

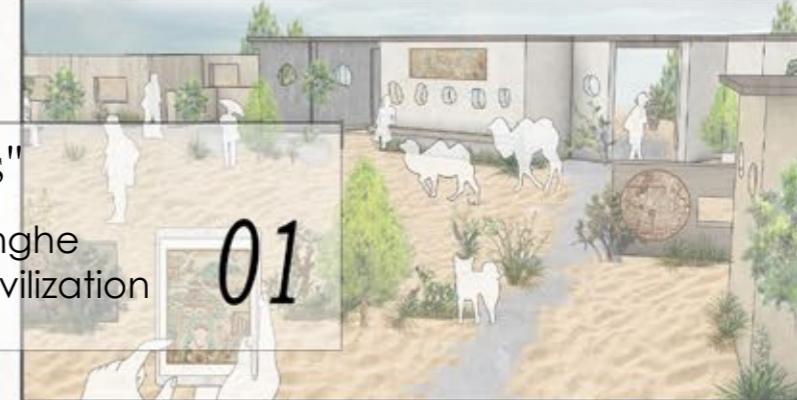
PORTFOLIO

Yu Rui
Landscape Gardening

"The Sound of Camel Bells"

Ecological Revival of the Danghe River Basin and Dunhuang Civilization

01



"Home is where the heart is"

This project, as a group assignment with four members, has the author responsible for one-third of the drawings.

02



"Sunset Serenity"

Smart Elderly Care Community for Alleviating Urban Aging

03



"Mangrove Ecosystem Rescue Plan"

Revive the Mangrove Haven: A Journey Through Nature's Sanctuary

04



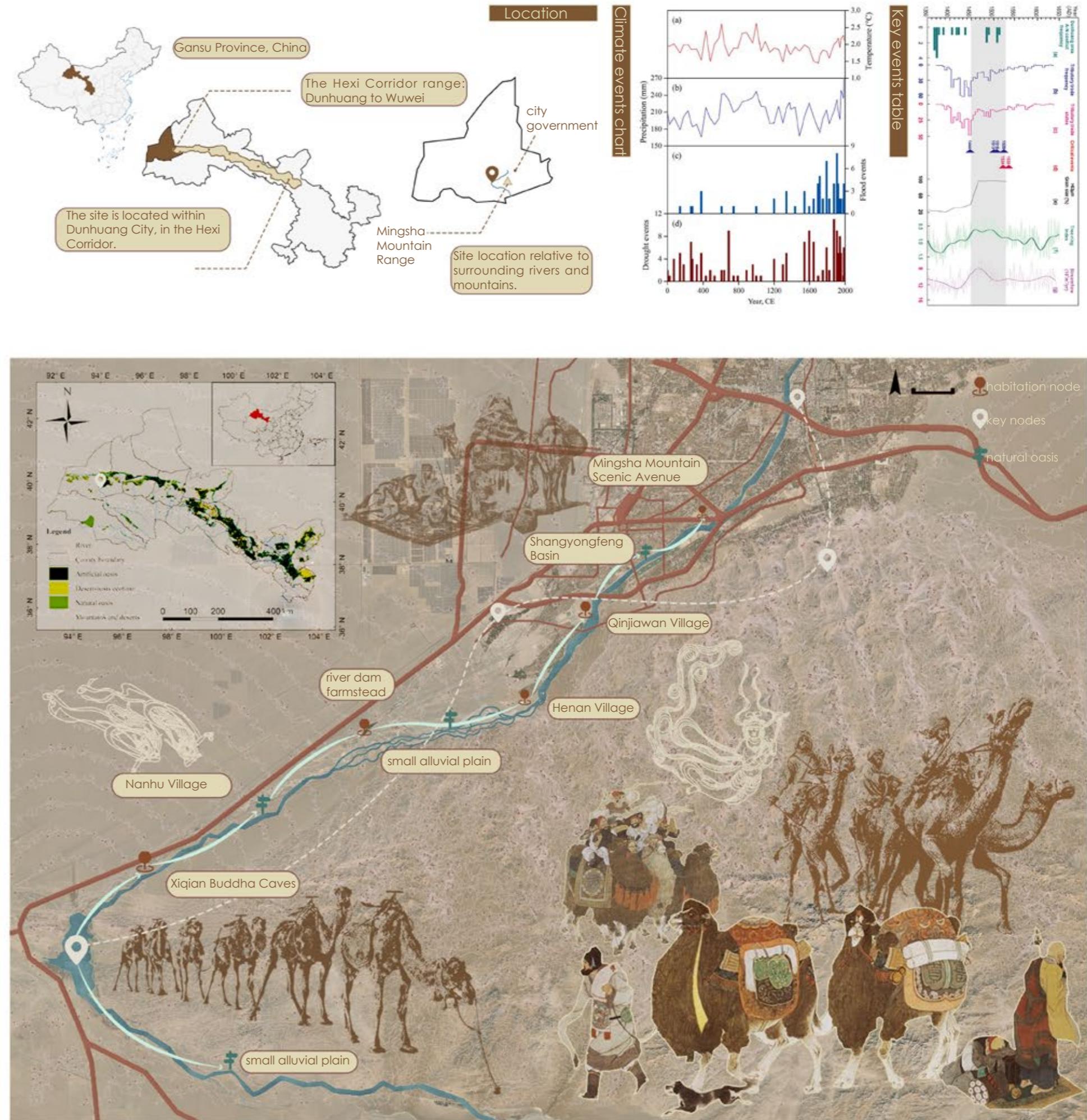
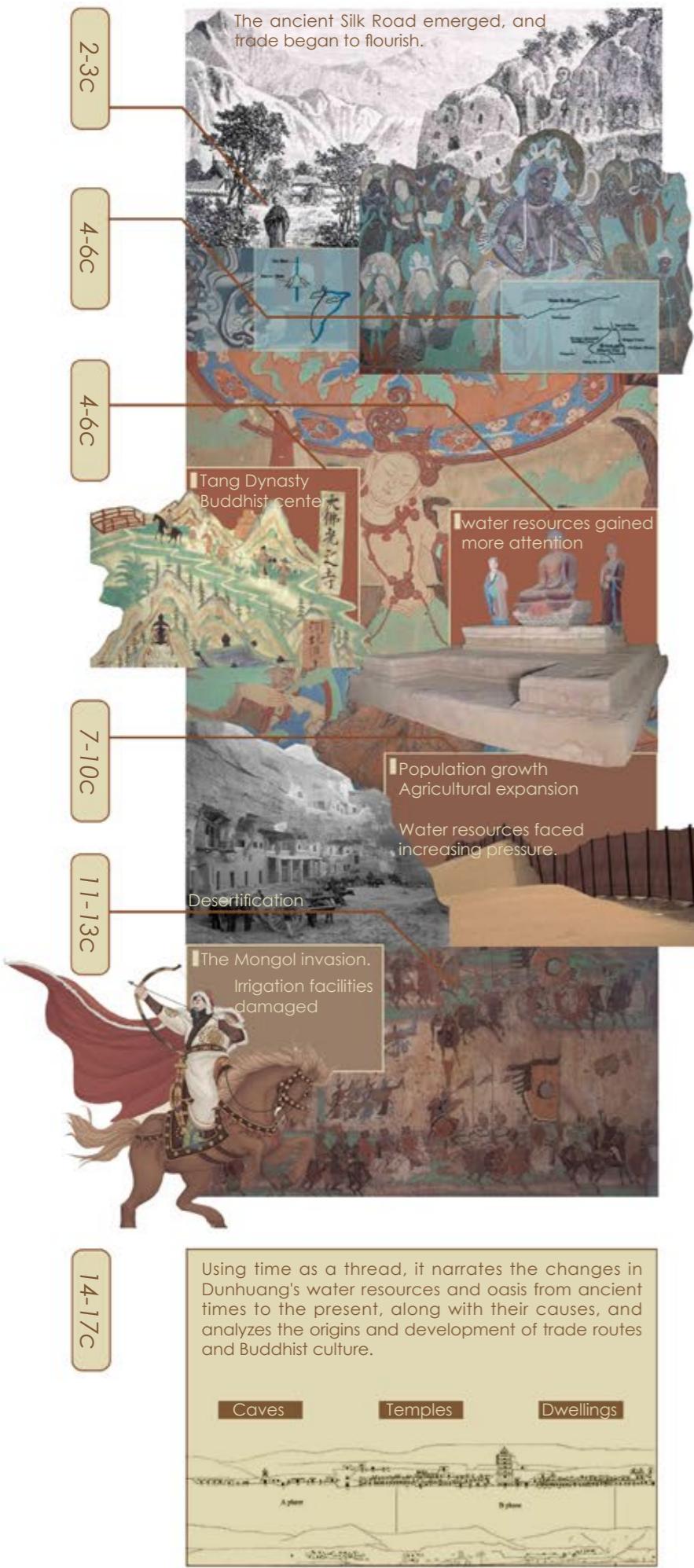


