

Sam Melnick

Selected Works

Virginia Tech B.Arch 2023

Contents

1. Promenade Affordable Housing	4
2. Duck Pond Amphitheater	12
3. Mycelium Makerspace Wall	14
4. Zambia Health Outpost	18
5. Kentland Farms Center	24
6. Lake Lugano Friendly Monster	28
7. Thesis Contemplations	32
8. Assorted Extracurricular	34

Education

Virginia Tech, Blacksburg, VA
Bachelors of Architecture 2023, 5th Year Thesis

Riva San Vitale, Switzerland, Residency 2022
Residency program including a studio class and Europe travel.

Chicago Integrative Studio 2021
Chicago residency & intense studio advised by Chicago firms Booth Hansen & Von Weise Associates with a focus on affordable housing.

Awards

1st Place - Virginia Tech Third Year Competition
Week long architecture competition designing an amphitheater, 110 participants.

Dean's List - 3.82 GPA - Virginia Tech

Extracurricular

Art Director - WUVT 90.7 FM Radio
Blacksburg, VA, 2022 - Present
Managed staff of artists to create promotional material and merchandise. Worked on rebranding and style guidelines. Served on the station leadership board. Designed posters.

Radio DJ - WUVT 90.7 FM Radio
Blacksburg, VA, 2020 - Present
Curated weekly college radio show.

Graphic Designer - Studio Collective Magazine
Blacksburg, VA, 2020 - 2021
Produced magazine graphics and silkscreened merchandise.

Mycelium Materials Research - Virginia Tech ID
Blacksburg, VA, 2020-2021
Processed and grew mycelium, designed flexible formworks, worked on grant writing and editing.

Experience

Architecture Intern - Reid Architecture, Brooklyn, NY, Summer 2022

Drafted layouts and designs of high end retail and residential typologies in AutoCAD. Modeled in Rhino and rendered in Lumion. Researched and assembled precedent and visualization packages.

Architecture Internship - Booth Hansen, Chicago, IL, November 2021

Internship following a semester of advising. 3d printed models, formulated InDesign layouts, and created site plans.

Architecture Intern - Architecture Workshop 4B, McLean, VA, Summer 2021

Drafted permit drawing sets in AutoCAD. Created massing and presentation visualization. Participated in client meetings and site visits. Hybrid in person and virtual.

Exhibit Design Intern - Port Discovery, Baltimore, MD, July 2019

Researched for future exhibits, modeled for 3d printing in Rhino, participated in back of house museum work including construction drawing database management.

Proficiencies

Rhino 7
Autocad
Revit

Photoshop
Illustrator
InDesign

Lumion
Enscape

Team Management
Concept Presentation

1

Promenade Affordable Housing

Integrative Chicago
Design Studio

Collaborator: Allison Rogers
Advisor: Booth Hansen

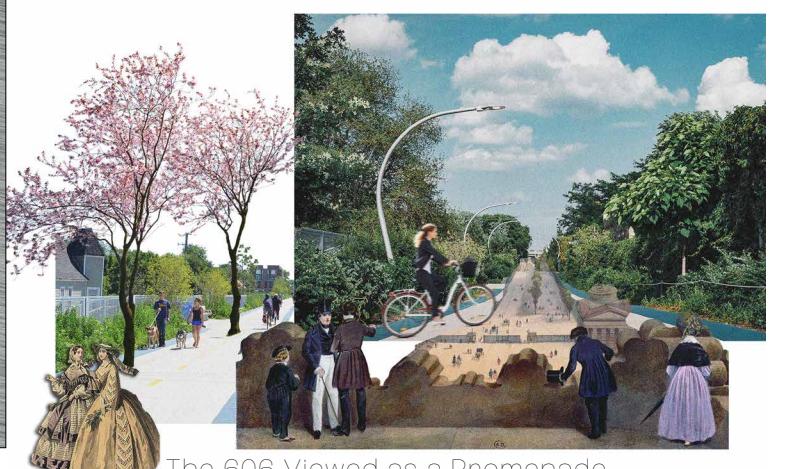
2021, 4th Year
Semester
240 Units &
55,000 sq ft
Mixed-Use

This affordable housing and mixed-use development at the western end of Chicago's 606 bike trail serves as an anchor for the current community facing gentrification. The 606 is formally and socially similar to a historical promenade, a place of class based trials of legitimization, while also being a wonderful public greenspace. To counteract these disparities the trail has been captured by the affordable housing development and used as an organizing structural element with a series of programmatic twists.

Pictured is a colonnade parallel to the organizing promenade which features areas of rest and entrance into one of the building's community arts spaces.

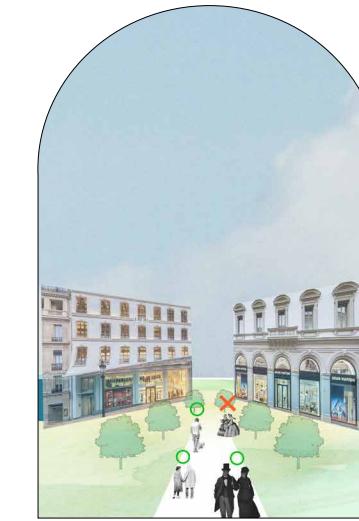


Arts Space, Artists: Emory Douglas, Georgia O'Keeffe, Gustave Caillebotte

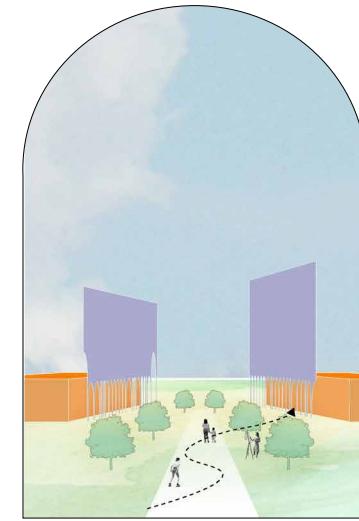


The 606 Viewed as a Promenade

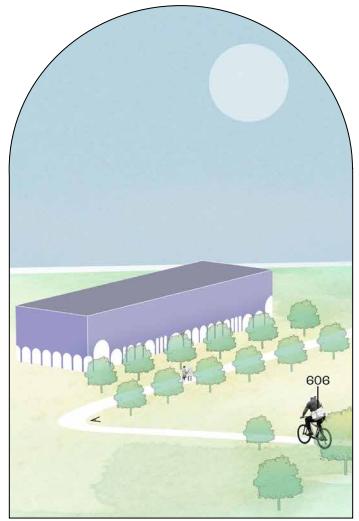




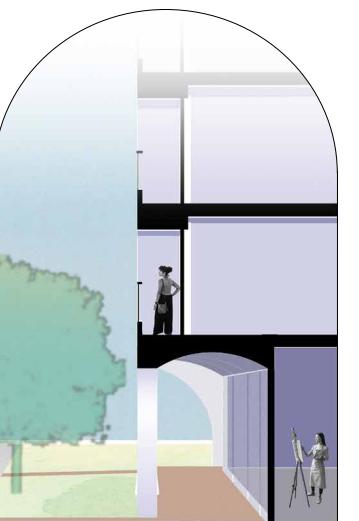
The historical promenade programmed by luxury and trials of acceptance



A modern programmatic shift to public programming and accessibility



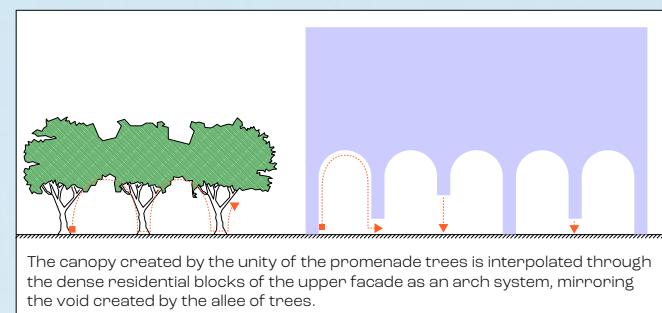
Our formalist rendition of the promenade perpendicular to the 606



Layers of space create layers of choice through an inviting facade

This project views the 606 trail as a modern embodiment of the historical promenade due both its formal nature as a raised linear park as well as the class based trials of legitimization that occur around it through gentrification. To promenade is to be seen and accepted as a member of the community and the 606 is turning part of the community away through displacement and class based discrimination.

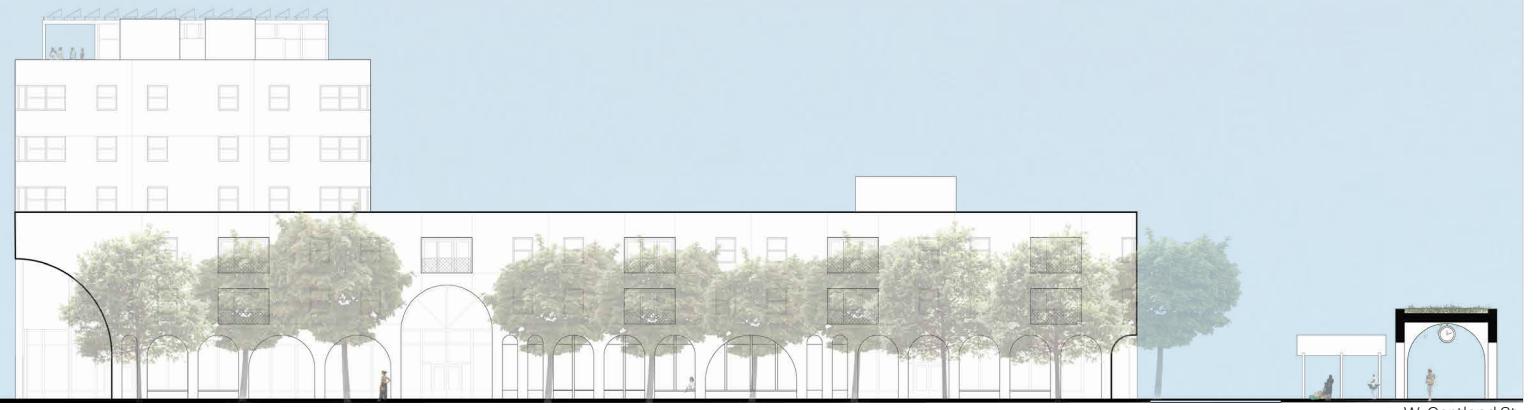
This effect has been acknowledged and counteracted on the site by placing an organizing promenade perpendicular to The 606's terminus and reprogramming the historical issues of exclusivity with spaces for the community and affordable housing. These spaces are brought out onto the promenade itself through the varying plazas including an amphitheater and market plaza. This historical form's alley of trees is used to create rhythm for the facade and the playful colonnade that occupies the ground floor.



The canopy created by the unity of the promenade trees is interpolated through the dense residential blocks of the upper facade as an arch system, mirroring the void created by the allée of trees.



