

TRANSITIONAL SOCIAL APARTMENTS For Migrant Workers

- Living on the Margins

The project is located in Zhongpu Village, Huli District, Xiamen, Fujian, a typical urban village fringe area. As the government plans to relocate Gaoqi Airport to Xiang'an District in 2026, the old airport and its surrounding areas will be redeveloped. The original residents of Zhongpu Village - migrant workers, are on the edge of being ignored in the wave of urban renewal. Our design is to provide a transitional living solution for these "passive relocators".

This project aims to create a low-cost, sustainable and dignified social housing to provide temporary but comfortable living space for migrant populations in urban renewal. The project site is located in a small hilly area between the urban village and the airport. The terrain is complex but the spatial tension is rich. It has the typical characteristics of "threshold space" and is an ideal place for new residential experiments.

This project is not only a proposal for a housing form, but also a positive response to social equity and humanistic care in the context of urban renewal. We are not only concerned about the building itself, but also the living conditions of people in it. By providing a low-cost, sustainable living environment with basic dignity and a sense of belonging, we hope to build a safe transitional living space for the most neglected group of people in the city. It not only inherits the life of the urban village in the past, but also leaves a gentle and flexible interface for future urban development.

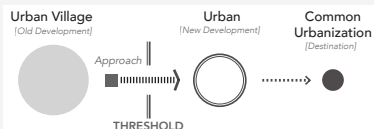
Wang Yunqian

2117006 / Group_2 / ED3 / ICI
Xiamen / China / 2025

Final Major Project

S2 | Y4

01 Threshold Comprehension



At the junction of urban villages and emerging development areas, the threshold space form presents unique contradictions and possibilities, and exists in the following three dimensions:

1. The threshold of physical space

The capillary-like street texture in the urban village contrasts with the grid planning system of the new town.

2. The transformation field of social relations

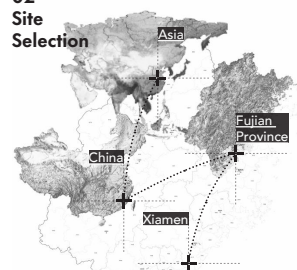
The threshold space becomes a test field for the interaction of different communities, and the symbiosis between "new citizens" and Locals forms a cultural transition layer.

3. The evolution of the time dimension

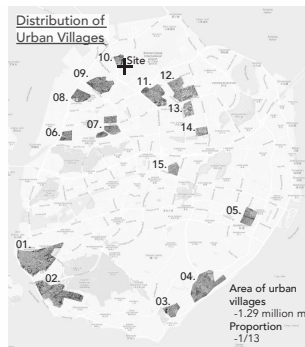
The government-led new town development demands and the historical survival value of the urban village are in conflict, and the confrontation between the two forms a threshold state of overlapping time and space.

In the current urban renewal in China, threshold space is often simplified as a "transitional zone for demolition", which has lost its intermediary role. The ideal model should draw on the "transitional symbiotic system", and the threshold space should not be the end point of the contradiction, but a medium for continuous dialogue.

02 Site Selection



Rapid urbanization and economic benefits have led to the existence of urban villages.



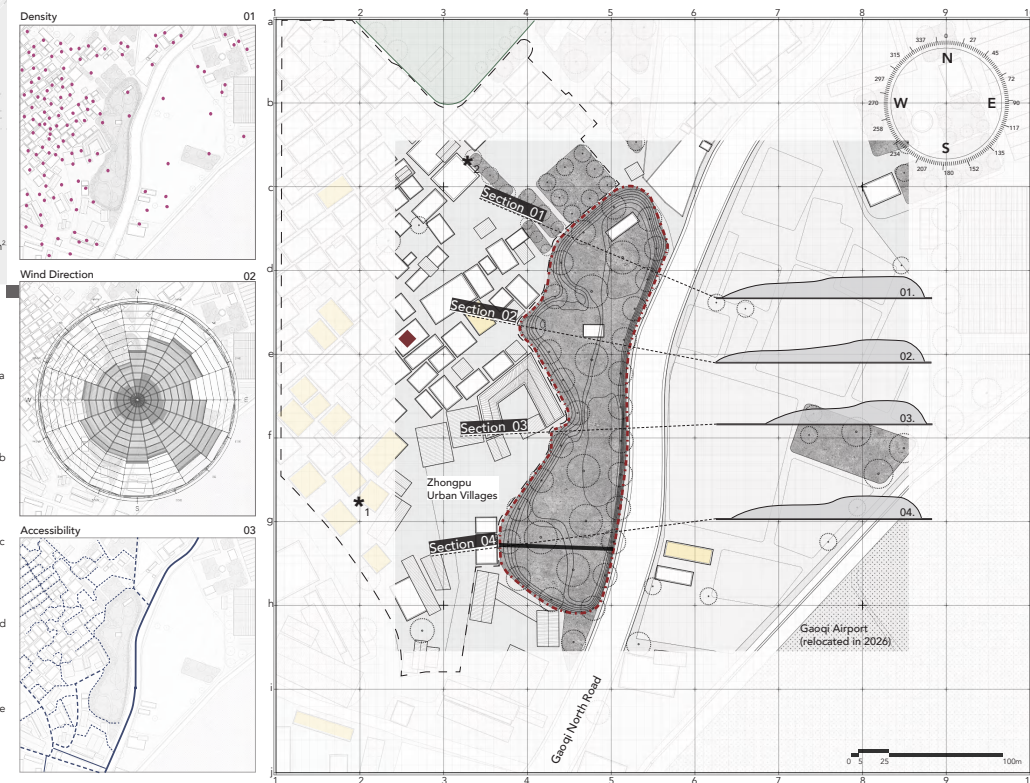
03 Location Plan



Location Section



04 Site Plan



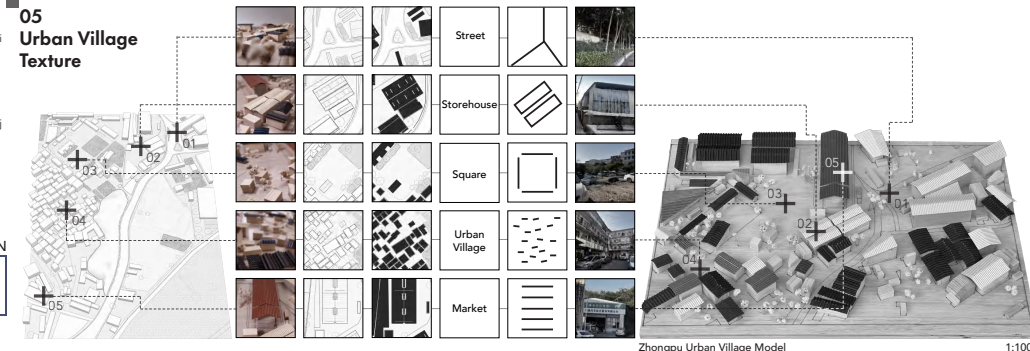
Problem Identification

Gaoqi Airport will be relocated to Xiang'an District in 2026. After that, Gaoqi Airport will be developed into 'an international trade centre and a regional science and technology innovation centre integrating sources of innovation and high-end services'. The urban villages close to the airport are in sharp conflict with the development needs.