"The Sound of Camel Bells"

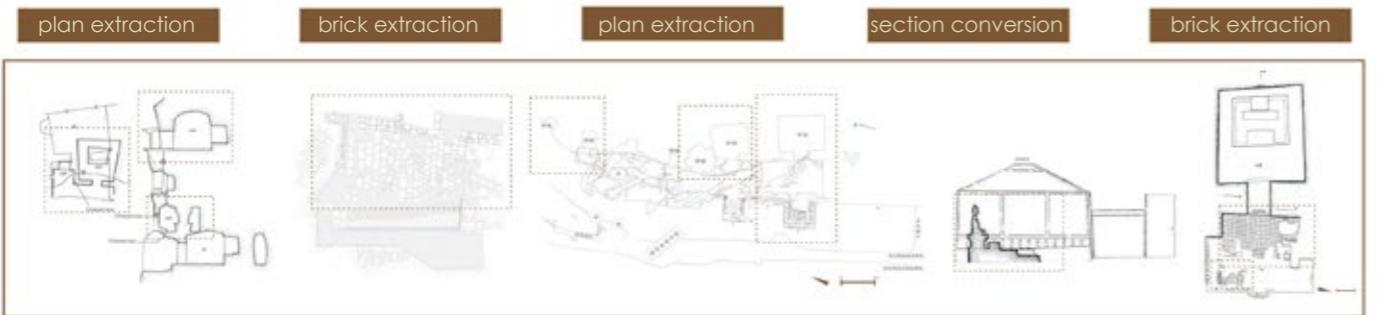
Ecological Revival of the Danghe River Basin and Dunhuang Civilization

This portfolio is inspired by the water replenishment points for camels and migration routes along the Silk Road, aiming to restore both the ecological balance and the Dunhuang civilization. The design proposes a "point-line-plane" approach to address water depletion and biodiversity loss in the Danghe River Basin by creating functional ecological stations that support both human needs and environmental revival, fostering a harmonious coexistence between nature and humanity.

