Matthew Williams

Syracuse University School of Architecture
Class of 2025

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EDUCATION

Syracuse University School of Architecture | Bachelor of Architecture, Minor in Environment and Society | Syracuse, NY May 2025
magna cum laude | Dean's List – 9 semesters

Syracuse University Florence Center | Florence, Italy Fall 2023
• Studied and sketched Italian architecture from the Renaissance to the present. • Researched Italian urbanism and the textile districts of Prato. • Designed an intervention on the island of Elba based on the region's history of mining and extraction.

Syracuse University Architecture Abroad | Seoul, South Korea Spring 2023
• Week-long workshop in Seoul with students from Syracuse University and Yonsei University culminating in a research project comprised of images, videos, interviews from site visits and architectural drawings. • Participated in a Syracuse+Yonsei Architecture Symposium showcasing previous work done for the studio.

RELEVANT EXPERIENCE

Kering Beauté | CREED Store Planning Intern | New York, NY June - December 2024
• Created technical drawings, construction sets, and renderings for shop in shops. • Managed gathering of detailed fixture information for retrofit merchandise displays for over 200 shop in shops and boutiques. • Liaised with millworkers and field team members on financing and how to best retrofit each location for CREED's Bath and Body launch. • Developed a blueprint for the coordination of Store Planning, Visual, Finance, and Training in implementing the retrofit for a successful launch of the bath and body line. • Trained coworkers in V-Ray software and created software SOP/workflow for the company to follow.

Plotting Room | Plot Monitor | Syracuse University School of Architecture Spring 2024
• Assisted and prepared plots, sheet feeds, and other types of printing for students. • Troubleshot printing and plotting issues. • Supervised the plotters as well as replaced and prepared ink cartridges and paper rolls.

El Otro Lado | Architectural Intern | San Diego, CA and Pescadero, Mexico Fall 2021 - Fall 2022
• Strawberry Fields Development • Created drawings including site plans and schematics detailing subdivisions of land. • Participated in meetings between architects and the clients both virtually and on site in Pescadero, Mexico. • Created renderings and digital models. • Provided feedback and guidance to clients on architect's proposals.

ACTIVITES

Solar Decathlon | Syracuse University Fall 2022 – Spring 2023
• Member of the design team for the Syracuse University and SUNY ESF solar decathlon team. • Designed a proposal for affordable multi-family housing in Syracuse, New York.

SKILLS

Digital: Rhinoceros | SketchUp | AutoCAD | Revit | V-Ray | Adobe Photoshop | Adobe Illustrator | Adobe InDesign | Microsoft Office | Zoom | Conceptboard | ArcGIS | Lumion | Grasshopper | Ladybug

Fabrication: Laser Cutting | CNC | Wood | Acrylic | Paper | Foam Core | Plaster | Plotting | Hand Drafting

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Timber in the City

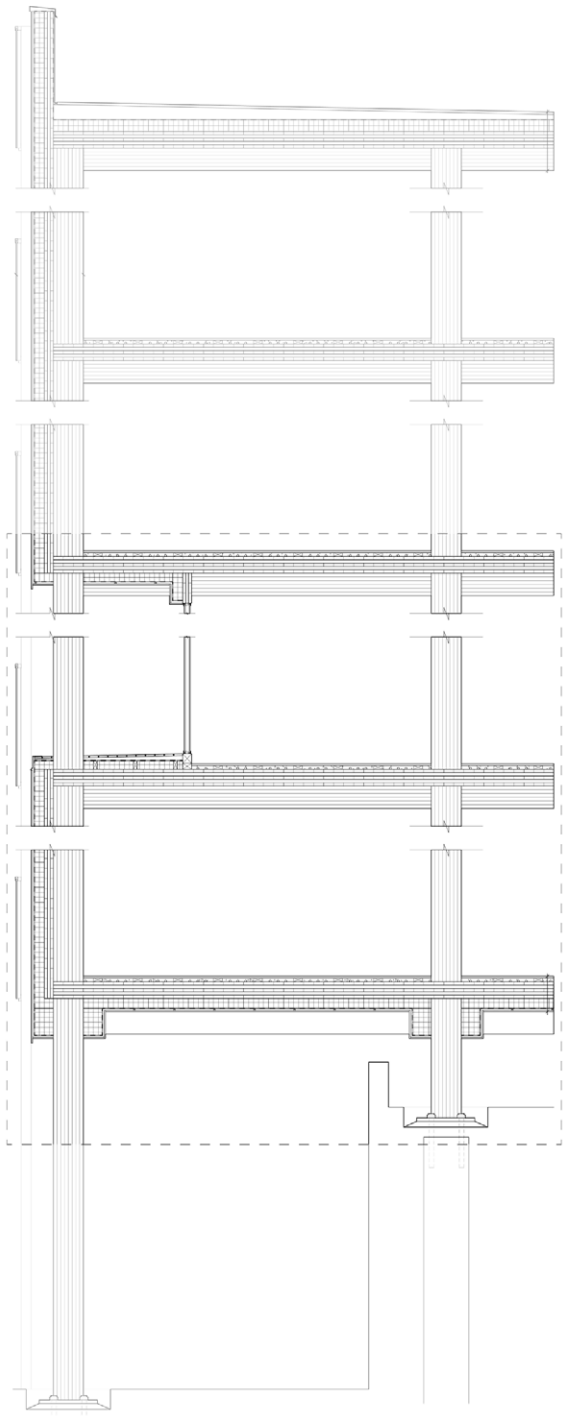
An Experiment in Mass Timber Construction

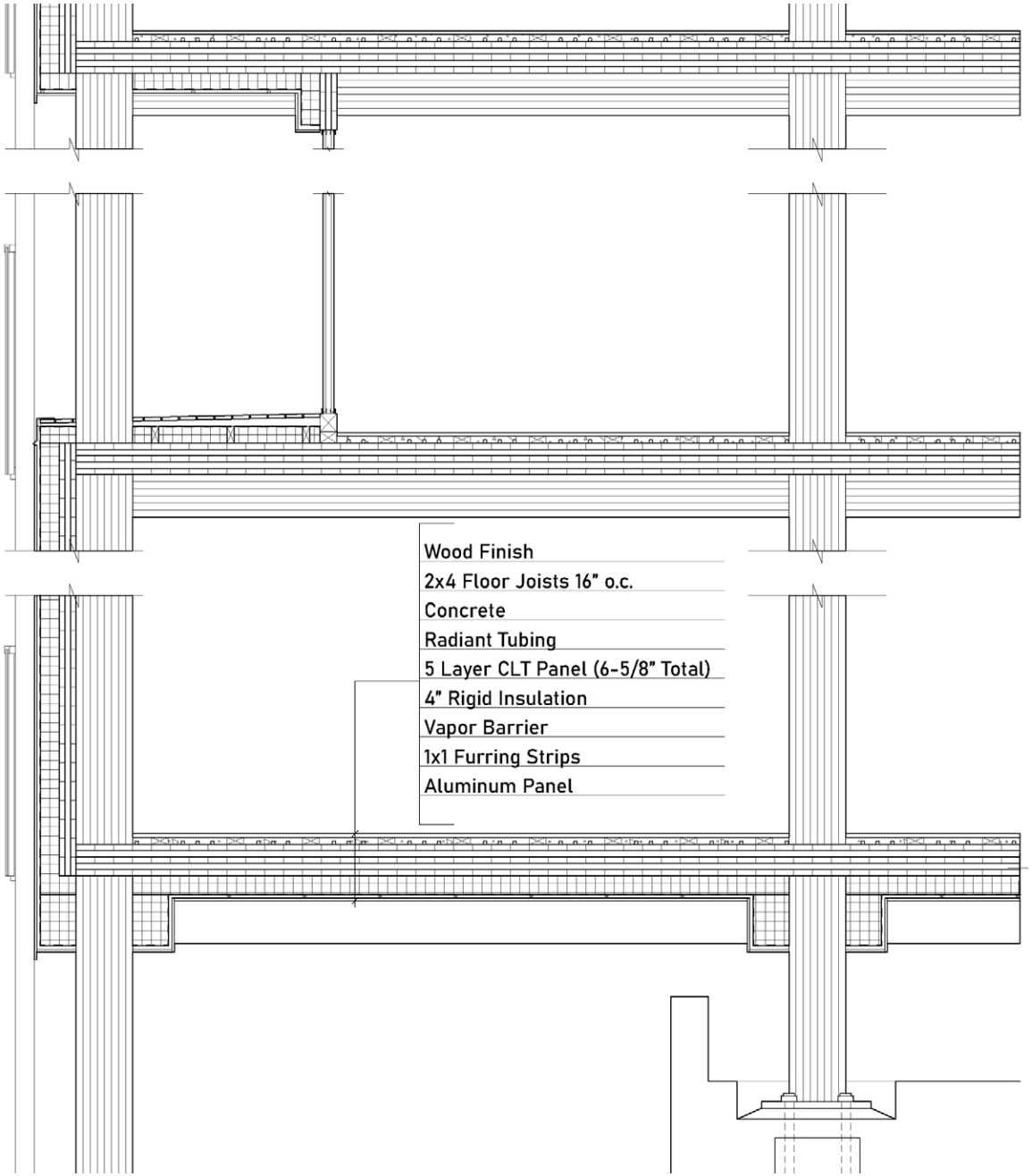
Spring 2024
ARC 409: Integrated Studio
Professor Emily Pellicano
Group Assignment with Tianyi Zheng

Rhino, Illustrator, Hand Drawing,
Physical Modeling

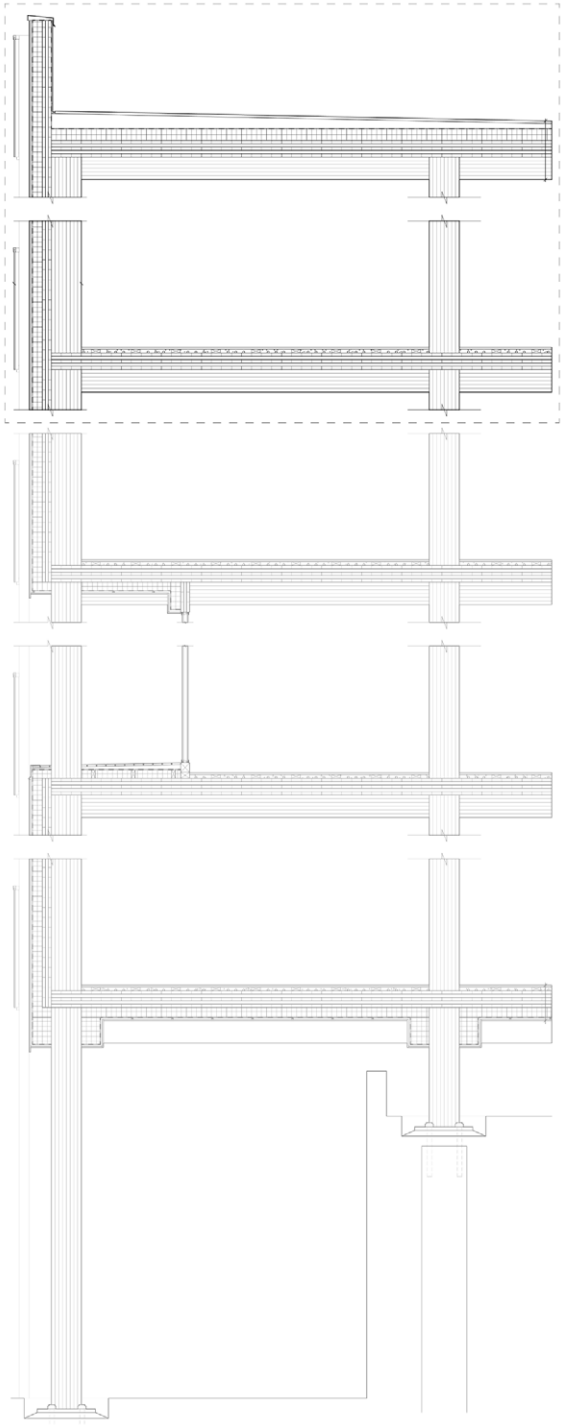
Designed as a mass timber building attached to the top of the Roosevelt Hotel in New York City, this project aimed to imagine and research how this hypothetical structure this could be constructed given current building code standards. Critical to the project was a continuation of the existing structural system in the Roosevelt Hotel, the use of timber for the bulk of the structure, as well as the use of the aesthetics and functions of scaffolding that has become ubiquitous to New York City.

