



AN INQUIRY INTO DWELLING-NATURE-CITY

BED HOME COMMUNITY

Hao Ni

GSAPP MSAAD 2025-2026

BUTTERFLIES HUMANS-THE DESERT ISLAND



Dorm
Material
Natural

Summer 2025
Individual Work

Advanced Design Studio
Profs. ARISTEIDIS ANTONAKAKIS

PERMEABLE CULTURAL SYSTEMS



Home
Community
Culture

Autumn 2025
Group Work

Advanced Design Studio
Profs. PHU HOANG

THE PASTA MAKING HOUSE



Home
Community
Craft

Spring 2026
Individual Work

Advanced Design Studio
Profs. RAFTOPOULOS + MARIN

03

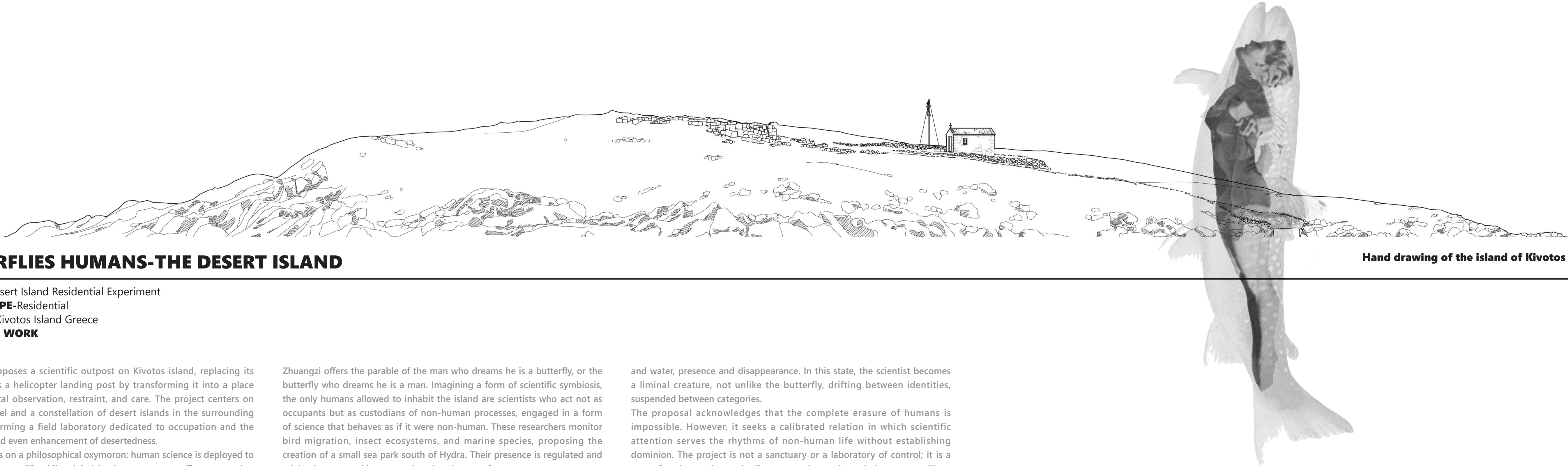
BUTTERFLIES HUMANS-THE DESERT ISLAND

PROJECT-Desert Island Residential Experiment
PROJECT TYPE-Residential
LOCATION-Kivotos Island Greece
INDIVIDUAL WORK

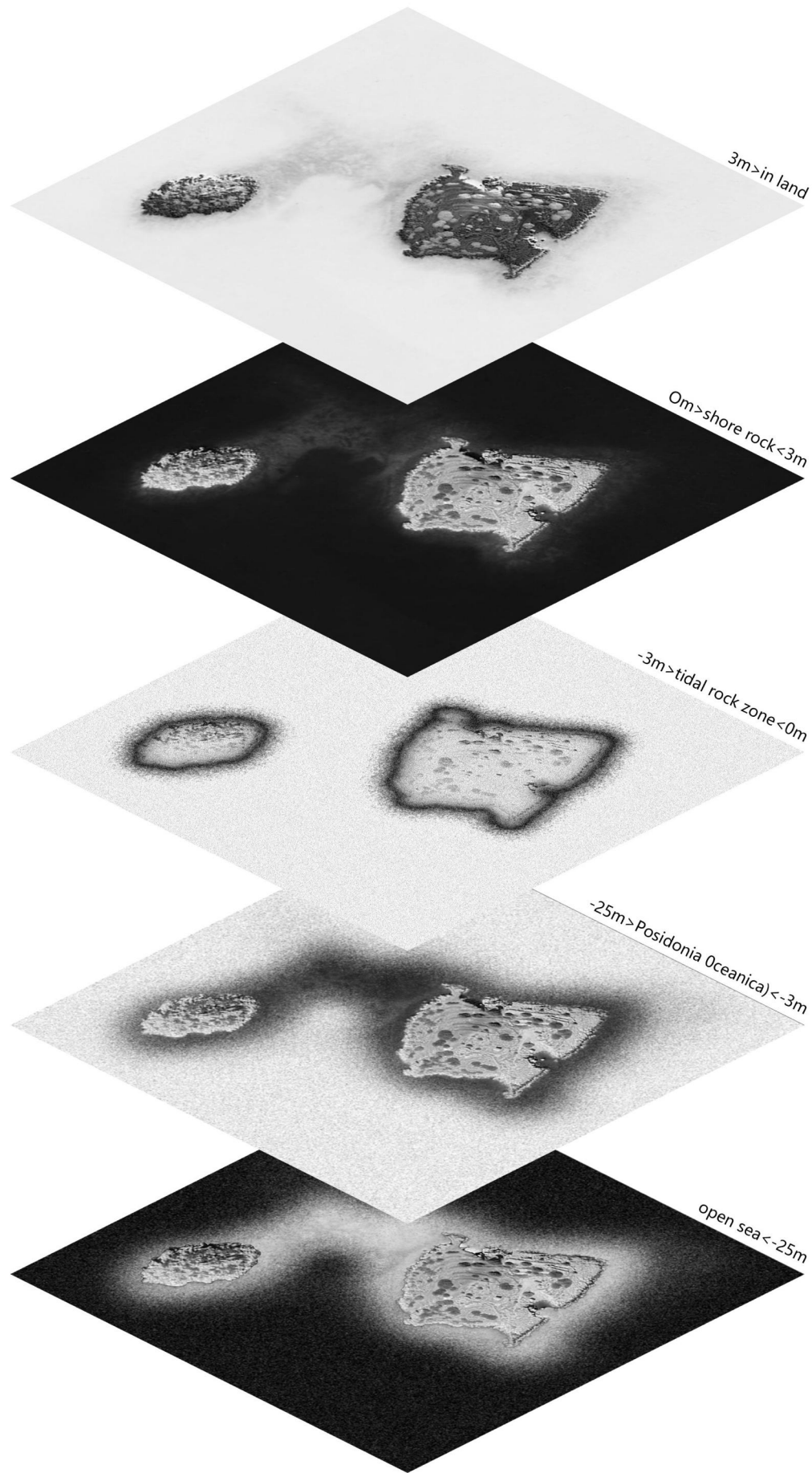
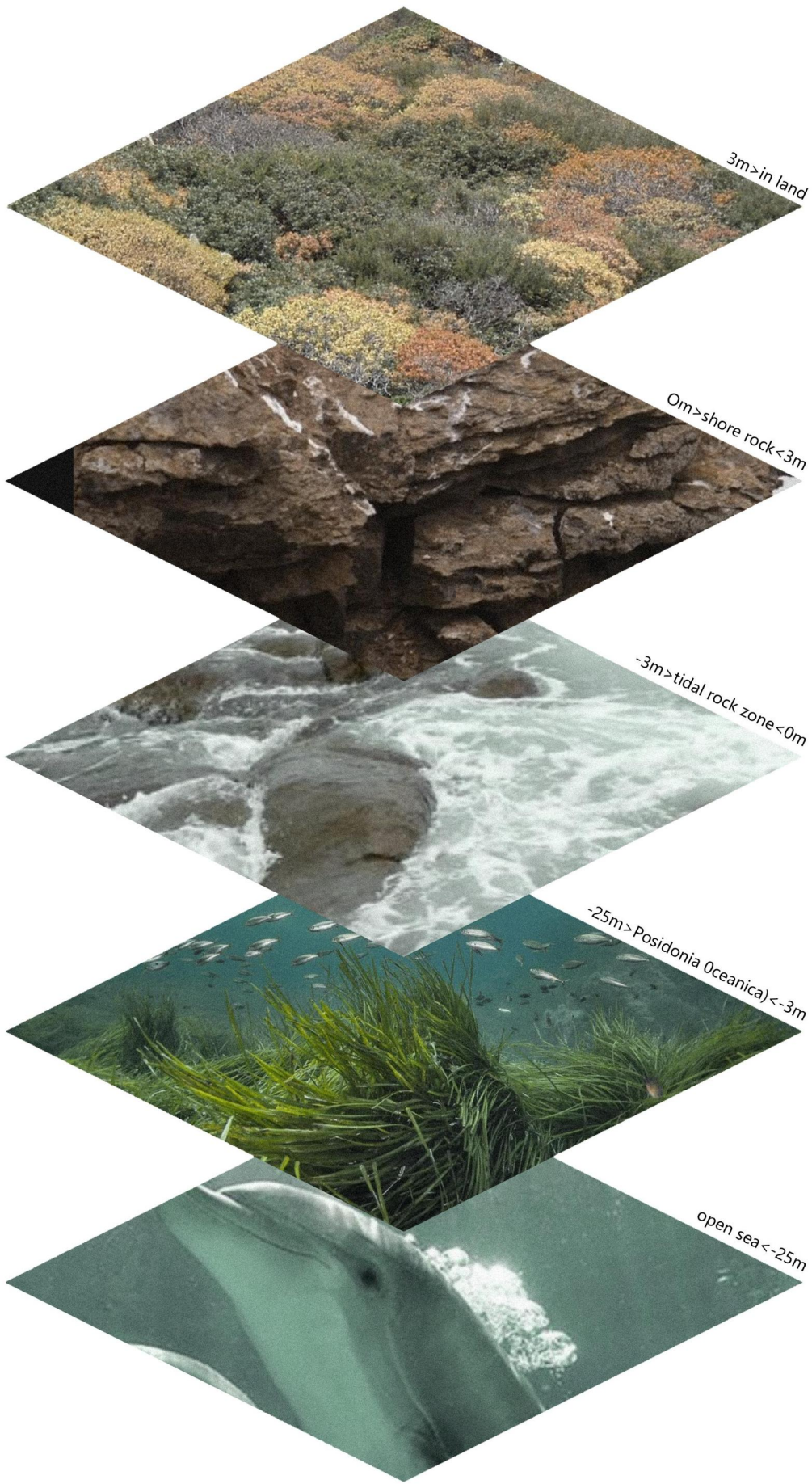
The project proposes a scientific outpost on Kivotos island, replacing its previous use as a helicopter landing post by transforming it into a place of environmental observation, restraint, and care. The project centers on a research vessel and a constellation of desert islands in the surrounding archipelago, forming a field laboratory dedicated to occupation and the maintenance and even enhancement of desertedness. The project rests on a philosophical oxymoron: human science is deployed to prioritize non-human life while minimizing human presence. Two contrasting references guide this approach. In Theory of Religion, Georges Bataille writes that “an animal is in the world like water in water,” fully immersed in its surroundings, undivided from nature. Meanwhile, the Daoist philosopher

Zhuangzi offers the parable of the man who dreams he is a butterfly, or the butterfly who dreams he is a man. Imagining a form of scientific symbiosis, the only humans allowed to inhabit the island are scientists who act not as occupants but as custodians of non-human processes, engaged in a form of science that behaves as if it were non-human. These researchers monitor bird migration, insect ecosystems, and marine species, proposing the creation of a small sea park south of Hydra. Their presence is regulated and minimal, structured by protocols rather than comforts. Their dwelling units reflect this fragile boundary: each consists of a split double bed, half grounded on the dry island and half floating on the sea; an architecture that places the scientist in a continuous oscillation between land

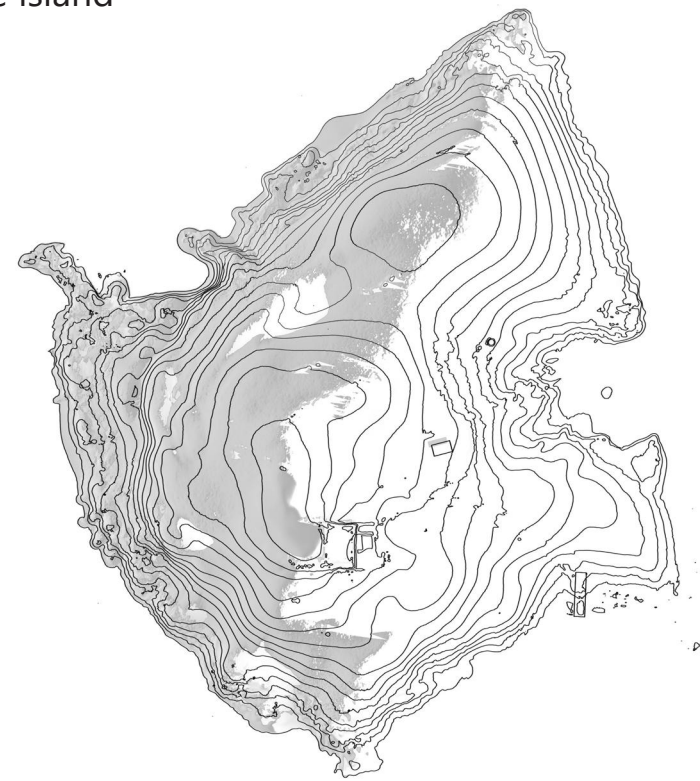
and water, presence and disappearance. In this state, the scientist becomes a liminal creature, not unlike the butterfly, drifting between identities, suspended between categories. The proposal acknowledges that the complete erasure of humans is impossible. However, it seeks a calibrated relation in which scientific attention serves the rhythms of non-human life without establishing dominion. The project is not a sanctuary or a laboratory of control; it is a space for observation and adjustment, where science behaves more like a question than an answer and scientists become butterfly-like, momentary visitors in a world not made for them.