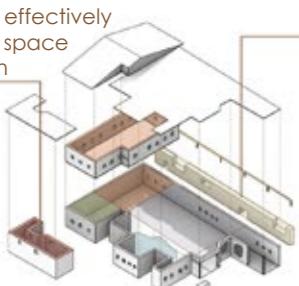




By extracting the floor plans and other graphical forms of existing caves, small rest station nodes along the banks of the Dang River Basin are generated, with functions including but not limited to landscape, relaxation, accommodation, cultural promotion, and more.

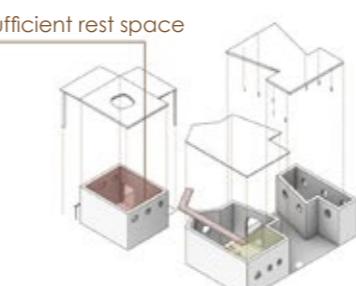


The separated volumes effectively improve space utilization

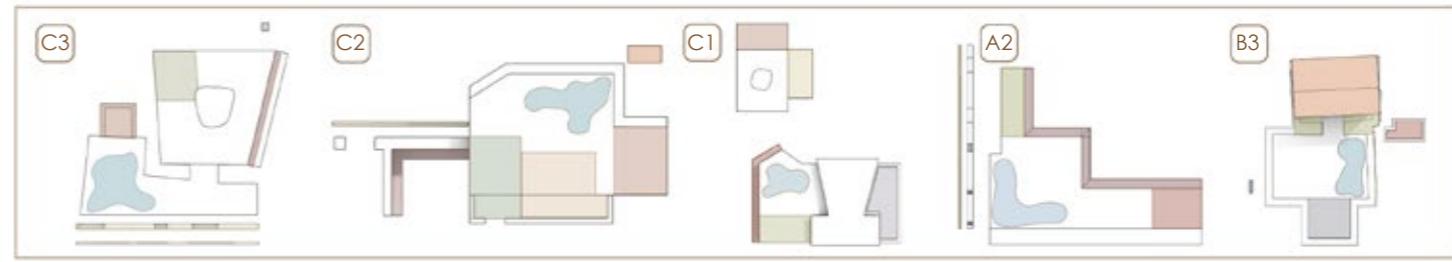


Properly breaking up solid walls helps to block wind and sand

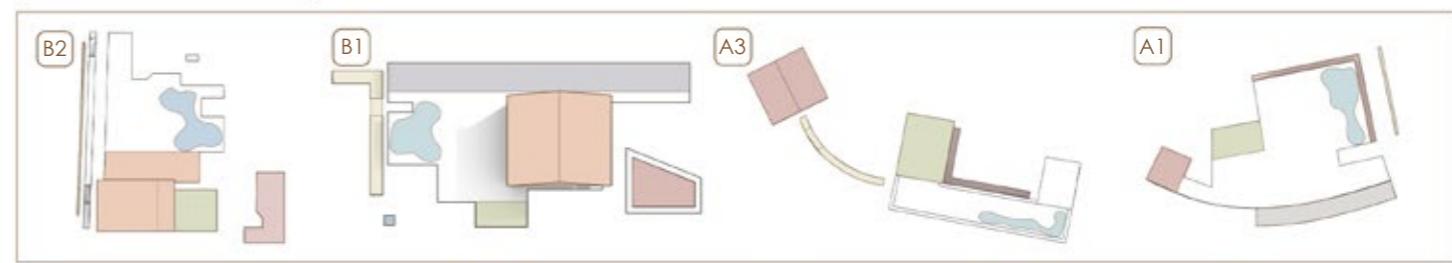
Rooftopless structures are more suited to the local conditions.