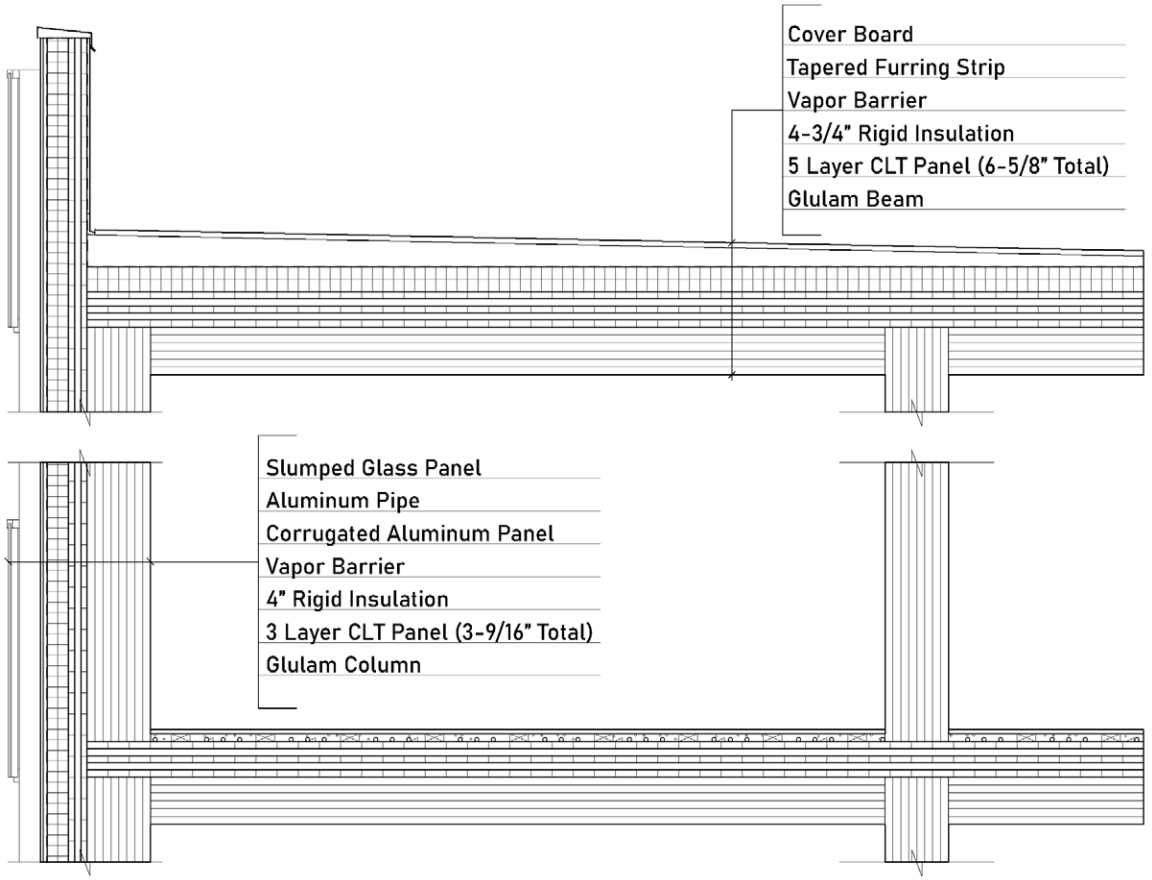
Wall and Floor Assemblies Wall Section

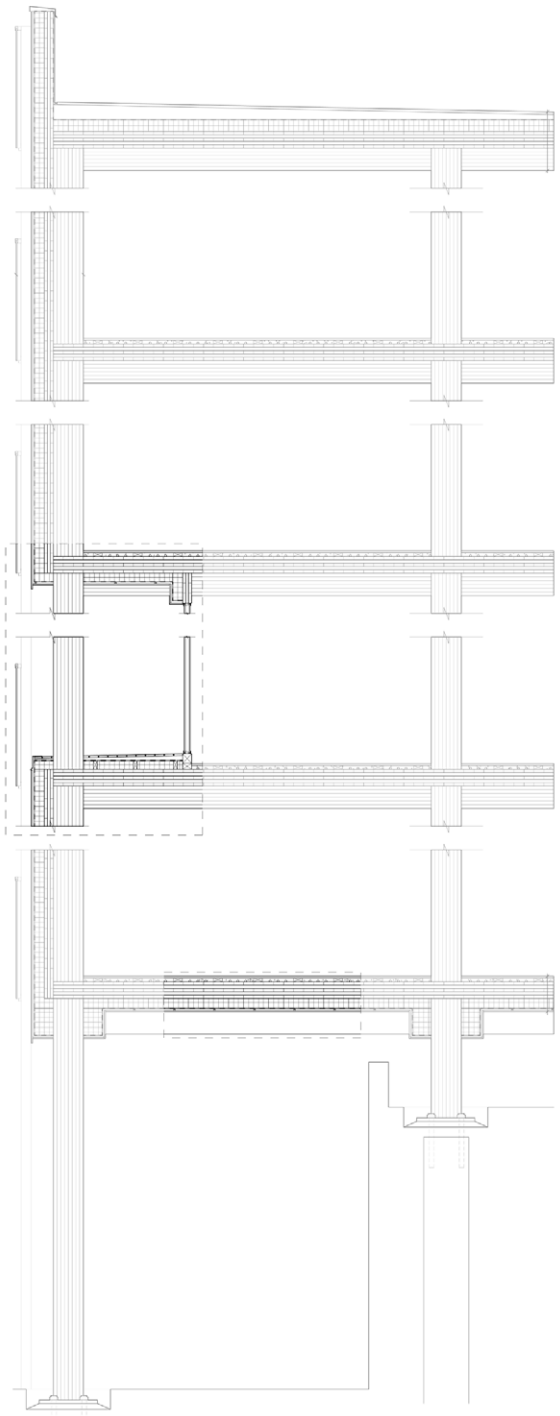




Wall and Floor Assemblies Wall Section

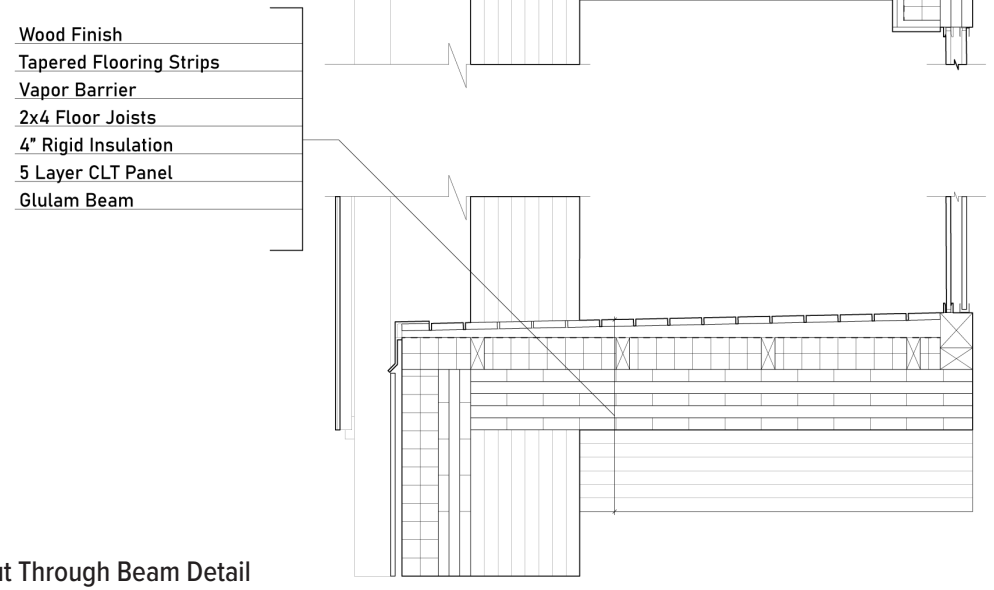




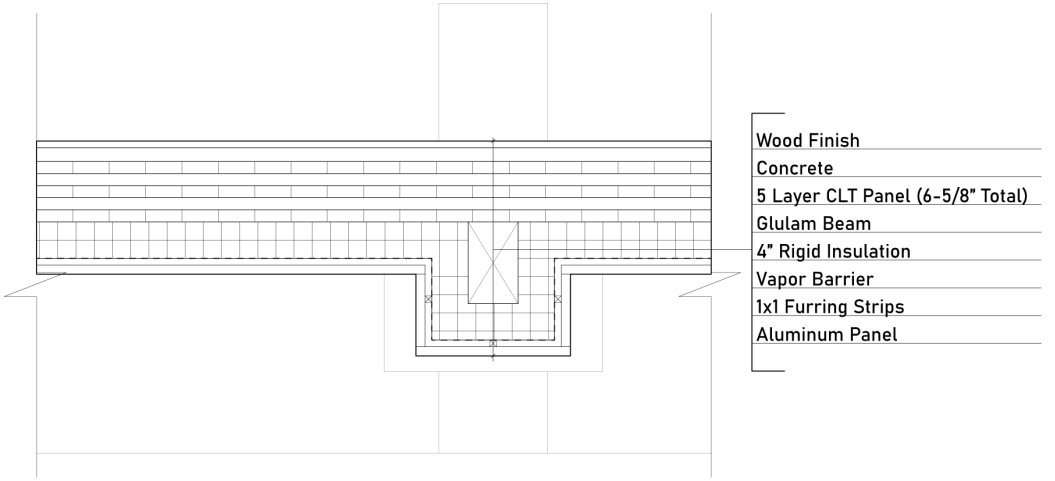


Wall and Floor Assemblies Details

Apartment Balcony Detail

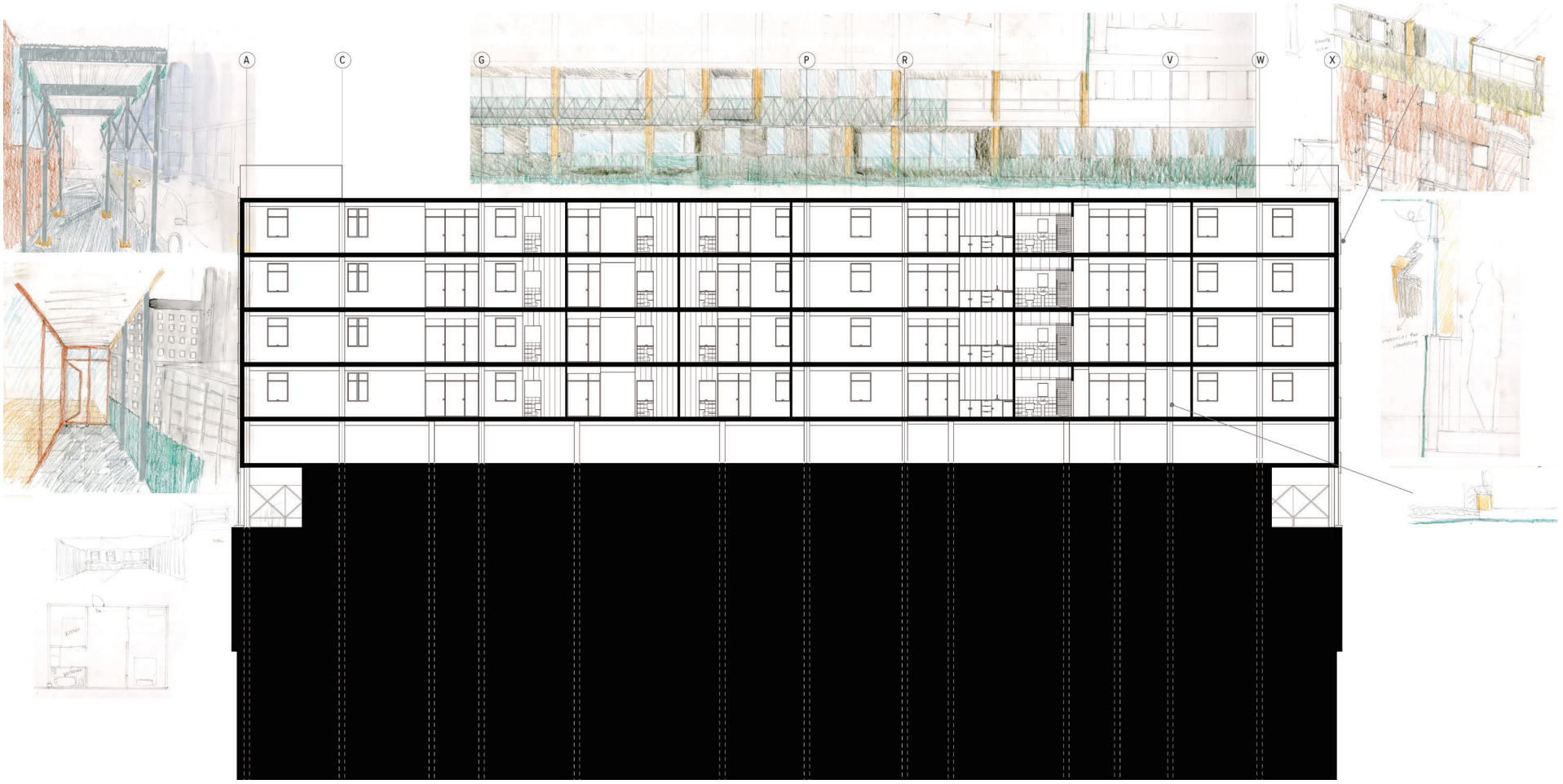


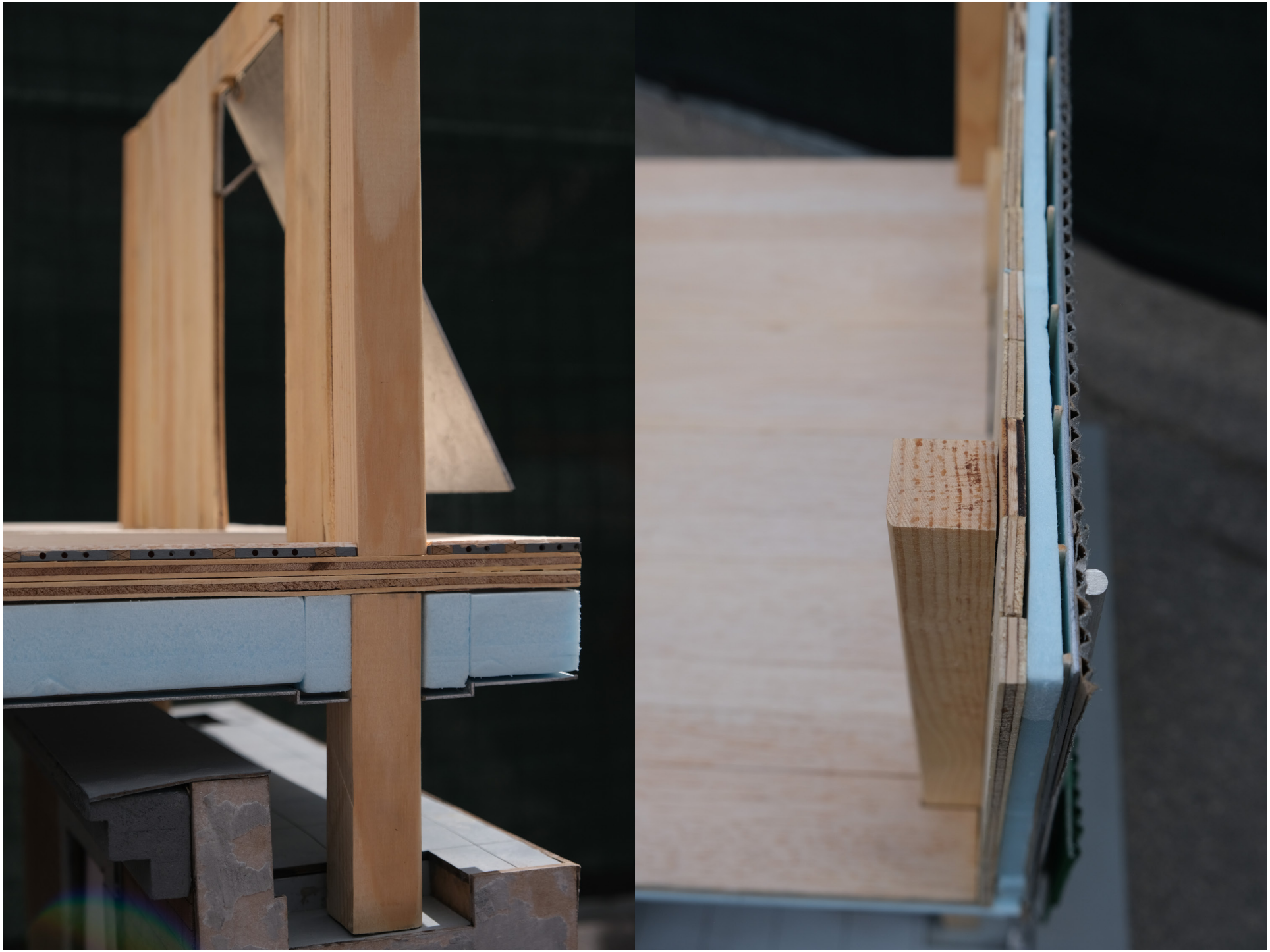
Floor Cut Through Beam Detail



Apartments Plan

Apartments Section





Castables

Concrete-wood hybridization through casting, joining, and burning.

Spring 2025
ARC 498: Directed Research
Professor Tim Stenson
Individual Assignment

Wood, Mortar, Rockite, Castable Refractory

This project began as an exploration into the potentials of natural imperfections in wood, like knots and cracks, as joints and connections. Each of the first three pieces built upon the knowledge gained in the last and experimented in new ways. The first tested the construction method, size limitations, and directions of the pour. The second then refined the construction and experimented with creating larger legs out of multiple knots at once. The third continued refining the construction method and changed the axis of the wood and, therefore, the resulting pour. Simultaneously, a series of investigations took place into the potential of burning the wood to reveal the geometry of the concrete joint. Initial failed experiments using an open flame led to the introduction of a different cementitious material, called castable refractory. This material proved promising for future exploration as, when fired in a kiln, it retains its strength, removes all trace of the wood, and is lighter than traditional concrete.