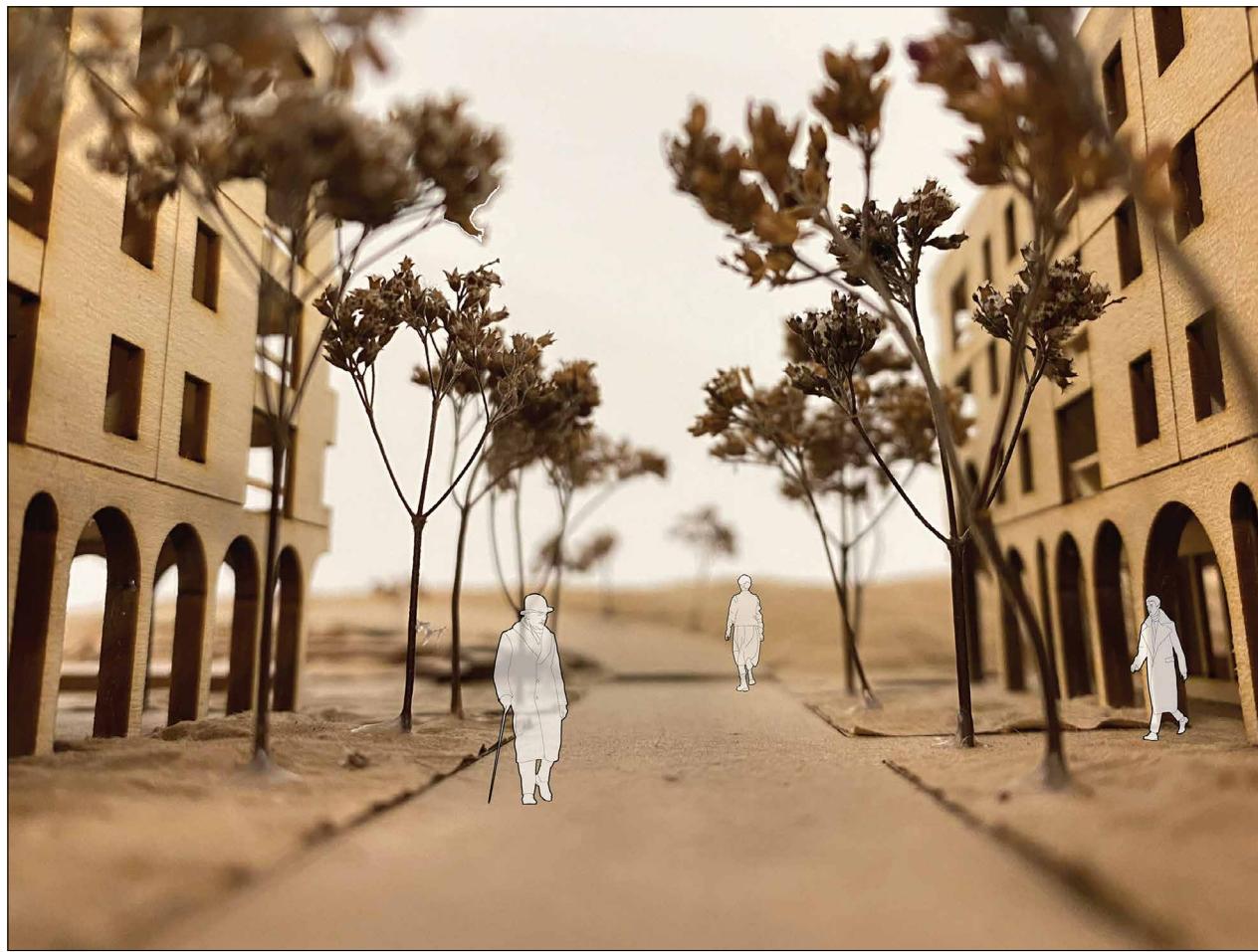
606 Trail



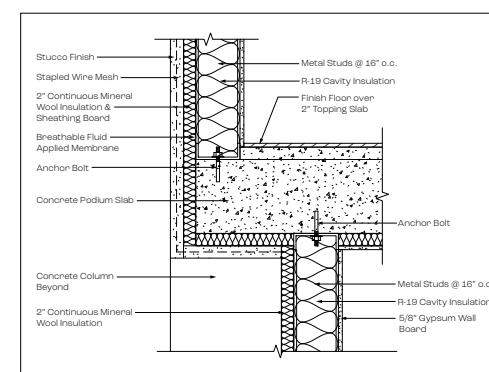
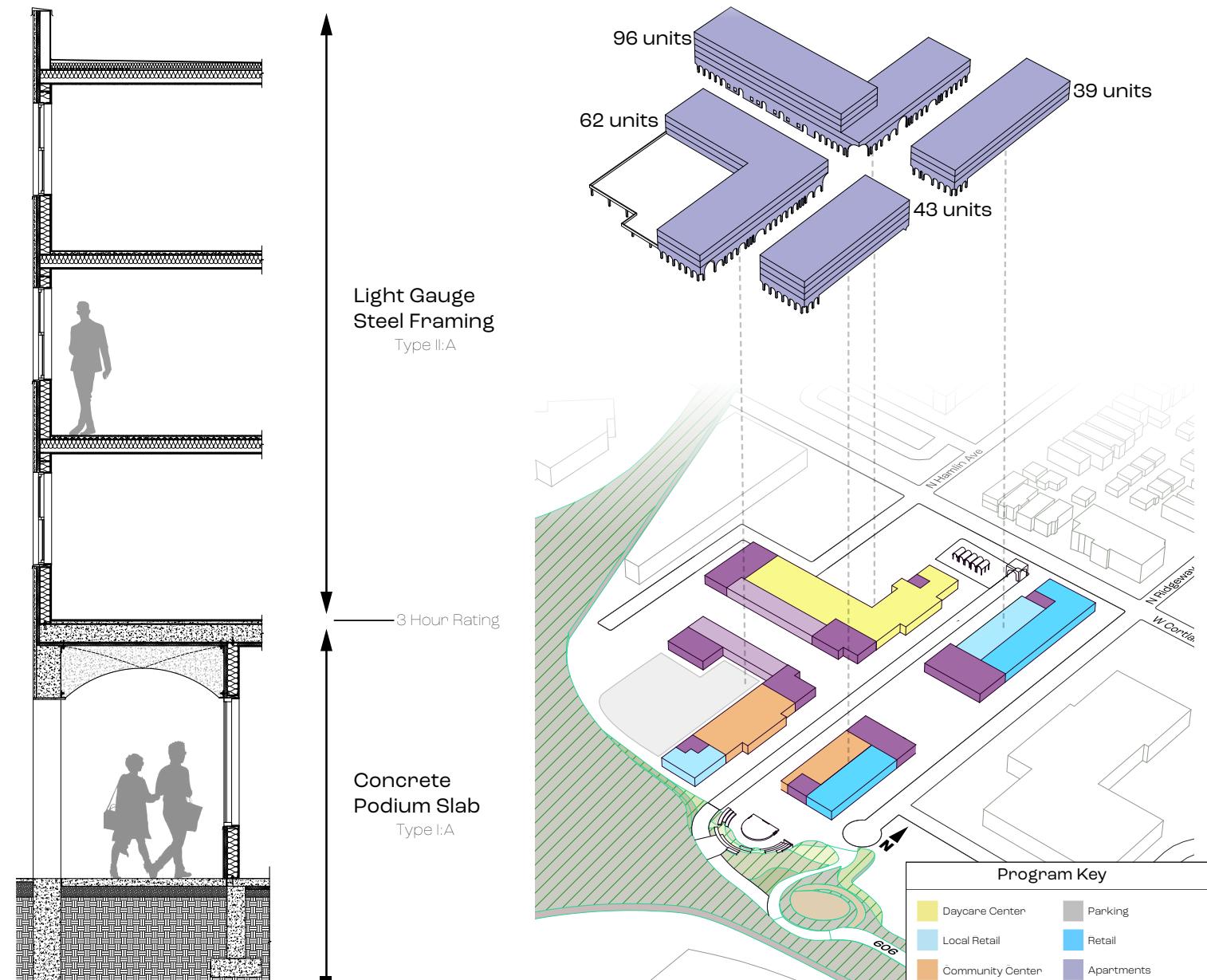
W. Cortland St.



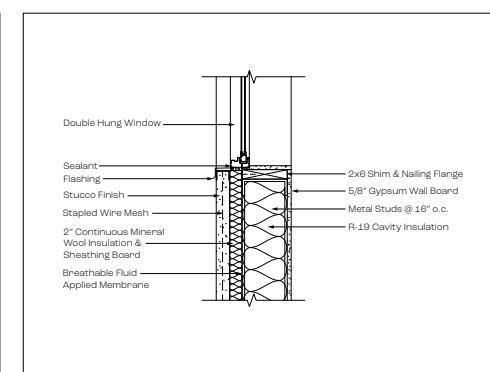
1/16" Scale Basswood Model



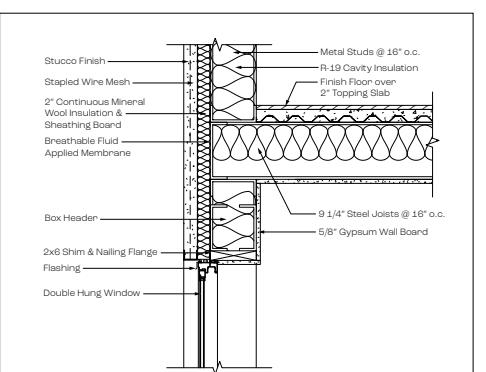
The promenade coming off the 606 acts as the structural guide for the architecture



