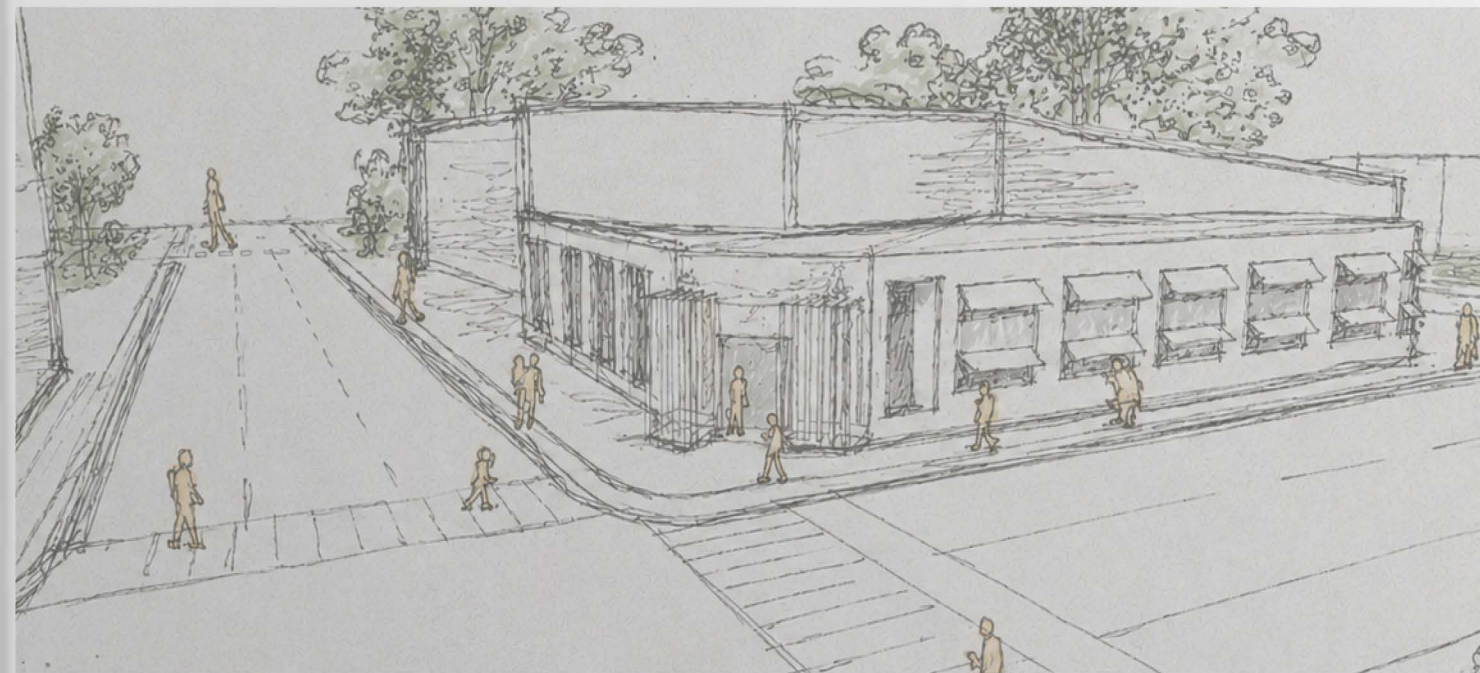


ARCHITECTURAL DESIGN PORTFOLIO.



BY: JULIA SCHWARZBERG

SELECTED WORKS

## PERSONAL VALUES

COMPASSION    AMBITION  
CREATIVITY    RESPECT  
INNOVATION    RESPONSIBILITY  
ADAPTABLE    RELIABLE  
CURIOSITY    ANALYTICAL



2005.05.19  
Florida Atlantic University  
954-758-0180  
julia78002@gmail.com



## EDUCATION

2023 - 2028 FLORIDA ATLANTIC UNIVERSITY  
4TH YEAR BACHELOR'S OF PROFESSIONAL ARCHITECTURE

## AWARDS

2026 FPCA (FLORIDA PRE-STRESSED CONCRETE ASSOCIATION) SCHOLARSHIP RECIPIENT  
2024 FAU DESIGN AWARDS FIRST PLACE STUDIO LEVEL 3  
2023 + 2024 PRESIDENTIAL HONOURS SCHOLARSHIP RECIPIENT

## SKILLS

RHINO 3D	■ ■ ■ ■ ■
ADOBE ILLUSTRATOR	■ ■ ■ ■ ■
ADOBE PHOTOSHOP	■ ■ ■ ■ ■
ADOBE INDESIGN	■ ■ ■ ■ ■
REVIT	■ ■ □ □ □
AUTOCAD	■ ■ □ □ □
GRASSHOPPER	■ ■ ■ □ □
MICROSOFT OFFICE	■ ■ ■ ■ ■
D5 RENDER	■ ■ ■ ■ □
ENSCAPE	■ ■ □ □ □
LUMION	■ ■ □ □ □

## EXPERIENCE

**JANUARY 2026 - APRIL 2026 CONSTRUCTION MANAGEMENT INTERN**  
*MAGEN BUILDER GROUP, AVENTURA FL*  
Modified and coordinated architectural plan sets in AutoCAD to support municipal submission packages and city approval processes, ensuring drawing accuracy, code compliance, and alignment with consultant revisions  
Conducted and documented residential construction site visits across Florida, observing construction sequencing, material installations, and field conditions while gaining exposure to permitting, inspections, and contractor coordination  
Collaborated with licensed architects on conceptual design development by assisting with digital renderings, visual presentations, and early-stage design iterations to communicate spatial ideas and client intent effectively

**APRIL 2025 - AUGUST 2025 INTERIOR DESIGN INTERN**  
*SYNTAX MANAGEMENT OFFICES, HOLLYWOOD FL*  
Developed conceptual space plans, interior layouts, and visualizations for commercial office environments, focusing on functionality, circulation, and cohesive design aesthetic  
Curated presentation mood boards and researched furnishings, finishes, lighting, and material selections to support project concepts and client branding objectives  
Participated in client meetings and on-site evaluations, contributing to design discussions, documenting existing site conditions, and gaining experience in client communication and project coordination

**JANUARY 2024 - JULY 2024 ARCHITECTURAL INTERN**  
*QH BUILD, TORONTO/SCARBOROUGH, CANADA*  
Assisted with schematic design development and layout refinements for residential housing projects, contributing to spatial organization, unit planning, and early-stage design coordination  
Gained exposure to client expectations and project objectives through participation in design discussions and review meetings, helping translate functional needs into design solutions

# Contents

01

Houston Museum District, Texas

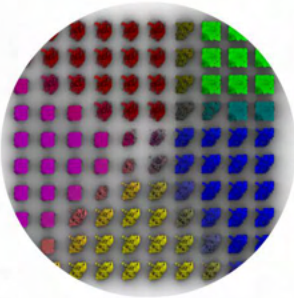
Museum



02

AI IN ARCHITECTURE

Emergent Fields



03

JAPANESE MORIKAMI PAVILLION

Wood Joinery



04

CHARLESTON, SOUTH CAROLINA

Duplexes



# Architectural Design IDEA



My design philosophy is embedded in the idea where architecture is not just an object to be viewed but an experience to be felt. A building does not exist in isolation but rather how people exist within a space. How material, light, texture, sequence and openness shape a viewer's perspective rather than simply function.

My work leans toward architecture as a narrative, I think about transformation and procession rather than isolation. I try to blur the lines between conceptual thinking and technical realism. I believe this approach will shape the future of architecture.

