

PORTFOLIO

ZIYI ZHU

GSAPP MSAAD 24

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01 SHORE, CITY

Imagination of Immigrant Housing on Coney Island

Summer 2023

Partner: Jianyu Zheng

Instructor: David Moon

Coney Island has a history of immigration and continues to welcome newcomers, inspiring our development of a prototype. This prototype shows the possibilities for more future immigrant housing that can respond to emergencies and serve local residents.

With the sense of gradient in urban scale, the immigrant housing also follows a gradient in layout and section, ranging from temporary to permanent, public to private, light to heavy, new to old...



- S₁**
Site: Floyd Bennett Field
 Reuse the abandoned airport as an entrance to the living place for migrants on coney island, with temporary functions as a landing site
- T**
Terminal on coney island
 Include a terminal on the east side for migrants to land on coney island and then transported to different living areas
- S**
Site on coney island
 Renovate and add new designs to existing building on coney island for migrant housing and community, which also serves local people and responds to emergencies
- P**
Potential area
 As an area of connection between coney island and Floyd Bennett Field, containing new water shuttles connected by piers

Analysis of where and how immigrants in NYC come from & Potentials of utilizing the site

The Distribution of Existing Refugee Shelters in NYC

Since tens of thousands of migrants began arriving in New York City last year, the administration of Mayor Eric Adams has searched for one place after another to house them. The new arrivals have opened a fresh front in the public relations crisis over migrants, as public school parents led a series of protests over the use of school gyms this week. By Wednesday evening, migrants were moved out of a handful of gyms where they had been staying, mostly located in Brooklyn, though the city said that the plan to use about 20 gyms could be revived as needed for temporary overflow.

A

 More than 41000 asylum seekers arriving in New York City since last spring and nearly 28,000 asylum seekers currently in our care, our city is at its breaking point. The cruise terminal will also house newly arriving adult men as space allows. The Watson hotel will then be used to serve families with children who are seeking asylum.

B

 One site will be located in Times Square's vacant Candler Tower office building, which was once home to the country's busiest 24-hour McDonald's before it closed during the pandemic.

C

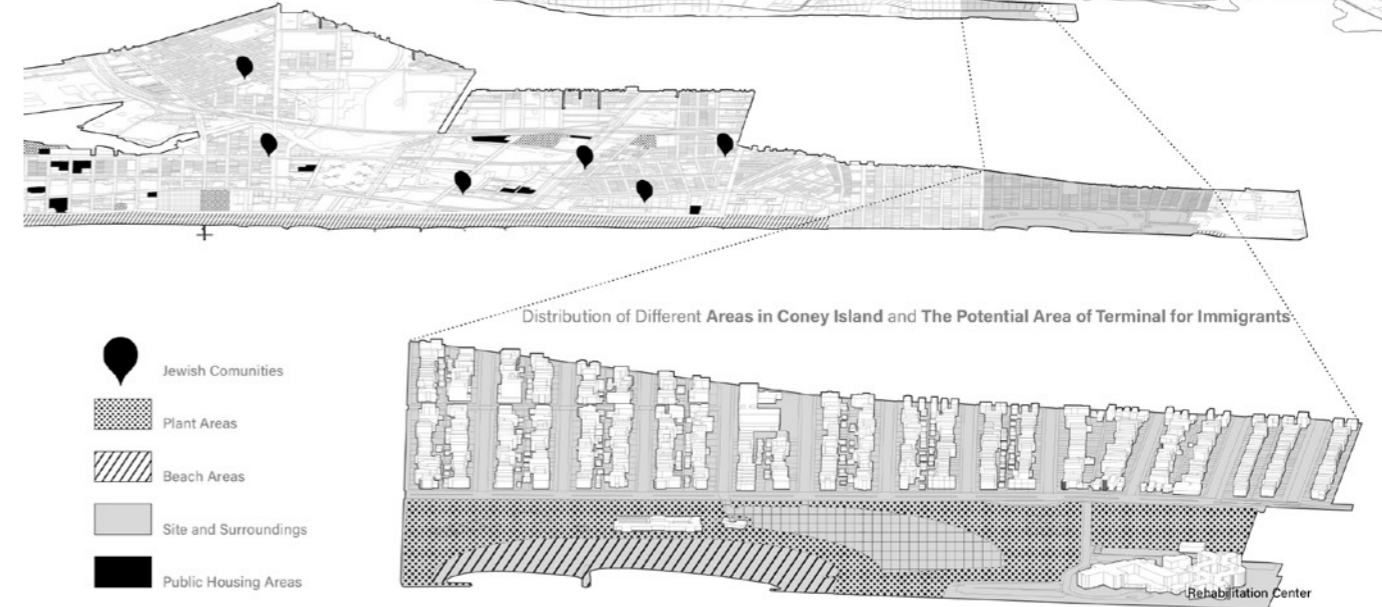
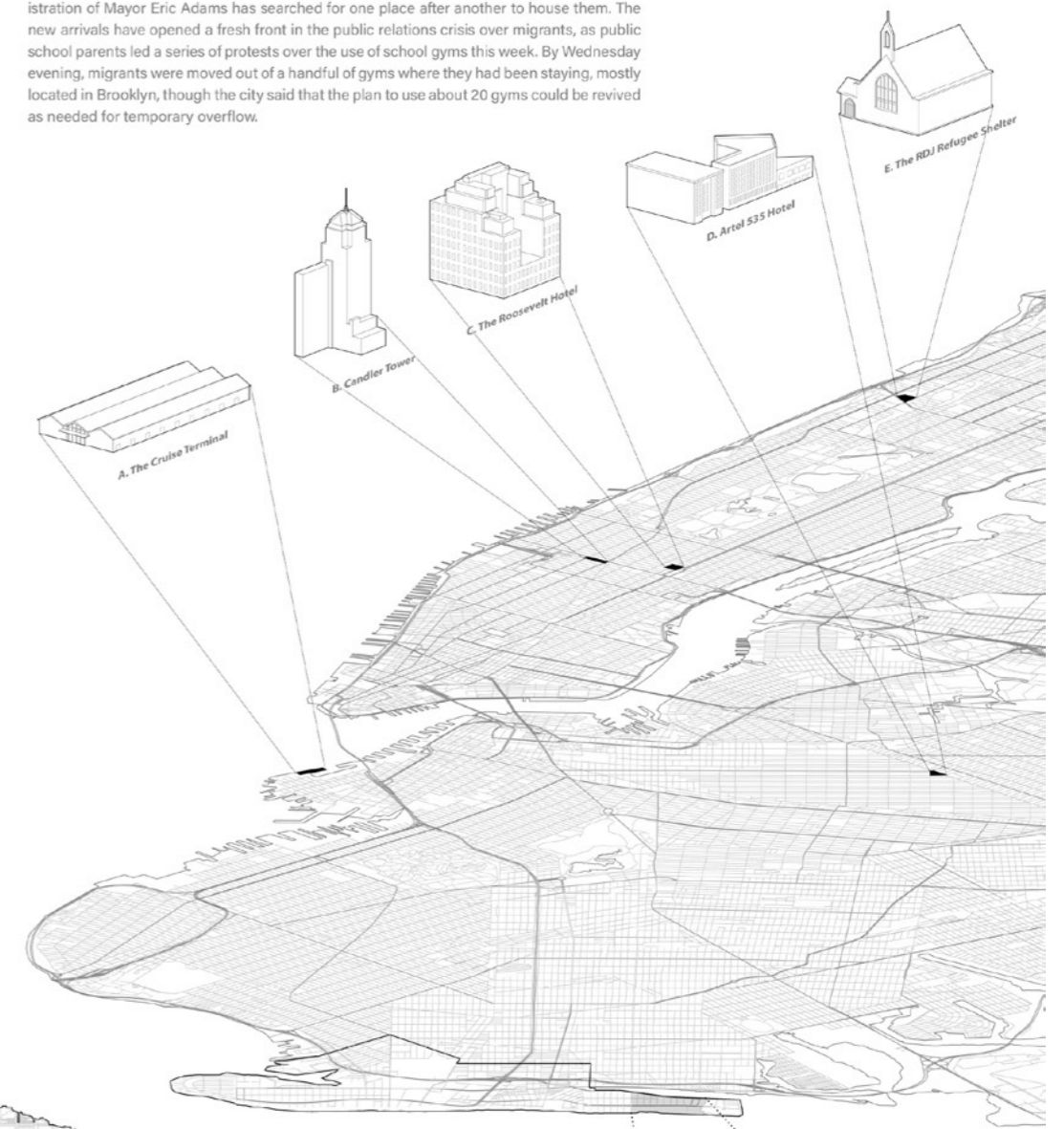
 Hotels like the Roosevelt that served tourists just a few years ago are being transformed into emergency shelters, many of them in prime locations within walking distance from Times Square, the World Trade Center memorial site and the Empire State Building.

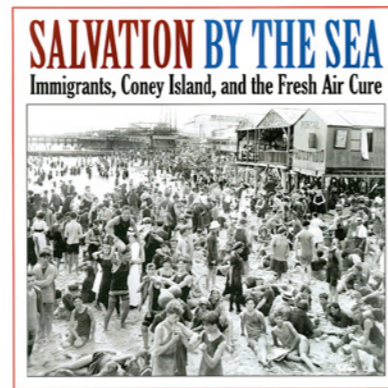
D

 More than 60000 migrants have arrived in the Big Apple since spring 2022, with more than 37000 housed in city-run or city-funded shelters and facilities, according to city officials. A building once meant to house Brooklyn's Artel 535Hotel has since been converted into an emergency shelter. The Post has learned.

E

 The RDJ Refugee Shelter is currently the only shelter in New York City specifically for asylum seekers and refugees experiencing homelessness. We provide the holistic care, support, advocacy, and resources needed to thrive in their new home.

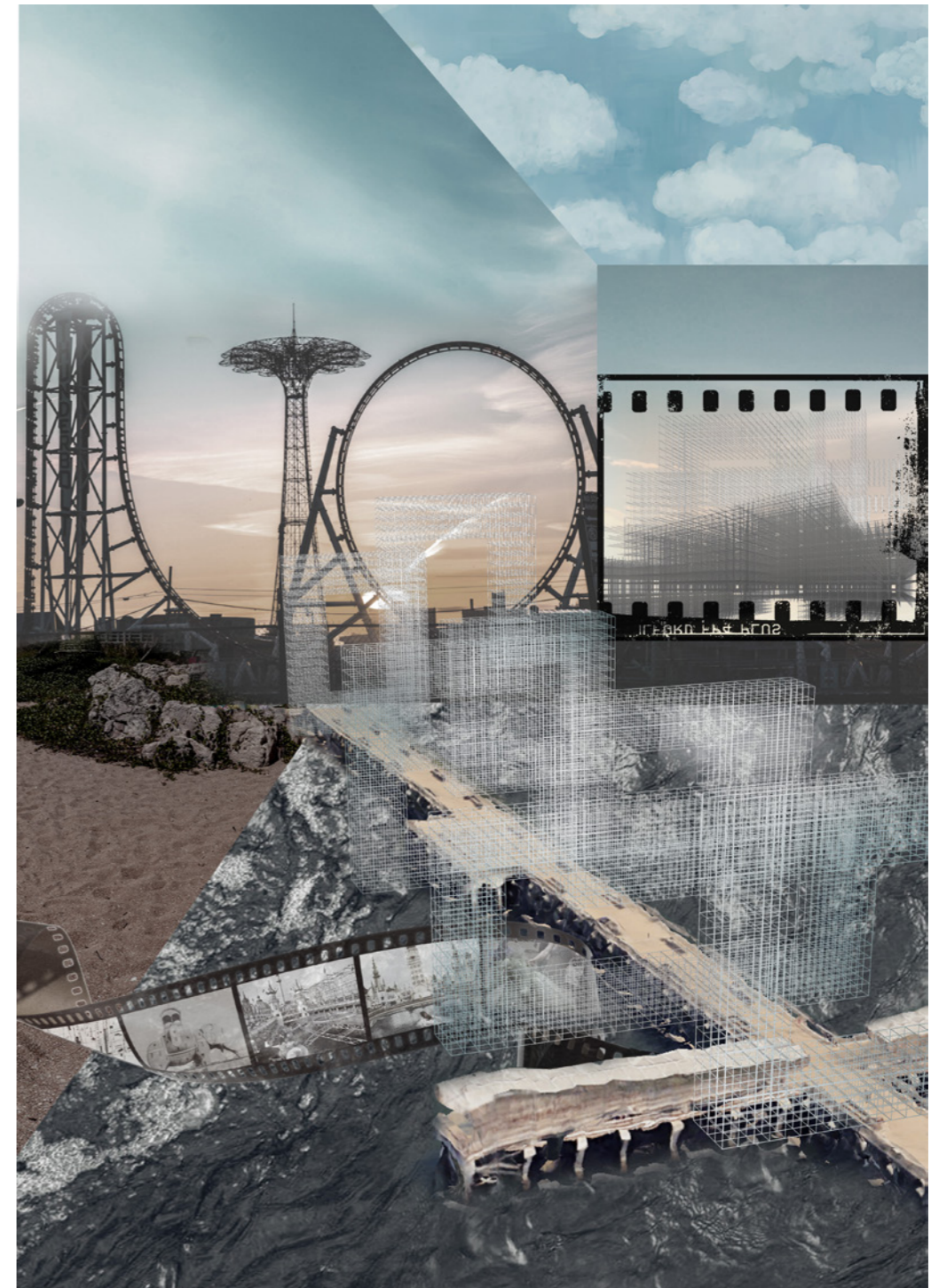


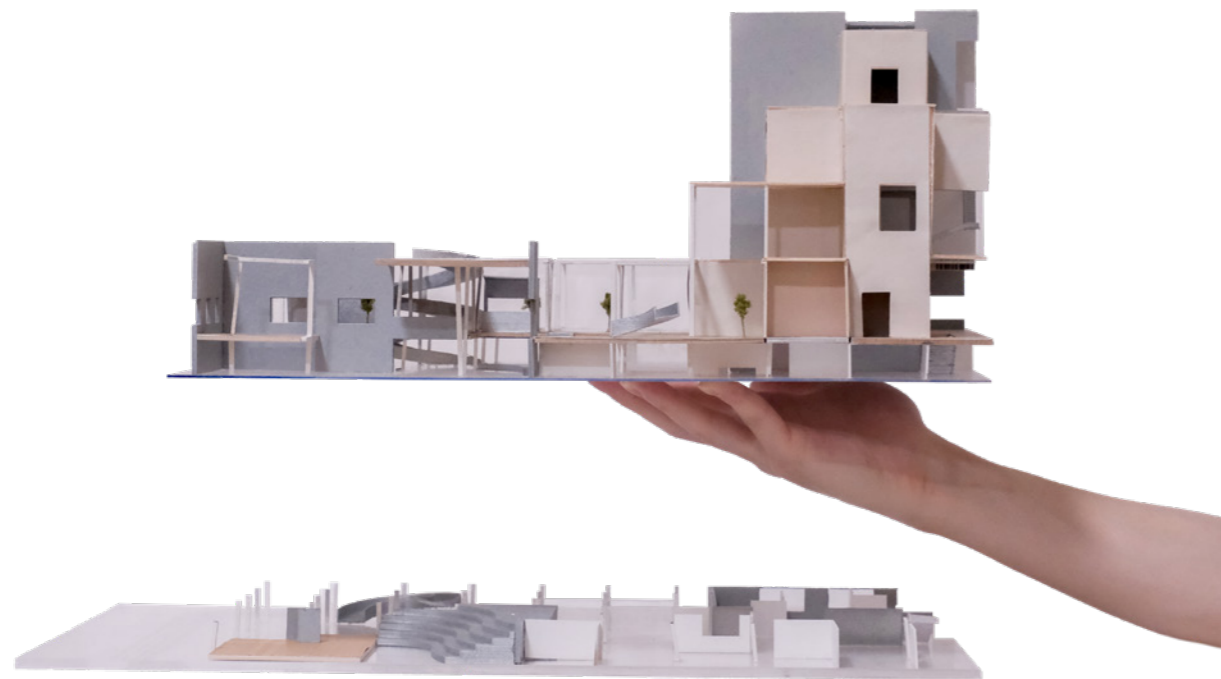


Coney island's history of being an immigrant island, with new immigrants coming



Testing collages of different concepts





Gradient in section, from temporary to permanent.
Second level for emergency like flooding