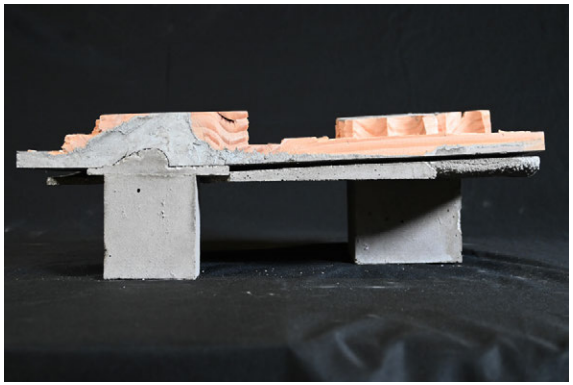
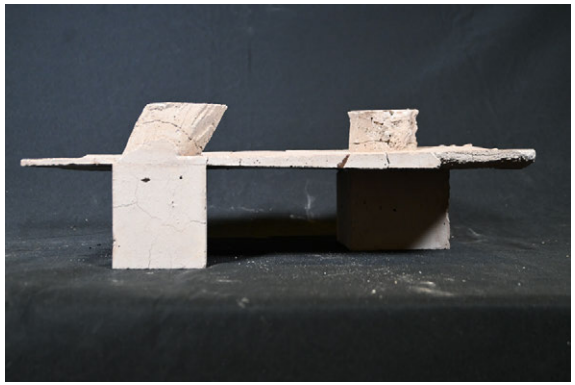
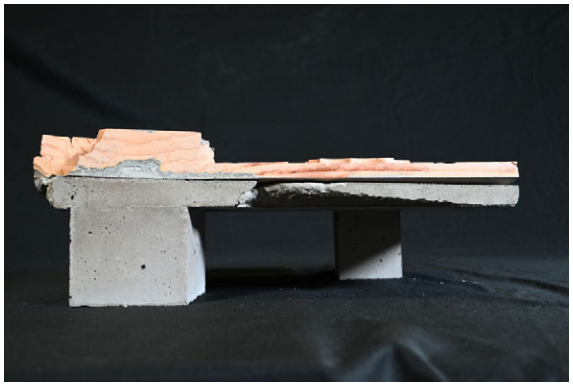
Experiment 1: Coffee Table

Experiment 2: Bench

Experiment 3: End Table

Experiment 4: Wood Burning



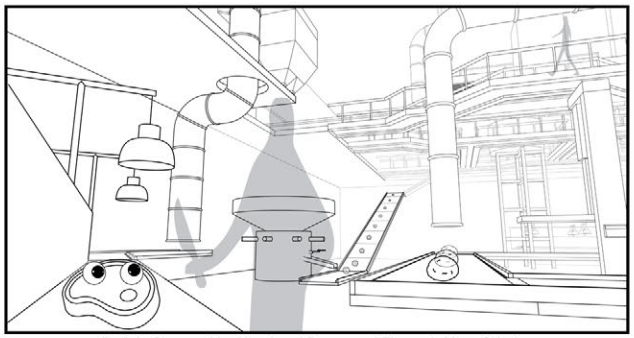

Korean Factory

Critiquing the Architecture of K-Food through Dumplings

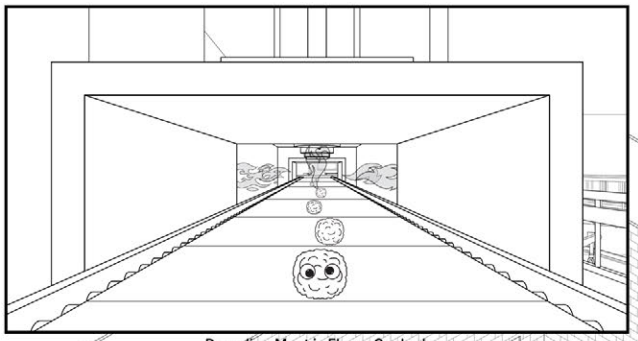
Spring 2023
ARC 407: Studio
Professor Jooeun Sung (of Yonsei University)
and Professor Daekwon Park
Group Assignment with Ethan Fox

Rhino, InDesign, Illustrator

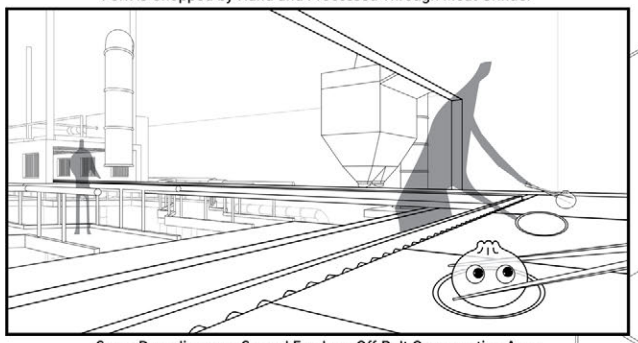
Based on studies of Korean food spaces, this project combines both observations and critiques of spaces of production and spaces of consumption. The factory design attempts to bridge the physical gap between production and consumption by inviting the consumers to directly observe and participate in the production process. Shown from the perspective of a dumpling being formed, the comic takes the viewer through the entire factory, showing the different machines and processes needed to make a dumpling as well as the opportunities for participants to consume the products.



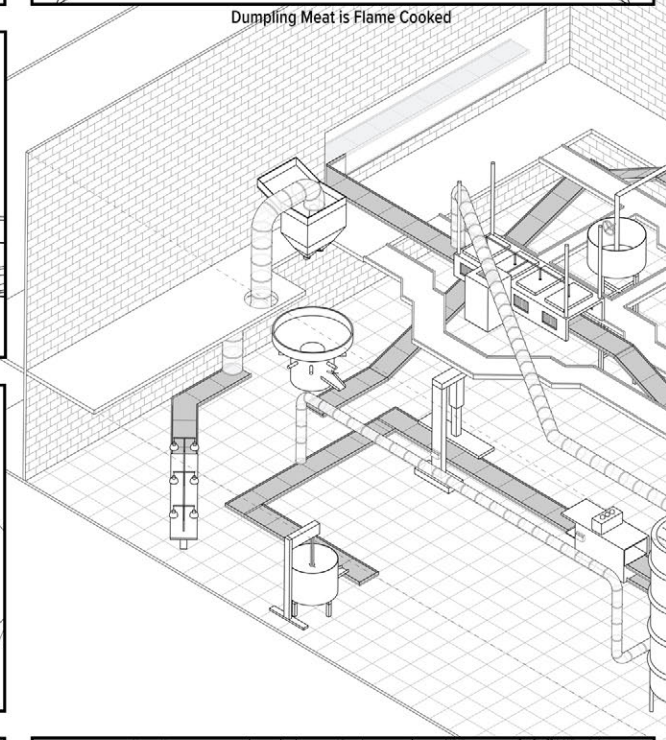
Pork is Chopped by Hand and Processed Through Meat Grinder

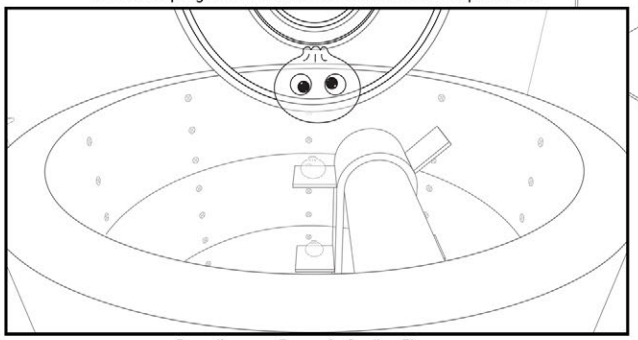


Dumpling Meat is Flame Cooked

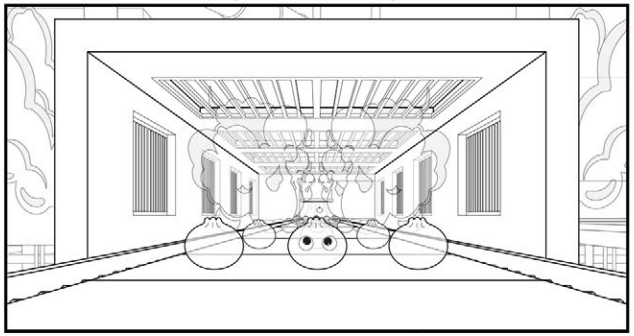


Some Dumplings are Served Fresh on Off-Belt Consumption Area

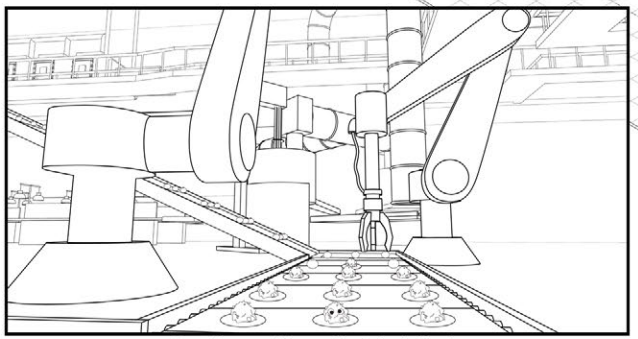




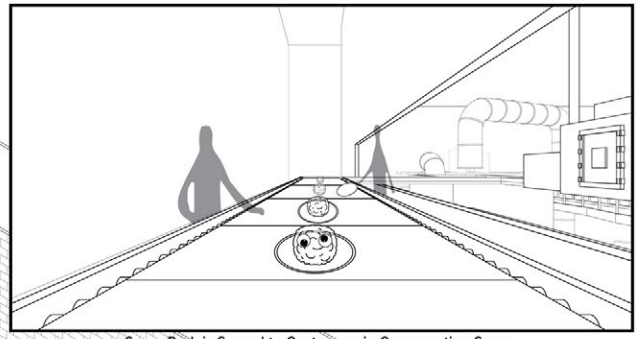
Dumplings are Frozen in Cooling Elevator



