



design portfolio

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ramanathan
ramesh**

APARNA RAMANATHAN RAMESH

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SKILLS

Design

REVIT, AutoCAD,
Rhino 3D, Sketchup,
Grasshopper, Dynamo
ArcGIS, Climate Studio

Render

V-Ray, Enscape
Twinmotion, Lumion

Adobe

InDesign, Illustrator
Premiere Pro
Photoshop

Others

Model Making, Sketching
Drafting, MS Office

Certifications

NYC Retrofit Accelerator
OSHA 10 Hr Certification

AFFILIATIONS

New Buildings Institute
Next Gen Fellow '22-23

Architectural League
Mentee '22-23

**American Institute of
Architecture Students**
Fundraising Chair '20-21

**National Organization of
Minority Architects**
Mentee '21-22,
Project Pipeline Volunteer

Braven Accelerator
Braven Fellow '23

CUNY Census Corps
Census Ambassador 2020

**Undergraduate Student
Government**
Architecture Senator '19

Peer Health Education
Health Educator '19-20

Circle K International
NY Awards Committee '19

EDUCATION

Bachelors of Architecture, City College of New York Sept 2018- Present
GPA: 3.7
New York, NY

WORK EXPERIENCE

Architectural Sustainability Intern, Morris Adjmi Feb 2023- Present
New York, NY
Using energy modeling tools to conduct feasibility studies, and strategizing the sustainability action plan goals and scope for the firm

Student Design Assistant, Diamond Schmitt Jan 2023- Present
New York, NY
Collaborating on a renovation fit out project for a domestic violence shelter in Queens, New York

Architecture Intern, Zaskorski and Associates Jun-Dec 2022
New York, NY
Conducted site surveys (OSHA 10 Hr certified), and drafted construction drawings/redline revisions for reuse & preservation projects in NY

Intern, Bright Power LLC Mar-May 2021
New York, NY
Created compliance documentation & assisted drawing review process for buildings applying for Enterprise Green Community, LEED & Passive Haus

Building Electrification Intern, Rocky Mountain Jun-Aug 2020
Oakland, CA
Modeled costs for the "[New Economics of Electrifying Buildings Report](#)" (2020)
Analyzed building electrification's (air quality) effects in California's South Coast district
Drafted paper on the need of a regularized embodied carbon framework for concrete in the building industry

Architecture Intern, Real Model International Jun-Aug 2019
Dubai, UAE
Created physical models of architectural projects through CAD drafting, laser cutting, 3D printing & assembly at various scales

Architecture Intern, Winner Holistic Consultants Jun-Aug 2017
Dubai, UAE
Submitted elevation concepts for projects within the company & reviewed construction drawings

ACTIVITIES

Robotic Farming Research, Opportunities in Research & Creative Jun-Aug 2022
New York, NY
Researched design strategies for [Farmbot](#) applications in Green Roofs & built prototype at Spitzer School of Architecture's roof, under the guidance of professor Zihao Zhang.

Climate Policy Fellow, Colin Powell School of Leadership & Service Sep 2019-May 2020
New York, NY
Researched and wrote a policy brief on improving Facade Efficiency in NY using the case study of Cost-optimal Methodology proposed by the European Union, under the guidance of Trevor Houser

Teaching Assistant, City College of New York Sept-Dec 2021
New York, NY
First Year Core Architectural Studio by Professor Tyler Survant
Fabrication and Digital Fabrication Shop, Ali Askarinejad

Teaching Assistant, City College of New York Sept-Dec 2019
New York, NY
Assisted a Case Studies in Sustainability course by Professor Hillary Brown which aimed at studying the possibility of creating a self-sufficient circular economy in Wayuu, Columbia, and published a book from findings of class- [Jemeinshu Wuin](#)



Graphic by Aparna R.

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Lens of the
"Illegal"

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Alpha
Veterans
Center

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1 Synergistic Agriculture

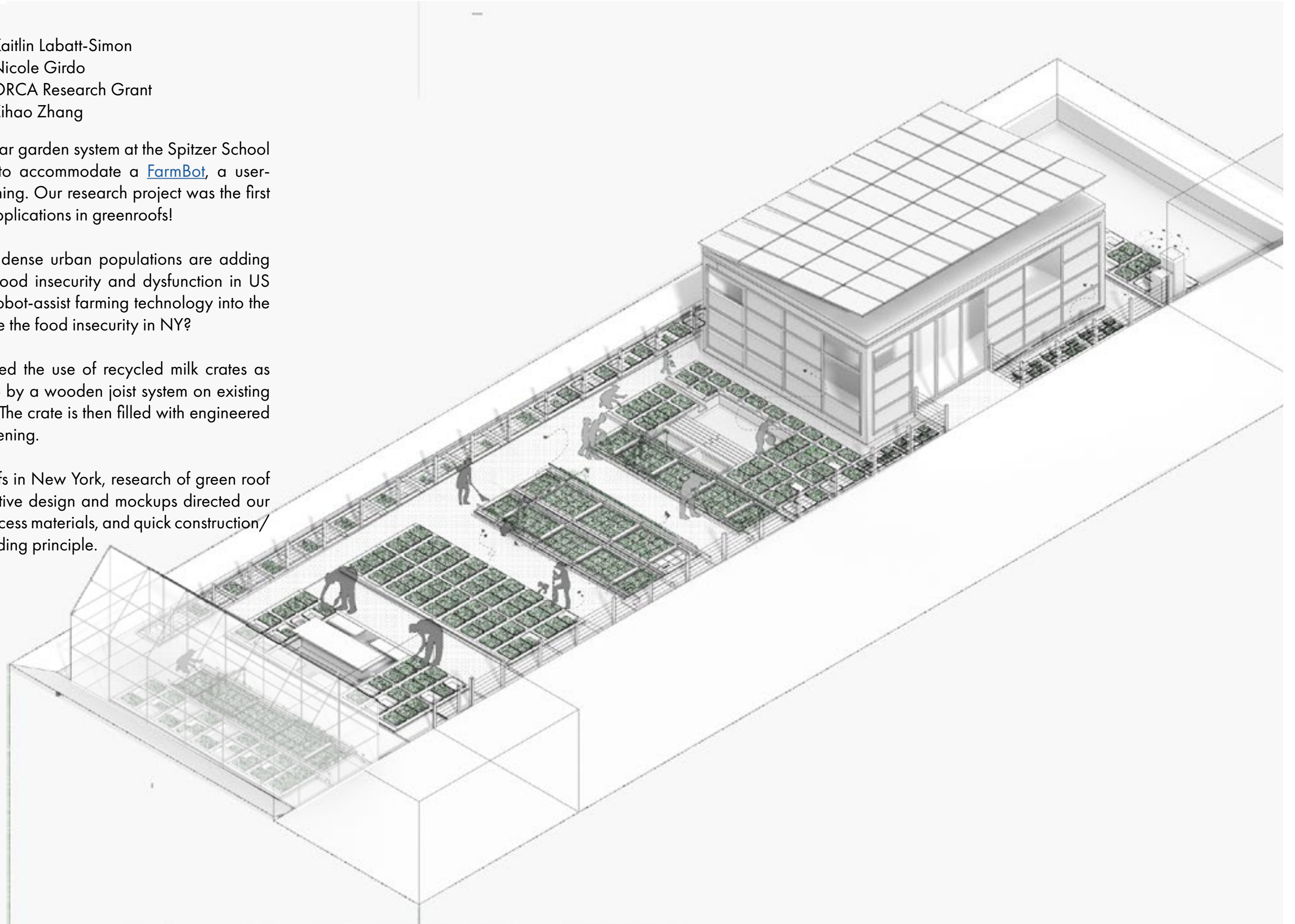
partners | Kaitlin Labatt-Simon
Nicole Girdo
honors | ORCA Research Grant
professor | Zihao Zhang