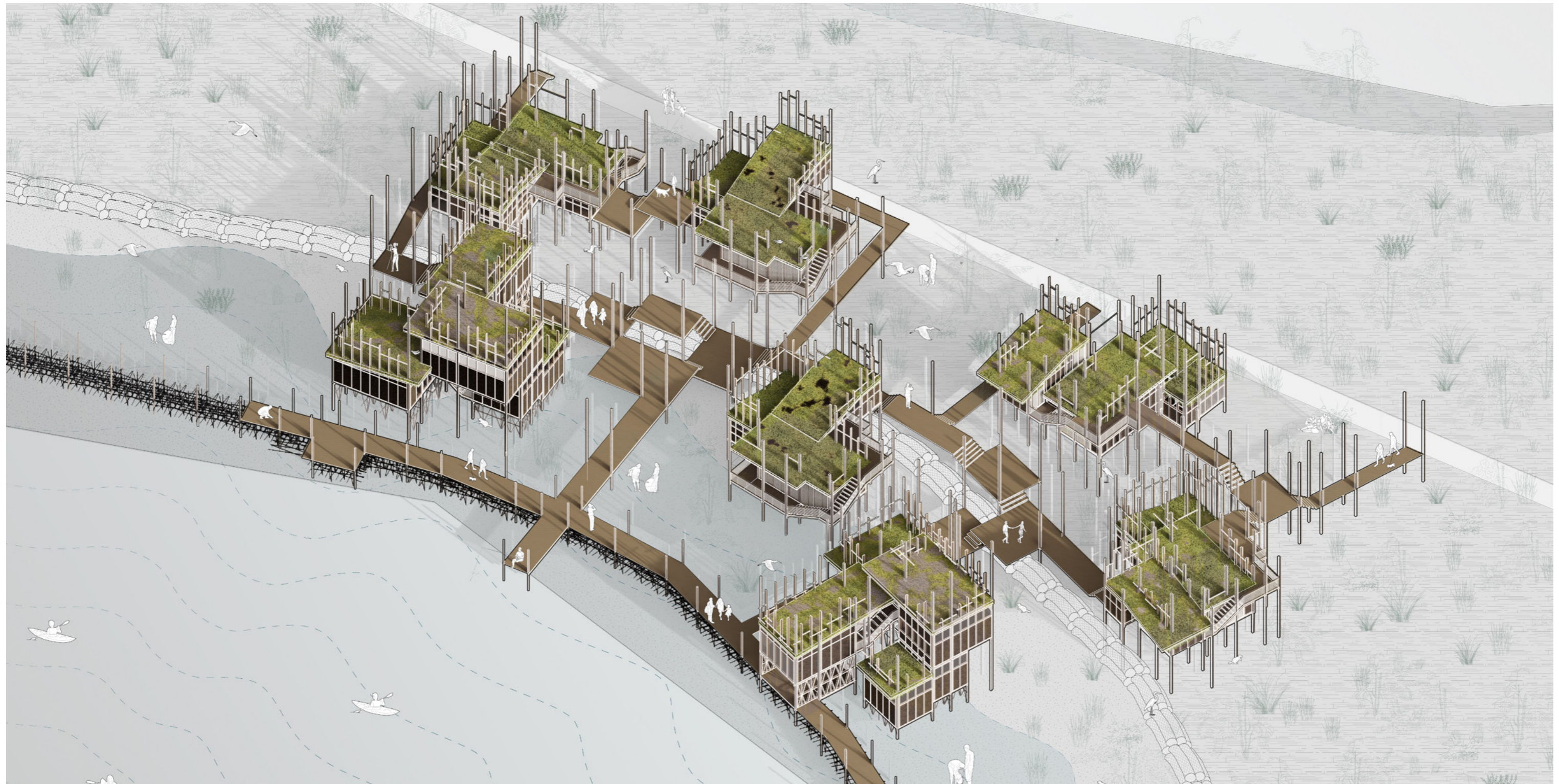


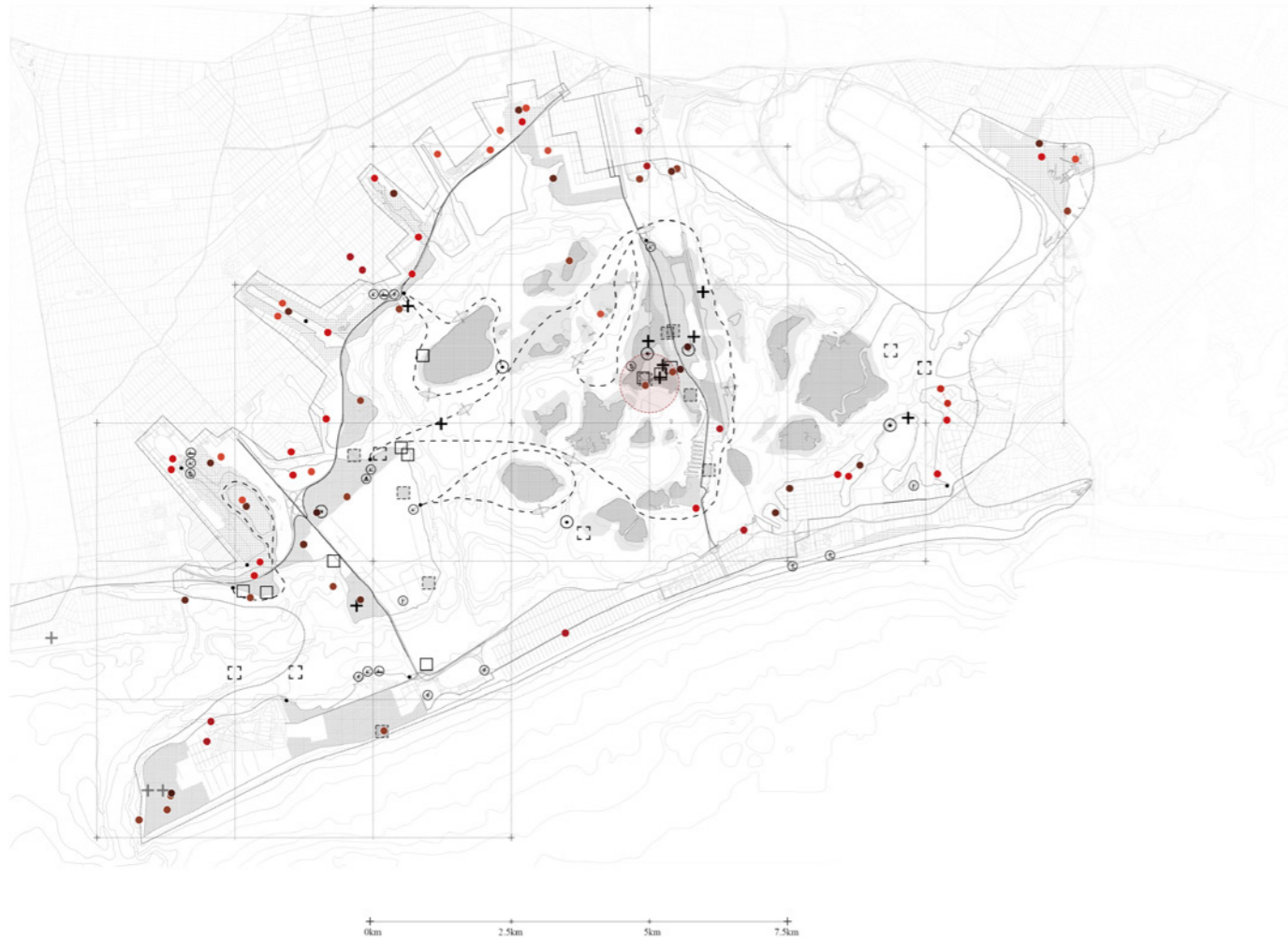
02 RESILIENCE

A Rethinking of the Relationship between Humans and Non-humans in Wetland Ecosystem

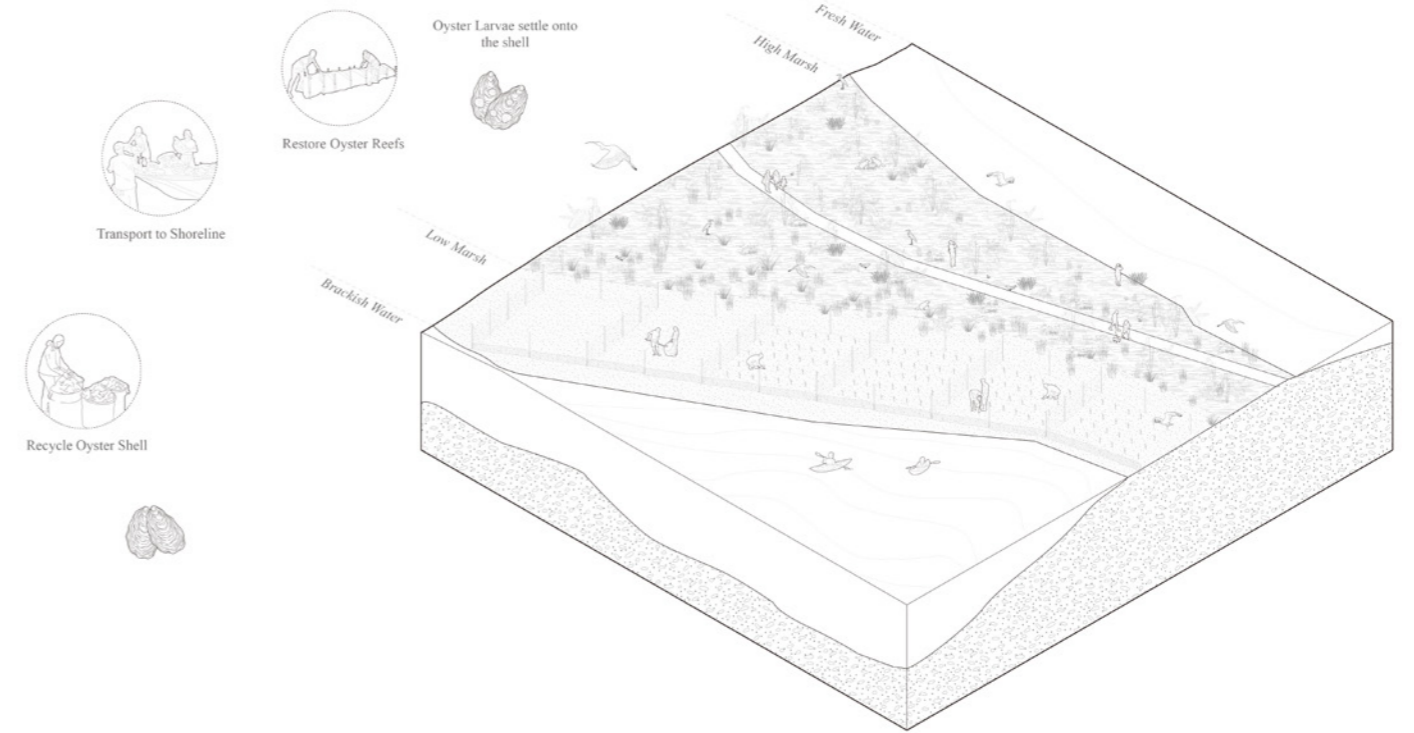
Fall 2023 | Advanced V
Partner: Manfei Shi
Instructor: Marc Tsurumaki

Jamaica Bay is a salt marsh landscape that moderates the impact of coastal storms and flooding while simultaneously providing excellent home for hundreds of species. Here, the relationship between humans and non-humans on the intervention changes accordingly. Column structures remain on site all the time, human-occupied spaces will be adjusted or shifted up, marine species grow in the reef structure underwater, more non-human species are going to habitat in the structure, and to the very future, we can foresee all the human occupancy will be gone, leaving the structures for other species to take over.