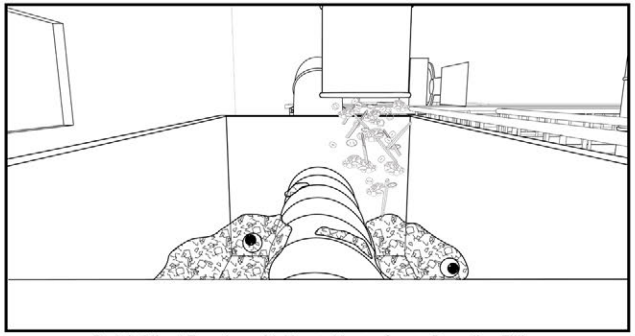
Dumplings are Steamed Cooked



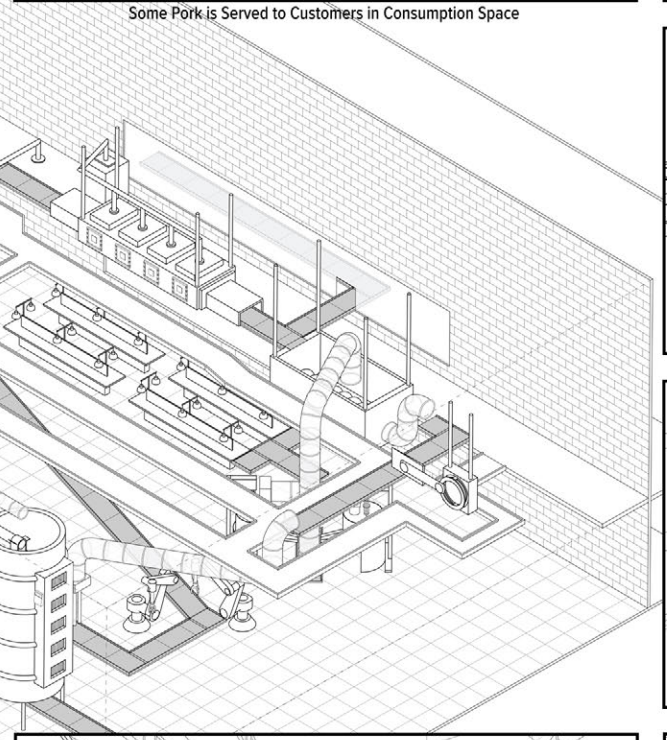
Dumplings are Wrapped by Robotic Hands

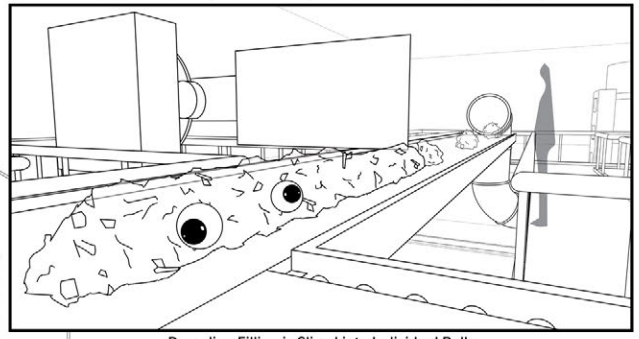


Some Pork is Served to Customers in Consumption Space

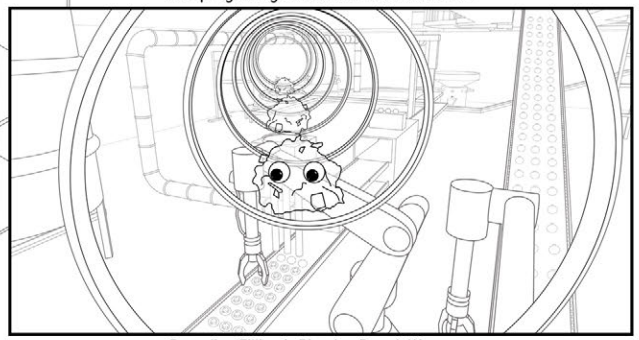


Pork is Mixed Together with Vegetables to Create Dumpling Filling

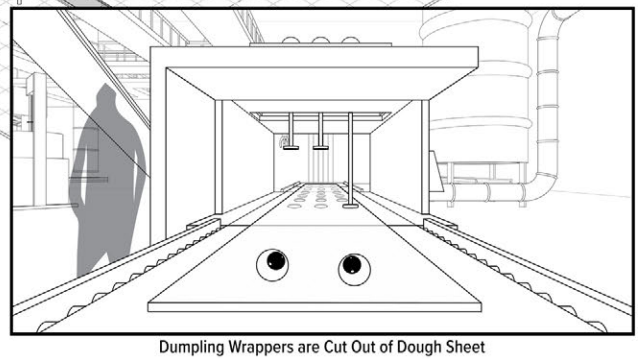




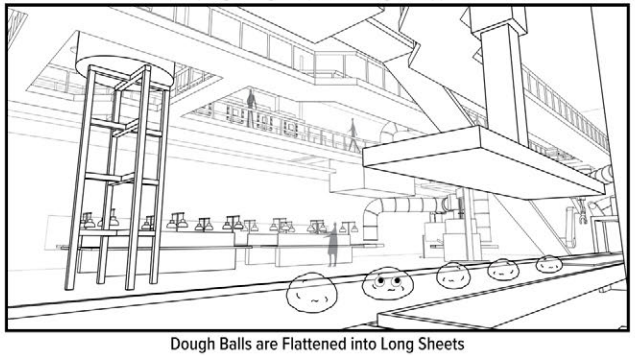
Dumpling Filling is Sliced into Individual Balls