Legend



05 Urban Village Texture



06 Target Audience

Identity	Flexible Workers	Migrant Workers
Proportions	31%	19%
Age	18-35	23-50
Job	Delivery man, Didi driver, Housekeeping service	Construction worker, Self-employed
Reasons for living in an urban village	Low-cost living, Work-life balance, Convenient infrastructure	Low-cost living, Many job opportunities, Convenient infrastructure

Introduction

These target groups generally face three dilemmas:

First, the contradiction between high density and low quality of living space, and the widespread existence of safety hazards and sanitation defects;
Second, the conflict between part-time employment and fixed and complex living space;
Third, the lack of supporting facilities and social rupture lead to the psychological island effect of each person, weakening the traditional mutual assistance system based on geographical and industrial ties.

This spatial-economic-social compound pressure essentially stems from the lack of transitional residential products in the process of urban renewal.

07 Villager Interviews



Name: Zhang Yong Age: 71
Identity: Store Operators
Residence time: More than ten years

I read the government documents and they said that the airport in front will be moved to Xiang'an District. I heard that a new airport has been built. The village committee said that our house will be demolished and they will ask for our opinions. But we don't want it to be demolished. This location is good and easy to rent out. Who knows where we will be placed after the demolition?

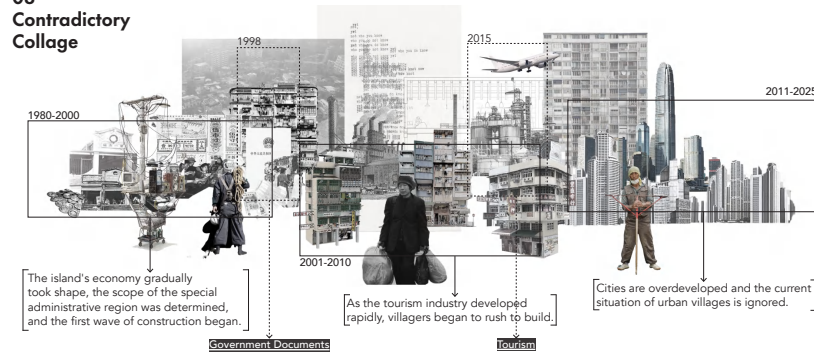


Name: Wang Age: 41
Identity: Electrical Workers
Residence time: Fourth Year

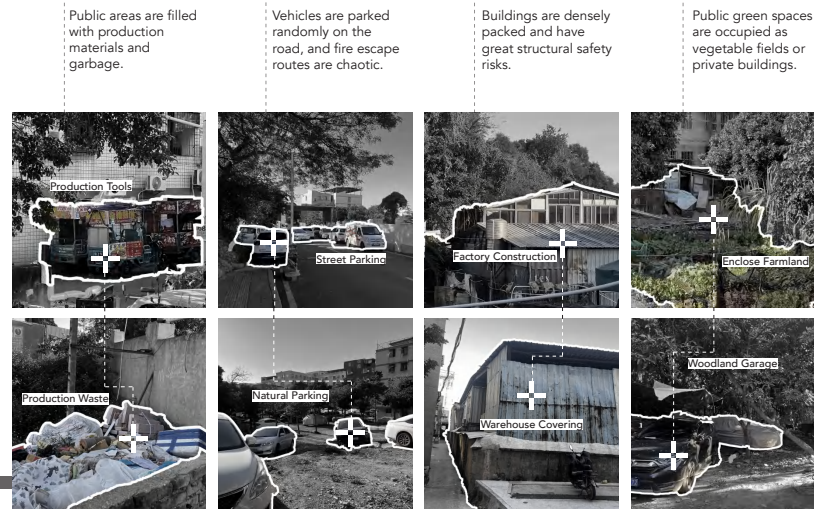
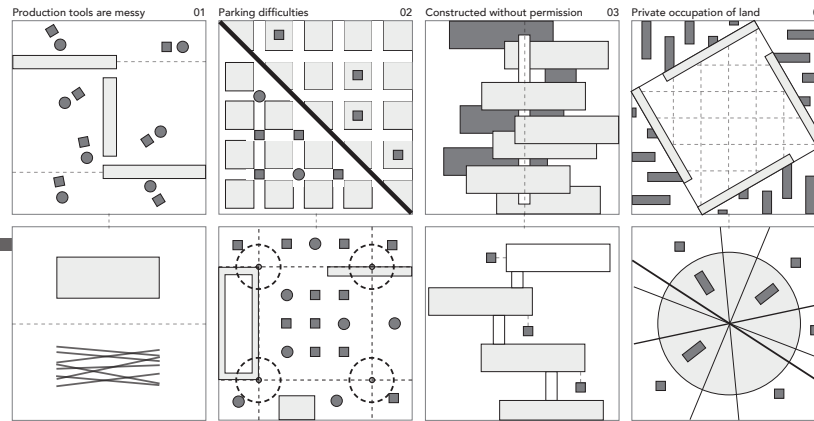
There are only a few elderly locals here, but most of them are younger migrant workers, some of them are deliverymen, and some of them set up stalls. They prepare food in the village during the day and go out at night. They come back very late, which makes it quite noisy.
There is nothing we can do if people dislike this place because it is not clean. After all, the rent is relatively low and many people can still afford it.