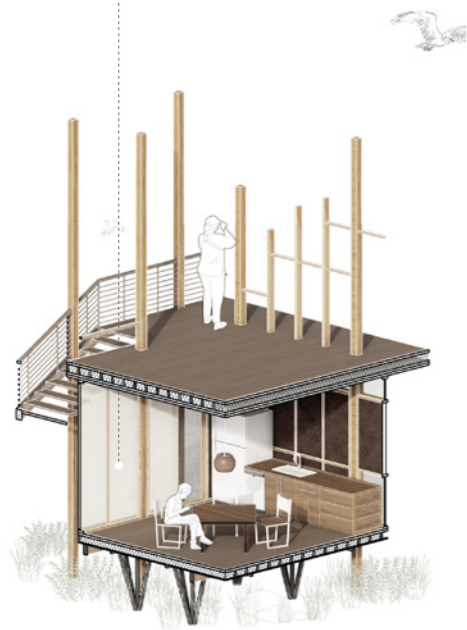


- Researches** ● OPR ● USACE ● DEP ● NYR ● JBRPC ● NYC Health ● NPS ● NYC Parks
- Recreations** ⊕ Campground ⊕ Bike Rental ⊕ Fishing ⊕ Boat Rental ⊕ Kayaking ⊕ Hiking ⊕ Surfing
- Wildlifes** + Birds □ Invertebrates □ Fish □ Mammals ⊕ Amphibians and Reptiles
- Others** ● Kayak/Boat Launch Spot - - Kayaking Route — Bicycle Lane Gateway NRA Natural and Sensitive Zones NYCDPR Natural Areas and Preserves Original Salt Marsh Zones



- Blue Heron Canada Goose Falcon Osprey Red Knot Swamp Sparrow White Ibis
- Raccoon Muskrat Opossum Horseshoe Crab Terrapin Newt Monarch Butterfly

Translucent Sliding Door



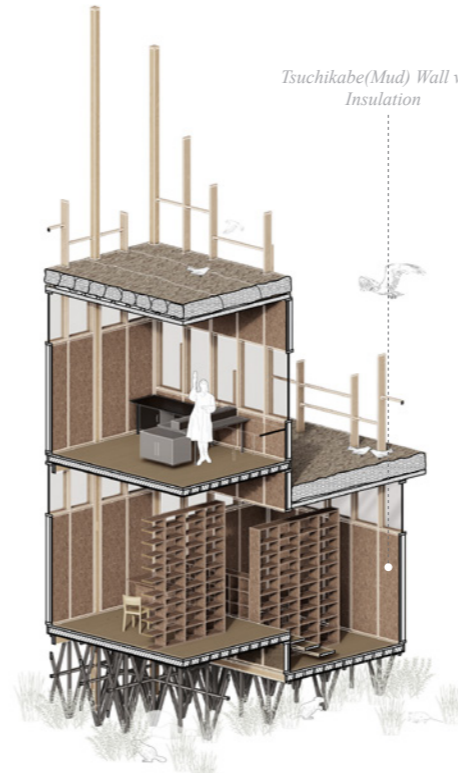
Shared Kitchen

Tsuchikabe(Mud) Wall



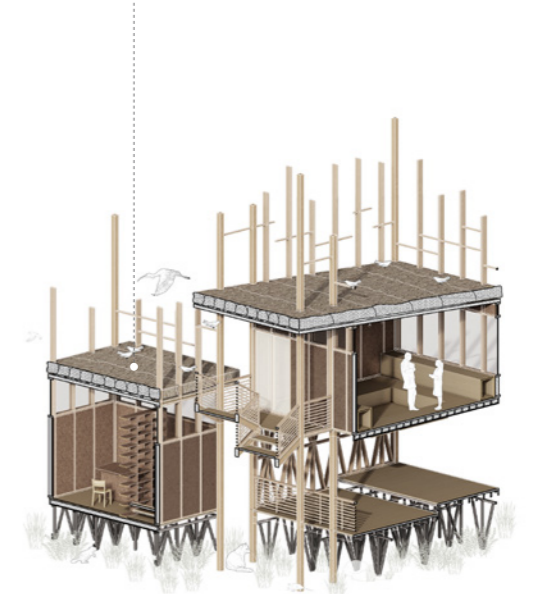
Bedrooms & Bathrooms

Tsuchikabe(Mud) Wall with Insulation

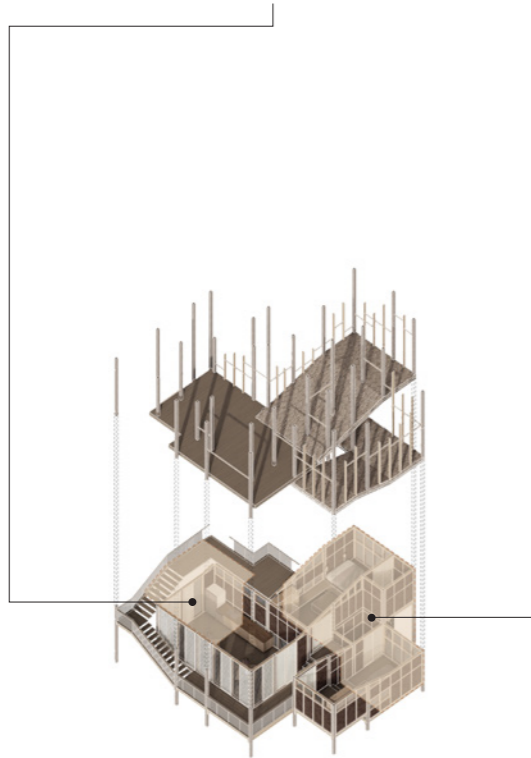


Lab & Offices Below

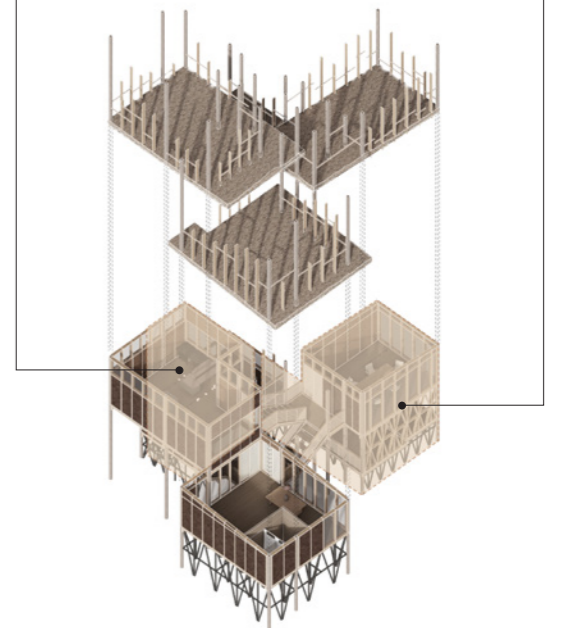
Thatch Roof



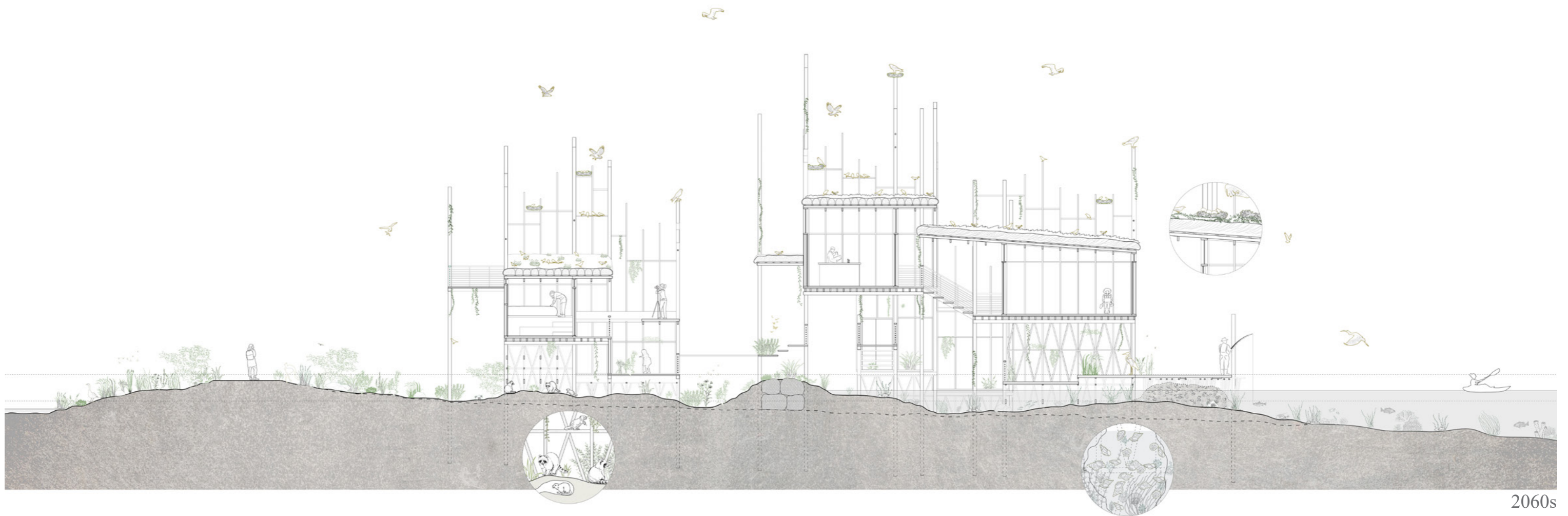
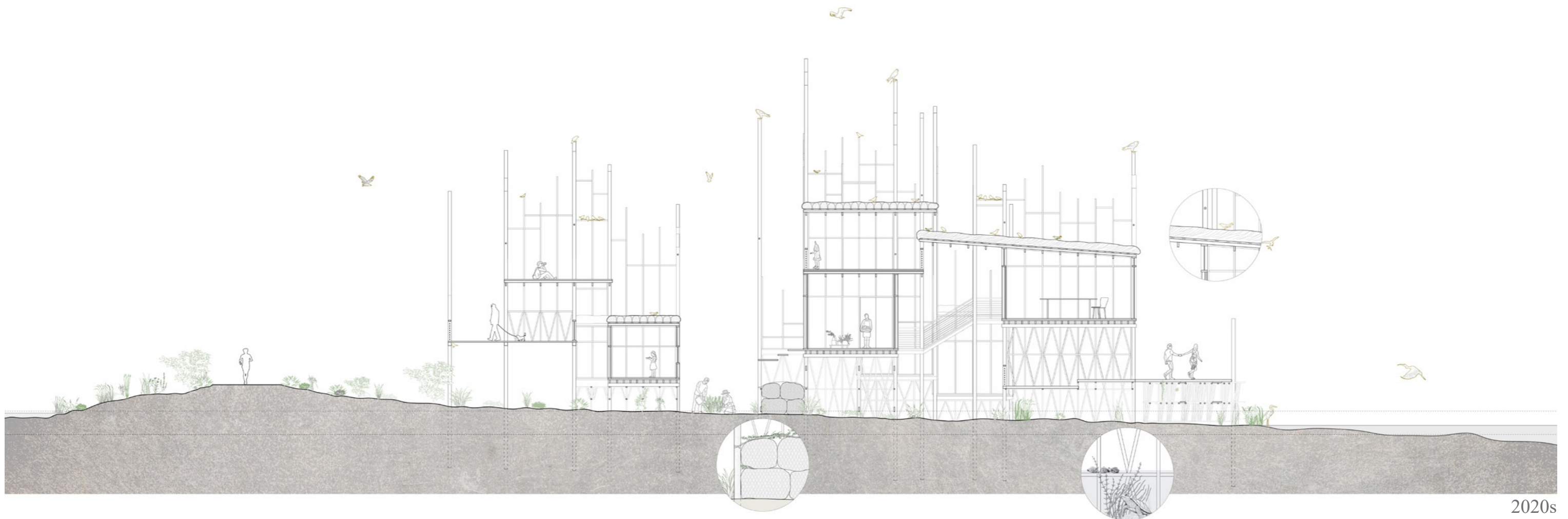
Meeting Room & Observation Platform Below

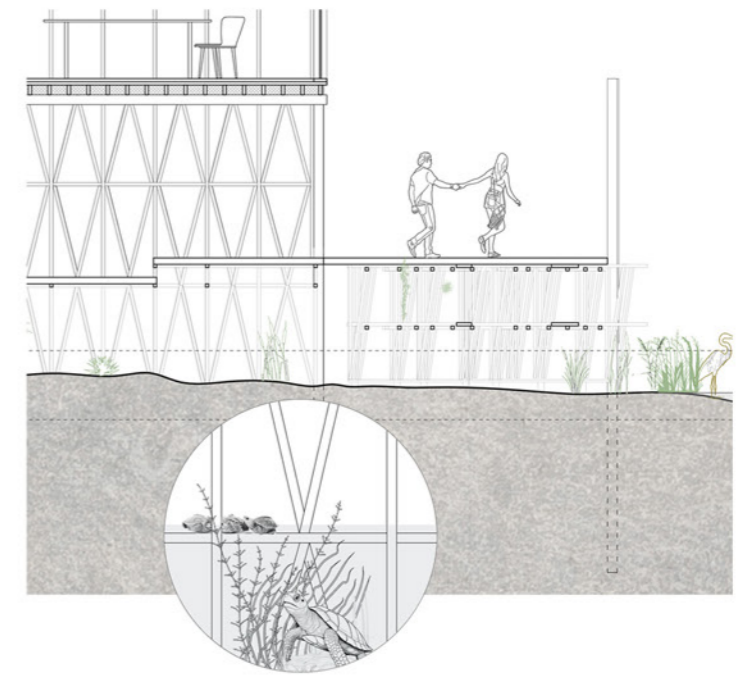
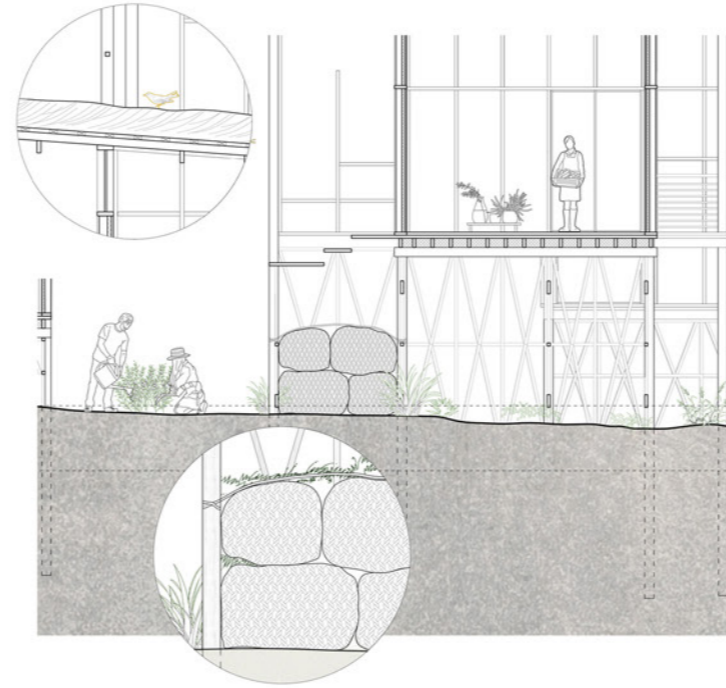
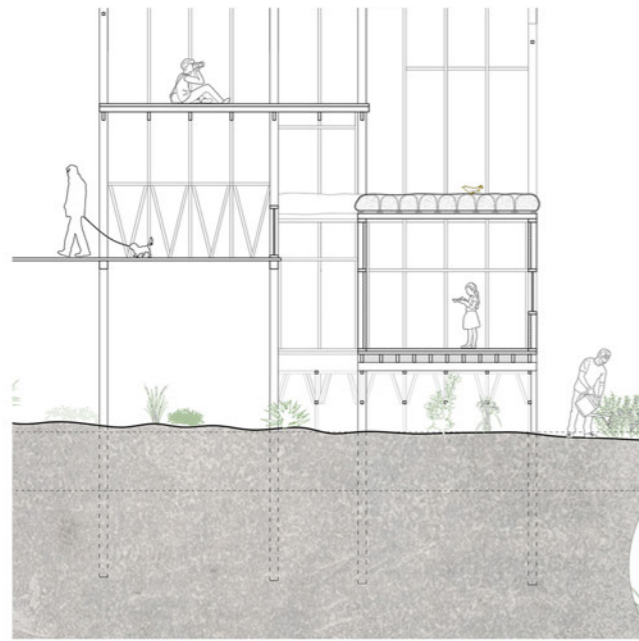


