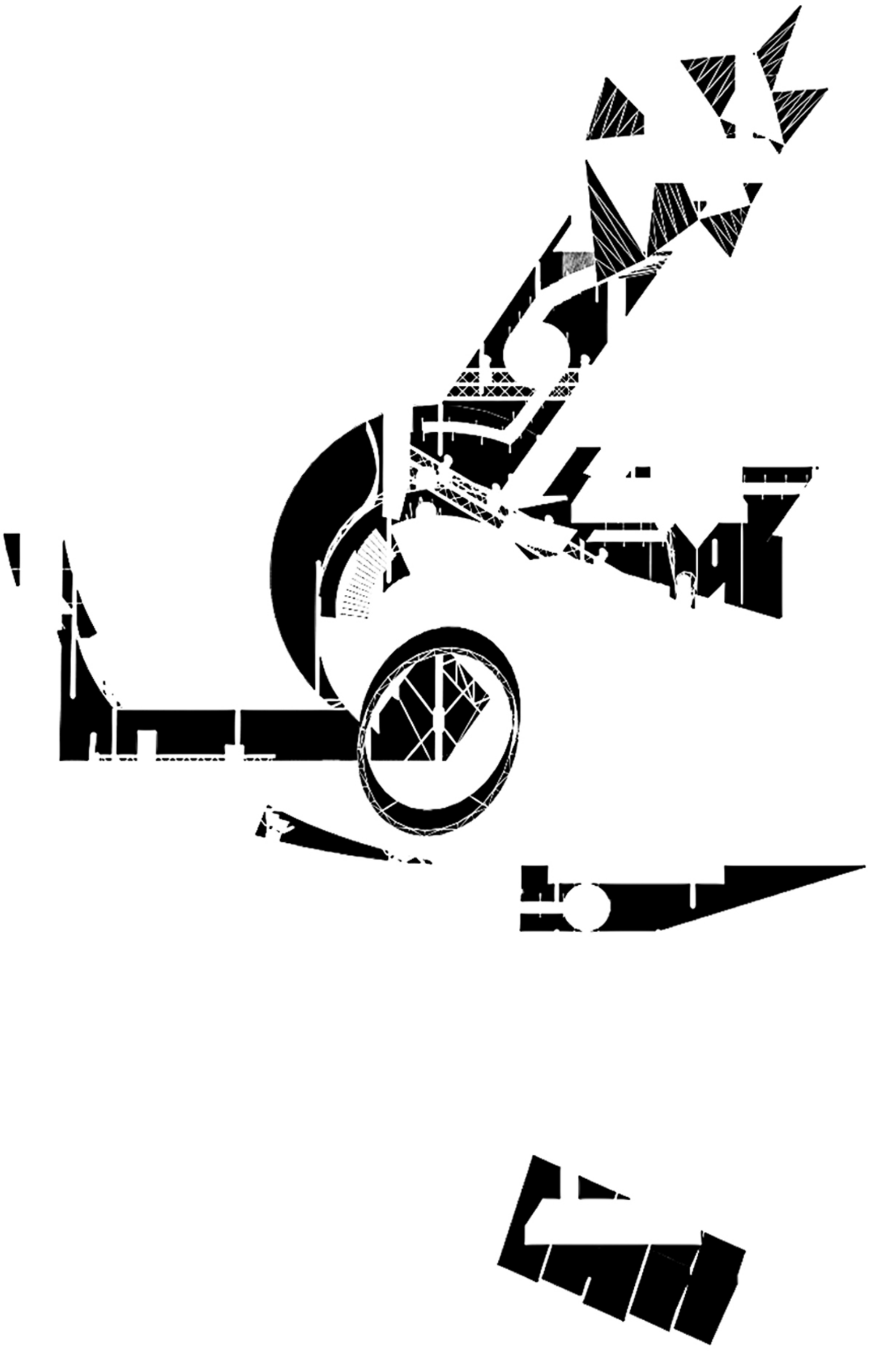


PORTFOLIO

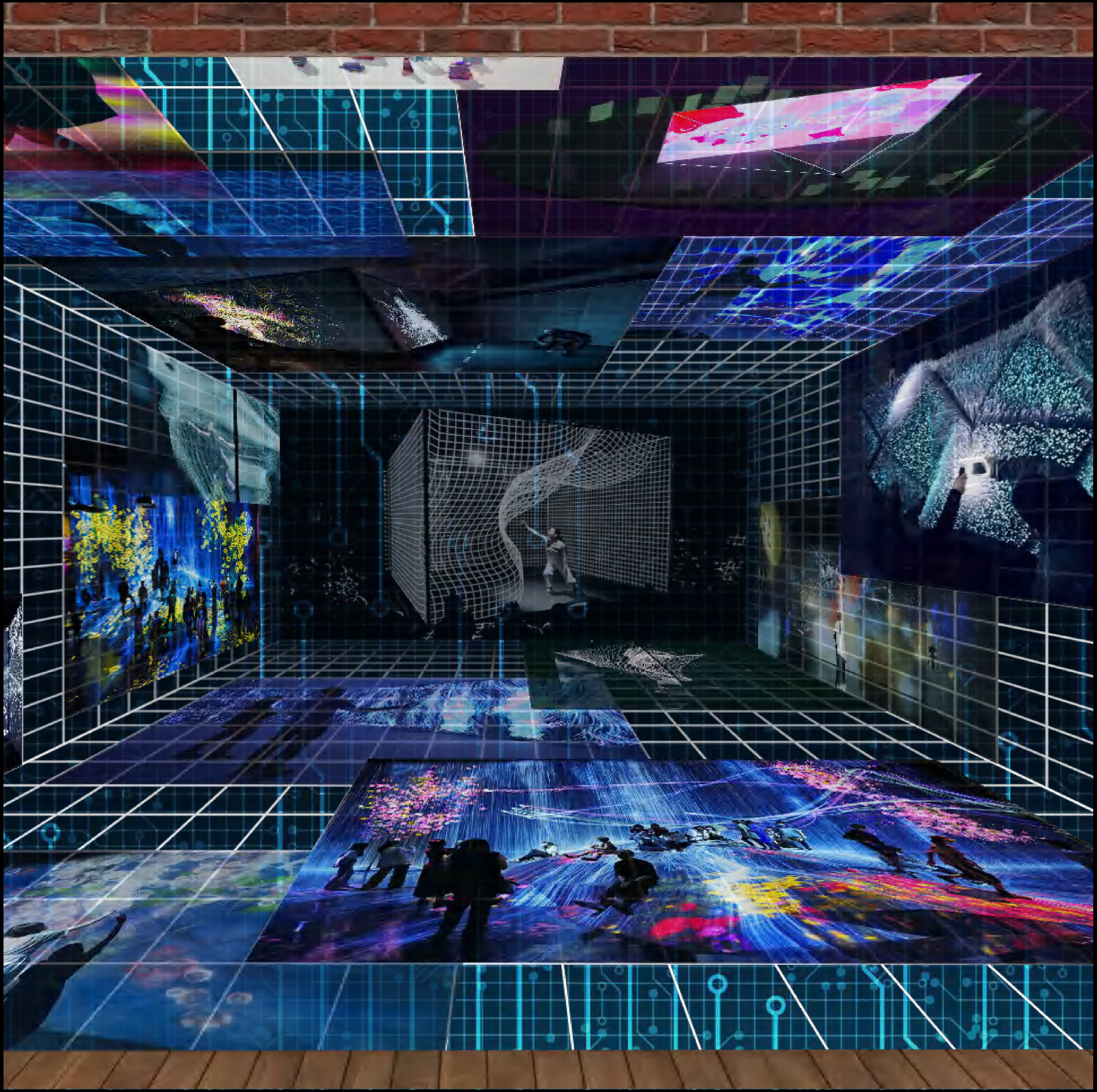
QIAN CHEN

Selected Works 2024-2025
New York
Columbia University M.S.AAD

FROM "HUMAN" TO "SOCIETY"

My portfolio focuses on the relationship between people and society and the economy, empowering communities through the power of architecture. My favourite designer is Corbusier, whose idea of machine aesthetics - "A house is a machine for living in" - is still centred on humanism. In my opinion, when we design houses based on machine-like standards, it is easy to make architecture rigid and mechanical, so I hope to retain the "dominance" of people over architecture, focusing on the relationship between people and the living space, the environment and the city.

CONTENTS



01
Immersive Landscape

ACADEMIC PROJECT
DURATION: From May, 2024 to July, 2024
GROUP WORK: with Yuxin Hong & Cathy Dong
INSTRUCTOR: Michiel Helbig & Corneel Cannaerts

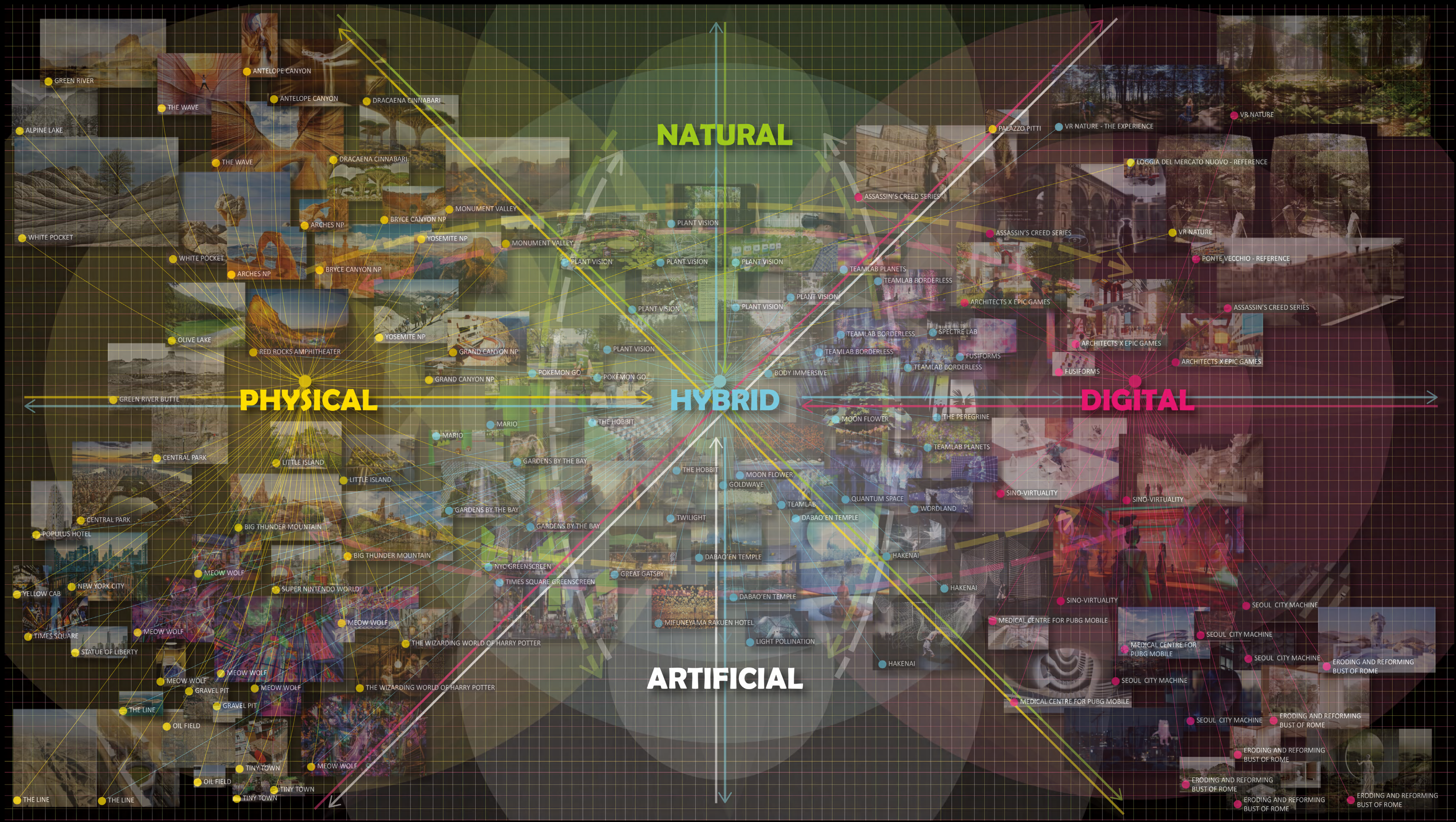
In this project, our vision entails a future where artificial images contribute to social transformation and environmental stewardship. Advancements in media technologies, like augmented reality, virtual reality, and other cutting-edge technologies allow us to extend our spatial experiences. We explore how media ecologies can assist nature conservation by establishing novel boundaries between human activities and natural habitats. Rather than physically entering the landscapes, humans interact with and appreciate nature through digital recreations and simulations in virtual spaces.

We collected resources through 3D scanning, scrapping Google Maps data, and creating data clouds from video footage, from games, drones, 360 cameras, etc. The found data were then used to reconstruct new landscapes to envision the proposed virtual experiences. The carefully selected sources and locations of these landscapes illustrate contemporary human- influenced environments. These advanced interpretations of "Imagined Landscapes" not only question traditional representations but also expand the idea through the immersive, interactive, and customizable capabilities of modern digital media. The resulting “Imagined Landscapes” are technical images that can be immersively experienced as a response to the need to explore and discover landscapes.

The current ecological crises urge us to rethink the foundational dichotomy between natural and artificial, the grown and the made, and the wild and the controlled. This blurring of seemingly opposite notions is further strengthened through the developments of digital technologies, which work across scales, questioning the difference between local and global, interior and exterior… Going beyond dichotomies opens up the in-between, as a messy fertile ground for novel hybrids. We looked at landscapes in the continuum between artificial and natural and how they are imagined physically and digitally in several media, such as modeling and rendering software, image editing, game engines, generative AI, and virtual and augmented reality. In this project, our vision entails a future where artificial images contribute to social transformation and environmental stewardship.

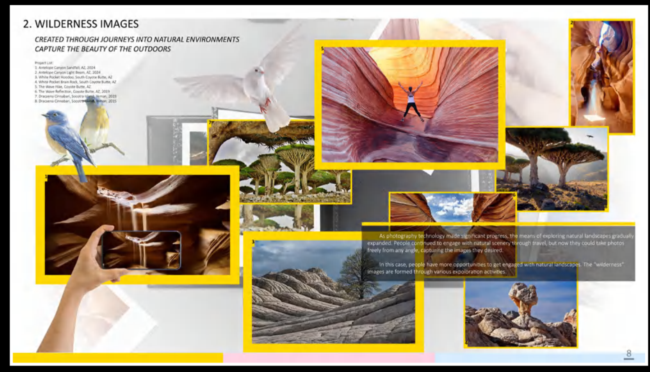
CONCEPT

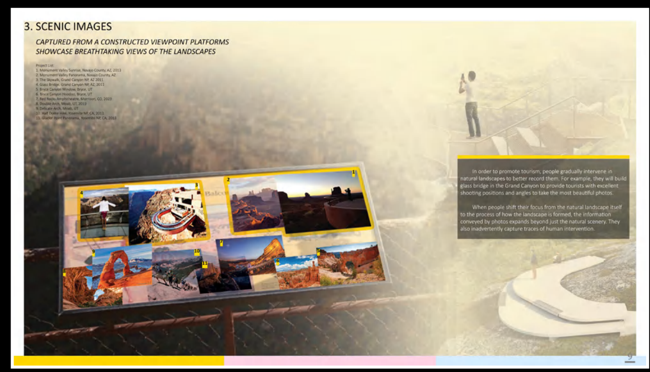
The current ecological crises urge us to rethink the foundational dichotomy between natural and artificial, between the grown and the made, between wild and controlled. This blurring of seemingly opposite notions is further strengthened through the developments of digital technologies, which work across scales, questioning the divide between local and global, interior and exterior... Going beyond dichotomies opens up the in-between, as a messy fertile ground for novel hybrids. In our field guide we looked at this blurring of the natural and artificial through the lens of landscapes. The notion of landscapes refers to both the territory and the image, i.e. the view produced by this terrain, whether observed in person or captured in a medium, such as a painting, photograph. Through digitalization architectural images are becoming more and more artificial, i.e. they are not drawings constructed line by line, but are images synthesized through algorithWmic processes. We looked at landscapes in the continuum between artificial and natural and how they are imagined between physical and digital in several media such as modeling and rendering software, image editing, game engines, and generative AI, virtual and augmented reality.

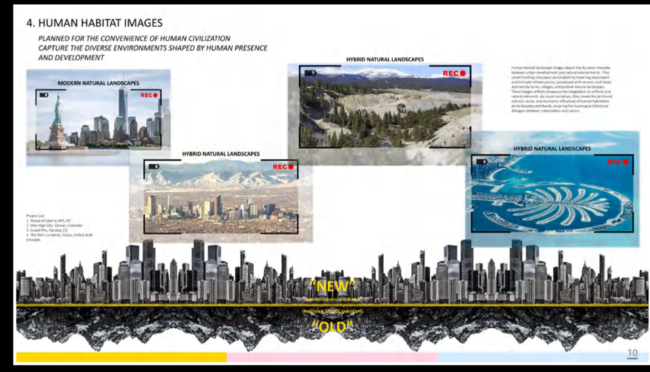


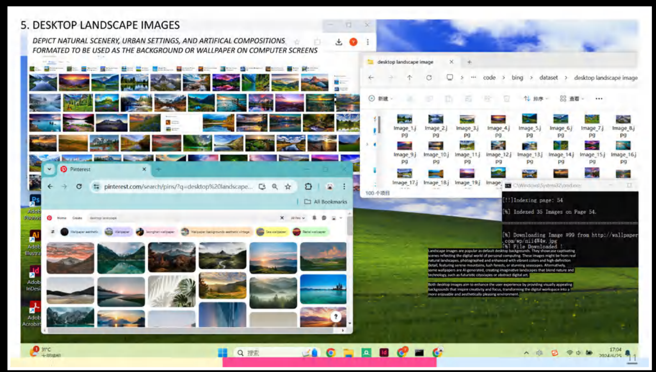
FIELDGUIDE


1. LANDSCAPE PAINTINGS

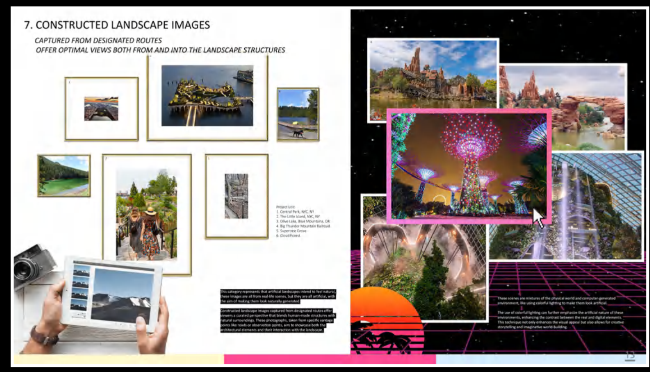

2. WILDERNESS IMAGES

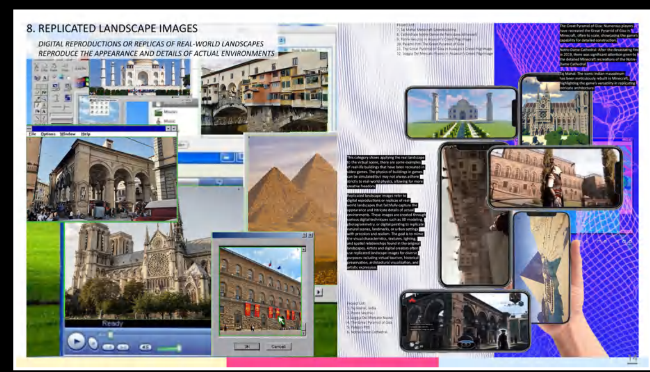

3. SCENIC IMAGES

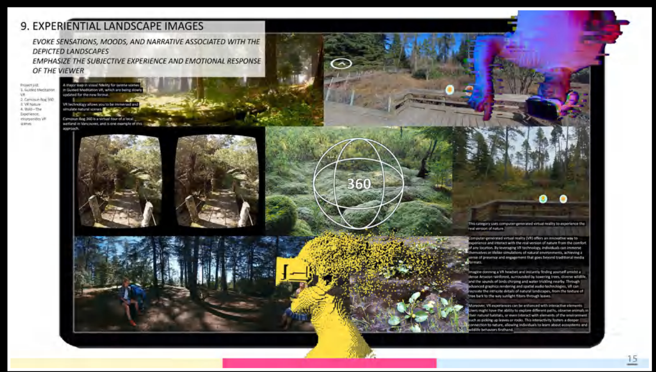

4. HUMAN HABITAT IMAGES

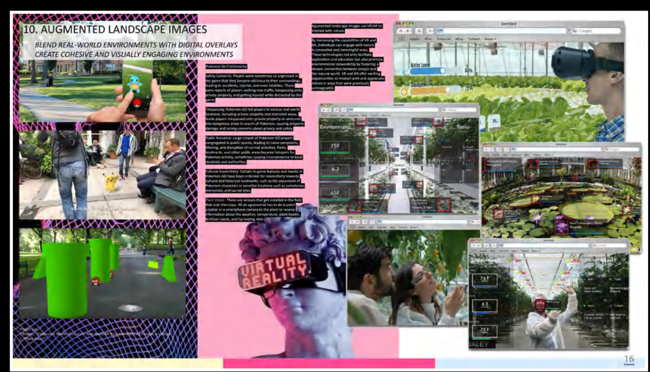

5. DESKTOP LANDSCAPE IMAGES


6. ENGINEERED LANDSCAPE IMAGES


7. CONSTRUCTED LANDSCAPE IMAGES


8. REPLICATED LANDSCAPE IMAGES

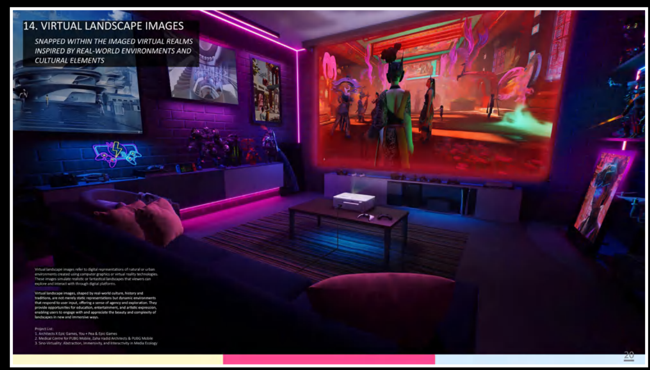

9. EXPERIENTIAL LANDSCAPE IMAGES
360

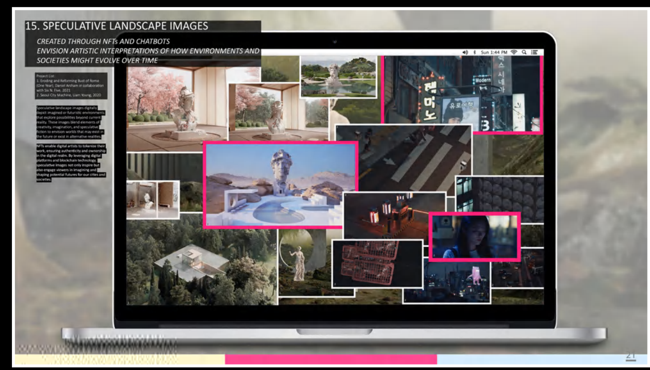

10. AUGMENTED LANDSCAPE IMAGES
VIRTUAL REALITY

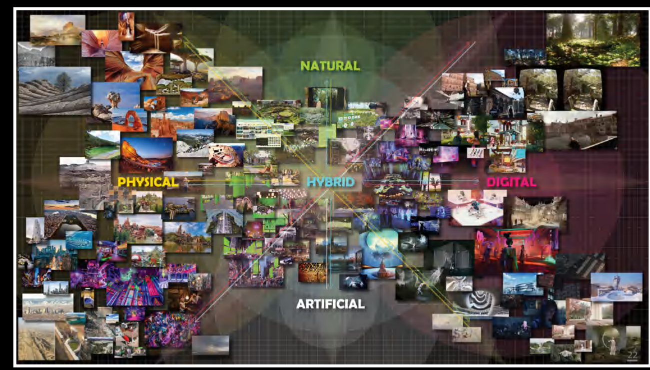

11. GREEN-SCREEN LANDSCAPE IMAGES

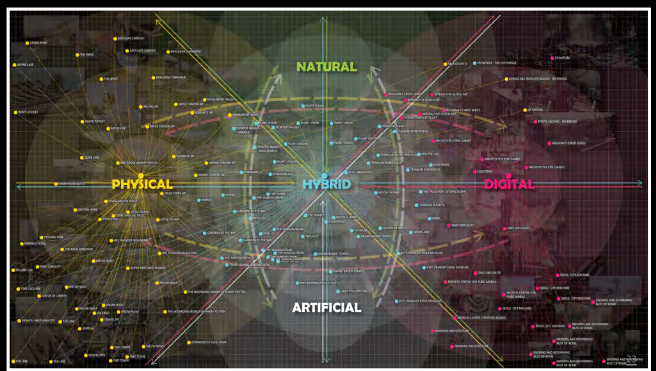

12. IMMERSIVE LANDSCAPE IMAGES


13. PROJECTED LANDSCAPES

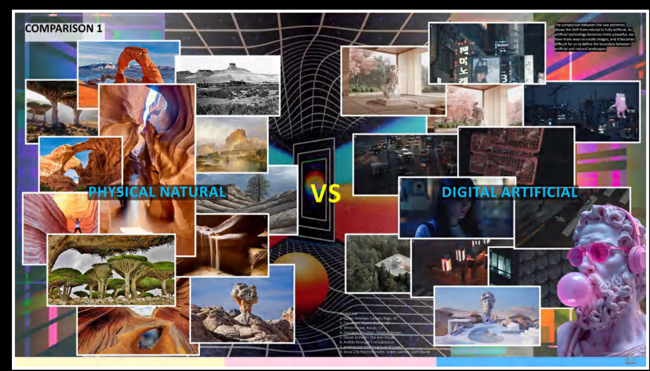

14. VIRTUAL LANDSCAPE IMAGES

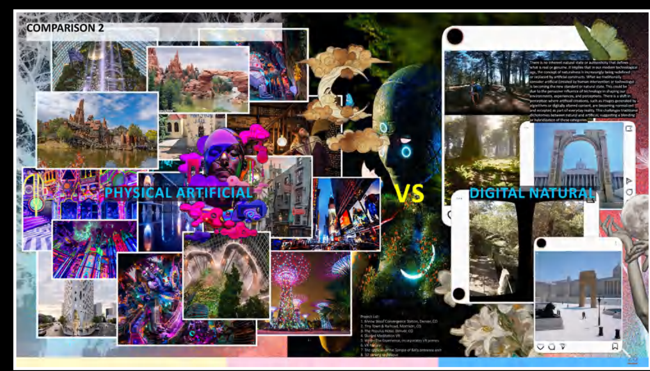

15. SPECULATIVE LANDSCAPE IMAGES


NATURAL
PHYSICAL
HYBRID
DIGITAL
ARTIFICIAL

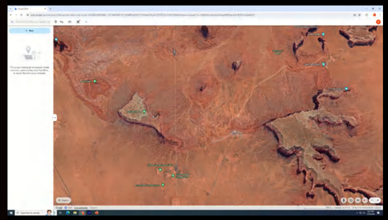

NATURAL
PHYSICAL
HYBRID
DIGITAL
ARTIFICIAL


RESEARCH OBSERVATION
Blurred boundary between artificial & natural landscapes

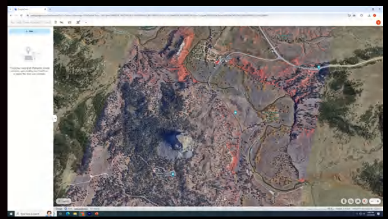

COMPARISON 1
PHYSICAL NATURAL
VS
DIGITAL ARTIFICIAL


COMPARISON 2
PHYSICAL ARTIFICIAL
VS
DIGITAL NATURAL

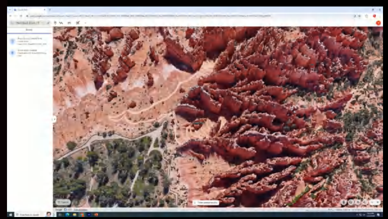
I selected several famous natural landscape sites, modeled them and recreated the scenes.