Date: 04/10/2024 Interviewer: Wang Yunqian Location: Zhongpu Urban Village

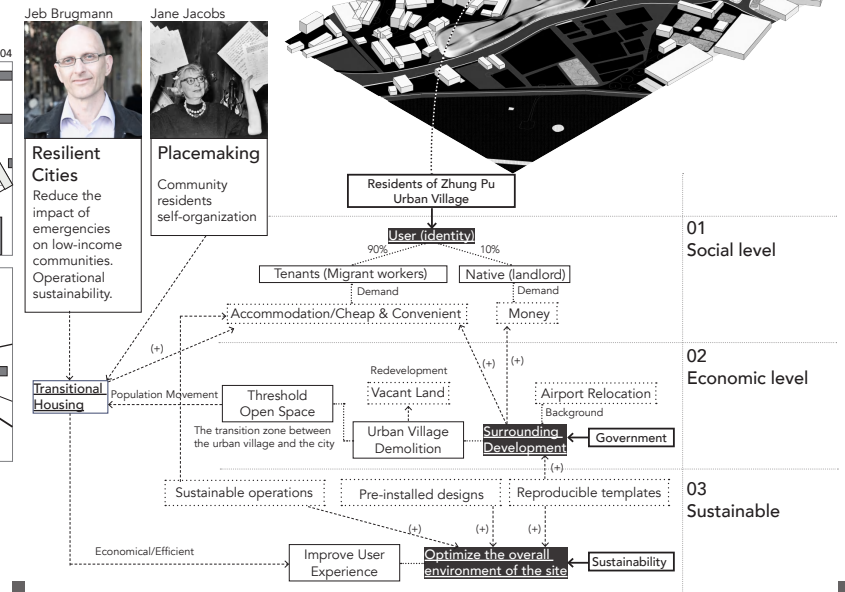
08 Contradictory Collage



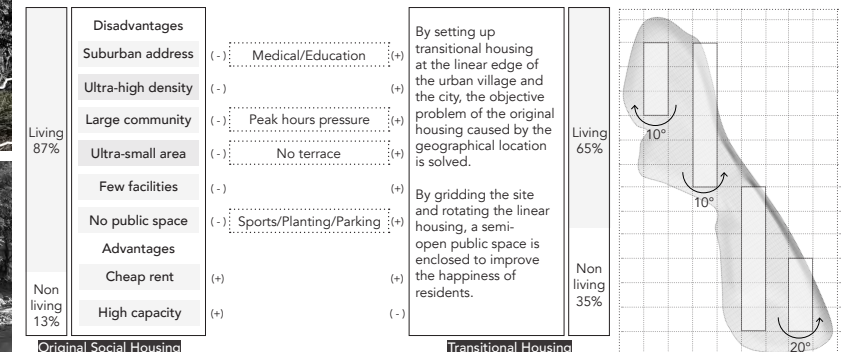
09 Issue Mapping



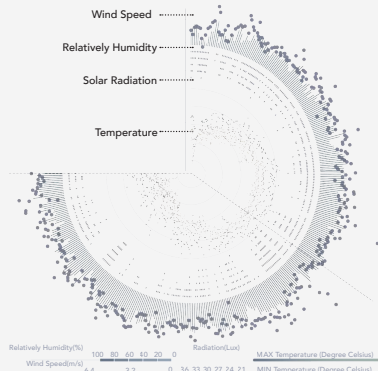
10 Design Strategy



11 Housing Logic



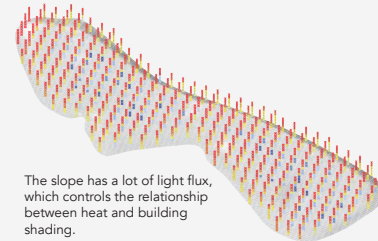
12 Environmental Parameters



Xiamen has a subtropical marine monsoon climate and is rich in light and heat resources, but the light problem in the urban village is quite significant.

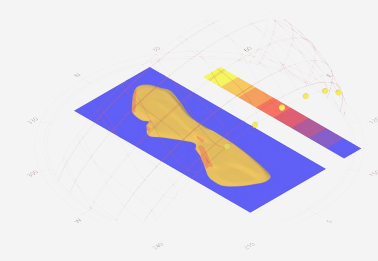
First, excessive lighting and light source interference, light pollution has become a major problem that troubles residents; dense buildings lead to insufficient lighting and are closed on three or four sides. Natural light is an important factor in the level of living happiness.

01 Flux distribution of light



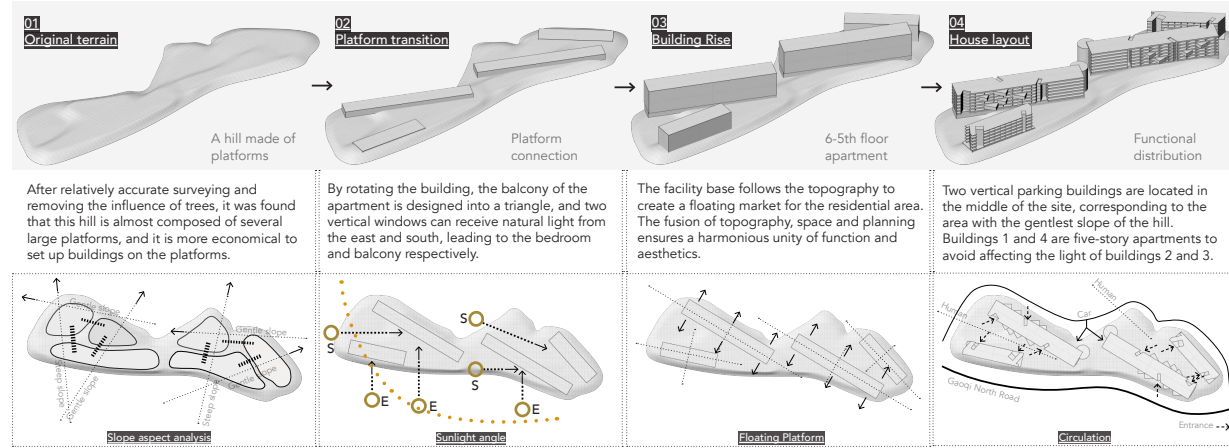
The slope has a lot of light flux, which controls the relationship between heat and building shading.

02 Light environment simulation



The site is close to the airport, there are no super-high buildings nearby, and the site has sufficient lighting.

13 Block Generation

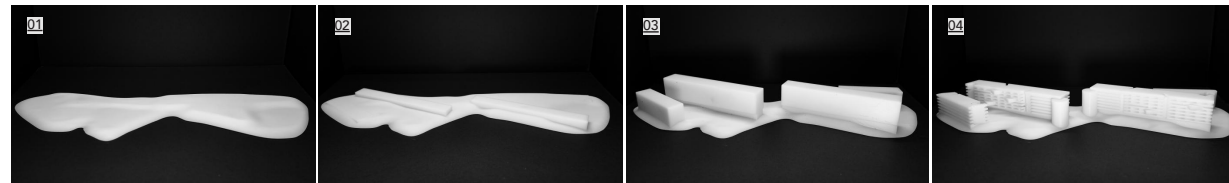


After relatively accurate surveying and removing the influence of trees, it was found that this hill is almost composed of several large platforms, and it is more economical to set up buildings on the platforms.