We designed and built a modular garden system at the Spitzer School of Architecture (SSA) rooftop to accommodate a [FarmBot](#), a user-friendly gantry robot for gardening. Our research project was the first ever effort to look at Farmbot applications in greenroofs!

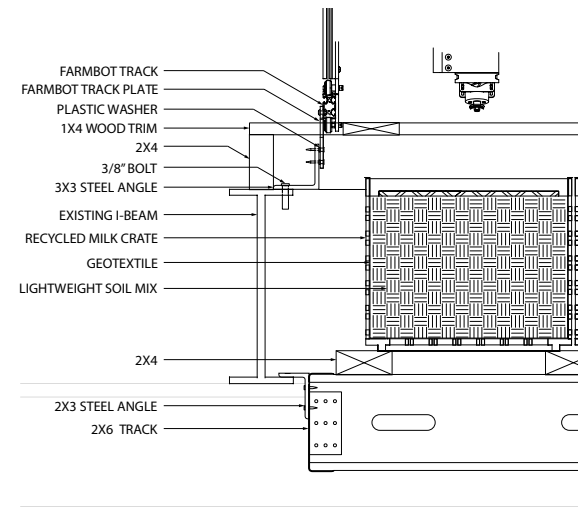
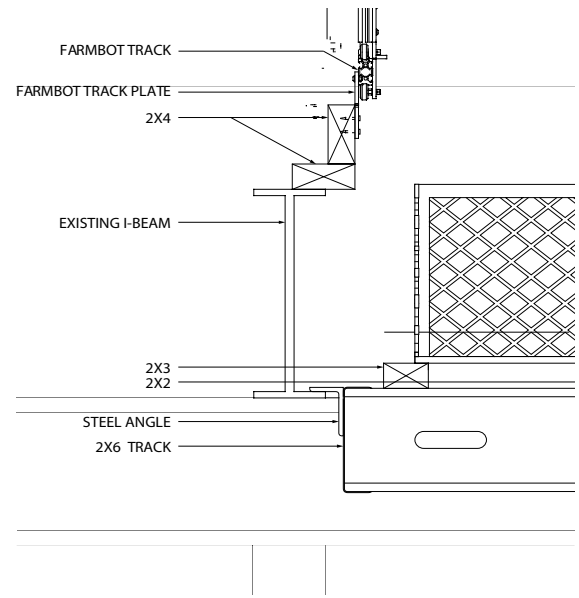
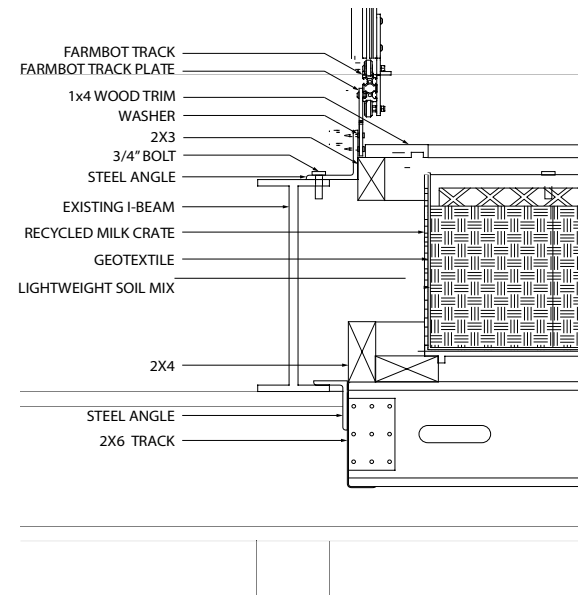
problem: Climate change and dense urban populations are adding stress to the existing threat of food insecurity and dysfunction in US Cities. How can we introduce robot-assist farming technology into the urban environment to ameliorate the food insecurity in NY?

approach: The proposal involved the use of recycled milk crates as modular units. They are held up by a wooden joist system on existing I-beams in the Spitzer Rooftop. The crate is then filled with engineered soil and compost to begin gardening.

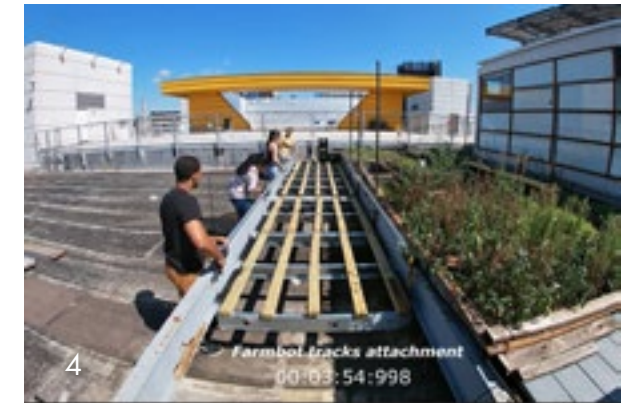
strategy: Site visits to green roofs in New York, research of green roof technology, study models, iterative design and mockups directed our process. Economical, easy to access materials, and quick construction/assembly strategies was the guiding principle.



