THATCHED: UNDERSTANDING ANDEAN THATCHING PRACTICES AS IDENTITY MARKERS AND SPATIAL FOLKLORE PRACTICES

South America has been marked by the incessant displacement of people and expropriation of land and resources. This has been the case since the expansion of the pre-Hispanic Incan empire, followed by the Spanish colonization in the 1500s, the fight from colonial rule, the refusal to recognize the sovereignty of existing indigenous nations, dictatorships, coups, civil wars, and the privatization and overexploitation of local resources. Despite it all, many indigenous cultures have persevered and continue to live in the region, claiming a right to the ancestral lands previously denied to them. The presence and influence of the Uru, Aymara, Mapuche, Atacama, and Inca people is noted throughout present-day Peru, Bolivia, and Chile given their status as master weavers, ceramicists, builders, hunters, and farmers. Monuments, public edifices, mortuary structures, and residential dwellings incorporating pre-hispanic thatching techniques are visual markers of heritage and indigenous origins. **These thatched structures are a form of architectural advocacy towards identity and authority, reflecting the ancestral and material culture and folklore of the indigenous groups in the area.**

This ethnographic research seeks to understand the thatched architecture of Andean cultures in present-day Peru, Bolivia, and Chile as a practice of folklore. **This will be achieved by observing, documenting, and (when allowed) participating in thatching practices, making a note of oral history and teachings, the dissemination of knowledge, the presence of identity markers, and the role they play as origin structures for nomadic and displaced people.** Thatched architecture will not be considered as either craft, vernacular architecture, primitive structures, or other derivatives of Western theory, but as a type of folklore and technology cognizant of the context of its existence and ritual, the physical and intellectual labor of its indigenous creators, and its potential to shape and define cultures across millenniums and geographies.

The trip will be planned for the Fall of 2022, pending the state of COVID-19 policies and/or outbreaks, over the course of 4 weeks through Peru, Bolivia, and Chile. Sites of research utilizing thatching practices either partially or exclusively include reconstructions at Machu Picchu (Peru), homes and floating islands of the Uros people (Peru, Bolivia, Chile), conical edifices of the Atacama people (Bolivia, Chile), Mapuche "ruca" dwellings and medicinal structures (Chile), and contemporary Aymara dwellings (Chile). Considerations may also be given to contemporary practices of thatched architecture in touristic, restorative, and sustainable settings based on my travels / research and how the work develops on-site.

ESTIMATED BUDGET

Airfare	$1,800
Transportation (car rental)	$2,500
Lodgings ($80/day)	$3,360
Meals ($20/day)	$840
Guide and Translator Fees	$750
Admission Fees	$250
Indigenous Knowledge & Labor Honorarium*	$2,000
Contingency	$500
Total	$12,000

* I will aim to fairly compensate indigenous contributors to this work vis-à-vis their sharing of knowledge, labor, workshops, participating in / modeling for photographs given that I do not want to be extractive and/or minimize the value of this knowledge and labor.