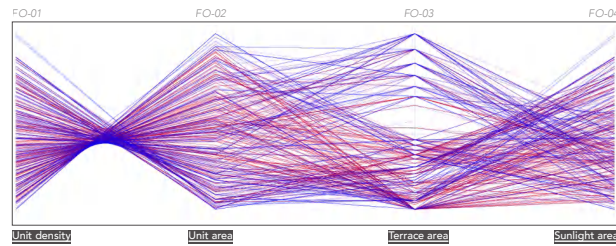
By rotating the building, the balcony of the apartment is designed into a triangle, and two vertical windows can receive natural light from the east and south, leading to the bedroom and balcony respectively.

The facility base follows the topography to create a floating market for the residential area. The fusion of topography, space and planning ensures a harmonious unity of function and aesthetics.

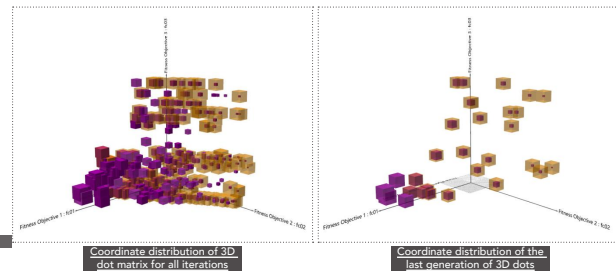
Two vertical parking buildings are located in the middle of the site, corresponding to the area with the gentlest slope of the hill. Buildings 1 and 4 are five-story apartments to avoid affecting the light of buildings 2 and 3.



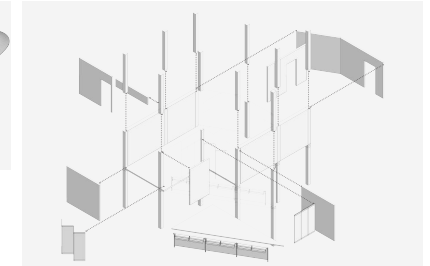
15 Multi-Objective Optimization



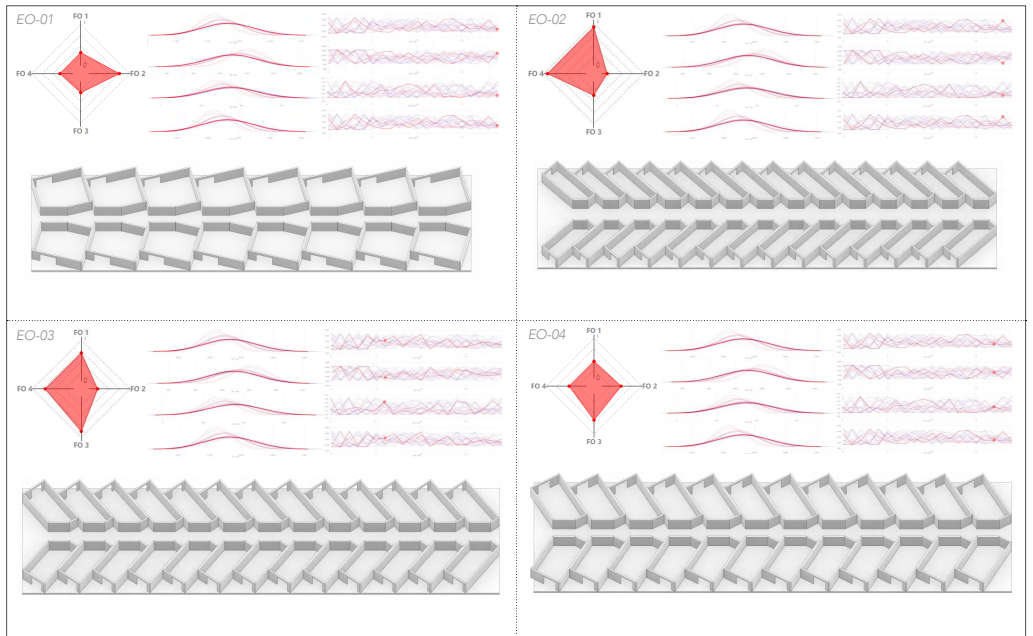
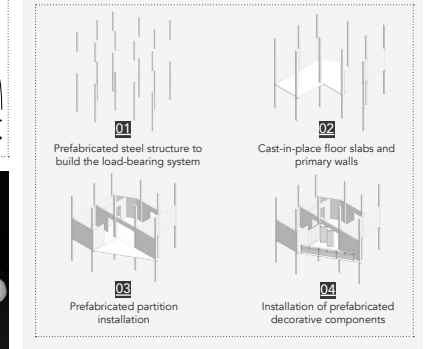
The apartment design uses a multi-objective optimization genetic algorithm that takes into account building unit density, unit size, terrace area, and sunlight exposure. By simulating the mechanism of natural selection, the genetic algorithm will produce an innovative design that achieves an optimal balance between economic and environmental benefits, resident comfort, and aesthetics.