Axonometric of Vision for Spitzer's Green Roof



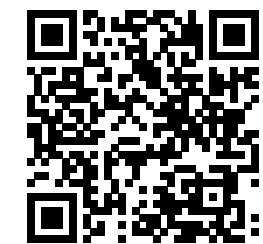
Construction Detail Iterations, detail below was used



Pictures of Various Stages of Construction



Site Photo upon Conclusion



[Video of the construction process](#)

2
Yin Yang House

partners | Christopher Barran
 semester | Fall 2020
 honors | City Works Archive
 professor | John Cunningham

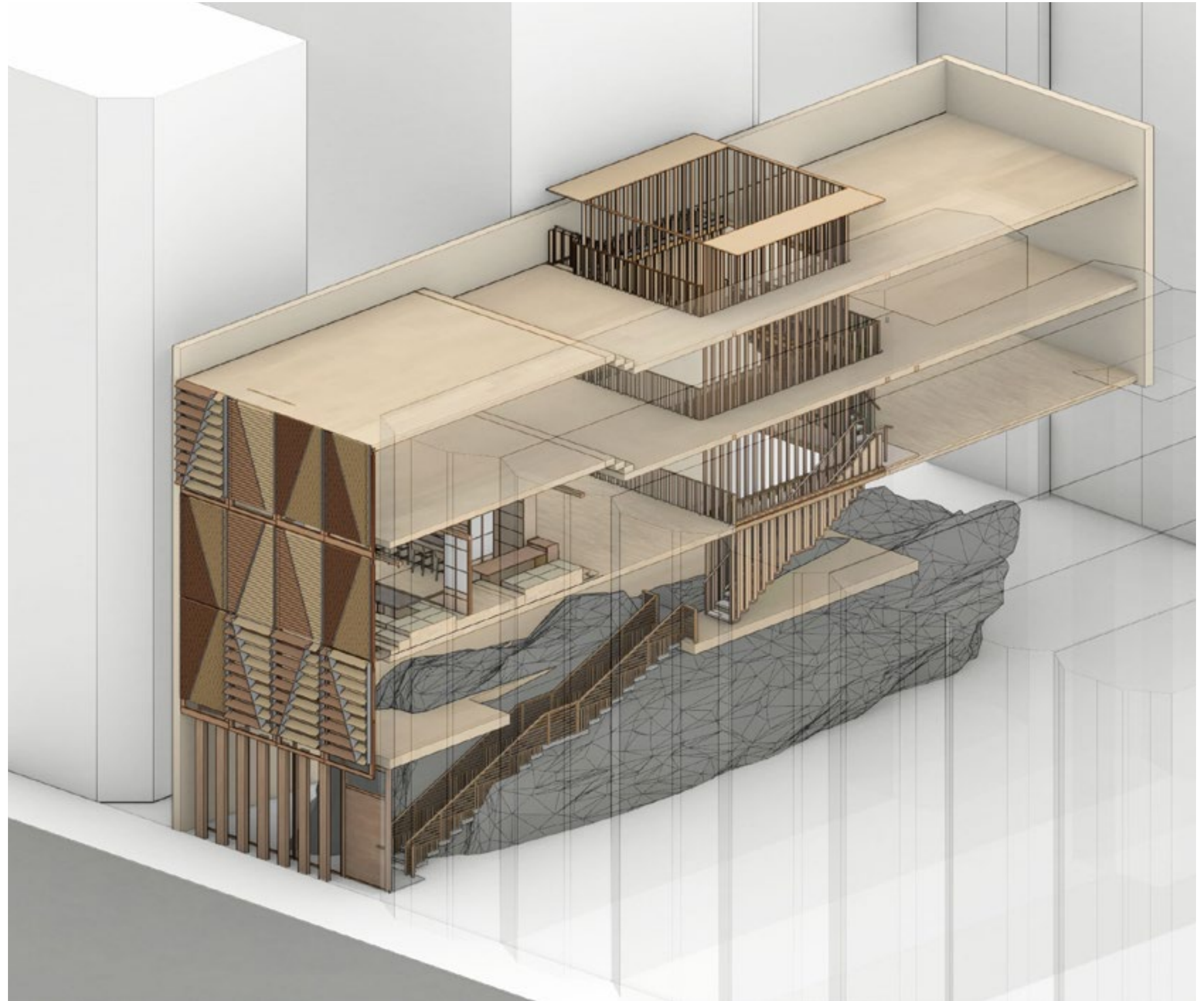
problem: This project envisions a New York lot occupied by a 18' high rock as a townhouse.

approach: The spatial qualities of the rock are retained to enhance the experience in this house. The spaces by the rock are defined as passive/reflective yin spaces that are grounded and the spaces above evoke a more active/lighter yang energy.

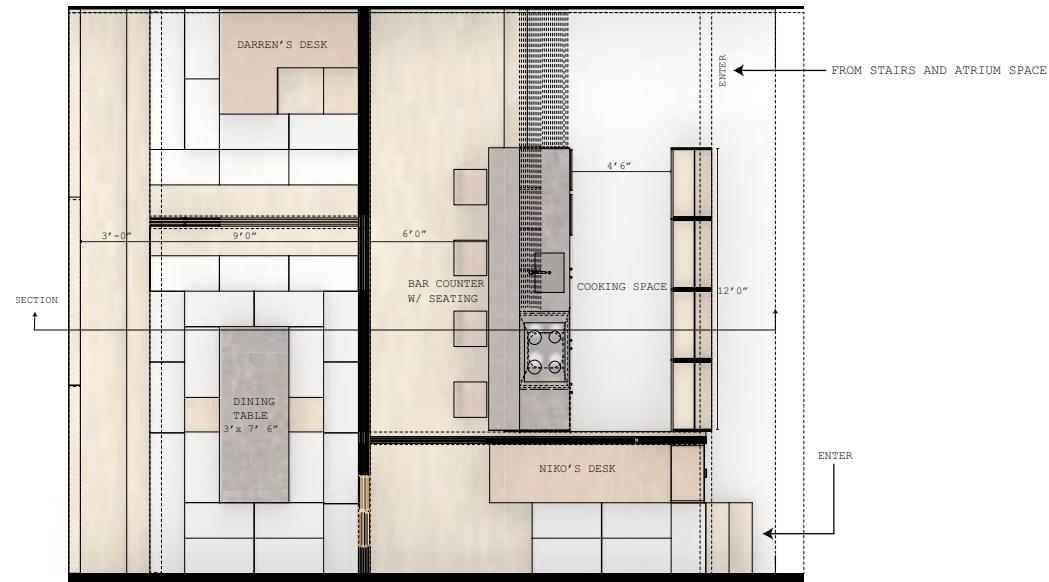
strategy: This approach was translated through the design of the stairs, kitchen and facade. The assembly/details of how the various elements come together are essential to this project.



Latitudinal Section



Axonometric with Context

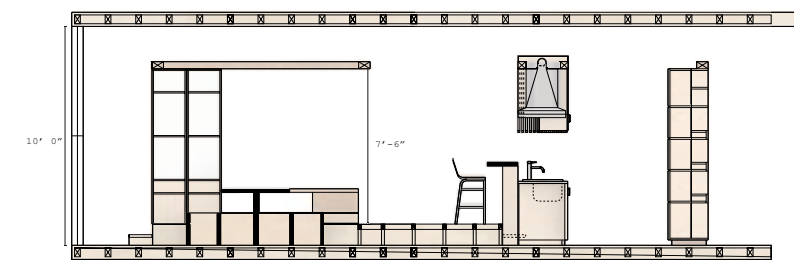


Plan of Kitchen (1-1/2"=1')

The **kitchen** doubles as a work space reflecting on the pandemic driven importance of adaptable spaces.

kitchen: Ample storage, an island kitchen with bar tables and tatami influenced seating options define this reflective space.

workspace: Privacy-shoji screens, storage, conference spaces and personal desks allow it to become an active work space.