Dumpling Filling is Piped to Dough Wrappers

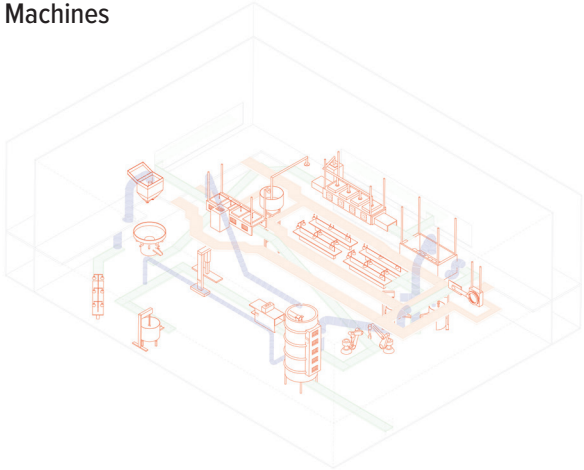


Dumpling Wrappers are Cut Out of Dough Sheet

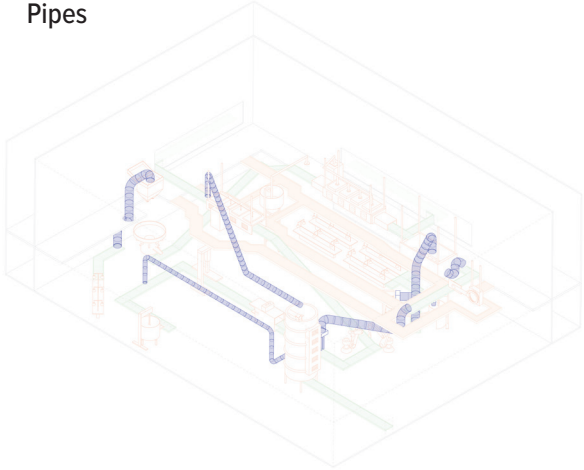


Dough Balls are Flattened into Long Sheets

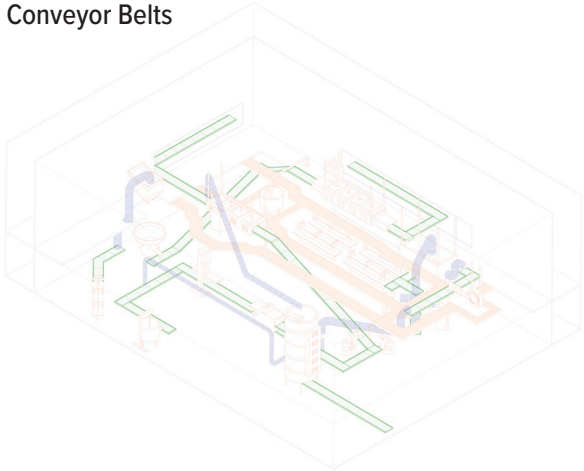
Machines



Pipes



Conveyor Belts



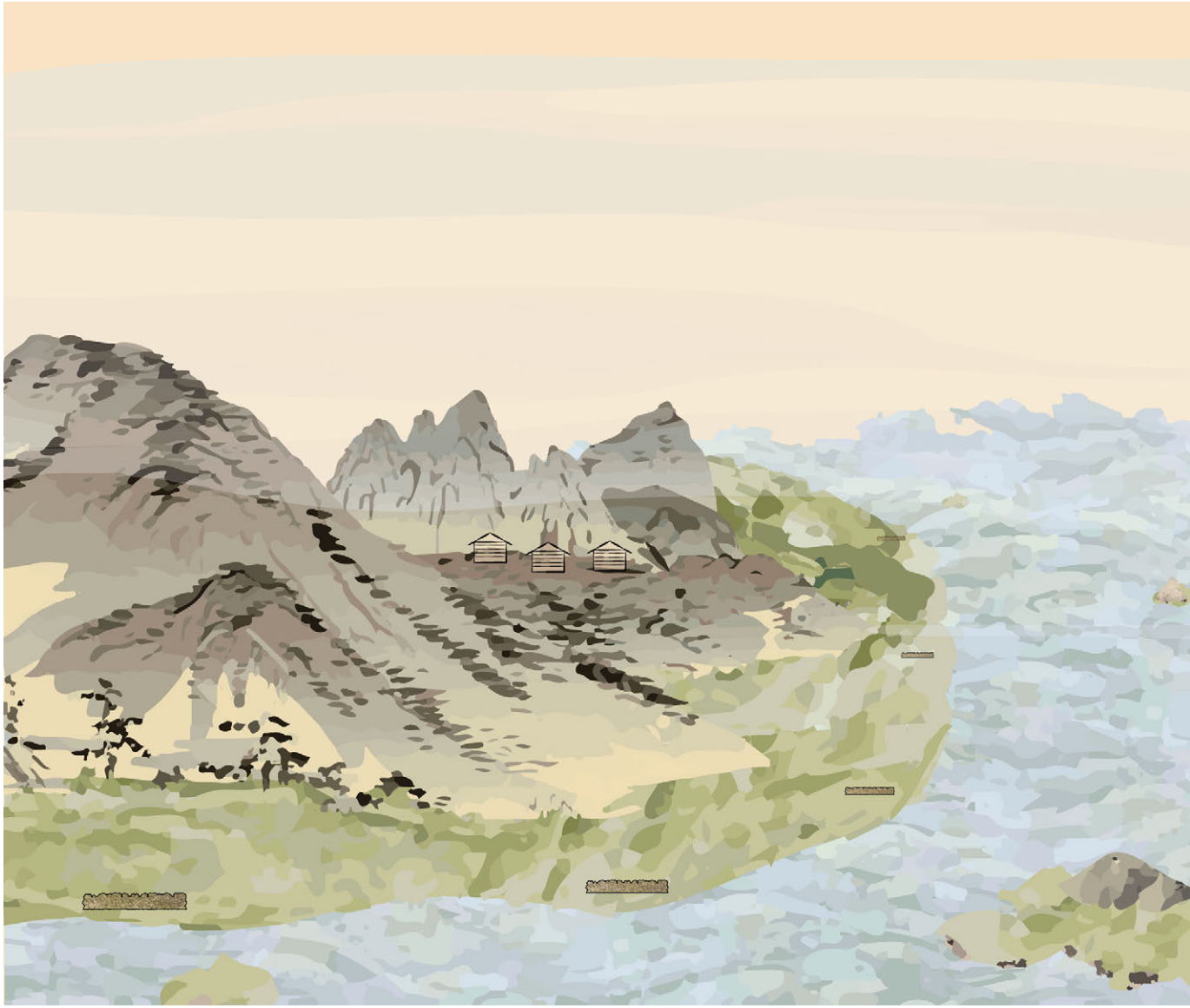
Ingredient Research

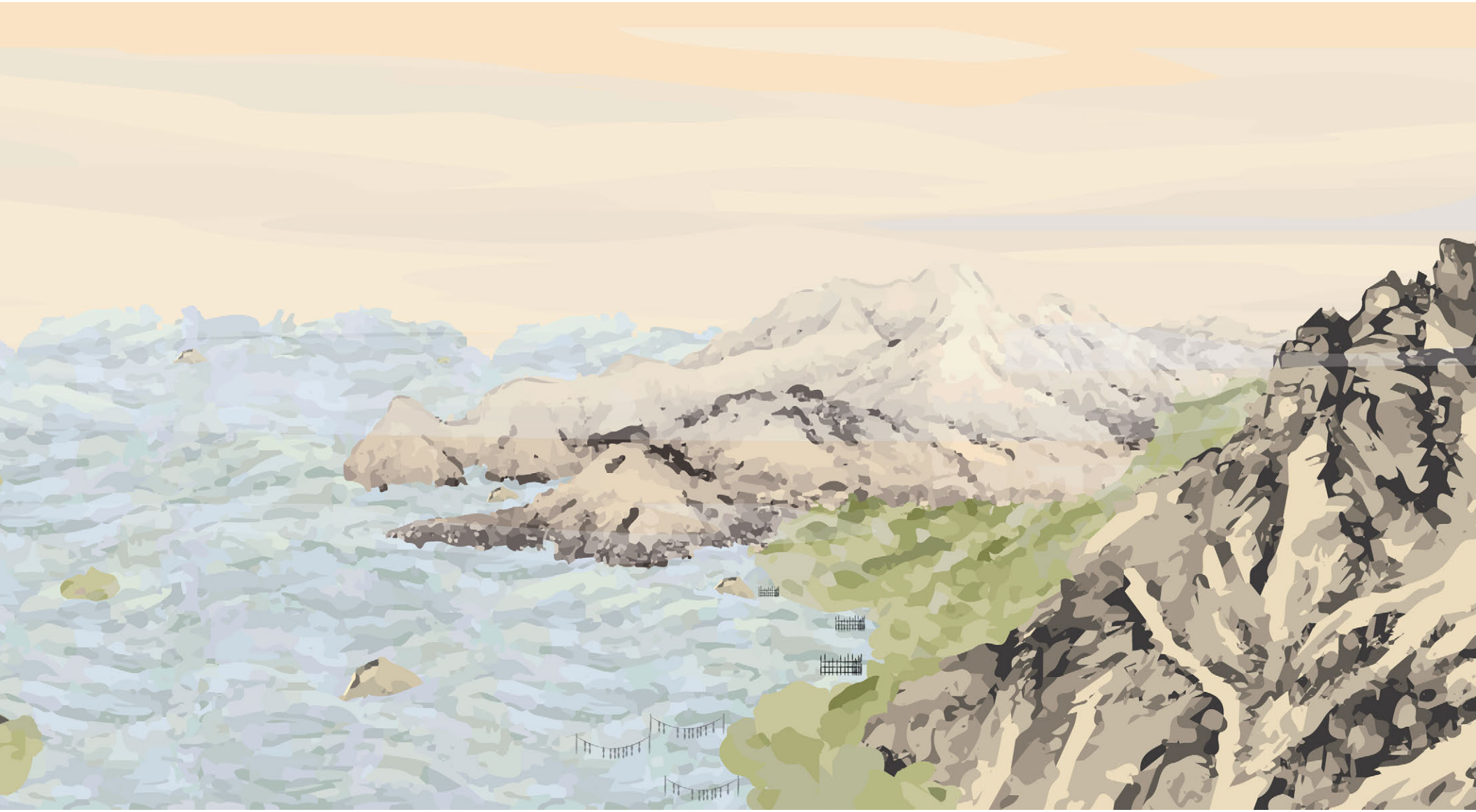
Exploring the Stories of Sundubu Jjigae

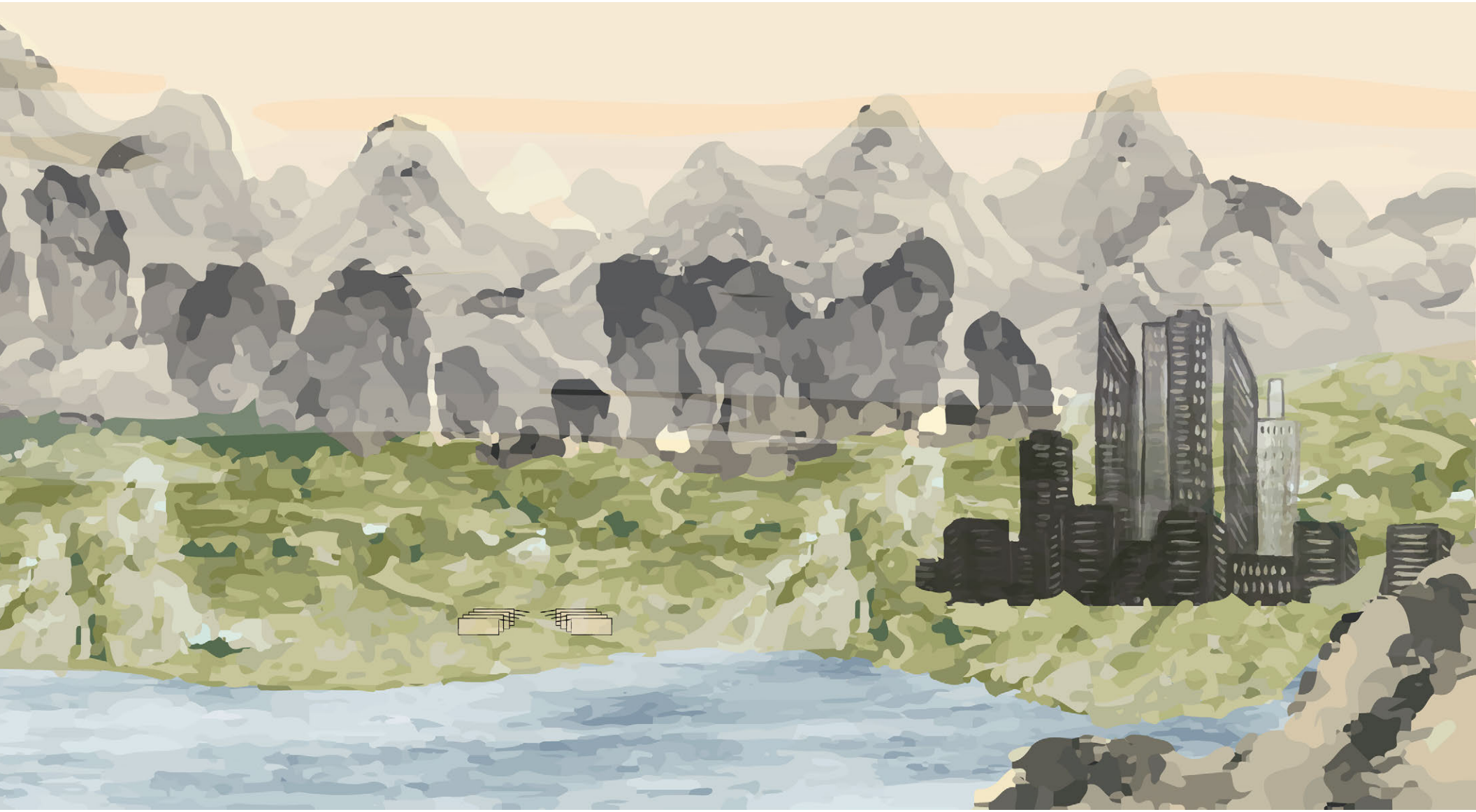
Spring 2023
ARC 407: Studio
Professor Jooeun Sung (of Yonsei University)
and Professor Daekwon Park
Group Assignment with Ethan Fox

Rhino, Illustrator, Photoshop

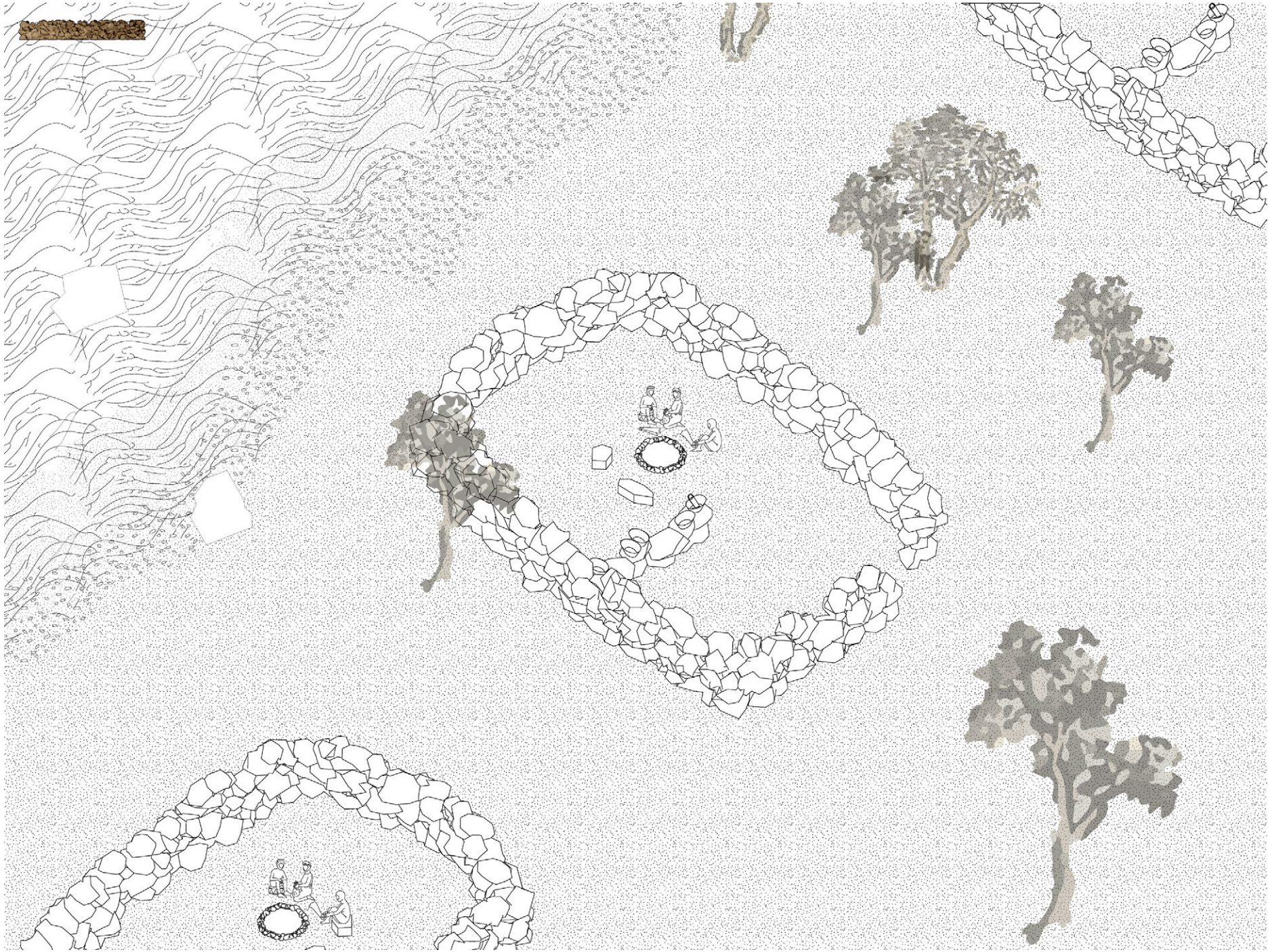
This project explores the Korean dish Sundubu Jjigae and the artisanal production methods used for its ingredients. The drawings look at key ingredients of the dish such as shellfish, anchovies, and tofu and the unique spaces of production for them. The scroll takes inspiration from traditional Korean landscape drawings by abstracting and collaging them into one large scroll encompassing all of Korea. Placed on the scroll are small icons that reference the locations where each production method can be found. The scroll was then split into five pieces and turned into booklets featuring the drawings as well as background research. The booklets were bound using a traditional Korean method called seonjang and placed on exhibition during a joint symposium between Syracuse University and Yonsei University in Seoul, South Korea.