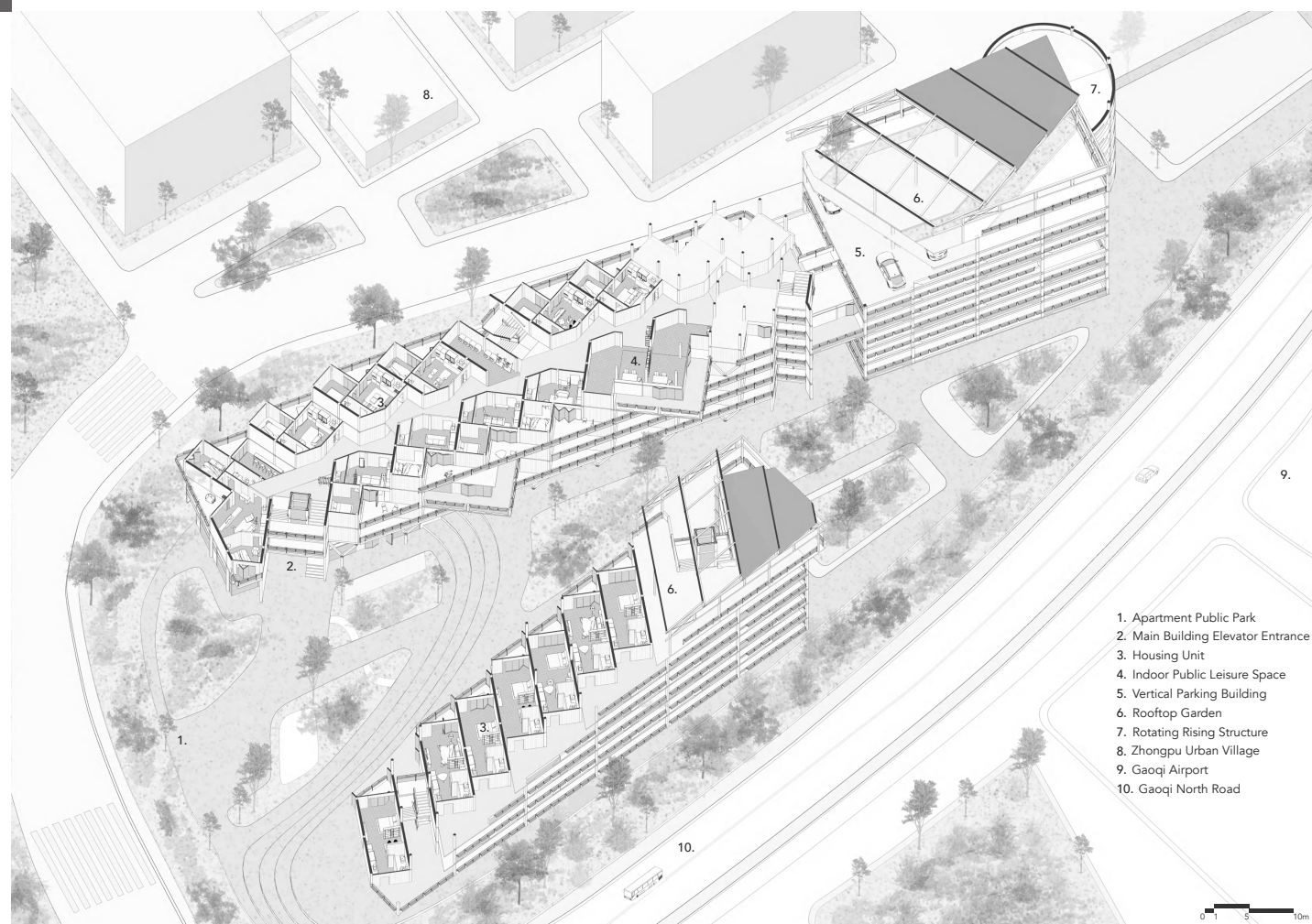


14 Structural Assembly



Construction Process





1. The triangular space between the two buildings becomes a public space for residents.
2. Each building is equipped with a lift entrance to provide access for disabled persons.
3. Building 1 accommodates 75 residential units (two types of apartments), and Building 2 provides 45 residential units.
4. In order to enrich the interior space, some public spaces are used to disrupt the single rhythm.
5. Provide 95 necessary parking spaces or serve Didi drivers.
6. The rooftop greening system and facade greening system can improve the greening rate of the park and reduce the urban heat island effect.

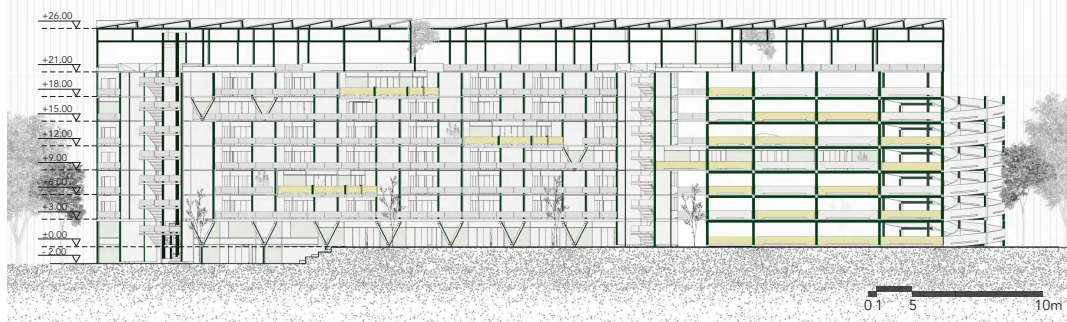


1. 6 Two-Bed Flat units and 70 One-Bed units
2. 6 Two-Bed Flat units and 70 One-Bed units
3. 45 Studio units
4. 45 Studio units
5. Accepting residents from the main road
6. Accepting residents from urban villages
7. Two vertical parking buildings share one entrance and exit