Section of Kitchen (1-1/2"=1')



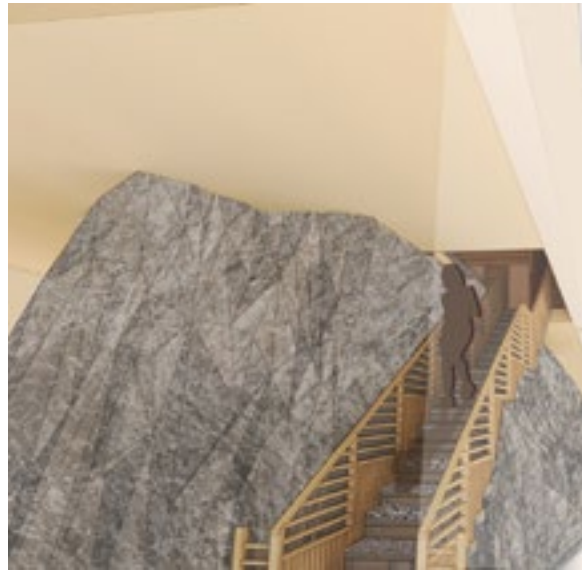
Interior Render- Rock Garden & Yang Stairs on Floor 2. Journey to Kitchen in Floor 3



Interior Render- Viewing Kitchen/ Workspace

The **stairs** define yin and yang spaces. The user has to move through the **yin/reflective rock stairs** to reach Floor 2 (above render) and travel through the **yang/active wooden stairs** to access the kitchen (render to the left)

yin/rock stairs: Embedded on the rock, are textured stone stairs that lead occupants from the ground floor to the first floor's rock garden.



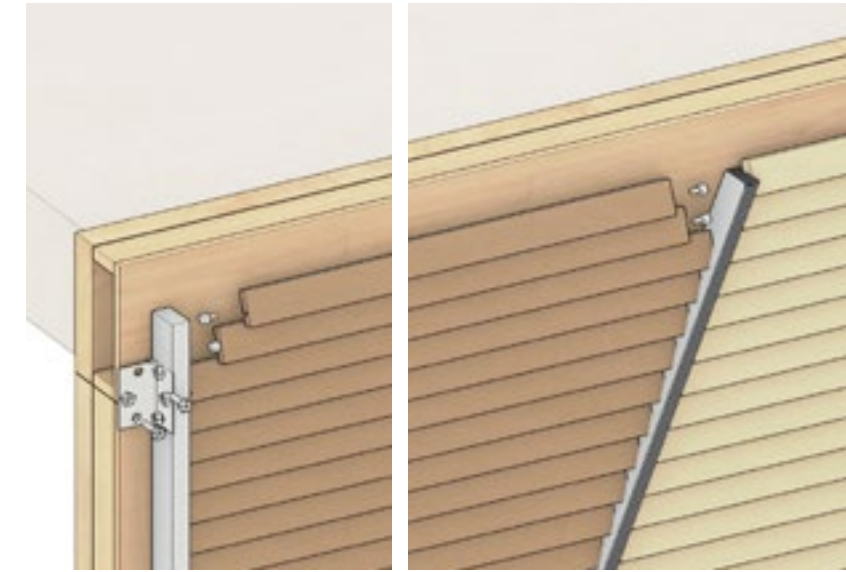
Render of Stone Stairs on Floor 1

yang/wood stairs: Above the rock are open tread wooden stairs centered around an airy light filled courtyard with wooden slats.

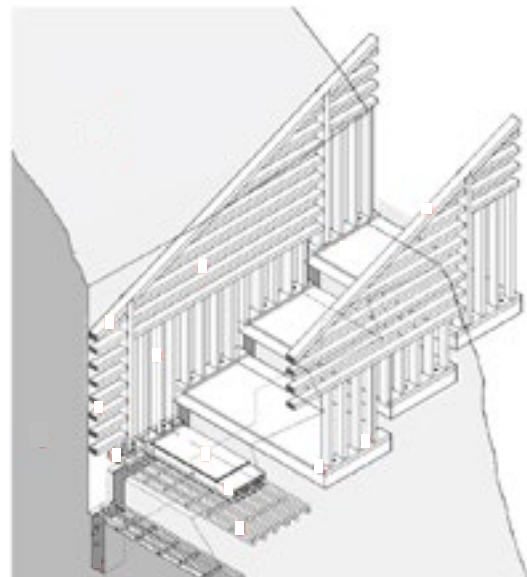


Axonometric of Wooden Stairs on Floors 2 and above

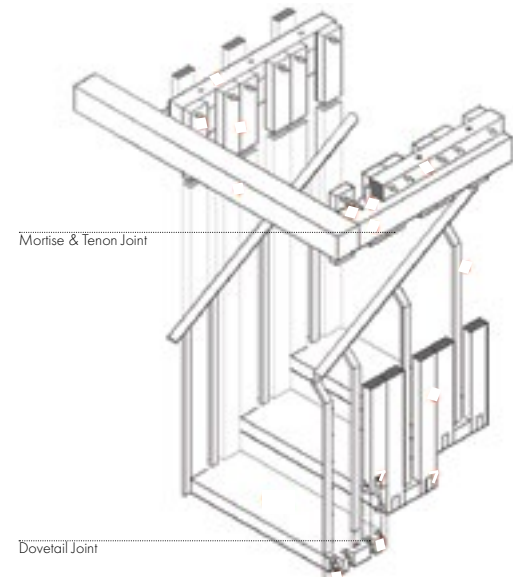
facade: uses louvers of varying thicknesses corresponding to the interaction between the interior program and exterior environment. The horizontality of the louvers and the vertical slats of the courtyard are meant to evoke a sense of harmony