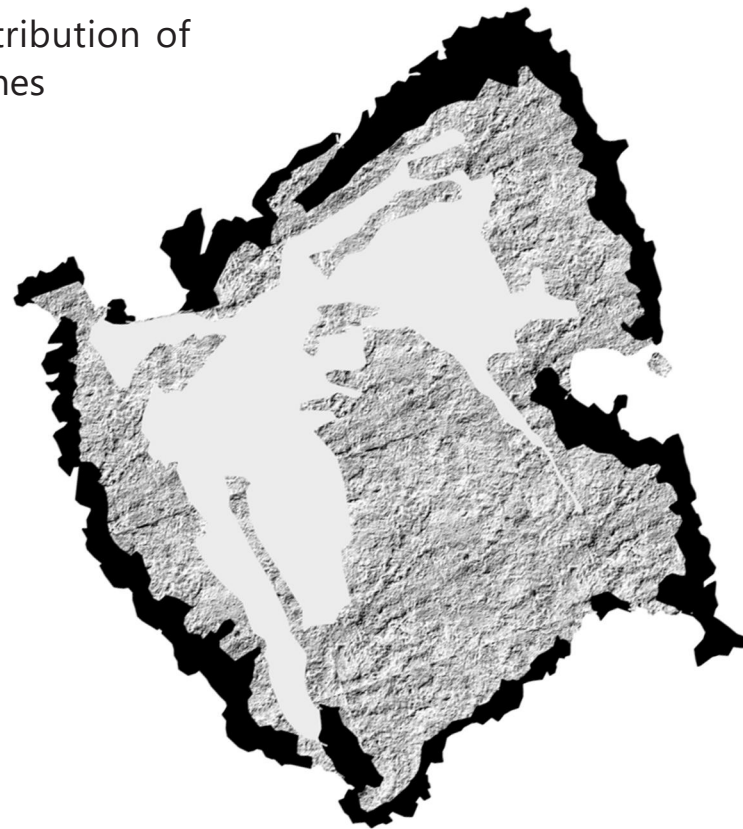
Hand drawing of the island of Kivotos



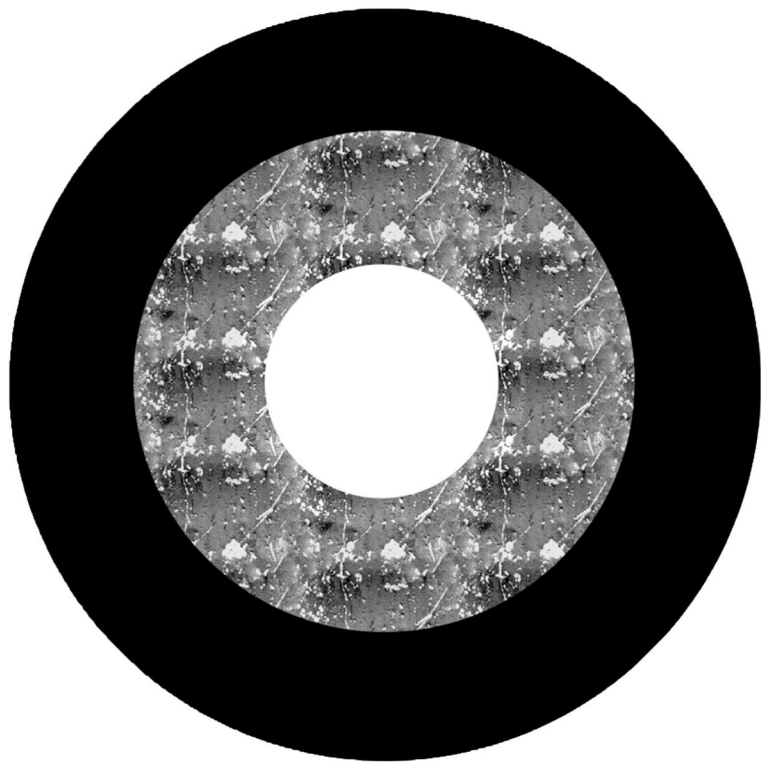
The island



Distribution of stones

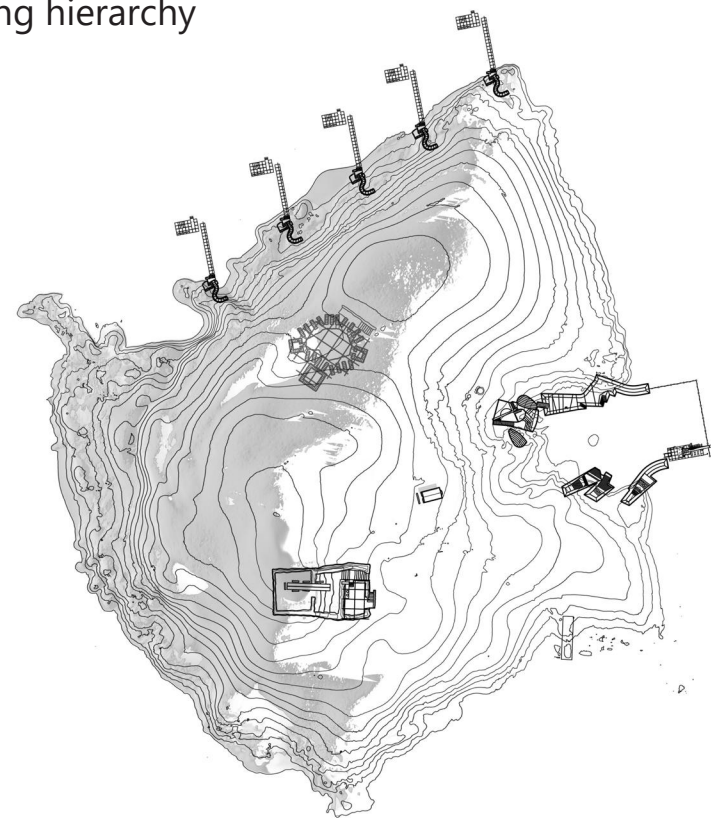


Abstract



Living hierarchy

N
+

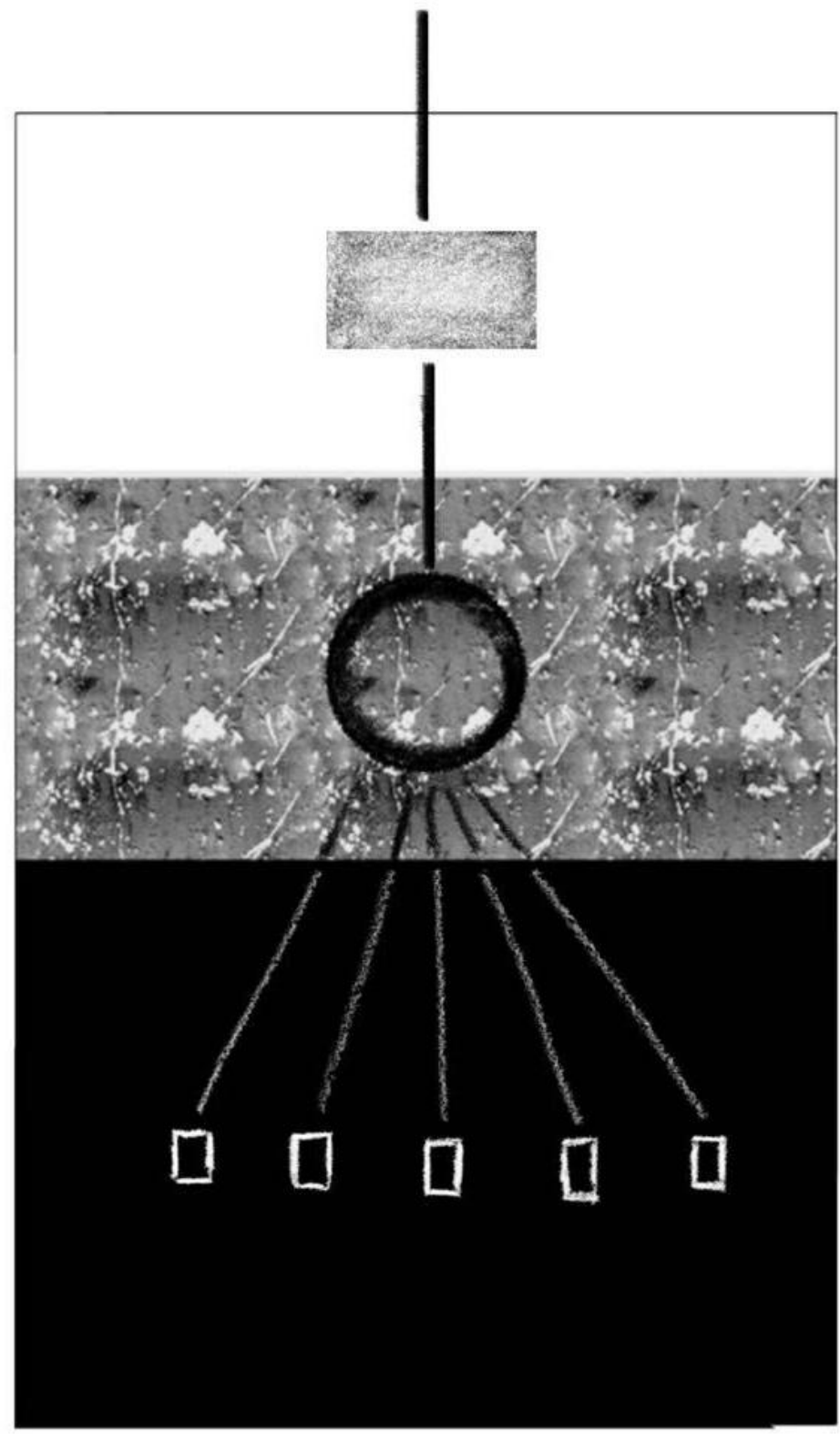


Sea

Grit

Small stone

Shore rock

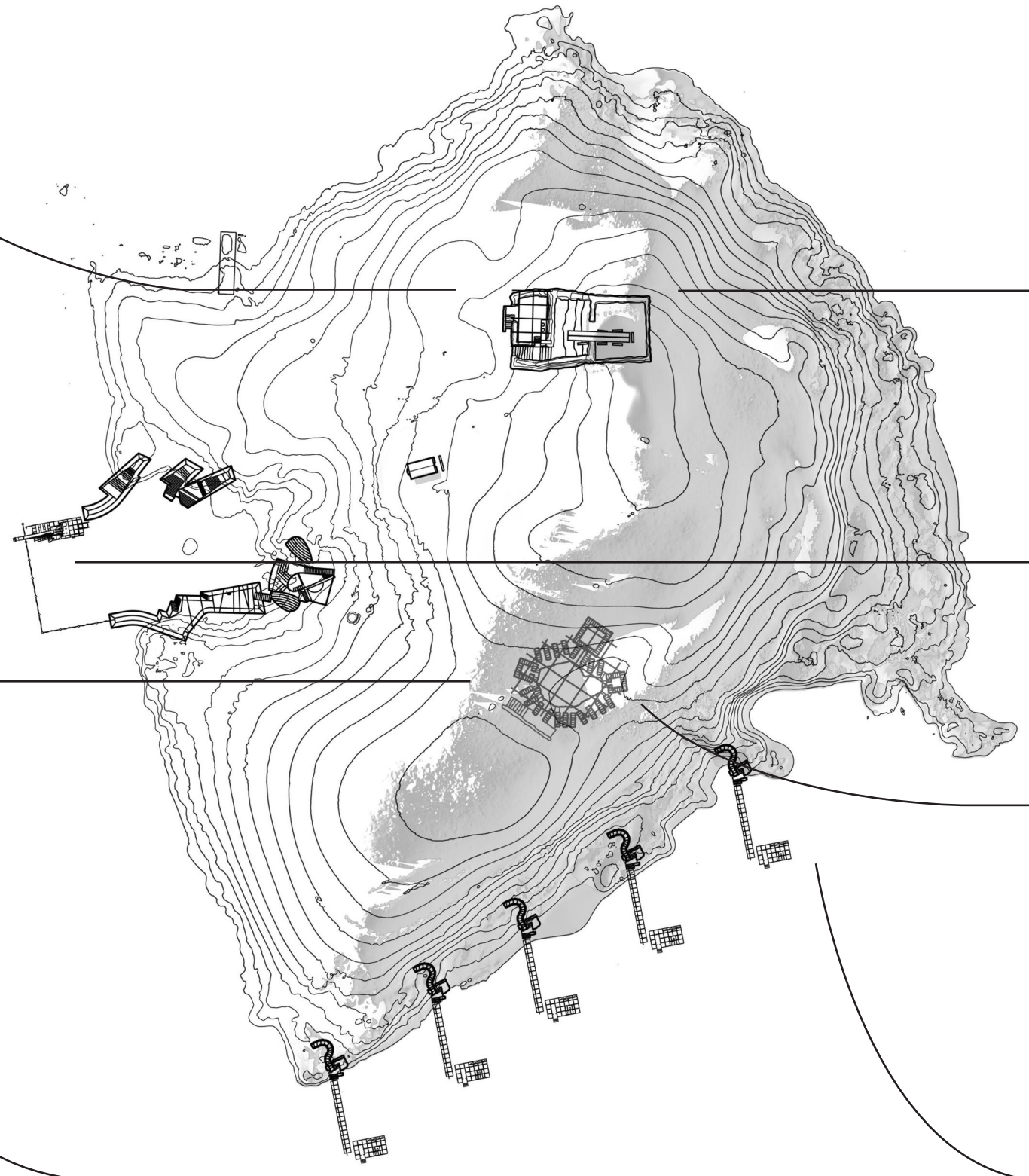


Entrance

Public

Semi-public

Private

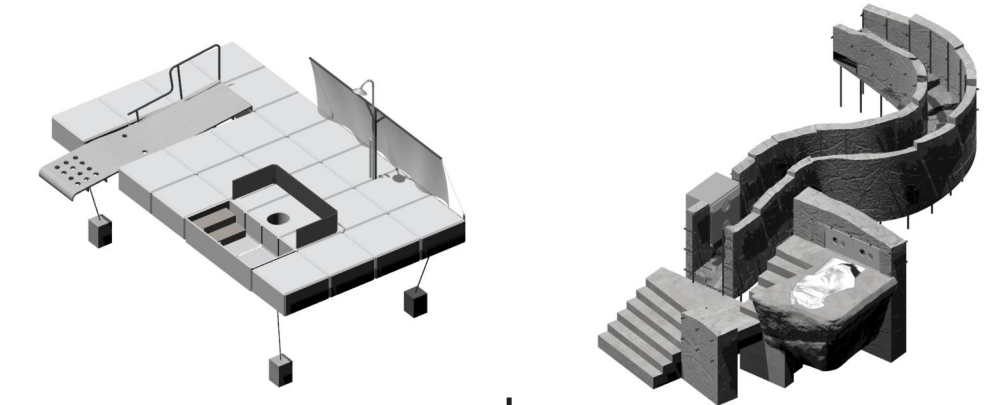
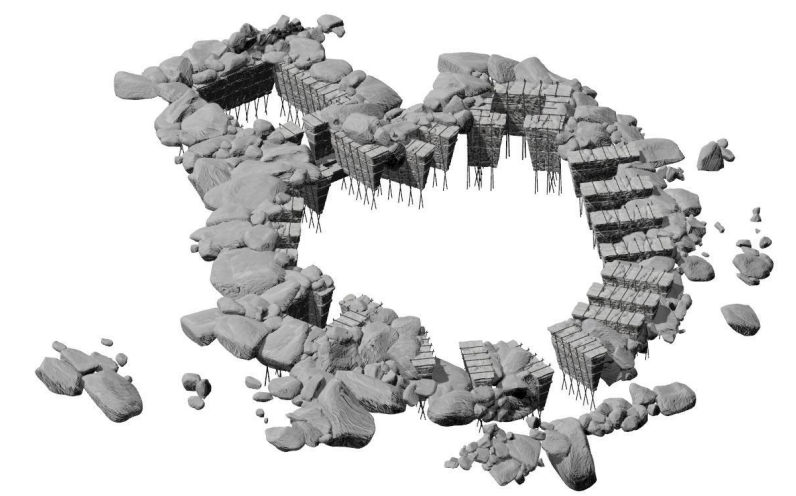
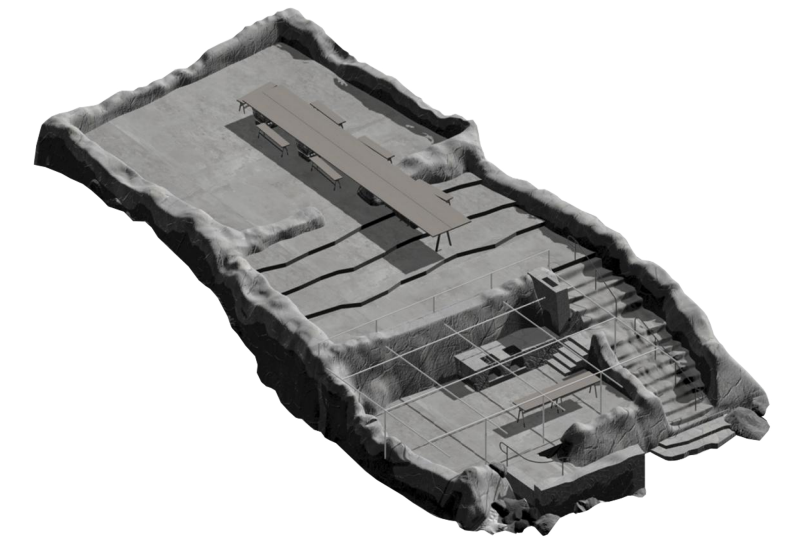
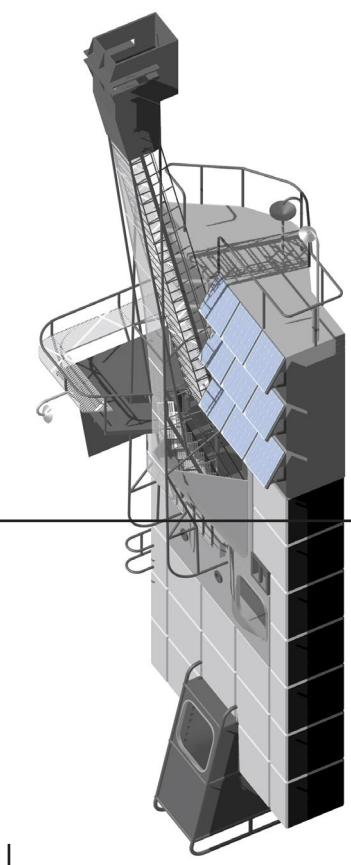