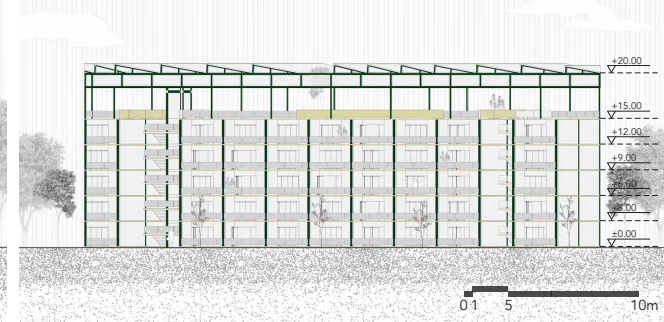




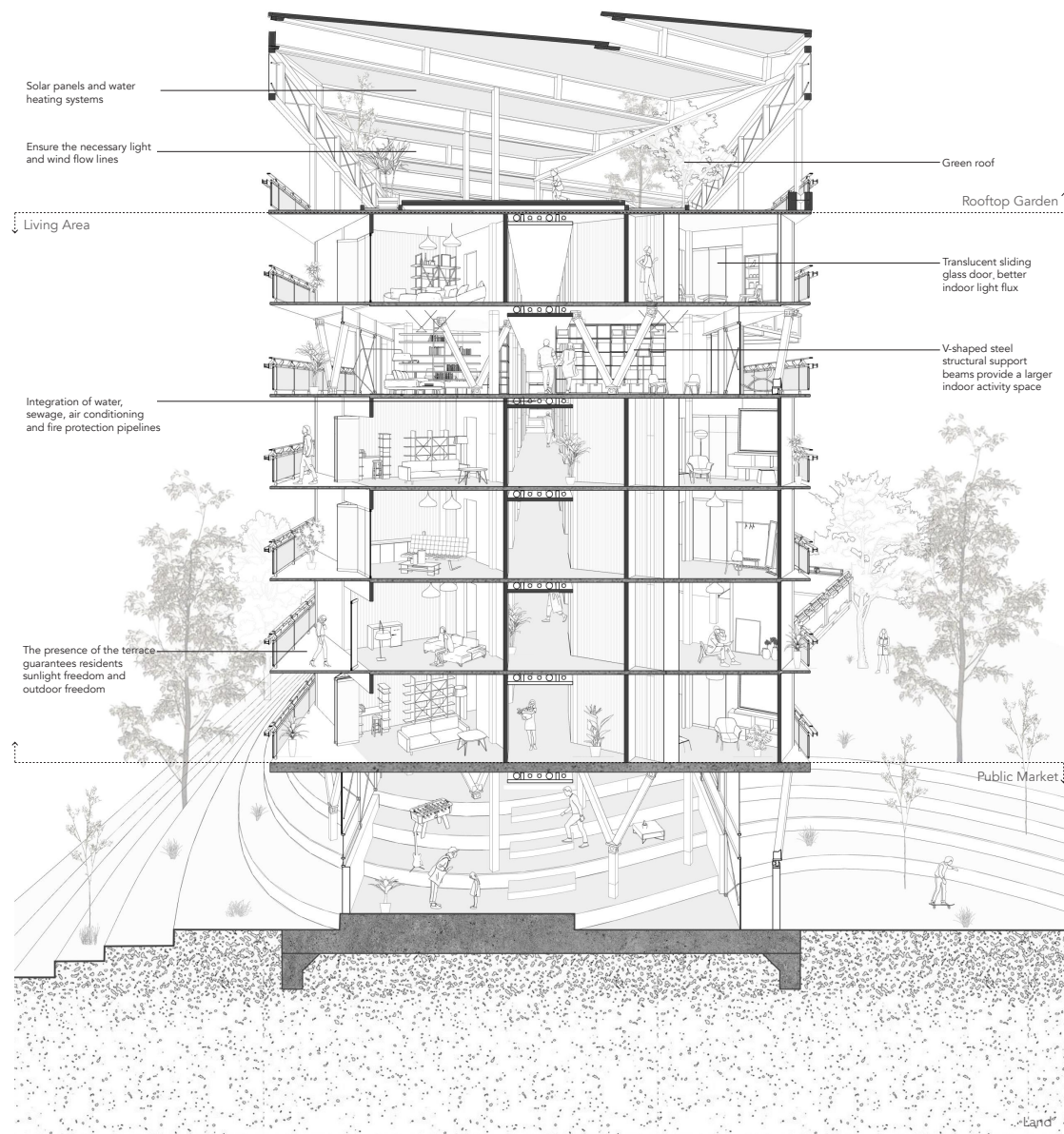
A-A'



B-B'



20 Perspective Section C-C'



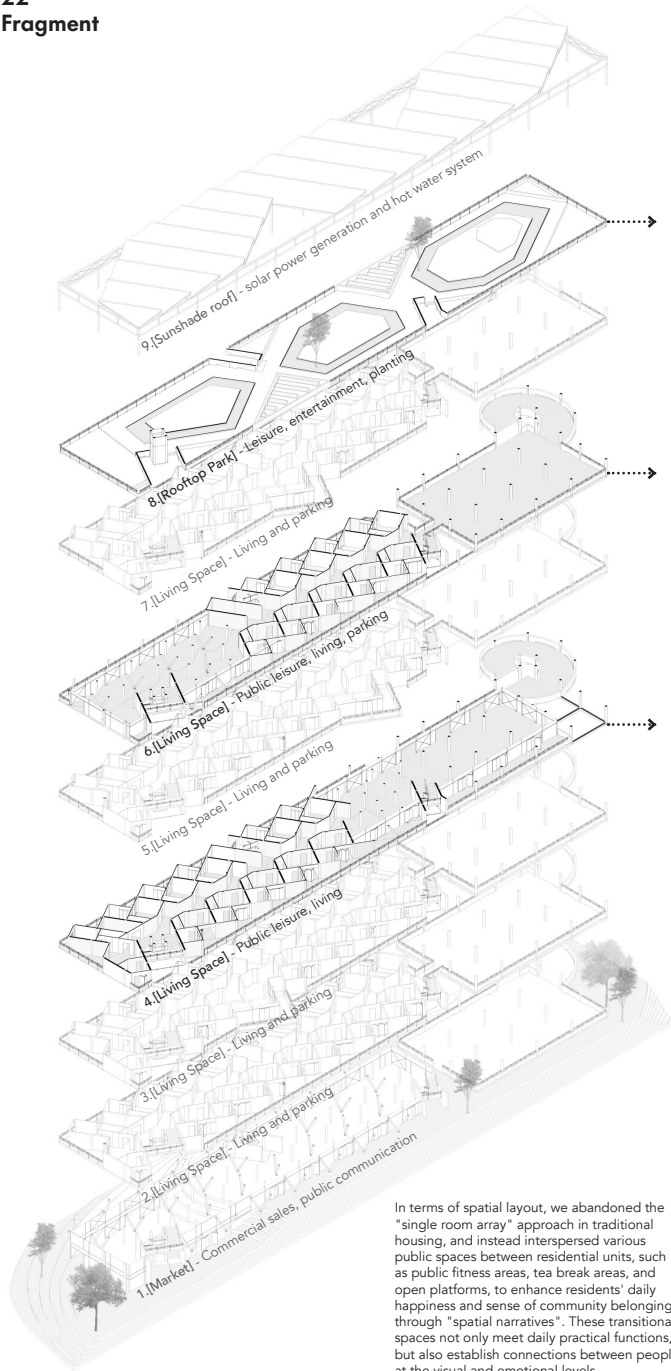
21 Elevation Details



The building adopts a low-cost construction system that combines steel structure and prefabricated components, which is convenient for rapid construction and future disassembly and reorganization.