Getaway Cabinets

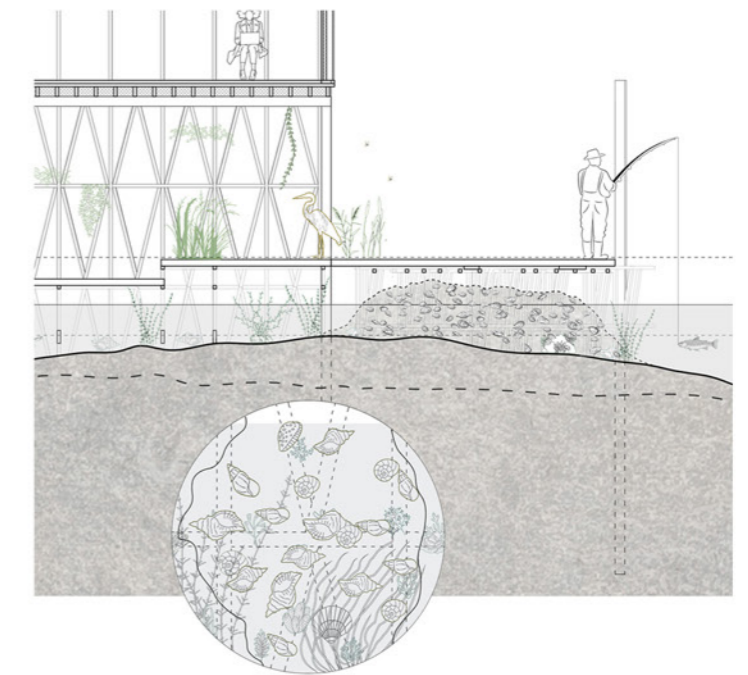
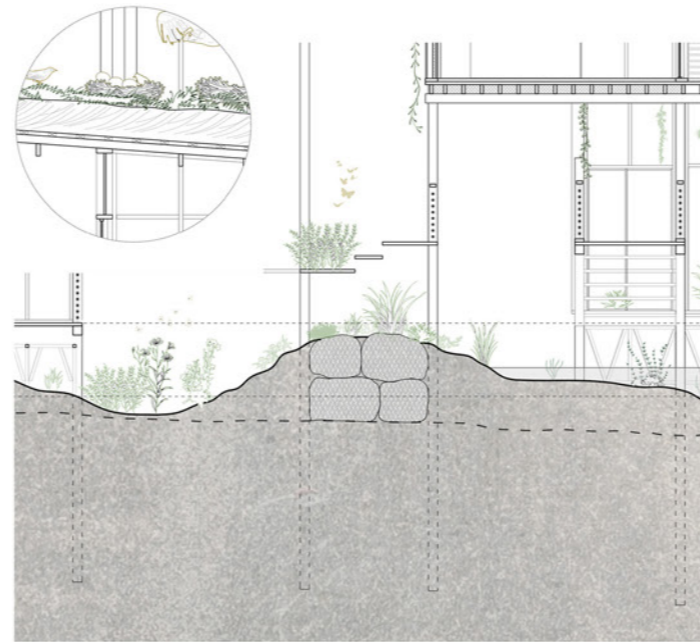
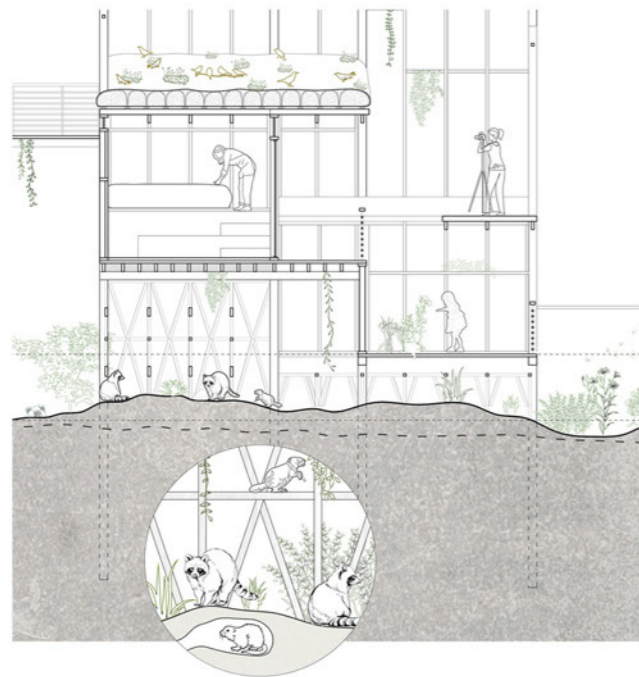


Research Lab





2020s



2060s



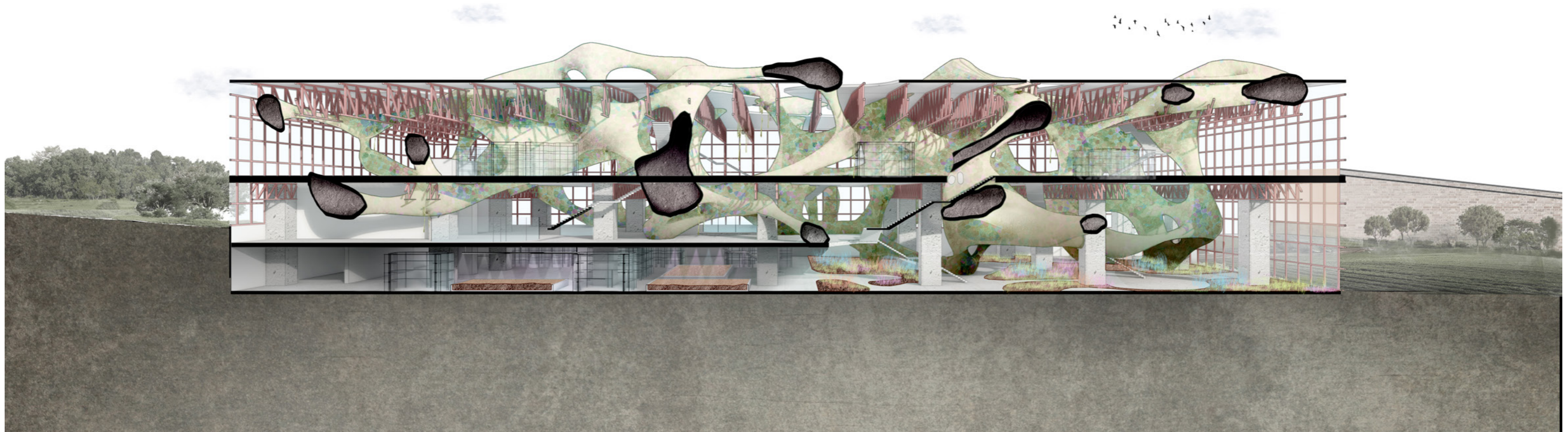


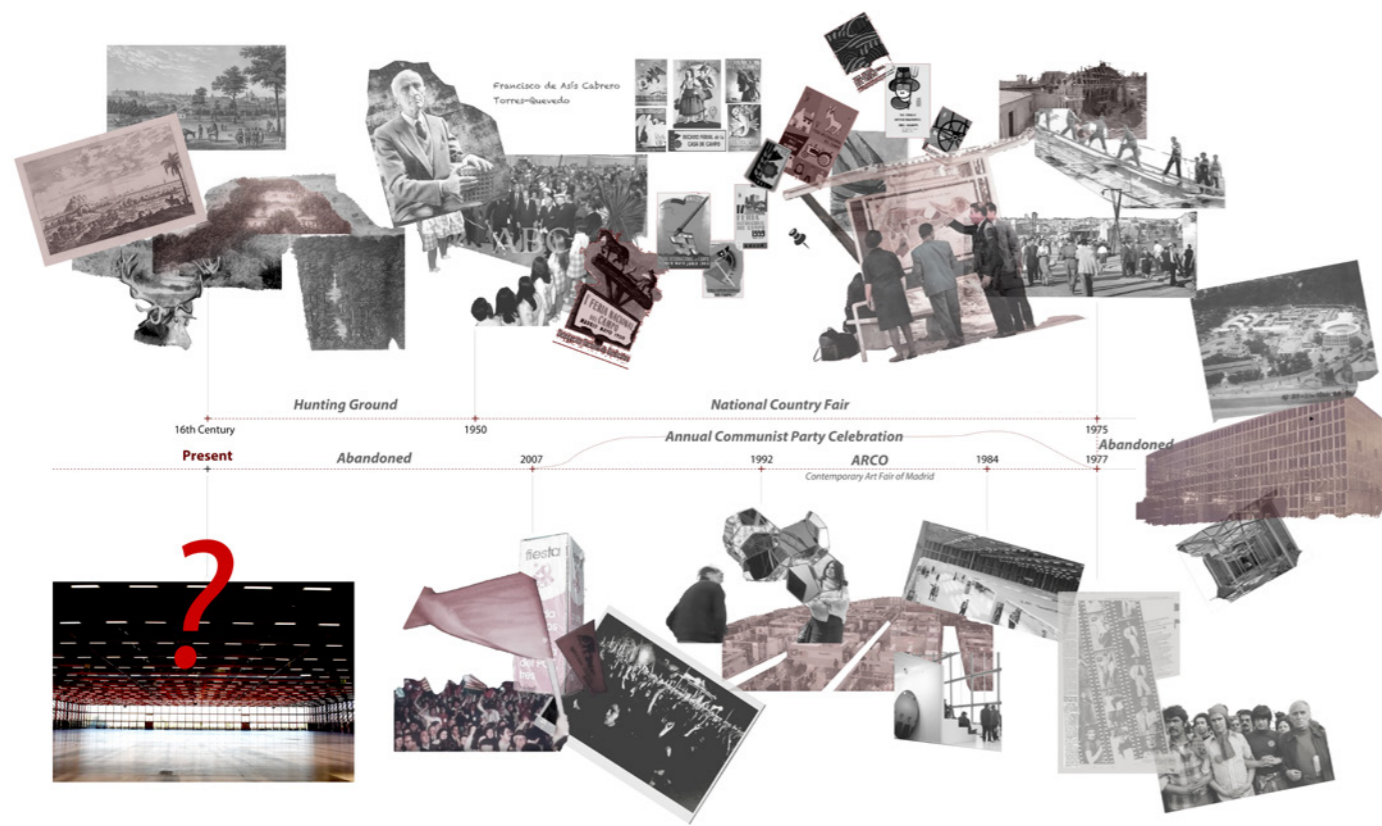
03 CRYSTAL REVIVE

An Exploration of Community Integration and Sustainable Architecture

Spring 2024 | Advanced VI
Partner: Shumeng Liu & Shunshan Chen
Instructor: Juan Herreros

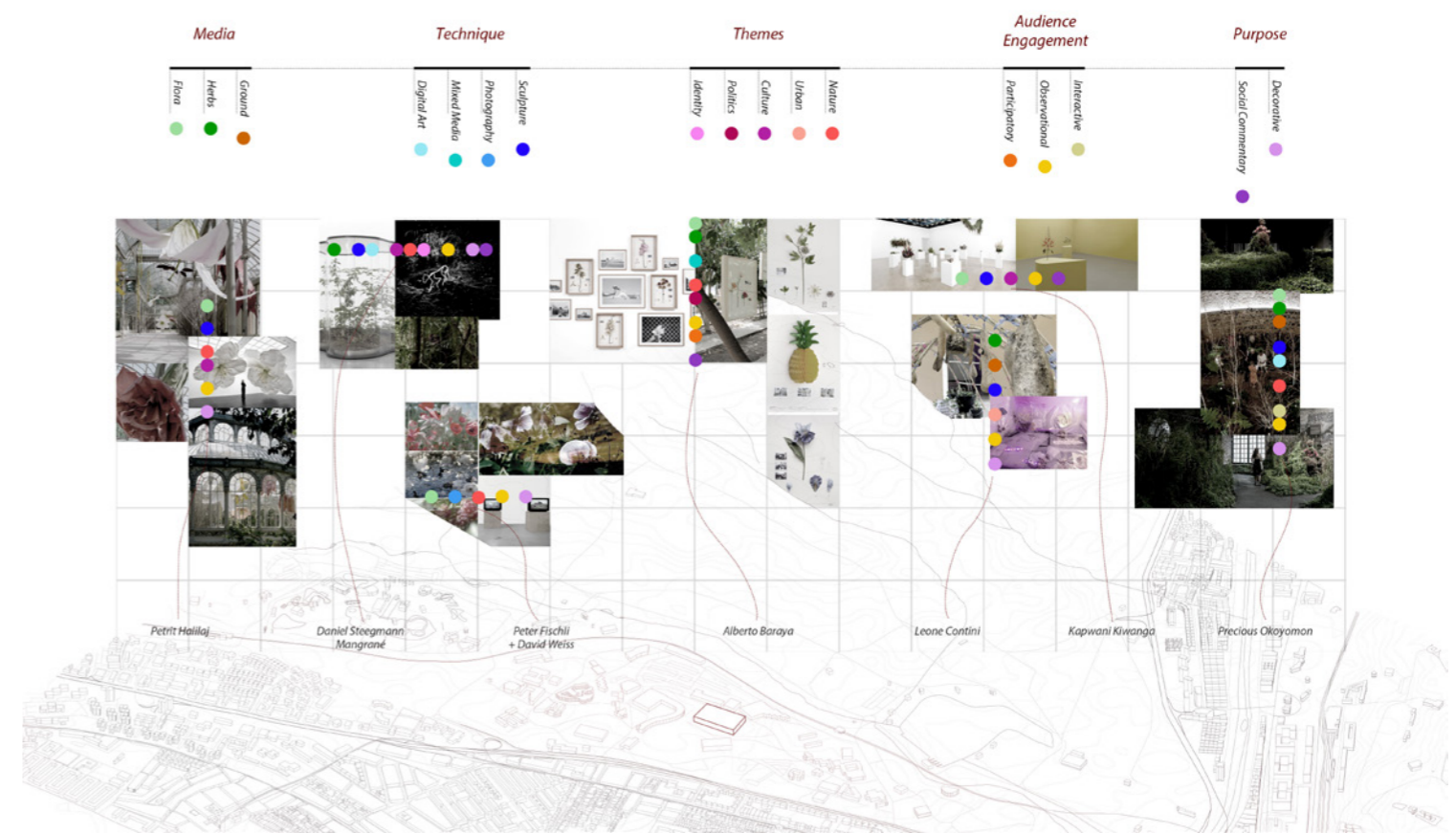
The Crystal Pavilion project at Madrid's Casa de Campo represents a transformative approach to urban development. Originally designed to showcase Spanish agricultural advancements, this project aims to transform the pavilion into a dynamic, inclusive platform. By combining cutting-edge architectural concepts with natural growth elements, the renovated structure will serve as a community hub for art, research, and sustainable farming practices. The design introduces 'pixel farming', a novel agricultural method that integrates with the space's ecological needs and social functions, resulting in a distinct blend of high-tech and natural environments. This initiative not only revitalizes a historical site, but it also encourages social responsibility and community engagement through interactive, eco-friendly designs.