Navajo Loop Trail,
Bryce Canyon National Park, Bryce, UT

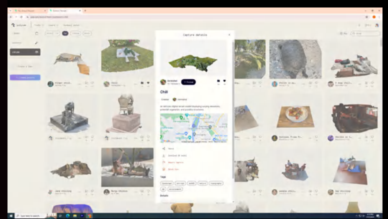


Devils Tower National Monument
Crook County, WY

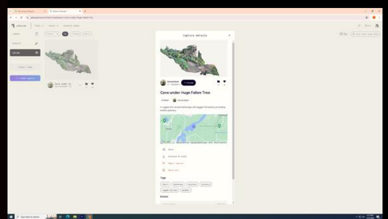


Double Arch
Arches National Park, Moab, UT

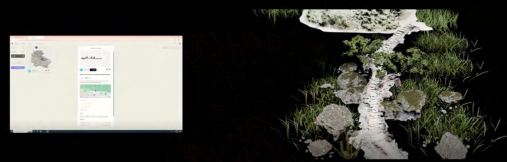
Horseshore Bend
Page, AZ

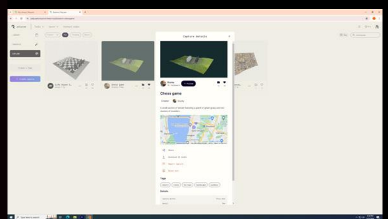


Central Park
NYC, NY

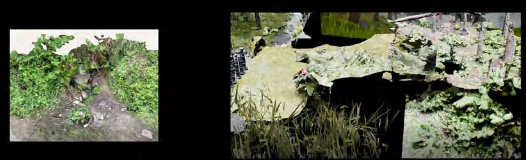


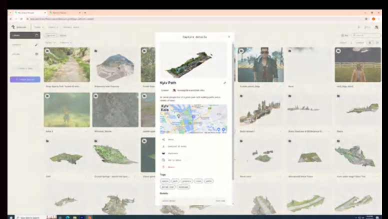
Stone Staircase at Santa Barbra Botanic Garden
Creator: Topophyla





Cave Under Huge Fallen Tree
Creator: Barnaclejoe





Dad's Railroad
Creator: Shannon

I went to Central Park and scanned some landscapes and generated 3d models that were finally pieced together to make the full scene.

I modeled several scenes through scenes from the game and combined them to form a new story line.

FPV Drone Flight through Beautiful Iceland Canyon
Creator: Joshua Turner

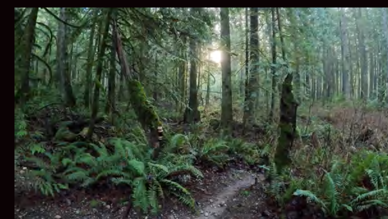
Cyberpunk 2077: POV Photorealistic Motorbike Ride
Creator: NextGen Dreams

Next Level Realistic Realtime Forest
Creator: MAWI United

Next Level Realistic Realtime Forest
Creator: MAWI United

Grand Ridge Trail Boardwalk
Creator: Deep Notice

Next Level Realistic Realtime Forest
Creator: MAWI United



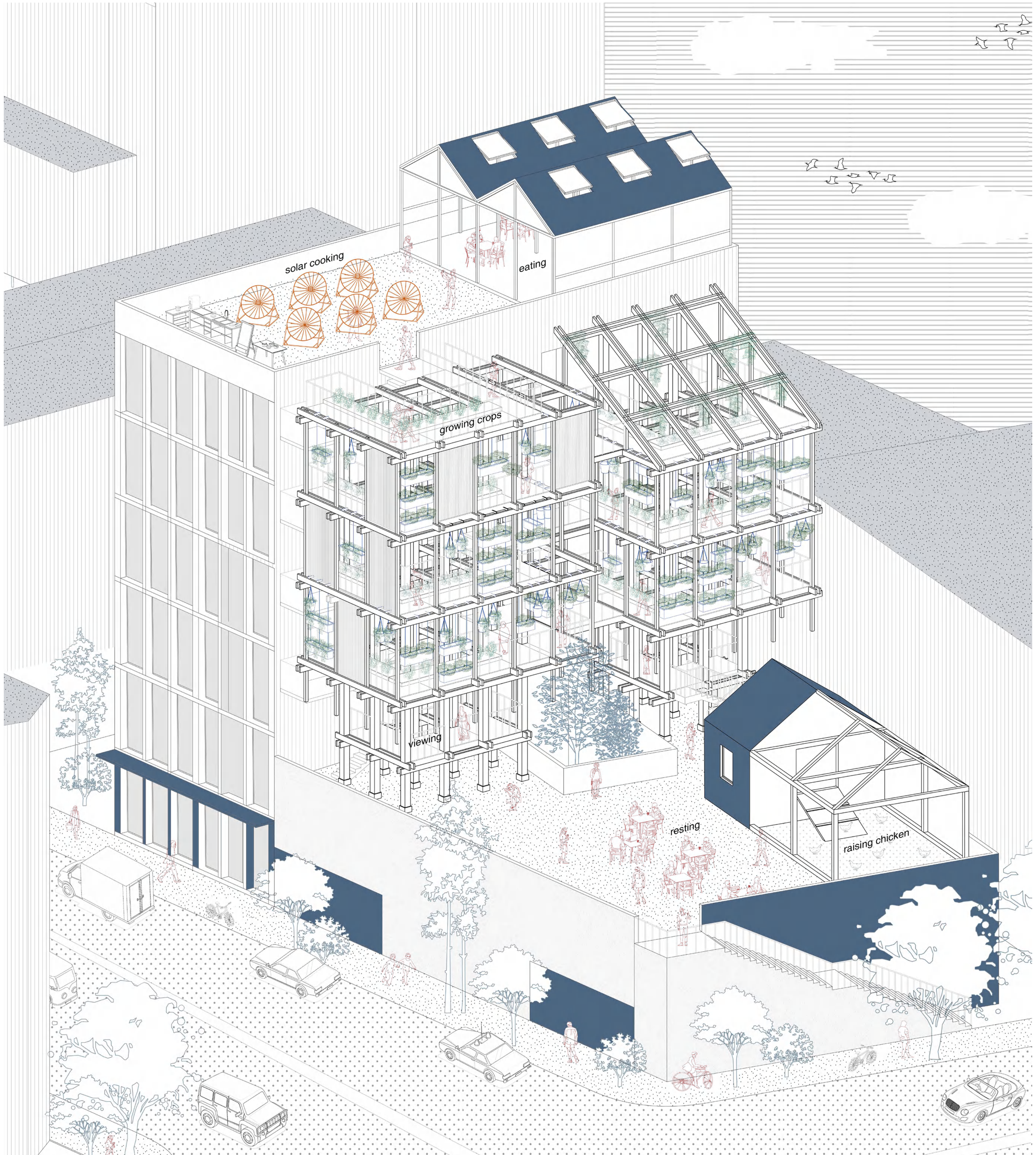
In contemporary societies, there is a widespread perception that natural and green environments are inherently better and healthier. People not only seek out nature as a retreat from their stressful daily routines but also actively design and construct artificial landscapes within urban environments to foster a connection with nature. The traditional distinctions between natural and artificial blur as landscapes become increasingly dominated by human and machine interactions. Landscapes are no longer mere natural or cultural entities but have evolved into digital landscapes - vast, engineered eco-technical terrains, assembled, maintained and imagined through computational processes. Simultaneously, the growing integration of technology into our daily routines amplifies ecological crises. When picturesque natural scenes are posted on social media platforms such as Instagram, they attract crowds of visitors to nature, placing excessive pressure on the natural environment. Over time, certain iconic perspectives become widely photographed and sought after, attracting people to visit nature primarily for these specific viewpoints.

02
Solar Bloom

ACADEMIC PROJECT
DURATION: From September, 2024 to December, 2024
LOCATION: Brooklyn, New York
INDIVIDUAL WORK
INSTRUCTOR: Mio Tsuneyama & Fuminori Nousaku & Sonam Sherpa

Solar cooking is all about using the energy of sun instead of traditional fuel or electricity. By focusing sunlight onto a cooking vessel, we can bake, boil, or steam our way to a delicious meal. It is not just a novelty; it is a practical, eco-friendly solution for outdoor enthusiasts, eco-warriors, and anyone looking to cut down on utility bills. At the same time, solar cooking needs to be carried out in a wide space that can fully receive direct sunlight.

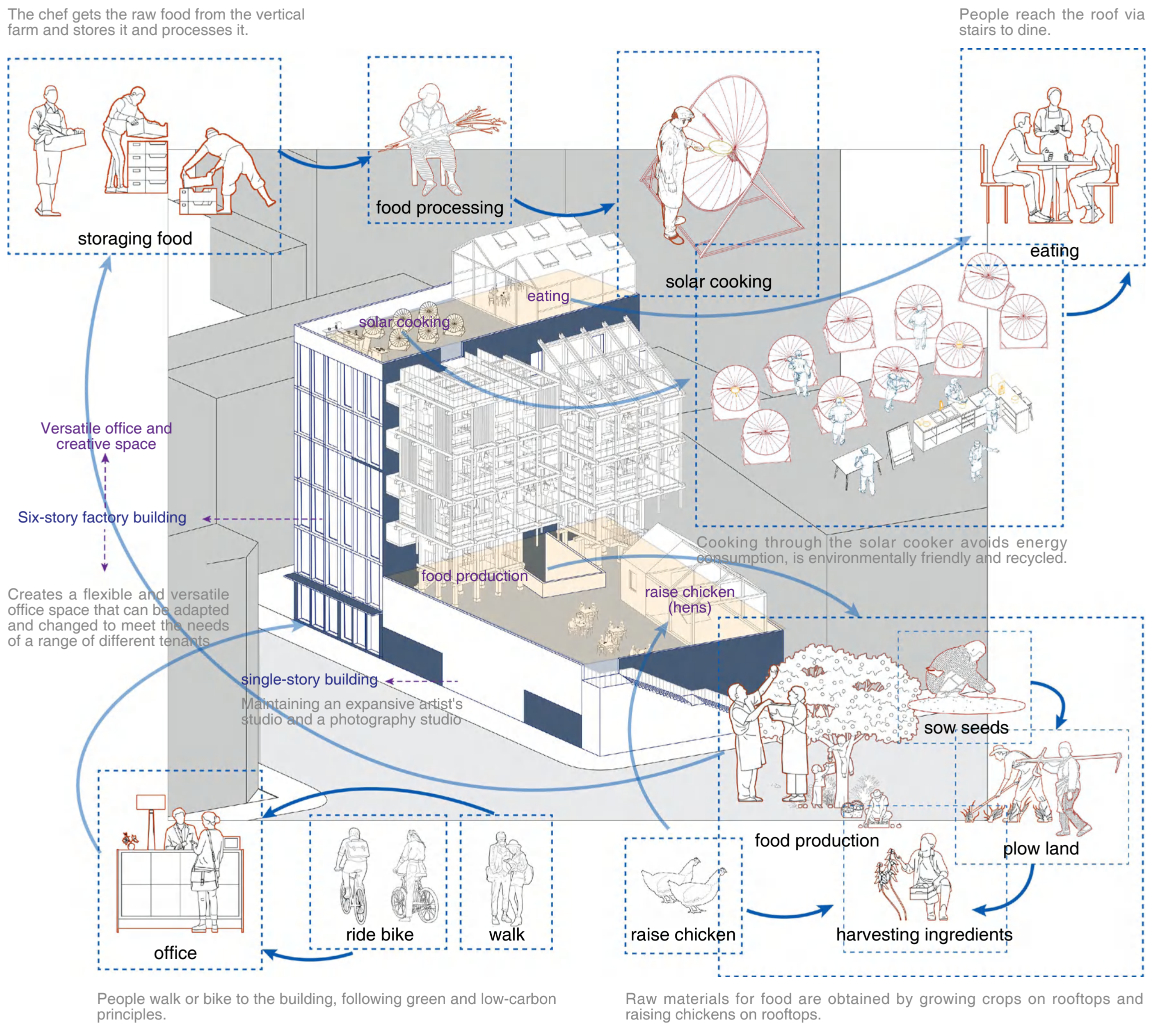
I will keep the existing space and function of this building and design only the roof of the building. First of all, on the roof of the one-story building, I mainly design a series of wooden structure beams and columns frame, and build some wooden boards , forming a space for planting. At the same time, hanging some devices in the gap of this beam frame, we can grow vegetables on it. The other part of the planks provides space for people to watch and walk. And by adding a staircase in the vertical direction, people can reach the roof of the six-story building next to it through this transportation system. Connected to this planting framework is a small chicken space where we can fulfill our daily needs for eggs and chicken meat. After getting the raw materials for cooking, we go up to the roof of the six-storey building through the vertical frame, and on the left side, we set up several solar cooker machines as well as a sink and other installations. On the right side is a dining area where people can come to eat, either the creatives working in the building or the residents of the neighborhood. The main design of the dining area is a sectional roof structure that breaks the square shape of the building and shields people from the sun and the elements. Finally, after designing this rooftop typology, I would like to apply it to the roofs of other buildings, such as the common narrower flat roofs. Similarly, a frame for growing vegetables and solar cooking could be applied, simply by adjusting the number of vertical levels.



ISOMETRIC DRAWING

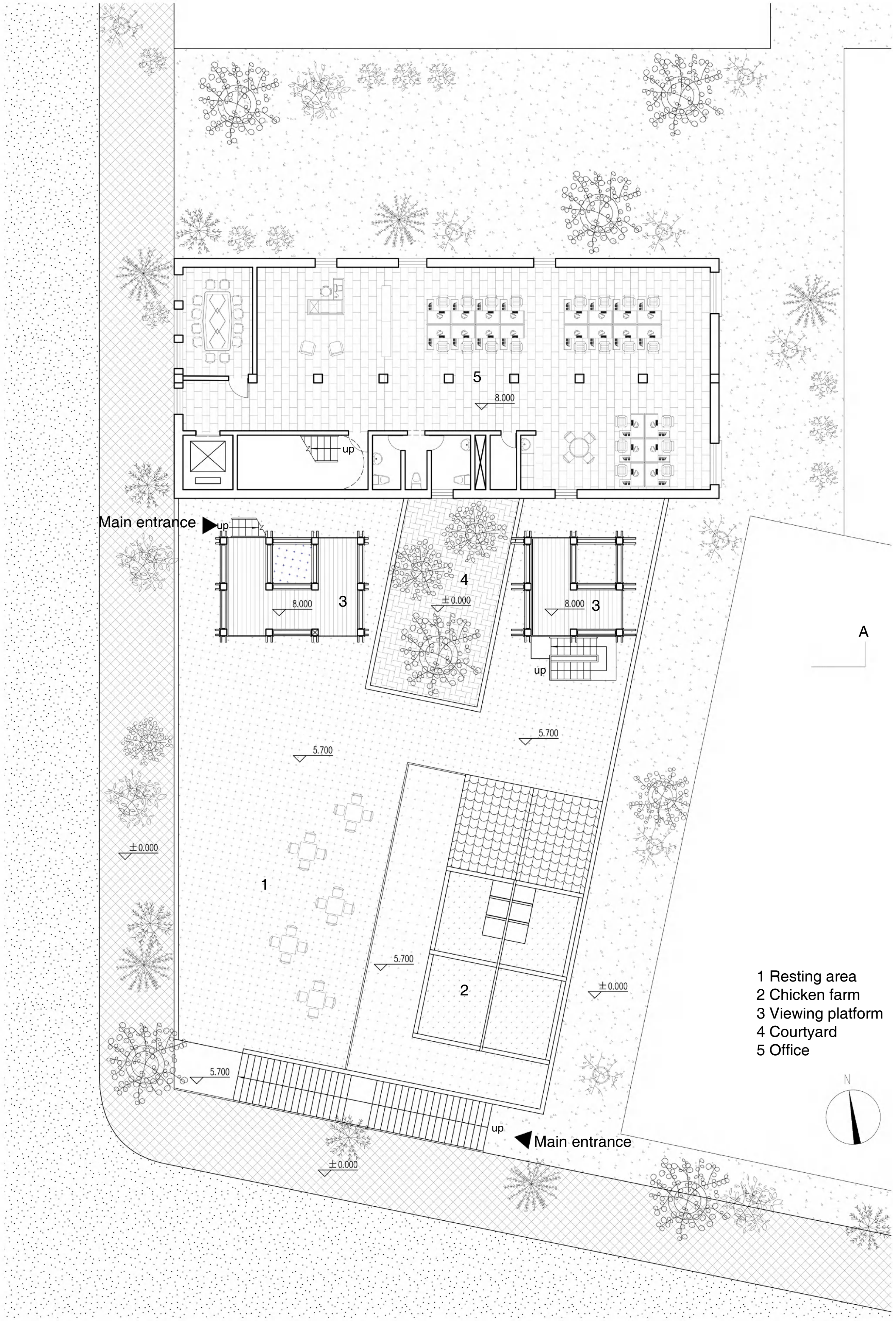
After observing the characteristics of New York's urban architecture, I realized that solar cooking on the rooftop of a building is an excellent choice in this high-density city. In the end, I choose to design in the neighborhood of Clinton Hill. In this area, residents are predominantly middle class, creative workers, young professionals and families, with a high level of community diversity and a strong sense of environmental awareness and community involvement. As the neighborhood has grown, a number of old factories and warehouses have been converted into multi-purpose office and creative spaces. So there are many art studios, galleries and community cultural centers in the community, which regularly host art exhibitions, workshops and concerts. It provides a great creative atmosphere and foundation for solar cooking. My site is located on the corner of Washington Avenue and Park Avenue near the Brooklyn Navy Yard. it's a project consisting of the renovation and redesign of 77 Washington, a six-story, 38,000 square-foot, former masonry factory built in the 1920s.

NETWORK DIAGRAM

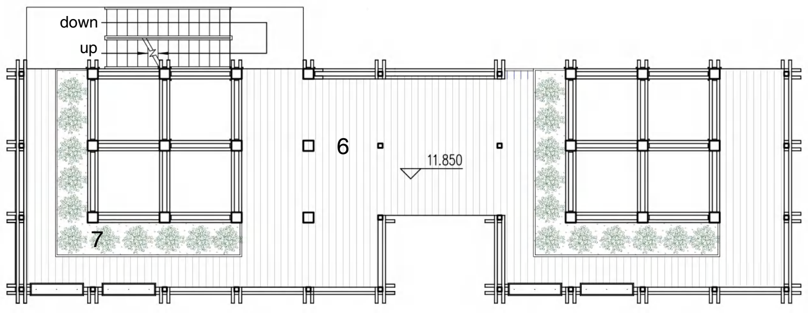


I will keep the existing space and function of the building and focus only on the design of the roof. I plan to build a planting area on the roof of this single-story building, where I will grow a lot of vegetables and fruits so that we can get raw materials for cooking. And to raise chickens on the other side to get eggs and chicken meat. So it will be possible to do solar cooking on the roof of another high level, creating a green system. Finally, people walk or bike to the building, following green and low-carbon principles.