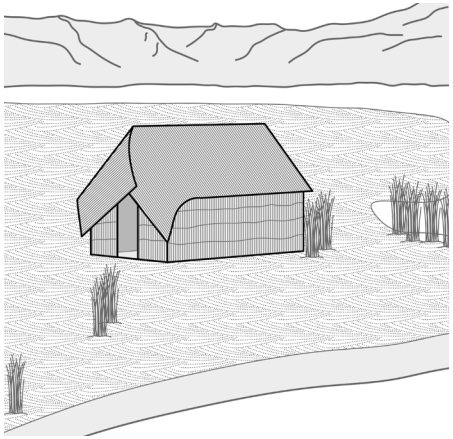


FIG. 1 - DWELLING AT UROS FLOATING ISLAND

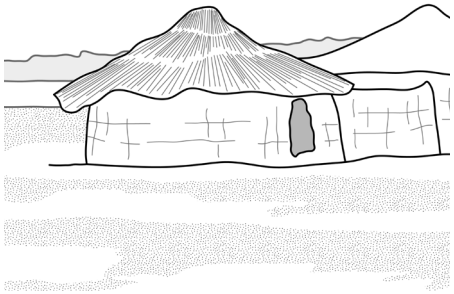


FIG. 2 - ATACAMA ARCHAEOLOGICAL SITE

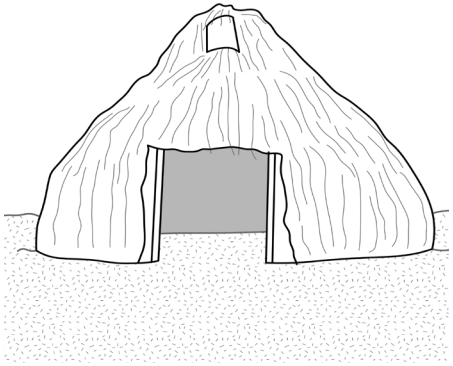


FIG. 3 - MAPUCHE RUCA

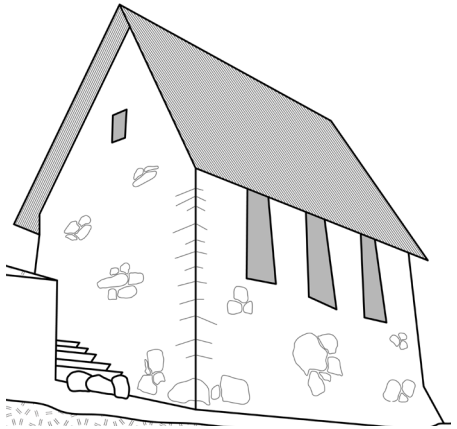


FIG. 4 - "THE GUARDHOUSE" AT MACHU PICCHU

ROSA MANZO | 05.04.1994 | 857-417-1200 | manzo@umich.edu | 3202 Bolgos Cir, Ann Arbor, MI 48105

Research Proposal /

'Thatched' builds upon my interest on topics of origin, narrative, displacement, accessibility, equity, previous research situated in Peru's Huascaran National Park, and on-going thesis work on the spatialization of folklore and informal modes of making. If awarded the Booth Fellowship, my travels and research would focus on (un)learning how we within the architectural profession understand thatching practices within Latin America. I will primarily document via photographs, transcription, and drawings created in collaboration with the people I meet. I hope to create a digital graphic novel centering the people, local narratives, thatching practices, and their relationships with the land and each other. This graphic novel will be hosted on a website for all to appreciate and (un)learn with me. Out of respect for the cultures, I will not aim to create a manual or instructional guide assuming to speak on behalf of the Uru, Aymara, Mapuche, Atacama, and Inca people and their descendants and will produce only documentary work.

As proposed, the research begs to depart from discourses of thatched architectures which focus exclusively on extractive and out-of-context notions of fabrication, construction, form, and territoriality. By considering the thatched architecture of Andean cultures as "spatial folklore" - a term I define as an extension of material culture theory within the folklore discipline - thatched architecture can be understood as a practice of origin, livelihood, permanence, and precarity. Spatial folklore offers an alternative to discoursing architecture opposing the language structures of colonizing languages, de-emphasizing land as property, and eschewing architecture as an elite professional practice.

Thank you for your consideration and time. This subject matter has been an interest of mine for some time now and I would be immensely honored and excited to undertake this project as the 2022 George G. Booth Traveling Fellow.

ITINERARY

Flight: USA to Cusco — Day 0

Cusco, Peru — Days 1 - 6

"The Guardhouse" at Machu Picchu
Sacred Valley of the Incas, Ollantaytambo
Ruins at Pisac
Moray, Maras

Puno, Peru — Days 7 - 13

Uros Floating Islands
Lake Titicaca
Lake Umayo
Museum of Kusijata, Copacabana

La Paz, Bolivia — Days 14 - 19

National Museum of Ethnography and Folklore
National Museum of Archaeology
Museum of Contemporary Art
Museum of Bolivian Andean Textiles

Oruro, Bolivia — Days 20 - 24

Oruro Museum of Archeology
Lago Poopo
Chipaya Community
Chayaraki Community, Archeological Site

Atacama, Chile — Days 25 - 28

Gustavo Le Paige Archeological Museum
Atacama Craft Village
Moon Valley

Flight: Atacama to Santiago — Day 29

Santiago, Chile — Days 30 - 36

Huechuraba Community Ruca Dwelings
Museum of Mapuche Ruka Mani, Santa Cruz
Nguillatue, Mapuche Ceremonial Center
Lawen Maulen, Mapuche Ancestral Medicinal Hut

Temuco, Chile — Days 37 - 42

Regional Museum of Araucania
Mapuche Museum, Pucon
Curarrehue
Ruca de Sandra, Lumaco
Lafquenche River and Ruca