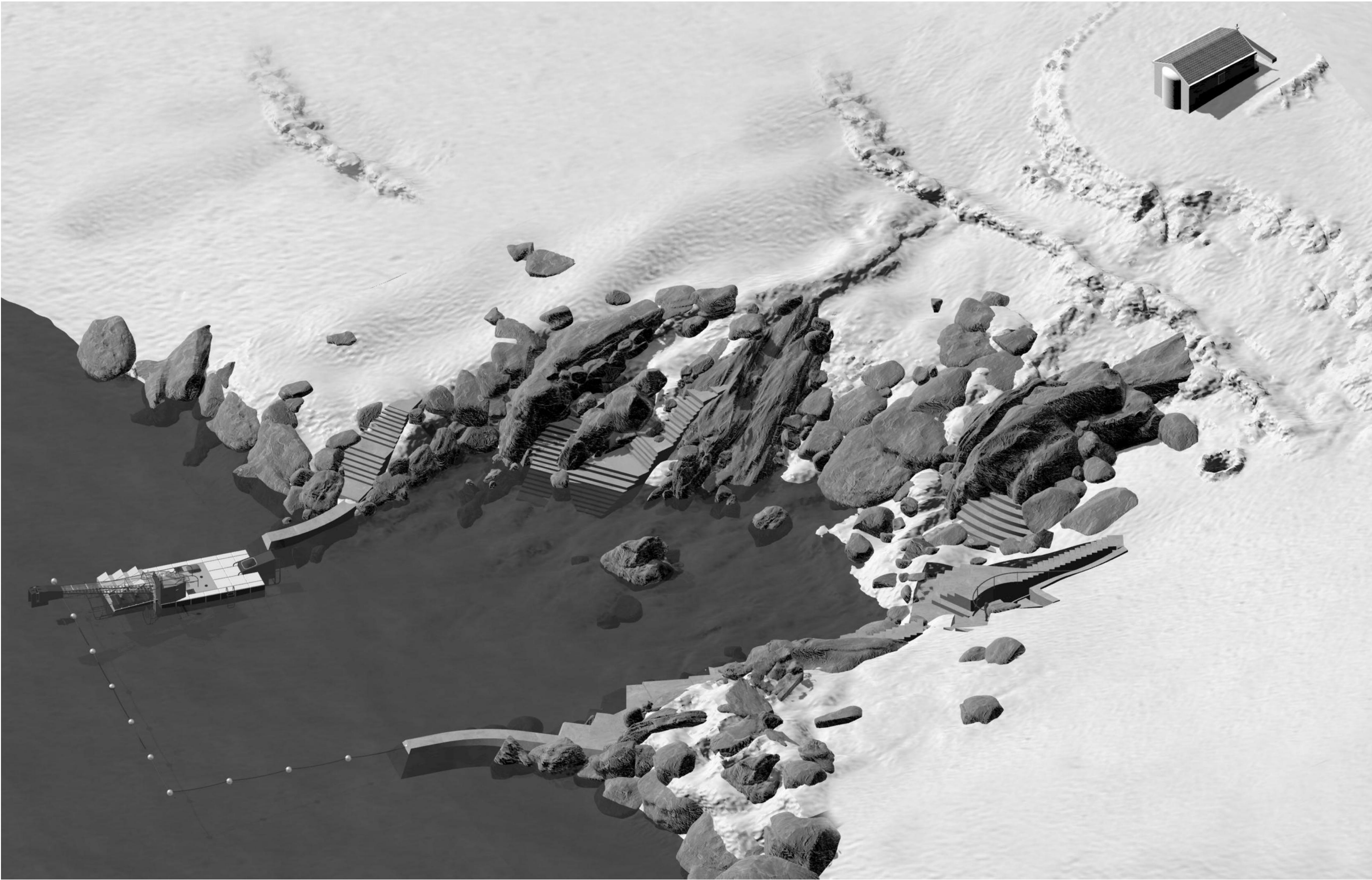
Meal

Dock/ship

Archives

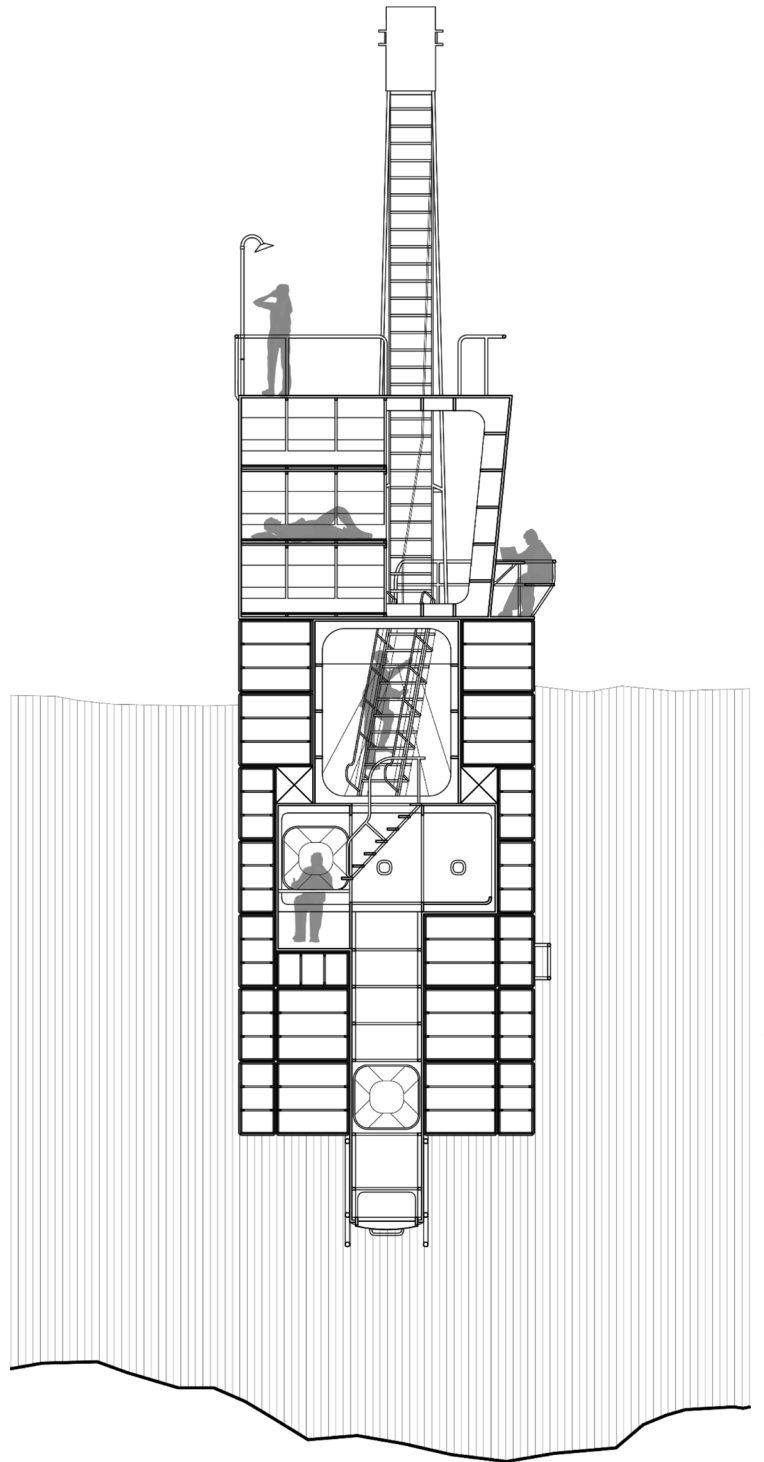
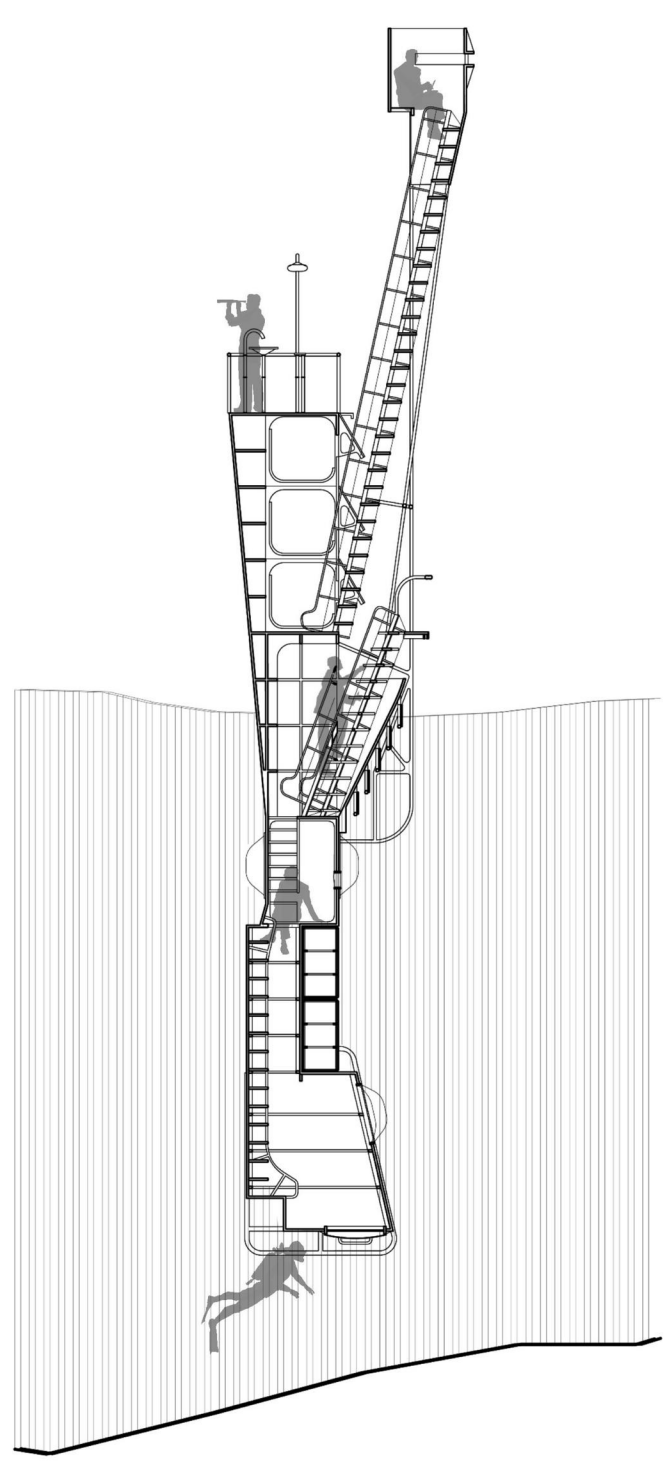
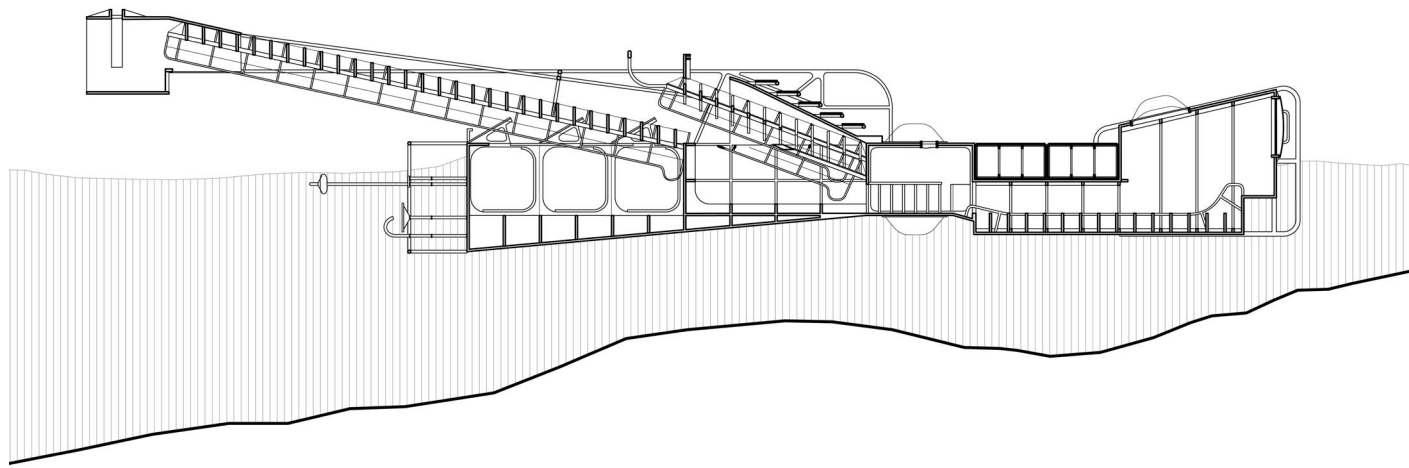
Beds

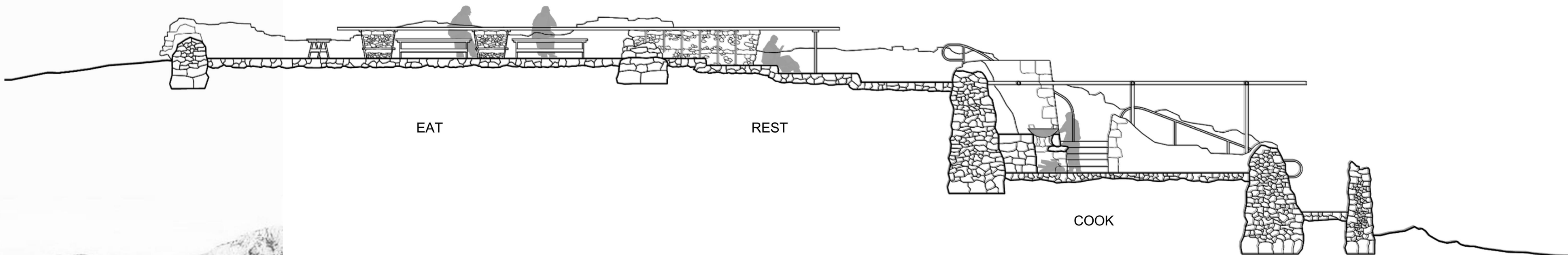




Dock/ship

This floating structure functions both as a dock and as a research vessel for scientists conducting field investigations. In its horizontal position, it contains showers and storage lockers for swimming and access to water . When raised into a vertical position, it becomes an observation tower for monitoring the ecology of surrounding islands. Embedded within it are compact living quarters for short-term stays, as well as a submerged chamber designed for underwater exploration.