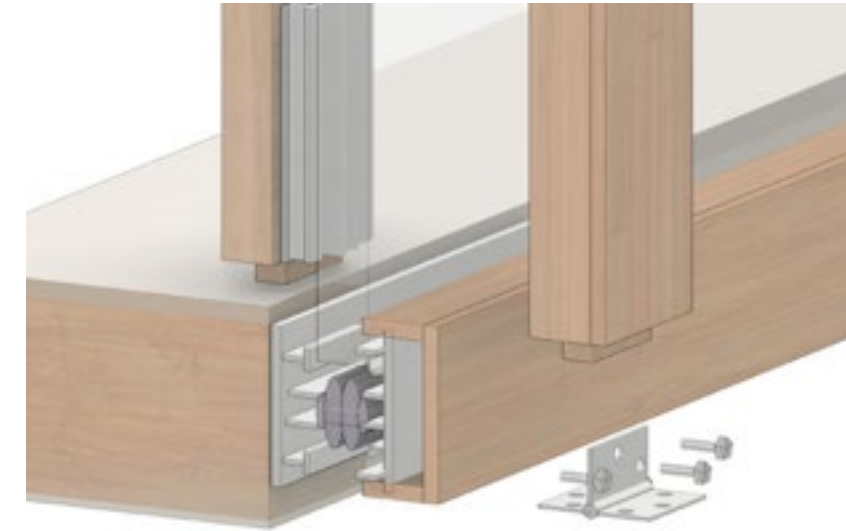
Detail- Facade Louvers



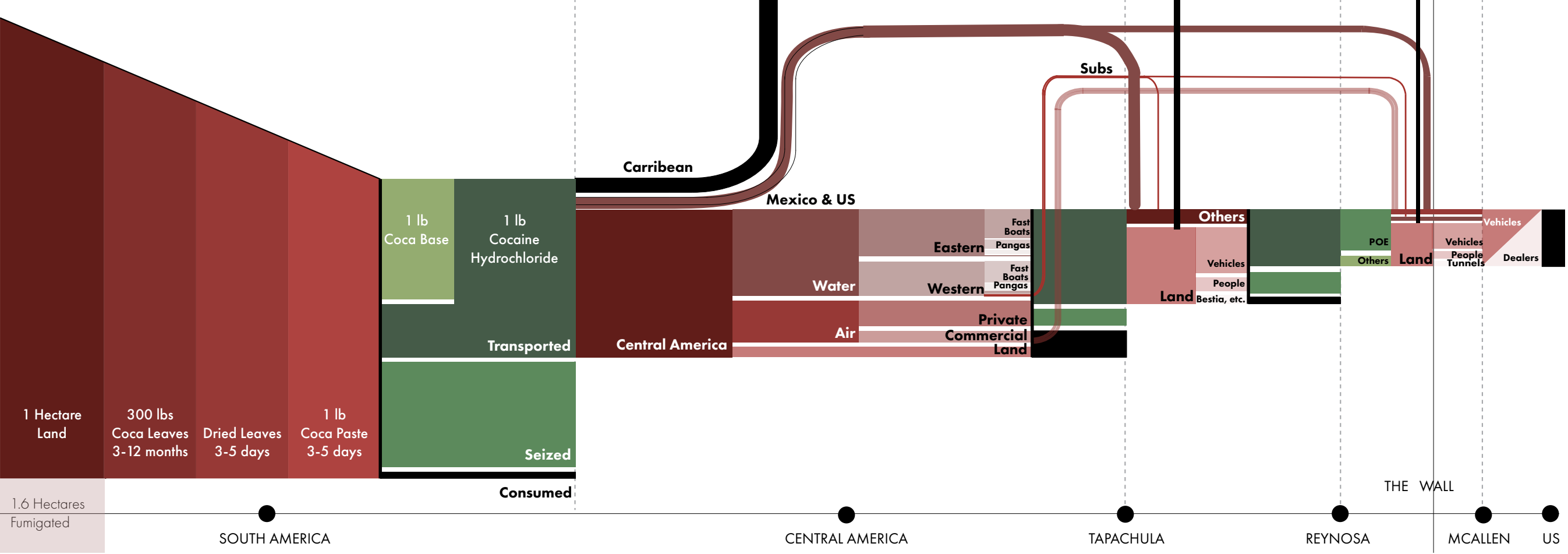
Detail of Stone Stairs (inspired by Reflexology)



Detail of Wooden Stairs (inspired by Japanese Joinery)

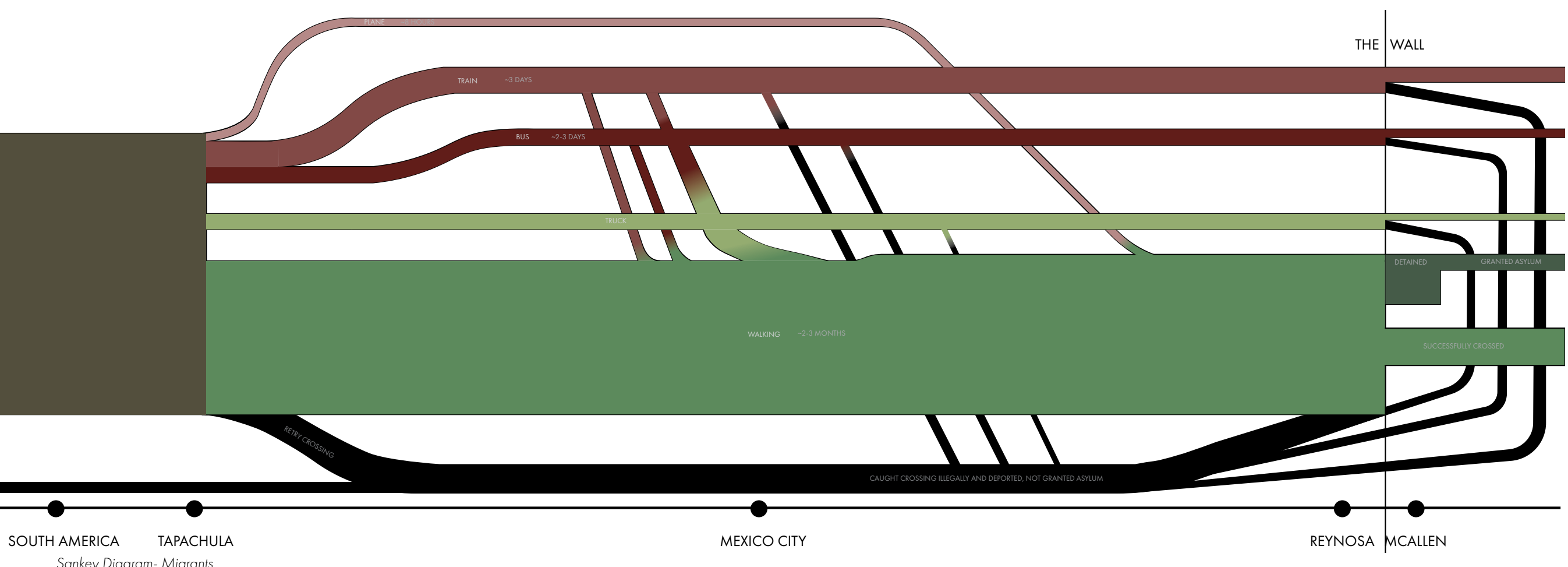


Interior Render- Approaching Floor 2 Wooden Stairs



Sankey Diagram - Cocaine

Drugs & Migrants travel across similar routes. More illegal commodities & people are seized before the US border