Flight: Temuco to USA — Day 43

GLACIAL FUTURES

University of Michigan
Graduate Studio IV:
Propositions
Prof. El Hadi Jazairy

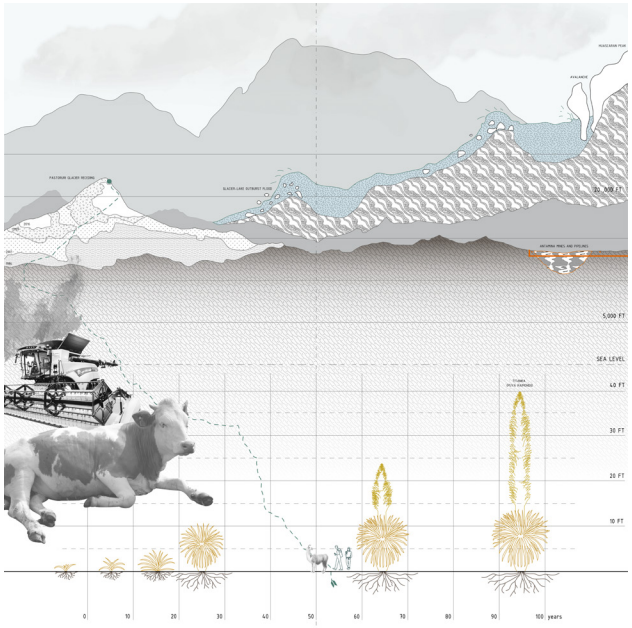
Site: Huascaran National Park
Peru

Collaboration with:
Tessa Broek
Judith Mendoza

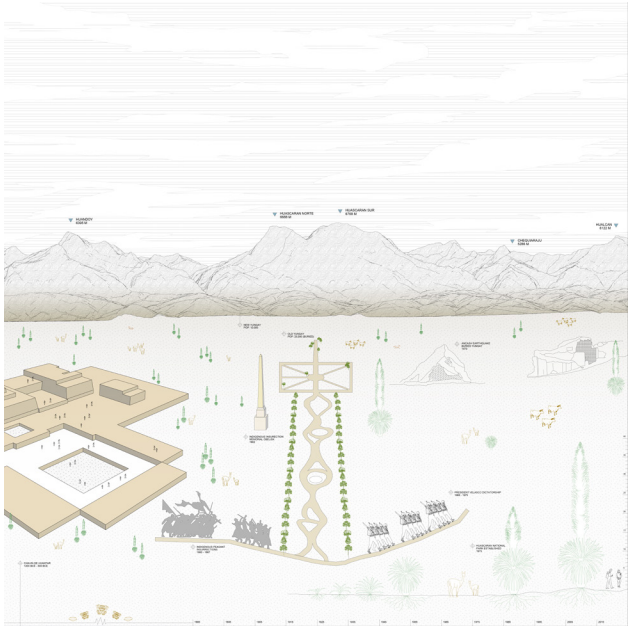
RESPONDING TO CLIMATE CHANGE BY NARRATIVE AND ARCHITECTURAL INTERVENTIONS /

Huascaran National Park of Peru is a UNESCO world heritage site is at risk of over-tourism, wildfires, extinction of its endemic species, and overexploitation of its resources. It is also home to some of the largest tropical glaciers severely impacted by climate change. As such, the glaciers are melting faster and freshwater is becoming scarce for much of Peru. While there is urgency to slow down the effects of climate change and preserve the glaciers in their frozen state, this proposal believes in the inherent right of glaciers to melt or evaporate and as such seeks to protect the glaciers in their various physical states. The project leverages narrative and architectural interventions to speculate on the future of the sites while drawing on theory by David Gissen, Donna Harraway, and Natalie Diaz on notions of preservation, sustainability, and indigeneity.

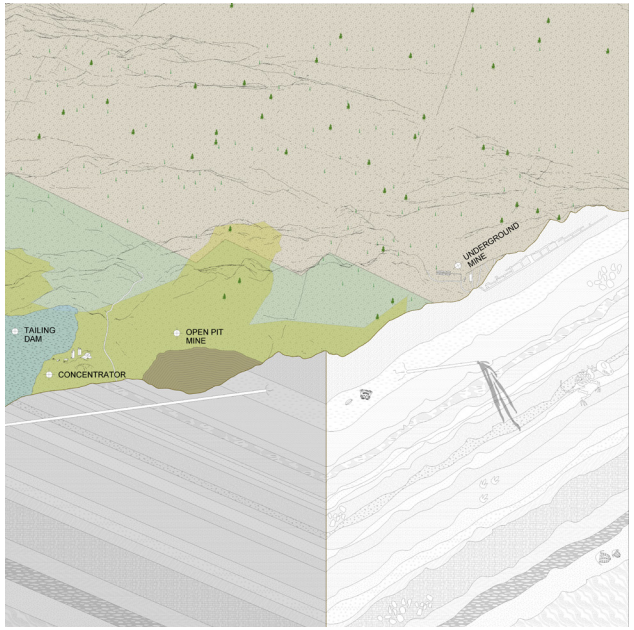
The project identifies three scales of intervention dependent on the Huascaran: the city poisoned by local mining activities, remediation of mining site for a healthier earth, and agricultural homes and lands of the foothills, proposing a new relationship with the land that stands to inherit the glacial futures.