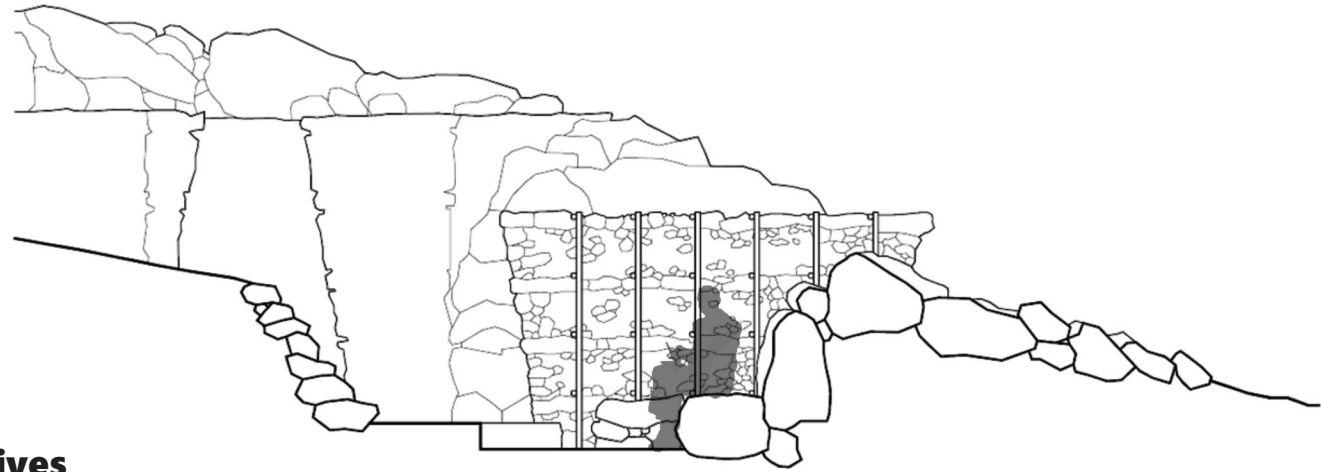




Meal

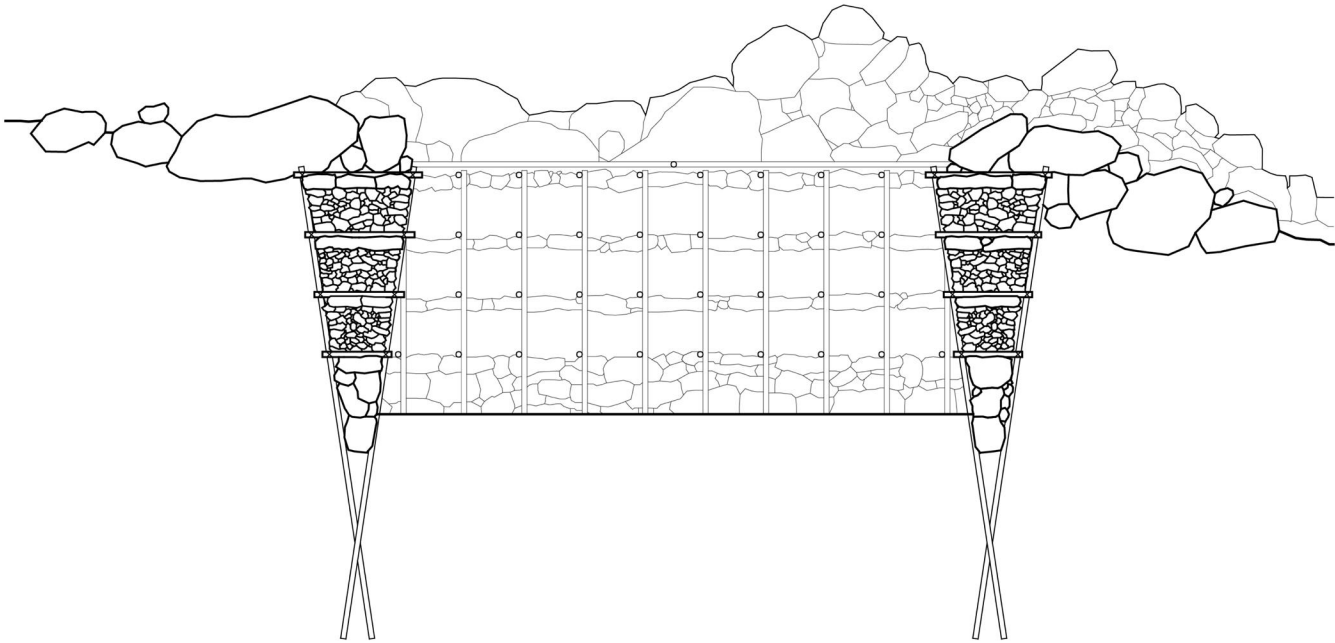
The most open space on the island, situated atop the highest point on the island. Adapting to the existing terrain of the ruins, the space naturally separates into areas for dining, gathering, and cooking. Discussions can unfold here, while users remain fully exposed to the vast surrounding landscape that encircles them.

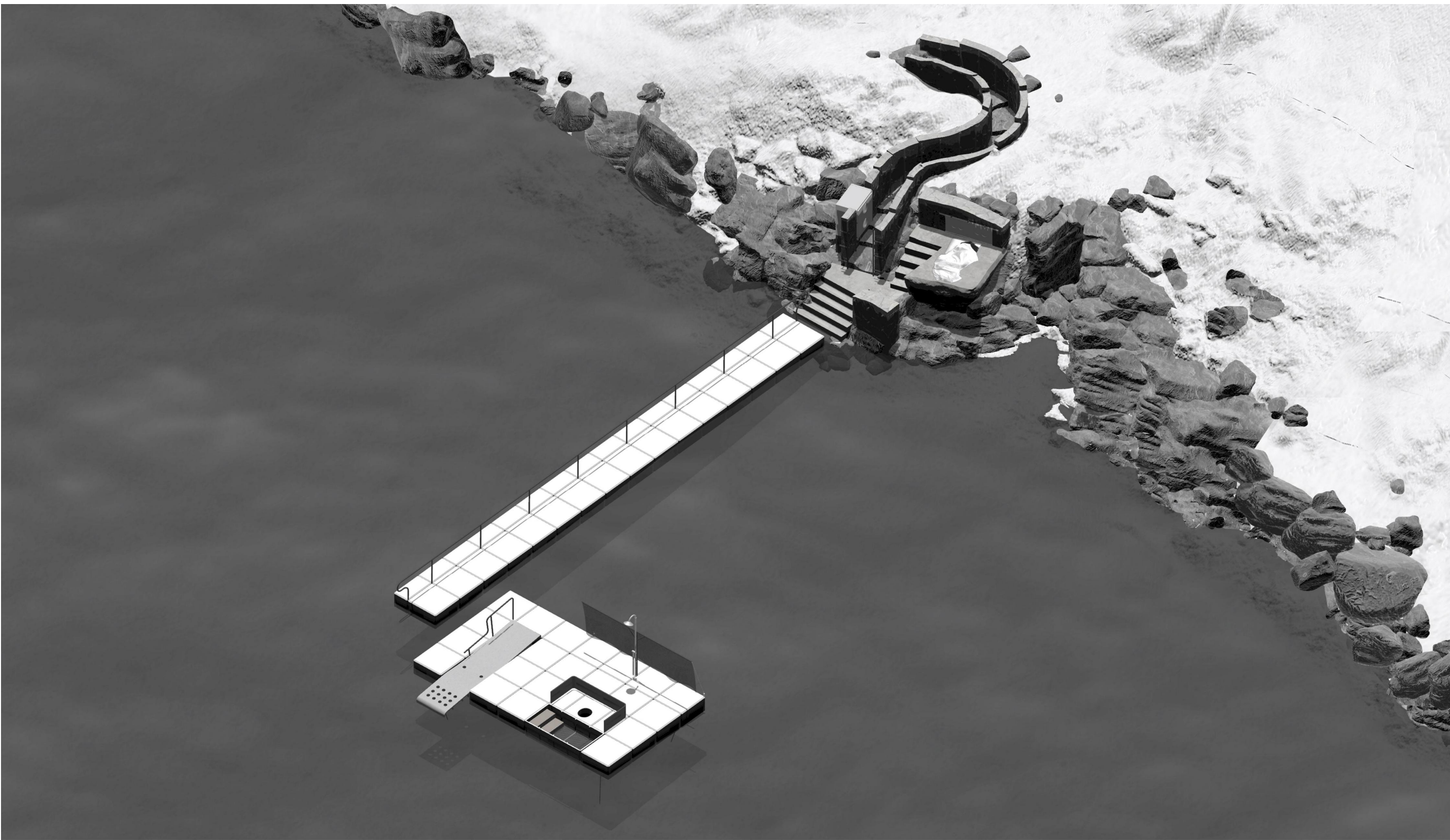




Archives

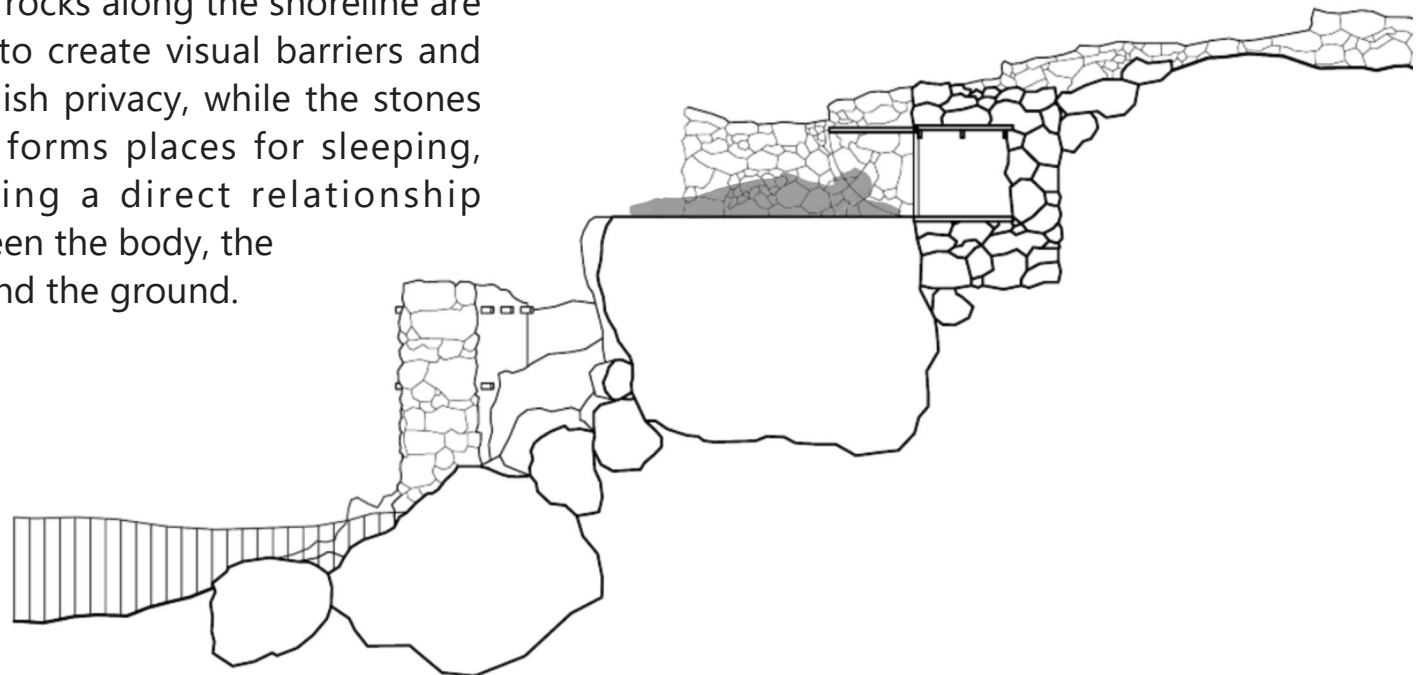
Half embedded into the ground and positioned along the hillside, the structure uses medium-sized stones and steel pipes to form retaining walls, creating a series of small compartments for research and the storage of materials and documents.





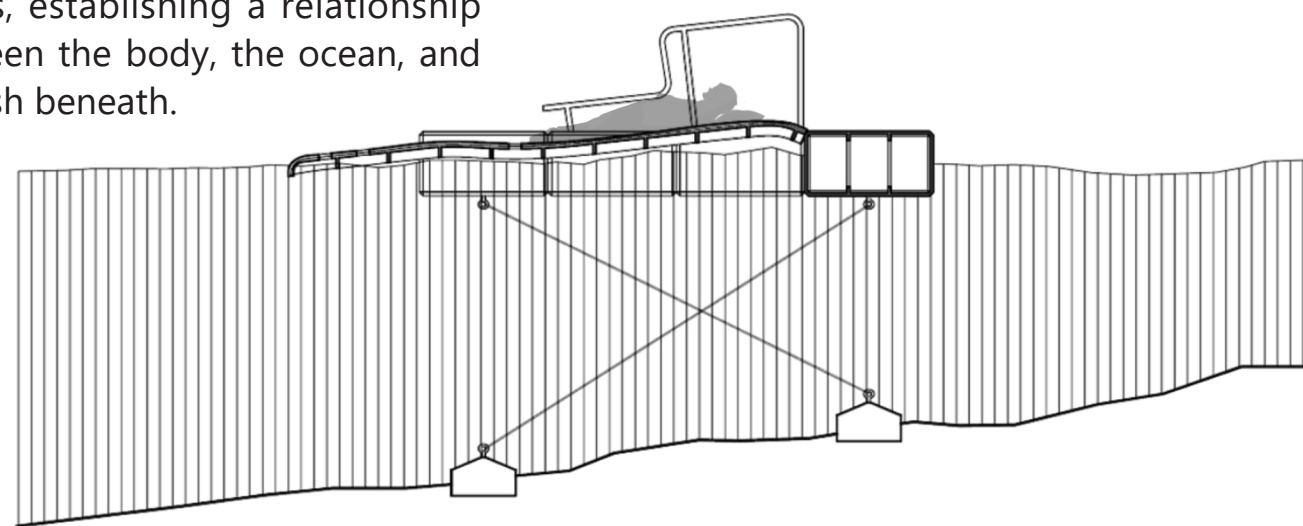
Bed/land

Large rocks along the shoreline are used to create visual barriers and establish privacy, while the stones itself forms places for sleeping, creating a direct relationship between the body, the sky, and the ground.



Bed/sea

Floating on the sea, this sleeping platform incorporates shower facilities and rises and falls with the waves, establishing a relationship between the body, the ocean, and the fish beneath.



01

PERMEABLE CULTURAL SYSTEMS

PROJECT-Bush Terminal Warehouses Immigrant Community Center
PROJECT TYPE-Public Building Design & Building Renovation
LOCATION-Sunset Park Newyork America
GROUP WORK With-Panchenchen Feng-Haixin Qi

The project investigates how immigrant communities in Sunset Park construct strong social networks that enable them to resist gentrification. We identify the “culture core” as a crucial spatial condition where shared values, cultural practices, and essential services are brought together. By tracing histories of migration from the Fujian tulou to Chinatown, and from earlier Scandinavian and Latin American communities in Sunset Park to today’s Chinese immigrant population we find three defining characteristics of a successful culture core. First, it creates an internal world that provides safety and a sense of belonging while remaining connected to the city. Second, it is multifunctional, combining religion, commerce, social life, and at last cultural

expression around a central shared space. This space is understood as a “kinship space,” where trust and mutual support are formed and where new immigrant communities can continue to be sustained across generations. These ideas are applied to the western warehouses of Bush Terminal, transforming them into a multi-level culture core composed of housing clusters, shared courtyards, backyards, and a large “culture floor” for classes, meetings, and communal activities related to the kinship core. The open ground floor accommodates workshops and small businesses, linking cultural life with economic opportunity.