Sankey Diagram - Migrants

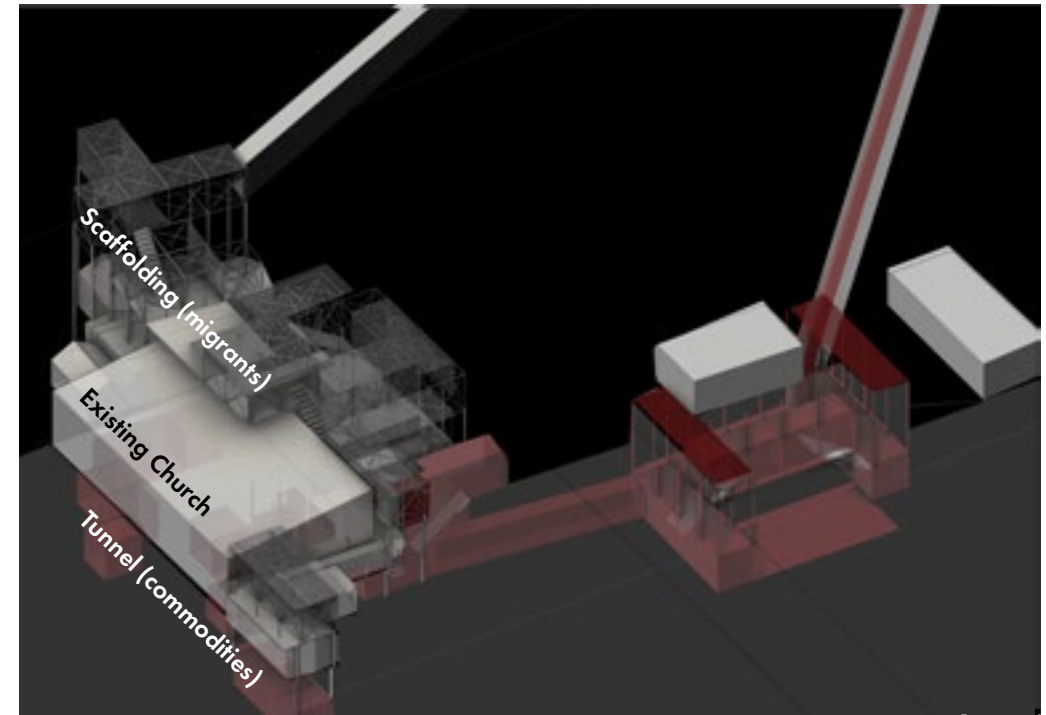
People travel primarily by land while drugs use more water/air routes. Migrants walk atleast through one part of their journey.

Inspired by 'Hollow Lands' by Eyal Weizmann, this speculation plays on legality in verticality. Spaces above ground are spaces where migrants inhabit & spaces below ground are tunnels for movement of drugs.

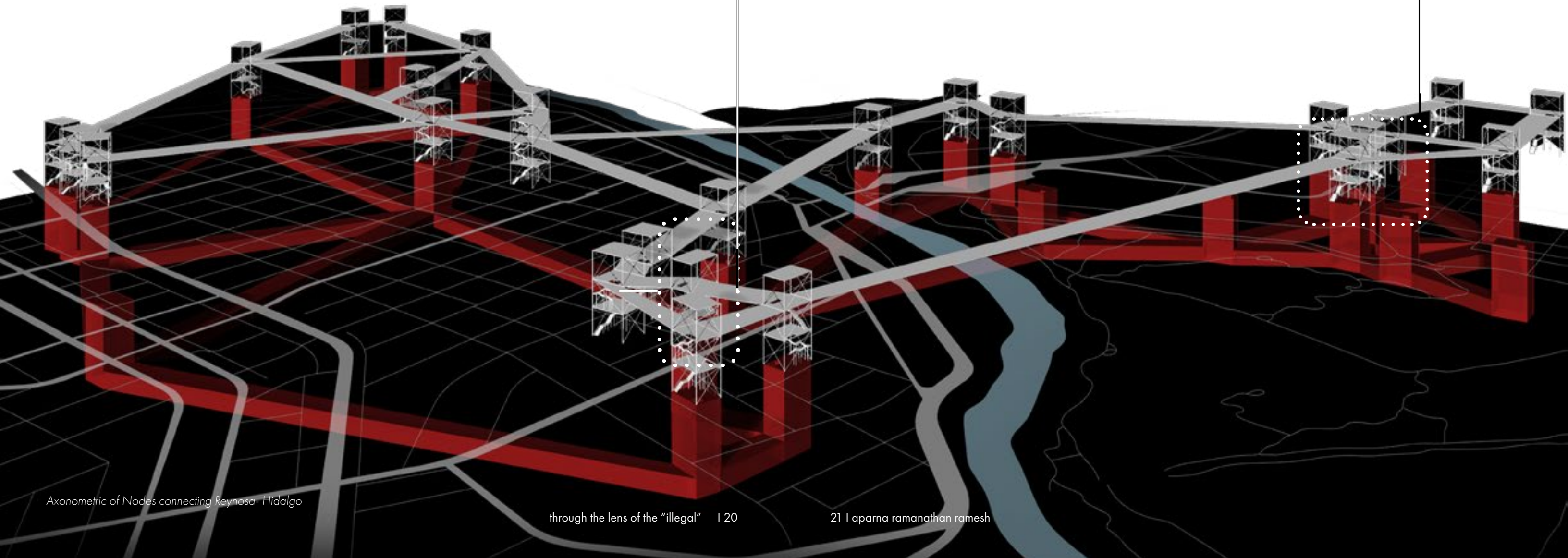
The proposed design is a scaffolding structure which aims at providing a framework that migrants and occupants can make their own, a space for agency. It is added to spaces where migrants can become visible without persecution like migrant camps/ churches.



Render- Speculative Scaffolding Structure, Migrant Camp at Reynosa



Axon- Speculative Proposal at Church in Hidalgo (white- existing church, scaffolding/red-proposal)



Axometric of Nodes connecting Reynosa- Hidalgo

4
Alpha
Veterans
Center

semester | Summer 2022
professor | Theresa May

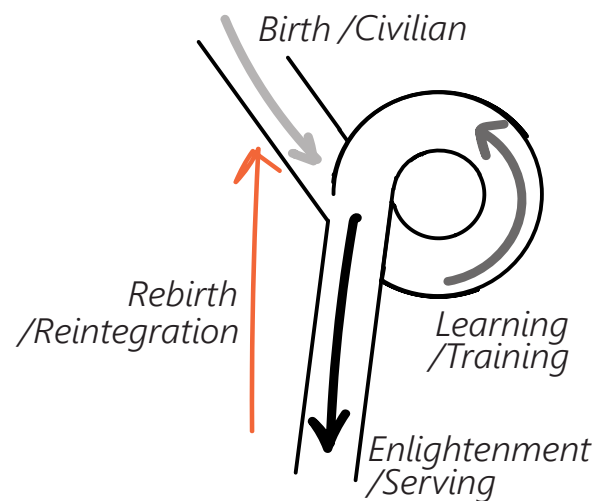
problem: This project aimed to create a spiritual space in Riverhead, NY.

approach: This center is an attempt to redefine spirituality by rooting it in a secular history that unites the town, its military history. The building is examined as a vessel that encapsulates the different facets of life, birth, living and death, through a reflective procession. Through change in elevation, and striking axes, this symbol also aims to parallel to the various stages of military life.

