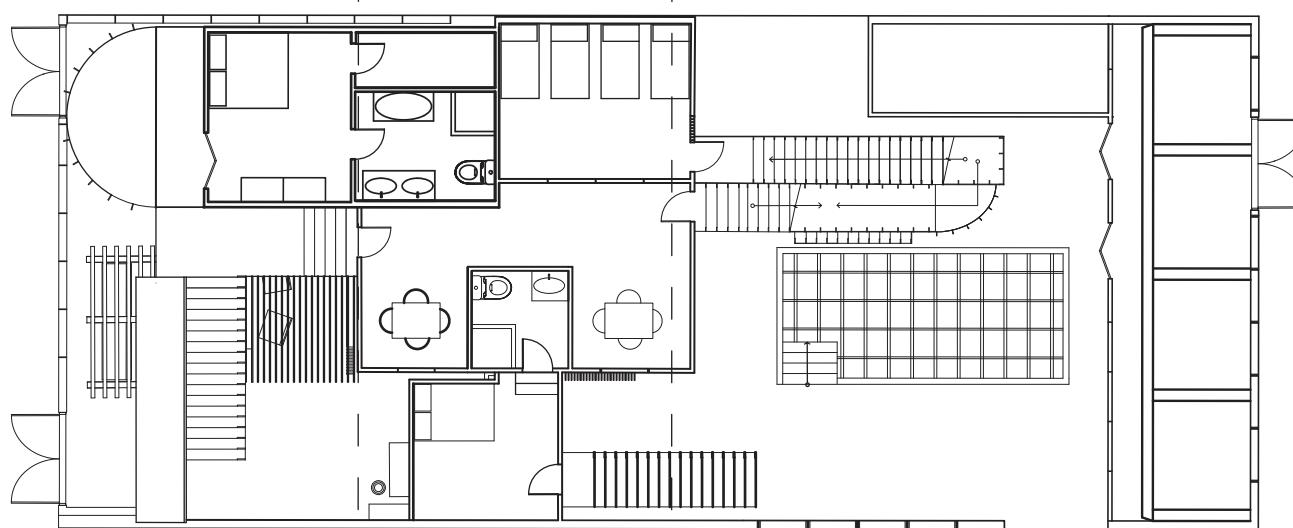
# Floor Plans



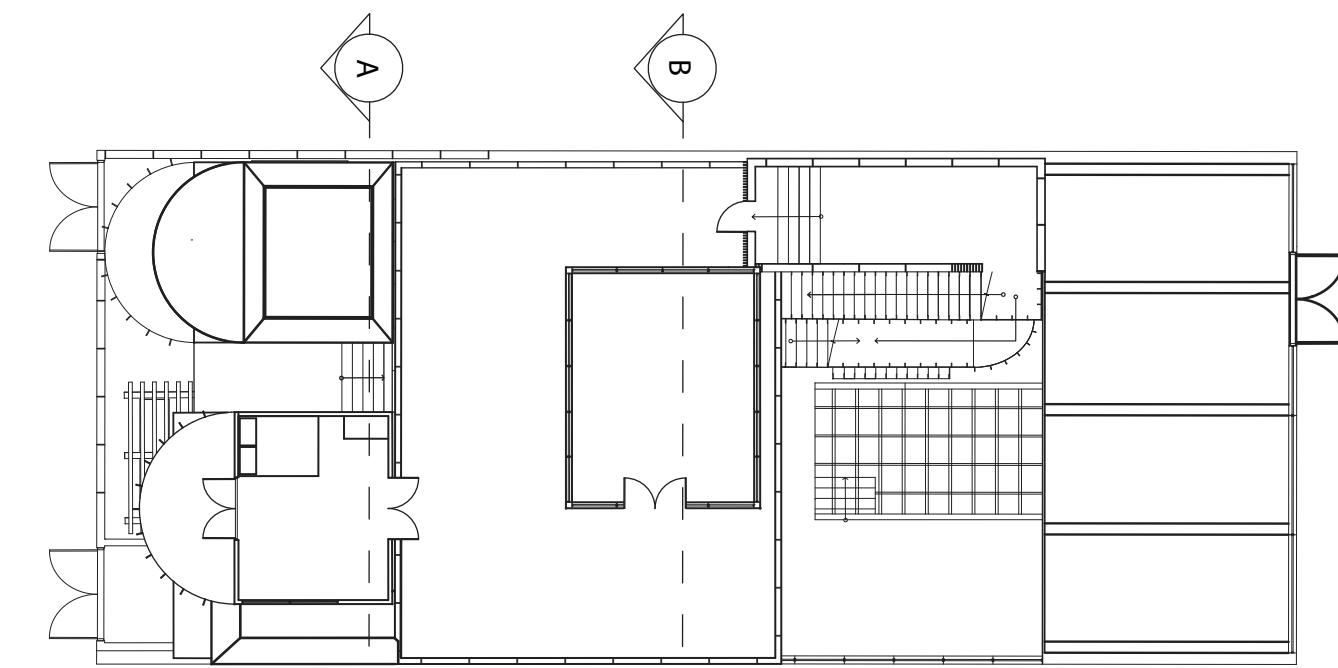
1 BMT FLOOR PLAN  
SCALE 1/16": 1'-0"