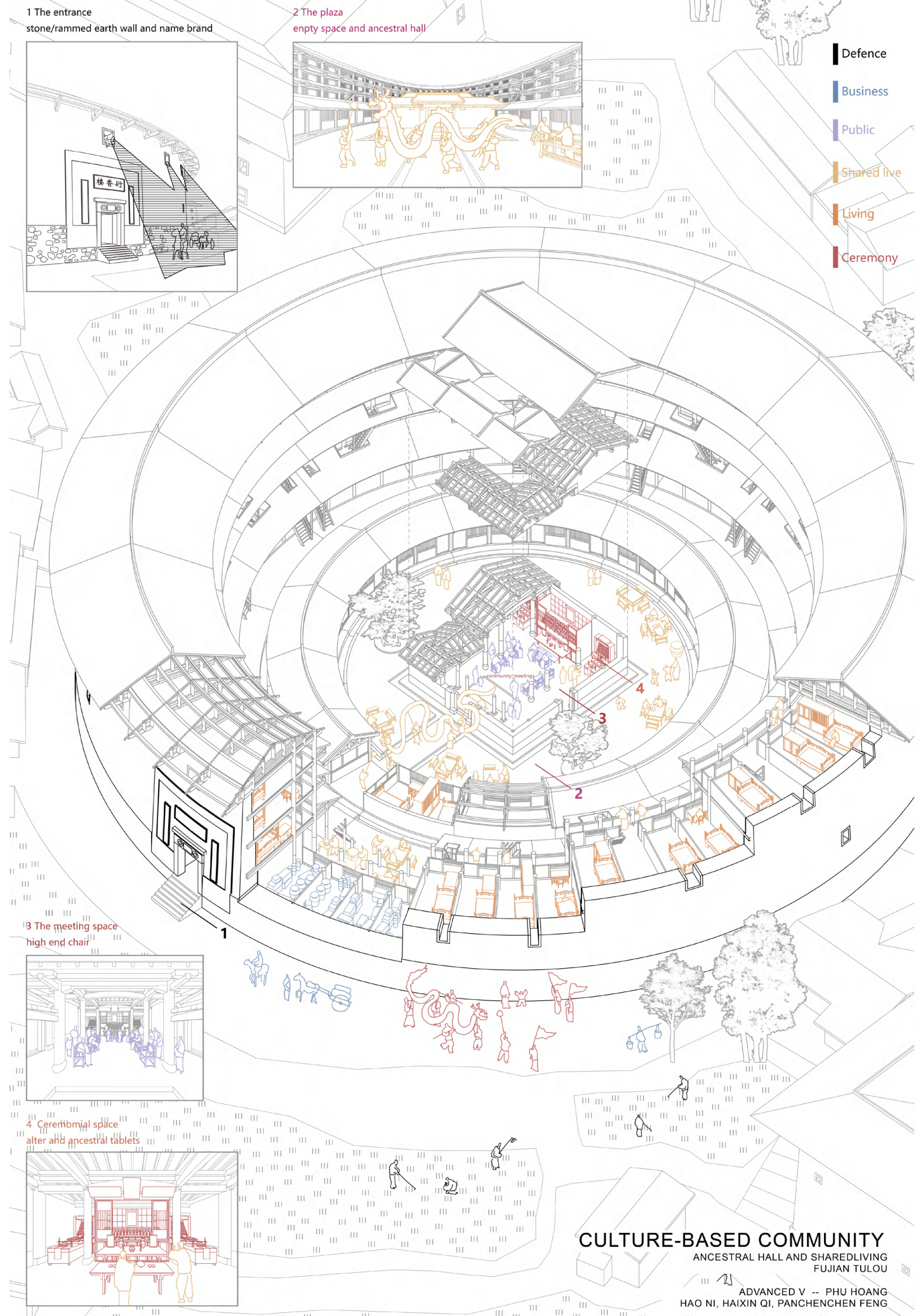
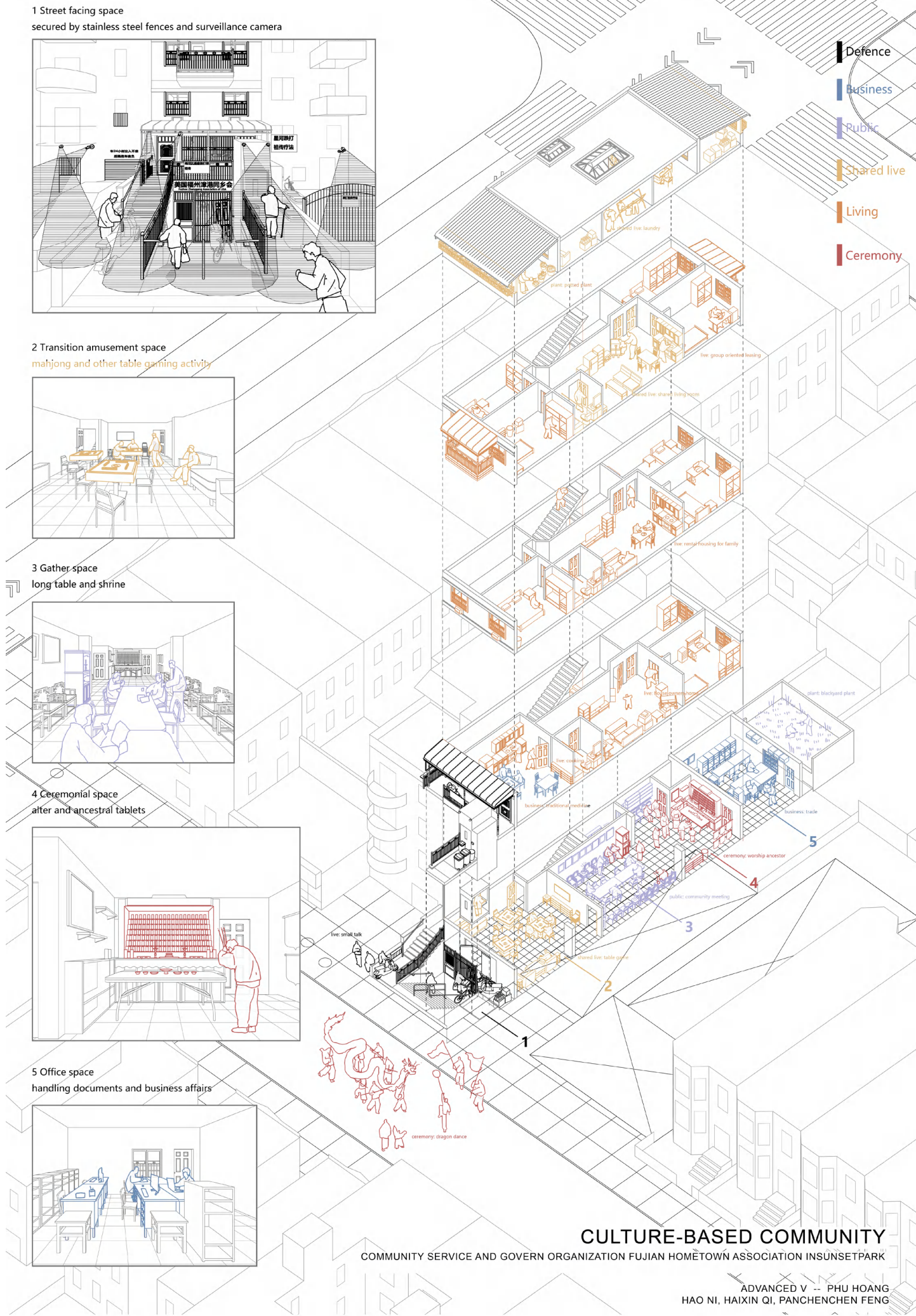
Hybrid drawings of the design



Dwellings embracing a atrium

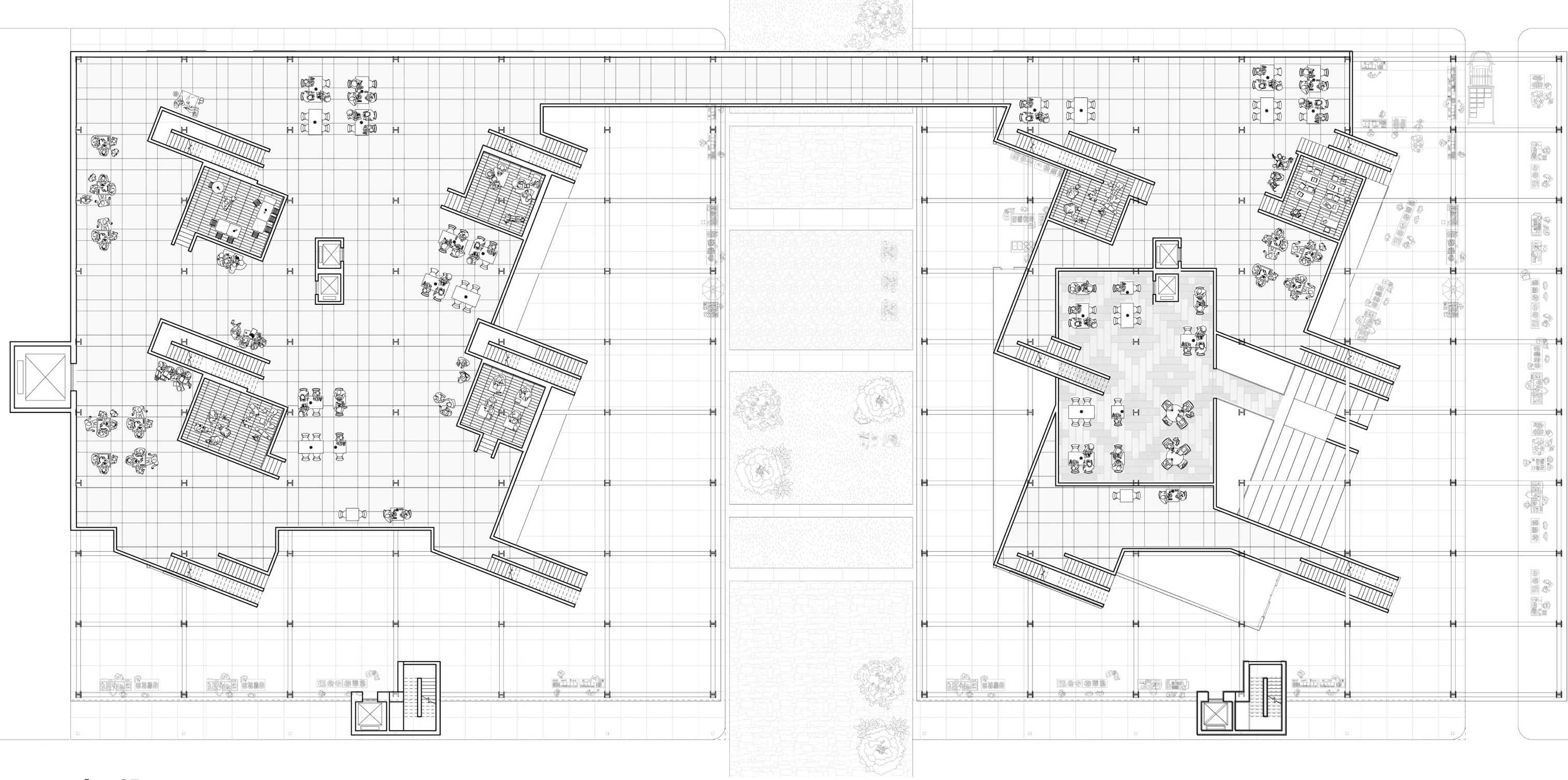
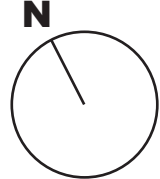
Historical research on the culture core

the dwelling forms of Fujianese immigrant communities, from the tulou to the New York row house.



**Culture core
and urban environment**

On the first and second levels, the original factory walls are removed, leaving only the metal structural frame exposed to the urban environment. The ground floor accommodates workshops and shops that support the operation of the community. Above it, the second-floor platform contains stairways leading to the upper residential units, while adjacent to the stairs is sunken spaces can be use as Kinship Space, which can be freely adapted for a variety of communal activities and social functions.