SITE PLAN 1:2000

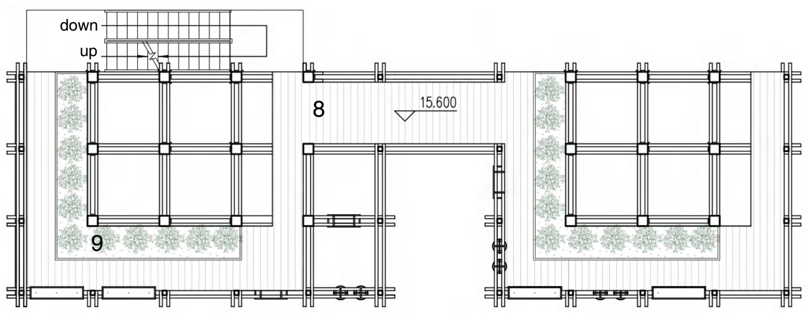


GROUND FLOOR PLAN 1:200



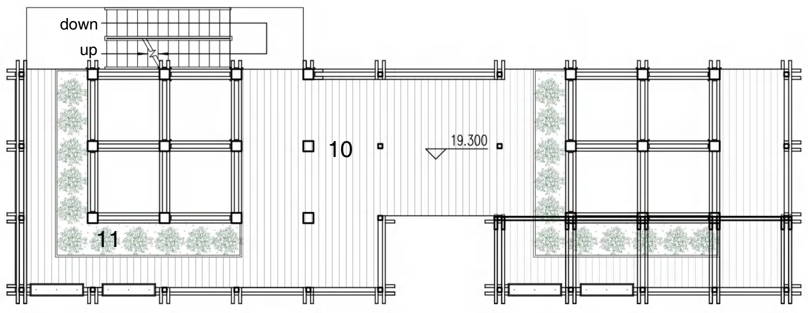
SECOND FLOOR PLAN 1:200

6 Platform
7 Growing crops



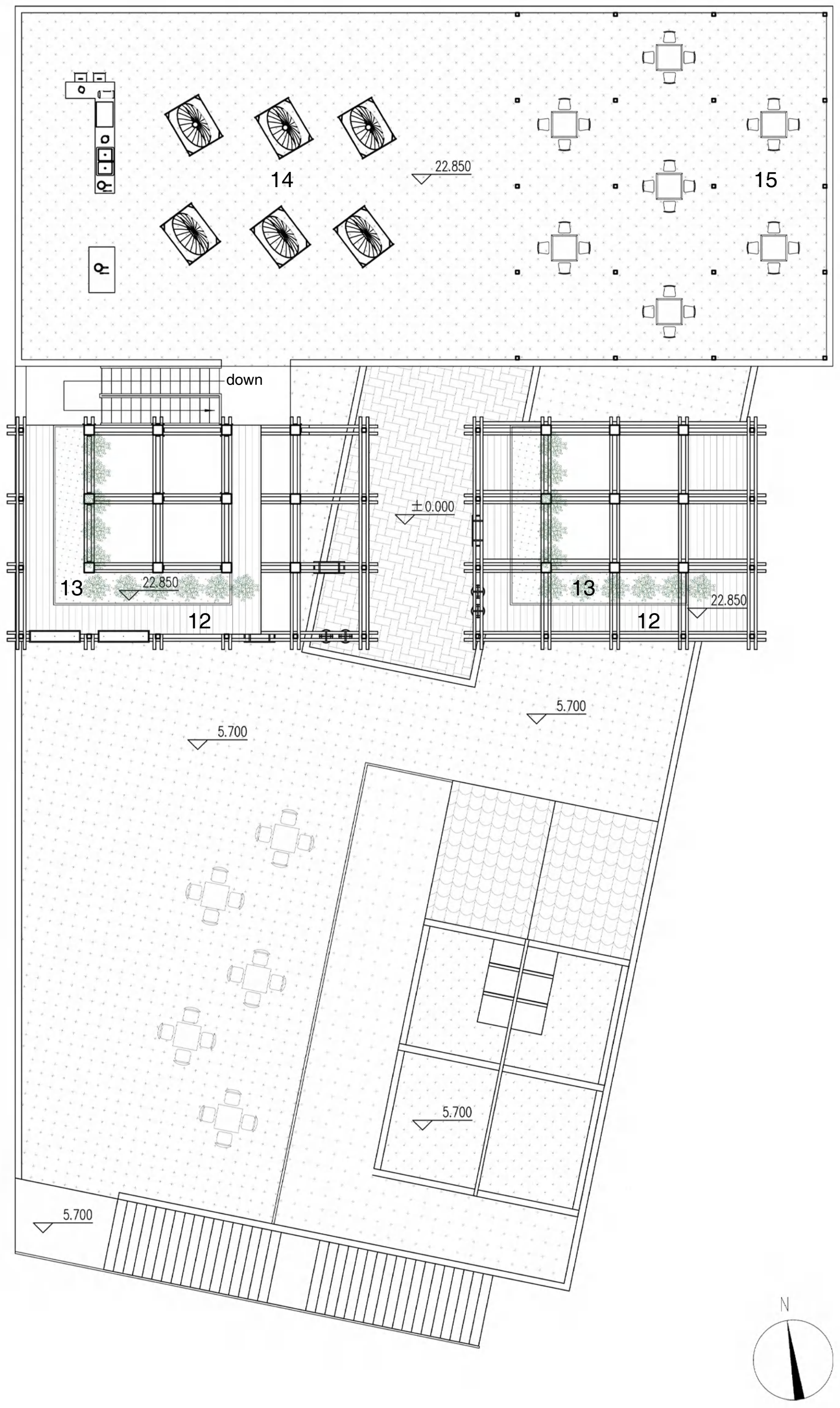
THIRD FLOOR PLAN 1:200

8 Platform
9 Growing crops



FOURTH FLOOR PLAN 1:200

10 Platform
11 Growing crops



FIFTH FLOOR PLAN 1:200

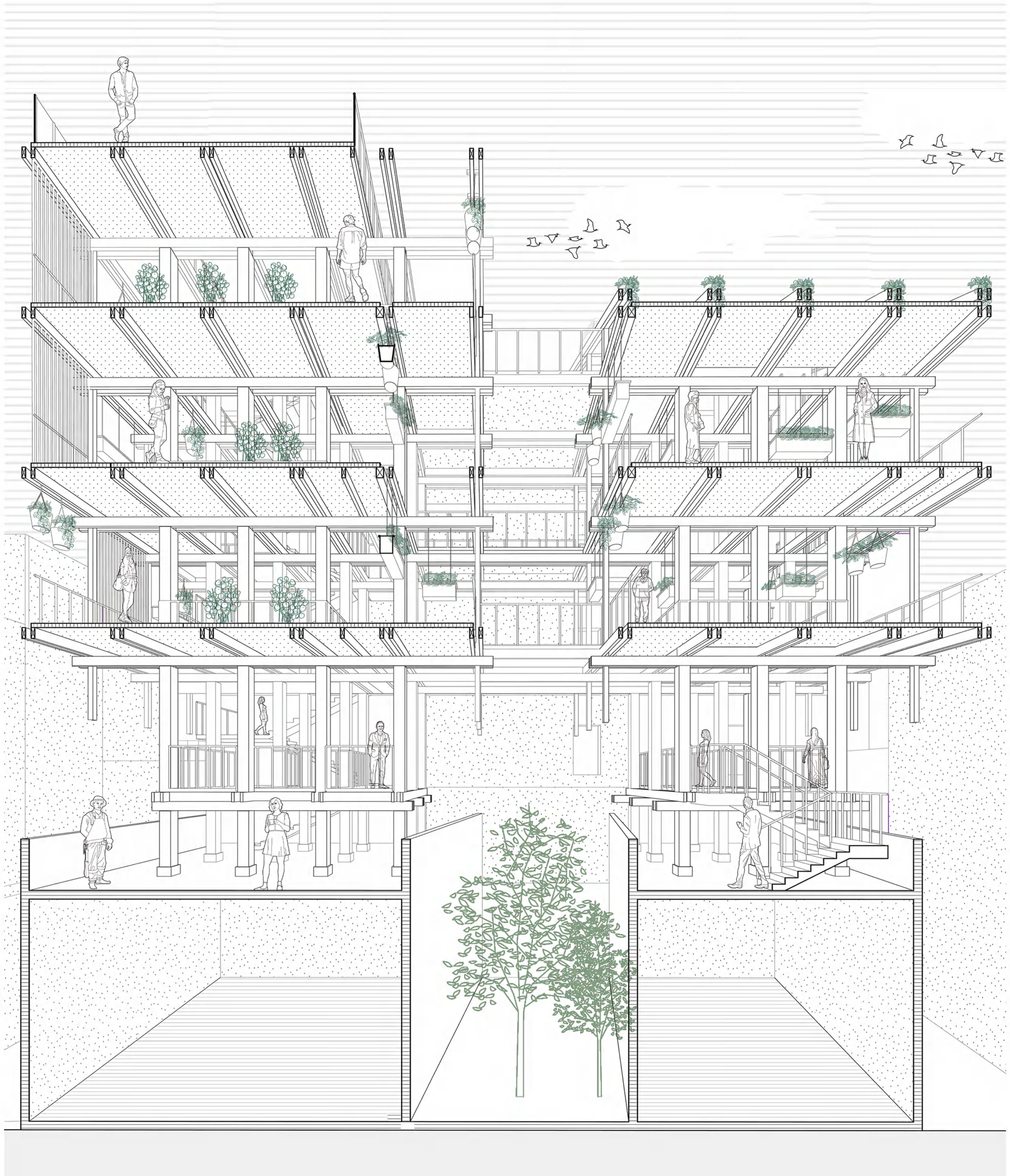
12 Platform
13 Growing crops
14 Solar cooking area
15 Cafeteria

VIEW OF THE BUILDING FROM THE SIDE ELEVATION

When we view the building from the side, we can see its rhythmic rhythm, and diners can access the top floor through an inner staircase.

VIEW OF THE BUILDING FROM THE PLATFORM

Standing on the interior terrace, diners can not only observe the planting of crops, but also take in the beauty of the structure of the entire building.



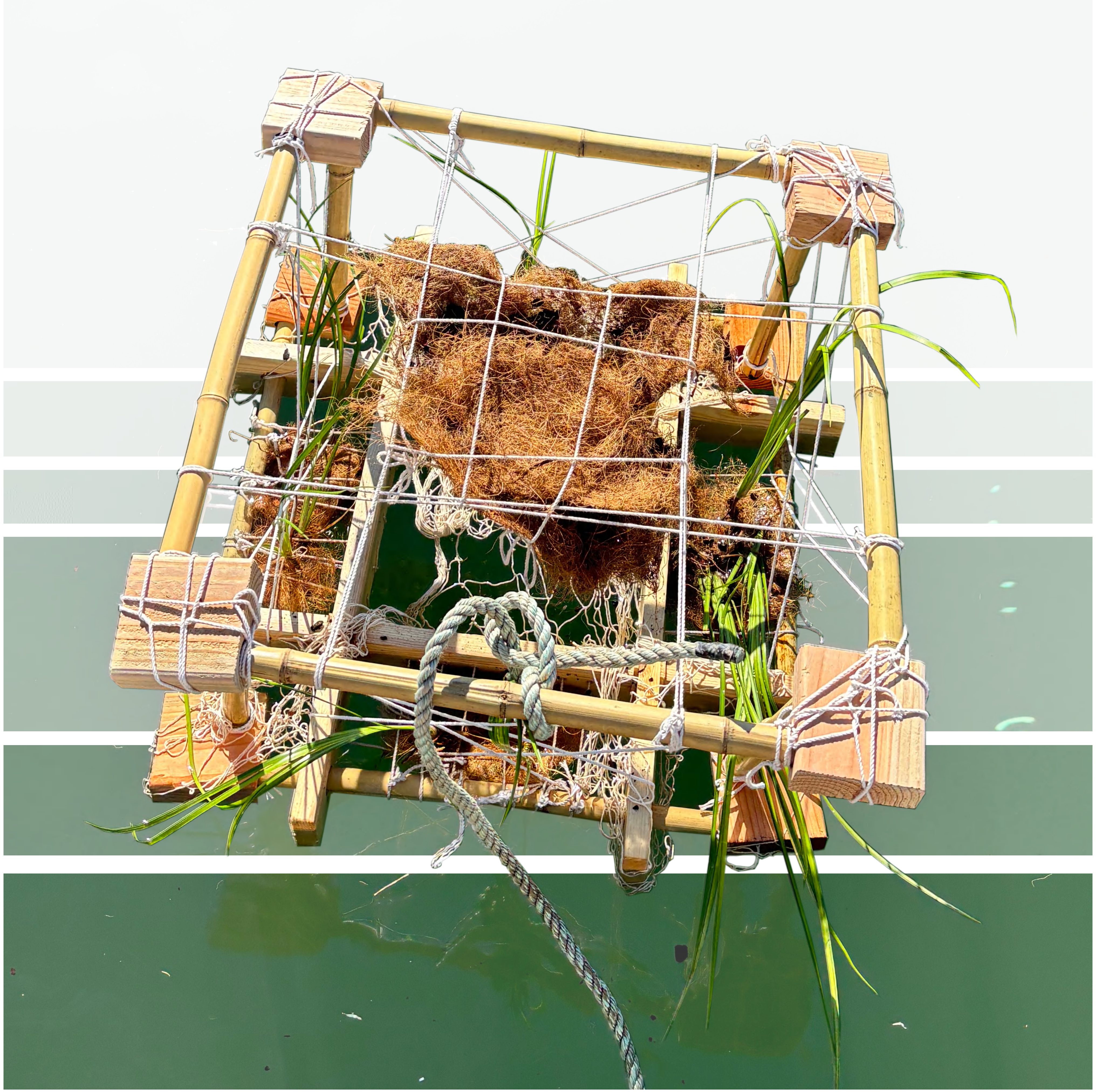
SECTIONAL PERSPECTIVE A-A

BIRD 'S-EYE VIEW OF THE TOP FLOOR

We planted the peppers at the top to facilitate its vertical oriented growth. At the same time, people can communicate on the top deck overlooking the surrounding scenery.

VIEW OF THE BUILDING FROM THE PLATFORM

Spaces for growing crops were provided on the platforms of each level, while a number of crop-growing containers were suspended between the beams.



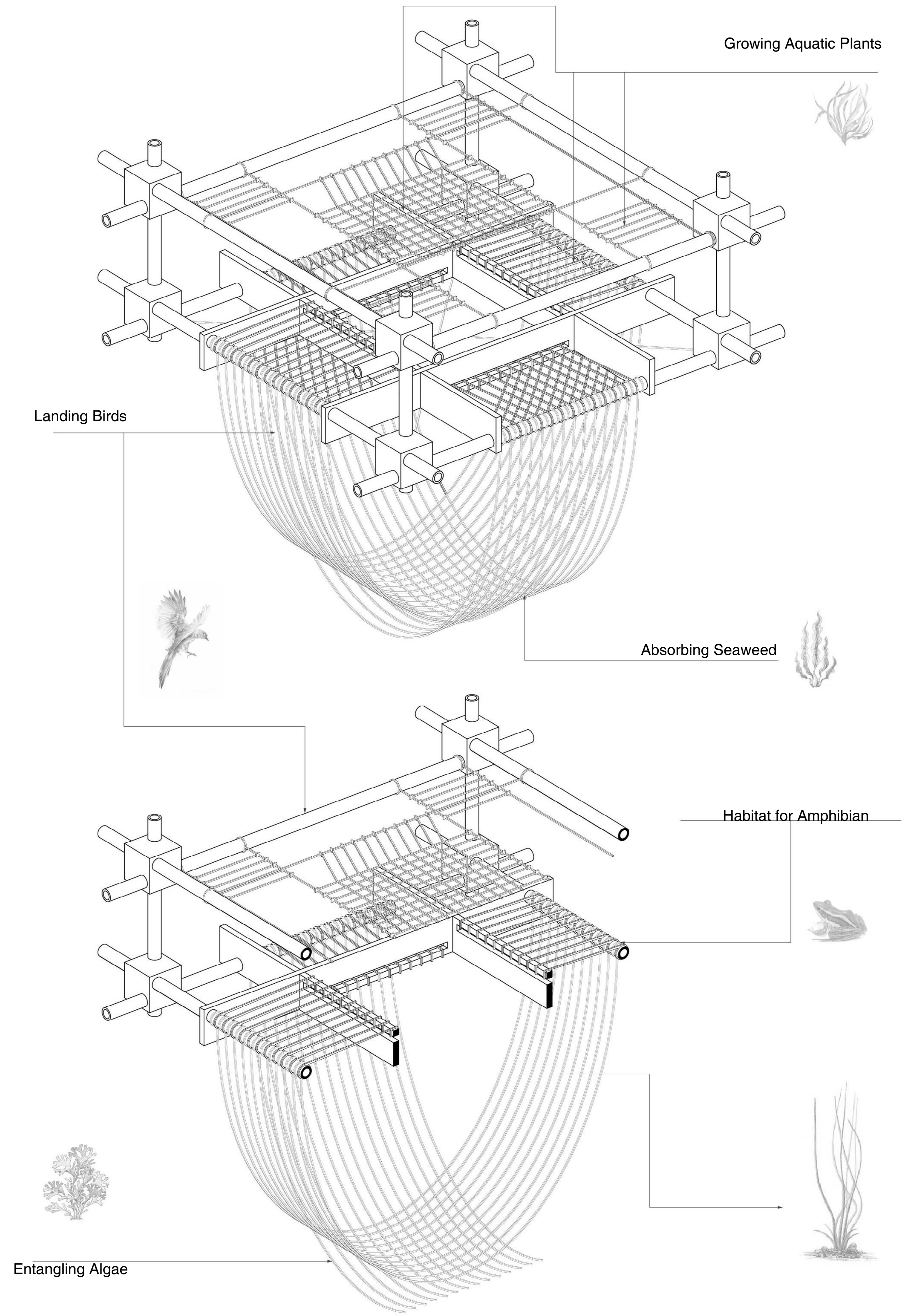
03
Nine-Palace Floater

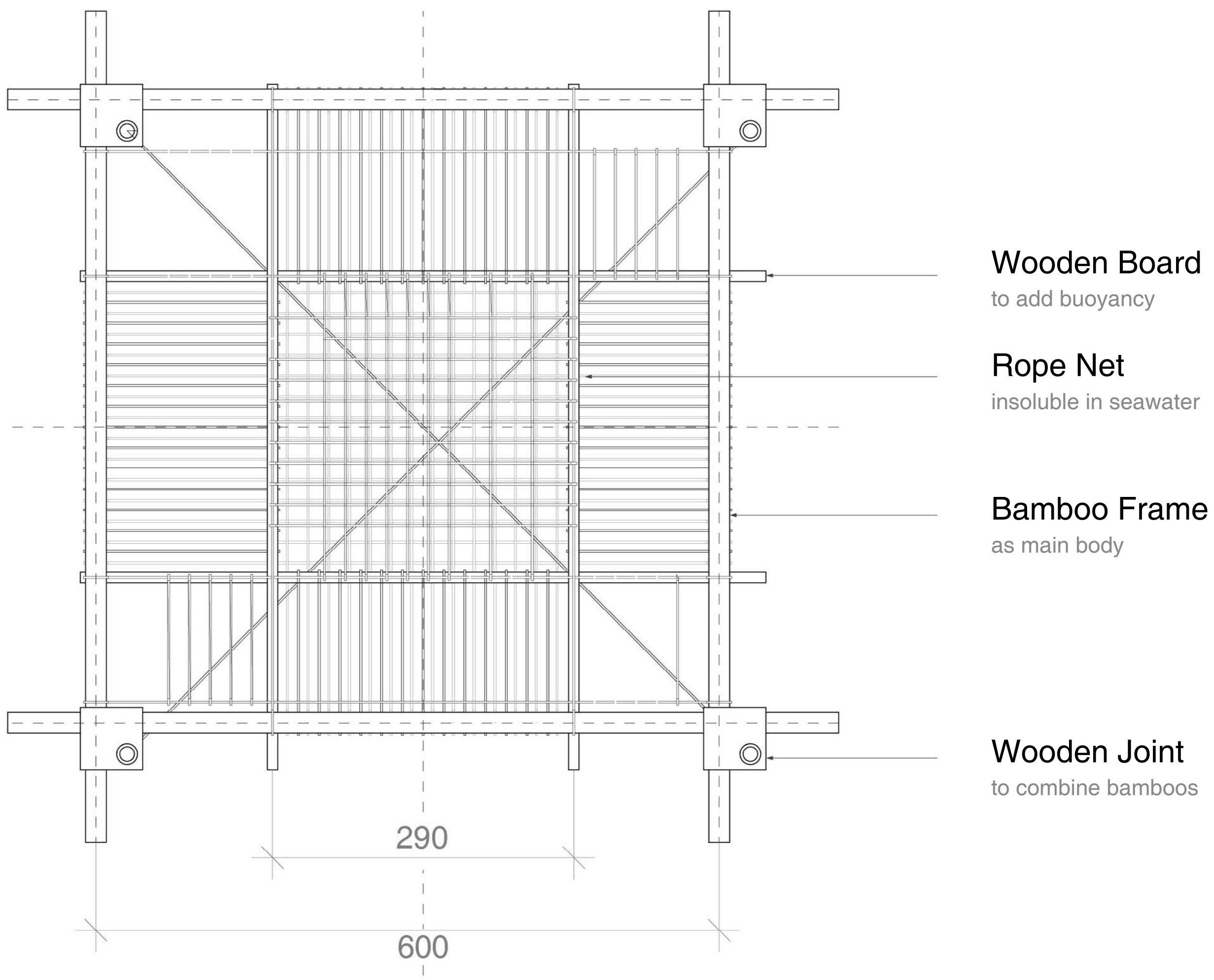
ACADEMIC PROJECT
DURATION: From September, 2024 to November, 2024
LOCATION: RETI Center, New York
GROUP WORK: with Weiye Zhang
INSTRUCTOR: Emily Bauer

Ecosystems are central to the design and functionality of our built structures and communities. Floating landscape typologies are not just design elements but are active performers, enhancing water quality, rejuvenating native ecologies, and elevating community well-being. I conceptualize and actualize a floating marine landscape, testing and installing it at NYC's Red Hook waterfront. This tactile experience will be enriched by continuous collaboration with the RETI Center, a local nonprofit, to assess the ecological impact of the interventions.

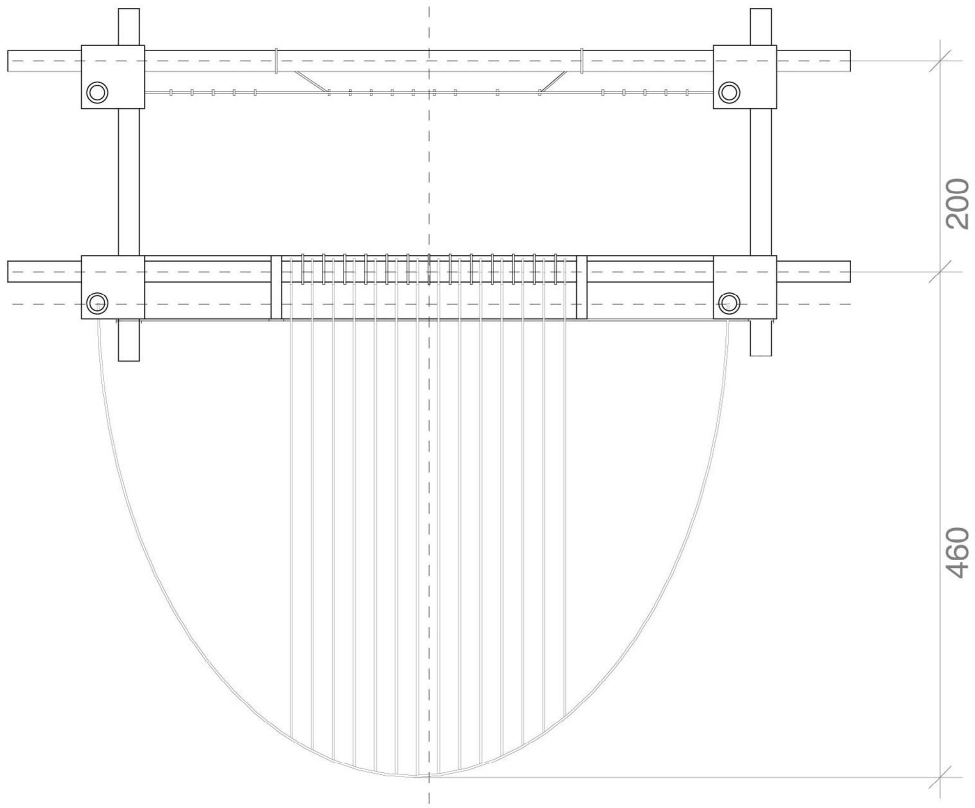
The core concept of our Nine-Palace Floater is to provide an eco-friendly solution that promotes water purification and provides an ideal habitat for aquatic plants and animals through the natural advantages and sustainable properties of bamboo. The float arranges bamboo horizontally and vertically to form a square frame structure. The hollow structure of the bamboo helps provide extra buoyancy and reduces the weight of the entire float. At the same time, we build a wooden frame structure in the center of the frame, which not only increases the buoyancy of the whole float, but also increases the stability. The leads between the lower wooden boards and bamboo can hang floating plants in the sea and allow them to grow on it. Fishing nets are set up under the floating device to gather fish and hang algae plants, and shallow frames are designed in the upper layer of the floating device for growing aquatic plants, like aquatic ferns. The entire installation creates a stable ecosystem in the vertical direction.

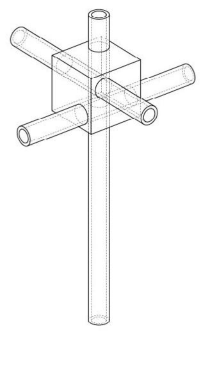
The floating device purifies water through aquatic plants, provides habitat for aquatic animals, and provides space for birds to build nests and forage for food. This is important for maintaining ecological balance, improving water quality and preserving biodiversity. Aquatic plants such as reeds and cattails absorb pollutants and prevent eutrophication, while creating habitats for microorganisms and insects, all of which play a key role in the overall health of the ecosystem. Floating devices can provide elevated roosting platforms for birds, which can promote breeding and roosting.