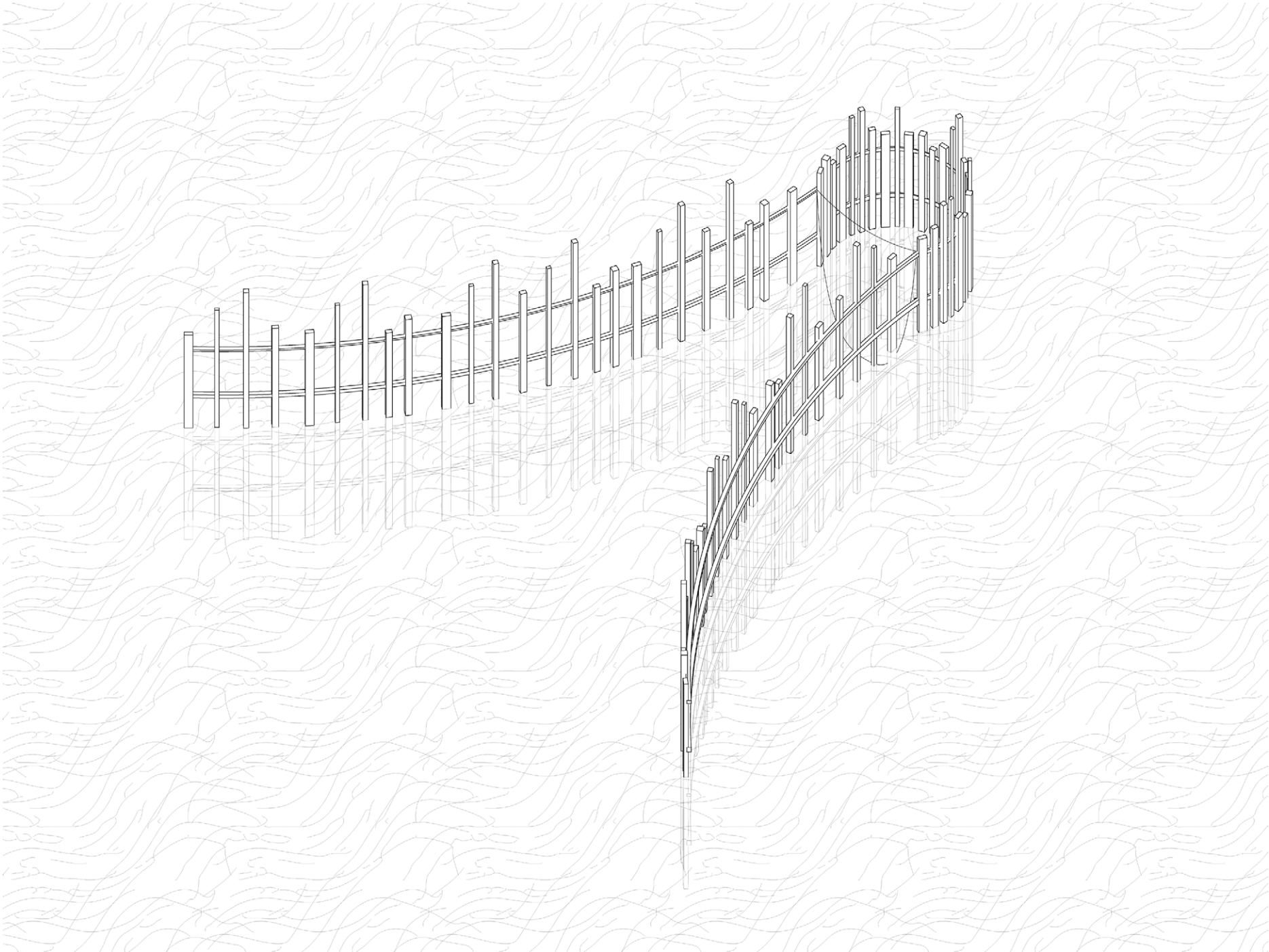




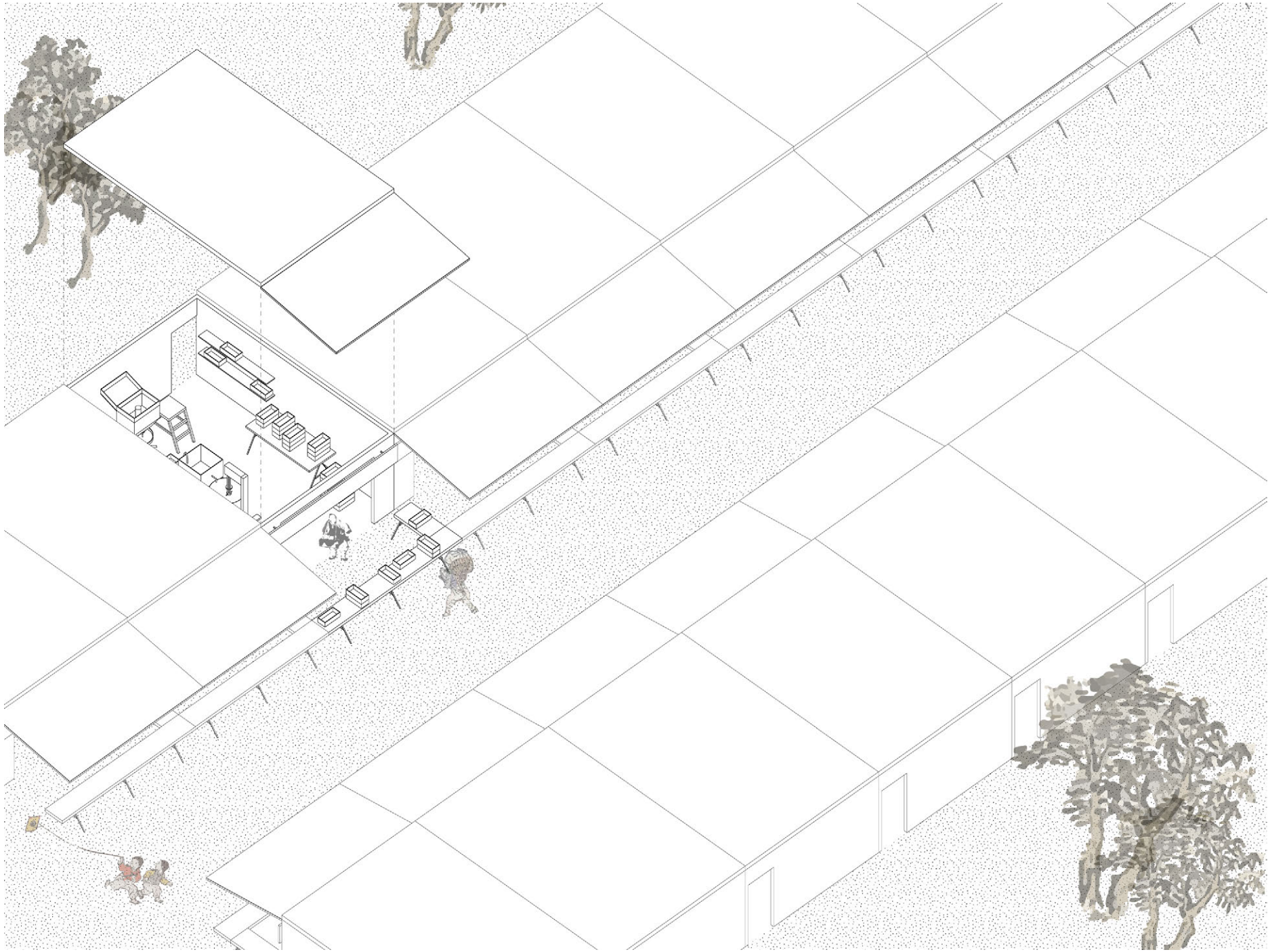
Bulteok of the Haenyeo Who Catch Shellfish



Jukbang Anchovy Farming



Tofu Shop



Exhibition in Seoul

Claymaking Studio

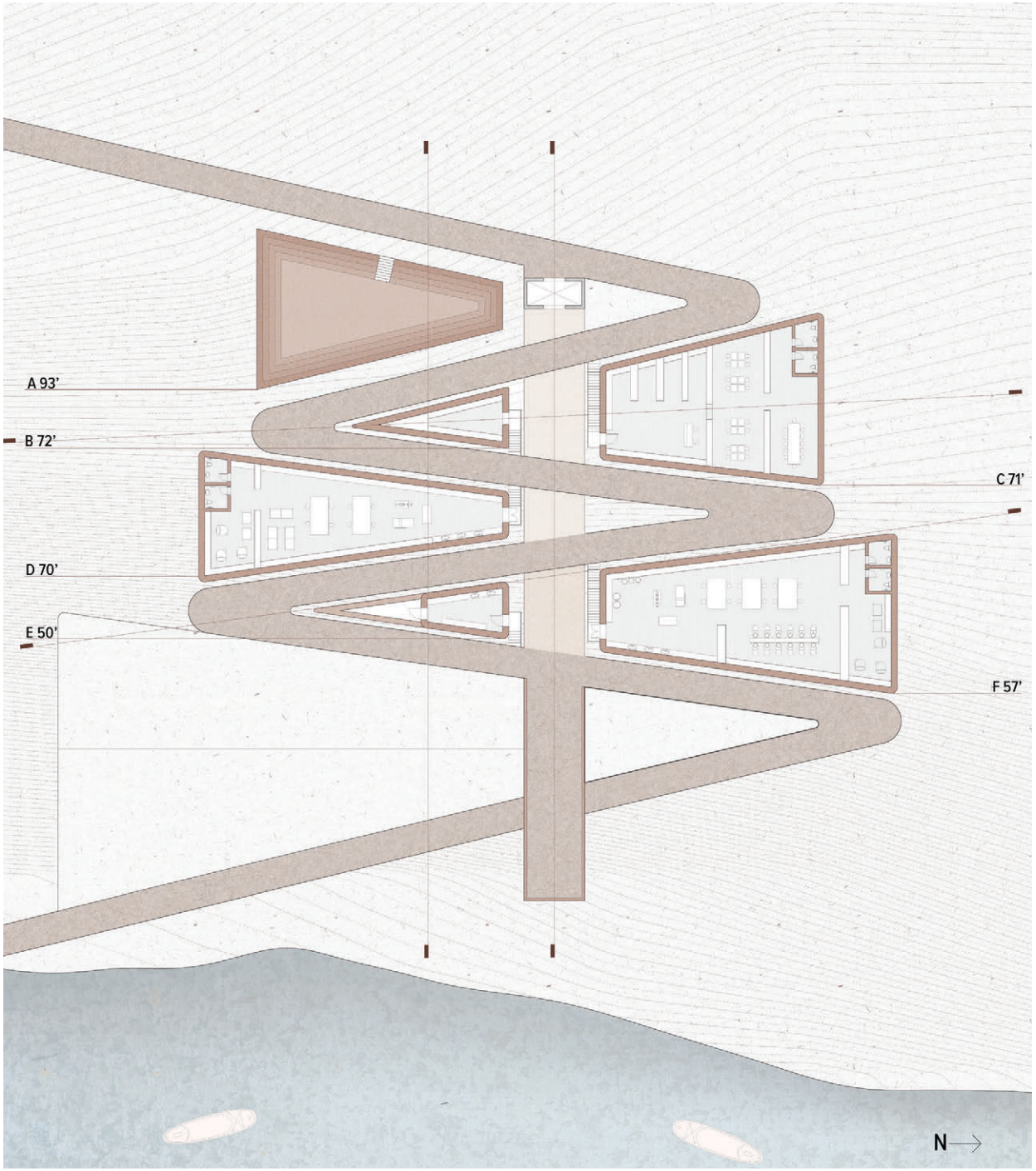
A Comprehensive Studio for Artists

Spring 2022
ARC 208: Studio
Professor Ayesha Ghosh
Group Assignment with Karen Villacis

Rhino, Illustrator, Photoshop, InDesign, Physical Modeling (CNC, Blue Foam, Plaster, Clay)

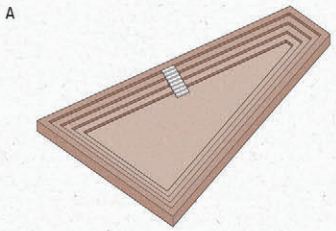
This project aims to create an all-encompassing space for a collective to create ceramics. Participants are able to create their own ceramics by hand, from scratch, starting with the excavation of clay and ending with a finished ceramic product, all done by themselves. Sited along a steep hill, a winding path was created to allow access to each of the spaces and a separate path cutting straight through the land frames the view of the surrounding landscape. The spaces are built using rammed earth walls and, due to the steep terrain, are partially embedded in the earth, furthering the connection between the ground and built spaces.