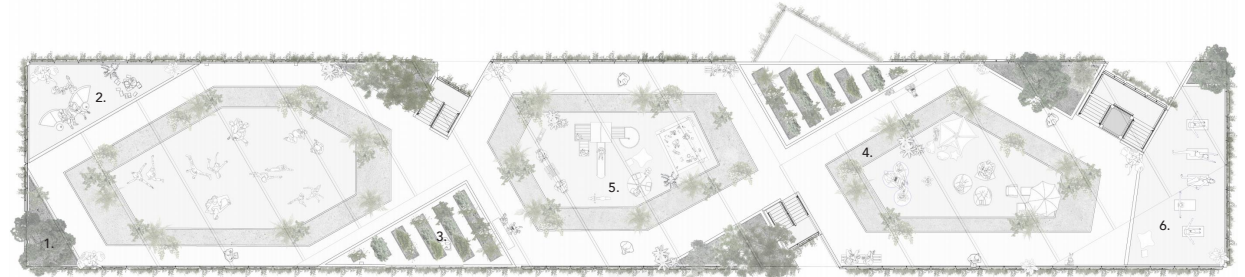
In terms of sustainability, all balconies are equipped with planting boxes to form a "facade green network"; the roof is greened on a large area to effectively alleviate the urban heat island effect; the top floor is equipped with solar panels and hot water systems to capture and utilize natural energy and build a passive energy-saving living system.

22 Fragment



In terms of spatial layout, we abandoned the "single room array" approach in traditional housing, and instead interspersed various public spaces between residential units, such as public fitness areas, tea break areas, and open platforms, to enhance residents' daily happiness and sense of community belonging through "spatial narratives". These transitional spaces not only meet daily practical functions, but also establish connections between people at the visual and emotional levels.

23 Top Floor Plan

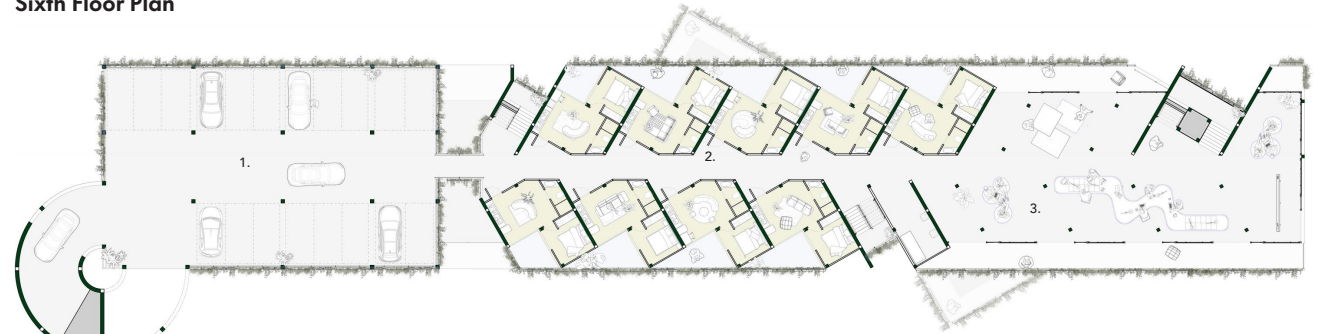


1. Roof Garden	72m ²	4. Ring Grass	160m ²
2. Leisure Platform	48m ²	5. Children's Park	86m ²
3. Planting Space	96m ²	6. Sunshine Yoga	48m ²

The rooftop is for operator-free activities, and with green plants and sunshades, it provides a comfortable venue for all ages.

0 1 5 10m

Sixth Floor Plan

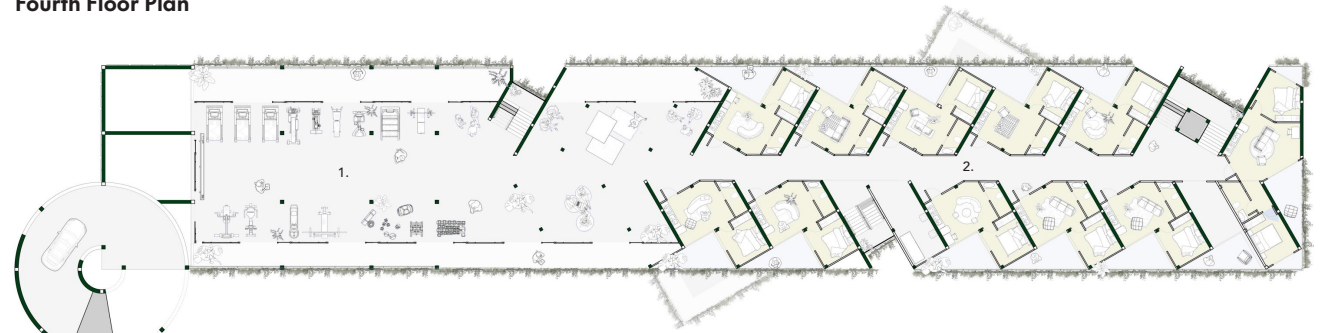


1. Vertical Parking Lot	300m ²
2. Housing Unit	550m ²
3. Interior Public Leisure	400m ²

In addition to the necessary residential units and parking functions, adding indoor public spaces can enhance residents' sense of well-being and community participation.

0 1 5 10m

Fourth Floor Plan



1. Gym & Interior Public Leisure	650m ²
2. Housing Unit	750m ²

For the physical and mental health of residents, functional areas such as gyms are set up inside the building.

0 1 5 10m

24 Leisure Space - Interior



The warm tones of the off-white cement material enhance the atmosphere of the space, creating a warm and inviting environment. The integration of the terrace space allows for ample natural light, making the leisure area more open and closely connected to the outdoor space. In addition, the clever design of the space partition and the frosted acrylic create a harmonious indoor and outdoor living atmosphere. Ultimately, these design elements work together to enhance comfort and quality.

Vertical parking lot - Interior



The use of suspended bridges as a connection between the vertical parking lot and the residential area effectively reduces the noise interference caused by structural resonance.

25 Apartment Type I

Studio Unit
For one person

Total Area	46m²
Living room	14m ²
Bedroom	14m ²
Bathroom	6m ²
Kitchen	6m ²
Terrace	6m ²
Total	90 Units