GROUND FLOOR PLAN



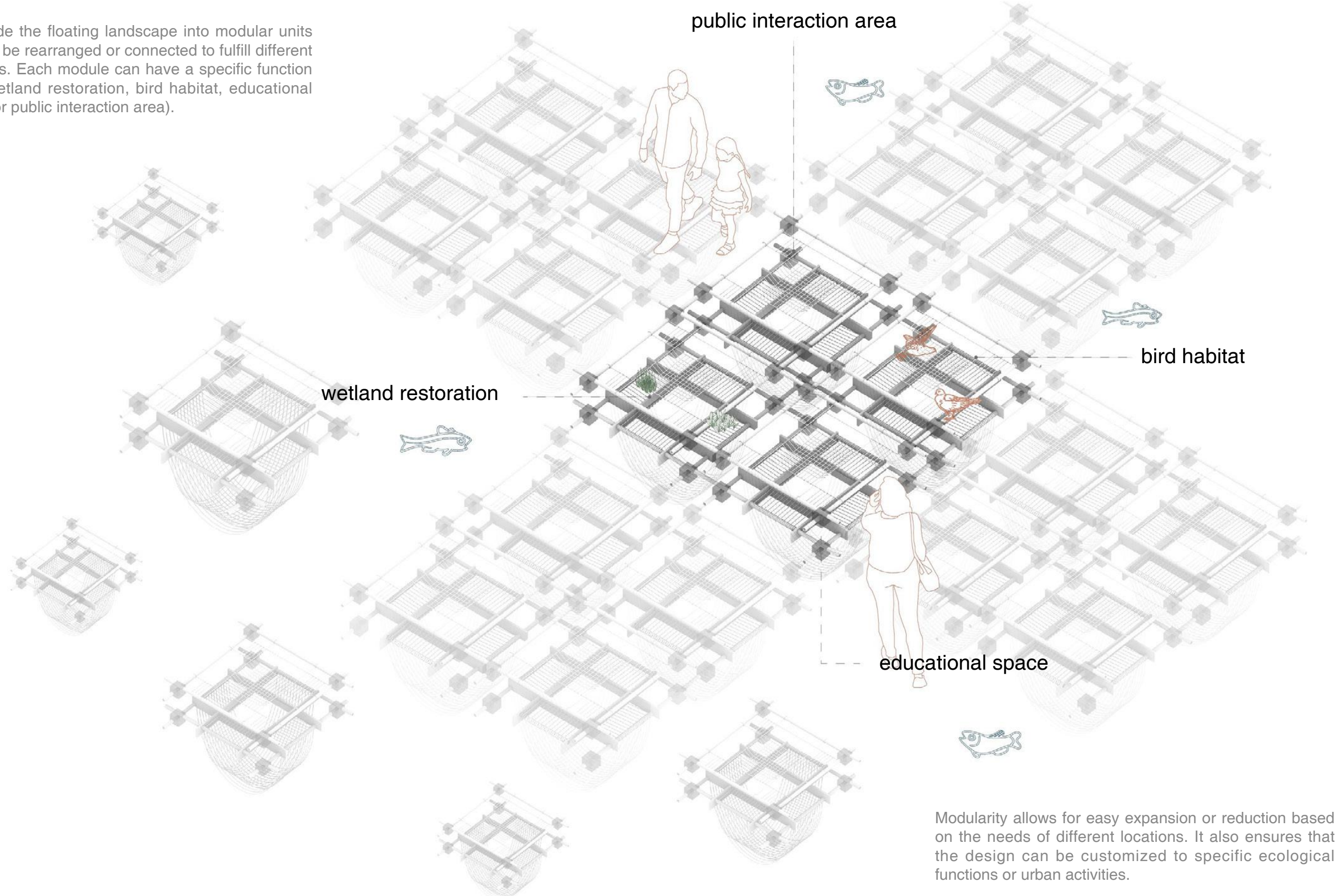


Joint Detail

ELEVATION PLAN

SCALABILITY_MODULARITY DIAGRAM

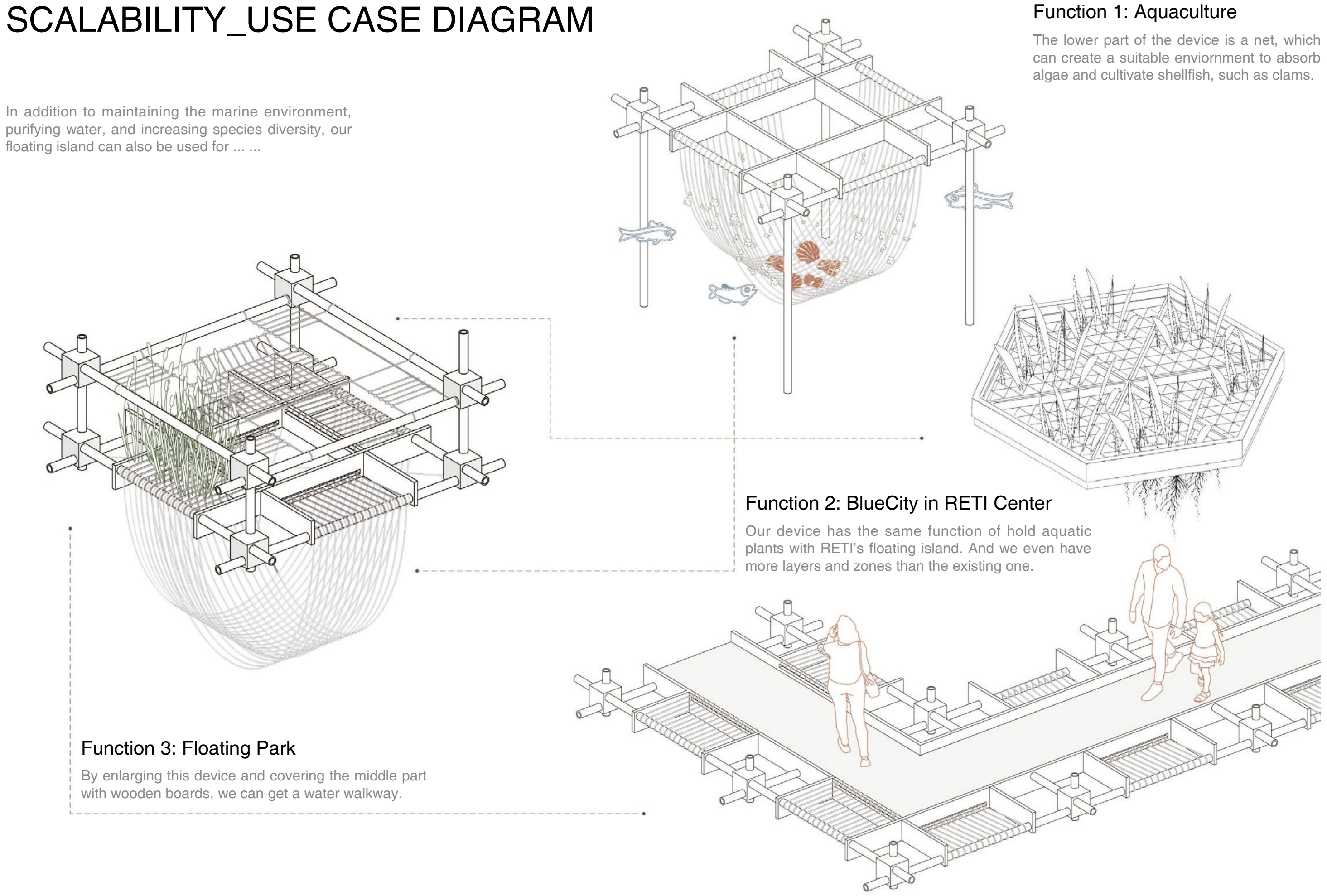
We divide the floating landscape into modular units that can be rearranged or connected to fulfill different purposes. Each module can have a specific function (e.g., wetland restoration, bird habitat, educational space, or public interaction area).



Modularity allows for easy expansion or reduction based on the needs of different locations. It also ensures that the design can be customized to specific ecological functions or urban activities.

SCALABILITY_USE CASE DIAGRAM

In addition to maintaining the marine environment, purifying water, and increasing species diversity, our floating island can also be used for ... ...



Function 1: Aquaculture

The lower part of the device is a net, which can create a suitable enviornment to absorb algae and cultivate shellfish, such as clams.

Function 2: BlueCity in RETI Center

Our device has the same function of hold aquatic plants with RETI's floating island. And we even have more layers and zones than the existing one.

Function 3: Floating Park

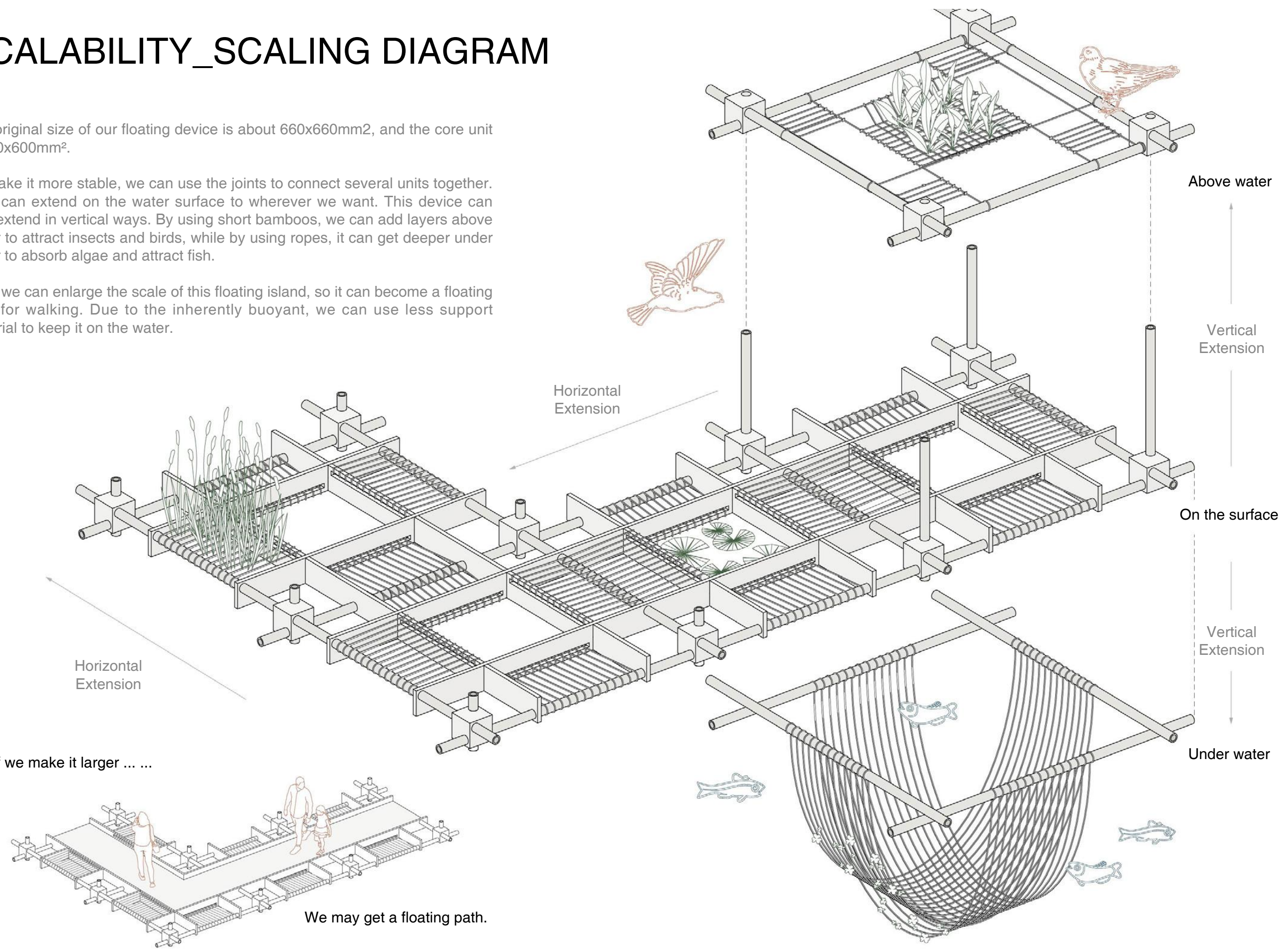
By enlarging this device and covering the middle part with wooden boards, we can get a water walkway.

SCALABILITY_SCALING DIAGRAM

The original size of our floating device is about 660x660mm2, and the core unit is 600x600mm².

To make it more stable, we can use the joints to connect several units together. So it can extend on the water surface to wherever we want. This device can also extend in vertical ways. By using short bamboos, we can add layers above water to attract insects and birds, while by using ropes, it can get deeper under water to absorb algae and attract fish.

Also, we can enlarge the scale of this floating island, so it can become a floating path for walking. Due to the inherently buoyant, we can use less support material to keep it on the water.



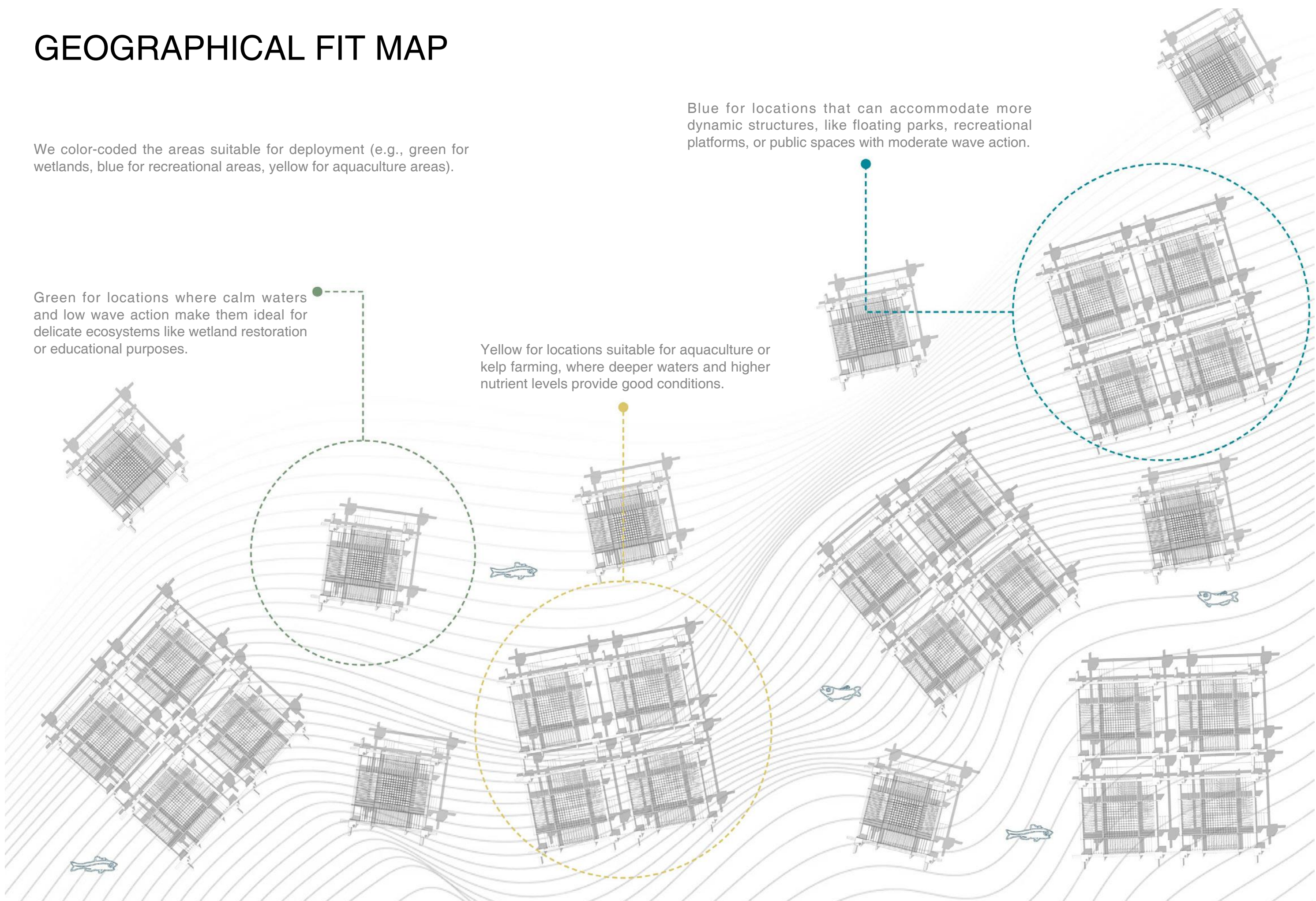
GEOGRAPHICAL FIT MAP

We color-coded the areas suitable for deployment (e.g., green for wetlands, blue for recreational areas, yellow for aquaculture areas).

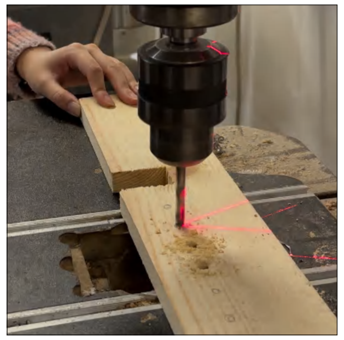
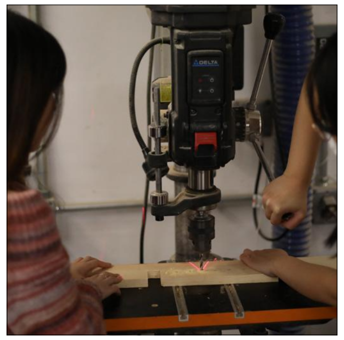
Blue for locations that can accommodate more dynamic structures, like floating parks, recreational platforms, or public spaces with moderate wave action.

Green for locations where calm waters and low wave action make them ideal for delicate ecosystems like wetland restoration or educational purposes.

Yellow for locations suitable for aquaculture or kelp farming, where deeper waters and higher nutrient levels provide good conditions.



COMPONENT MAKING

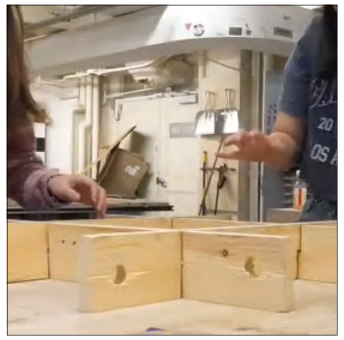





Cut four boards, sloute them so they can spell together. Then punch holes on each board.


Sawn out 8 long and 4 short bamboo sticks.


Make 8 joints, with 3 holes on each of them.

FRAME ASSEMBLING



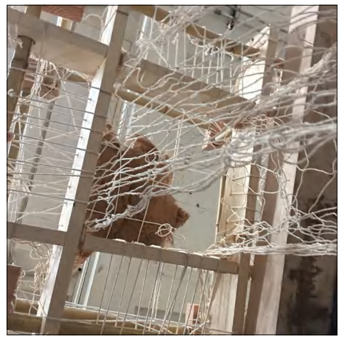
Put the boards together.


Put the sticks through the hole and connect it.

Strengthen with ropes.

The nodes we envisioned are ones that allow these components to fit together seamlessly. But due to the precision of the equipment and our lack of skills, the sizes of all the slots and holes became larger.
We reinforced the connections between the planks by adding wood chips, but the connections at the joints could only be reinforced with ropes, which made the joint design look a bit redundant.

ACCESSORIES ADDING

Connect bamboo to the planks with ropes.

Hang up fishing net.

We bought three different types of ropes for the device. The first two would dissolve in the seawater after a certain period of time (for example, after half a year), so we had to buy new ones. We actually considered whether we could design the device to absorb seaweed and then sink it to the sea floor. But in the end, we still wanted to emphasize its function as a habitat and aquaculture.

PLANTS PLACING


Place "soil" to hold plants' roots.




Plant saline-tolerant plants.

When placing the plants, we initially placed them on the upper layer. After being reminded by the RETI teachers, we realized the importance of stable water sources and nutrients, and quickly moved the plants to the surface layer.

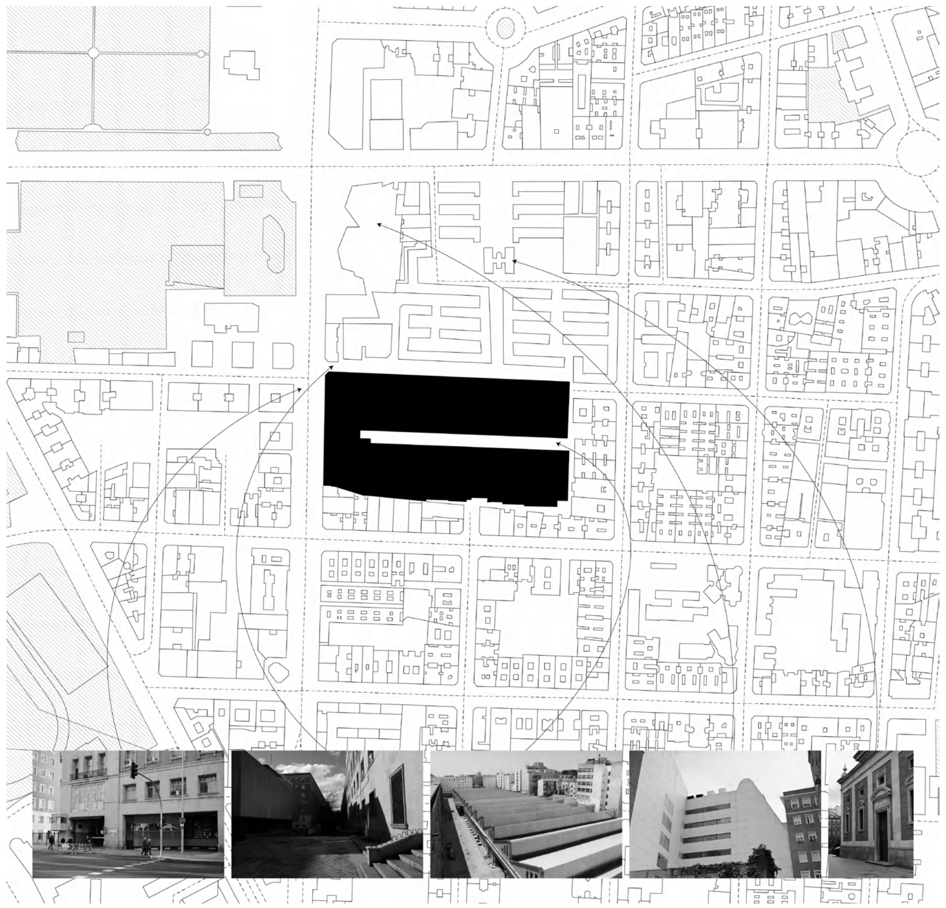
04
Symbiotic Grounds

ACADEMIC PROJECT
DURATION: From February, 2025 to May, 2025
GROUP WORK: with Luna Xu & Haoyu Wu
LOCATION: Parque Móvil del Estado, Madrid, Spain
INSTRUCTOR: Juan Herreros & Oscar M Caballero

In this project, our vision entails a future where artificial images contribute to social transformation and environmental stewardship. Advancements in media technologies, like augmented reality, virtual reality, and other cutting-edge technologies allow us to extend our spatial experiences. We explore how media ecologies can assist nature conservation by establishing novel boundaries between human activities and natural habitats. Rather than physically entering the landscapes, humans interact with and appreciate nature through digital recreations and simulations in virtual spaces.

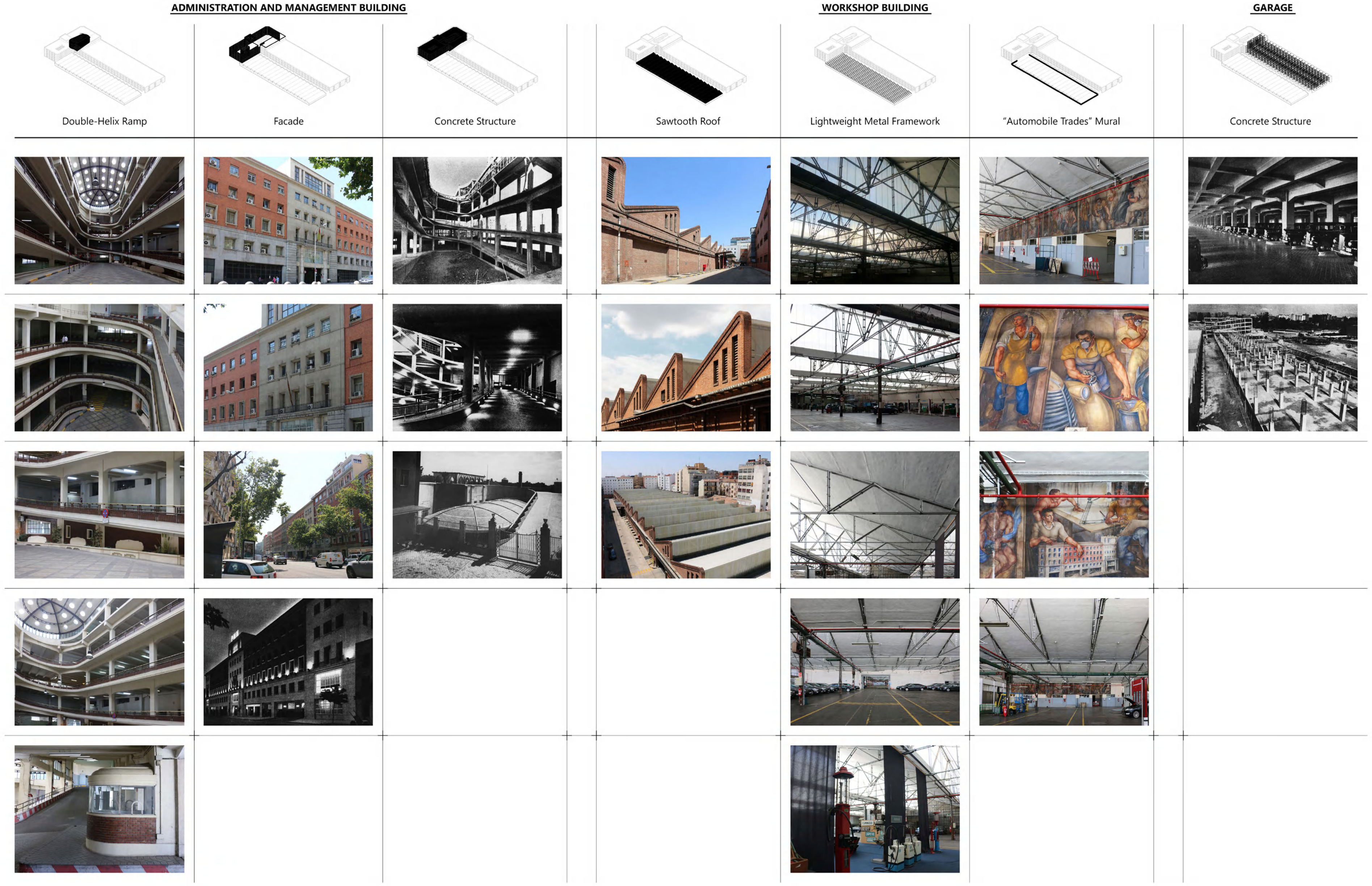
We collected resources through 3D scanning, scrapping Google Maps data, and creating data clouds from video footage, from games, drones, 360 cameras, etc. The found data were then used to reconstruct new landscapes to envision the proposed virtual experiences. The carefully selected sources and locations of these landscapes illustrate contemporary human- influenced environments. These advanced interpretations of "Imagined Landscapes" not only question traditional representations but also expand the idea through the immersive, interactive, and customizable capabilities of modern digital media. The resulting “Imagined Landscapes” are technical images that can be immersively experienced as a response to the need to explore and discover landscapes.