Architecture should create an emotional and spatial experience powerful enough to change how a person feels, moves, and most importantly, remembers a place. A building is not solely a tangible object but a vessel for personal experiences, the place where someone proposed, where a family gathered every evening, or where a person spent their childhood growing up.

These memories become embedded within walls, spaces, light and atmosphere of architecture. I believe that the success of a building is not only measured by its appearance or function, but by its ability to hold experiences and become part of someone's personal story.

01.

## Triptych Museum

**Status:** Spring 2026

**Professor:** Dr. Smaro Katsangelou

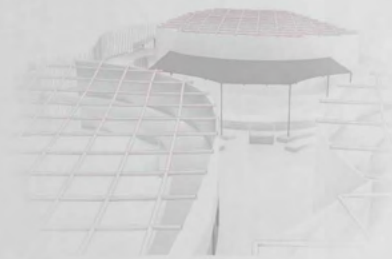
**Typology:** Museum

**Location:** Houston, TX

Rather than treating art as something fixed within a single room, the museum moves through three visually distinct spaces in time. Visitors begin from early renaissance sculptures to futuristic and post-modern experiences where the art of time becomes present.



STRUCTURAL ROOF GRID

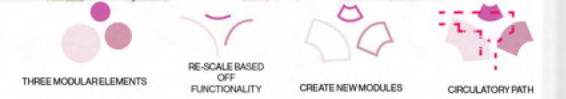
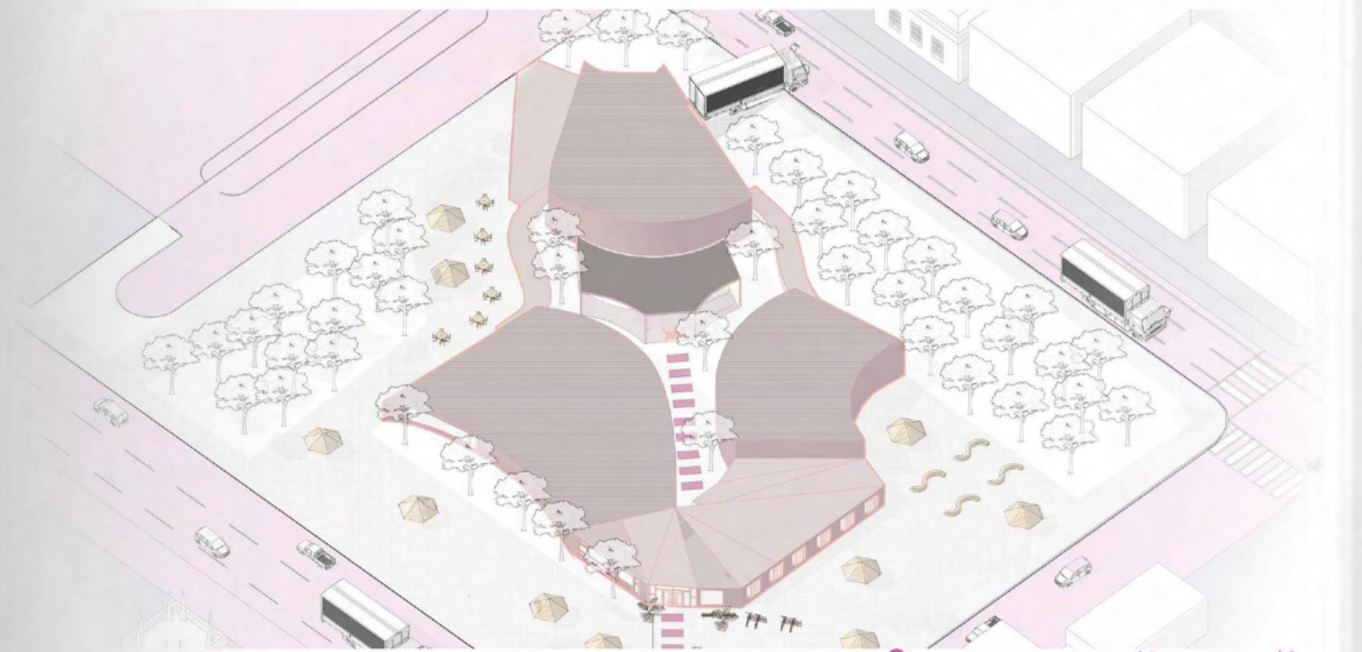
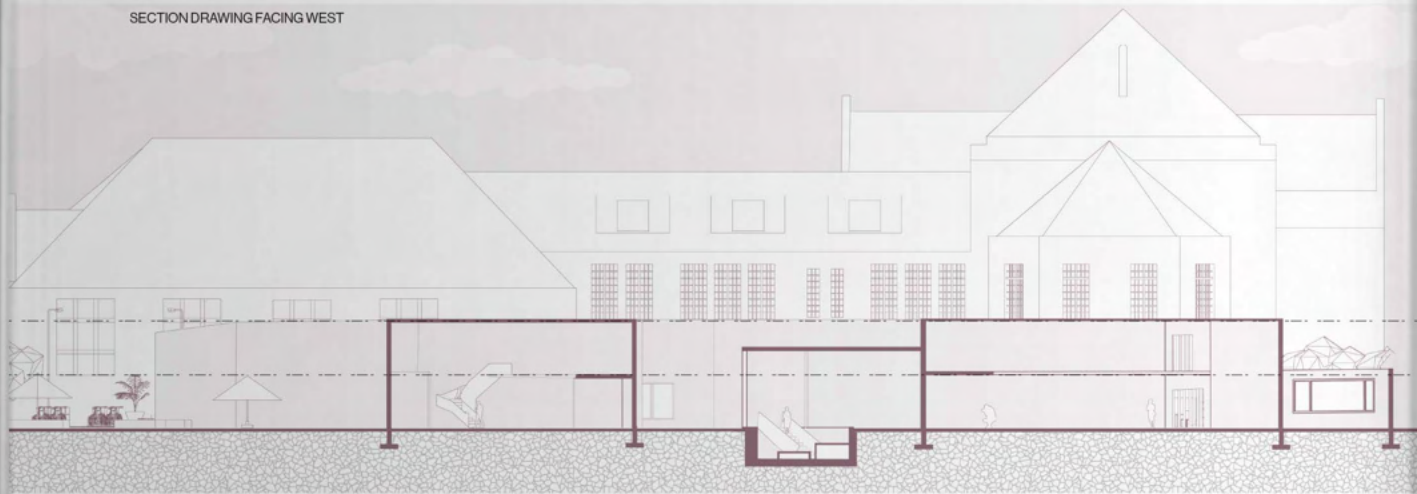


The project investigates how structure, circulation, and light can guide visitors through a layered architectural experience rather than a static series of galleries. Through shifting spatial conditions and framed moments of transition, the museum encourages movement, reflection, and emotional connection with the built environment.