plan 2F

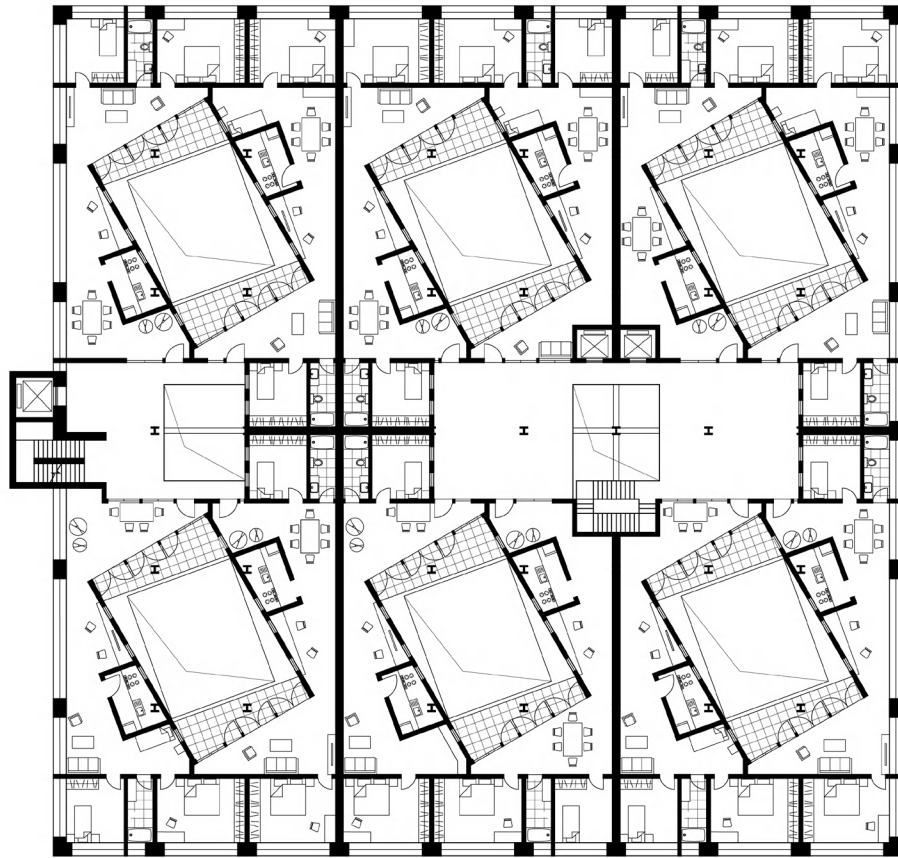


Urban environment

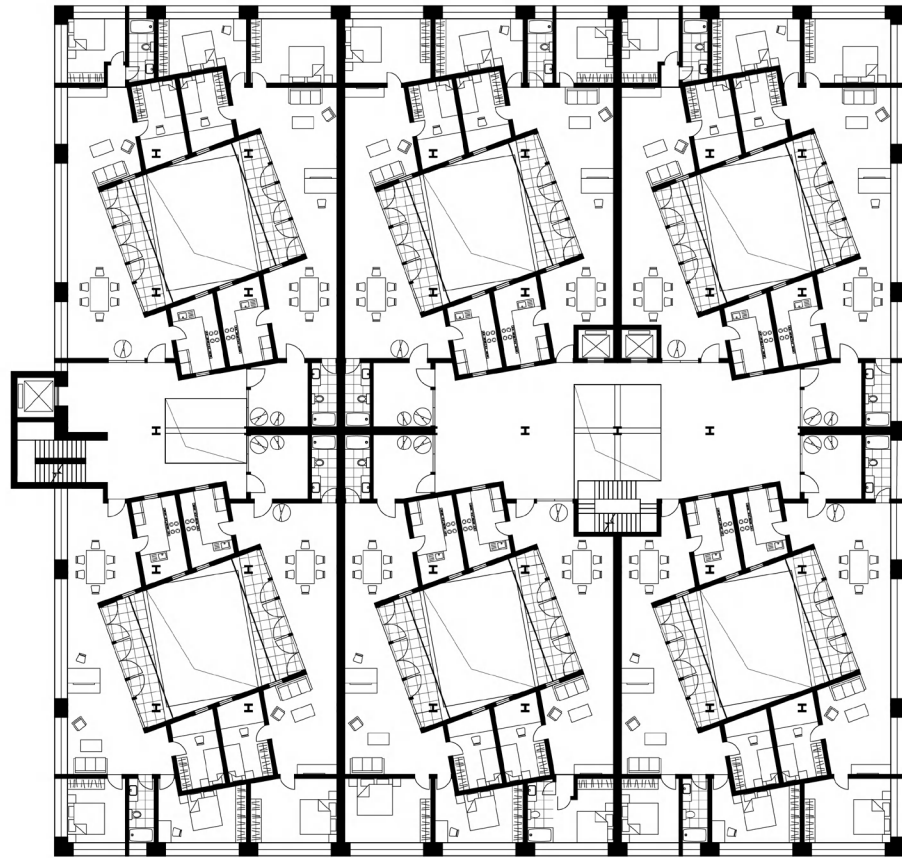


Dwellings

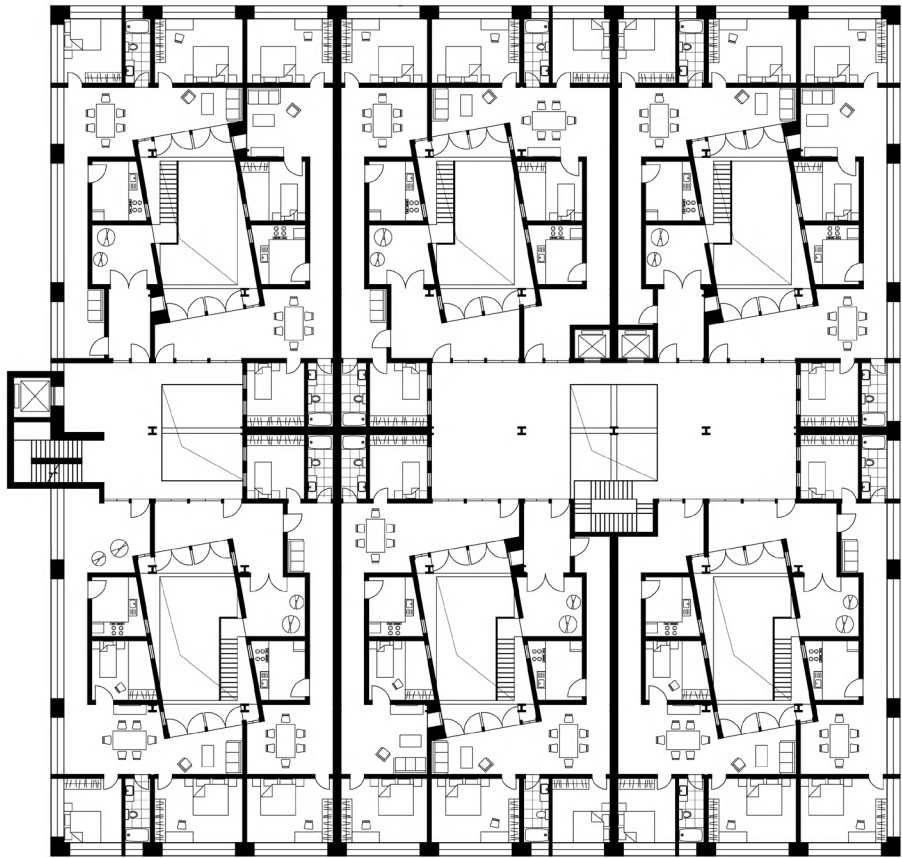
Each of the two build is divided according to the structural grid into six residential units. Each unit accommodates two households per floor, organized around a rotating central courtyard that rises vertically through the building. The twisting courtyard turns toward the direction of direct sunlight, increasing daylight access while maintaining natural ventilation. At the same time, the rotating geometry and the outward-expanding stepped terraces create greater opportunities for interaction and social exchange between residents.



plan 6F



plan 5F

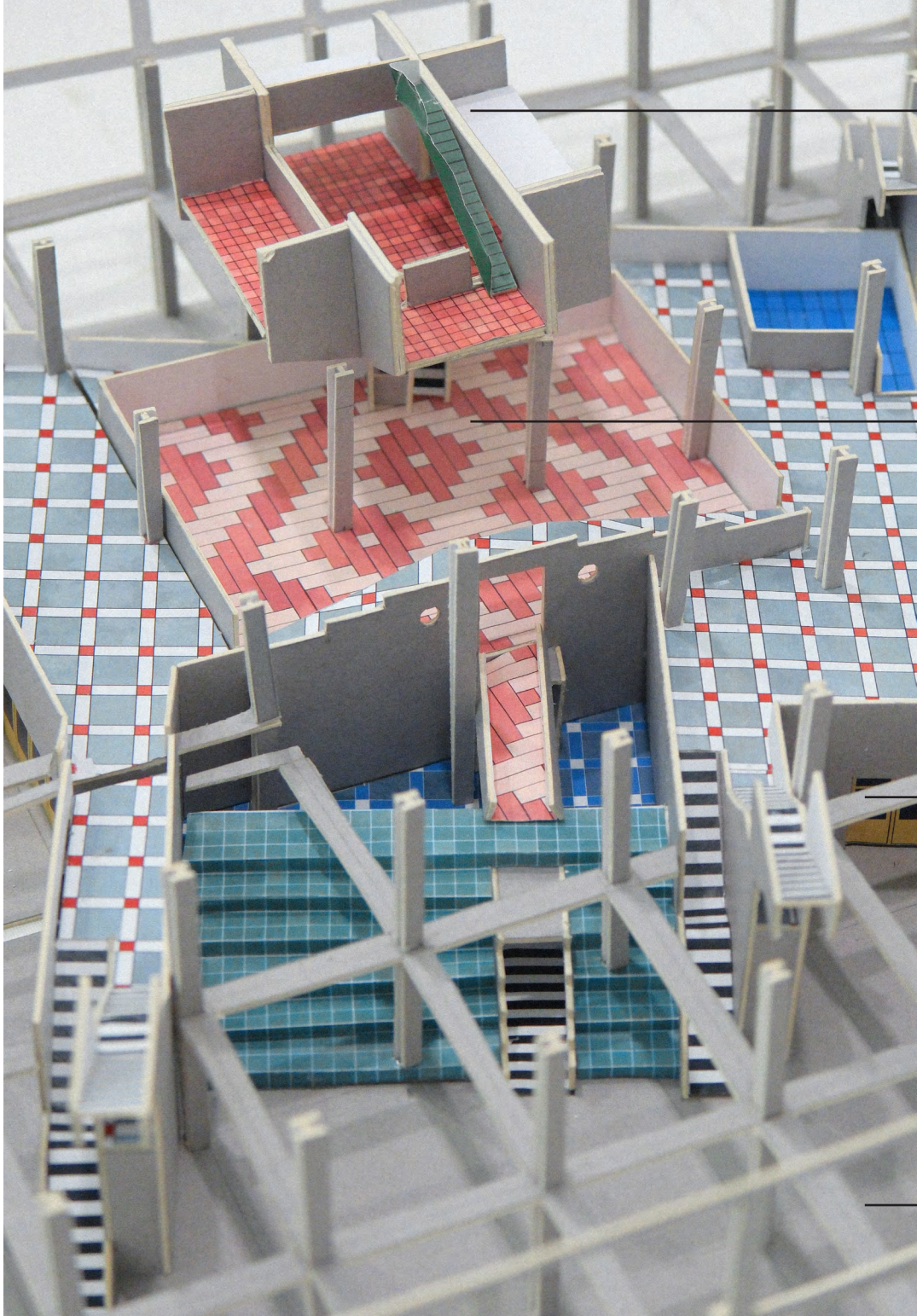
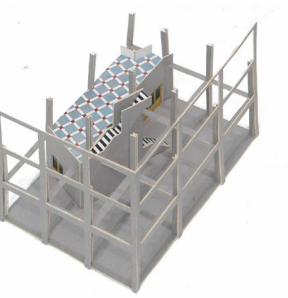
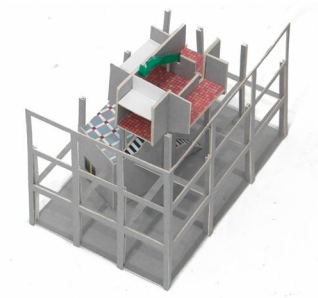
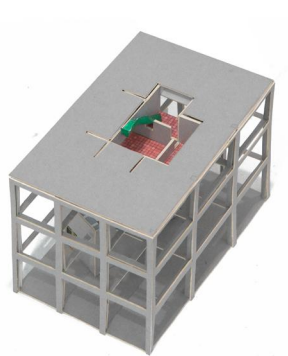
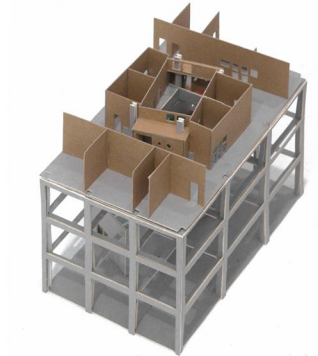
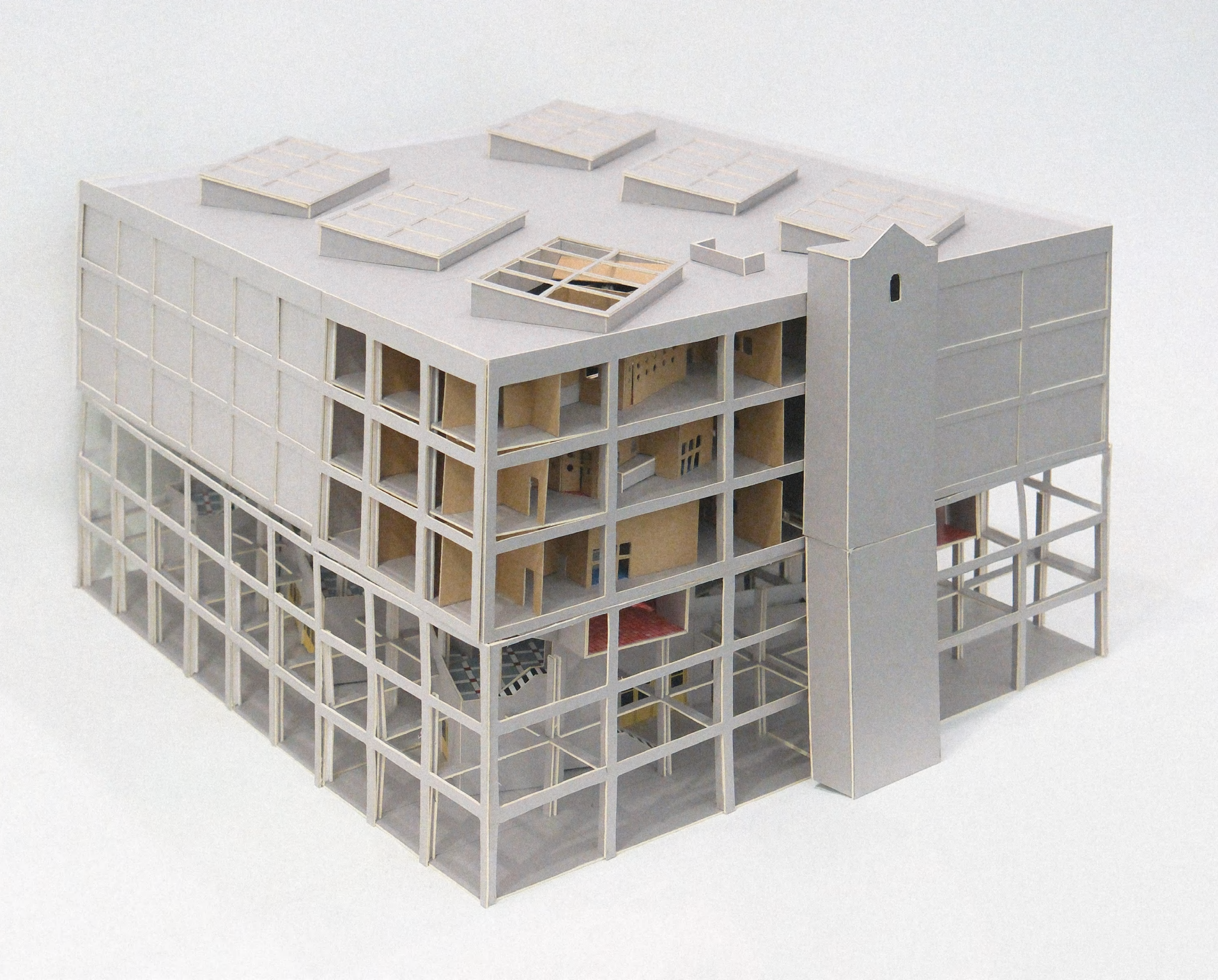


plan 4F



the atrium and the shared space

Physical Model 1:100 Cardboard and self printed paper with texture

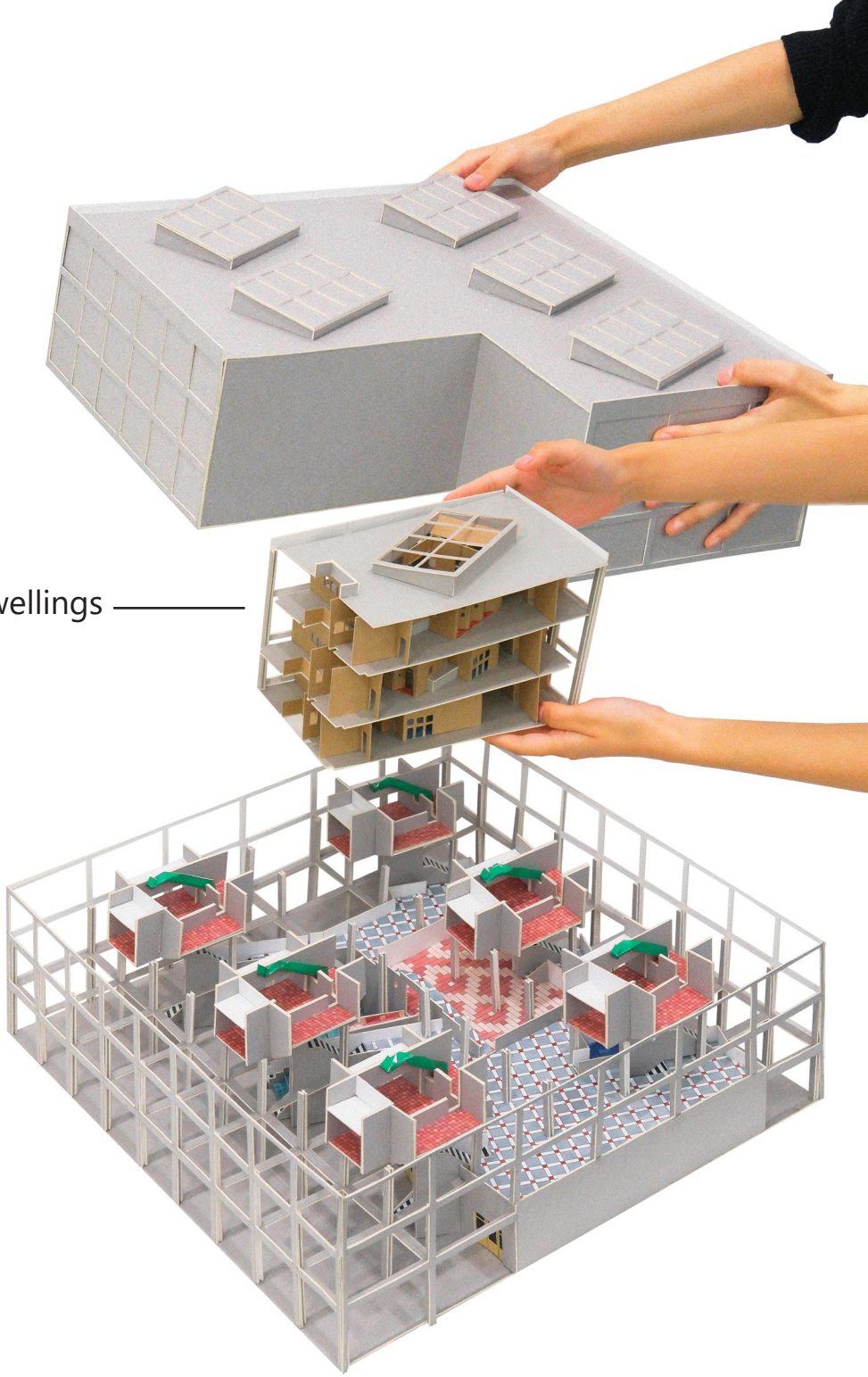


Shared space

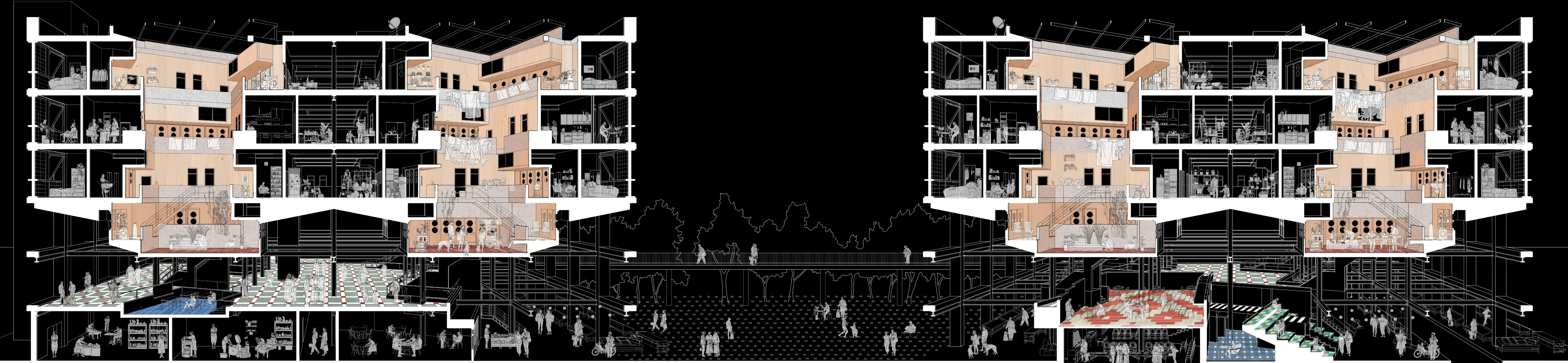
Culture core

Shops

Urban environment



Dwellings



Section

Dwellings

Dwellings

Dwellings

Dwellings

Dwellings

Dwellings

Dwellings

Dwellings

Shared space

Shared space

Shared space

Shared space

Community space

Kinship space

Community space

Grand staircase/stage

Work shops

Shops

City park (urban environment)