Concrete Podium Slab Detail



Window Sill Connection Detail



Window Header Detail

2

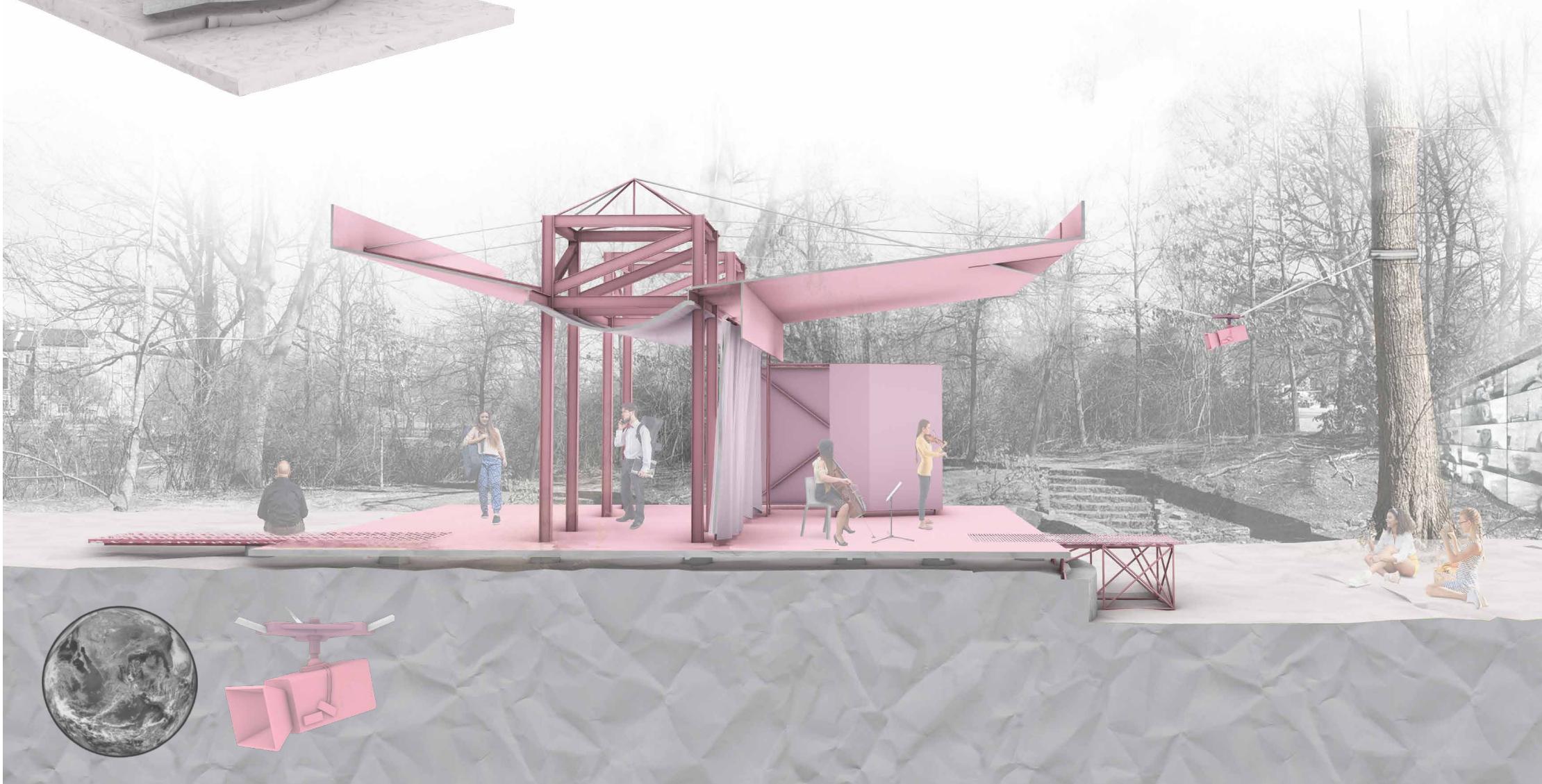
Duck Pond Amphitheater

Competition: 1st/110

2021, 3rd Year
1 Week
1,500 sq ft
Amphitheater

Quarantine is mostly over, however, the new digital connectedness we gained because of it is not. We have attended lectures and connected with peers around the world in ways we never could have dreamed of, and we aren't done yet!

This Amphitheatre challenges the idea that once performances return to the physical world they will only exist there. On the unlikely location of the outdoor stage a streaming camera is hung from two elder trees and the frame of the stage, becoming the only ornamentation of the proscenium. This setup invites Blacksburg to the site and the rest of the world to temporarily take part of the duck pond into their homes, maintaining the digital connections we have formed while giving them a concrete object in the world.



The Camera translates the Site to the World



3

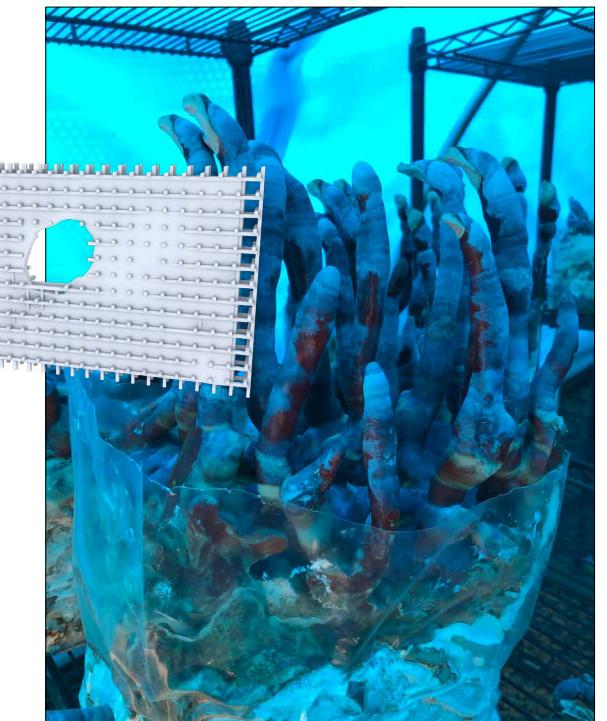
Mycelium Makerspace Wall

2020, 3rd Year
6 Weeks
2' x 36' x 8'
Dividing Wall

This mycelium (the vegetative part of fungi) and wood wall divides a metal shop and woodshop in the new Virginia Tech Innovation District. The wall serves as a reminder to the shop's users to always look for new eco-conscious solutions to growing problems by showcasing mycelium locked wood joints alongside classical bolted connections on the same wall.



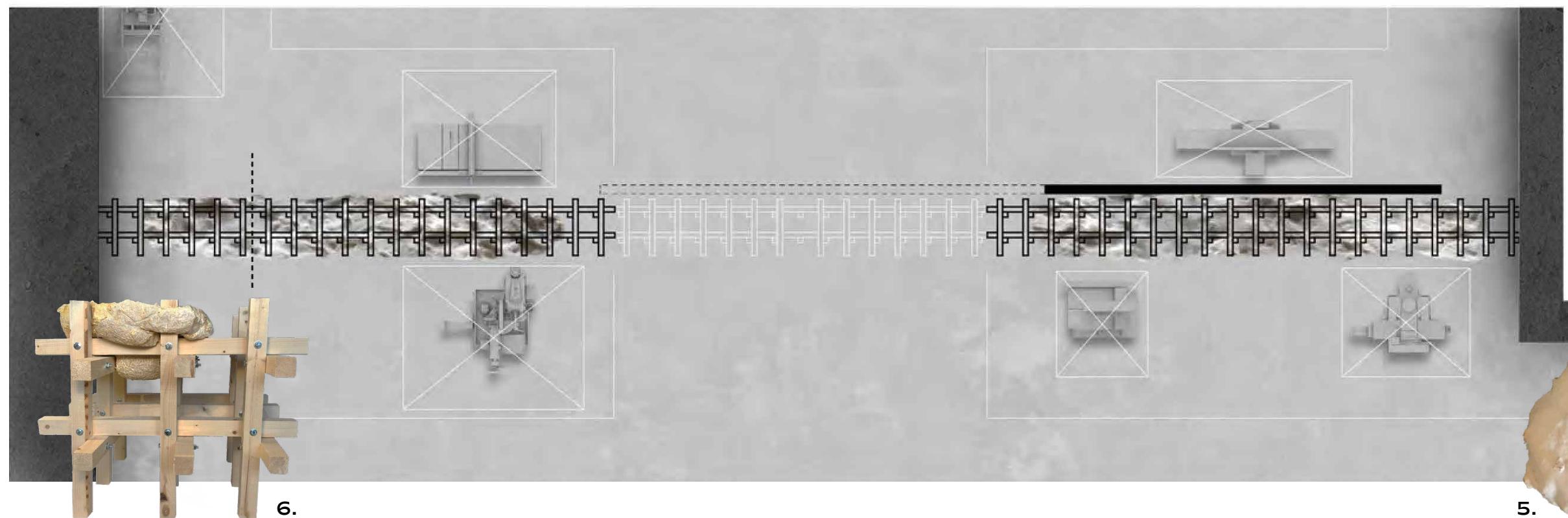
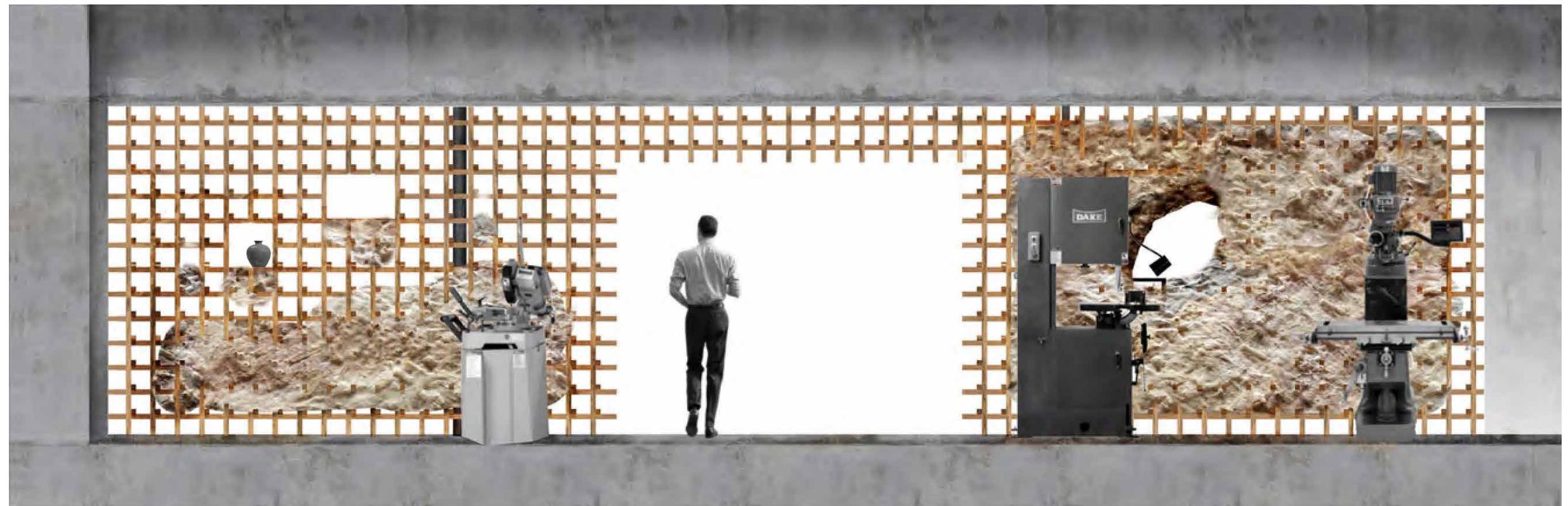
1' = 1' Study Model - Reishi Mycelium, Wood, Metal Bolts



Wall Model / Growing Reishi Mushrooms

Although mycelium is molded in a similar way to concrete formwork, the wall hopes to entertain the viewer's expectations of a grown substance by appearing to organically overtake the wood, even though every dip and bend is an intentional action created through recycled plastic formwork.