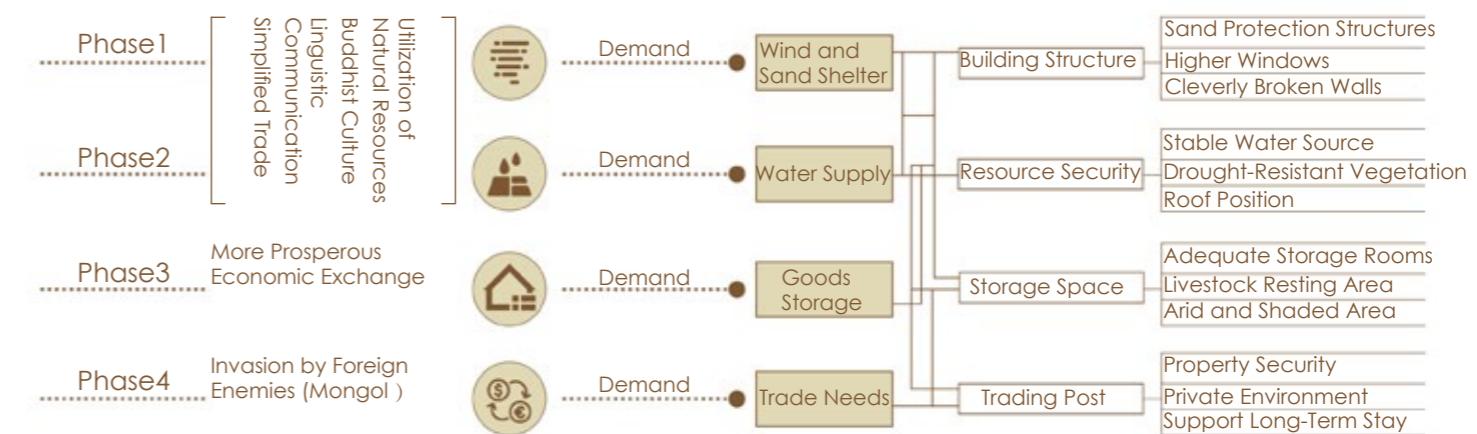
Node top view and zoning



Node top view and zoning

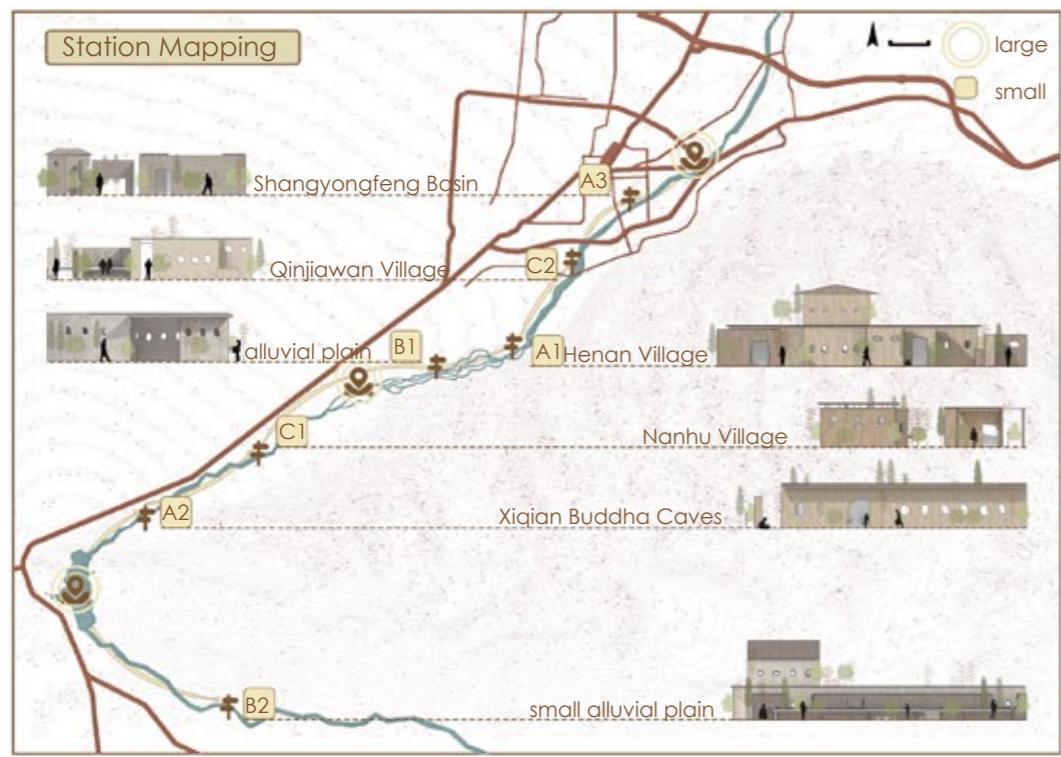


Strategy Development



Usage Scenario Simulation





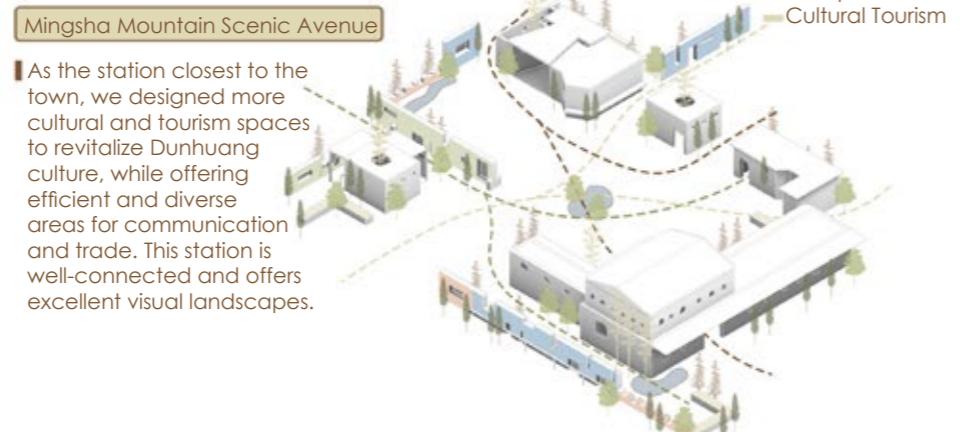
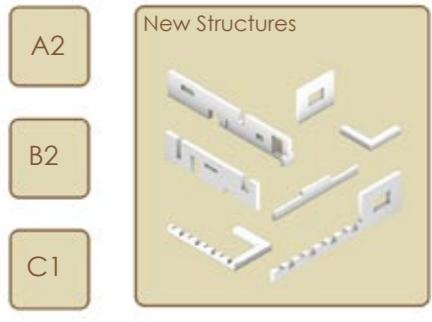
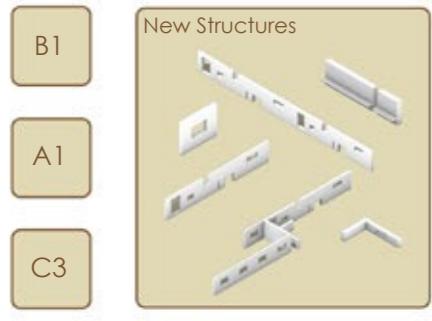
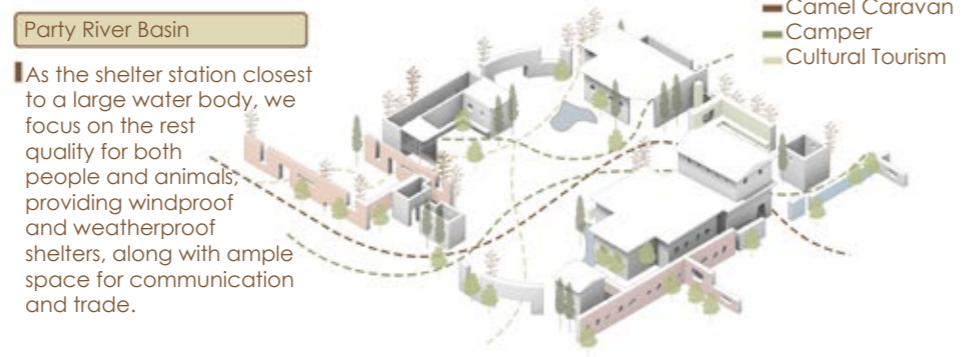
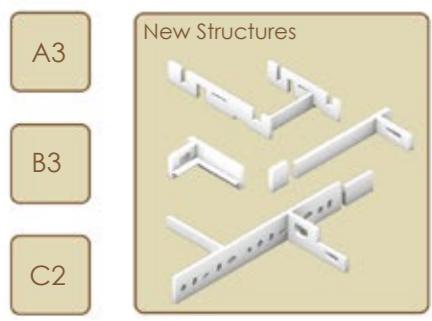
We categorized the nodes along the route: small nodes are matched with functional station buildings, while large nodes are designed as integrated small towns with large-scale, multifunctional complexes.