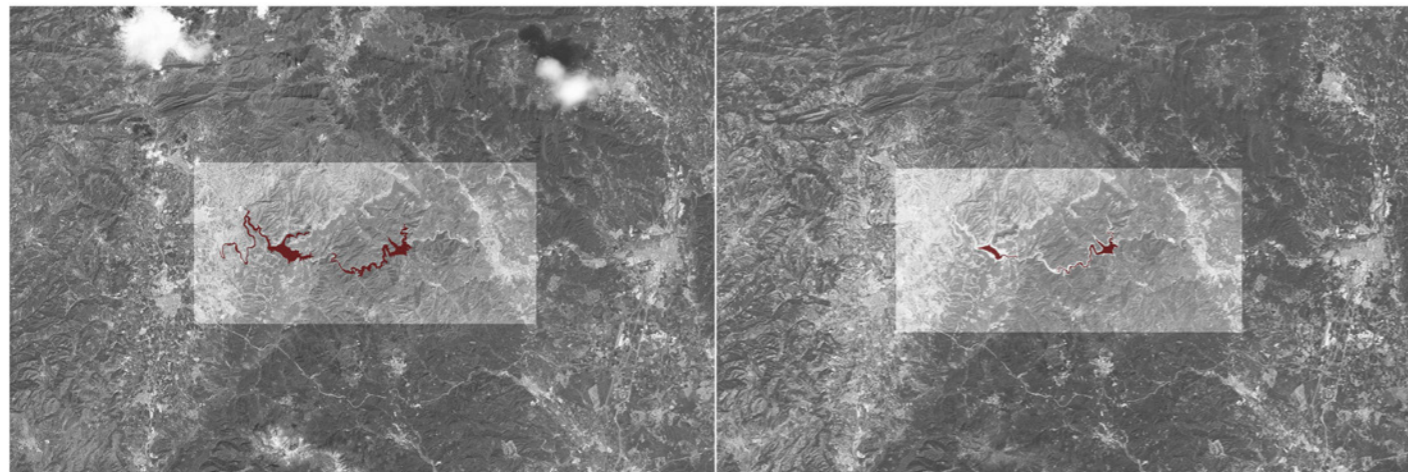


History of Casa de Campo

a symbol of Madrid's royal family and a political statement | communal space where locals gather for recreation and cultural activities



Artists and researchers globally are enhancing urban vibrancy by creatively addressing climate change through innovative farming techniques.

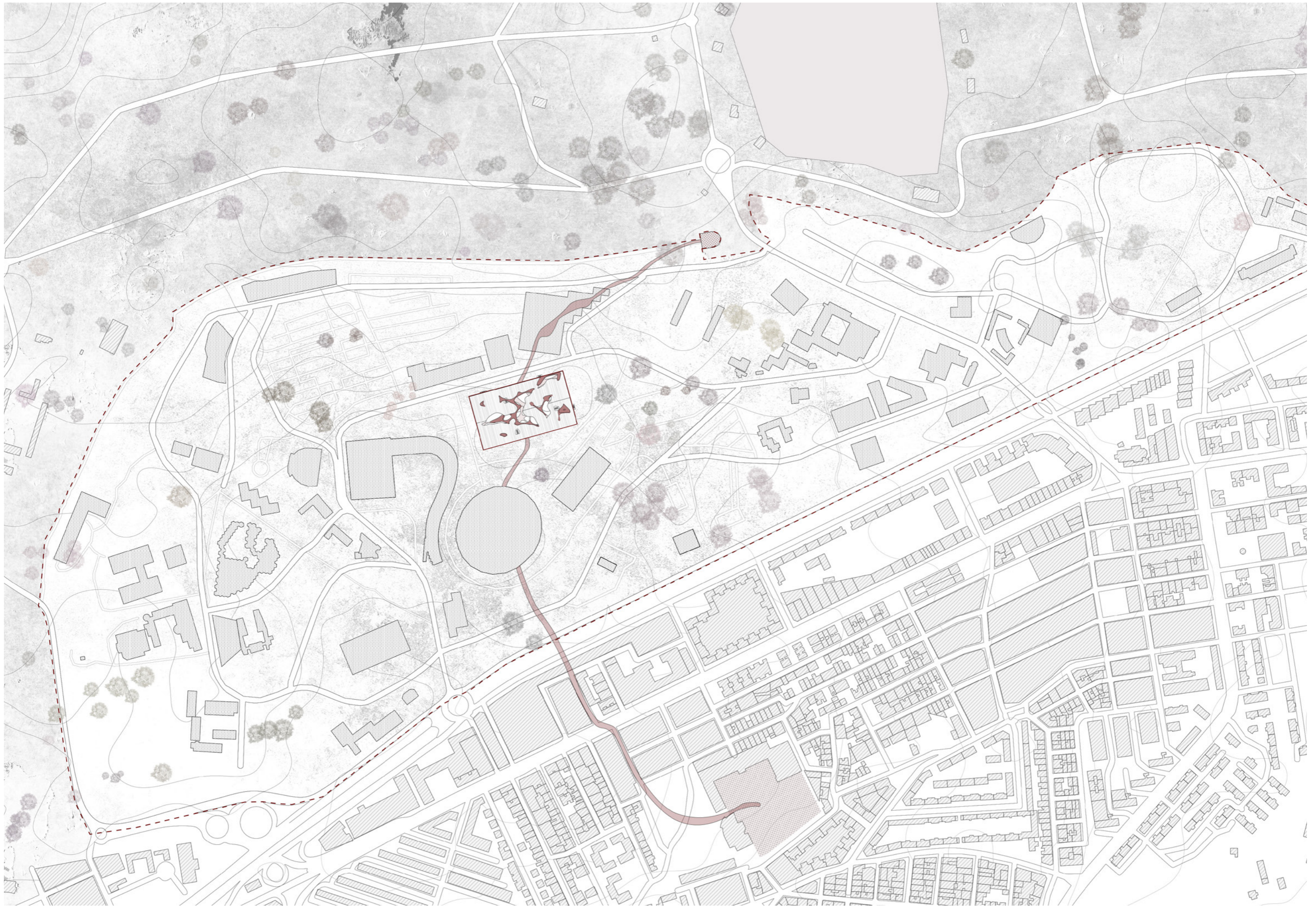


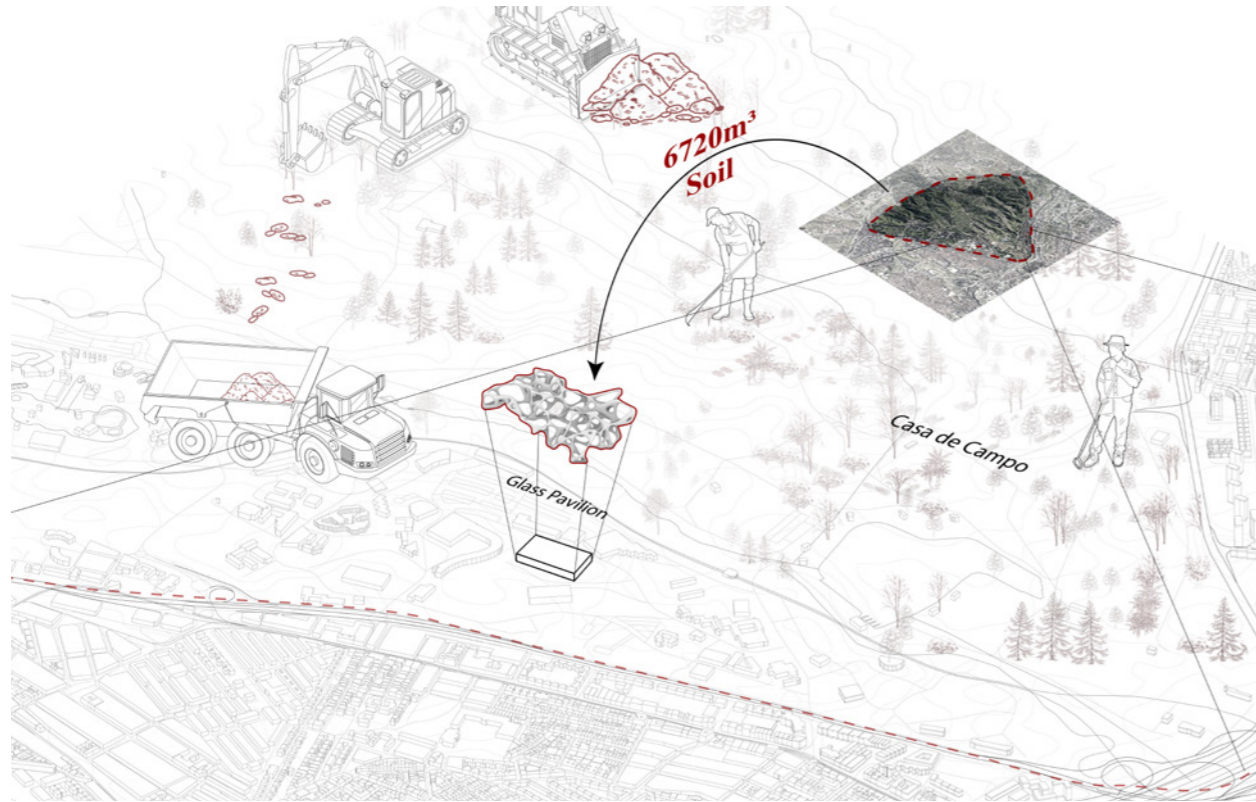
March 21, 2021

April 12, 2023

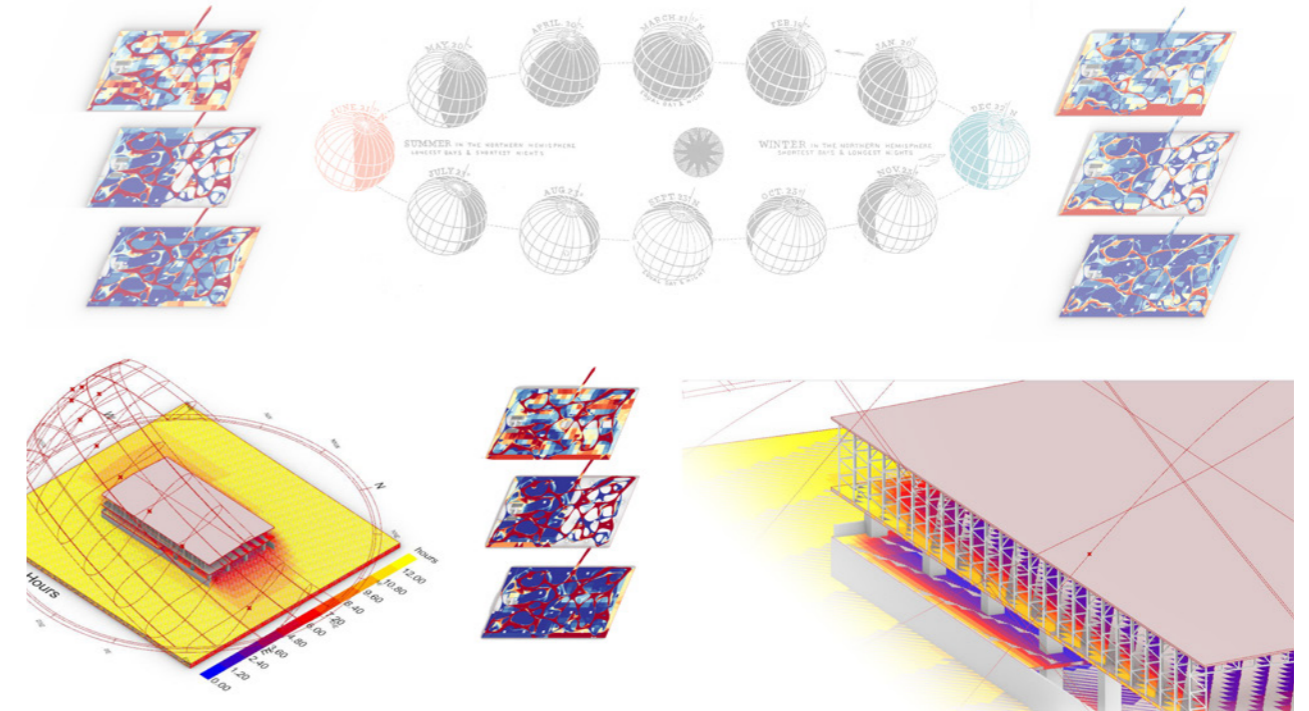
Días de Julio.	Promedio de 1860 a 89.	1902	Diferencias.
8	33° 6	37° 2	+ 3° 6
9	32° 9	36° 2	+ 3° 3
10	33° 3	38° 6	+ 5° 3
11	33° 6	40° 8	+ 7° 2
12	33° 6	38° 0	+ 4° 4