03

THE PASTA MAKING HOUSE

PROJECT-CRAFTING COLLECTIVITY
PROJECT TYPE-Residential
LOCATION-Athens Greece
INDIVIDUAL WORK

This project explores Greek pasta production through a system shaped by moisture, sunlight, and air movement, integrating living and working. It proposes a residential building as the center of a community’s food culture, where environmental forces actively organize everyday life and pasta production processes.

The building operates as a continuous atmospheric system, with interconnected spaces allowing air to flow naturally through the structure, which regulate humidity, adapting different zones to specific stages of production and living conditions.

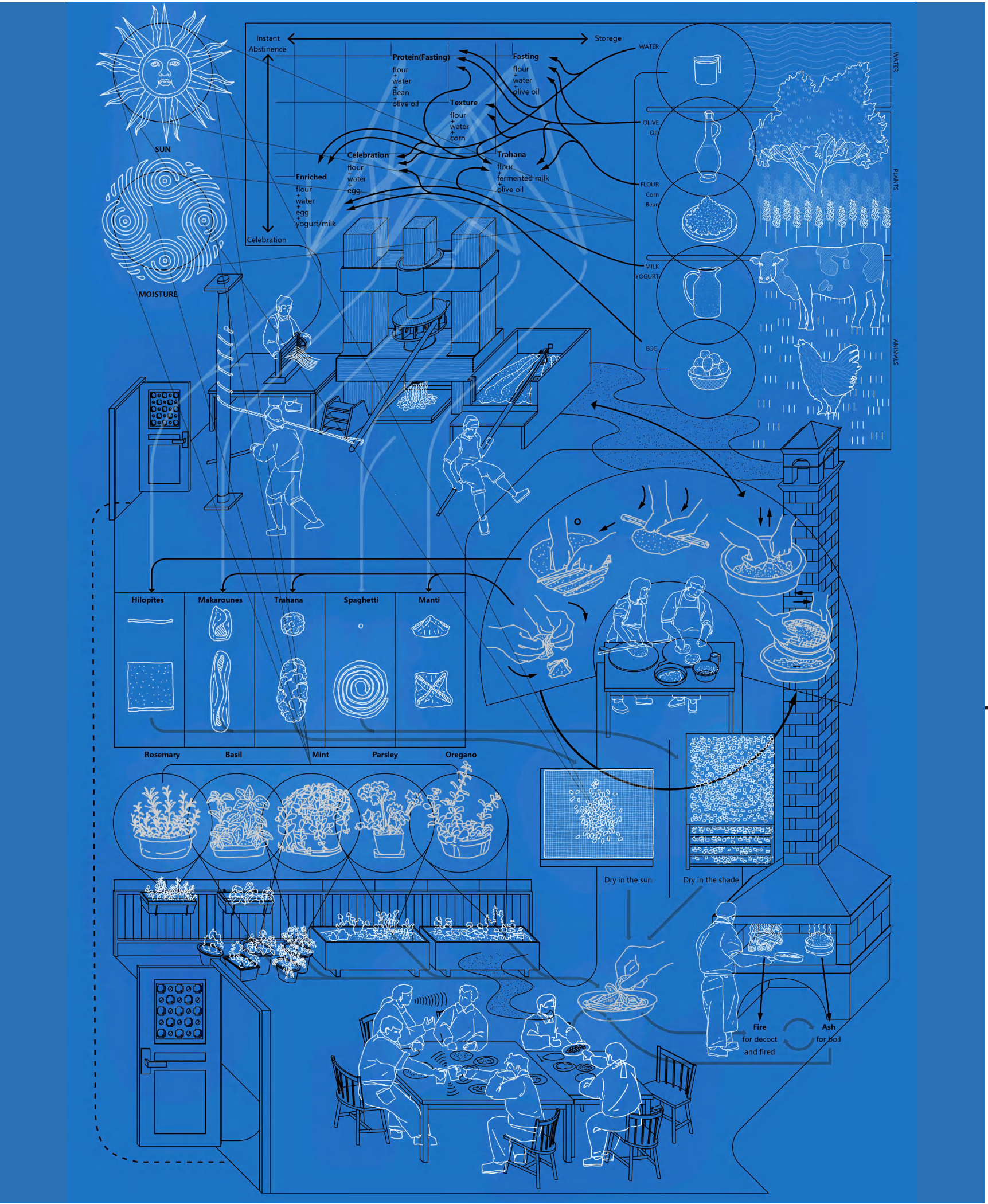
Dough is processed within spaces of varying humidity, with shaded lower levels for Hilopites and sunlit upper levels for Trahana. Cooking smoke rises as a visible signal

of communal life, than everything is collected at the tables where people, materials, and arts converge.

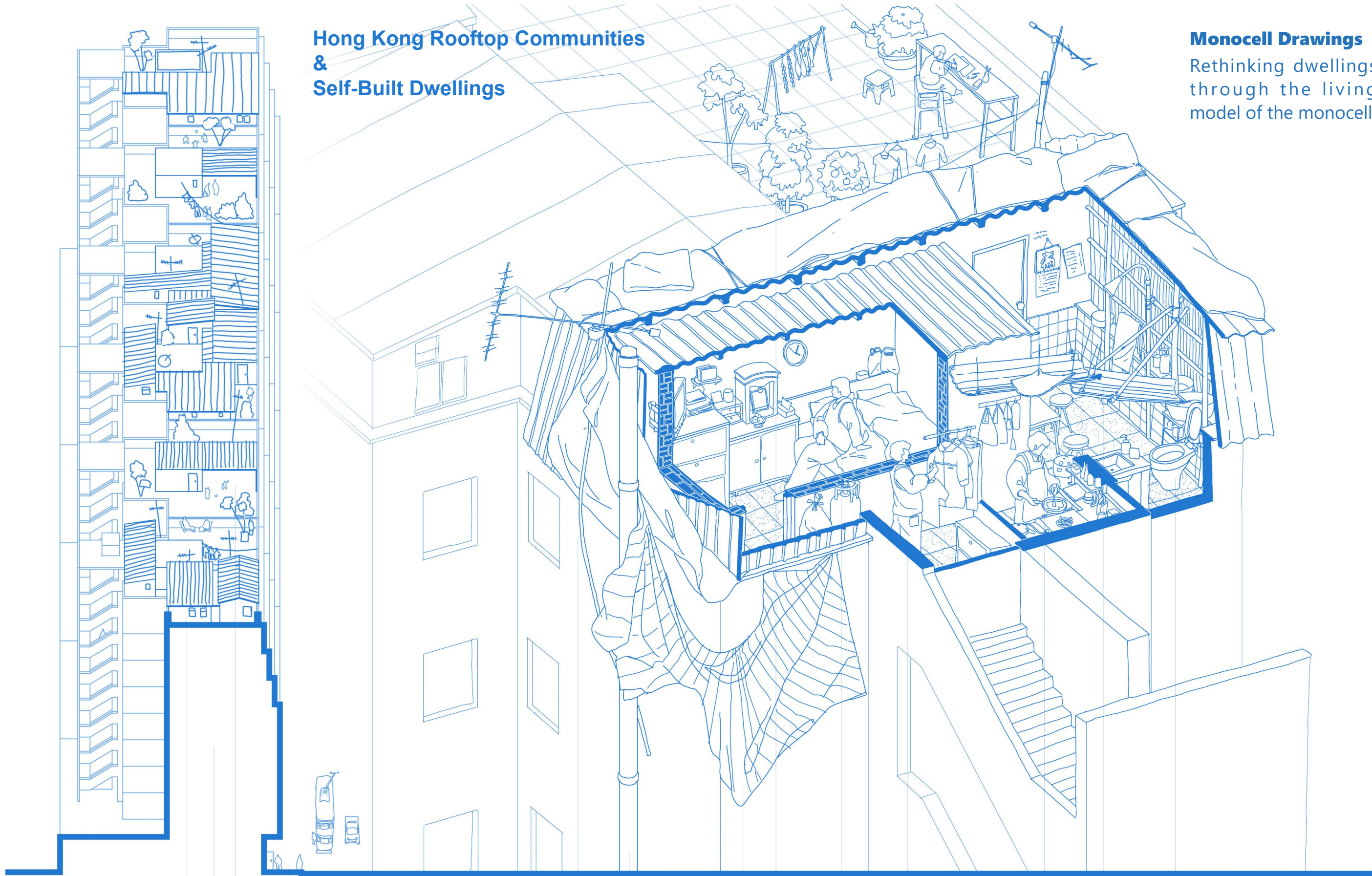
The Three continuous long tables form the core, mediating between domestic and communal space across interior and exterior. They support kneading, making, cooking, and eating of pasta, transforming production into a collective act embedded in daily life.



Cosmogram drawing of Greek pasta practice

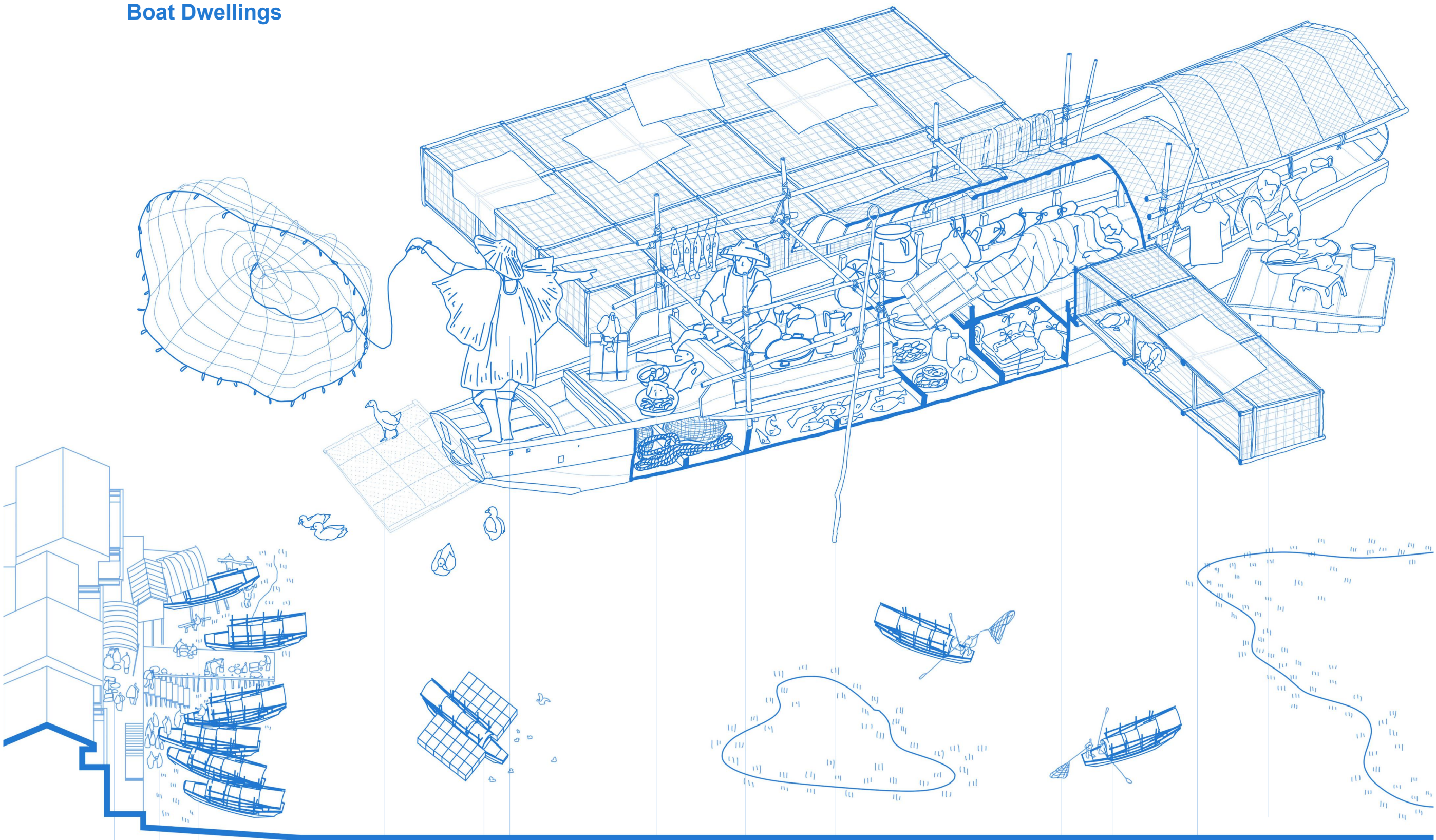


Hong Kong Rooftop Communities & Self-Built Dwellings



Monocell Drawings
Rethinking dwellings through the living model of the monocell.

Tanka Waterborne Community & Boat Dwellings



- Trade fish and seafood with land settlements to obtain essential items like rice
- The boat as a ceremonial and religious space
- Professional maintenance carpenter within the community
- The temporary platform allows ducks to enter the water for free-range rearing
- A boat raising ducks
- The bow serves as the workspace for casting nets
- The ship is divided into five compartments, from front to back, for storing fishing nets and ropes, for holding water to preserve the catch of fish > 2, for storing clothes and bedding, and for storing food and firewood
- preparing food
- A frame structure made of bamboo or wood supports the bamboo canopy and also serves as poles for drying fishing nets or air-drying food. It can also be temporarily removed and inserted into the mud to stabilize boats
- Due to heavy workloads, the husband and wife bear roughly equal labor responsibilities. For example, when fishing here, the wife rows the boat while the husband casts the net
- A bamboo canopy can set up a to provide shelter while sleeping
- Bamboo cages can be hung on both sides to raise chickens and ducks
- When performing certain tasks (such as doing laundry), a floating platform outside the boat is used to gain more working space

1: Grill storage window

Windows between private and shared zones, placed in airflow paths; they dry pasta and enable exchange between inside and outside.