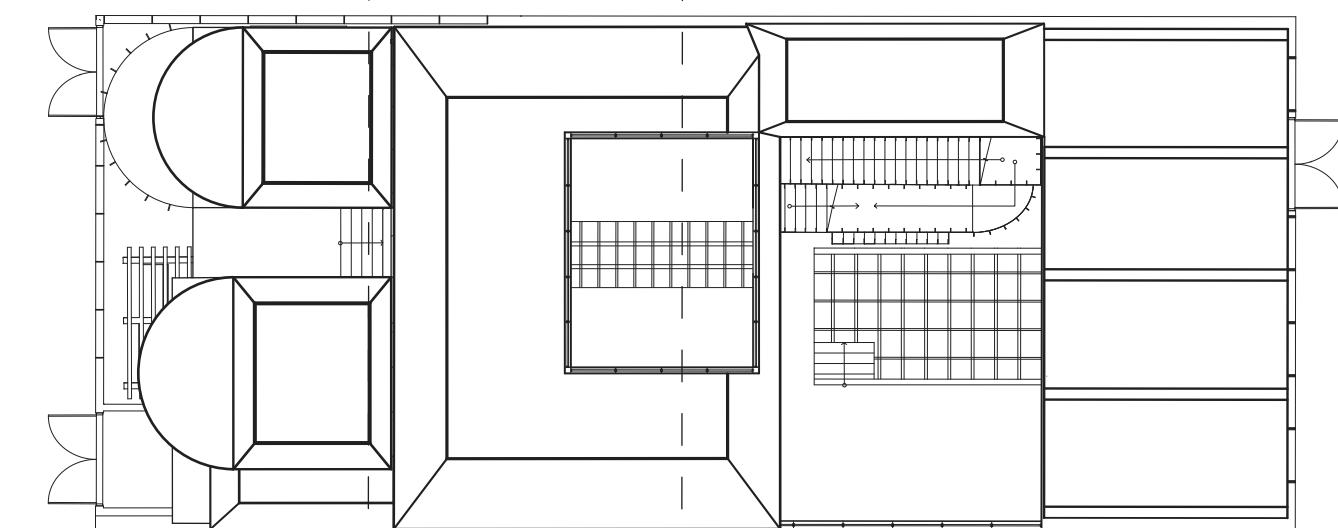
2 FLOOR 01PLAN  
SCALE 1/16": 1'-0"



3 FLOOR 02 PLAN  
SCALE 1/16": 1'-0"



4 FLOOR 03 PLAN  
SCALE 1/16": 1'-0"



5 ROOF PLAN  
SCALE 1/16": 1'-0"