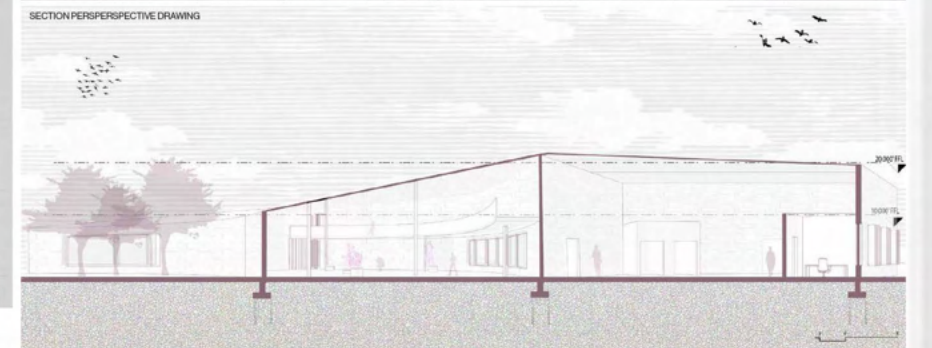
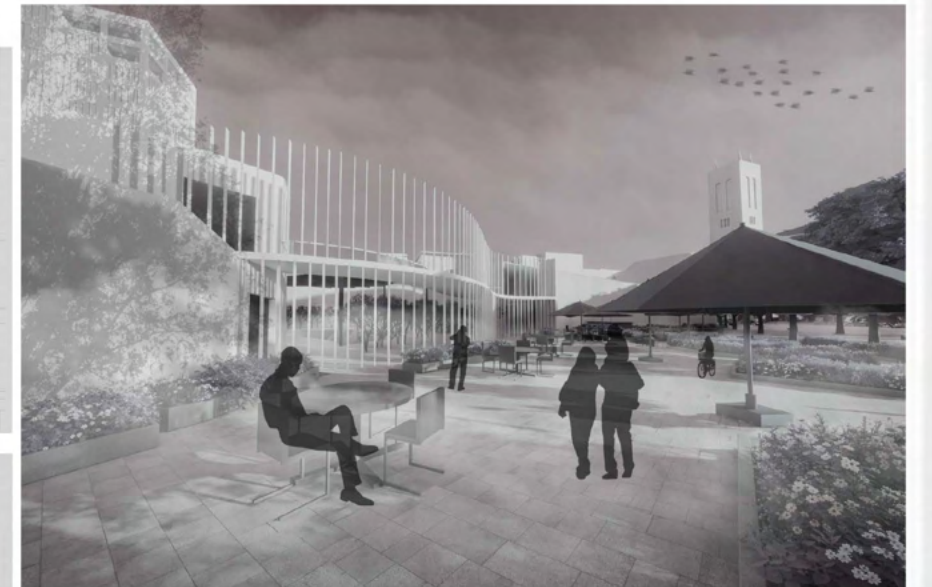
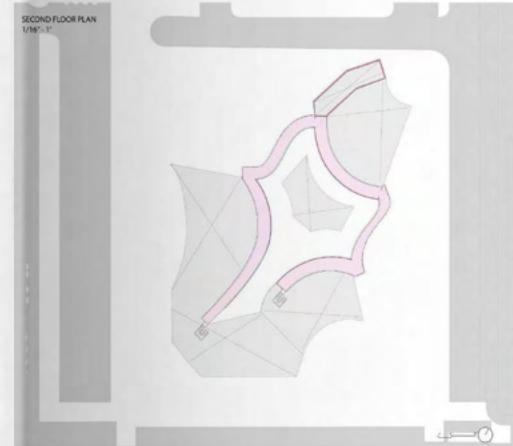
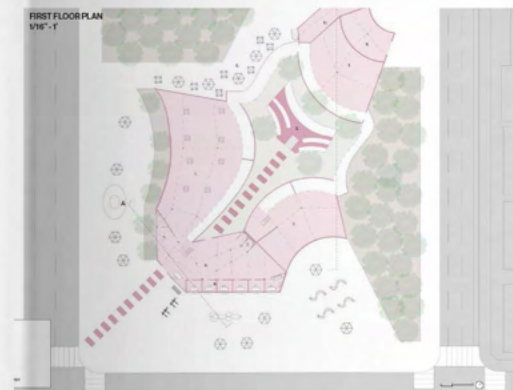
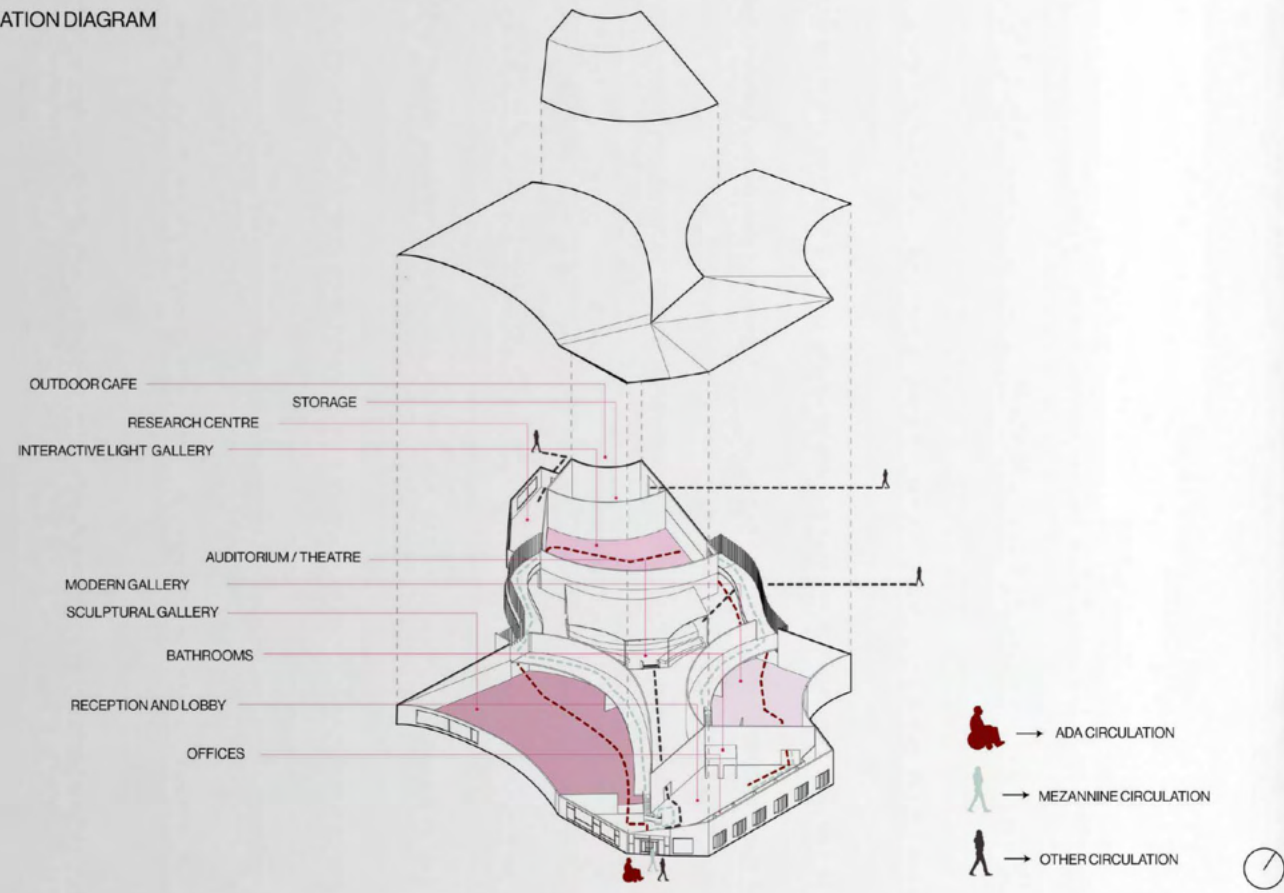
CONCRETE COLUMNS ON MEZZANINE