2: Chimney

A large façade chimney acts as an urban marker; it expels smoke and collects rainwater, channeling it to a basin below.

3: Stove

A semi-outdoor central Stove on the long table for cooking; food is cooked over flames or in ash, with smoke vented through a flue.

4: Workshop

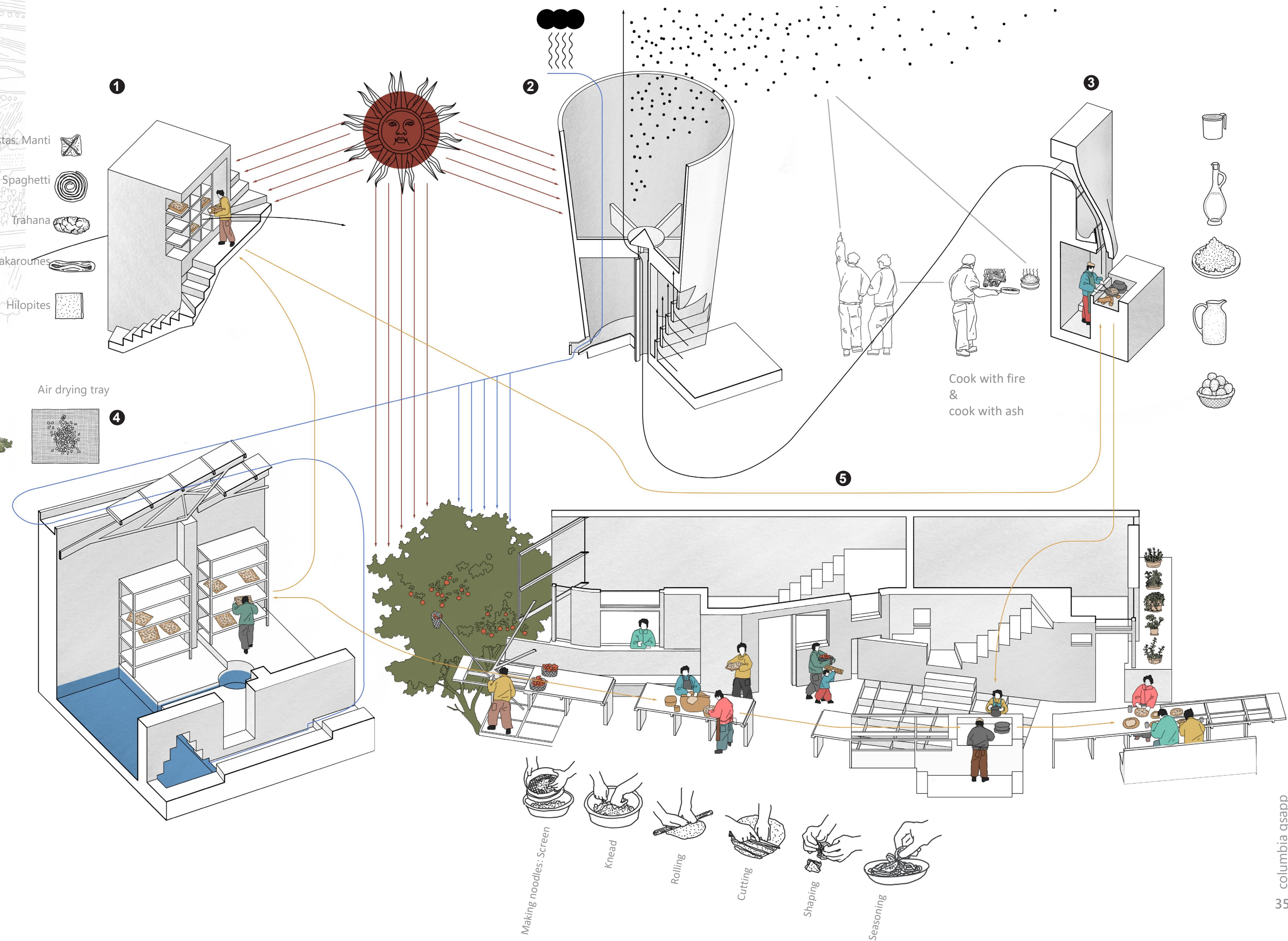
A lower-level production space where moisture gathers, creating ideal conditions for food fermentation.

5: The long table space

A semi-outdoor long table linking street, garden and dwellings, where cooking, cultivation, and eating merge in one continuous system.

- Greek pastas: Manti
- Spaghetti
- Trahana
- Makarounes
- Hilopites

Air drying tray



Physical Model 1:75

Foam board, acrylic paint, sponge, tree branches, and colored cardboard. Section cut through the two long tables.

Purple represents private interior spaces, while gray represents open public and semi-public spaces.

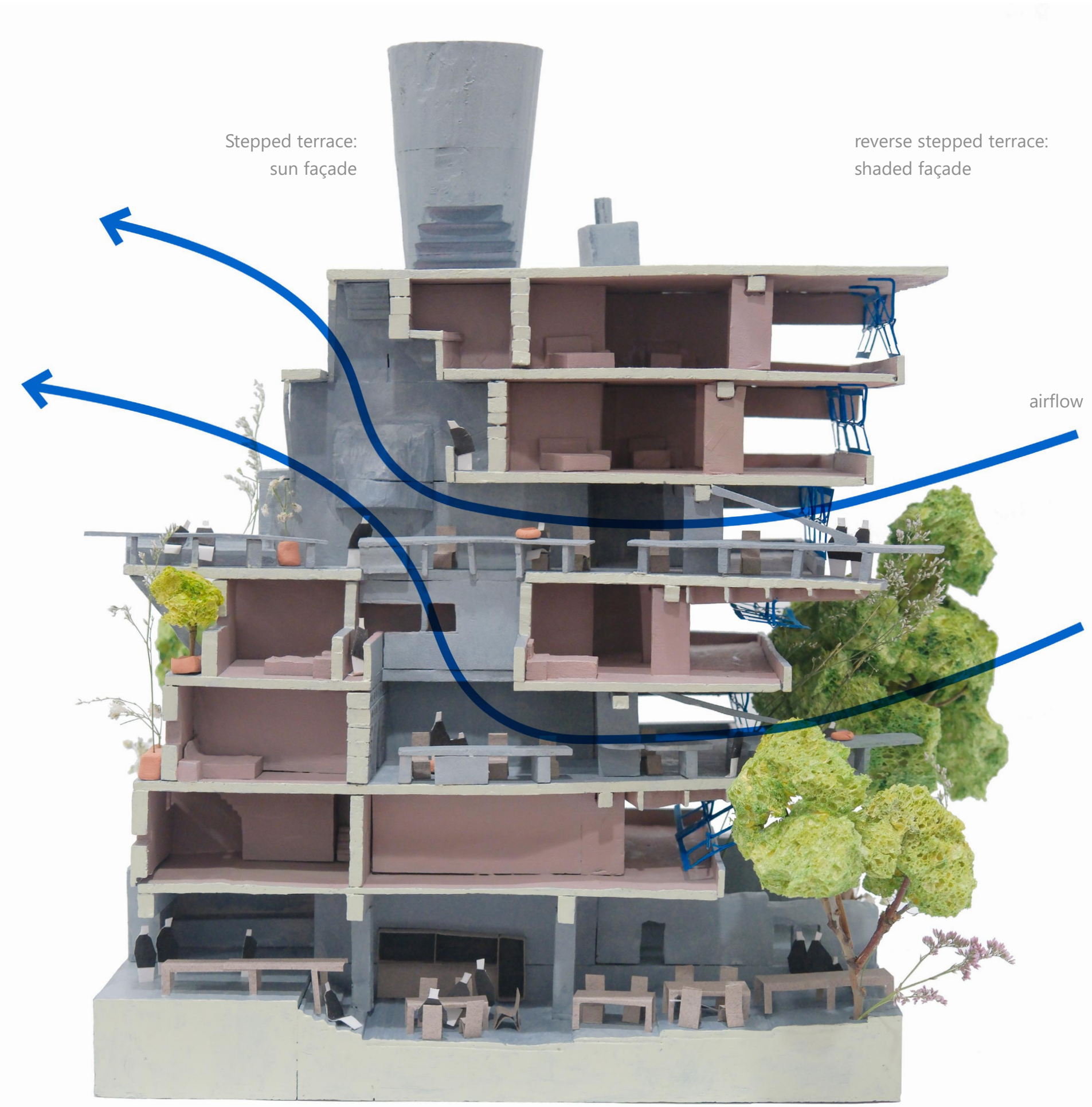


The steps back:

One side of the building steps back like a typical Greek dwelling, while the other side terraces in reverse. This creates a sun-facing side and a shaded side, establishing a humidity gradient that supports varied living environments, and can be used respectively for sun-drying and air-drying different pastas.

The arcade

The ground level of the building forms a longitudinal passage that guides community circulation toward the inner courtyard. The courtyard, once an abandoned small woodland, is now accessible to the public. A long table is also placed here, supporting pasta production and sales alongside a small restaurant. The restaurant's fireplace is directly exposed to public view, becoming the focal point of food activity within the community.



Long table: street side



Long table: with dwellings

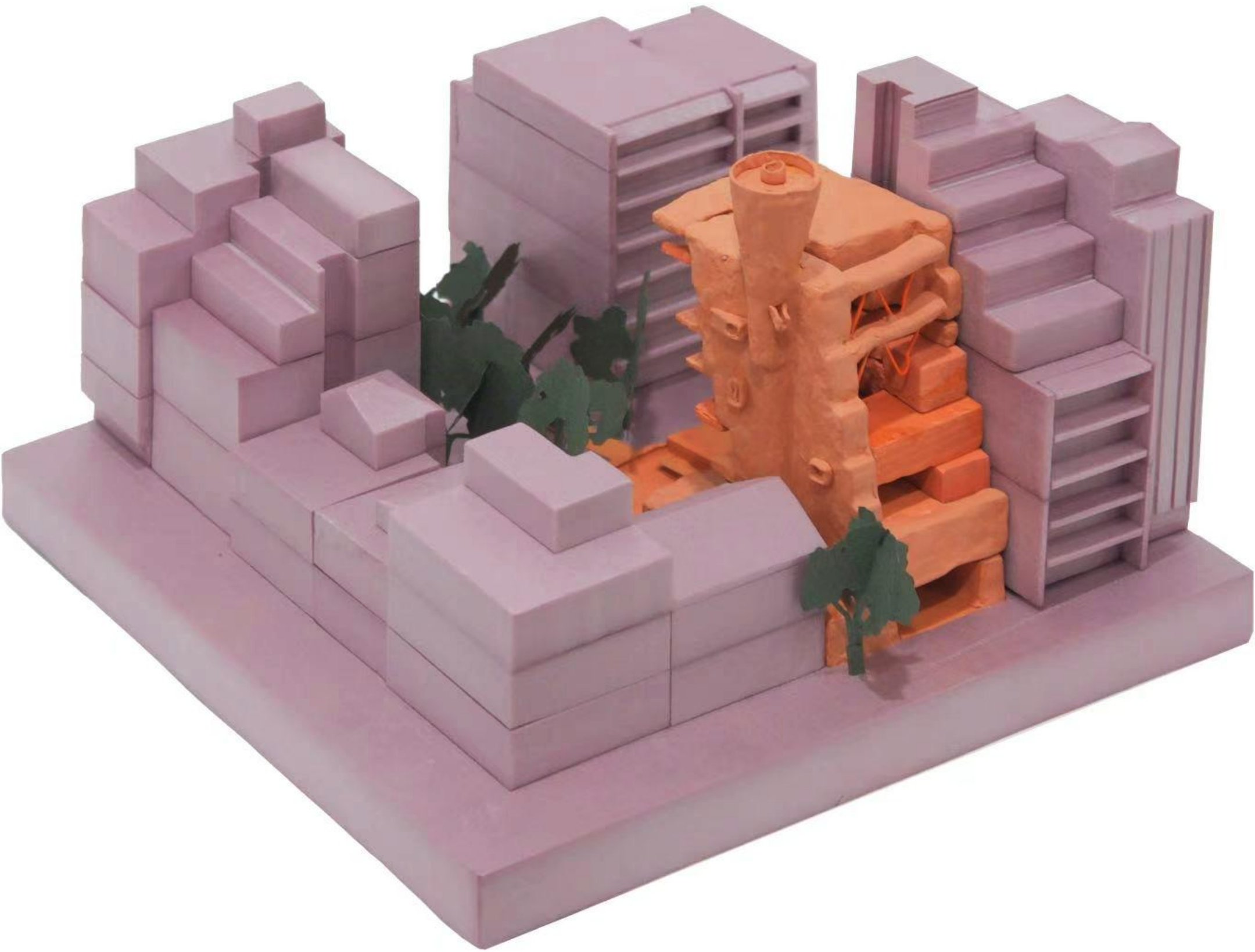
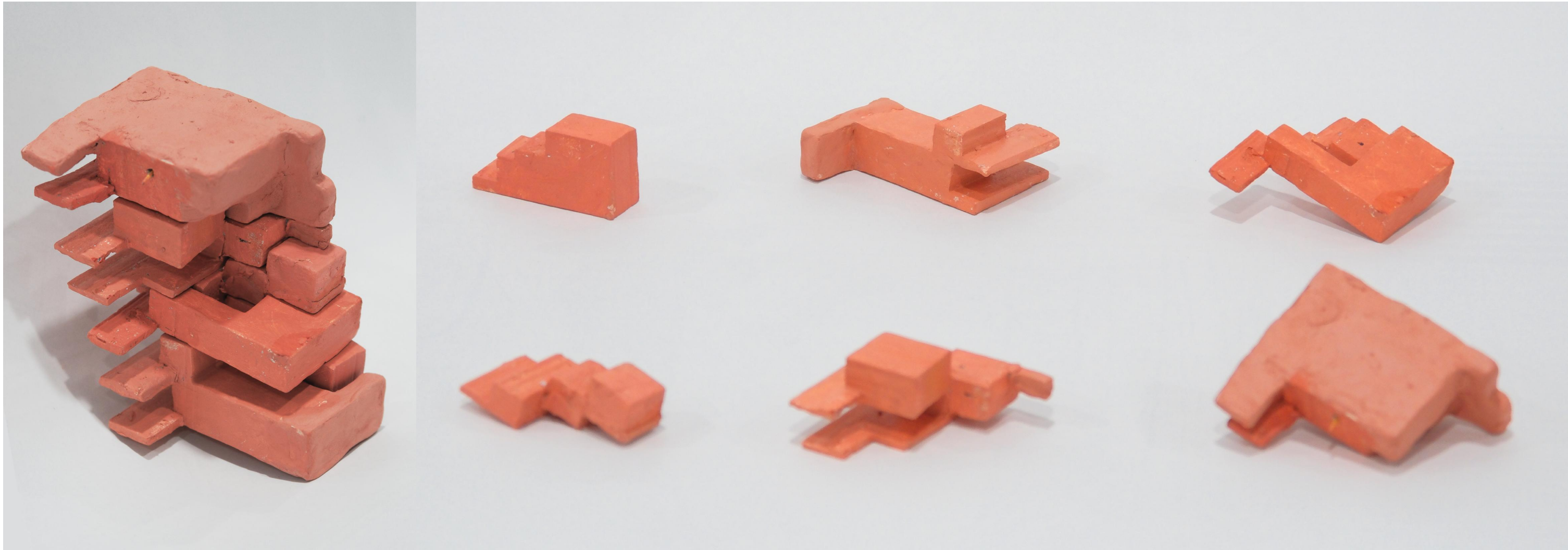


Long table: back yard side

Physical Site Model 1:100

Foam board, acrylic paint, clay, and colored cardboard.

The housing units can be separated. The living rooms of every three levels above and below interlock and split levels onto the same plane, allowing them to share a single long table.



The redevelopment of the rear façade
Activating the back yard