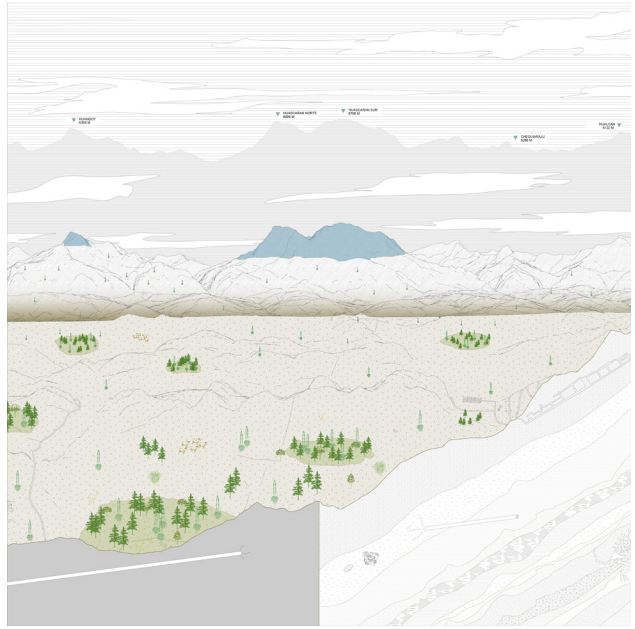
THREATS: A visual narrative of how climate change is impacting the Huascaran area.



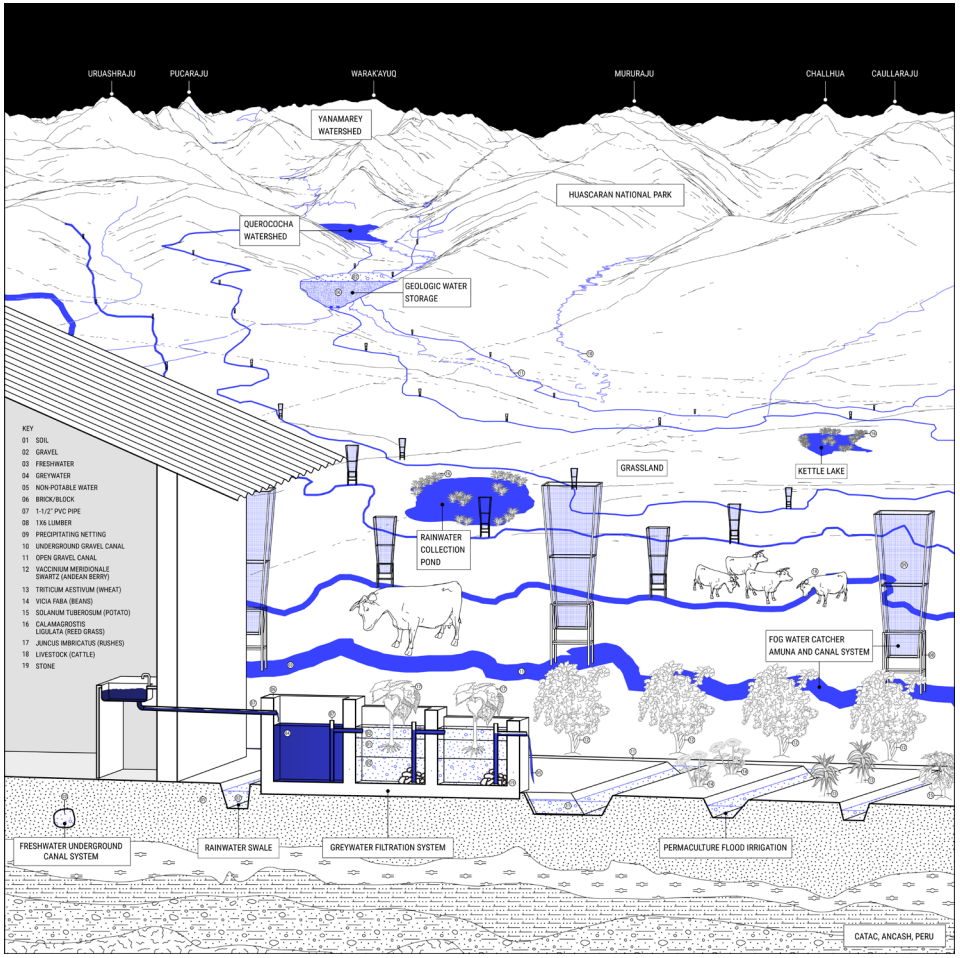
ISSUE: A visual narrative of the historical, social, geological, and political issues surrounding the Huascaran National Park and how they are being impacted by (or are actively ignoring) climate change. /