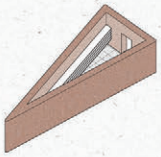
Floor Plan

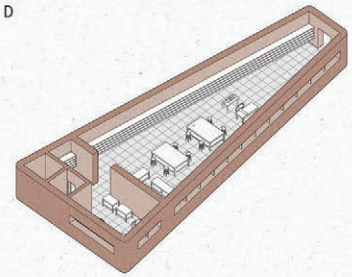


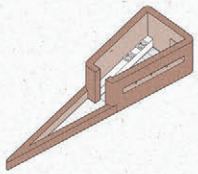
Axonometric: Parts of the Whole

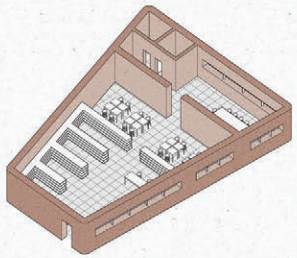
Physical Model

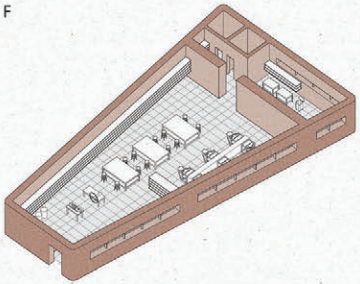


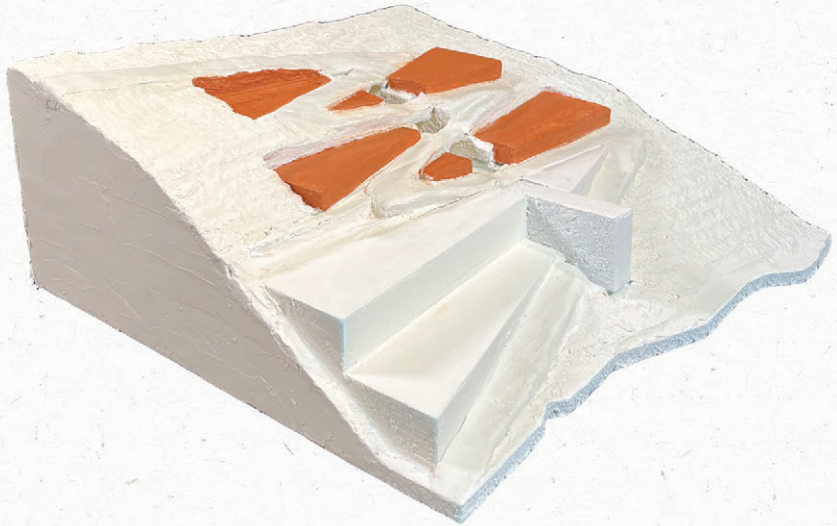


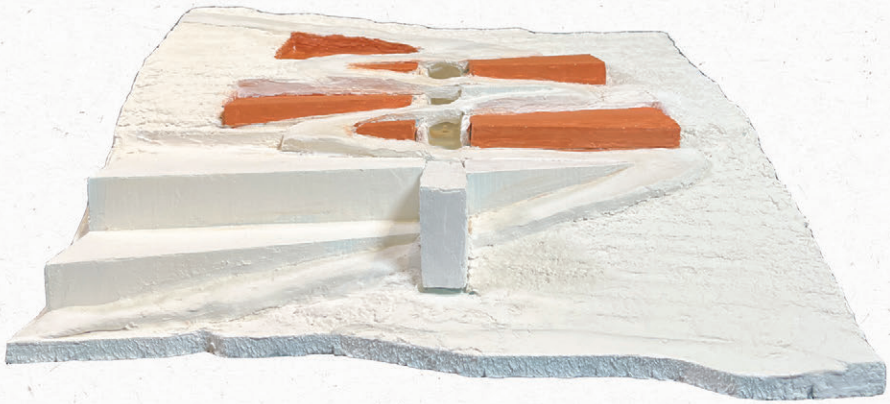




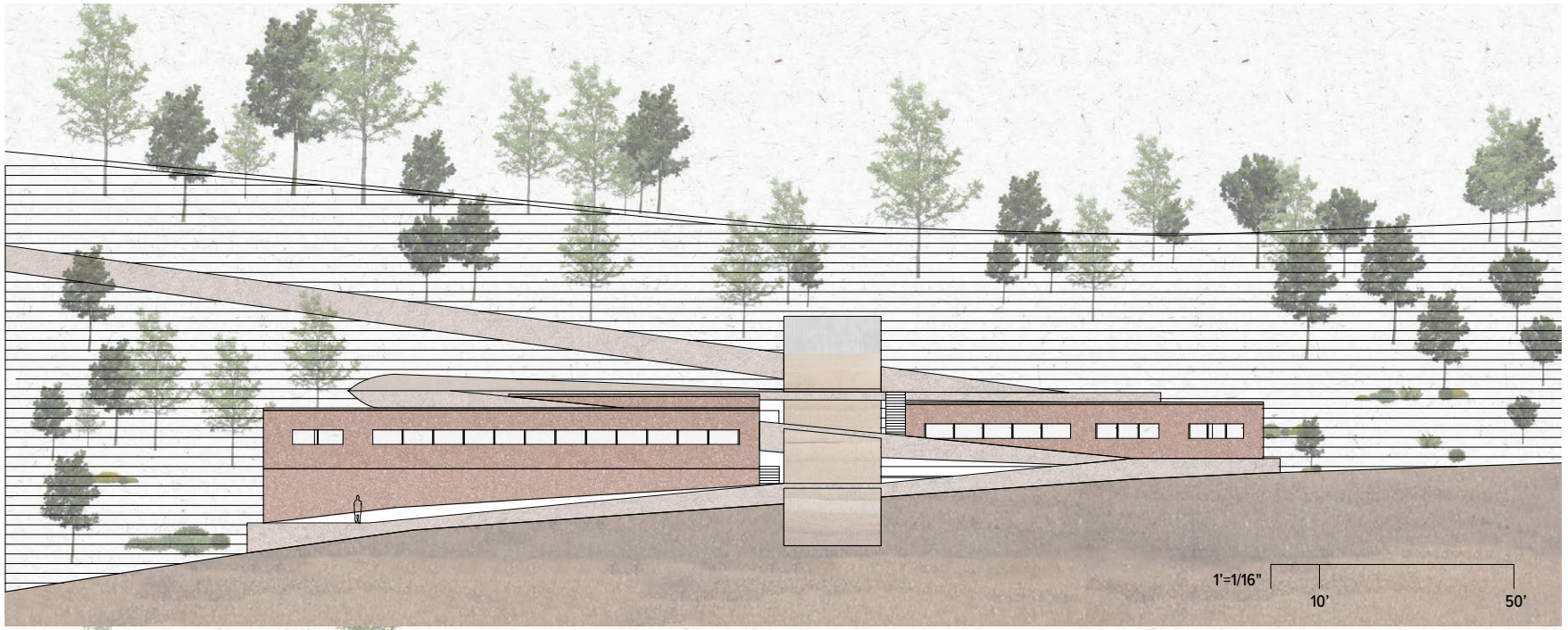


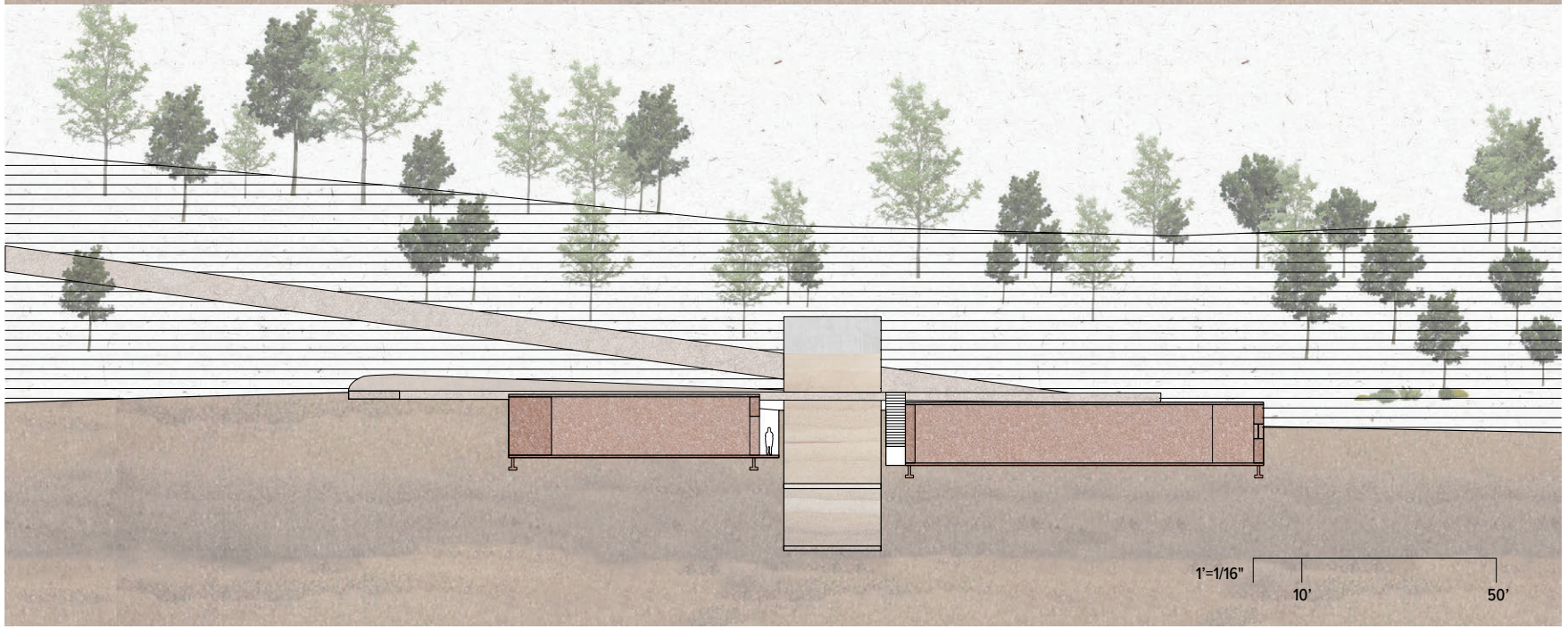




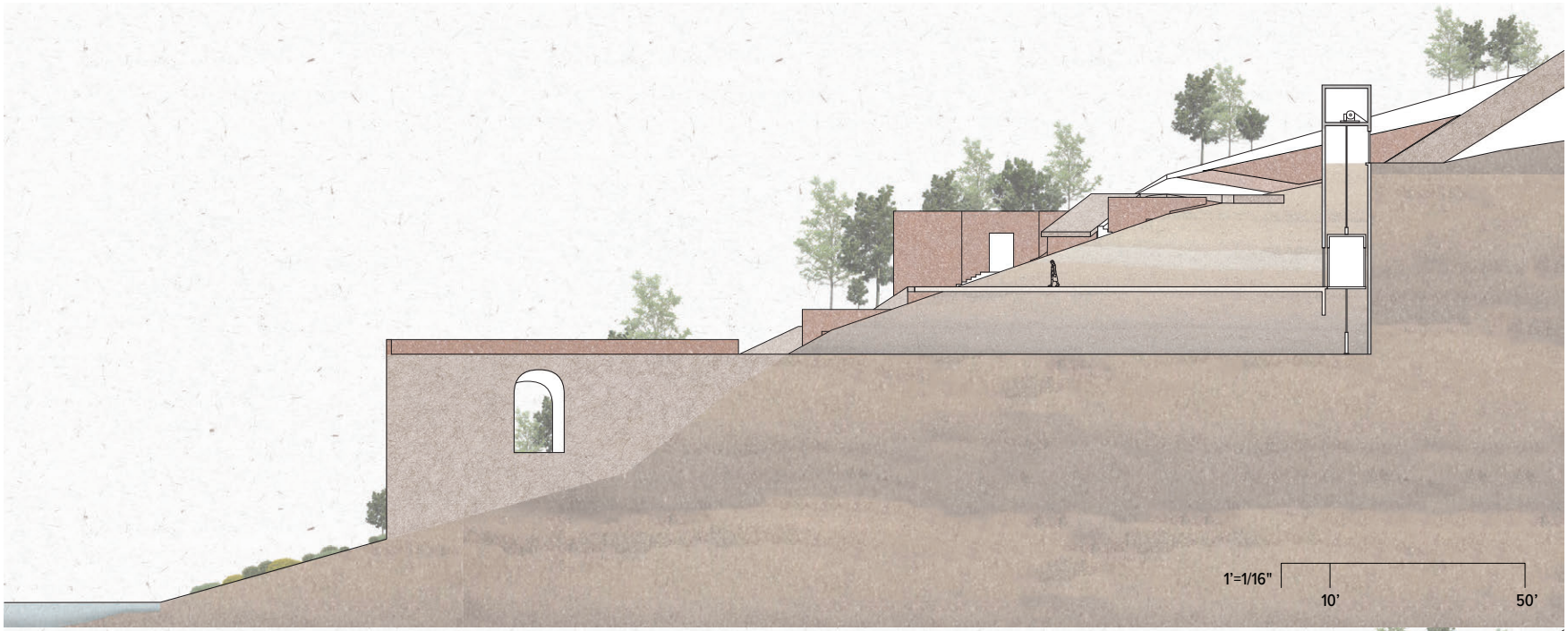


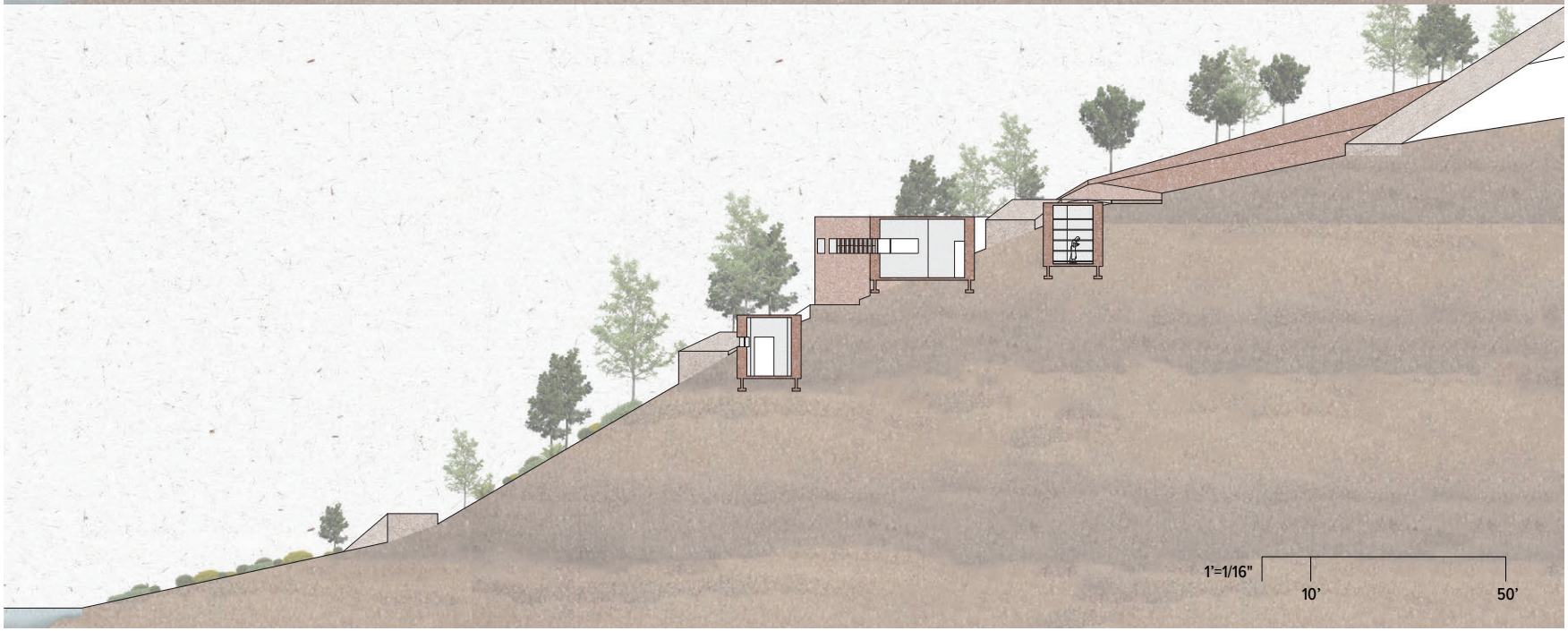
Short Sections





Long Sections





Palm Tree Stories

A Memoryscape for Post-Genocide Cambodia

Spring 2024
ARC 500: Cities of Memories
Professor Christina Zhang
Individual Assignment

Illustrator, Photoshop, Rhino, Physical Modeling

Palm Tree Stories imagines that the Sugar Palm, a plant that's prevalent throughout Cambodia and holds significant meaning to those within the country, could act as a memory holder for the trauma endured during the Cambodian Genocide. These trees were witnesses, and oftentimes unwilling participants, to the atrocities committed by the Khmer Rouge. These trees have held onto the memories of the brutalities to pass on to future generations, preserving those who lost their lives.

Frond in Phnom Penh

The fronds of the palm tree, in Phnom Penh, watched as the Khmer Rouge entered the city to cheers of support, believing the war was over and peace would follow. Over the next two days, the tree witnessed cadres going from home to home, expelling the residents and forcing them on a march towards the countryside. Before long, the palm tree sat in an empty, silent city. The tree watched as only a couple of people would pass by it on the rare occasion until, one day, more palms began to be planted around it. Soon, everywhere the palm looked, it only saw empty buildings and other palms.