User Data
From Spring to Winter

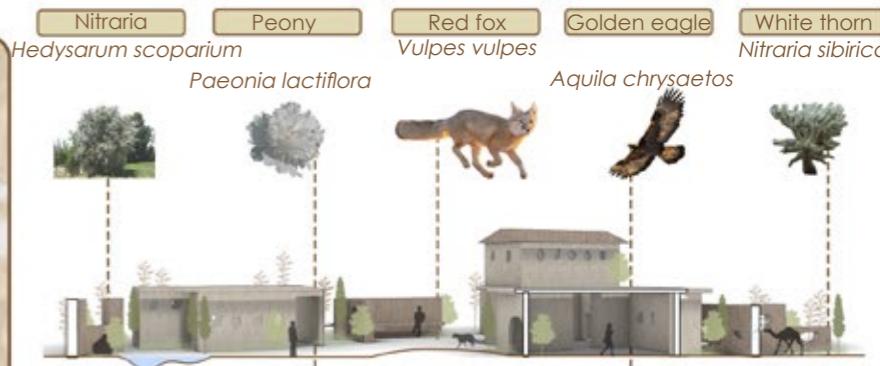
- Camel Caravan
- Camper
- Cultural Tourism

Through the combination and reshaping of small nodes, along with the integration of new walls and facilities, we designed three large integrated stations for use by merchant caravans or travelers. In addition to conventional functions, these stations also play a role in maintaining ecological balance and promoting Dunhuang culture.

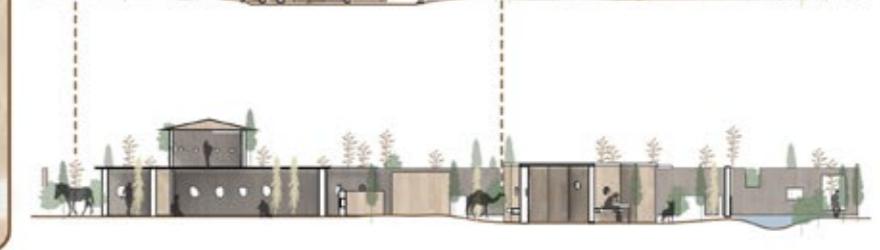
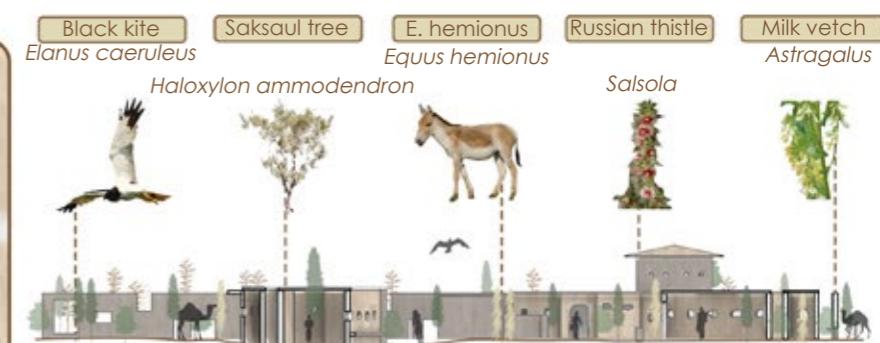
Lodging Trade Culture
Storage Interaction Waterpoint