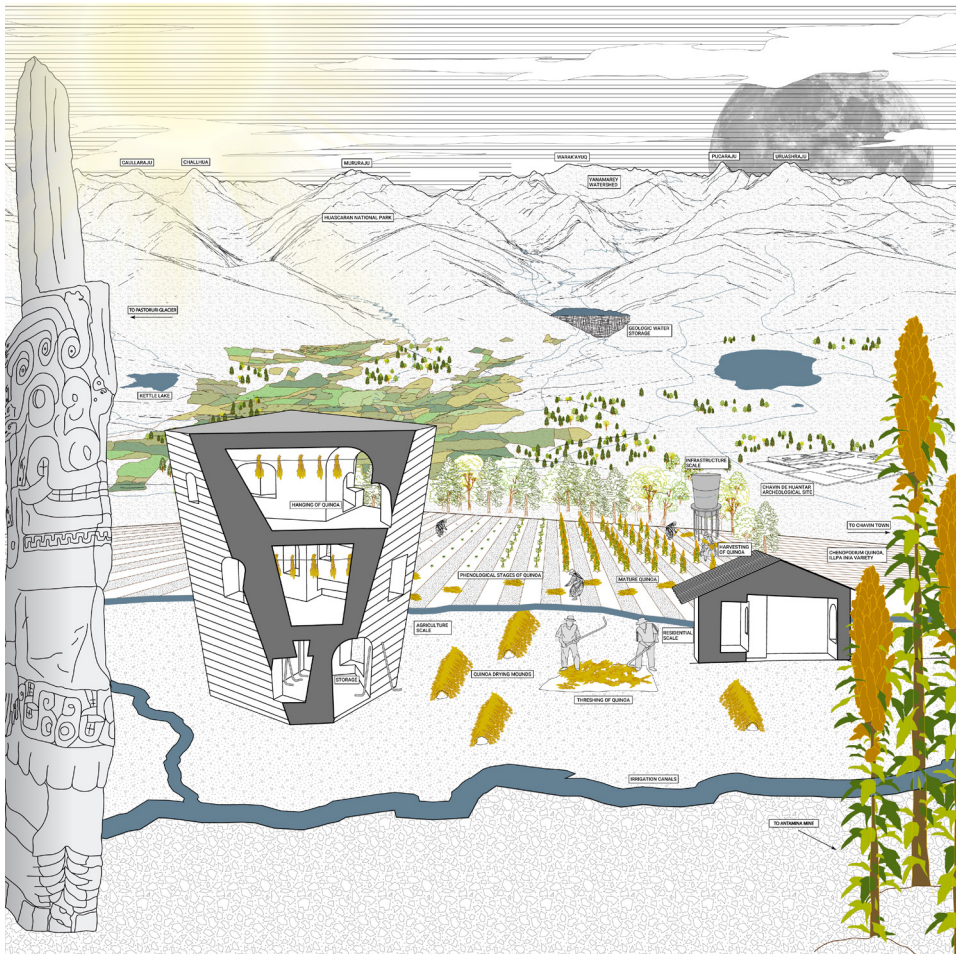
POSITION: A stance condemning the presence of national and foreign entities mining the Huascaran and poisoning the land, communities, flora, and fauna. /



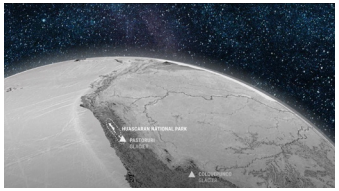
STRATEGY: A proposal to remediate abandoned and current mining sites as wetlands and protected biosphere reserves. /

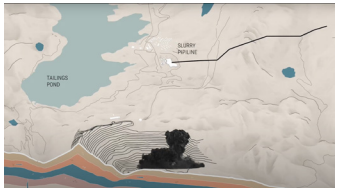


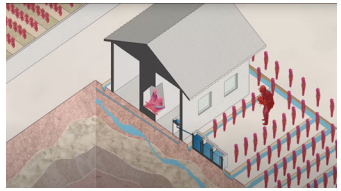
HOUSE: The drawing is a visual guide proposing a variety of water catchment and reclamation systems to conserve and filter glacial runoff due to climate change by condensing, collecting, filtering, and absorbing it back into the rich Huascaran land, supporting agri-cultural efforts in the process and recharging local groundwater sources.