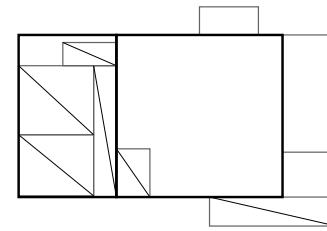
strategy: While visiting the site, the circulation path connecting the road/main street to the river drew my attention. My design focused on preserving this axis capitalizing on views from both the street and river to draw people into the site.



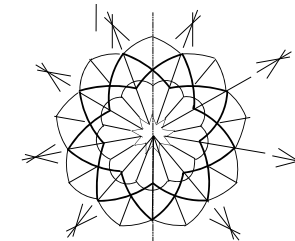
Interior Render- Overlooking Courtyard



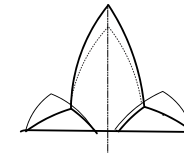
Spirituality/Armed Services Concept



Parti Diagram
Precedent Study- The MET Cloisters, NY

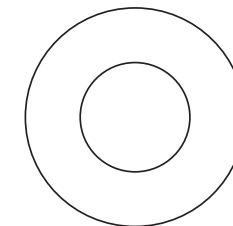


Parti Diagram

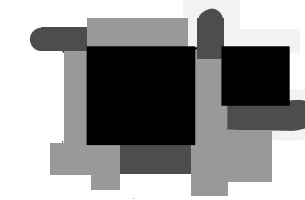


Parti Diagram

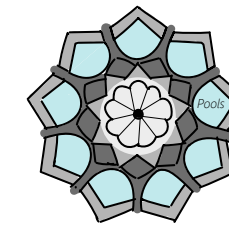
Precedent Study- Lotus Temple



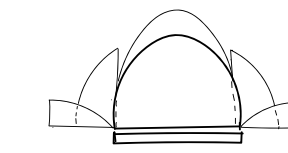
Cloister
Concept Diagram



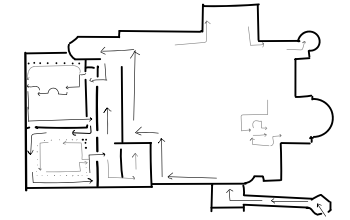
Program (Meditative > Active)



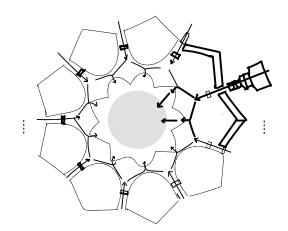
Program (Public > Private)