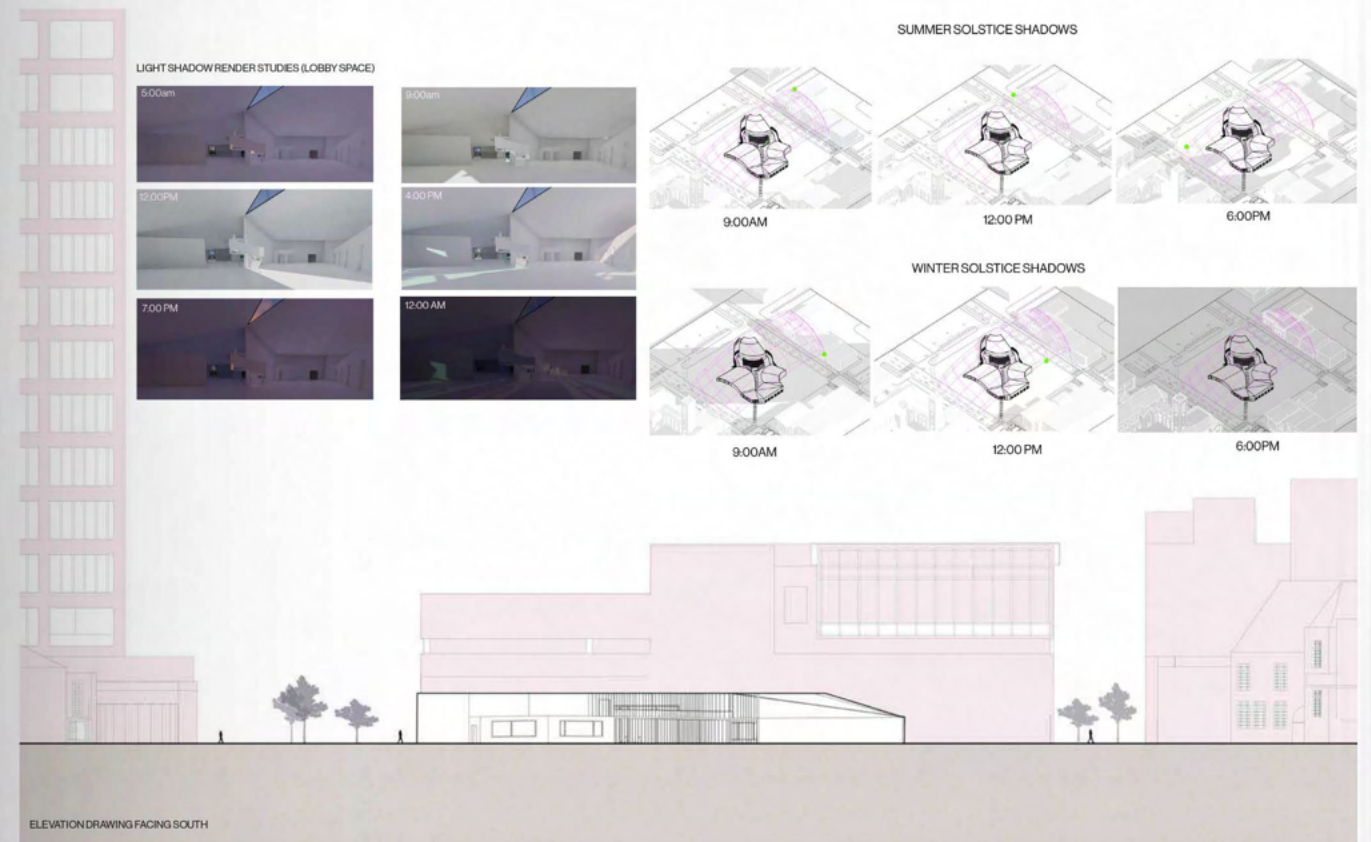
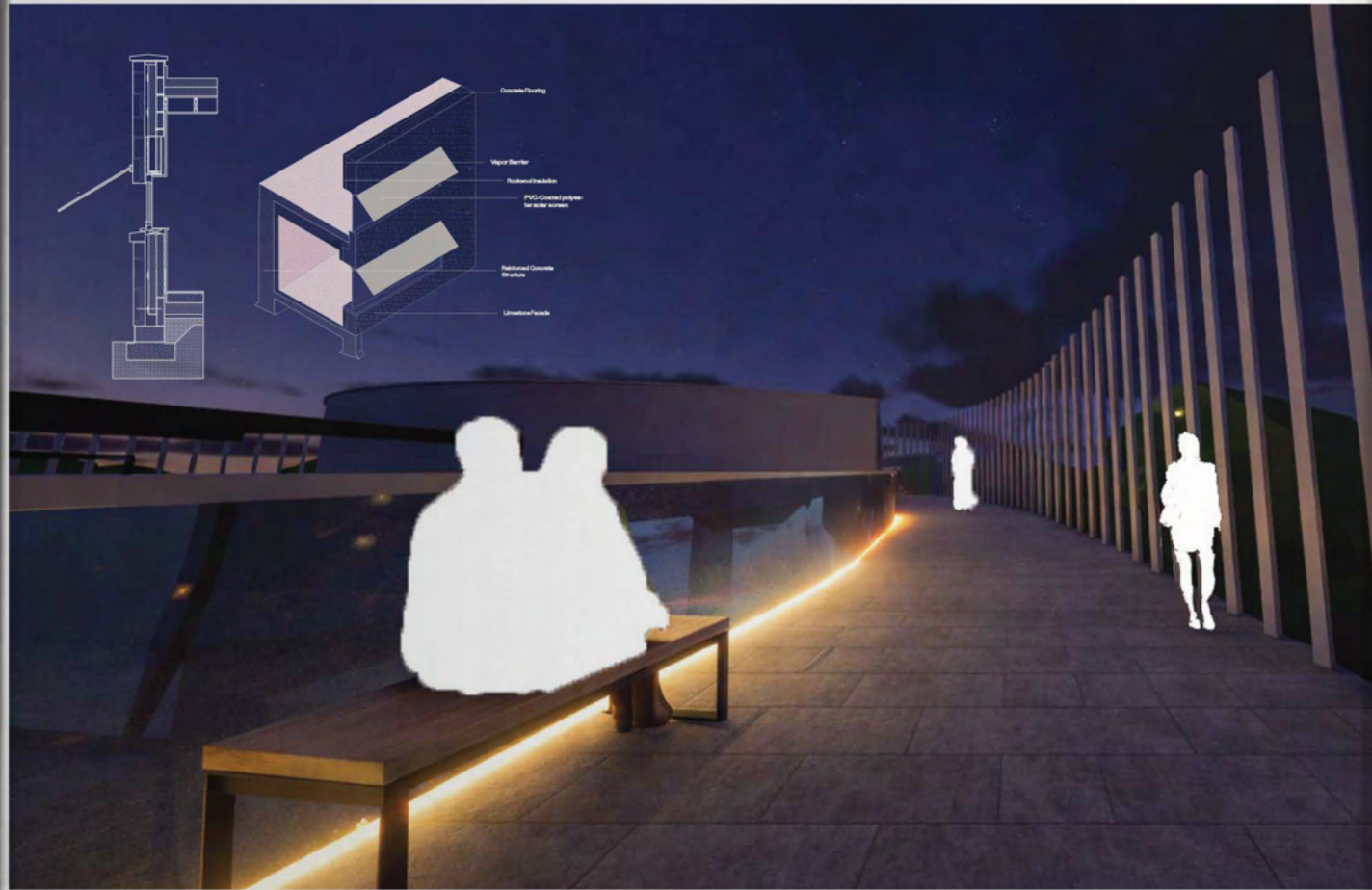


SECTION DRAWING FACING WEST



CIRCULATION DIAGRAM





# Artificial Intelligence in ARCHITECTURE



Artificial Intelligence is transforming architecture every day. Through data-driven systems, AI allows architects to rapidly test spatial, environmental, and structural possibilities while enhancing efficiency and design exploration.

Parametric design is a process in which geometry and spatial relationships are driven by adjustable parameters and rules rather than fixed forms. This approach creates adaptable systems capable of generating multiple design outcomes through changes in data, logic, or environmental inputs.