AGRICULTURE: This drawing considers agricultural sites as sites for a new axis mundi where water is the activating agent, colliding the celestial and earthly realms, evoking reverence for the landscape and glacial water and defining land rights for indigenous inheritors of the region. This proposal builds on Incan mortuary structures and environmental management practices as a response to extractive colonial and post-colonial land and human exploitation.







GLACIAL INHERITANCE, A VIDEO: The studio's final video project is a speculative narrative interweaving the water reclamation project with a glacial cover ritual and a metaphysical approach to land management and agriculture to address the role of the Huascaran glaciers in Peruvian culture and collective memory.

AirIsSpace.COM

University of Michigan
Graduate Studio II:
Situations
Prof. Xavi (Laida) Aguirre
Prof. Steven Lauritano
Prof. Daniel Jacobs

Site-less

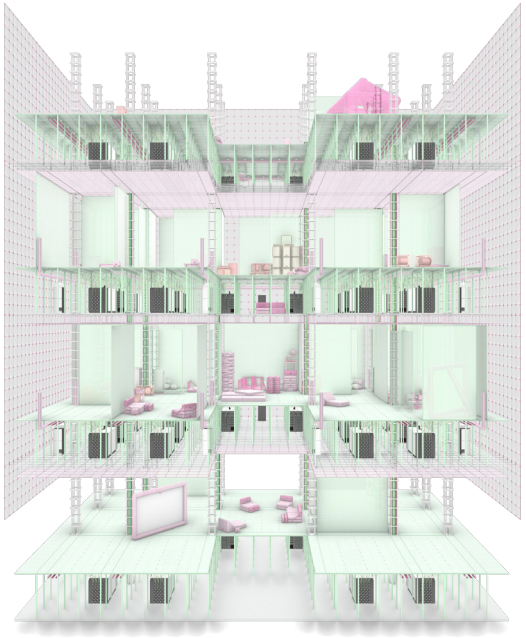
Collaboration with:
Anne Redmond
Zoe Faylor
Kael Fineout

A RADICAL AIR-BASED BUILDING AND LIVING PROTOTYPE /

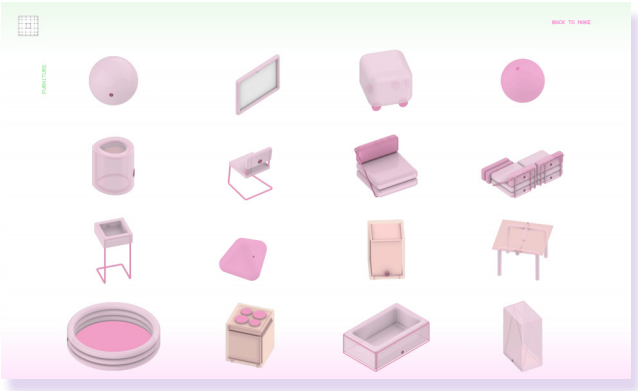
Most buildings aim to conceal their utility systems. This proposal celebrates the building itself as both infrastructure and service provider. Furnishings and appliances have an inherent agency that can only be measured in Cubic Feet per Minute of air (CFM). As such, rent-able space is defined by the air contained within furnishings and appliances.

'AirIsSpace.com' is a radical prototype for living in which tenants pay rent determined by the airflow required to inflate the furniture that fills their space; thus, residents pay only for the volume they need, and nothing more. The project is presented via a web page that allows visitors to plan and imagine a living in an air-based building.

The website (layout and coding), select renderings, 3D modeling, and graphics were developed by myself. Team members contributed images, 3D modeling, and select video footage.



BUILDING SECTION /



/ SELECT WEB PAGES

COLLABORATING WITH NATURE

University of Michigan
Architecture Student Research Grant (ASRG)
Independent Study

Site: University of Michigan

Collaboration with:
Kara Bowers
Zoe Faylor

DESIGN EXPLORATIONS INTO BIOMATERIALS /

Plastics are one of the most widely produced man-made materials globally. Since their large-scale adoption in the 1950's, plastics have become an integral part of our daily lives and become particularly problematic given their high embodied energy, general inability to be recycled, and long periods of degradation. As a result, there is urgency to rethink our relationship with single-use materials.

Collaborating With Nature is a project that explores the production and scalability of biodegradable materials through the use of algae and mycelium bio-composites. Taking inspiration from firms and practitioners spearheading research into the applications and manufacturing of bio-based materials, we set up frameworks for the production of algae based bioplastics and mycelium prototypes. Our team executed a series of material studies and prototypes, increasing our understanding of bio-composite processes and the applications of bio-based materials within design. These studies and prototypes emphasized and focused on material properties such texture, flexibility, and strength, as well as scalability of these bio-based processes.