Spain keeps suffering from high temperatures and low rainfall

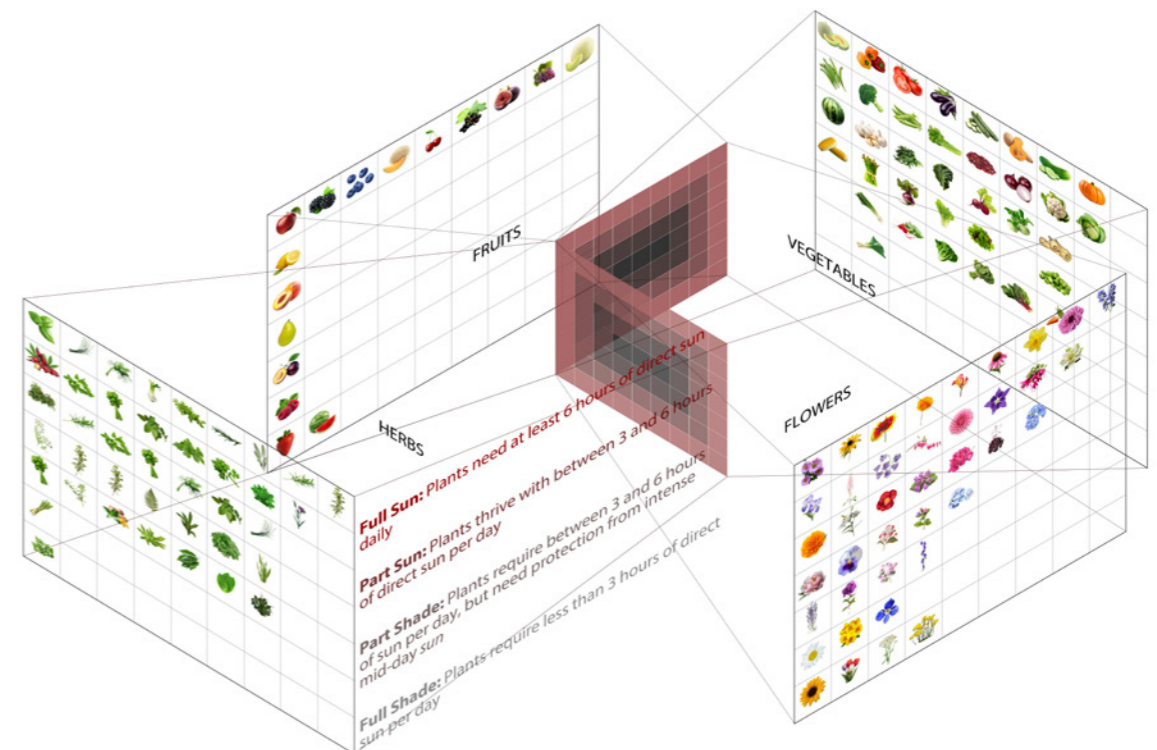
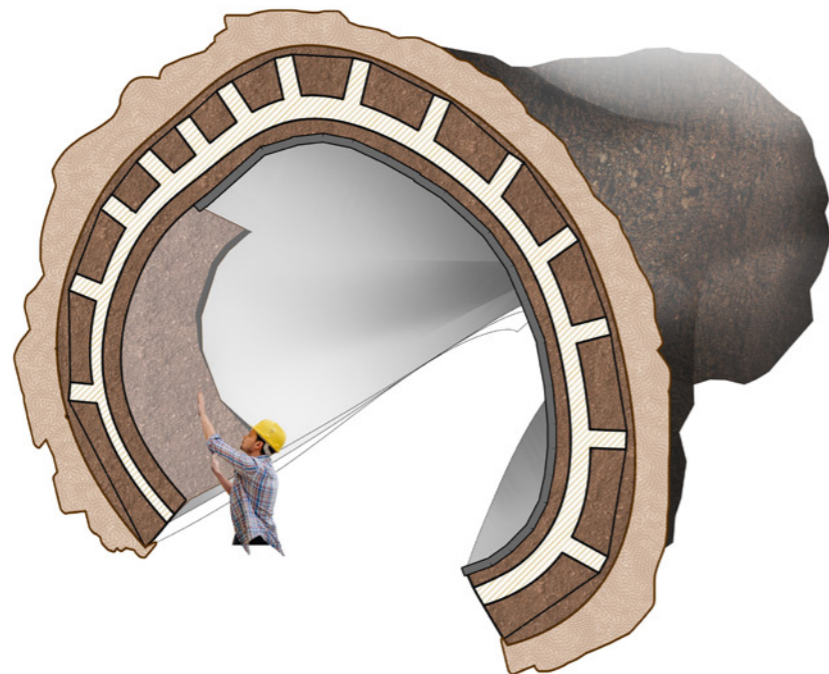


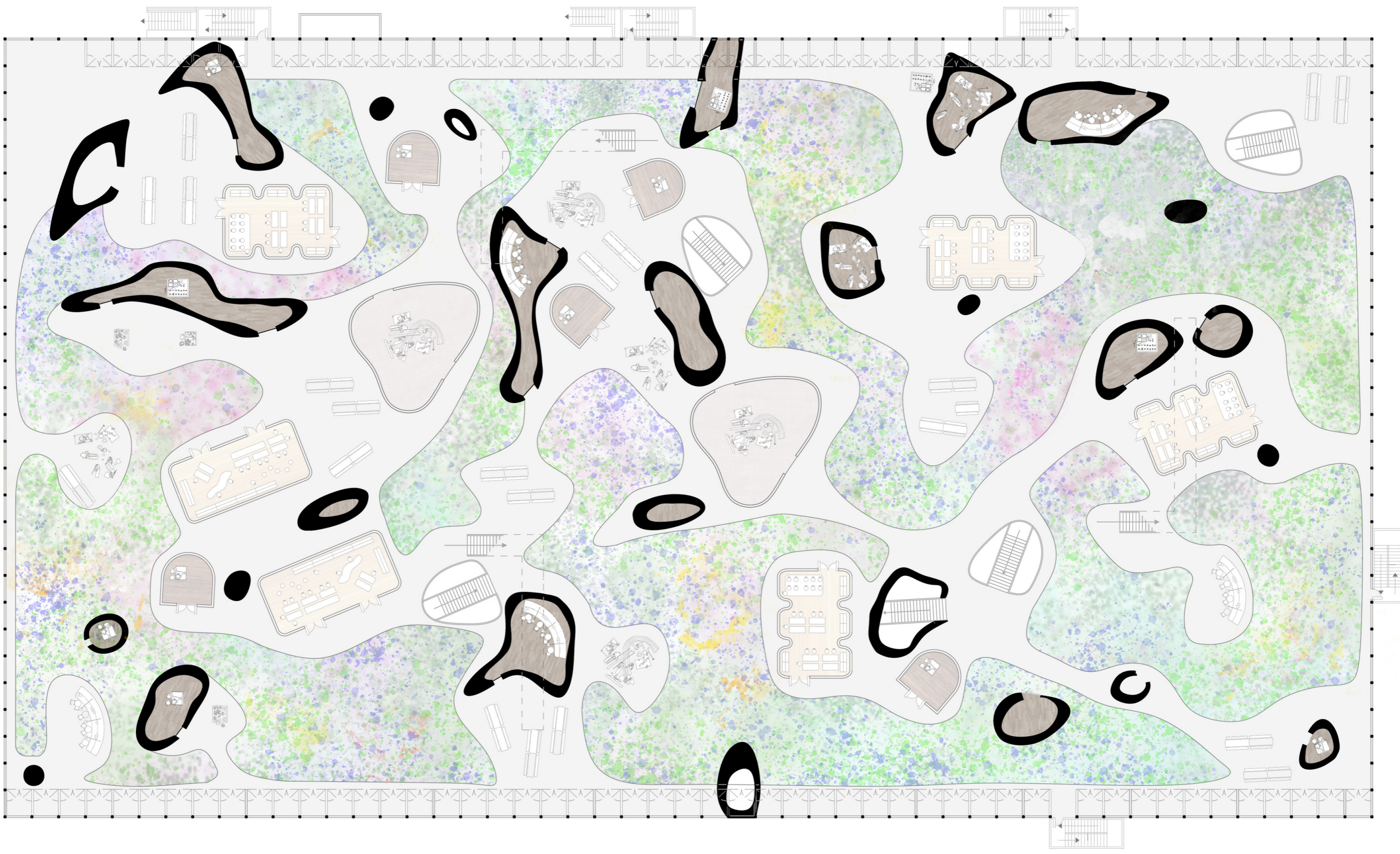


Structure including soil from Casa de Campo



Solar Studies & Pixel Farming strategically placing plants based on solar studies to optimize sunlight and enhance agricultural efficiency









04 FROZEN IN TIME

Spring 2024 | Subject Object
Partner: Yifei Dong
Instructor: Suchitra Reddy

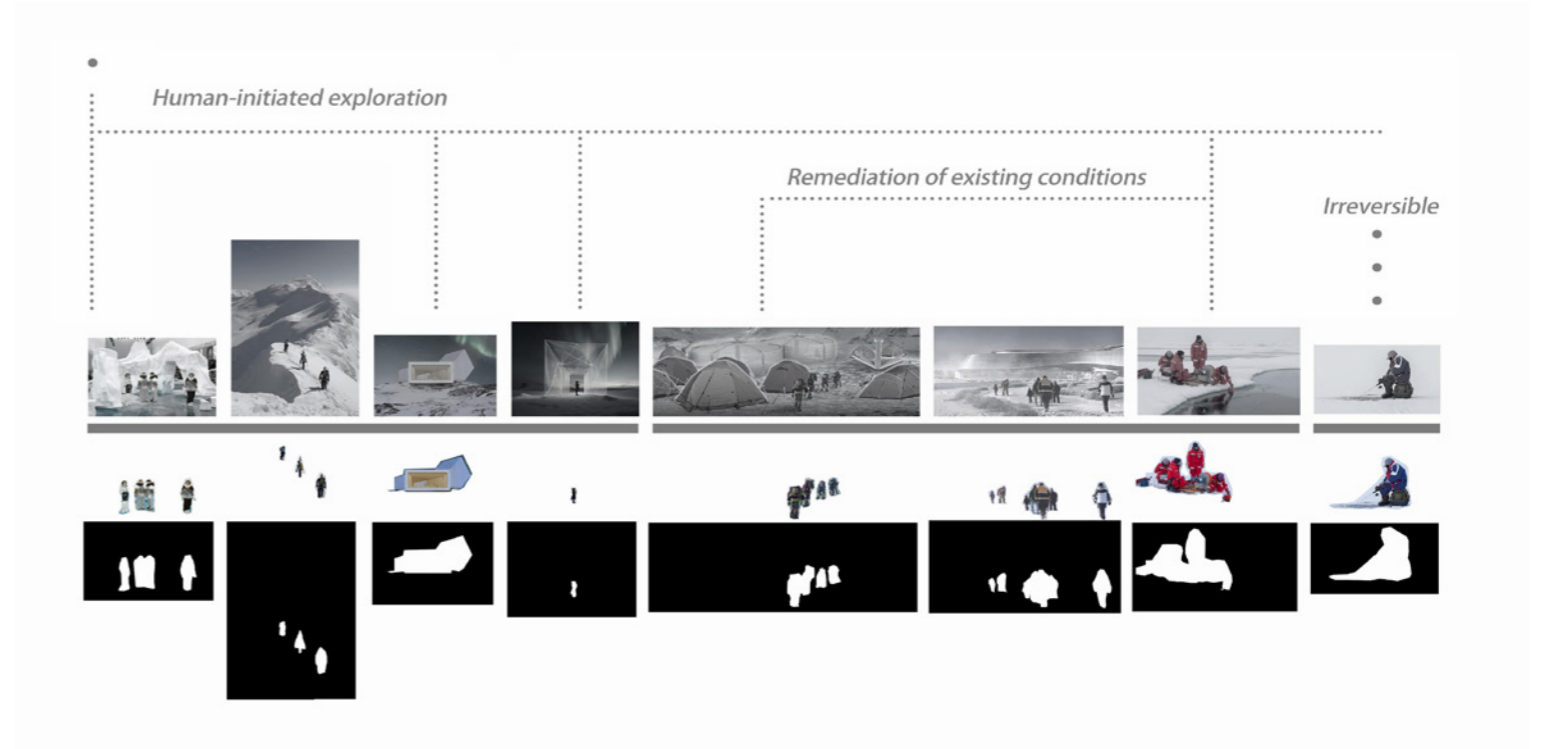
The concept draws inspiration from the retreat and potential disappearance of glaciers—a stark manifestation of climate change and the profound interactions between humanity and nature. Through our creation, we aim to not only emphasize the relentless passage of time but also portray the melting of glaciers, highlighting the irreversible impacts of natural phenomena. This underscores the significant role human intervention plays in altering natural processes, reminding us of the urgent need to address our environmental footprint.