The current ecological crises urge us to rethink the foundational dichotomy between natural and artificial, the grown and the made, and the wild and the controlled. This blurring of seemingly opposite notions is further strengthened through the developments of digital technologies, which work across scales, questioning the difference between local and global, interior and exterior… Going beyond dichotomies opens up the in-between, as a messy fertile ground for novel hybrids. We looked at landscapes in the continuum between artificial and natural and how they are imagined physically and digitally in several media, such as modeling and rendering software, image editing, game engines, generative AI, and virtual and augmented reality. In this project, our vision entails a future where artificial images contribute to social transformation and environmental stewardship.

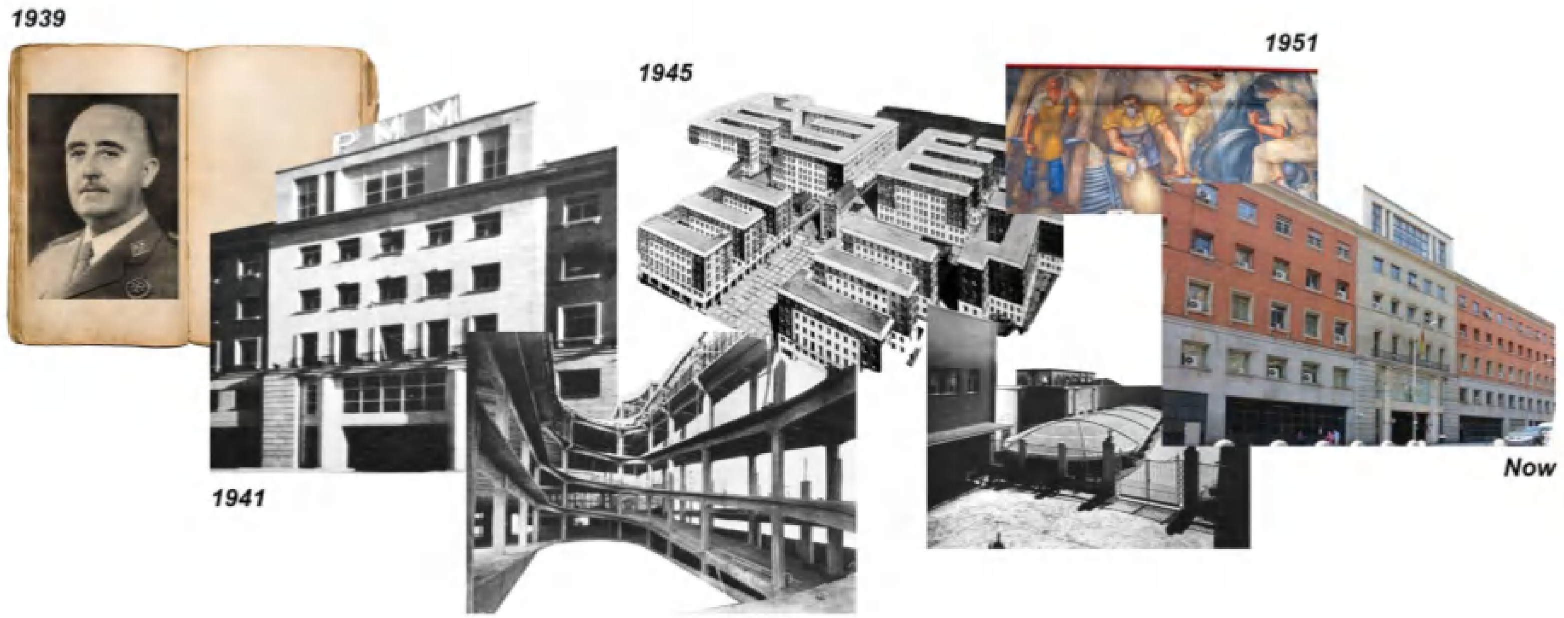


Parque Móvil is located in a dense urban environment, surrounded by residential buildings. Each part serves a different function. The northernmost building houses administration and management offices and also serves as the access point for cars entering the garage via the double-helix ramp. Then is the workshop, characterized by its steel frame structure, features metal elements and 19 sawtooth roofs, which create a visually striking rooftop. The garage consists of three floors, providing parking space for over 3,000 cars.

BUILDING CONDITION



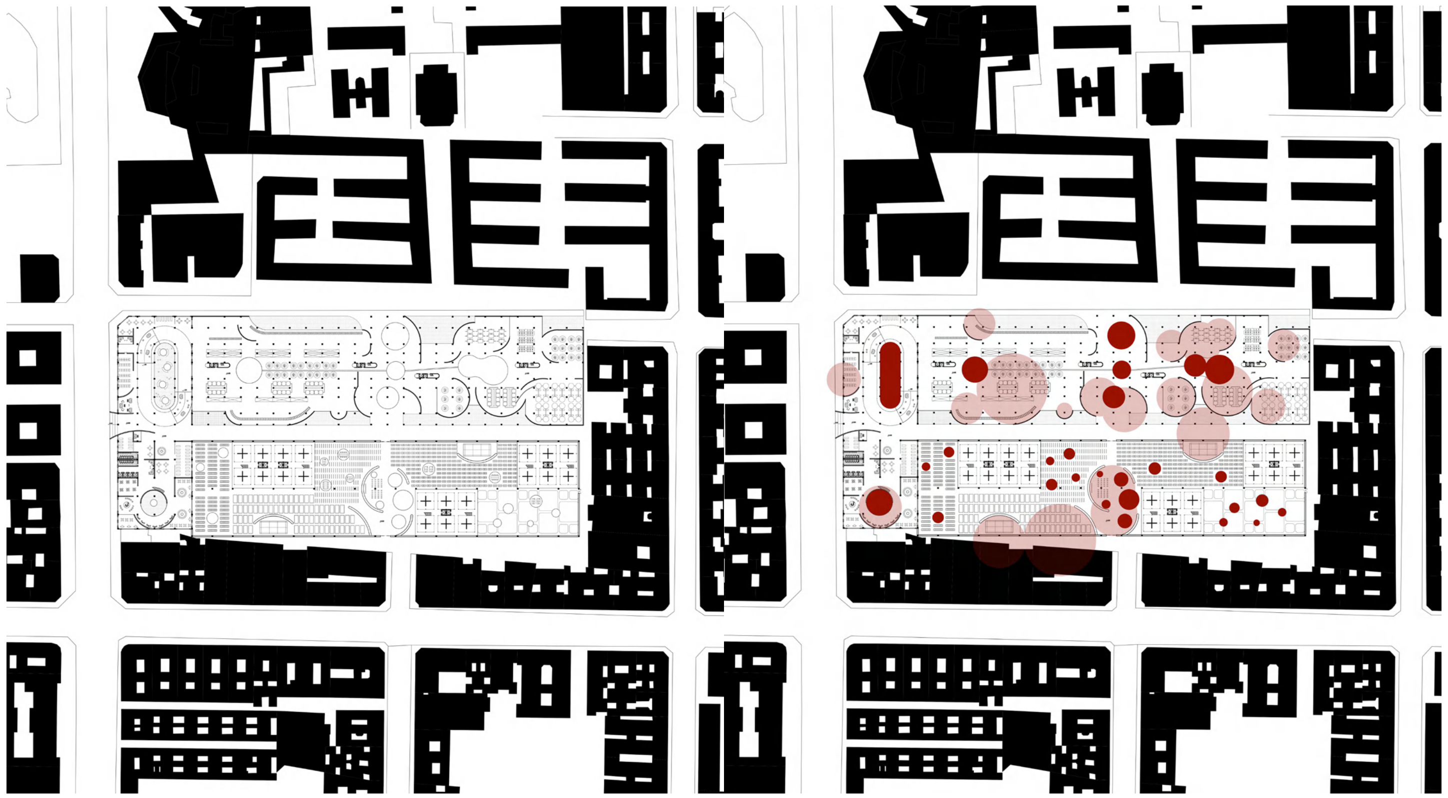
HISTORY



Parque Móvil was designed to host 3,000 cars. Its original project existed before the Spanish Civil War.That was taken by Franco as a symbol of the Fascism.

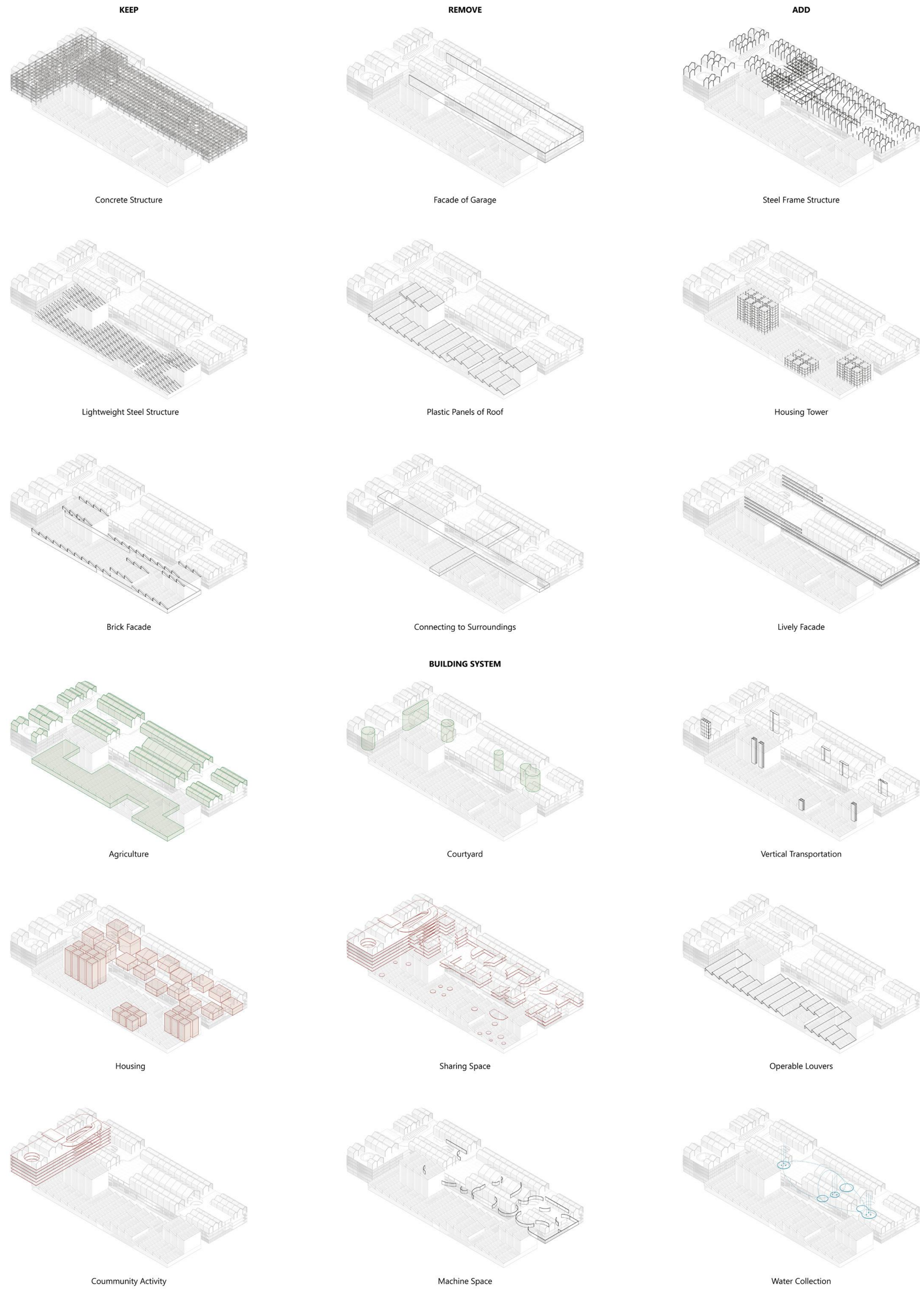
One of the most significant changes was its facade. The original design was modified to visually express the fascist government's ideology.

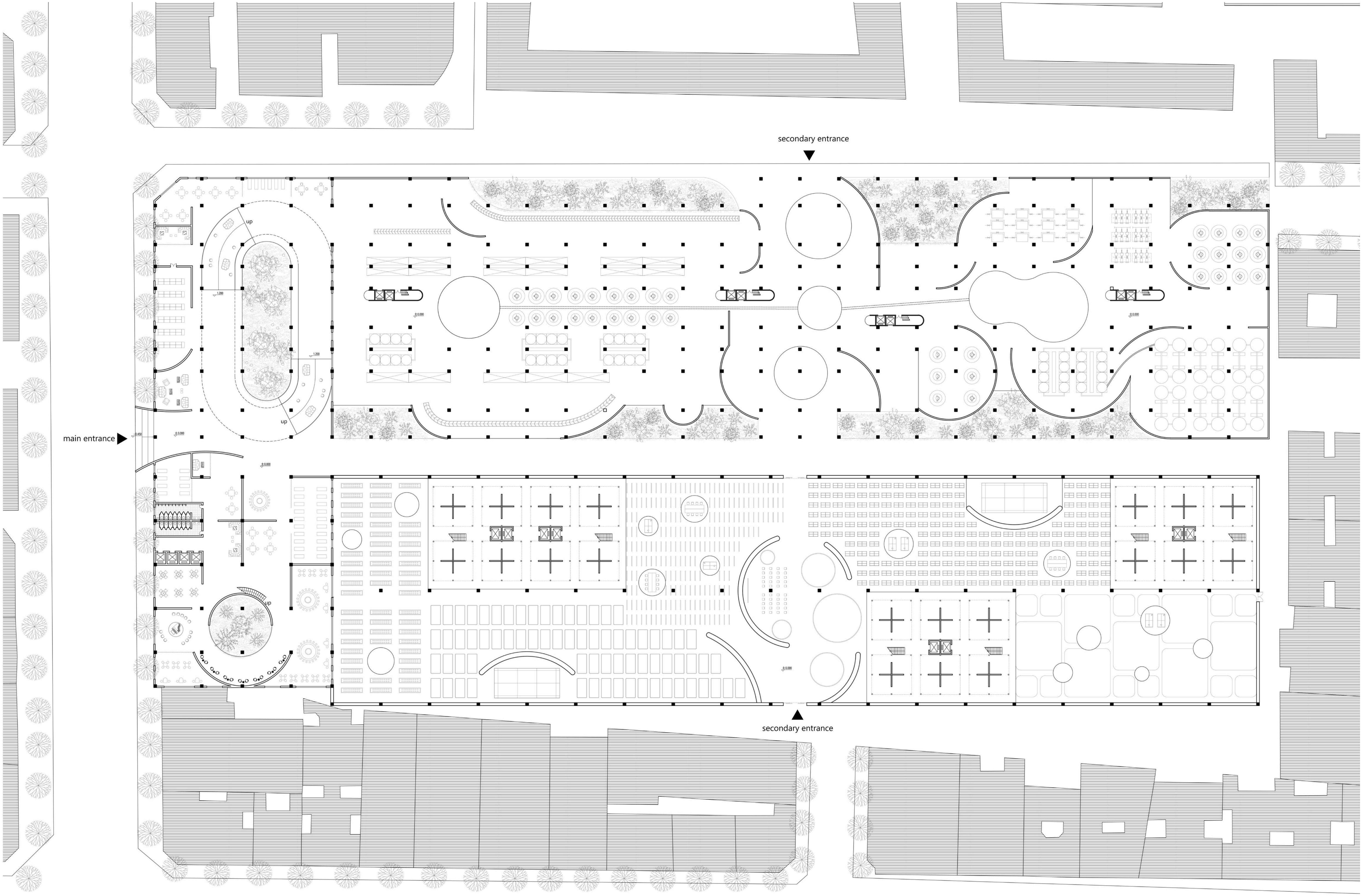
STRATEGY



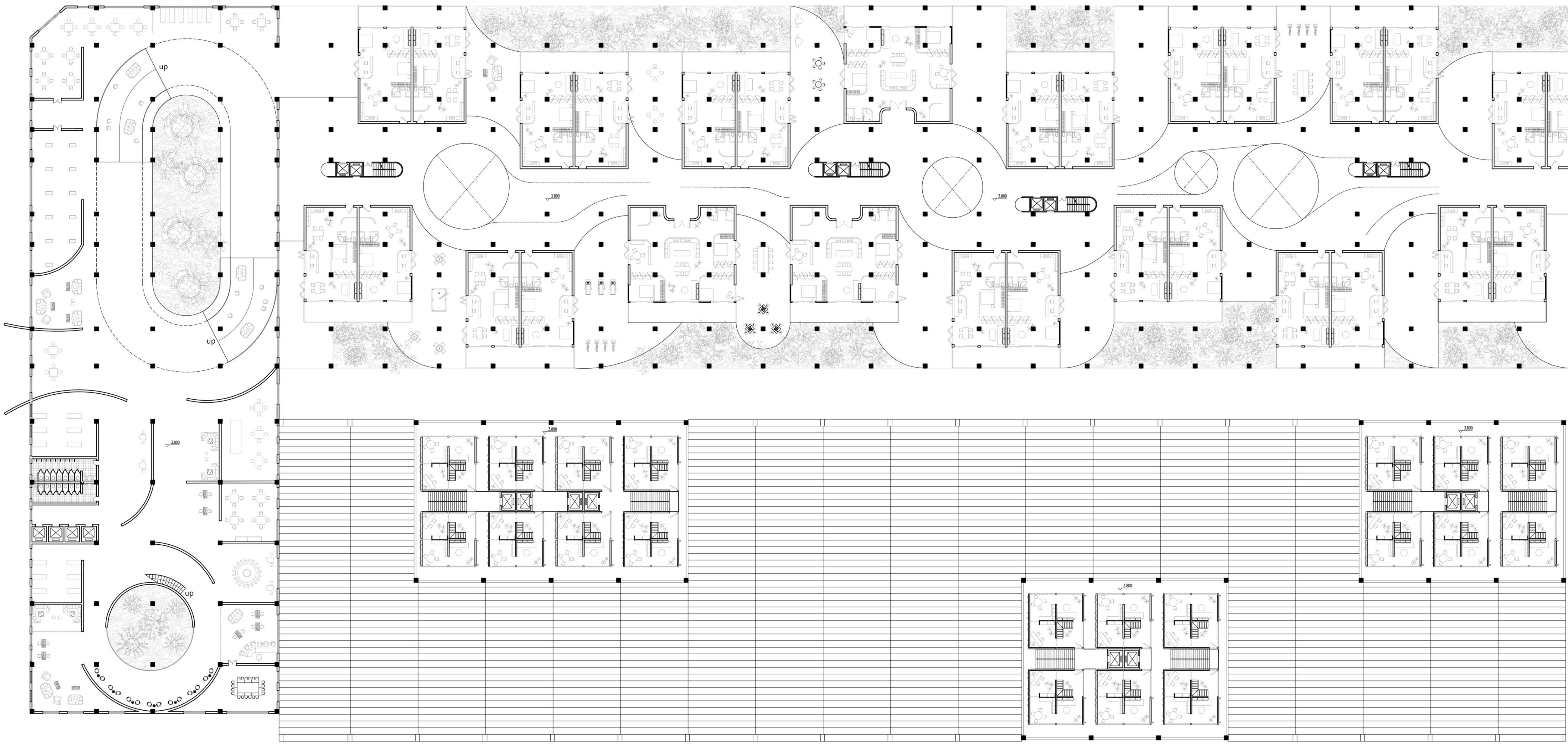
Unlike the rigid grid of the neighborhood, our intervention introduces a softer and more organic geometry. On the right, we mapped a series of “bubbles”—different in scale and activity intensity.These bubbles become the origin of our curves, defining new courtyards and gently shaping the walls.We allow programs and circulation to inform the form, resulting in a more adaptive interior landscape.