1. Hemp Composite
2. Plastic Bed
3. Loaded Form
4. 15 Days Growth
5. Ideal Growth
6. 1'=1' Study Model



4

Zambia Health Outpost

2020, 2nd Year
Semester
1,500 sq ft
Healthcare

A health outpost commissioned by the Zambian Government to service a rural community. The outpost itself is only occupied a few days out of the week as a traveling doctor visits different locations throughout the region.

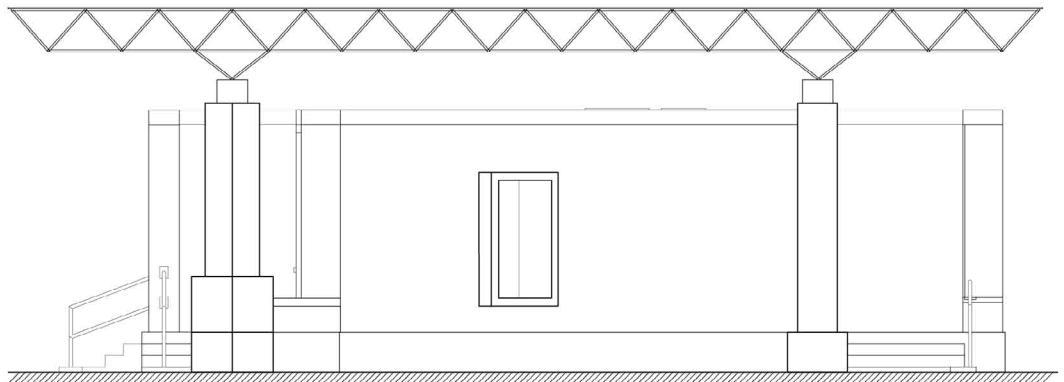
Because this outpost serves a 40 mile radius that would often be traveled by foot or communal transport, it was designed to have the sublime qualities of light and form found at pilgrimage sites.

The project makes use of site harvested rammed earth and a space frame secondary roof to keep the sun off the lower chamber. This roof is factory built and shipped by the government to unite the local and national health efforts. A bathroom and changing station are located off site.

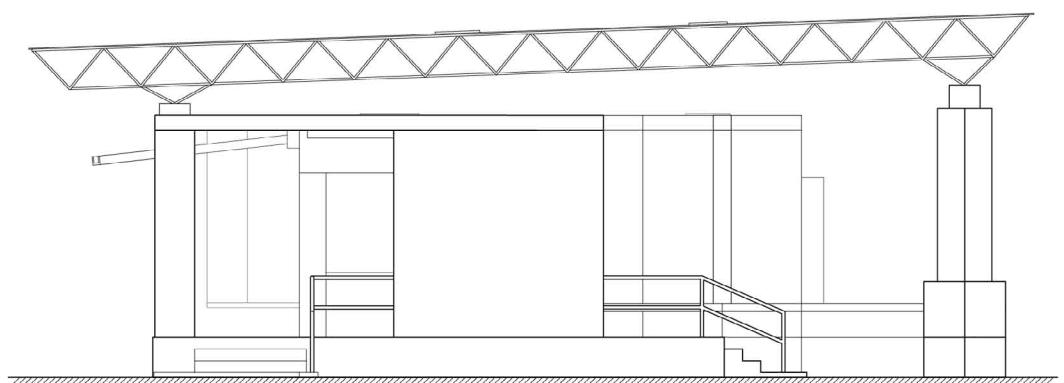


Clinic Entrance - Lumion

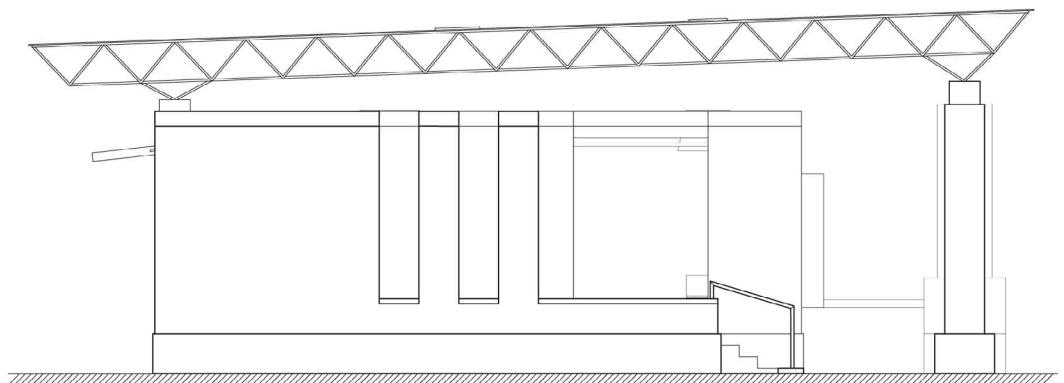




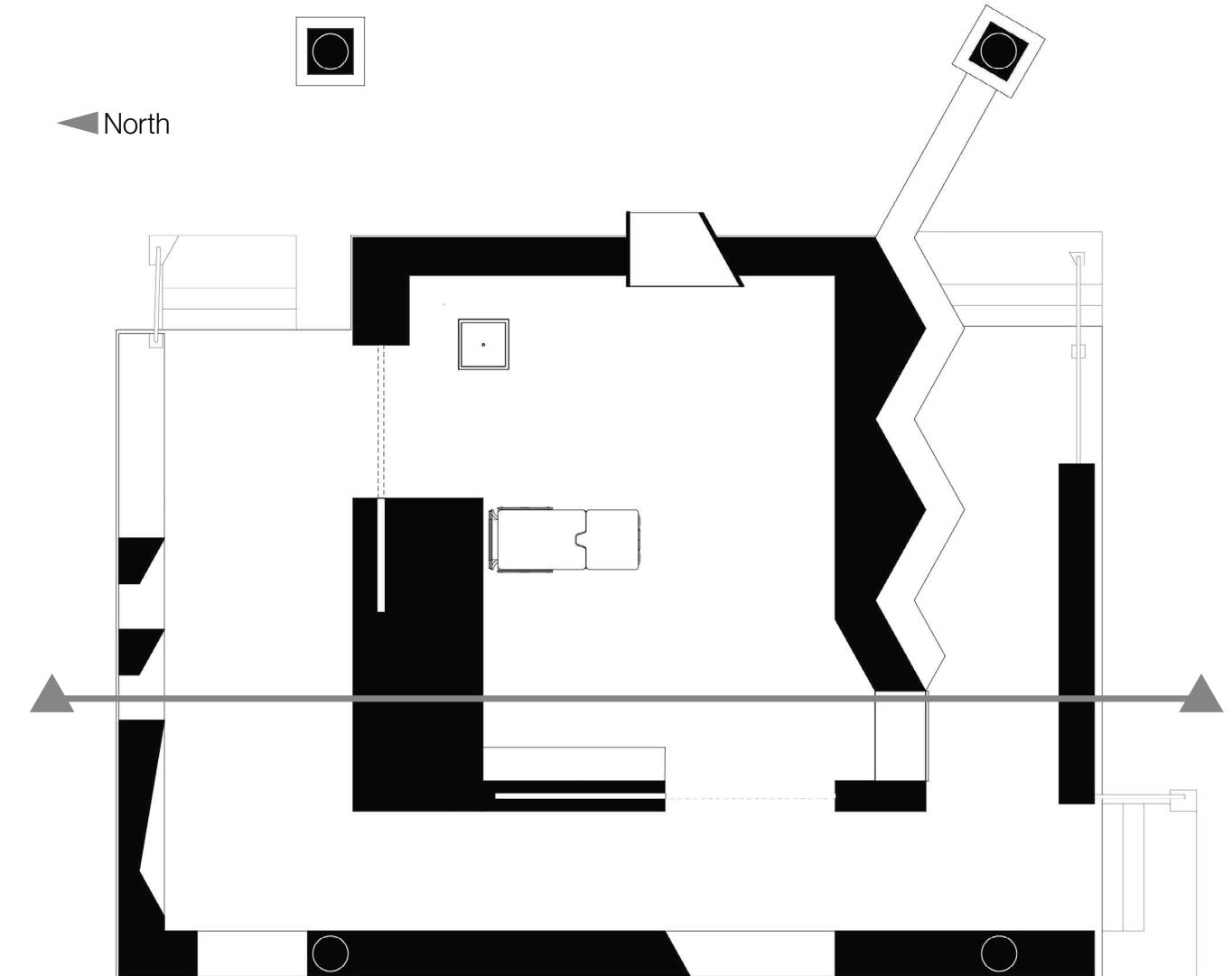
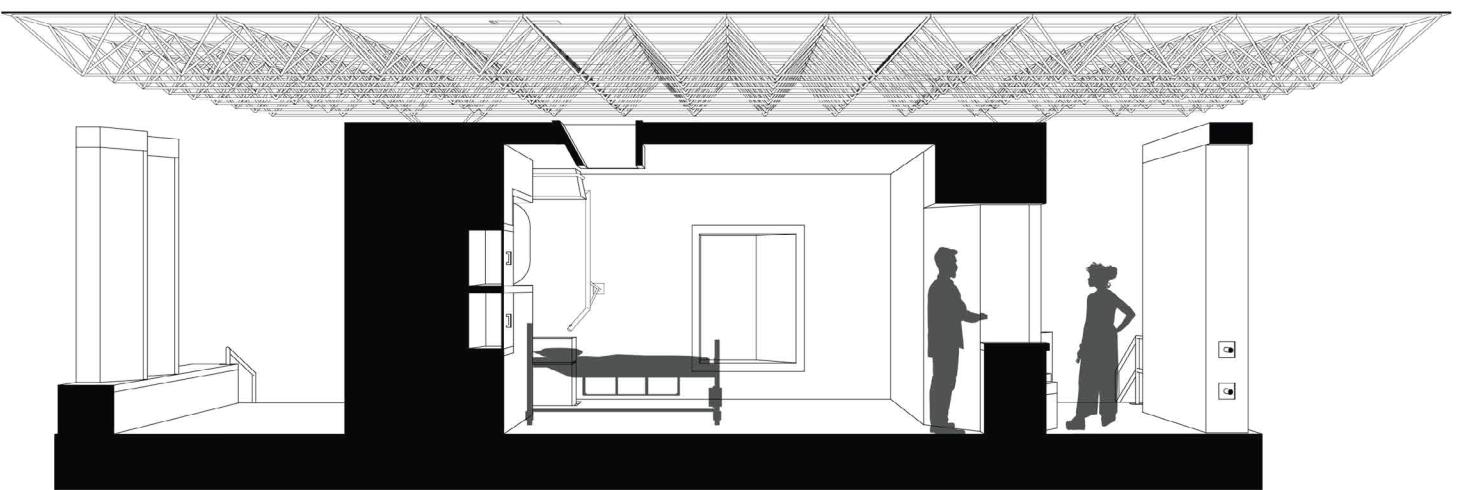
East Elevation