Inspirations



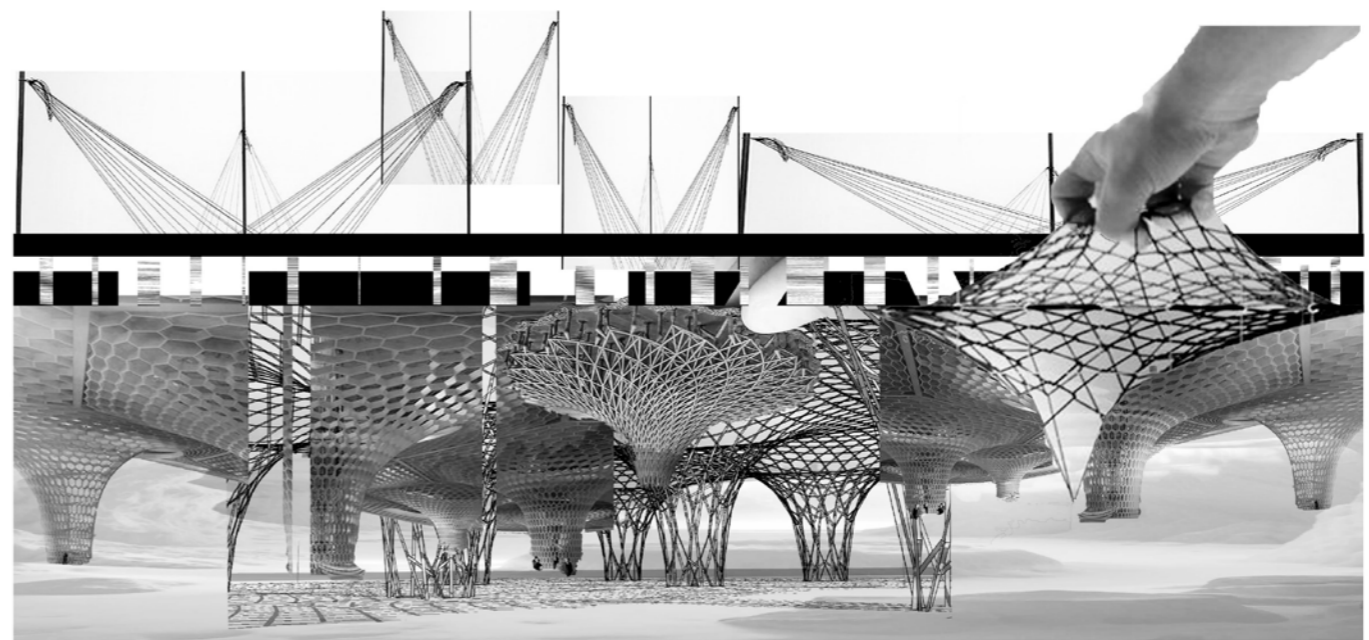
Selsame | Mo Kelman



Conceptual Background

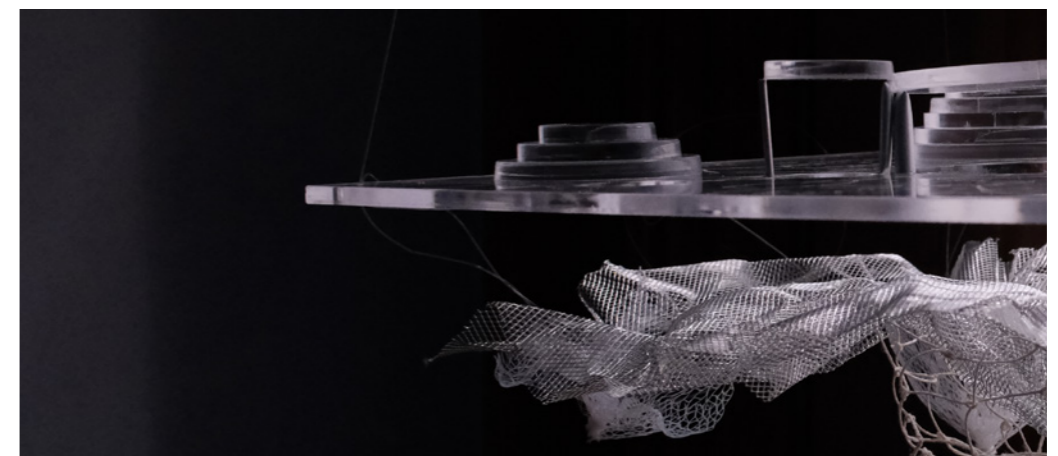


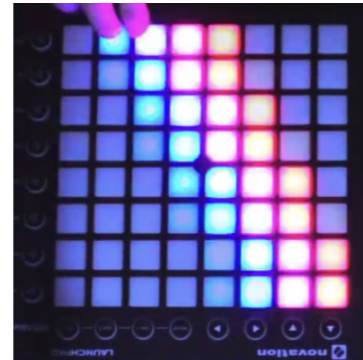
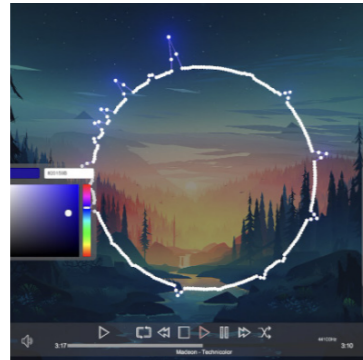
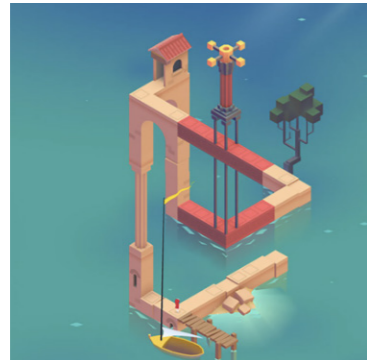
Candle Grids | Hector Esrawe



Conceptual Collage



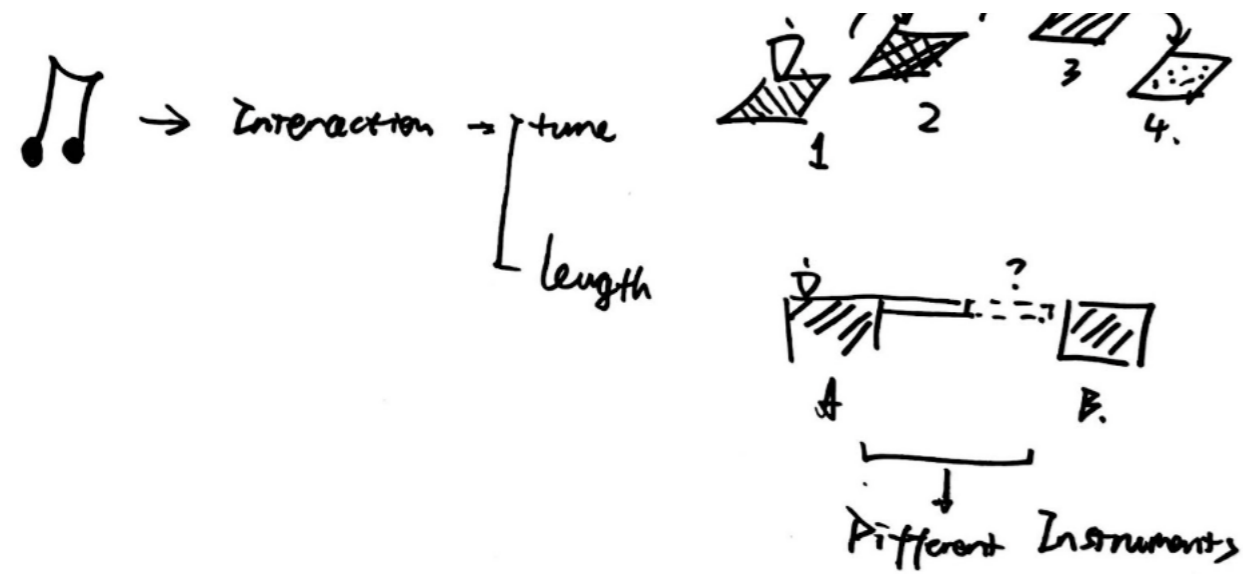




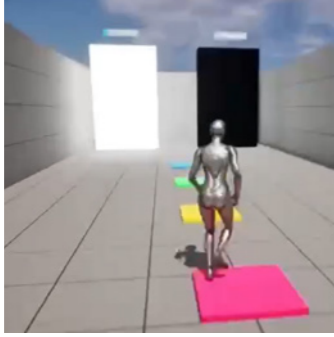
05 ECHO, ECHO, OFF THE WALL

Spring 2024 | Virtual Architecture
Partner: Tianhao Shen & Yansong Wang
Instructor: Nitzan Bartov

“Echo, Echo, Off the Wall” presents an auditory universe. The game invites players on a journey through musical time and space, where the evolution of soundscapes shapes the very fabric of the gaming experience. The core mechanic revolves around the dynamic transformation of music and sound effects, which have a direct impact on the game’s environments, puzzles, and character interactions. The game challenges players to complete tasks and overcome obstacles by manipulating musical elements.

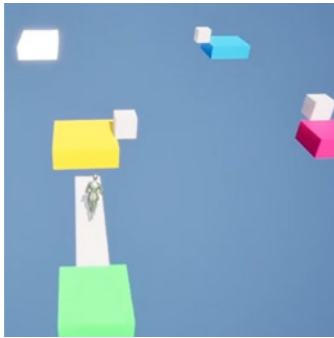


Game Mechanics



Chapter 1 TUNE

Players can hear different melodies when they go to the two doors, which are tips on how to pass the level. The black door is an interference item that cannot be cleared, and the white door is the door that can be cleared. When the player jumps to the grid on the ground, different sounds are produced, and he needs to play the same melody as the prompt to enter the next level.



Chapter 2 LENGTH

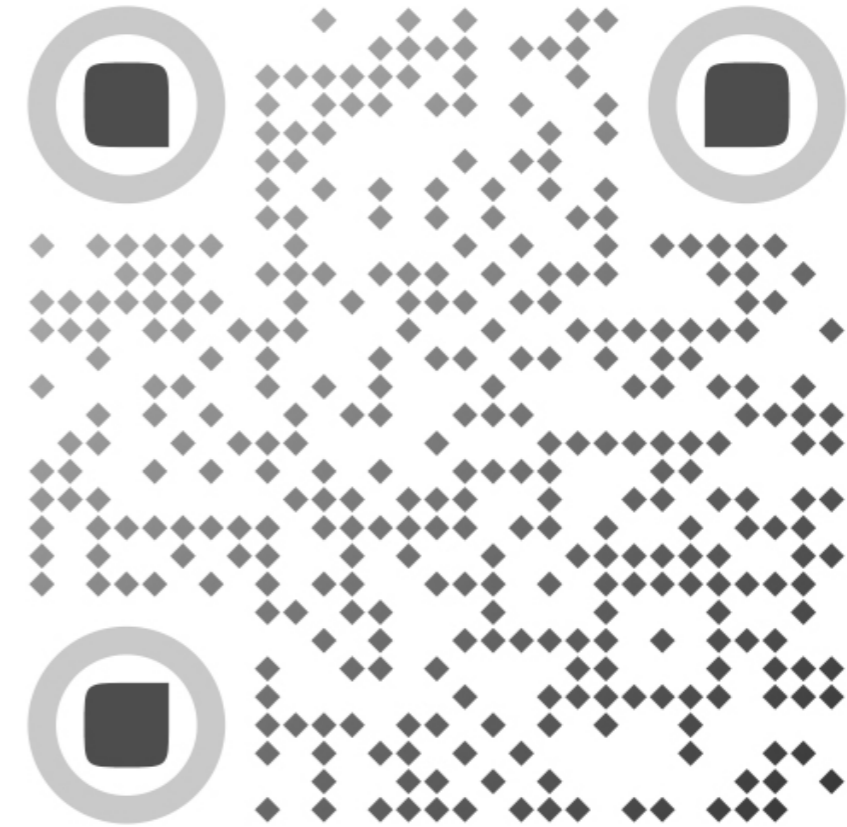
The player is on the platform representing the musical instrument. The left button is charged to produce the musical instrument melody. The board grows vertically. When the left button is released, the melody ends and the board falls down to the next platform. Charging too long or too short will cause the player to fall off the platform.



Chapter 3 New World

After passing two levels, we enter a music visualization world where players can swim freely. The form of music is transformed into light and movement, and is displayed visually in the world.