In this project, stigmergy, a decentralized design strategy inspired by collective behaviors found in nature, such as ant colonies or flocking systems, uses local interactions and simple behavioral rules, complex spatial formations emerge organically, producing dynamic patterns, networks, and adaptive architectural systems.

# 02.

## AI IN ARCHITECTURE

Emergent Fields

Status: Spring 2026

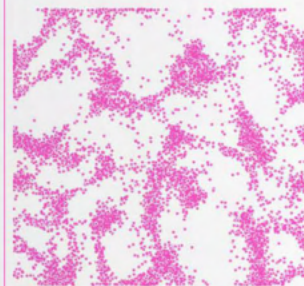
Professor: Emmanouil Vermisso / Daniel Bolojan

Typology: Artificial Intelligence

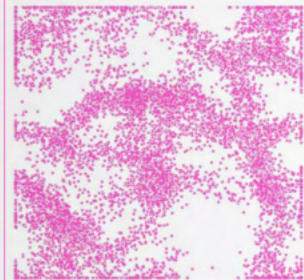
Location: Fort Lauderdale, FL

What if architecture behaved more like a living system rather than an object? This project explores how architecture can operate as a responsive system shaped by environmental forces, computational logic, rather than fixed form alone. Through parametric design, stigmergy-based experimentation, and thermal envelope analysis, the work investigates how complex architectural systems can emerge through relationships, behavior, and adaptation.

### BASIC SCRIPT EXPERIMENTATION

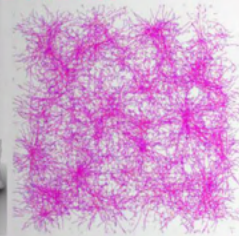
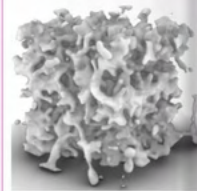


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0.2 SPEED  
3.2 SENSOR DISTANCE  
4.18 DEPOSIT  
110 TRAIL SIZE

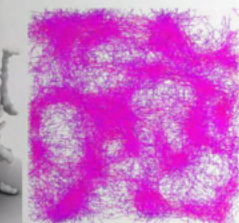


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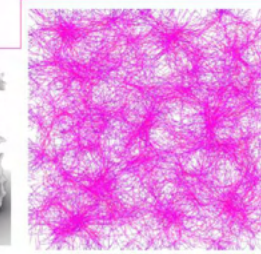
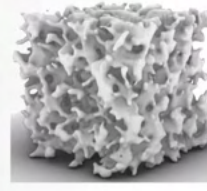
### BASIC SCRIPT EXPERIMENTATION



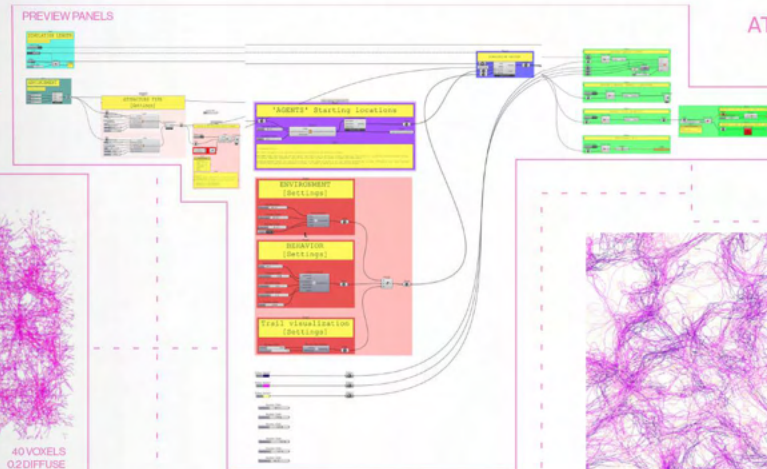
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4.18 DEPOSIT  
200 TRAIL SIZE



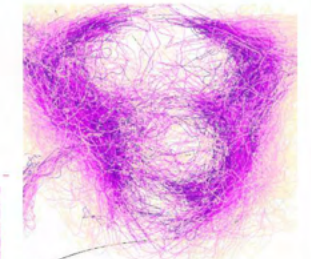
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5.0 DEPOSIT  
90 ANGLE



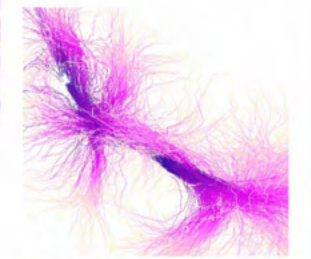
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0.2 SPEED  
3.0 SENSOR DISTANCE  
1.0 DEPOSIT  
15 ANGLE



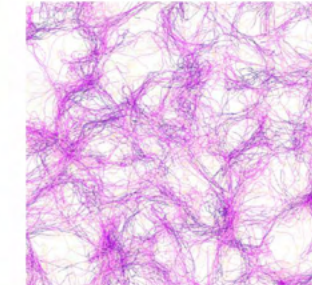
### ATTRACTOR SCRIPT EXPERIMENTATION



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0.260 RANGE  
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0.57 SPEED  
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6.58 DEPOSIT  
200 TRAIL SIZE



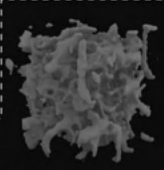
150 VOXELS  
0.220 DIFFUSE  
2.000 RANGE  
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0.36 SPEED  
4.0 SENSOR DISTANCE  
8.0 DEPOSIT  
200 TRAIL SIZE



40 VOXELS  
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0.263 RANGE  
0.003 DECAY  
0.20 SPEED  
2.00 SENSOR DISTANCE  
1.0 DEPOSIT  
200 TRAIL SIZE

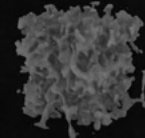
# SOM TECHNOLOGY

T E S T



This form is a compact, thick accumulation that bulges at the top and tapers downward like it's being pulled by gravity. The edges are soft but chunky, with small fragments breaking off near the bottom. It looks like a melting blob, wet clay slumping, or a heavy cloud collapsing downward.

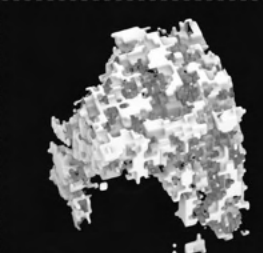
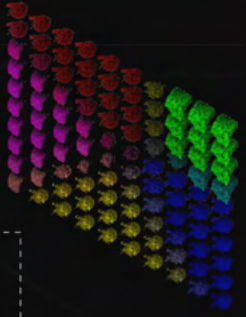
S U B J E C T S



This form is a rounded cluster with some internal gaps but still feels as cohesive. It feels like a sponge-like lump or a cluster of particles that has been compressed but not fully dispersed. It looks like a lump of clay or a sponge-like lump with uneven edges.

- BRANCHING ●●●●●
- CLUSTERING ●●●●●
- DIRECTIONALITY ●●●●●
- SYMMETRY ●●●●●
- POROSITY ●●●●●
- ELEGANCE ●●●●●

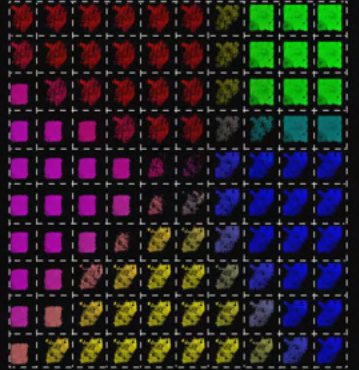
ITERATION 5



- BRANCHING ●●●●●
- CLUSTERING ●●●●●
- DIRECTIONALITY ●●●●●
- SYMMETRY ●●●●●
- POROSITY ●●●●●
- ELEGANCE ●●●●●

ITERATION 4

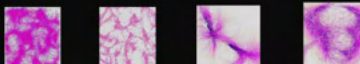
This form has a central dense area with particles breaking outward, especially along one side. The structure feels partially cohesive but actively dispersing. It looks like a cluster of particles bursting outward or debris spreading from a core.