South Elevation

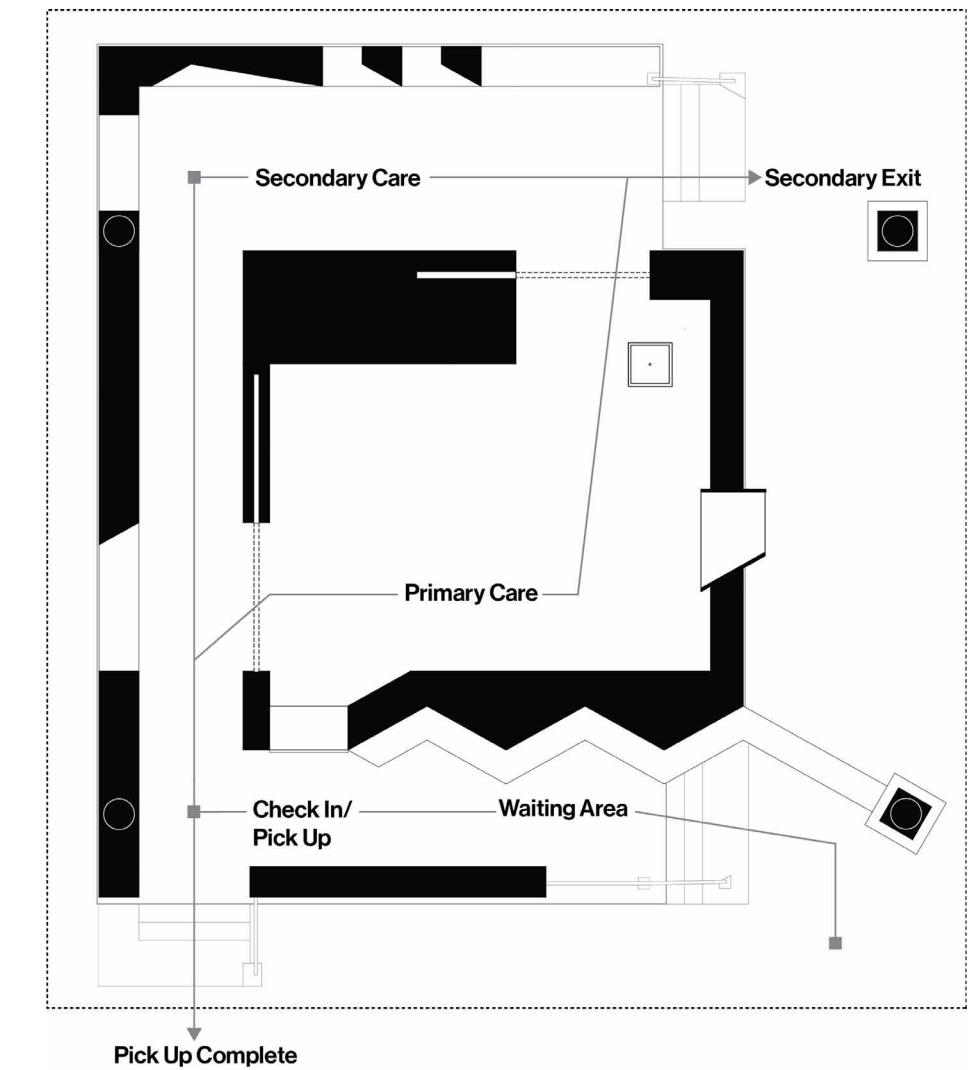
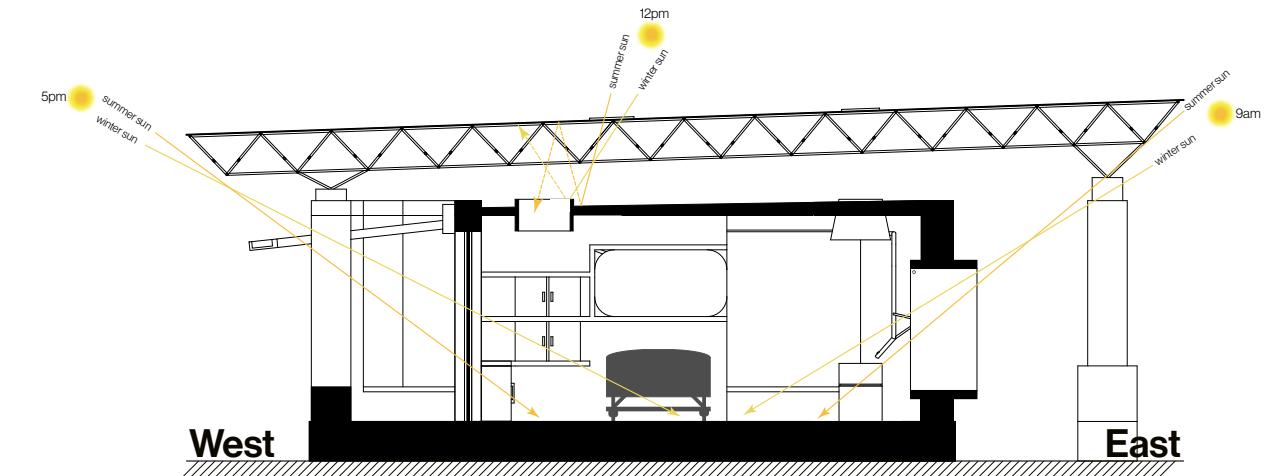


North Elevation





Pickup - Enscape + Photoshop



Two sets of off center skylights allow light to pass through the upper roof onto a reflective metal lower roof, creating an ambient glow. The space further accepts light during the morning and evening hours through the wide entrance door and a single window.

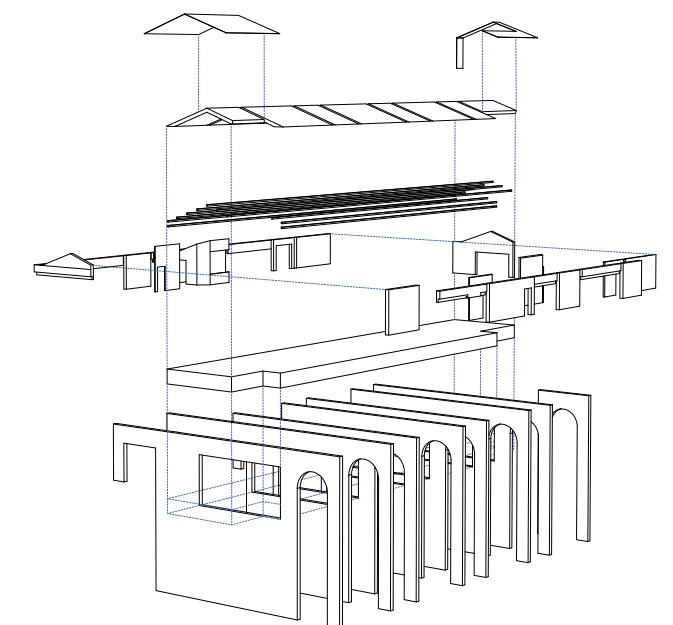
5

Kentland Farms Center

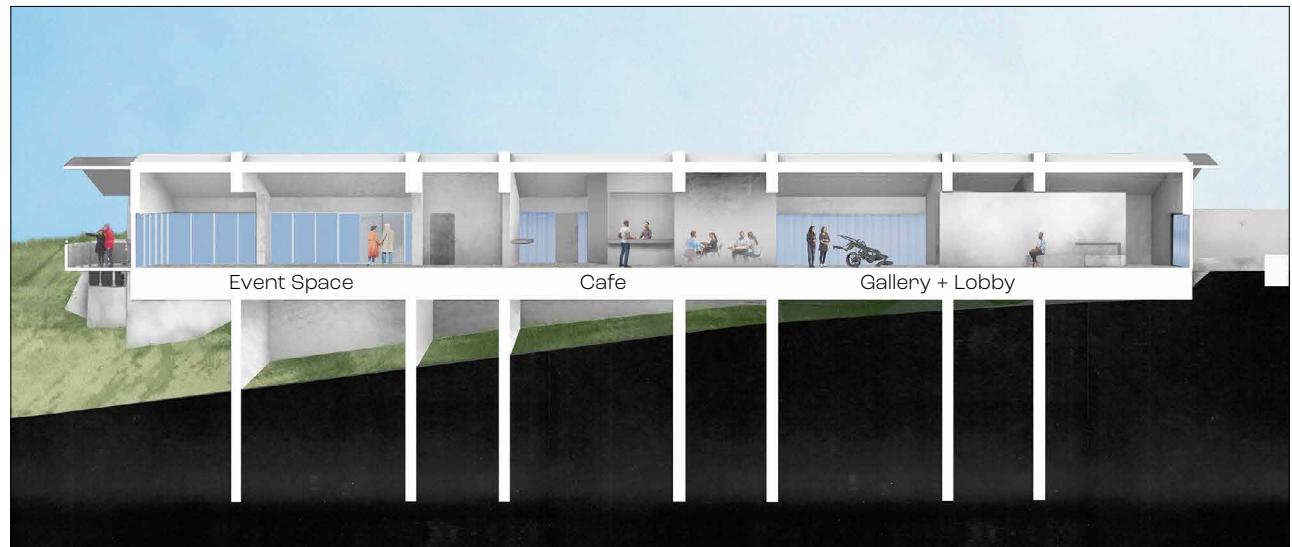
2020, 3rd Year
7 Weeks
4,000 sq ft
Institution

Kentland Farms is Virginia Tech's premiere agricultural and biosciences test campus and this building would serve as its visitor center to host events and gallery shows of new technology + agricultural art. It also serves as a rural community center for the New River Valley Region.

The building embraces past and present through a series of processions that end in an observation deck and amphitheater that frame the farmland as an educational and experimental theater.