Trunk at Way Baray Chaon Dek

Here, near the eventual site of the 1 Makara Dam, the trunk of the palm tree watched as a man built himself a stupa to one day be buried in. Not long after he finished construction, however, the Khmer Rouge came. It watched as the now abandoned stupa was converted into a prison and torture chamber for cadres to use on those who did not meet their production quota during the construction of the dam. The tree witnessed the murder of hundreds of Cambodians here and their dumping in graves throughout the area.

"Here lies a resting place for the ashes of the ones who were killed." - Inscription on the stupa at Wat Baray Chaon Dek

Roots at Choeung Ek

Here, at Choeung Ek, the palm trees' roots watched as 8,000 victims were executed and buried in the graves. Attached to S-21, the most infamous prison and torture center during the regime, the trees watched as each week dozens of prisoners were lined up and sent to be executed. Once dead, they were left in the pits and mixed in with fertilizer, making the trees healthier and stronger.

"[I] could no longer see a row of palm trees without thinking that the tallest were those most fertilized with corpses." -Tiziano Terzani

Fronds at 1 Makara Dam

Here, the palm tree's fronds witnessed from above, the transporting of soil, earth, and rocks to dam the river, Stoeung Chinit. It watched as tens of thousands of Cambodians were sent to do the labor, working from sunrise to sunset. It witnessed workers collapsing from exhaustion and starvation and saw at night when cadres would come and take people away to be beaten and executed. It watched as people would climb its trunk and rip off the fronds to use as shovels and move the earth. The resulting reservoir and streams gave crucial water to drought-stricken fields for rice and other crops. The palm tree watched as the workers were forced elsewhere after construction finished. Today, it watches tourists come to the dam to relax in its reservoir and the new streams continue to replenish fields everywhere it looks.

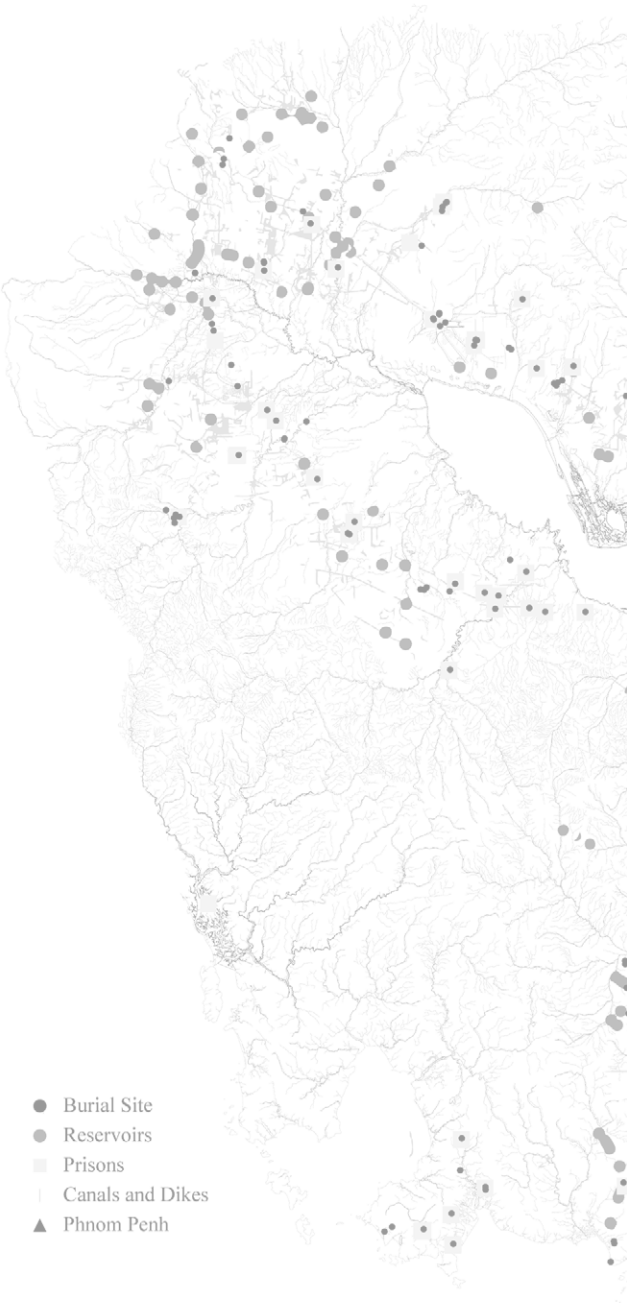
Trunk in Phnom Penh

The trunk of the tree here, at Cheoung Ek, witnessed the brutal murder of infants and children by Khmer Rouge cadres. The tree, next to an open pit to be used as a mass grave, watched as the parents of the children were beaten, killed, and thrown in before the young children themselves were killed. The palm witnessed the children being swung against its trunk until the children were also dead and were thrown in the pit with their parents.

Roots in Do Dontrei

The palm roots here watched as Khmer Rouge cadres dug deep pits in the earth and filled them with the lifeless bodies of their victims. It watched as 35,000 Cambodians were beaten and murdered before being left in the pit. The tree watched as the bodies were covered up with soil and the cadres left. Now, the tree watches as the grave is uncovered and those that were left in the pit can find peace with proper burial rites.

"63-year-old Chea Nouen and other survivors in this small, farming community cannot forget, hold their tears in check or banish the nightmares when they daily tread over the unexamined bones of 35,000 victims and live among restless souls that still hover, they believe, over homes and rice fields."
-Denis Gray



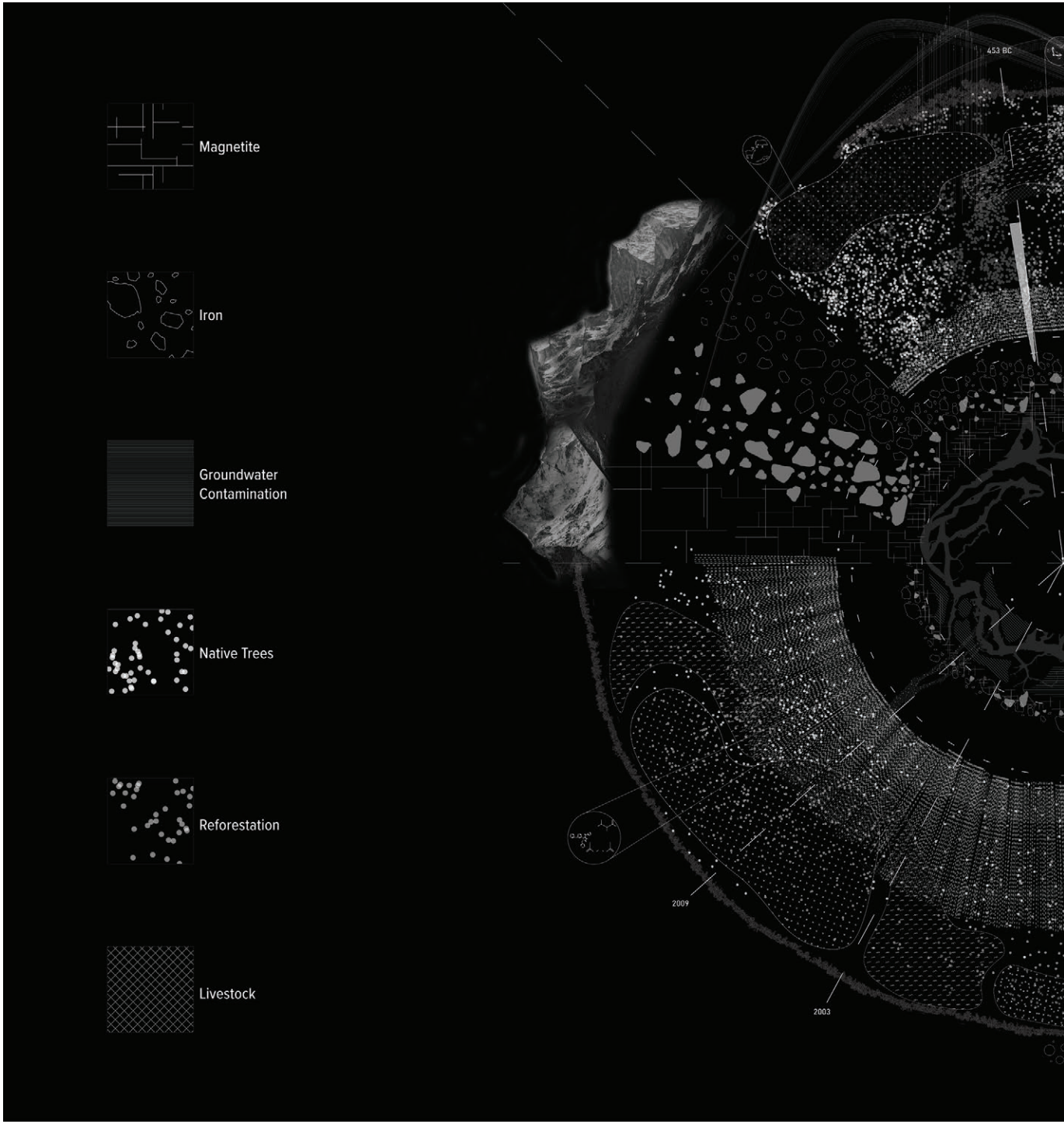
Elban History

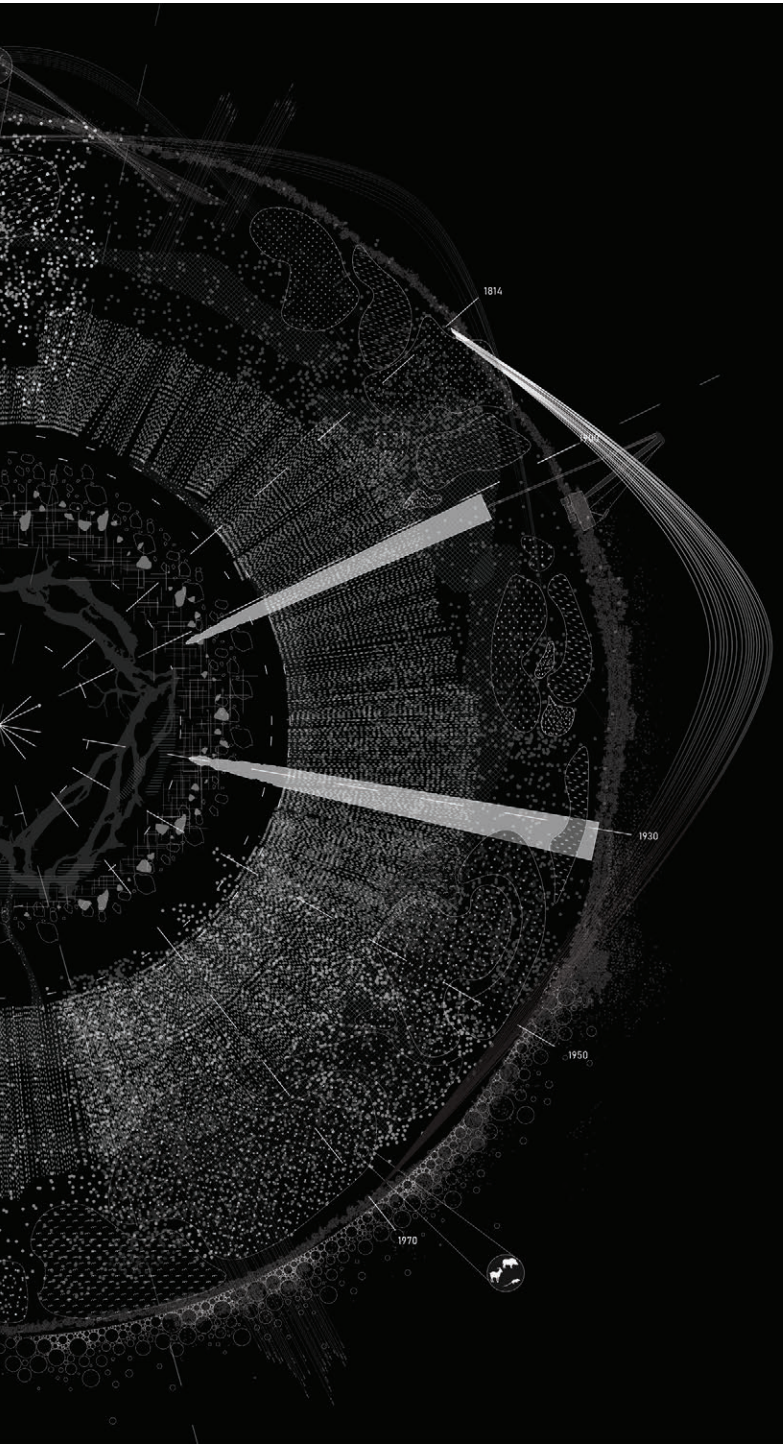
Mapping Species and Their Environments on Isola d'Elba

Fall 2023
ARC 408: Studio
Professor Olivia Gori
Group Assignment with Isabela Restrepo and Shannon Grech

Illustrator, Photoshop

Beginning with the formation of Elba as an island, this map shows a skewed chronology of time, split into 5 distinct periods. Each time period is distinguished by a particular attitude and form of extraction, from the ancient Etruscans that smelted iron ore, to the rapid growth of viticulture, to the present with a boom in tourism. The map also displays different species types and their relative population levels during each period. By analyzing forms of extraction and population levels, the map displays how extractive activities affect and damage ecosystems.





Coal

Native Animals

Native Animal Callout

Groundwater

Native Birds

Native Bird Callout

Seawater Pollution

Invasive Species

Invasive Species Callout

Deforestation

Population Arriving

Population Leaving

Agriculture

Air Pollution

Heavy Metals Callout

Shifts in Mining

Key Dates

Eras

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