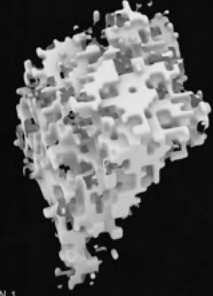
TOP VIEW SOM



ADDITIONAL STIGMERGY EXPLORATIONS



SOM (Self-Organizing Maps) is a computational and AI-based method that organizes data and spatial relationships through adaptive pattern formation. SOM alongside artificial intelligence, parametric design, and stigmergy to generate architectural systems that evolve through behavior, interaction, and environmental input rather than fixed design solutions. This work investigates how architecture can function as a responsive and self-organizing system shaped by computation and emergence.



- BRANCHING ●●●●●
- CLUSTERING ●●●●●
- DIRECTIONALITY ●●●●●
- SYMMETRY ●●●●●
- POROSITY ●●●●●
- ELEGANCE ●●●●●

ITERATION 1

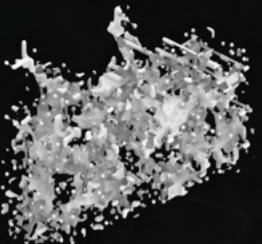
This iteration expresses a form that takes strong directionality, clustering and branching, described as a structure with a back and front. It looks like a structure that has been compressed but not fully dispersed. It looks like a lump of clay or a sponge-like lump with uneven edges.



- BRANCHING ●●●●●
- CLUSTERING ●●●●●
- DIRECTIONALITY ●●●●●
- SYMMETRY ●●●●●
- POROSITY ●●●●●
- ELEGANCE ●●●●●

ITERATION 2

This form is made of overlapping fragments that stretch across space, being gaps between them. The space is more compressed and less cohesive than the previous iteration. It looks like a structure that has been compressed but not fully dispersed. It looks like a lump of clay or a sponge-like lump with uneven edges.



- BRANCHING ●●●●●
- CLUSTERING ●●●●●
- DIRECTIONALITY ●●●●●
- SYMMETRY ●●●●●
- POROSITY ●●●●●
- ELEGANCE ●●●●●

ITERATION 3

This form reads as a roughly square or contained mass with a relatively even top surface and a sagging underside. The top feels cohesive while the bottom breaks into dangling clusters. It looks like a porous cube extending from below or a sponge sitting on a surface and dripping downward.

# Construction Methods IDEALOGY



The following project explores the relationship between traditional Japanese joinery and contemporary architectural design through the creation of a timber pavilion for the Morikami Museum and Japanese Gardens.

Inspired by the precision and craftsmanship of Japanese woodworking techniques, the structure emphasizes connection, balance, and material honesty without relying heavily on mechanical fasteners. The pavilion was designed as a spatial experience that frames light, shadow, and movement while reflecting the calm atmosphere of the surrounding landscape.

Through iterative modeling and structural experimentation, the project investigates how tectonic systems can shape both form and human interaction. The design ultimately received first place in the FAU Design Awards for its integration of cultural inspiration,

03.