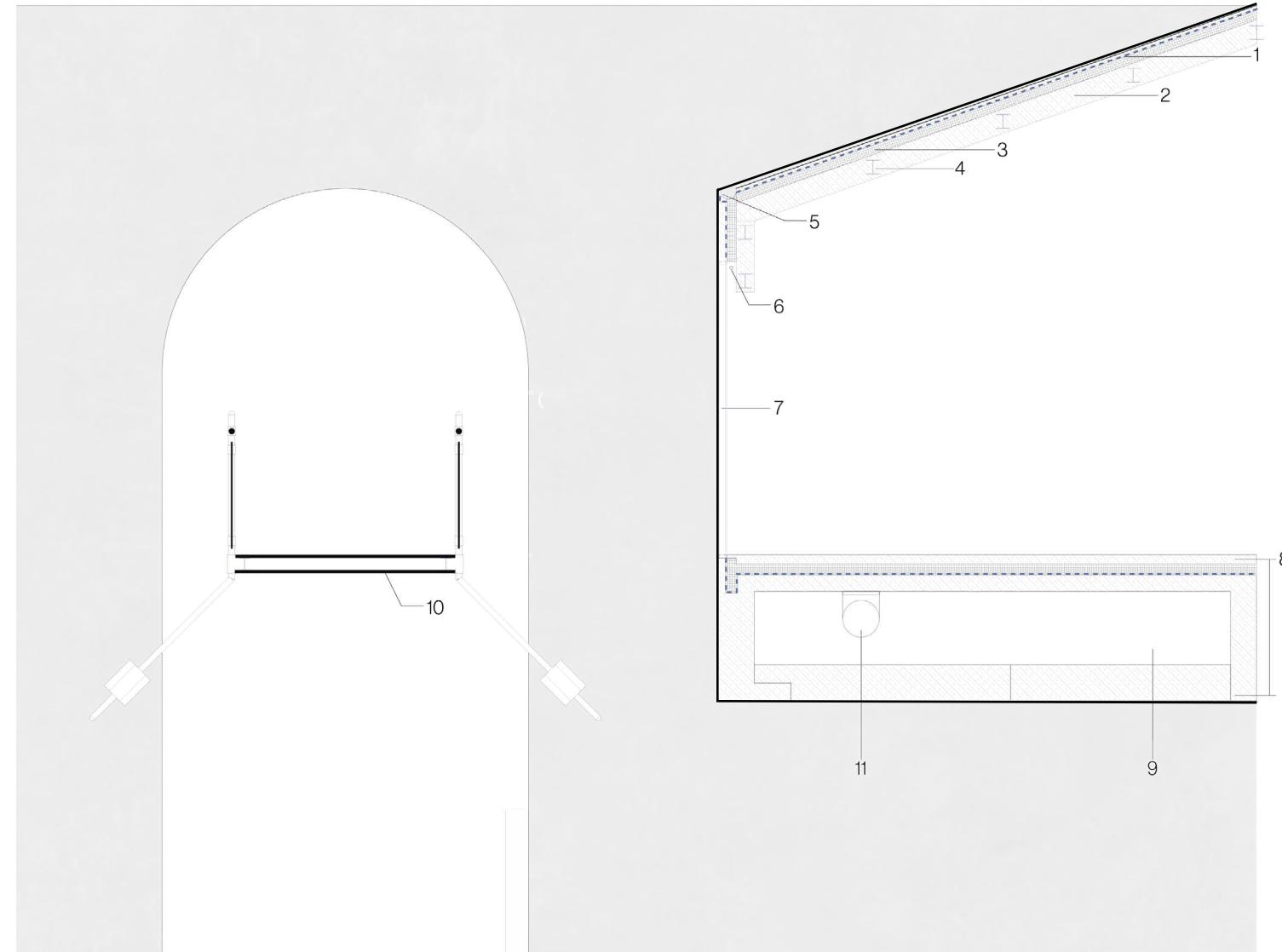
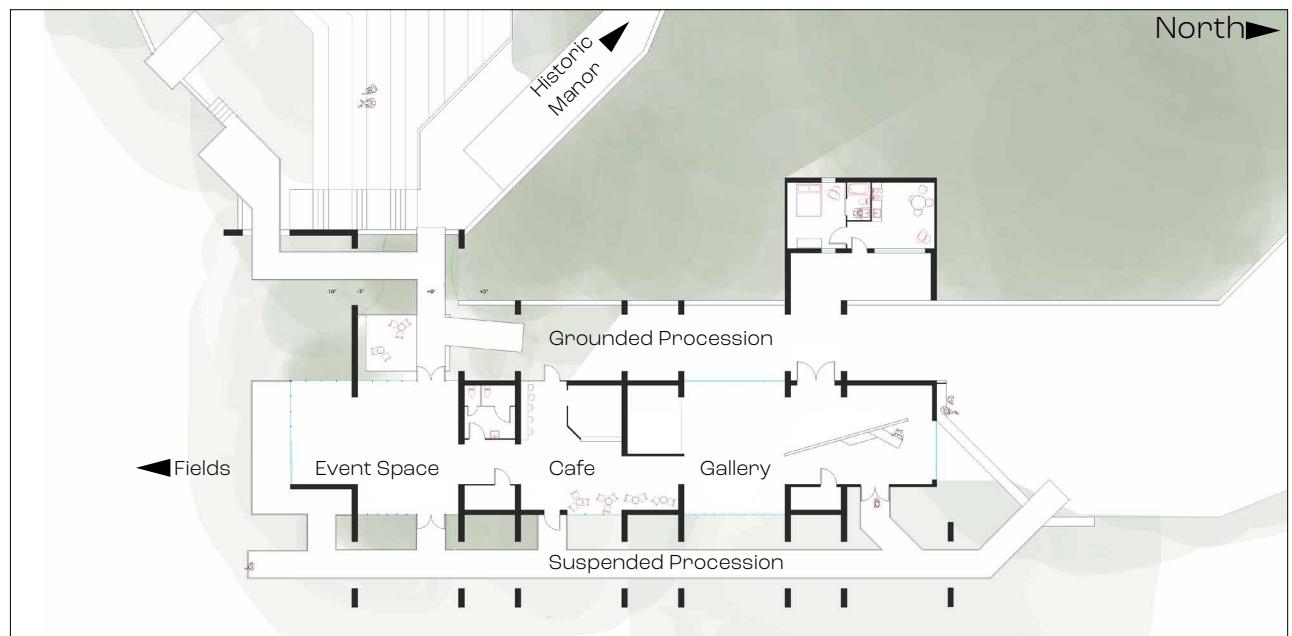
Rural Science & Community Center - Lumion



1. Vapour Barrier
2. Site Cast Concrete
3. 3" Rigid Insulation
4. H100x100 Beam (cast into piers, then into roof assembly)
5. Gutter
6. Attachment Bar (for curtains or shelves)
7. 3" Channel Glass
8. Precast Concrete Floor Slab
9. Crawl Space
10. Steel Decking
11. Mechanical Systems Core



The processional main structure is supported by 8 concrete piers that also form the dividing walls of the interior and exterior spaces.



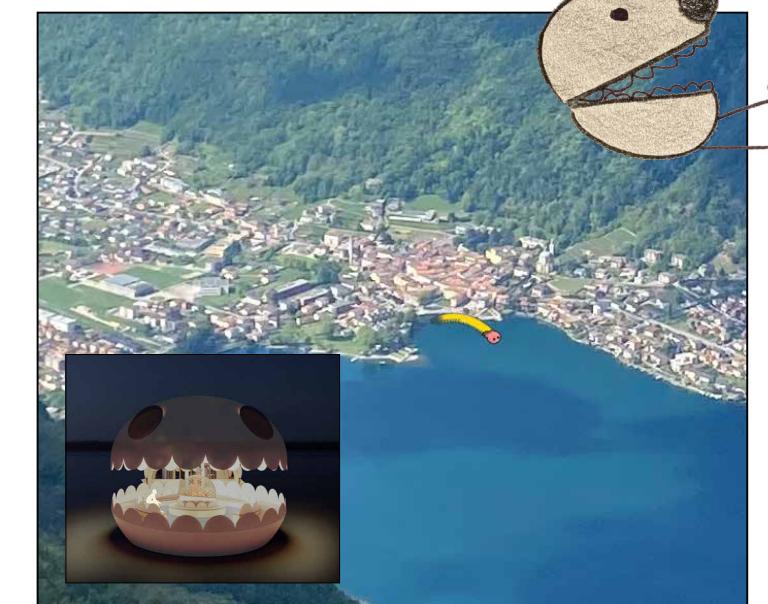
6

Lake Lugano Friendly Monster

2022, 4th Year
8 Weeks, Travel
1,500 sq ft
Cafe + Pier

This Pier + Cafe services the semi-rural community of Riva San Vitale Switzerland. The formal goal was to create a notable character for the town visible and memorable from the vantage points of boats on the lake, the train at the water's edge, the townsfolk in the old plaza and tourists on the nearby mountain. The structure follows the curve of the harbor and provides multiple new ways to engage with the lakefront.

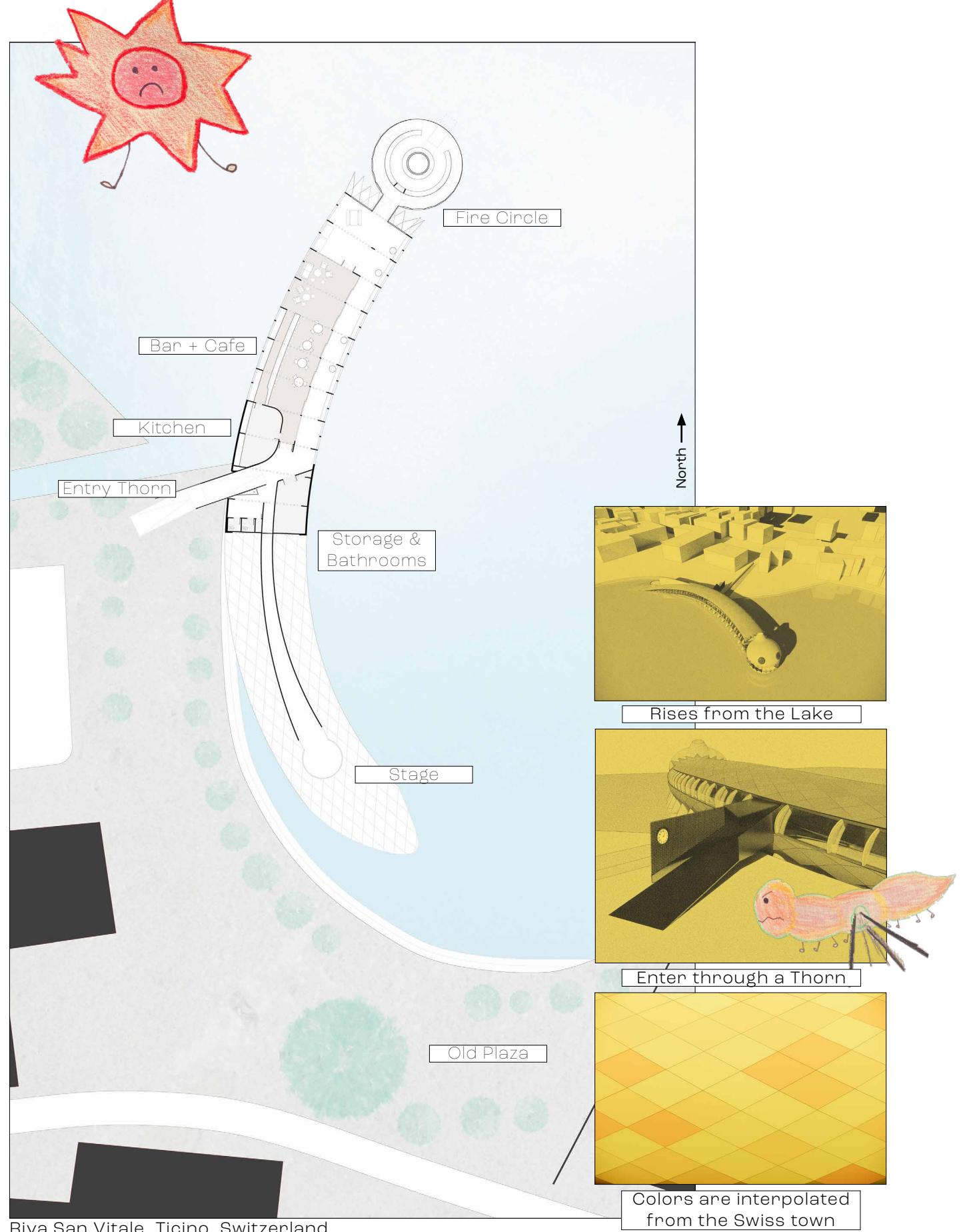
Forms were derived from "character" studies and colors interpolated from local buildings to create a "monster" that socially interacts with visitors.