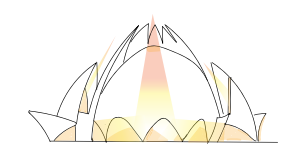
Massing



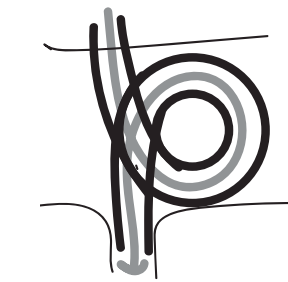
Circulation



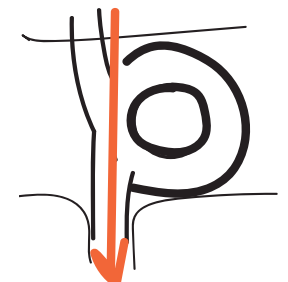
Circulation



Natural Lighting



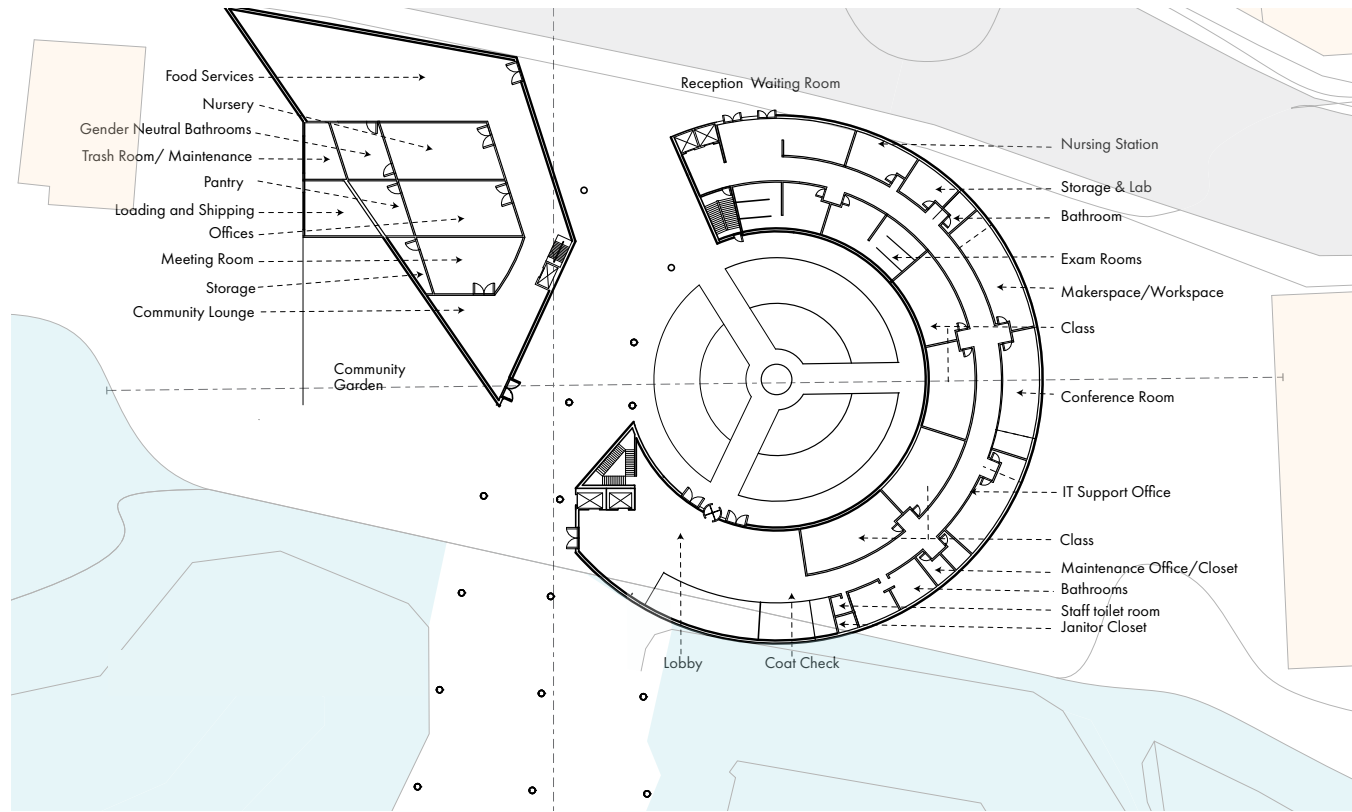
Integrating Context



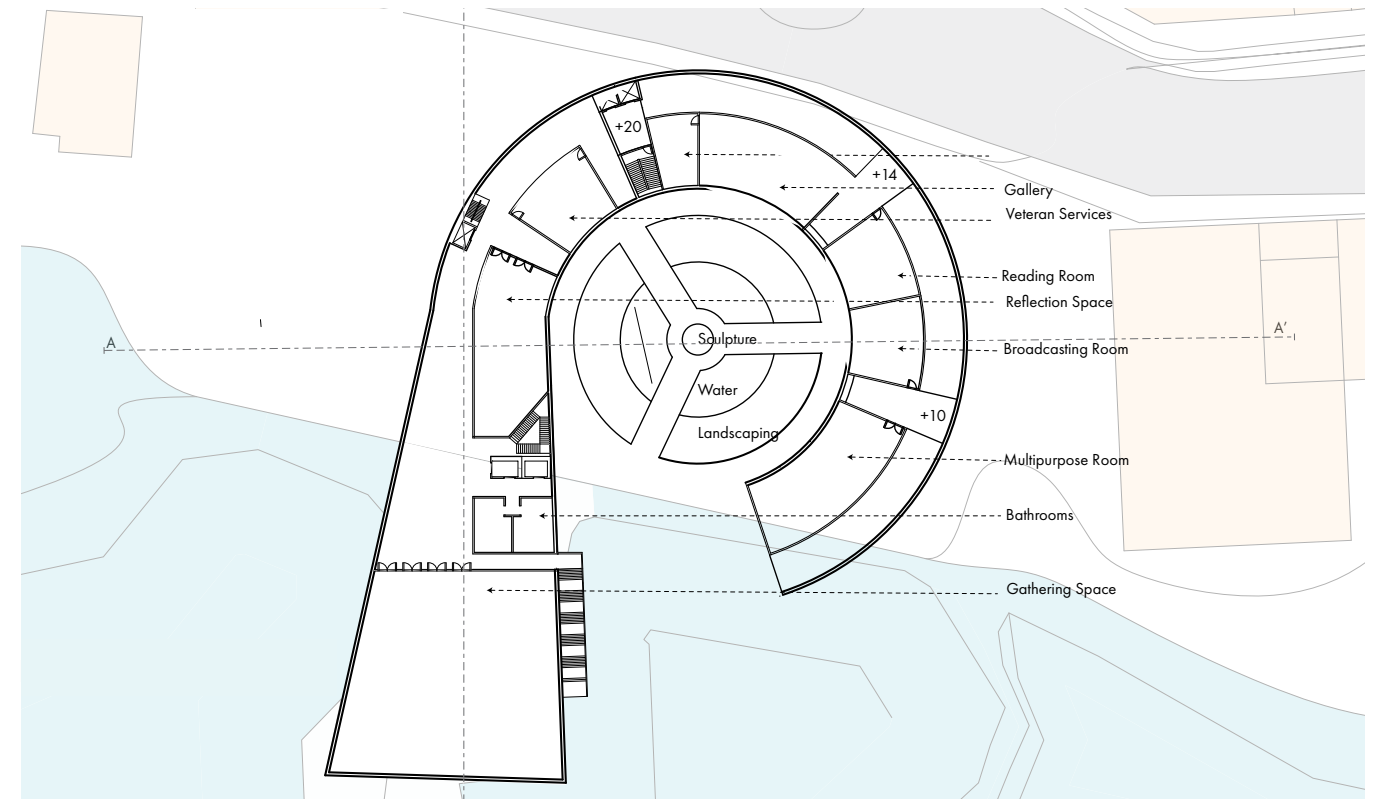
Establishing Axis



Axonometric with Context



Floor 1 Plan

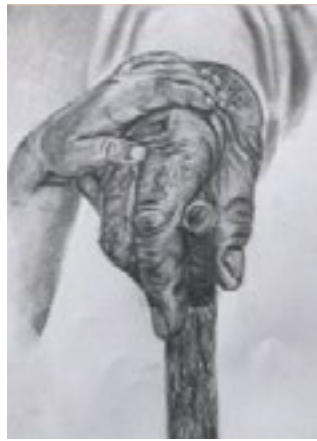


Floor 2 Plan



Exterior Render-Looking from Street

5
Others



Moving through Time
Graphite on Paper



Live-Made-Dead
Graphite on Paper



Physical Model- Spitzer School of Architecture Studio
Chipboard, Foam Core, Wood



Chettinadu
Watercolor on Paper



Zoomscape
Charcoal on Paper



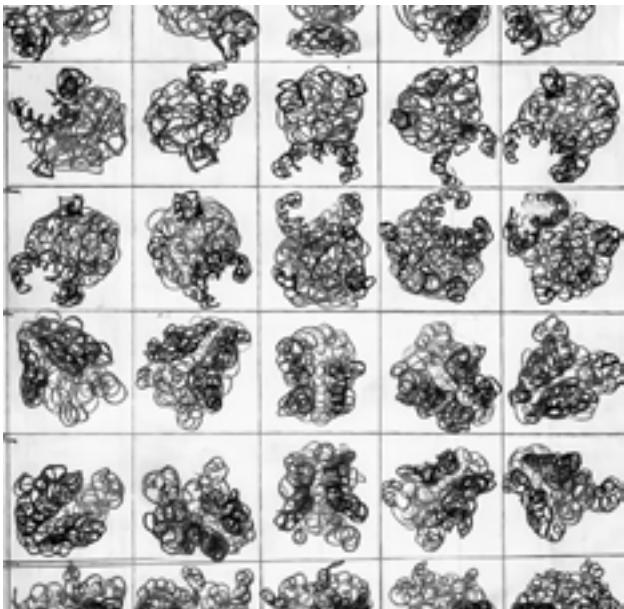
Istanbul
Color Pencil on Paper



Portrait, Zaha Hadid
Charcoal on Paper



Self Portrait
Soft Pastels on Foam



The Popcorn Matrix
Graphite on Paper



Mermaid
Clay

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