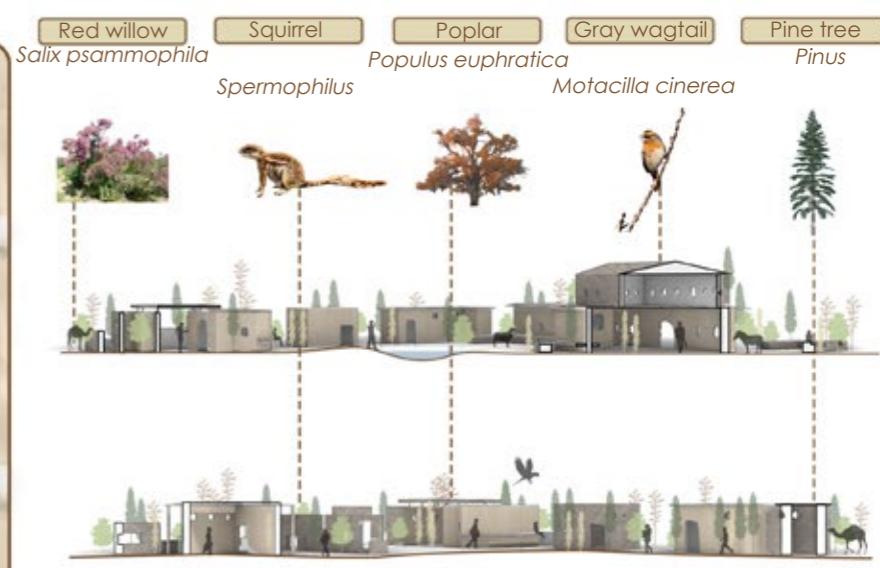
Integrated Station A



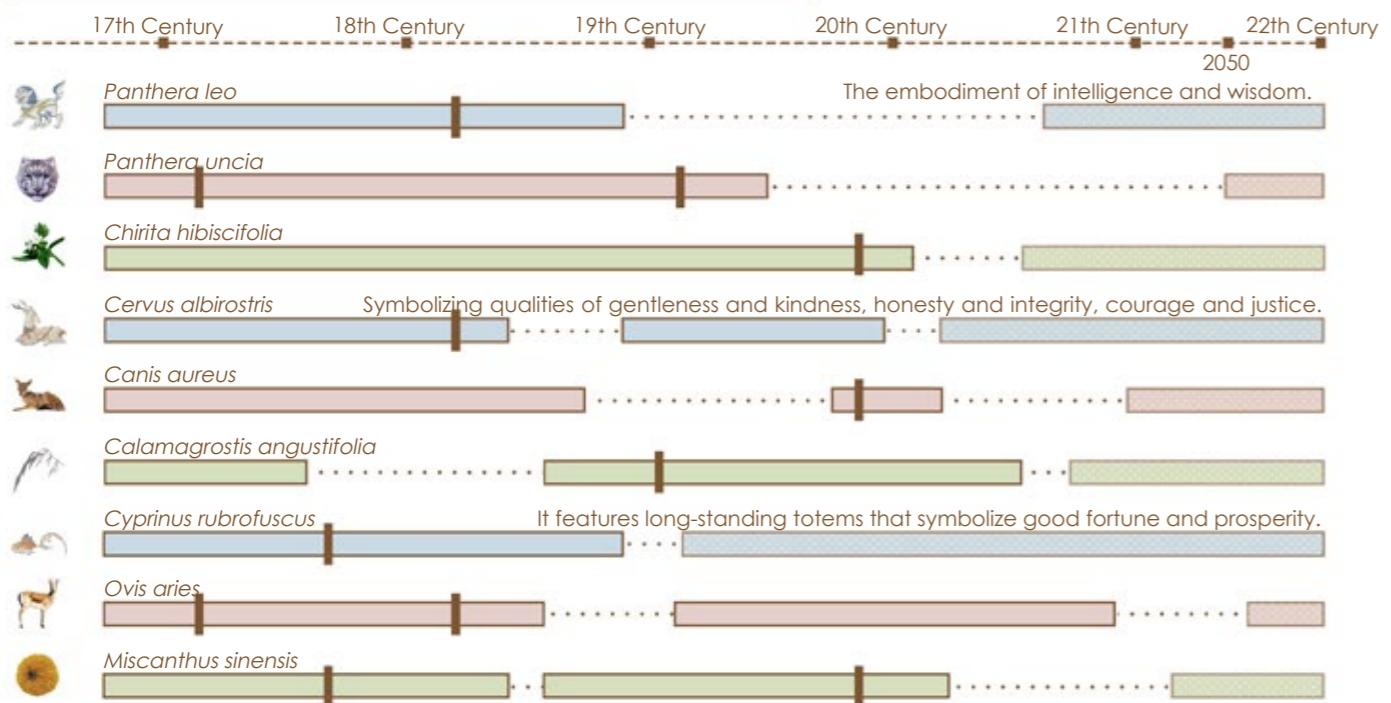
Integrated Station B



Integrated Station C



Occurrence of Totems and Characteristic Flora and Fauna



Overall Rendering 1



Partial Node Rendering

Start of Spring



Great Heat



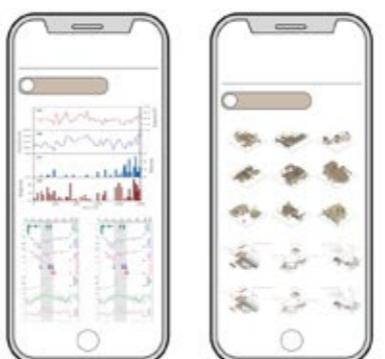
Cold Dew



Winter Solstice



Overall Rendering 2



Project Overview

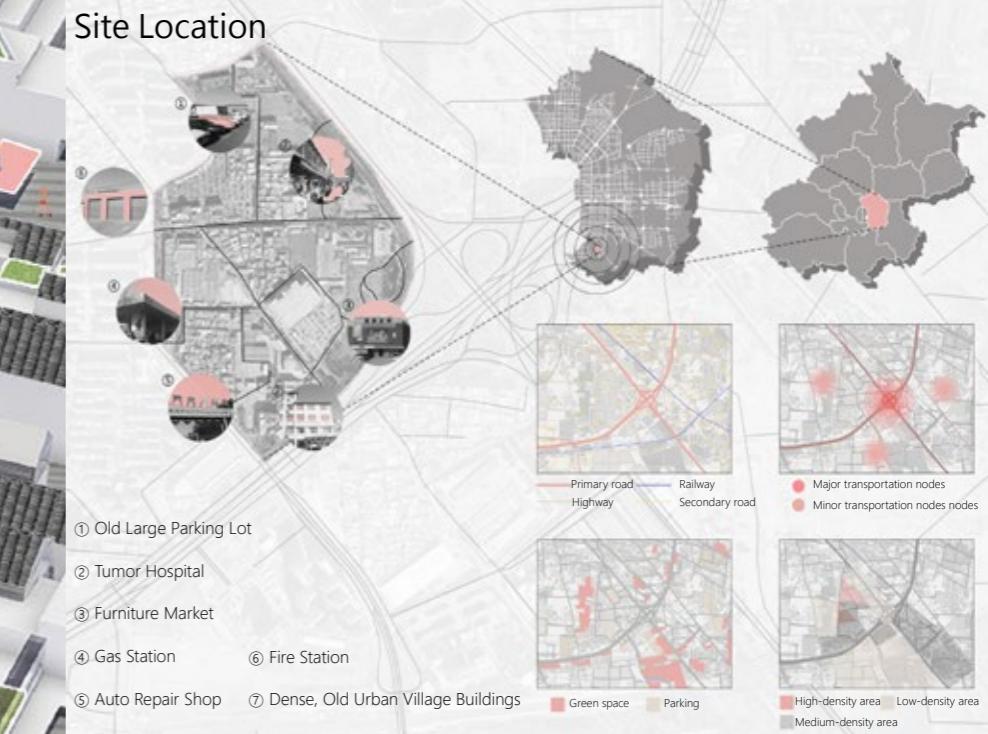
This project designs a series of stations along the Party River Basin, combining cultural revitalization with functional rest areas. Inspired by ancient trade routes, we transform abandoned sites into spaces that not only offer rest but also celebrate and revive Dunhuang culture. The stations are designed as modern sanctuaries, reflecting the region's historical significance and providing a place for visitors to reflect on the past while enjoying practical amenities. By blending cultural heritage with contemporary needs, the project preserves the legacy of the Silk Road while offering a meaningful experience for today's travelers.

开放型生态社区 此心安处是吾乡

Home is where the heart is

"Individuals facing survival challenges are keen to establish a sense of community identity and belonging in an unfamiliar urban environment. This project aims to transform and enhance the original urban fabric by revitalizing dense and chaotic residential areas, optimizing the utilization of public spaces, and addressing both the physiological and psychological needs for belonging among local residents."

Site Location



Community Research



Historical Development

In the course of rapid industrialization and modernization, Beijing has become a center of high-tech and service industries, attracting a large number of talented people and forming a diverse and international population structure, while facing the challenges of uneven distribution of urban green space and urban rewilding.

1840

Turbulence and Change:
The Turning Path of Modern China

Beijing was affected by the Opium Wars

1949

Construction and Upheaval:
Foundations and Challenges of a New China

Liberated and designated as the capital of the new China.