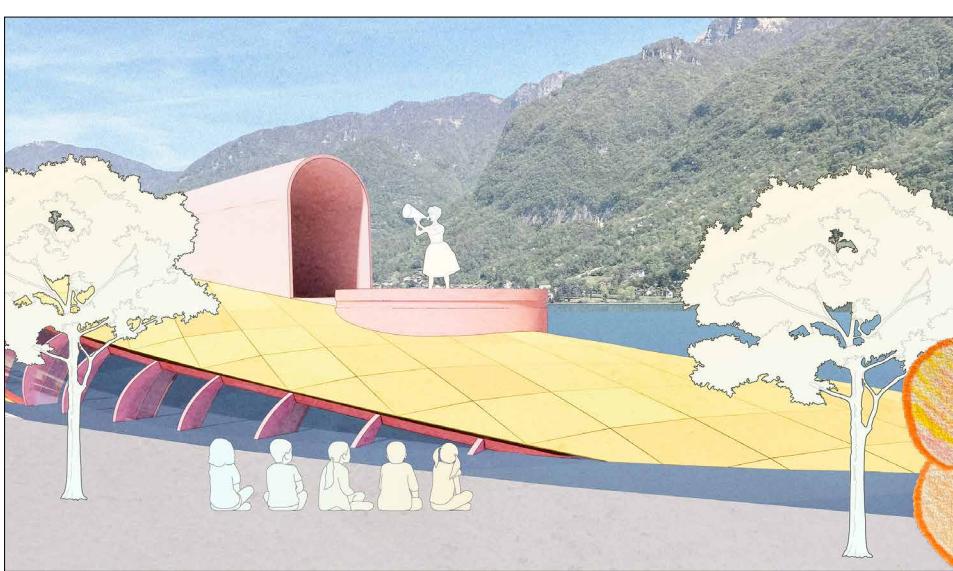
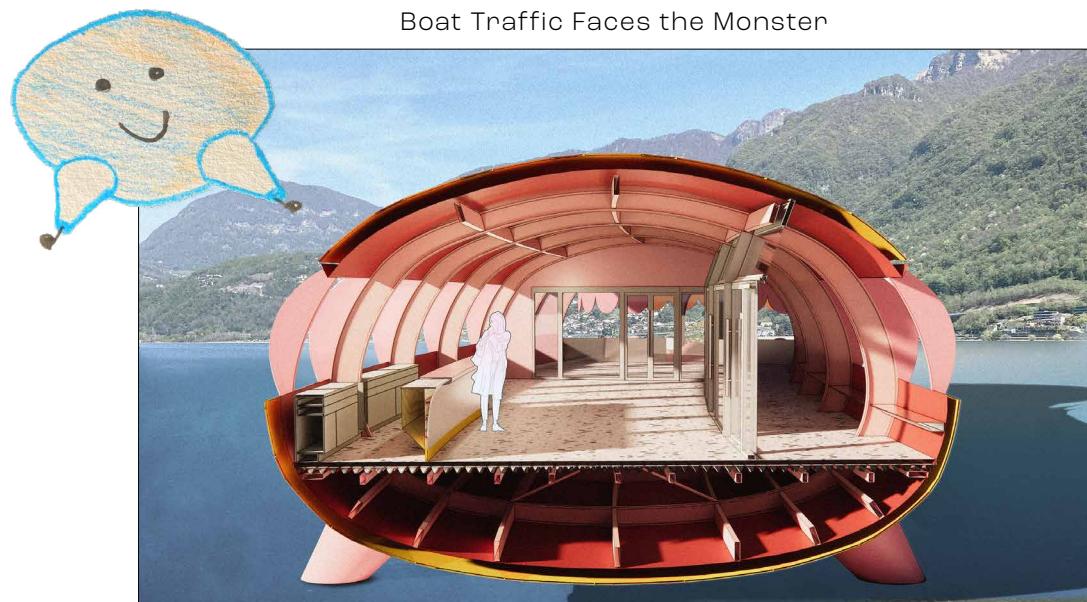
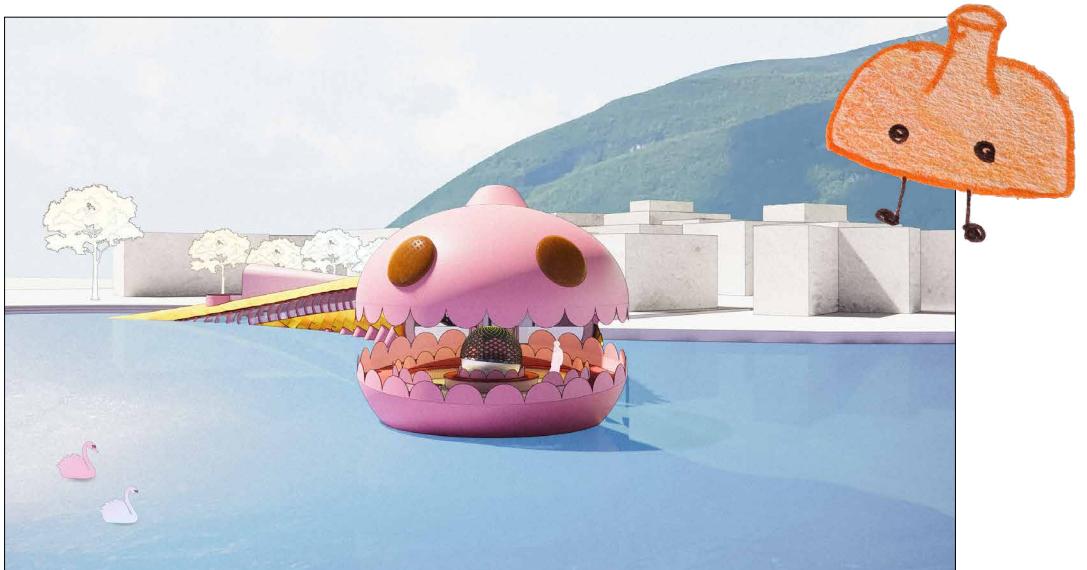
Viewed from Monte Generoso



Pier Cafe Interior - Enscape



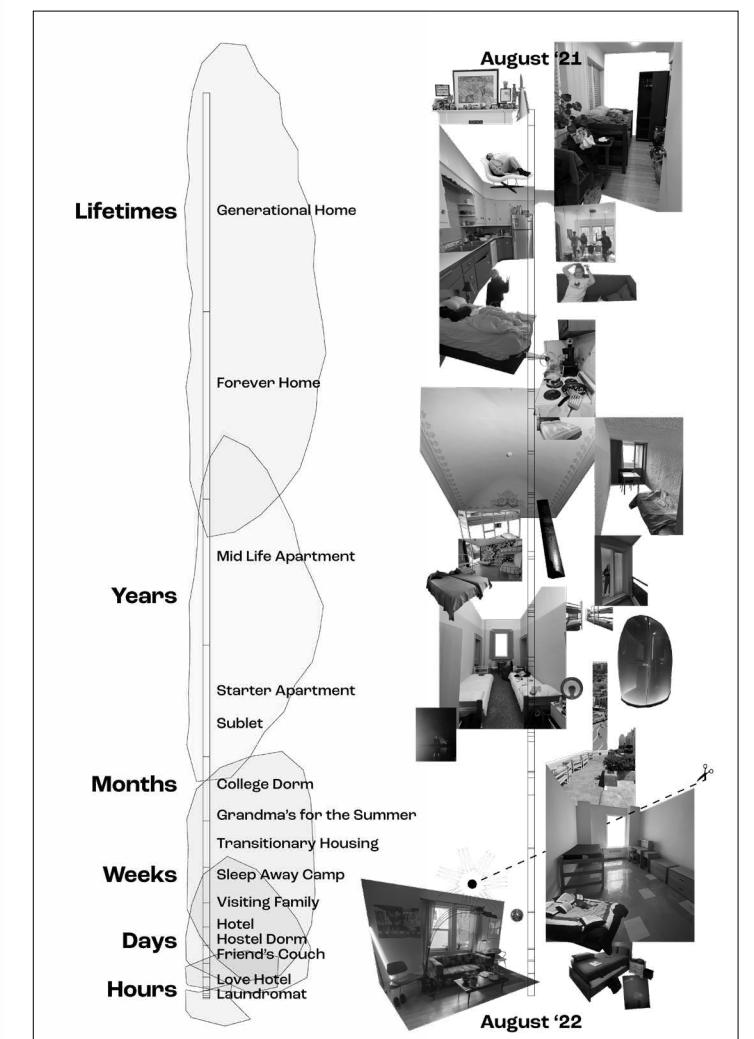
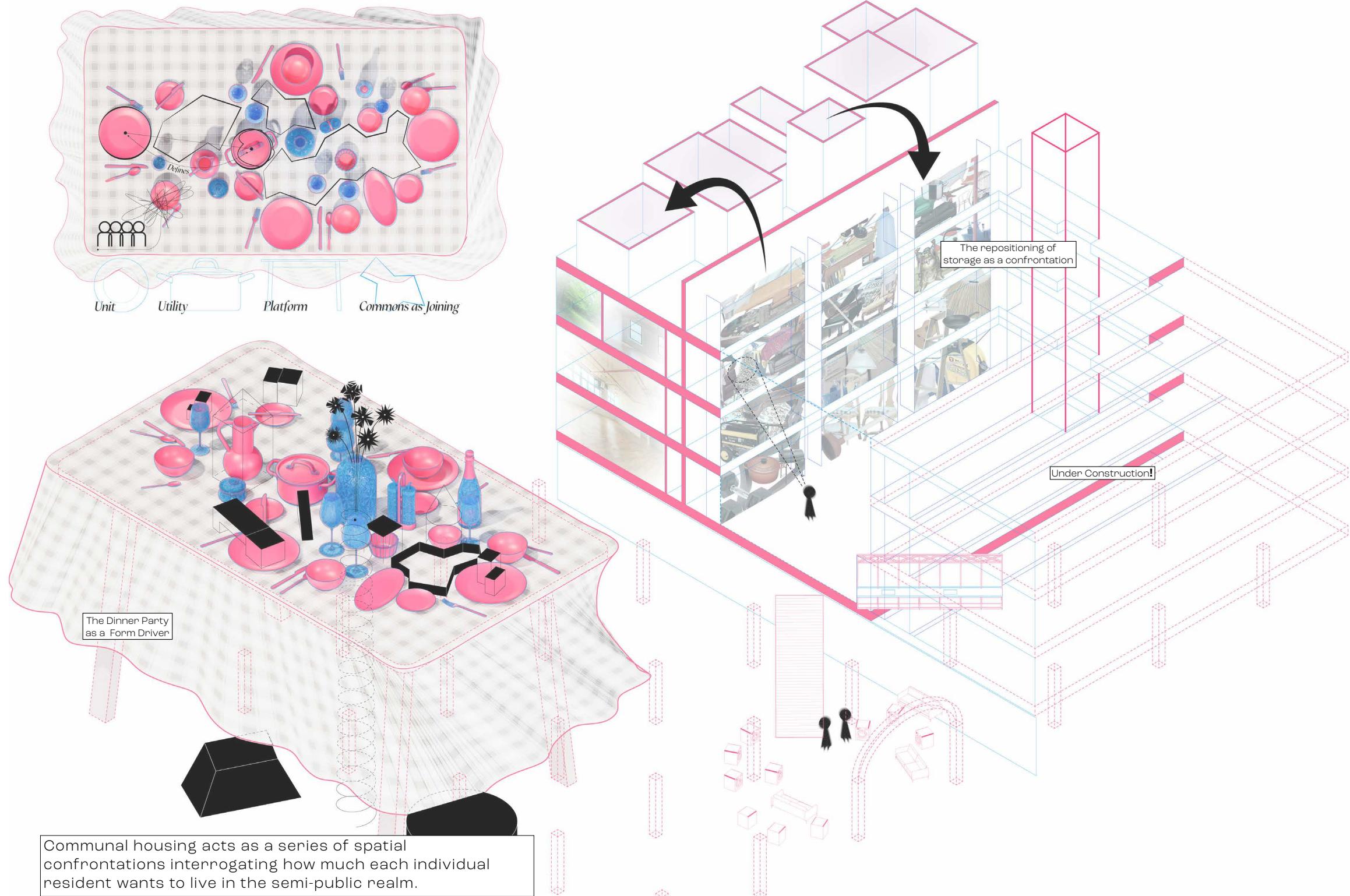
Riva San Vitale, Ticino, Switzerland