## Serpentine Pavillion

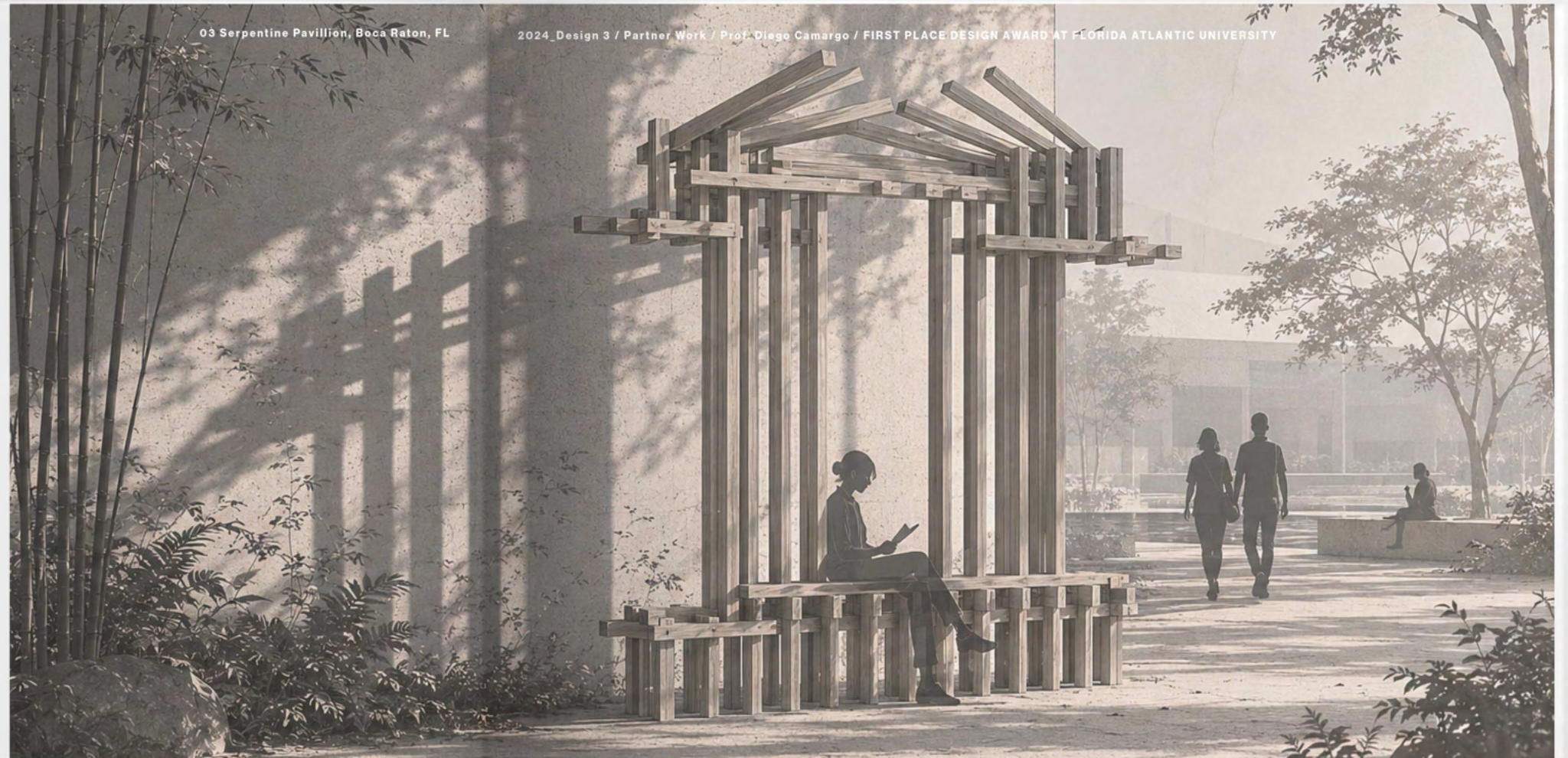
**Status:** Fall 2024

**Professor:** Diego Camargo

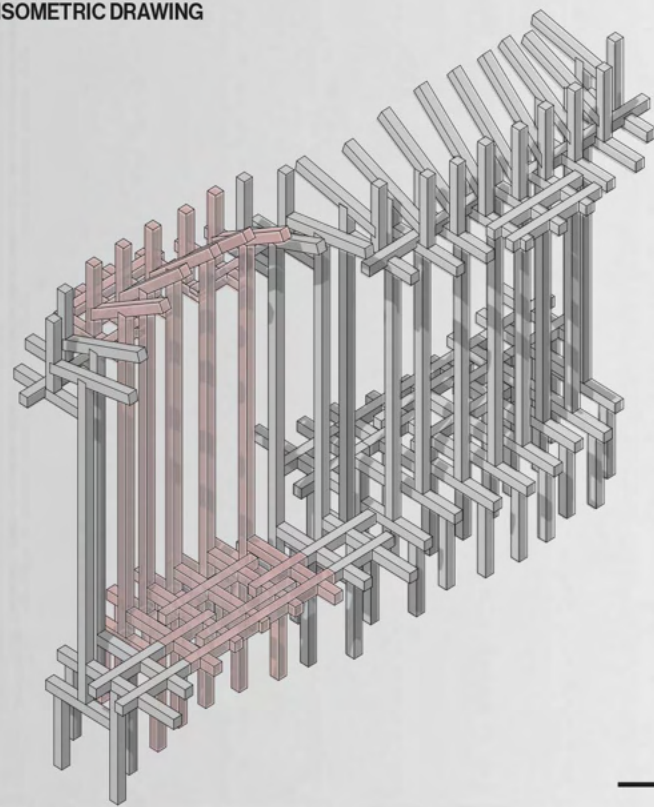
**Typology:** Wood Joinery

**Location:** Boca Raton, FL

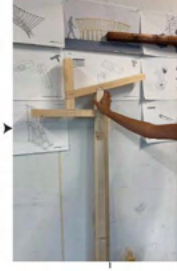
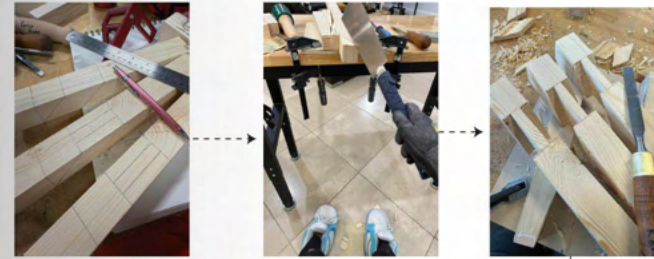
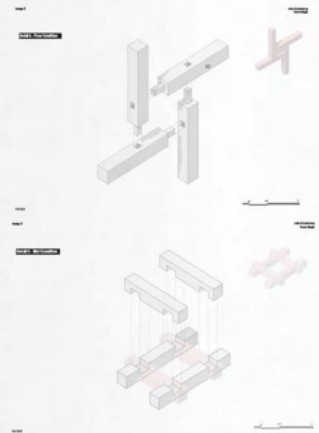
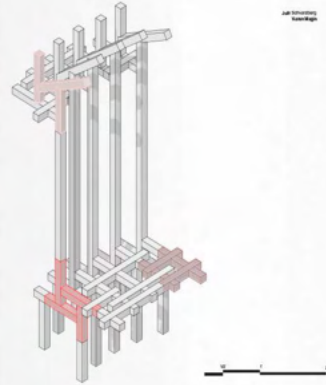
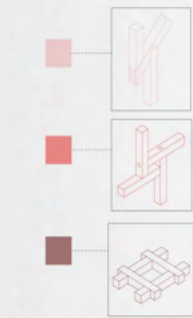
How can we create a structure without the use of fasteners or glue?  
This project explores the art of Japanese joinery with the use of only  
hand tools and how a pavilion was created by the use of 2x2 and  
2x4 wood assemblies.



ISOMETRIC DRAWING



Legend  
Detection of Position



CONSTRUCTION



PROCESS

FINAL MODEL PICTURE



# Residential ARCHITECTURE



The final project reimagines duplexes within the context of Charleston in South Carolina. This duplex project reimagines shared housing through a continuous circulation system that wraps around both units and leads residents toward a communal rooftop terrace.

Located in Charleston, the design responds to the city's climate, urban character, and tradition of layered outdoor living through shaded transitions, framed views, and interconnected spaces. The ramp acts as the primary spatial organizer, transforming movement into an architectural experience while blurring the boundary between interior and exterior.

Through light wood framing, glulam structural elements, and open communal moments, the project explores how structure and circulation can shape interaction and community. Rather than functioning as two isolated homes, the duplex operates as a woven architectural system centered around connection, flow, and shared experience.

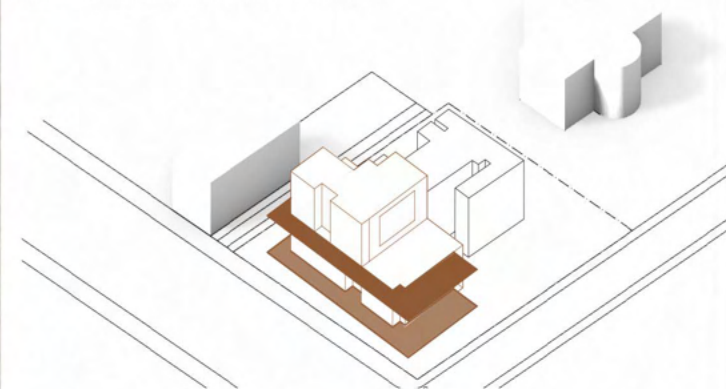
# 04. Corte Alta Duplexes

**Status:** Fall 2025  
**Professor:** Heather Ligler  
**Typology:** Residential  
**Location:** Charleston, SC

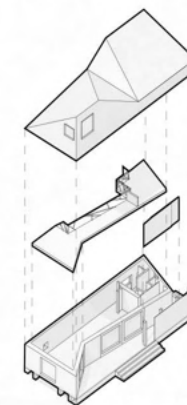
The duplex begins with a simple idea: two homes brought together within one shared structure. Whether placed side by side, stacked, or interwoven, each unit remains its own world while participating in a larger architectural whole. The concept remains by having a continuous ramp that leads to a shared roof terrace amongst both duplexes, where the ramp is an experience in itself.



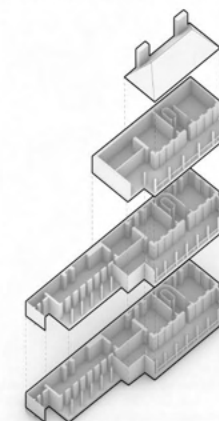
Diagram showcasing concept of the ramp leading to a roof terrace