The material explorations culminated in the construction of an wooden structure which exhibited the biocomposites at the University of Michigan's Taubman College of Architecture and Urban Planning.

EXHIBITION PHOTOGRAPHS /

ABOVE: SITE PLAN; BELOW: RENDERING /

W A P

University of Michigan
Graduate Studio V:
Systems
Prof. Ellie Abrons
Prof. Meredith Miller

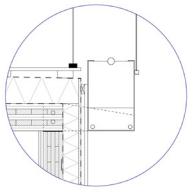
Site: Detroit, Michigan

Collaboration with:
Anne Redmond
Zoe Faylor

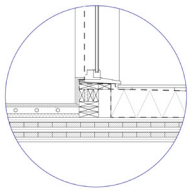
WATER. AFFORDABILITY. PERFORMANCE / WATCH ARISING PLANTS / WILD ART PEOPLE...

'WAP' is creative live/work housing collective located in the eastern market neighborhood in Detroit. To honor and provide useful space to the expanding creative community, the proposed housing collective is composed of private residential rental and rent-to-own units and flexible shared spaces for making, exhibiting, performing, and retailing. Influenced by the massive amount of flooding that occurred in the city summer of 2021, storm water management techniques were foregrounded when designing the collective. An extensive green roof, rooftop cistern, living facade and terraced bioswale work to reduce the volume and rate of storm water runoff by channeling overflow into the city's main sewer line.

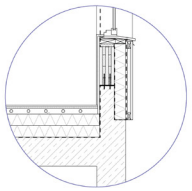
FLOOR PLAN - GROUND



1 | *CLT -Trellis Connection*



2 | *CLT Radiant Floor and Balcony*



3 | *CLT and Concrete Foundation*

CLT GREEN ROOF

Vegitation
4" Growth Media
Filter Layer
Drainage Layer
Protection Layer
Waterproof Membrane
5/8" Sheathing
8" Semi-Rigid Insulation
Vapor Barrier
7-ply CLT

CLT EXTERIOR WALL

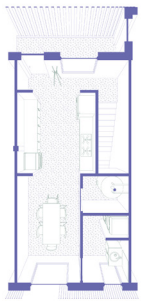
3/4" Shou Sugi Ban cedar siding
1" Furring strips
1" Air gap
Waterproof Membrane
5/8" Sheathing
4" Semi-Rigid Insulation
Vapor Barrier
5-ply CLT
5/8" Gypsum Board

CLT FLOOR

1/2" Sealed Concrete
5/8" Subflooring
2" Concrete with Radiant Tubing
1" Batt Insulation
7-ply CLT