Thesis Contemplations

Program:
Interduralional
Communal
Housing

2022, 5th Year
Thesis
Preliminary
Contemplations

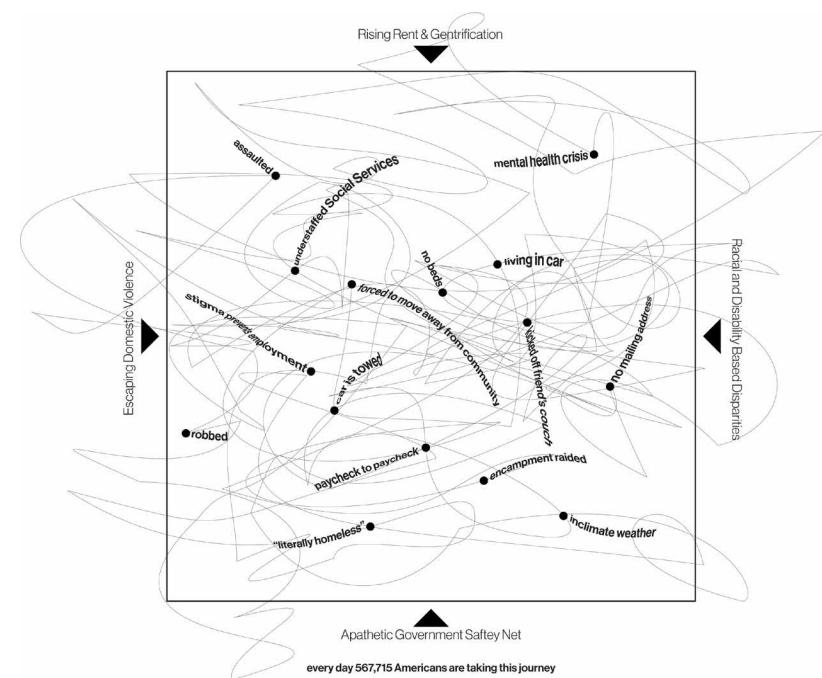




Student Lecture Committee - 2022, In collaboration with: Jake Swartz, Luisa Haller, Spencer Burton



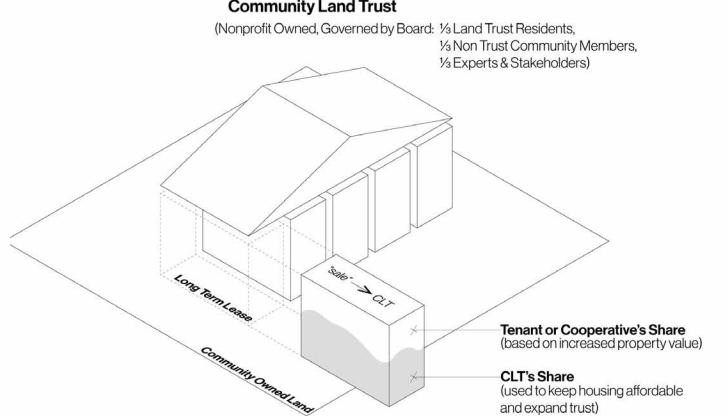
Studio Collective Merch - 2021



Studio Collective Magazine - 2021, Volume XIV Diagrams

Assorted Extracurricular

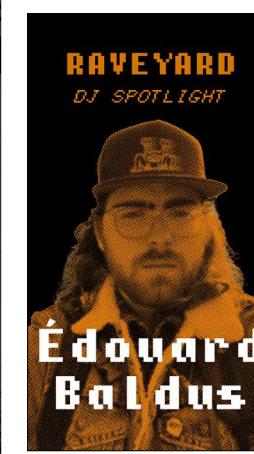
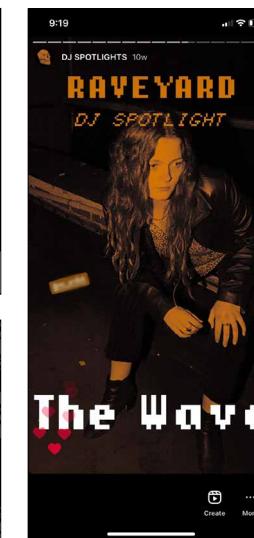
Student Lecture Committee
Studio Collective Magazine
Raveyard Promotions
WUVT Radio
Steger Center Travel



34



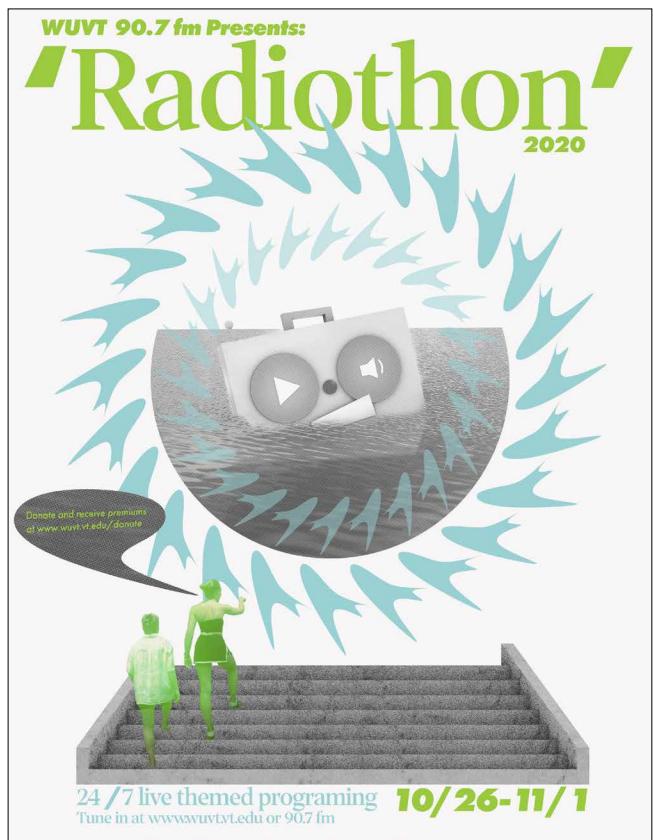
Raveyard - 2022, Brand Identity + Social Media



x16 Story Highlights



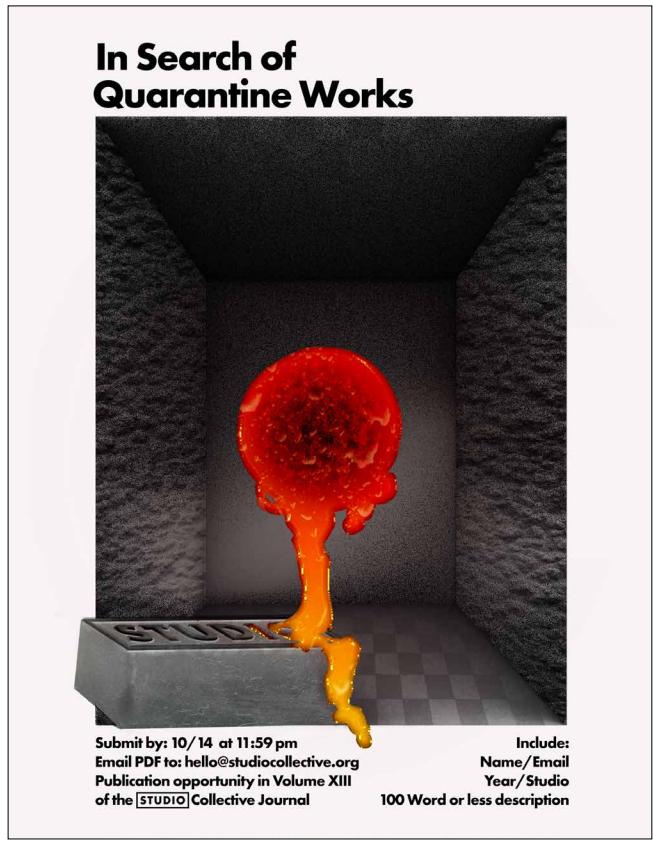
WUVT Radio - 2022



WUVT Radio - 2020



Steger Center, Switzerland Travel - 2022



Studio Collective Magazine - 2020

Sam Melnick
Virginia Tech
sammelnick@vt.edu
703-835-0526