Apartment Type II

One-Bed Units
For one / two person

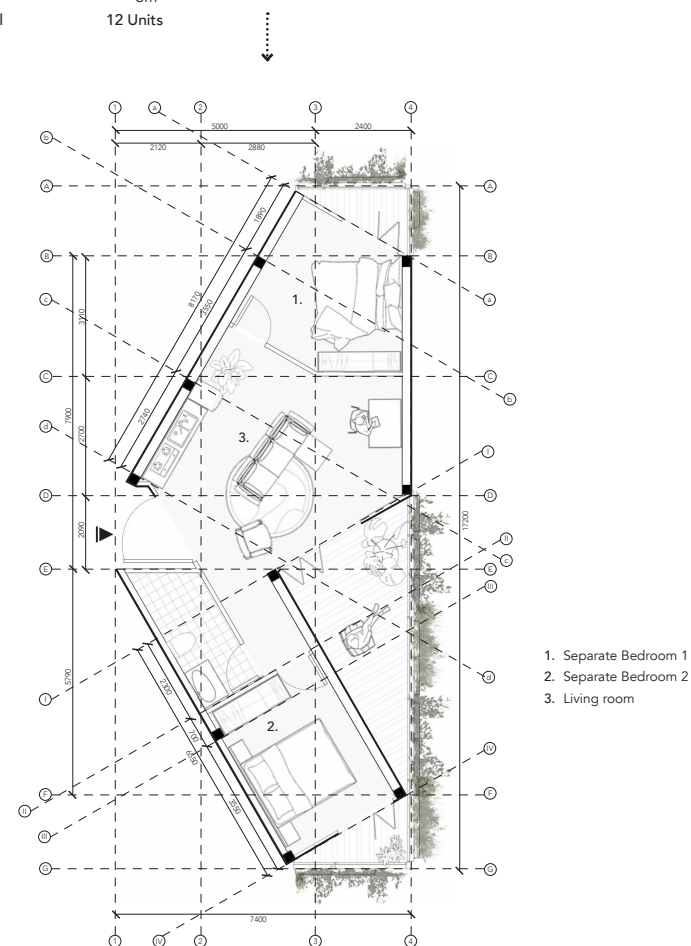
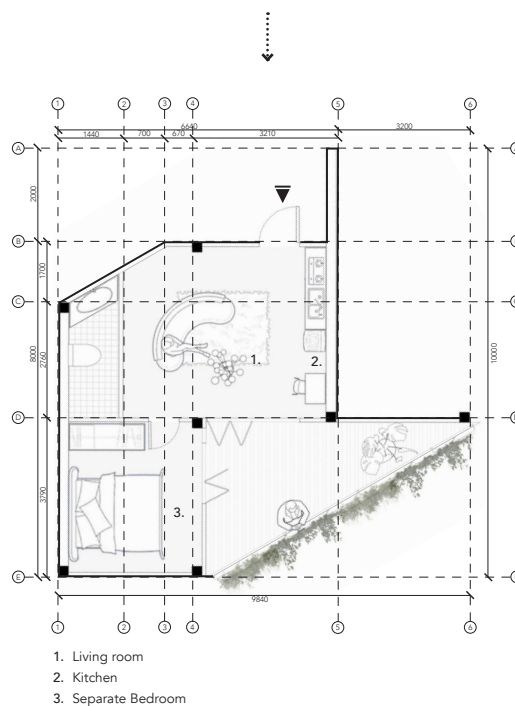
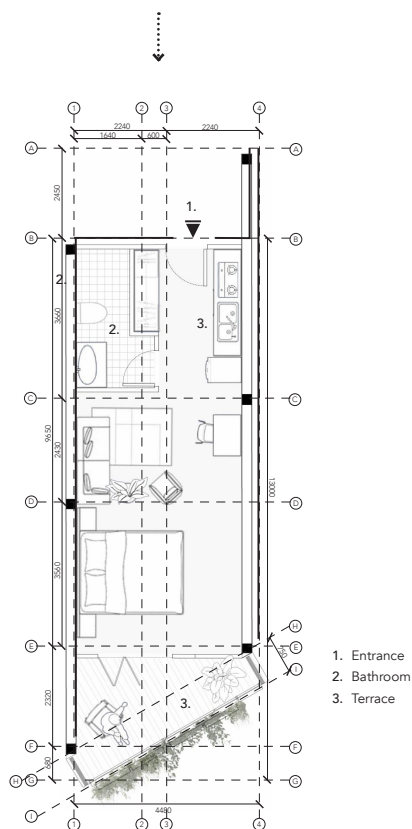
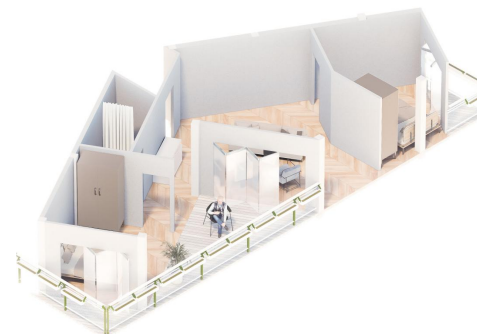
Total Area	58m²
Living room	20m ²
Bedroom	12m ²
Bathroom	6m ²
Kitchen	8m ²
Terrace	12m ²
Total	136 Units



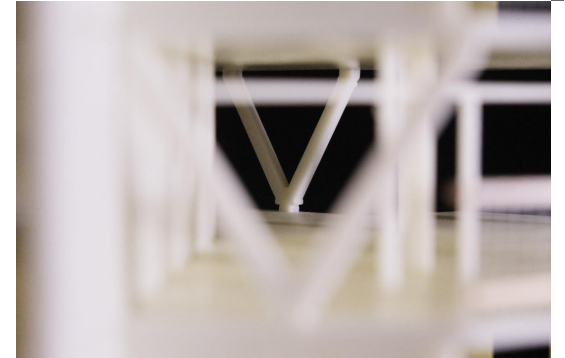
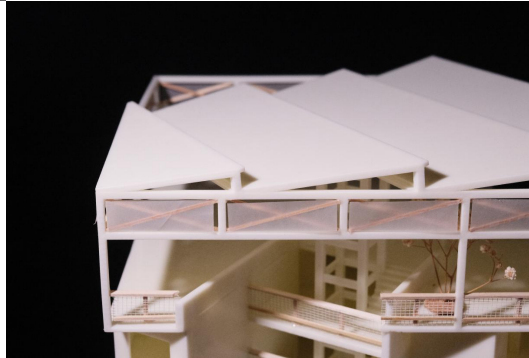
Apartment Type III

Two-Bed Flat Units
For family

Total Area	88m²
Living room	30m ²
Bedroom 1	12m ²
Bedroom 2	12m ²
Bathroom	8m ²
Kitchen	8m ²
Terrace 1	12m ²
Terrace 2	3m ²
Terrace 3	3m ²
Total	12 Units



26
Physical
Model



The physical model, as another medium, conveys the depth of space and the traces of time. In the end, the design returns to a human scale—a dwelling rooted in emotion.

27
Physical
Model



Light and shadow flow gently, outlining the breath and warmth of the space. As a designer, I have sought to capture a quiet yet genuine sense of everyday happiness—sunlight filtering in, and the subtle dialogue between material and scale. This is not merely an expression of architecture, but a distillation of life's fleeting moments.