OVERALL ANALYSIS

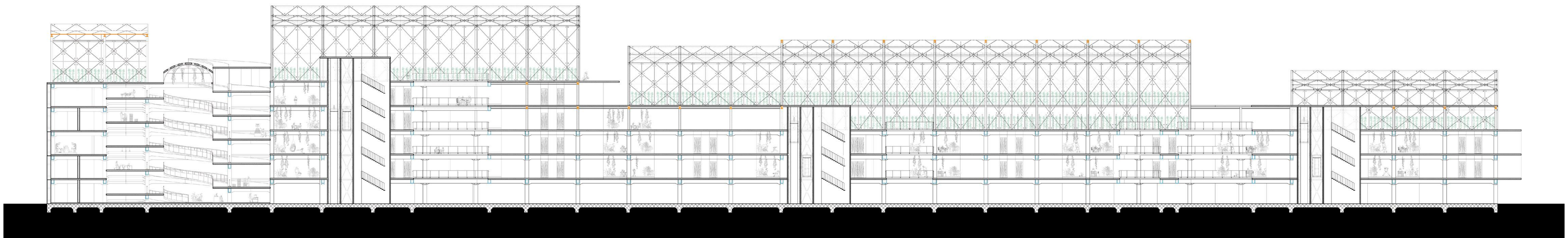




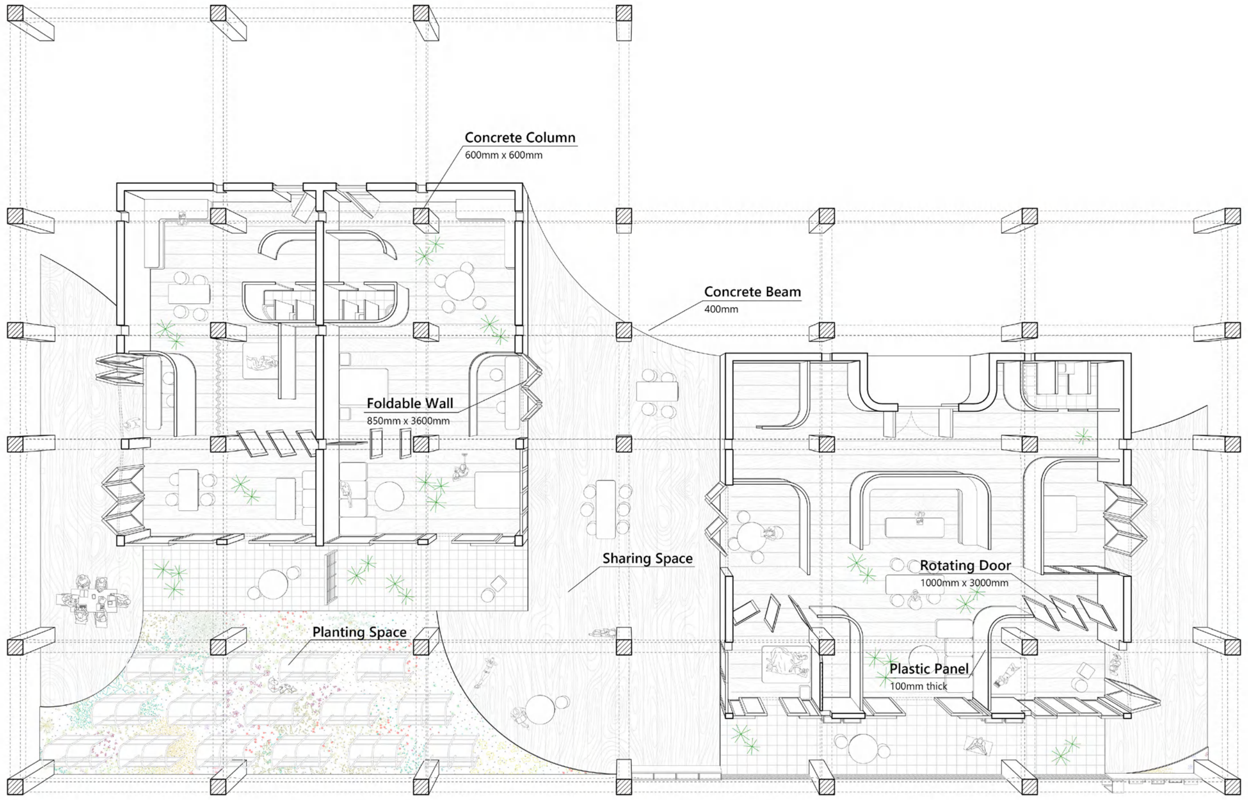
GROUND FLOOR PLAN



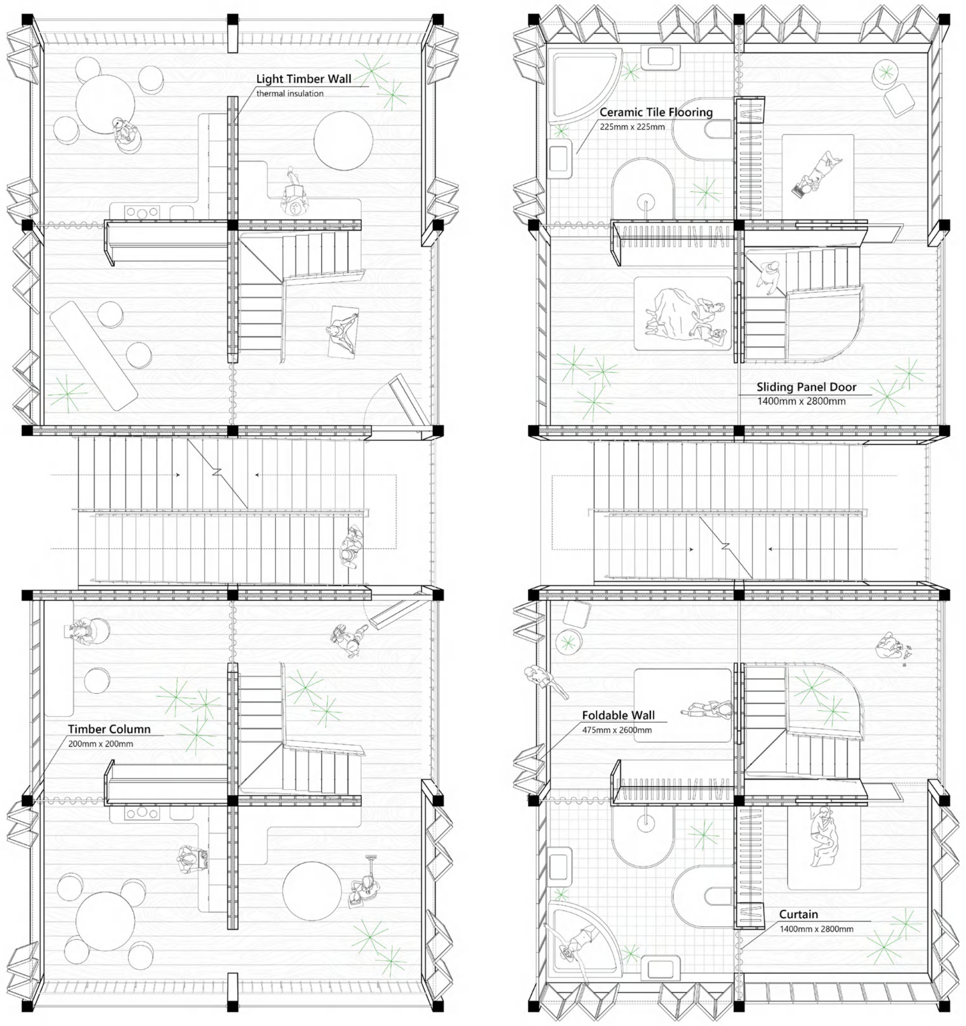
SECOND FLOOR PLAN



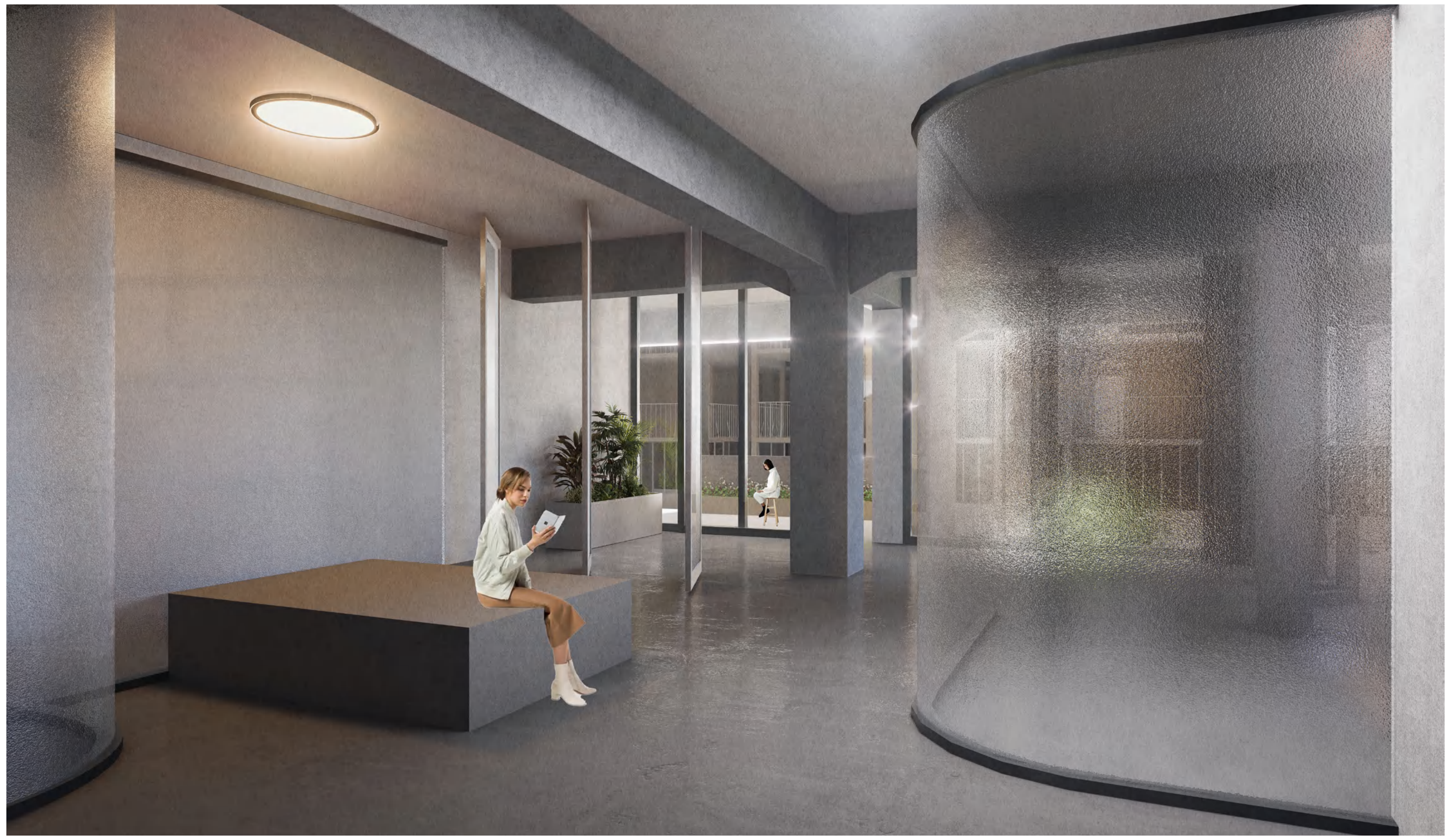
SECTION A-A



GARAGE UNIT



WORKSHOP UNIT

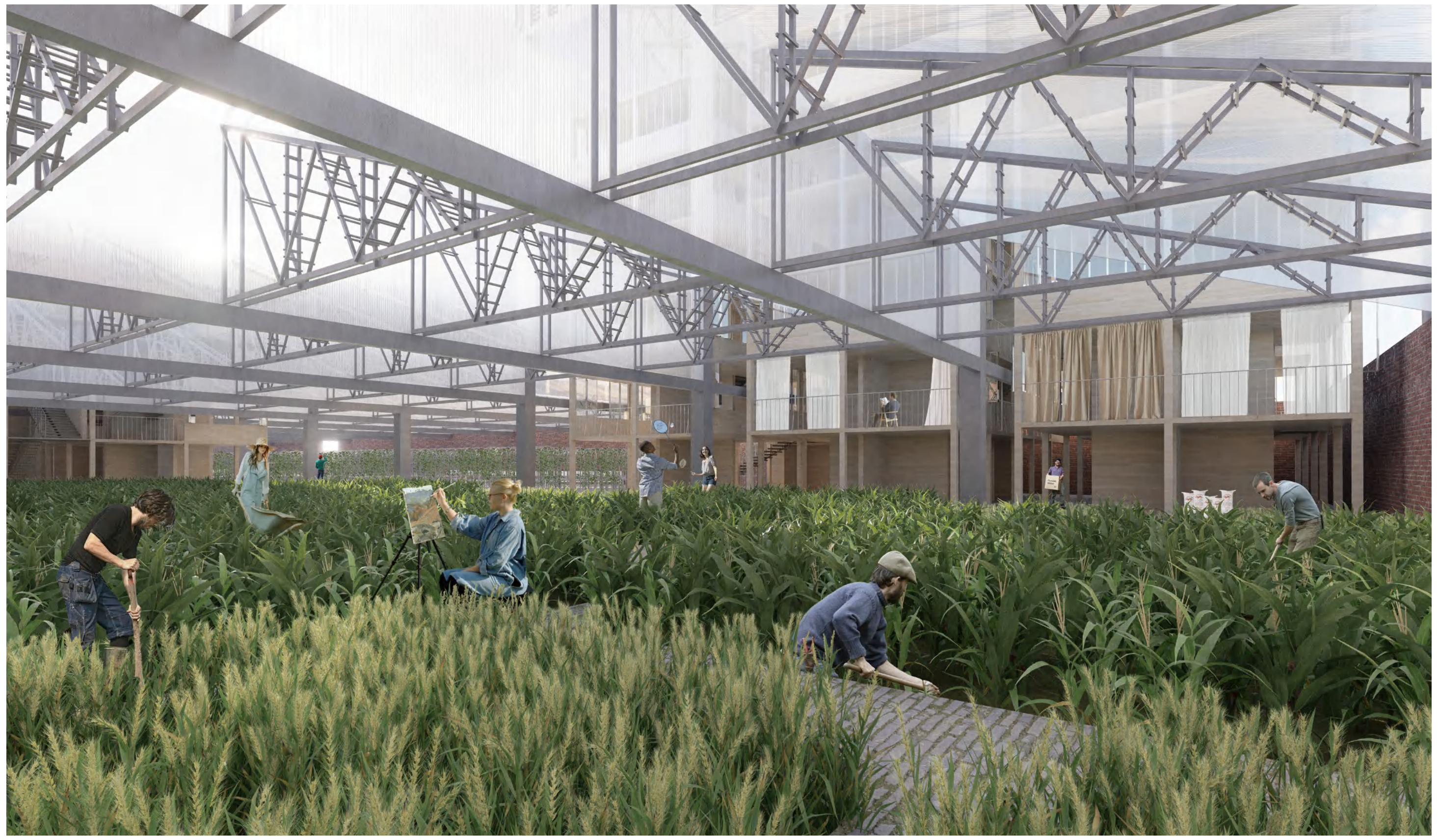


VIEW OF GARAGE UNIT

The original concrete beams and columns are intentionally exposed within each unit, framing unique interior landscapes where the industrial structure becomes part of the living experience. Instead of solid walls, curved partitions divide the living areas.

VIEW OF WORKSHOP UNIT

The living units are added inside the original structure like a “building in building.” Inside, the space is divided by curtains and many foldable windows to create a flexible and open living area.



VIEW OF WORKSHOP AGRICULTURE

The plants are organized from south to north — with those needing the most sunlight in the south, and shade-tolerant ones in the north — to give each plant the best conditions to grow.

VIEW OF LIVING

Rotating doors bring in daylight when open, then close for privacy at night. Foldable walls on both sides can open to connect living spaces with surrounding planting areas.

PLANT TYPE	FACILITY	TYPICAL SPECIES	LIGHT REQUIREMENT
Field Crops		Wheat, Sunflower, Corn	Full Sun
Fruit Trees		Fig, Olive, Lemon	
Climbing Plants		Bean, Grape, Cucumber	
Trellis Plants		Tomato, Eggplant, Pepper	Half Sun
Root Plants		Onion, Garlic, Carrot	
Bed / Containers		Strawberry, Lettuce, Mint	
Hydroponics		Iceberg, Butter Lettuce, Lollo Rosso	Diffuse Light

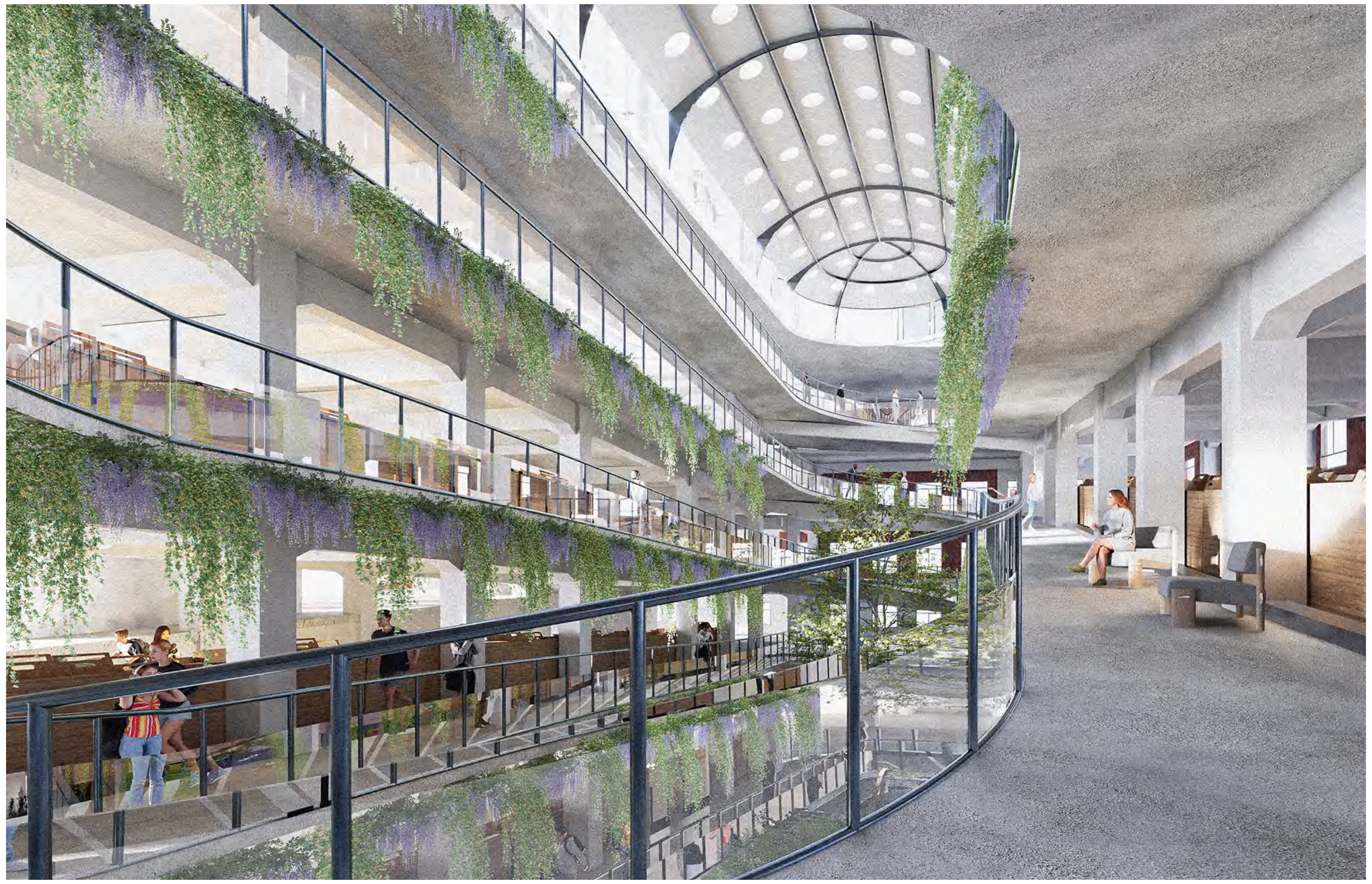
SECTION B-B

VIEW OF MULTI-ECOLOGICAL COURTYARD

Our project reimagines the existing parking structure as a living, breathing community hub.

VIEW OF TEMPORARY MARKET

The right ramp also functions as a temporary marketplace: crops grown on the rooftop gardens can be transported directly down the ramp and sold in pop-up stands along its gentle slope.



VIEW OF REST AND COMMUNICATION AREA

The left side has been liberated into a flexible, inhabitable surface: a place where people can sit, rest, interact, and gather with informal seating areas.

VIEW OF RENOVATED FACADE

Instead of erasing the original red-brick character, we respectfully preserved it and carved circular openings into the wall. These circular voids reveal glimpses of the newly activated interior life — a subtle dialogue between history and new vitality.

05
Olympians Reclaimed

ACADEMIC PROJECT
DURATION: From February, 2025 to May, 2025
GROUP WORK: with Weiye Zhang & Cathy Dong
INSTRUCTOR: Nitzan Bartov

This is Olympians Reclamation, an interactive mythology game that invites players to explore Greek legends through movement, play, and discovery… and accidentally summon Greek gods. It's part myth, part chaos, part scavenger hunt, and a whole lot more exciting than flipping through a textbook.

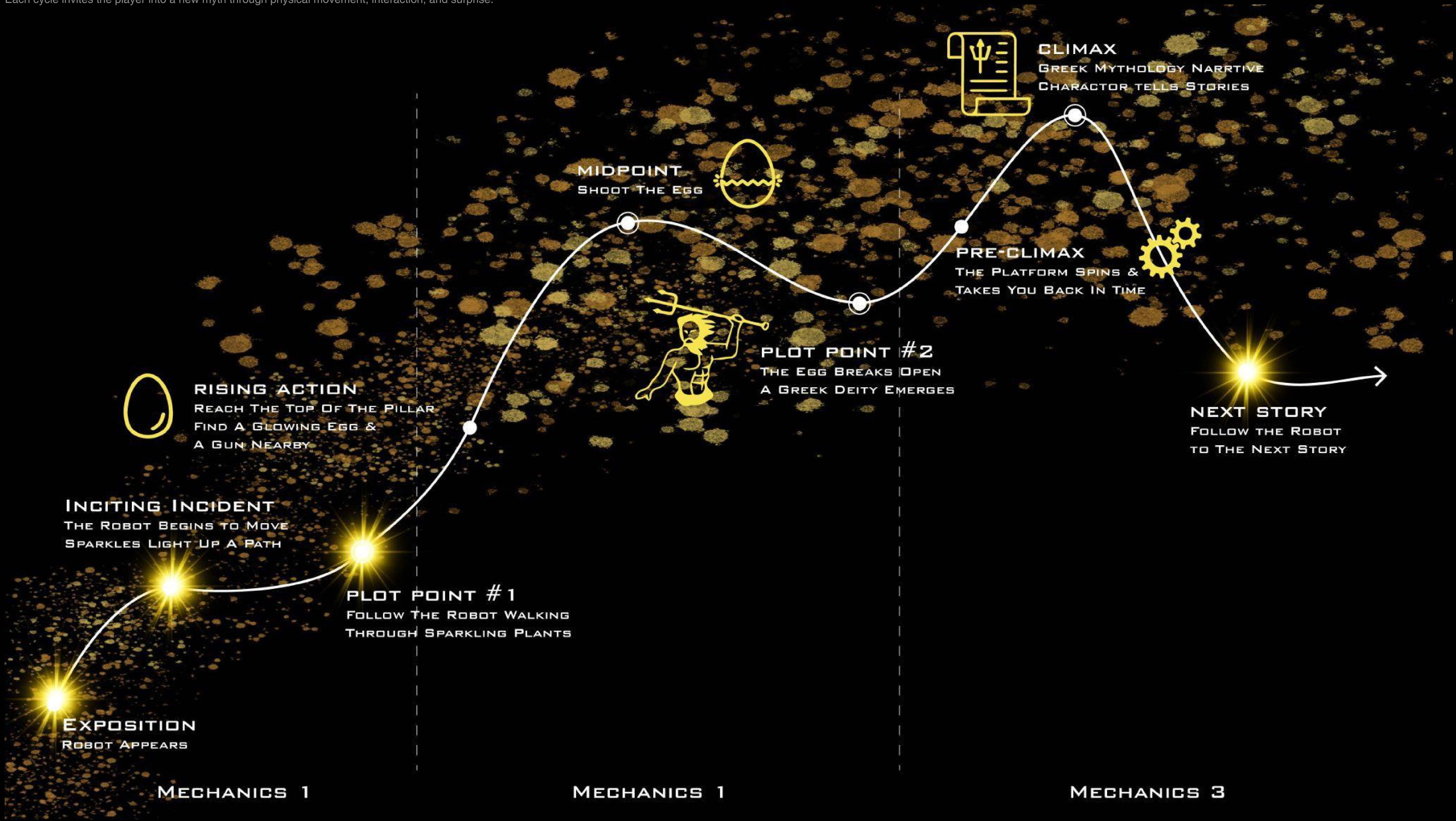
This project started as a pretty simple idea: What if learning about the twelve Olympians was actually fun?We transformed Greek mythology into an interactive environment, a kind of mythological playground. Instead of passively reading about gods and monsters, players are invited to explore, trigger events, and uncover stories through curiosity, movement, and sensory engagement.

Unexpected inspiration came from smash rooms, like those where people go to break objects for stress relief, and also from cinematic wand moments, where a gesture unlocks magic. We were drawn to the emotional satisfaction of breaking something open. So, in our game, smashing an egg becomes a symbolic gesture, not of destruction, but of discovery.

Here's how the experience plays out:
The actor enters the scene and sees a small robot waiting ahead. The robot begins to move, leading the way through a path of dancing sparkles scattered across the landscape. As the actor gets close, the sparkles change color, reacting to their presence. The robot guides them up a spiraling ramp built around a massive column. The ramp is lined with sparkling plants, making the journey immersive and enchanted. At the top, the actor discovers a large glowing egg resting at the center of a platform. Nearby, they find a gun, a tool meant to provoke action. As the actor shoots at the egg, cracks begin to appear. Once it's fully broken open, a Greek Olympian emerges, and the world responds with light, motion, and narrative.

KEY GAME PLOT

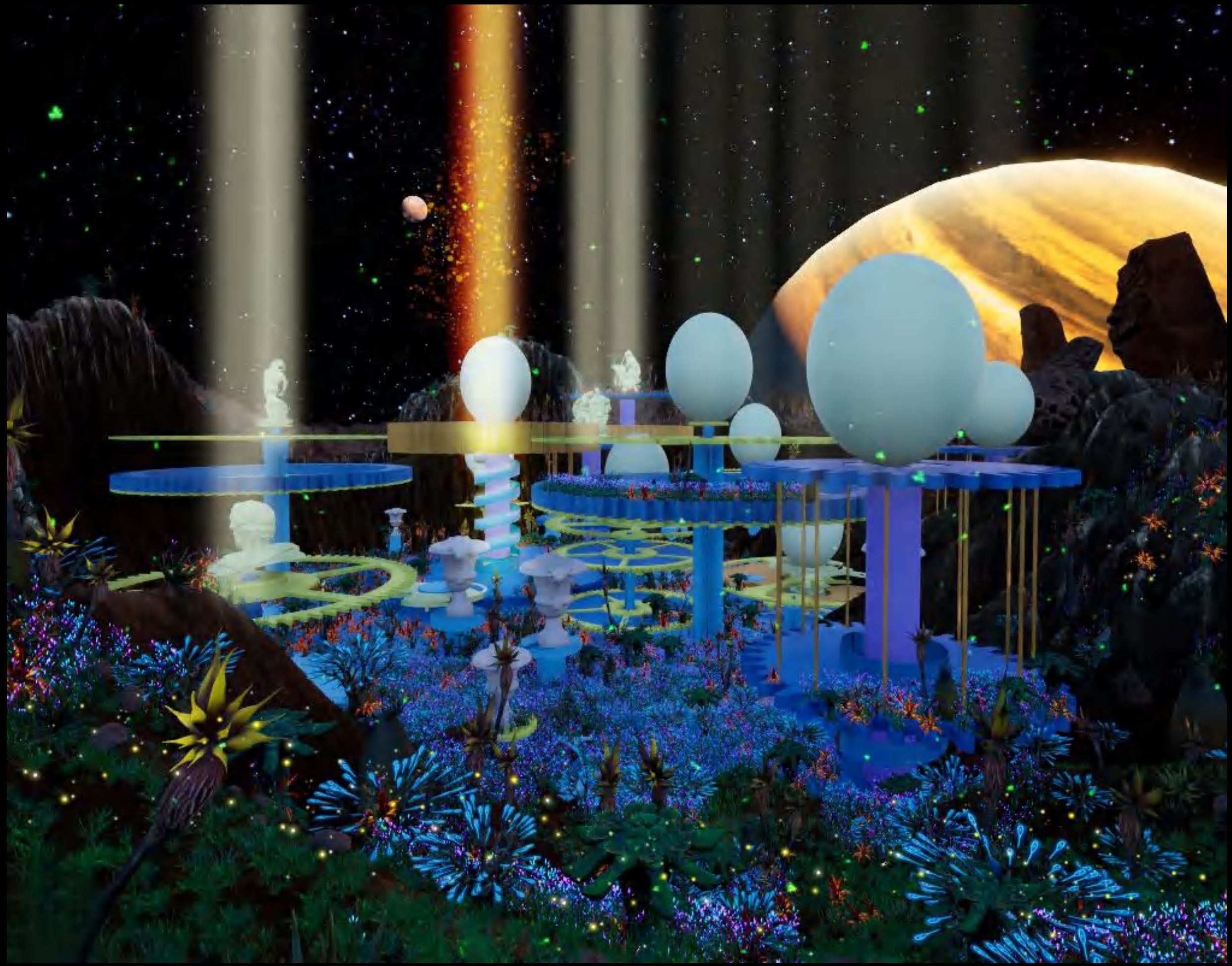
The game follows a narrative arc:
Exposition: The robot appears as the actor enters the world.
Inciting incident: The robot begins to move, and sparks light up a path.
Plot point one: The actor follows the robot, walking through sparkling plants.
Rising action: They reach the top of the pillar and find a glowing egg and a gun nearby.
Midpoint: The actor shoots the egg; it begins to crack.
Plot point two: The egg breaks open. A Greek deity emerges.
Pre-climax: The platform spins and the world shifts.
Climax: A mythological narrative begins, the story told through lights, sound, and animation.
Reset: The deity's symbol lights up. The robot appears again, ready to lead the actor to the next column.
Each cycle invites the player into a new myth through physical movement, interaction, and surprise.