UNIT 23

Ownership
1 Bedroom / 2 Bath
1100 SF
Double level

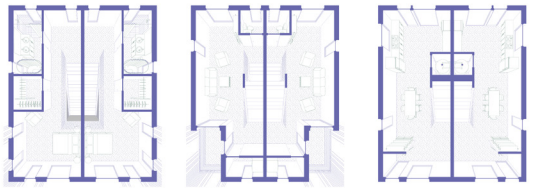


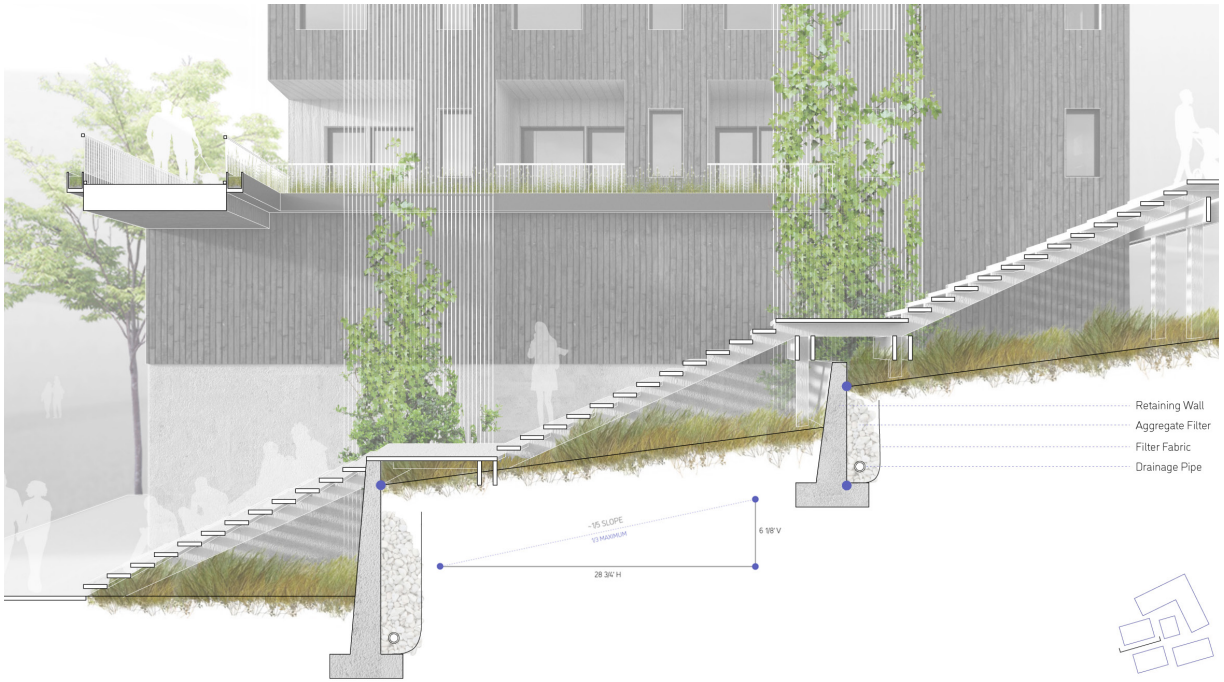
Top Level

Bottom Level

UNIT 35 + 36

Ownership
1 Bedroom / 2 Bath
1420 SF
Triple level





/ PLANS

/ SECTIONS

ROSA MANZO
CURRICULUM VITAE

857-417-1200 // manzo@umich.edu
3203 Bolgos Circle, Ann Arbor, MI 48105

EDUCATION

University of Michigan
Master of Architecture Candidate / Class of 2022

Massachusetts Institute of Technology
Bachelor of Science in Architecture, Concentration in Computational Design / Class of 2016

EXPERIENCE

University of Michigan
- Graduate Student Researcher and Website Designer / 2020 - 2022
- Fabrication Lab Coordinator / 2020 - 2021
- Fabrication Lab Assistant / 2019 - 2020

Wight & Company
Architectural Designer Summer Intern / Chicago, IL / May 2021 - Aug 2021
- New Trier High School Gym Renovation / Winnetka, IL
- Maine West High School / Des Plaines, IL

T+E+A+M
Architectural Designer Summer Intern / Remote, Michigan / Jul 2020 - Aug 2020
- 4 over 4 / Detroit, MI

Barge Design Solutions
Architectural Associate / Dayton, Ohio / Sept 2017 - Jun 2019
- Proposal for Volkswagen Body Shop Plant Expansion / Chattanooga, TN.
- Nokian Tyres Mezzanine Addition / Dayton, TN.
- Building 33 / Wright Patterson Air Force Base, OH
- Centerville-Washintong Township Parks HQ Renovation / Centerville, OH

Butt Construction Company, Inc.
Design-Build and Asst. Project Manager / Dayton, Ohio / Jul 2016 - Aug 2017
- Proposal for Satellite Pharmacy / Wright Patterson Air Force Base, OH
- 25 Meter Baffled Range / Joliet, IL

LinkARC Studio
Architectural Winter Intern / New York, New York / Jan 2016
- Shenzhen Nanshan Foreign Language School / Shenzhen, China

Perkins Eastman
Virtual Reality Summer Intern / New York, New York / Jun 2015 - Aug 2015
- Virtual reality study on 99 Hudson / Jersey City, NJ
- Rouge Make-up Bar / New York, NY

RESEARCH

University of Michigan
- Architecture Student Research Grant Recipient / Collaborating With Nature / 2021 - 2022
- Sonic Scenographies Grant Recipient / Patch/Work / 2020

MIT Department of Architecture
- Computational Design Researcher / On The Line by Derek Ham / 2014

Pennsylvania State University
- Visiting Computational Fabrication Design Researcher / Design Ecologies Laboratory under Daniel Cardoso Llach / 2015

MERITS

UM Taubman College Student Show Awards
- 2022 Award Nominee for 'WAP'
- 2022 Award Nominee for 'Glacial Futures'
- 2021 Honorable Mention for 'CFM' (aka 'AirIsSpace.com')
- 2020 Honorable Mention for '+(DIS)Placement'

Michigan Architectural Foundation
- 2021 AIA Michigan President's Scholarship
- 2021 Paul Stachowiak/Integrated Design Solutions (IDS) Scholarship

Hispanic Scholarship Foundation
- 2021 Scholar

UM Taubman College Merit-Based Tuition Fellowship
- 2019 - 2022 Tuition Fellow

MIT Laureates and Leaders
- Class of 2016 Cohort Participant

MIT Palitz Fellowship
- 2014 Traveling Fellow

National Association of Women In Construction (NAWIC)
- 2012 Scholarship Recipient
- 2014 Scholarship Recipient