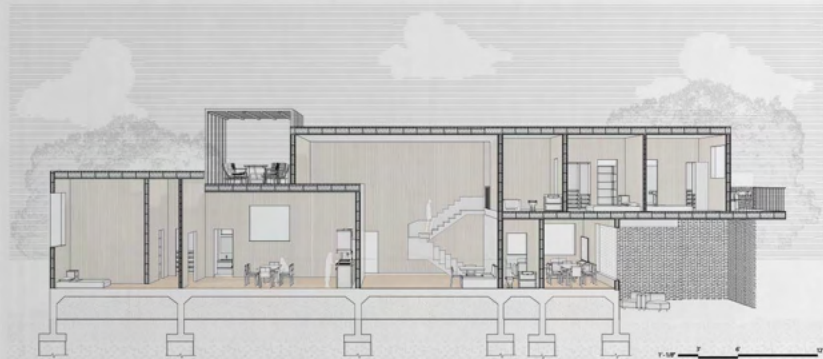


Precedent Study: The Zilvar House

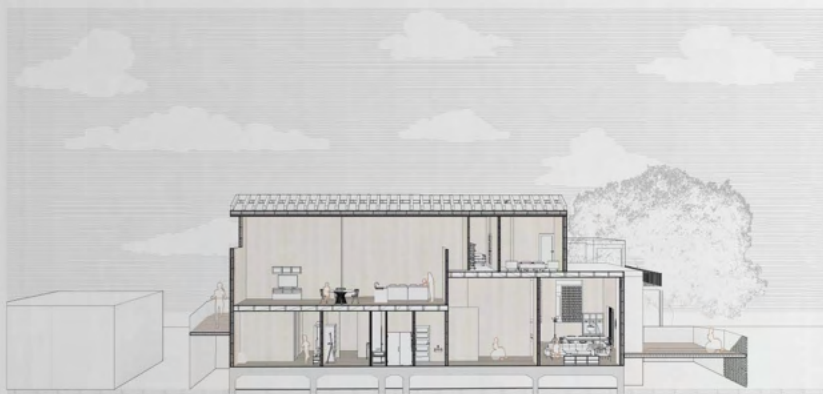


Precedent Study: The Casper Schutt House





Split Duplex Perspective Section

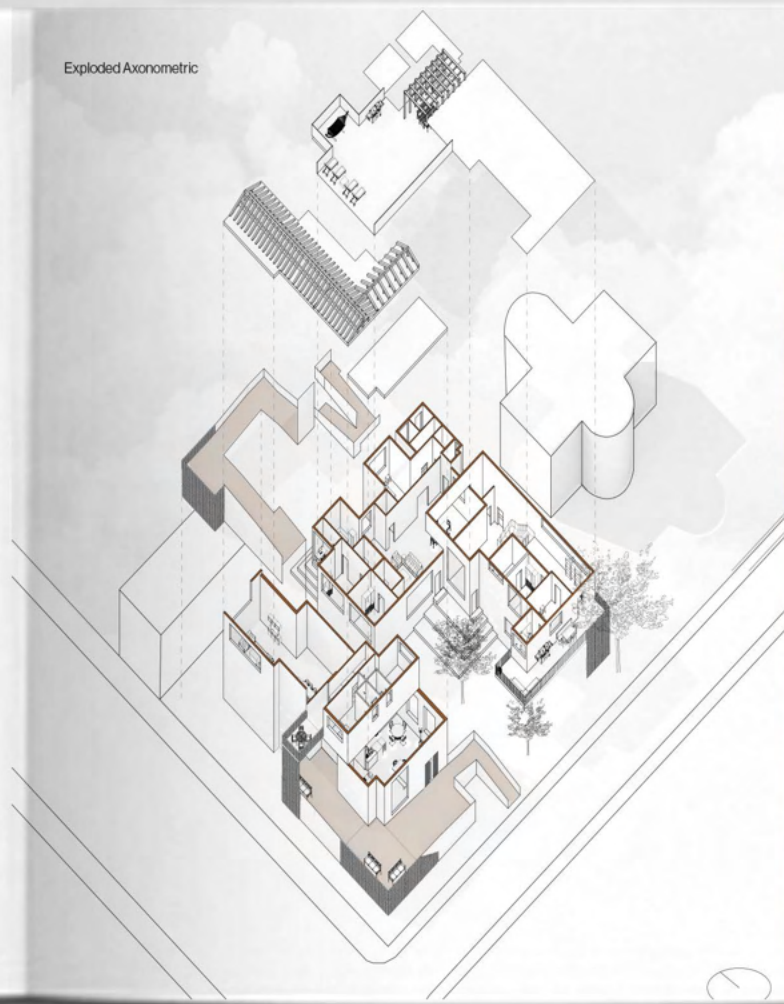


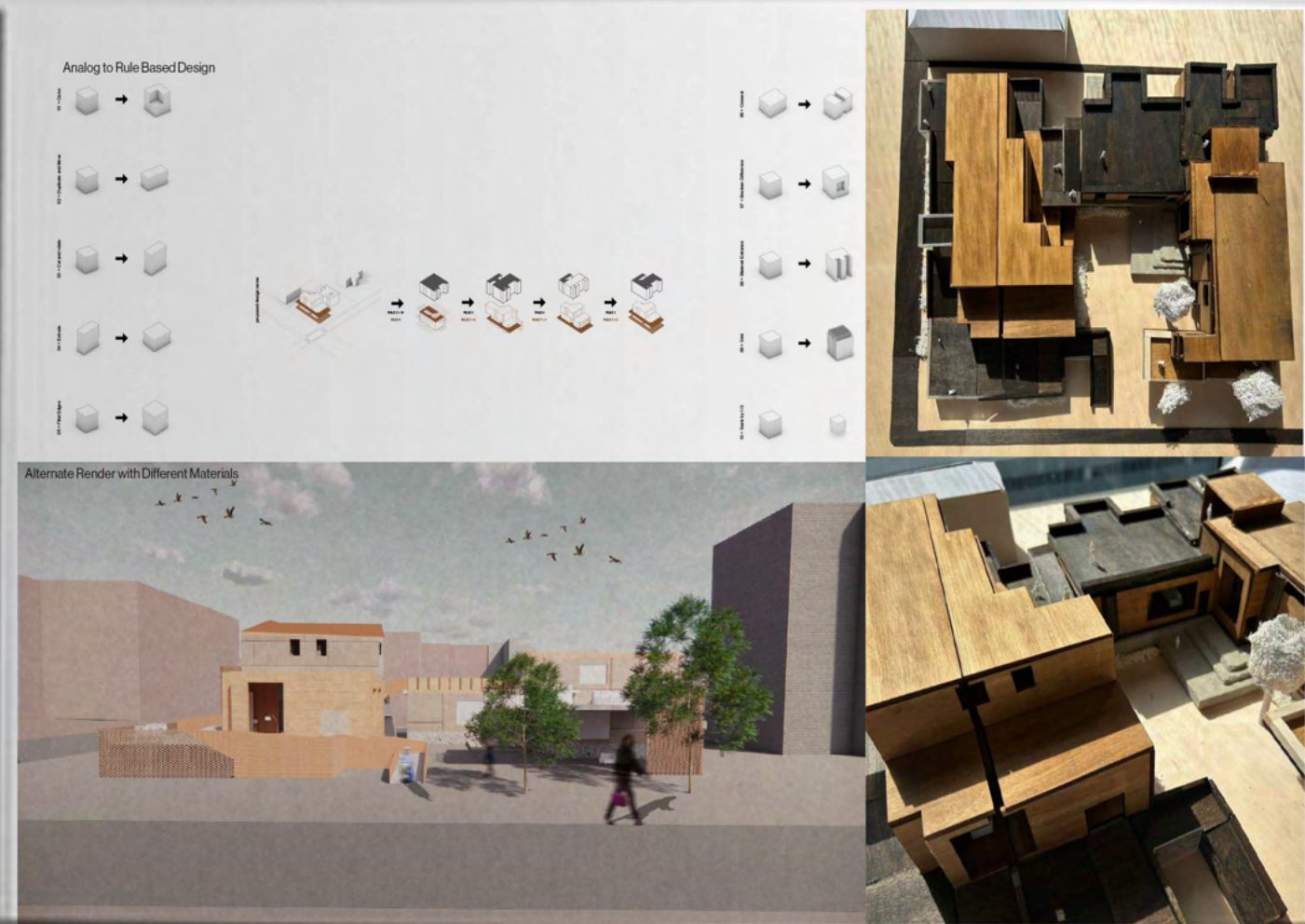
Stacked Duplex Perspective Section



Stacked Duplex Floor Plans

Exploded Axonometric





**THANK YOU**

JULIA SCHWARZBERG