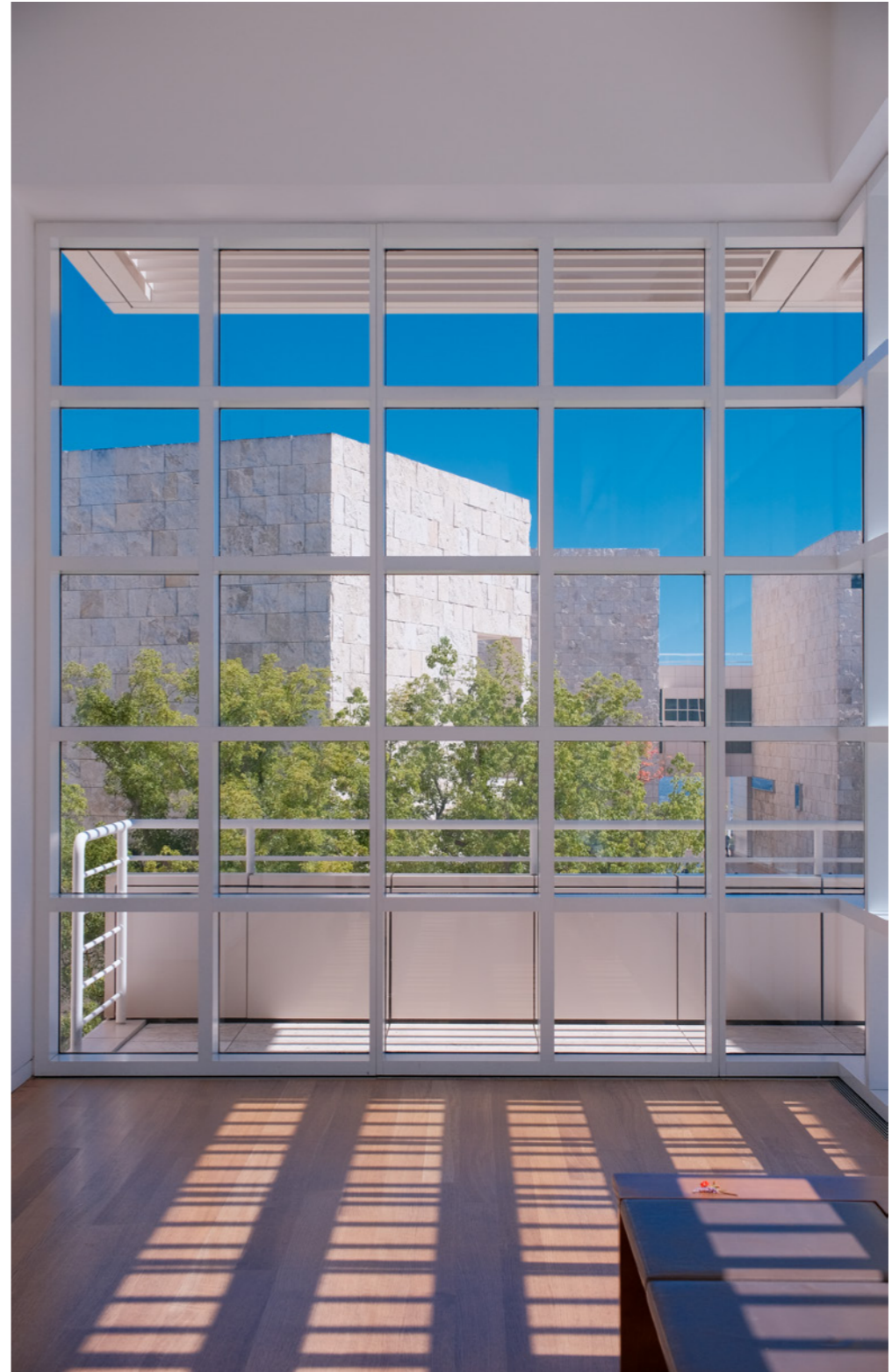
Game Video

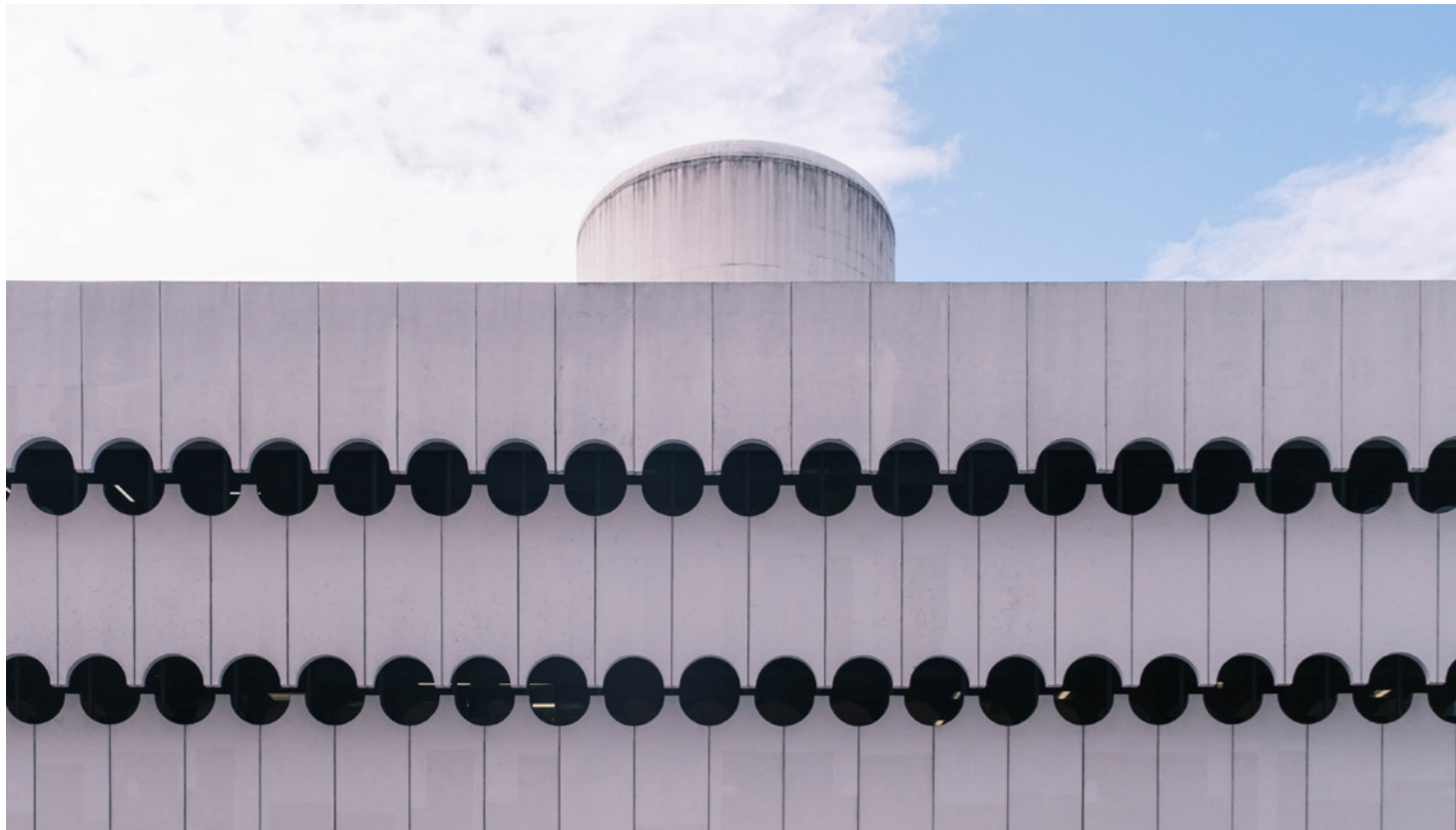
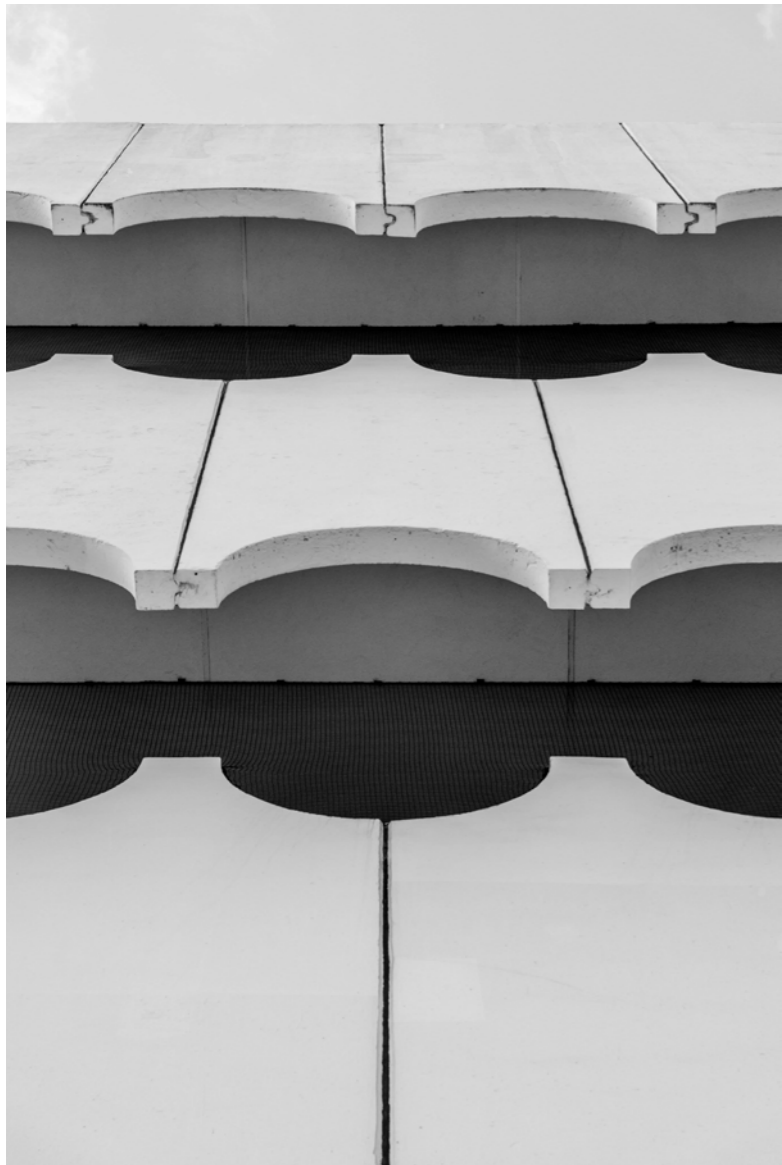


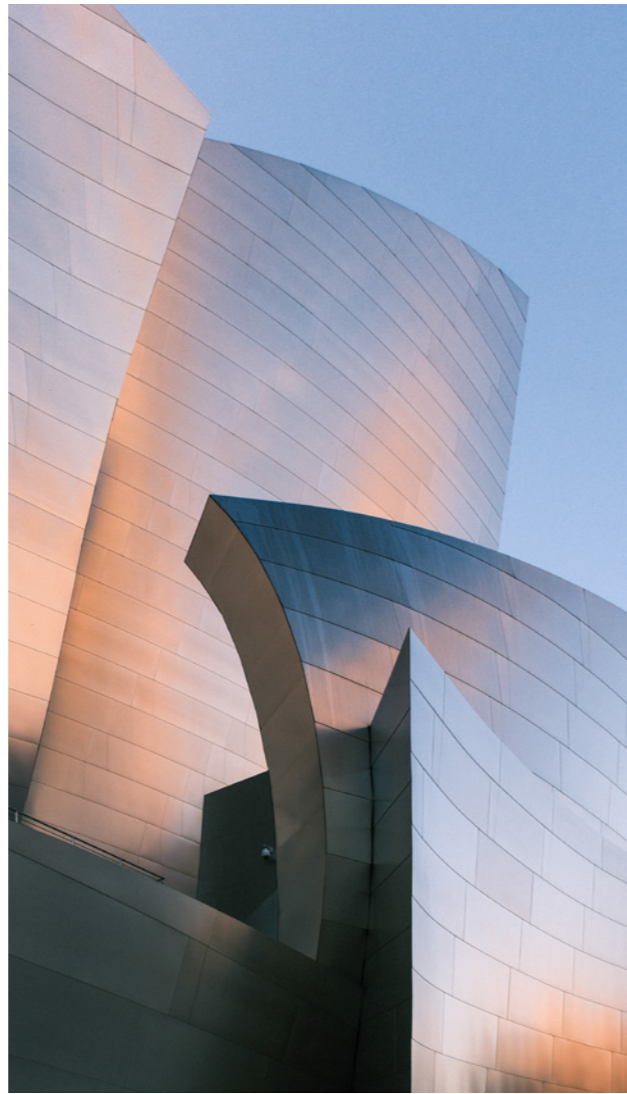
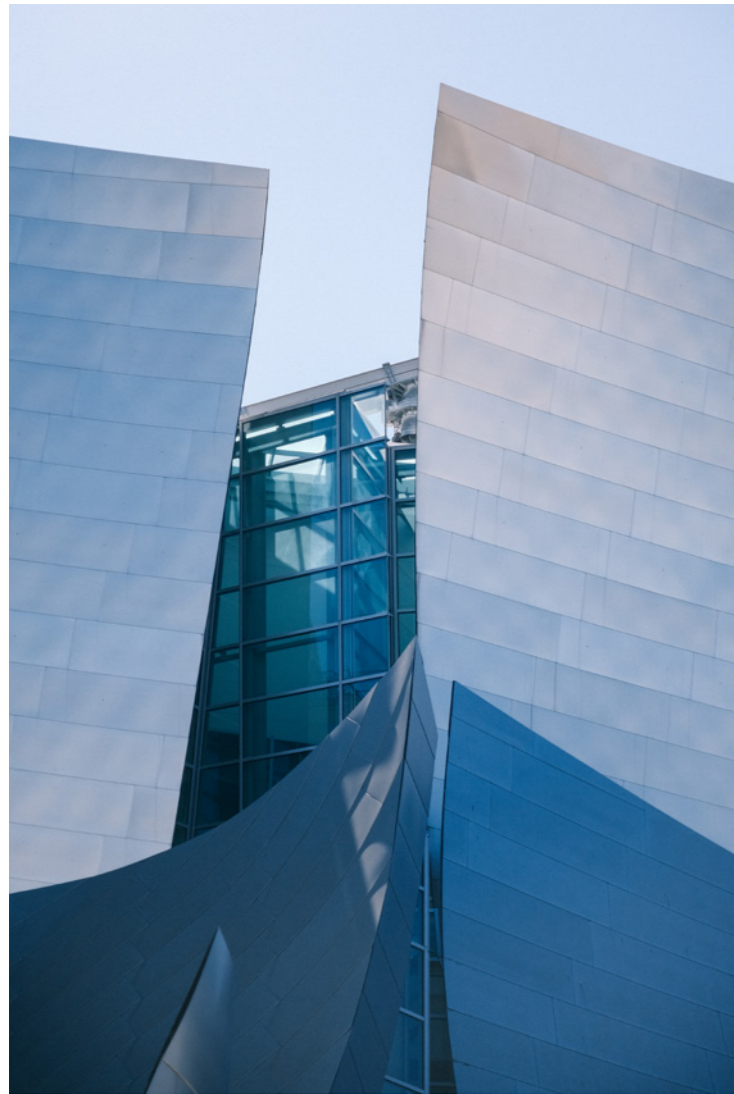
<https://youtu.be/Deram8O-aE0>

06 ARCHITECTURAL PHOTOGRAPHY

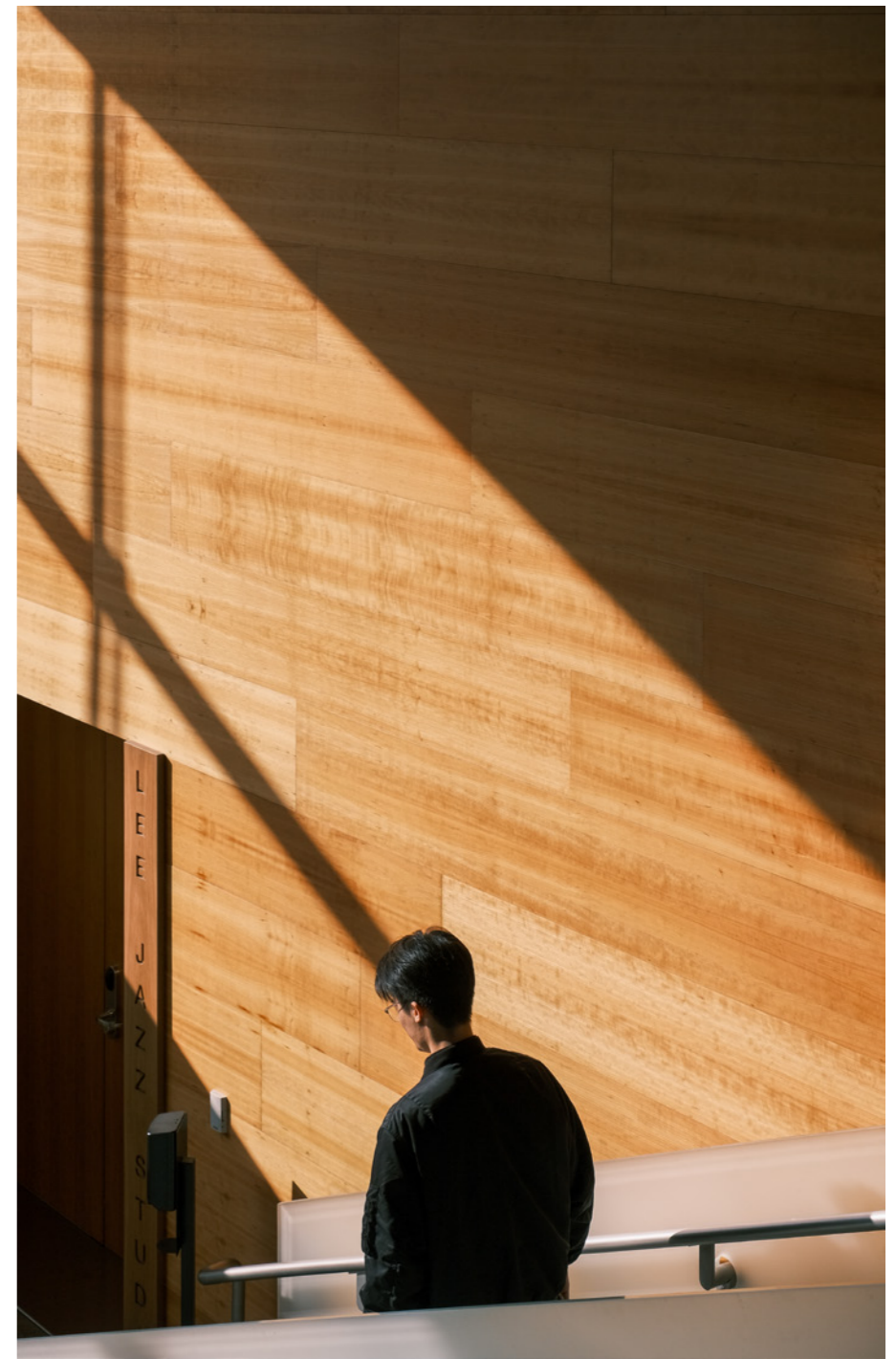
Fall 2023 | Architectural Photography
Instructor: Michael Vahrenwald







TOPIC: LIGHT



TOPIC: INNER SPACE

TOPIC: INTERACTION BETWEEN ARCHITECTURE AND PEOPLE



THANK YOU