WORLD MAP

PROJECT DESCRIPTION

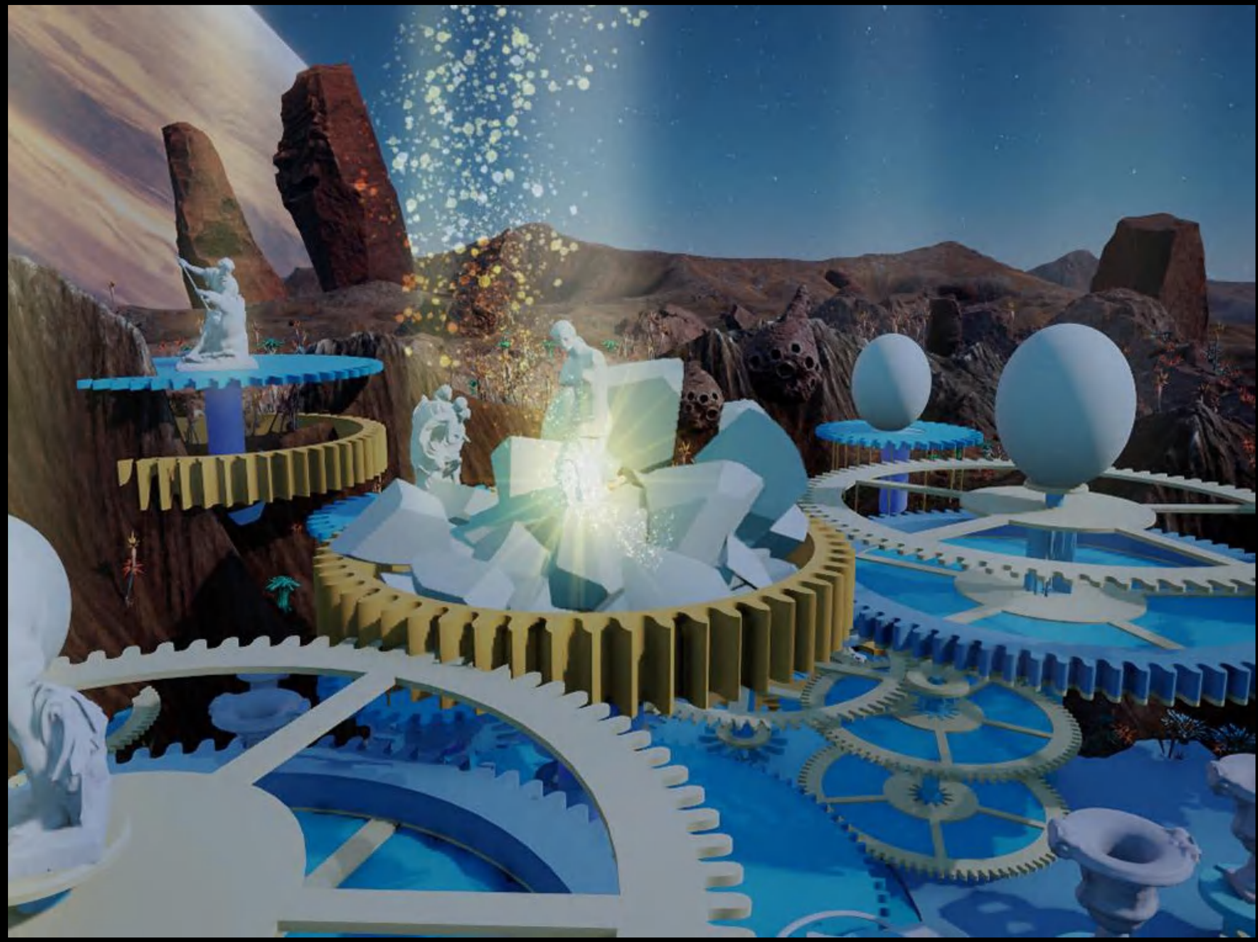
INSPIRATION | MECHANISM



WORLD BUILDING - NIGHT SCENE

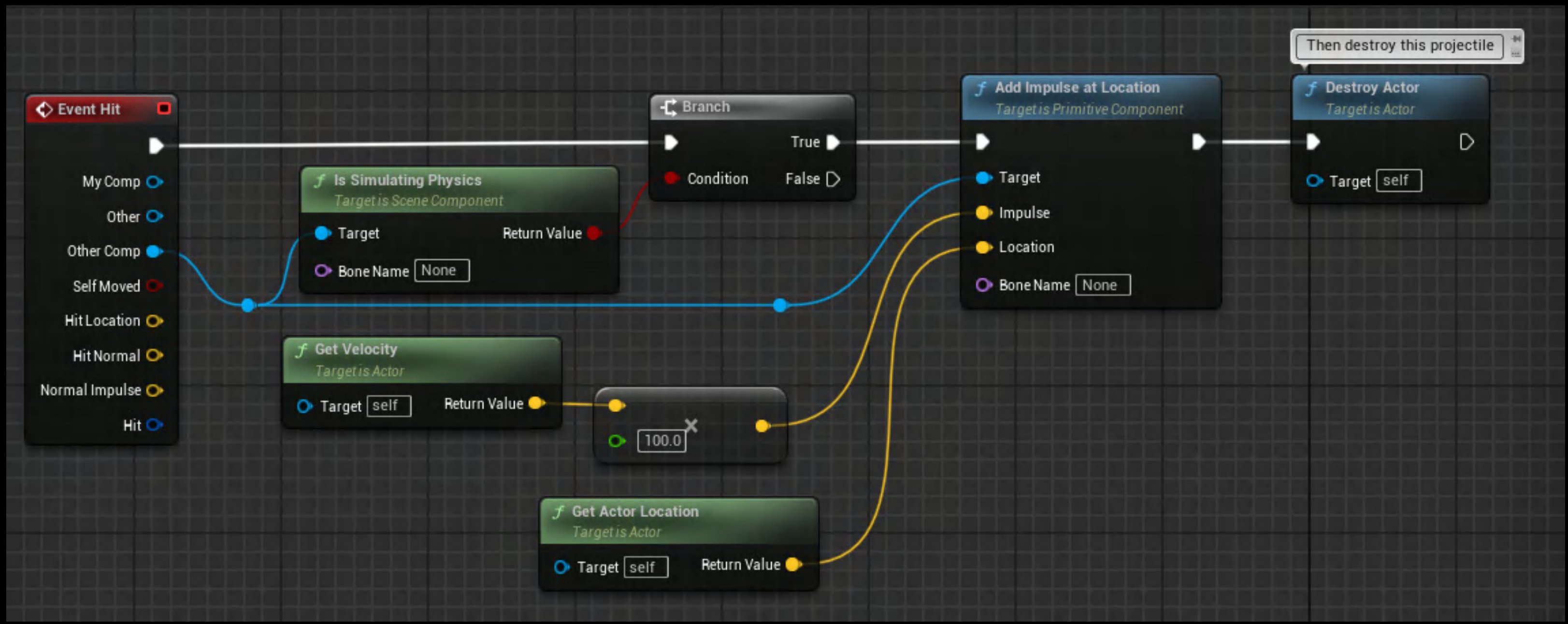
WORLD BUILDING - EGG CRACKING SCENE

WORLD BUILDING - PILLAR RAMP SCENE

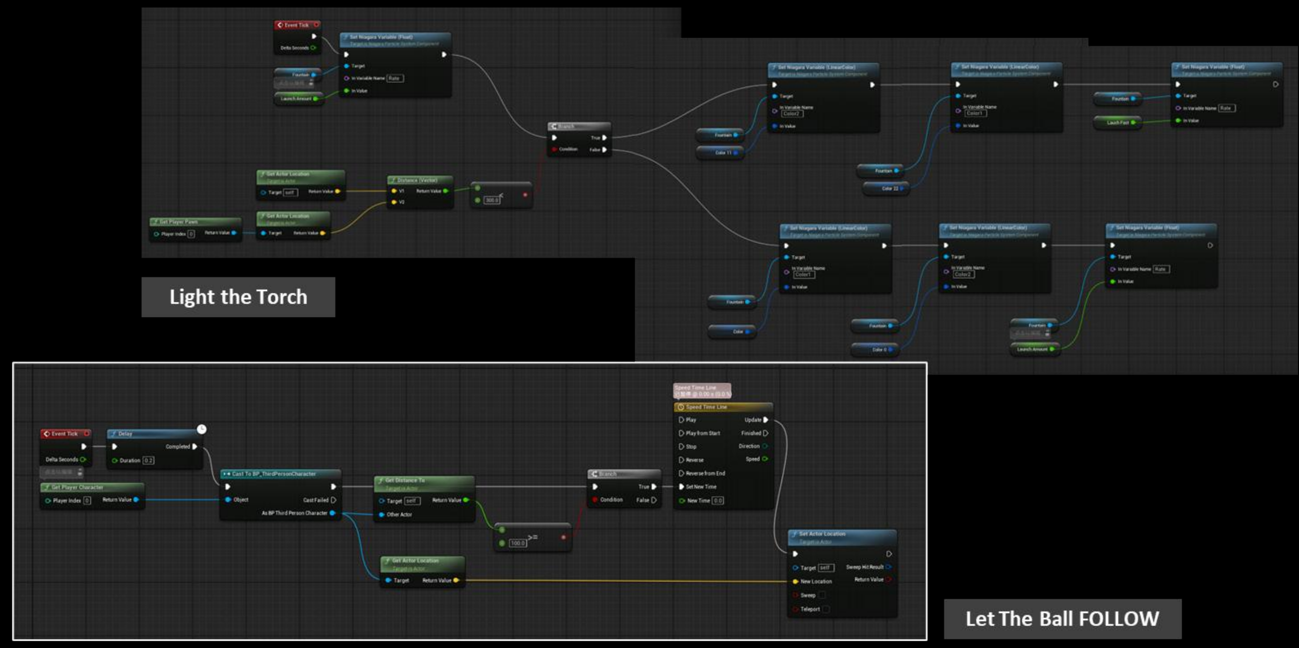


WORLD BUILDING - OLYMPIAN EMERGES SCENE

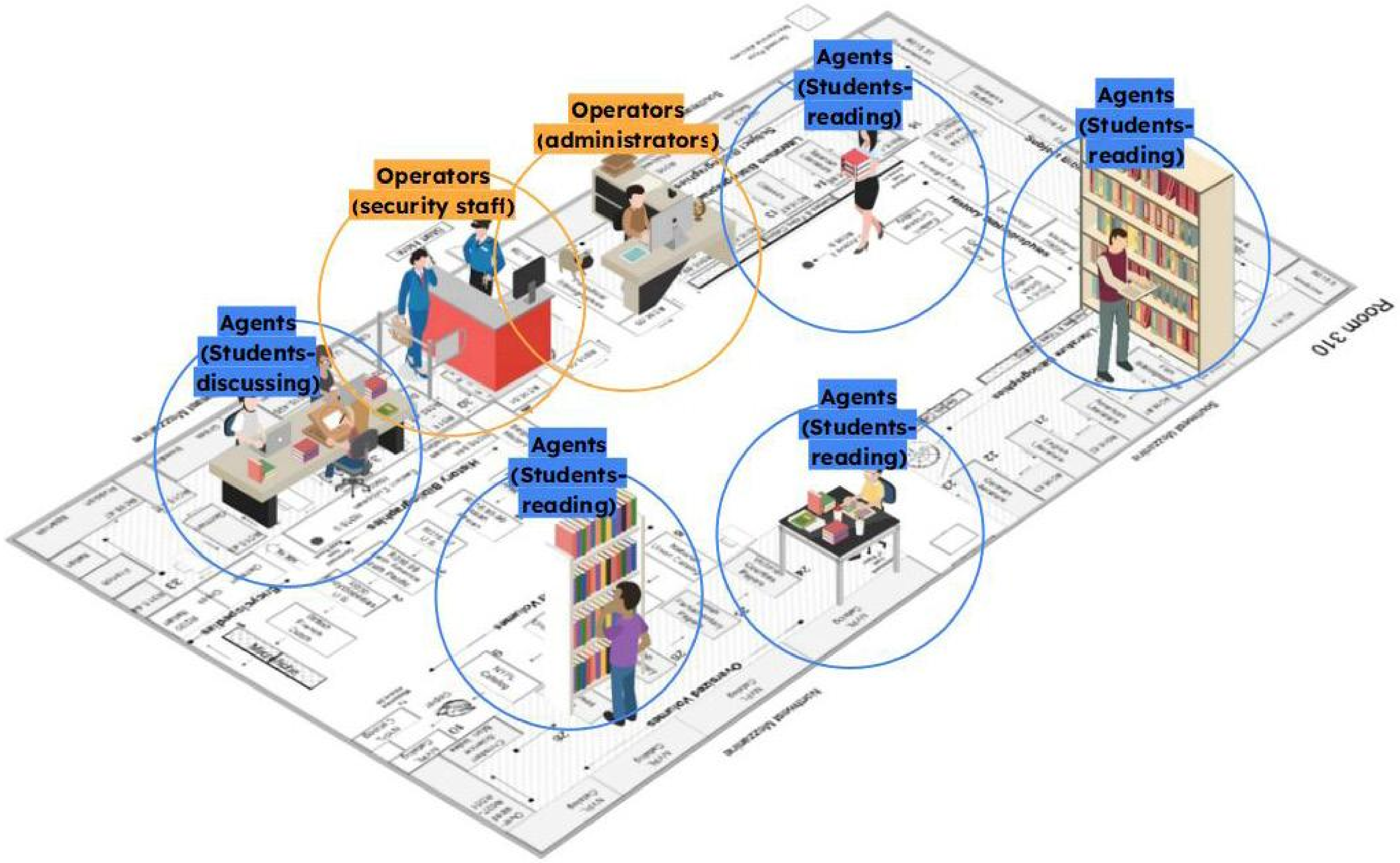
BLUEPRINT - SMASH



BLUEPRINT - TORCH



INTERACTION - SHOOTING & EXPLOSION



06
Spatial AI

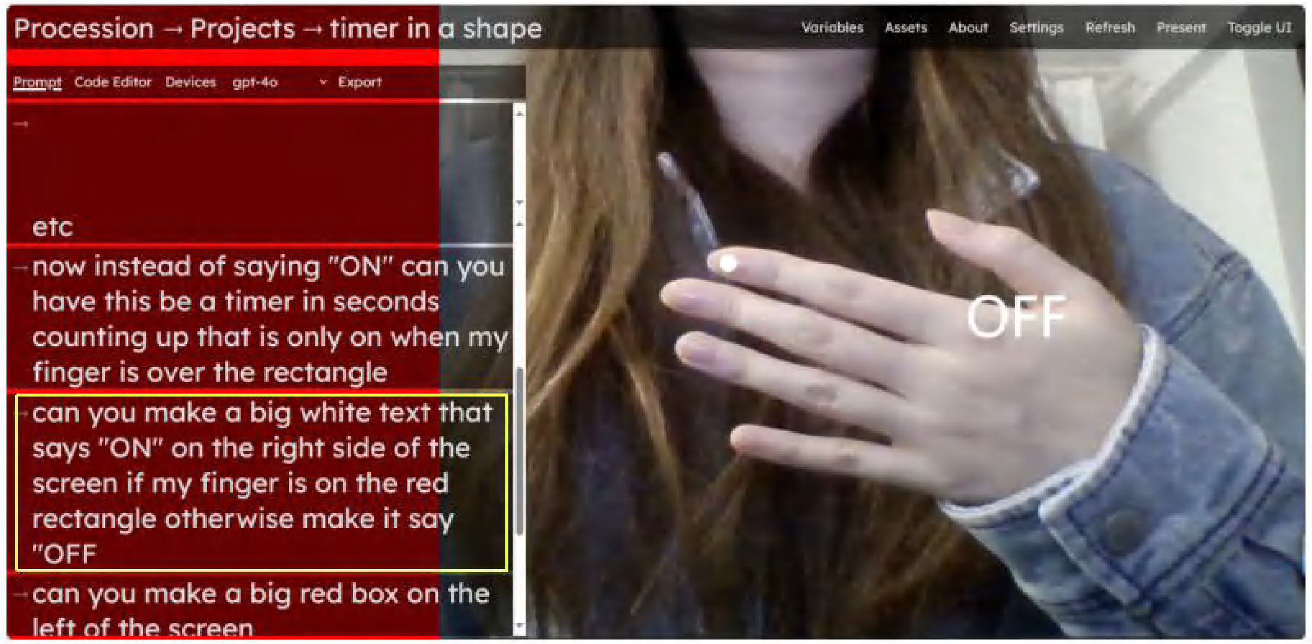
ACADEMIC PROJECT
DURATION: From February, 2025 to May, 2025
INSTRUCTOR: William Martin

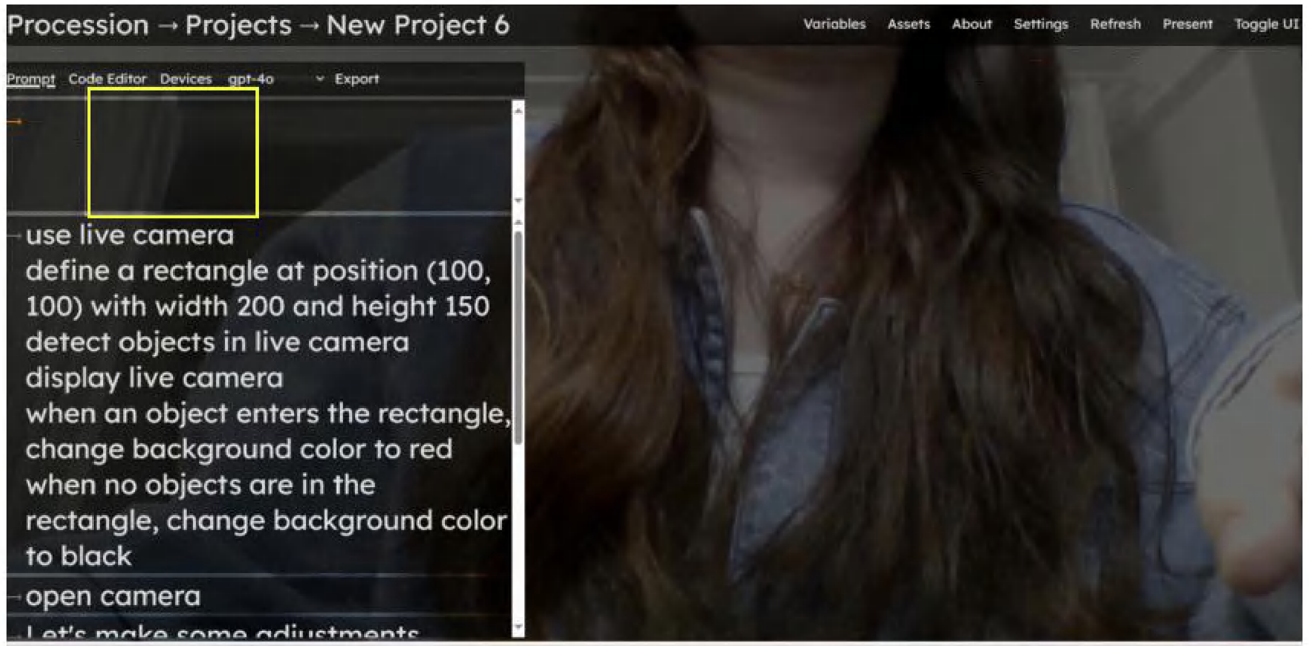
Our selected real-world setting is classroom, focusing on improving class efficiency through both teacher and student's perspectives, addressing issues such as teachers' uneven management of classroom resources and students' easy distraction and low efficiency in class. We define this space as a highly efficient (better layout and operation) learning space with the following properties:
1. Adapts to different teaching styles (lecture, discussion, group work, hybrid modes).
2. Promote equitable participation where every student can see and hear and interact.
3. Increased flexibility to move tables, chairs, etc. as needed.

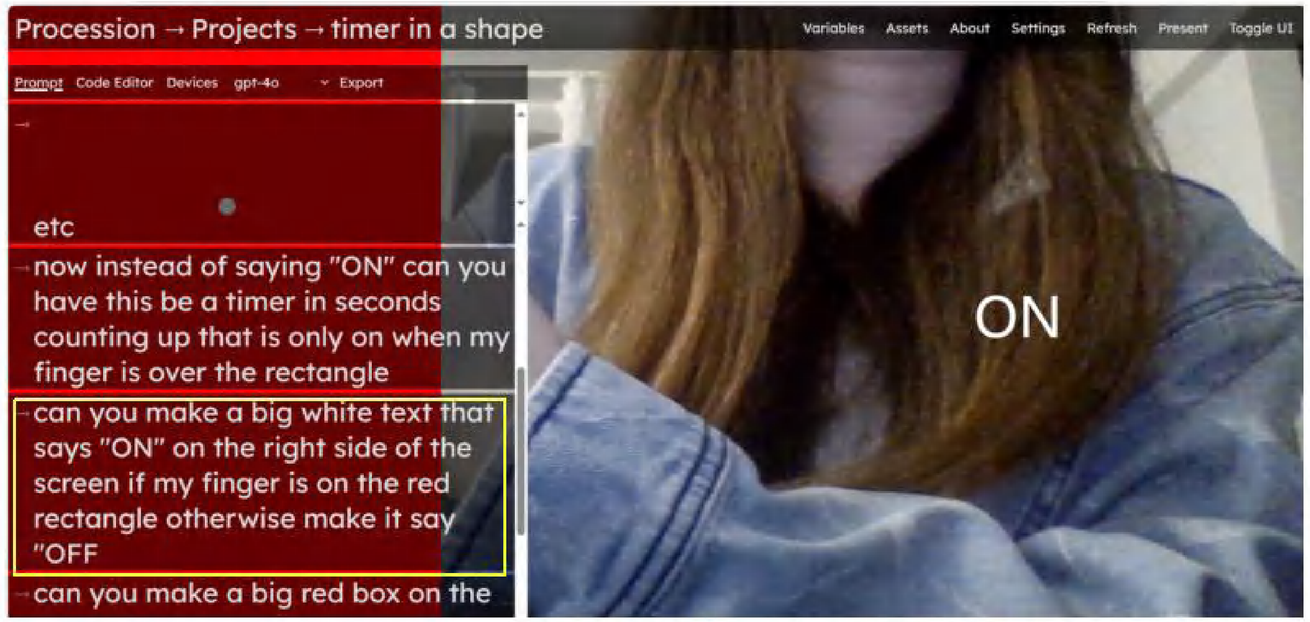
We define the classroom not only as a physical space of desks and people, but also as a responsive cognitive field where attention flows, interactions cluster, and engagement fluctuates across time and space. We are building a pipeline that processes a video feed of the classroom, computes engagement scores, and provides layout/design suggestions in real time or retrospectively.

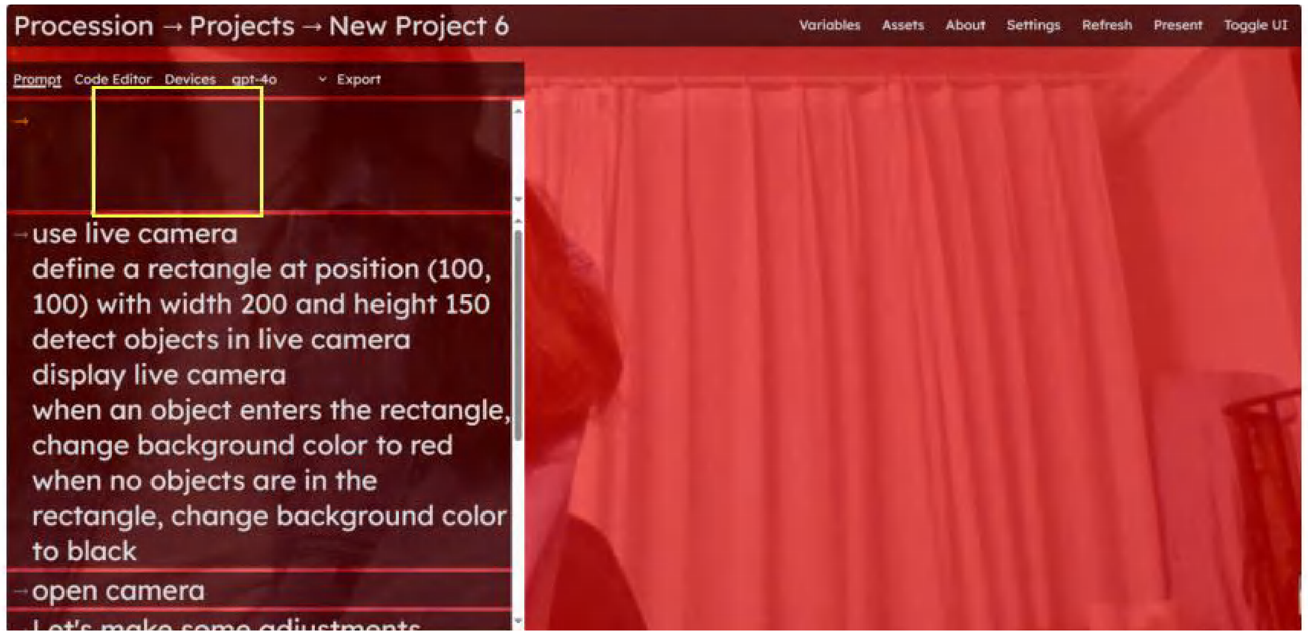
Image data can be used to analyze the spatial layout within a classroom and even computer vision can be used to analyze students' positions, postures, and interactions with others. With video data, it is also possible to capture student and teacher behavior and spatial dynamics.

The spatial layout of a classroom, where each node represents an element within the classroom and edges represent the reachability relationships between them (e.g., a student can move from one seat to another, a teacher can walk from the podium to a student, etc.).


Procession → Projects → timer in a shape
Variables Assets About Settings Refresh Present Toggle UI
Prompt Code Editor Devices gpt-4o Export
etc
now instead of saying "ON" can you have this be a timer in seconds counting up that is only on when my finger is over the rectangle
can you make a big white text that says "ON" on the right side of the screen if my finger is on the red rectangle otherwise make it say "OFF
can you make a big red box on the left of the screen
OFF


Procession → Projects → New Project 6
Variables Assets About Settings Refresh Present Toggle UI
Prompt Code Editor Devices gpt-4o Export
use live camera
define a rectangle at position (100, 100) with width 200 and height 150
detect objects in live camera
display live camera
when an object enters the rectangle, change background color to red
when no objects are in the rectangle, change background color to black
open camera


Procession → Projects → timer in a shape
Variables Assets About Settings Refresh Present Toggle UI
Prompt Code Editor Devices gpt-4o Export
etc
now instead of saying "ON" can you have this be a timer in seconds counting up that is only on when my finger is over the rectangle
can you make a big white text that says "ON" on the right side of the screen if my finger is on the red rectangle otherwise make it say "OFF
can you make a big red box on the
ON


Procession → Projects → New Project 6
Variables Assets About Settings Refresh Present Toggle UI
Prompt Code Editor Devices gpt-4o Export
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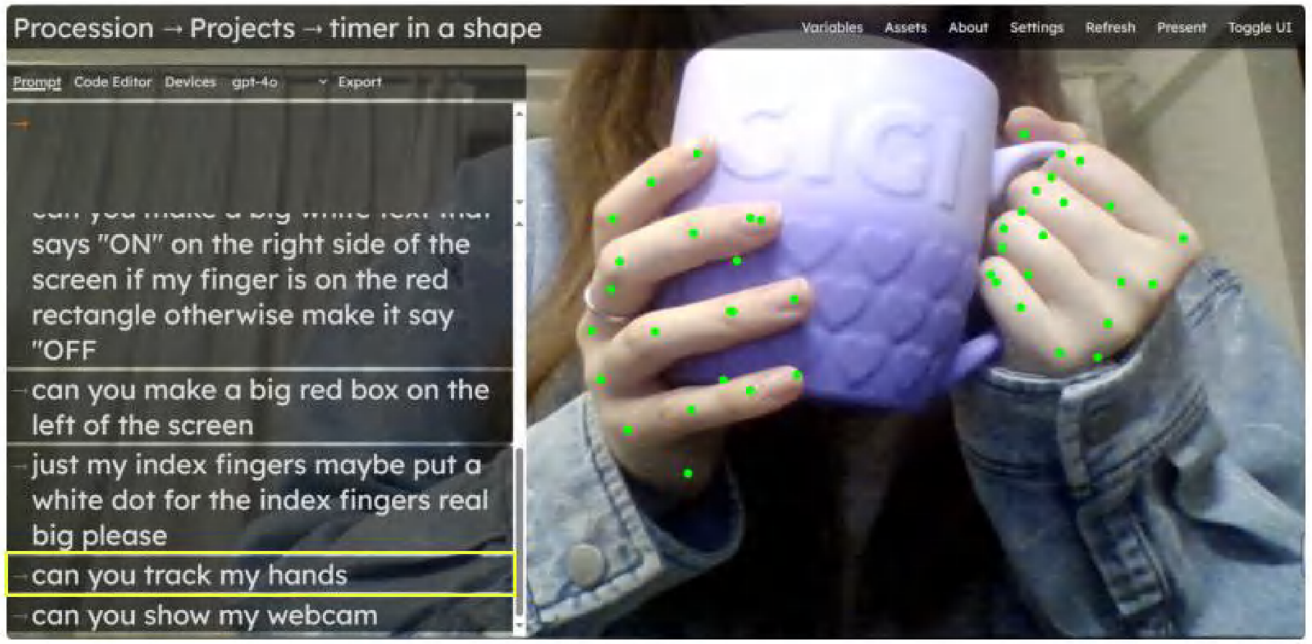
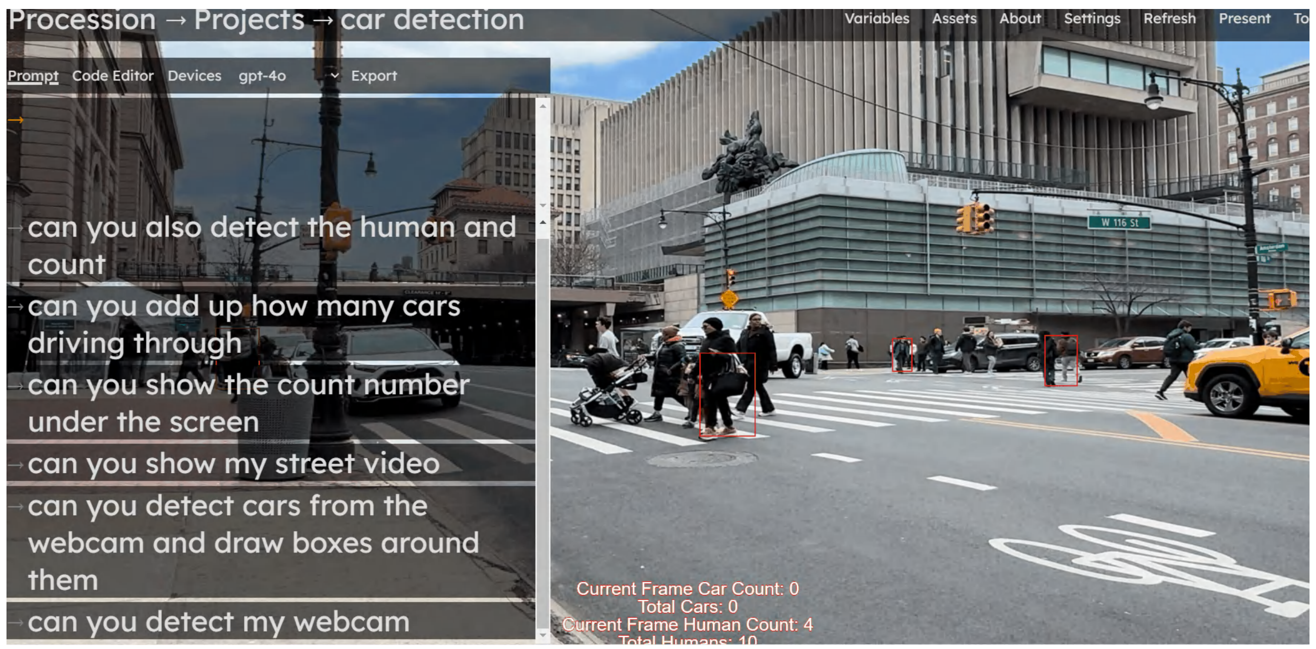
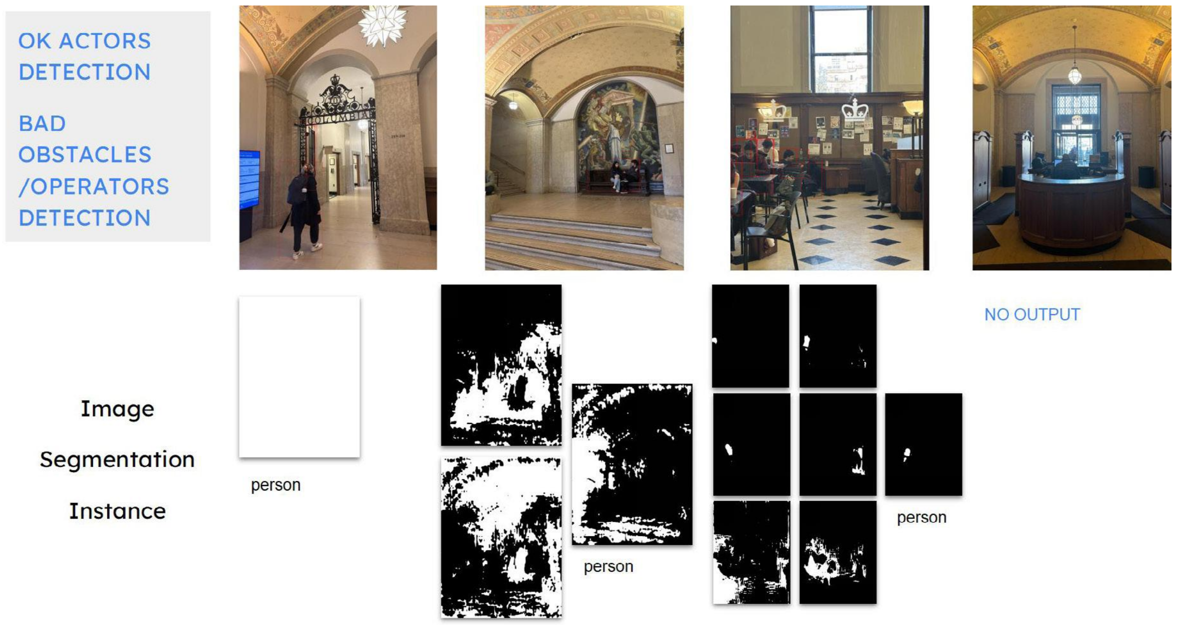
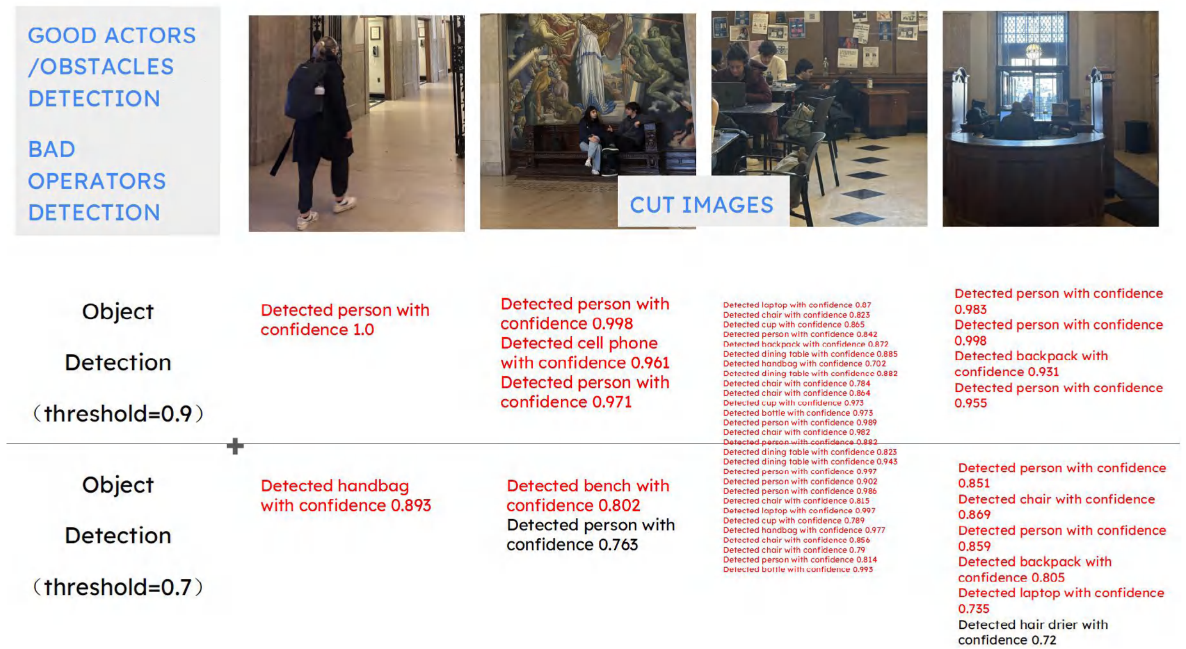
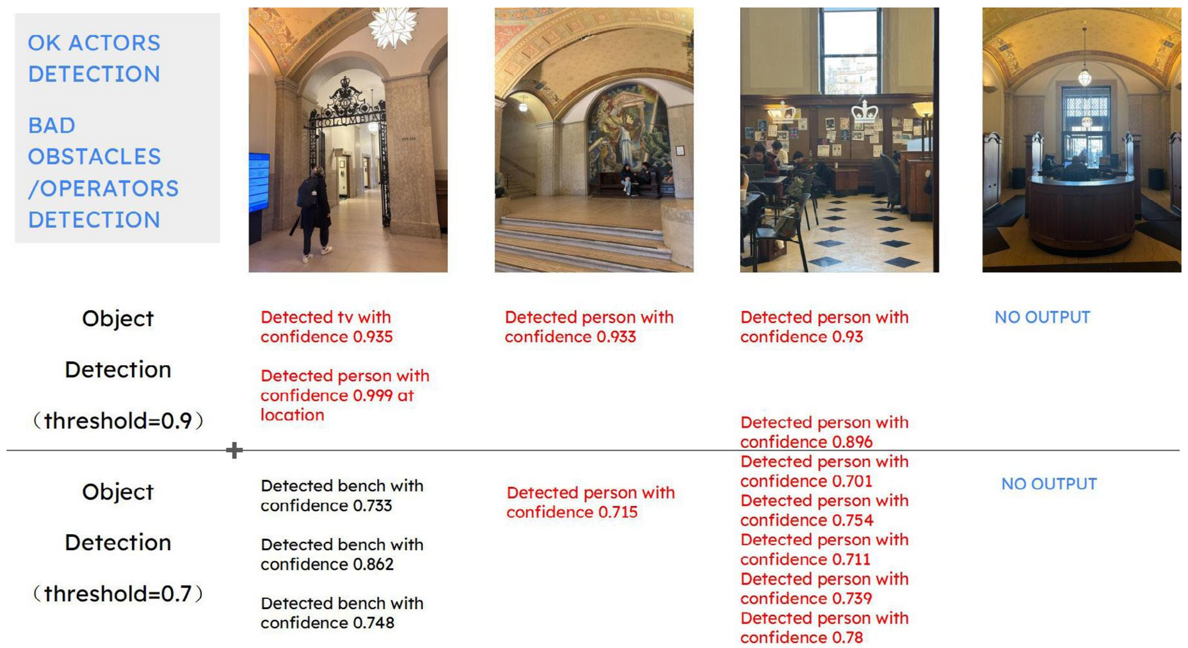
when no objects are in the rectangle, change background color to black
open camera

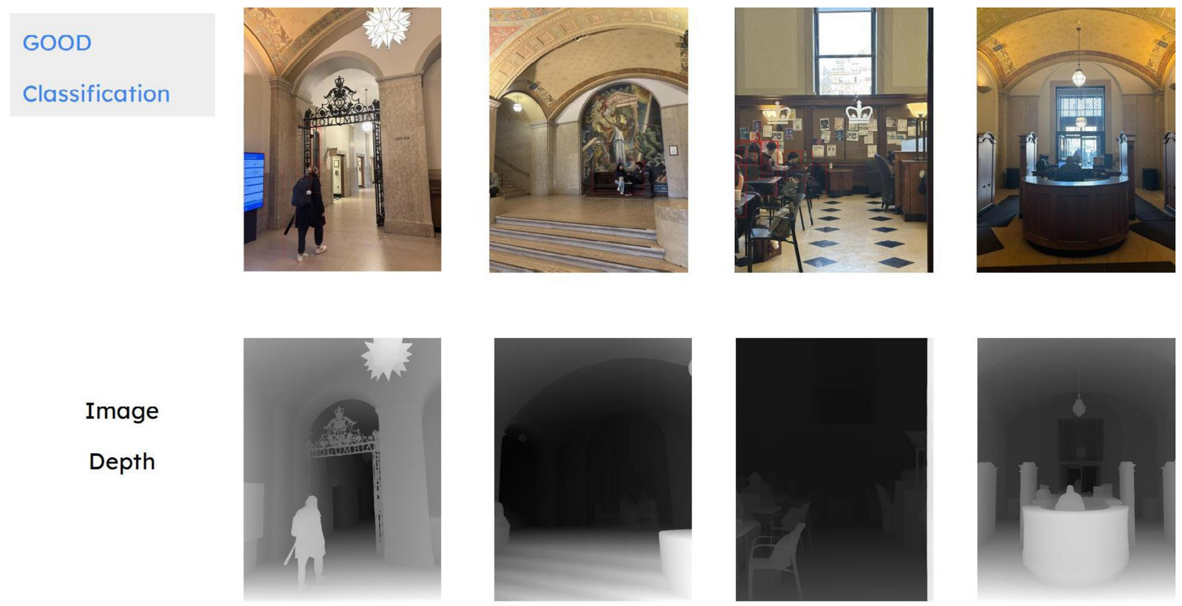

Procession → Projects → timer in a shape
Variables Assets About Settings Refresh Present Toggle UI
Prompt Code Editor Devices gpt-4o Export
says "ON" on the right side of the screen if my finger is on the red rectangle otherwise make it say "OFF
can you make a big red box on the left of the screen
just my index fingers maybe put a white dot for the index fingers real big please
can you track my hands
can you show my webcam

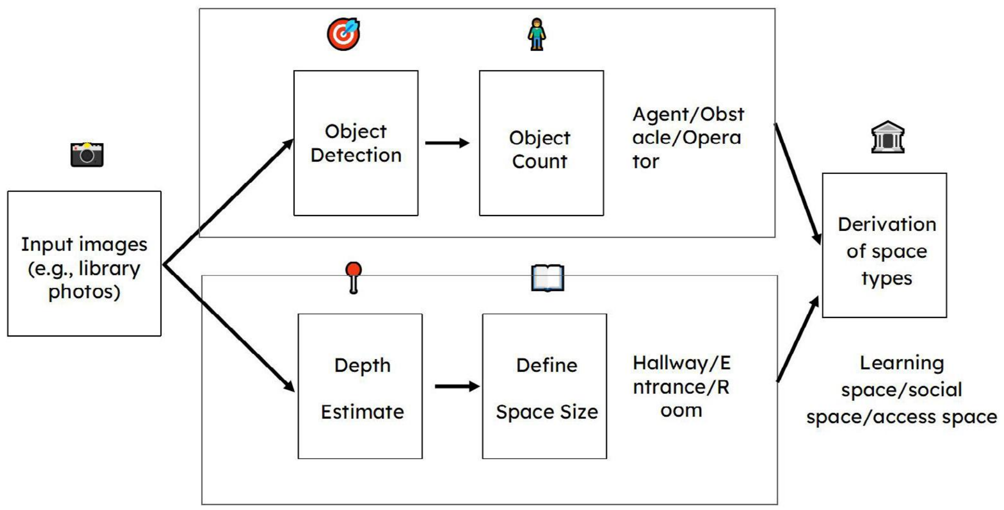

Procession → Projects → car detection
Variables Assets About Settings Refresh Present
Prompt Code Editor Devices gpt-4o Export
can you also detect the human and count
can you add up how many cars driving through
can you show the count number under the screen
can you show my street video
can you detect cars from the webcam and draw boxes around them
can you detect my webcam
Current Frame Car Count: 0
Total Cars: 0
Current Frame Human Count: 4

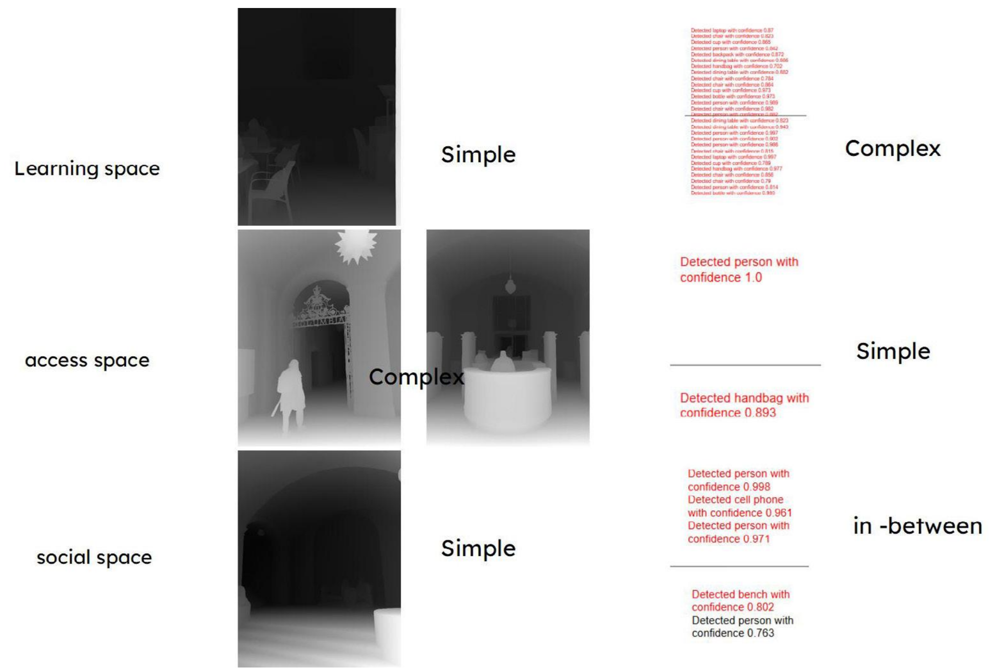

OK ACTORS DETECTION
BAD OBSTACLES /OPERATORS DETECTION
Image
Segmentation
Instance
person
person
person
NO OUTPUT


GOOD ACTORS /OBSTACLES DETECTION
BAD OPERATORS DETECTION
CUT IMAGES
Object
Detection
（threshold=0.9）
Detected person with confidence 1.0
Detected person with confidence 0.998
Detected cell phone with confidence 0.961
Detected person with confidence 0.971
Detected person with confidence 0.985
Detected person with confidence 0.998
Detected backpack with confidence 0.931
Detected person with confidence 0.955
Object
Detection
（threshold=0.7）
Detected handbag with confidence 0.893
Detected bench with confidence 0.802
Detected person with confidence 0.763
Detected person with confidence 0.851
Detected chair with confidence 0.869
Detected person with confidence 0.859
Detected backpack with confidence 0.805
Detected laptop with confidence 0.735
Detected hair drier with confidence 0.72


OK ACTORS DETECTION
BAD OBSTACLES /OPERATORS DETECTION
Object
Detection
（threshold=0.9）
Detected tv with confidence 0.935
Detected person with confidence 0.999 at location
Detected person with confidence 0.933
Detected person with confidence 0.93
NO OUTPUT
Object
Detection
（threshold=0.7）
Detected bench with confidence 0.733
Detected bench with confidence 0.862
Detected bench with confidence 0.748
Detected person with confidence 0.715
Detected person with confidence 0.896
Detected person with confidence 0.701
Detected person with confidence 0.754
Detected person with confidence 0.711
Detected person with confidence 0.739
Detected person with confidence 0.78
NO OUTPUT


GOOD
Classification
Image
Depth


Input images (e.g., library photos)
Object Detection
Object Count
Agent/Obstacle/Operator
Depth Estimate
Define Space Size
Hallway/Entrance/Room
Derivation of space types
Learning space/social space/access space


Learning space
Simple
Complex
access space
Complex
Detected person with confidence 1.0
Detected handbag with confidence 0.893
Simple
social space
Simple
Detected person with confidence 0.998
Detected cell phone with confidence 0.961
Detected person with confidence 0.971
Detected bench with confidence 0.802
Detected person with confidence 0.763
in -between