1980

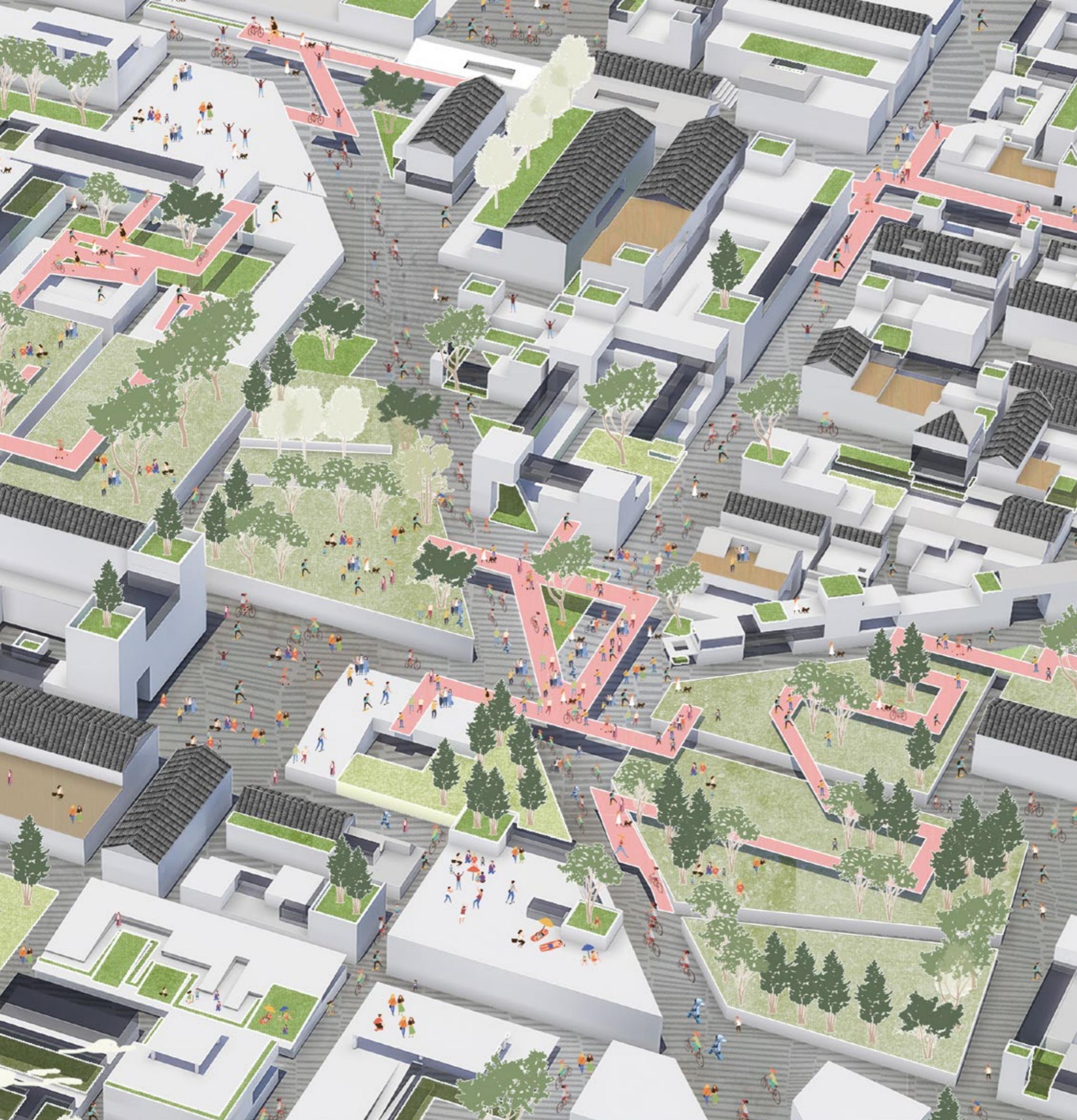
Soaring and Transforming:
China's Rise under Reform and Opening Up

China's implementation of reform and opening-up

2008

Challenges and Resilience:
A New Chapter for China in the Post-Epidemic Era

Beijing Enhances Building and Street Improvement

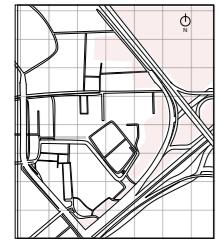


• Problem Analysis

The paper analyzes the needs of current community renovation from four aspects: spatial distribution, road network analysis, ecological greening distribution and living and public area.



Space Allocation
Space is unevenly distributed, with the dense residential area split into three parts by the north-south main road network. Large parking lots on the east and west sides further reduce the area's utilization rate.

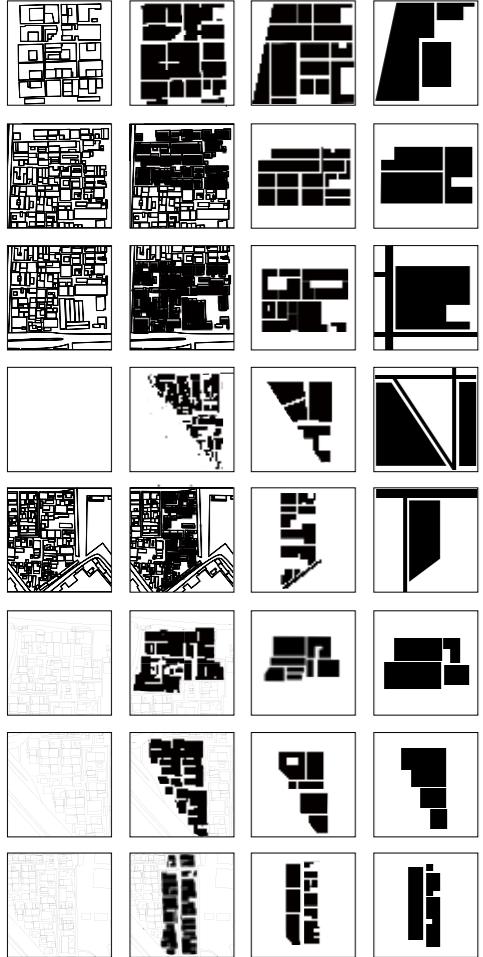


Network Distribution
The main road network divides the community into three sections. Dense population in the residential area leads to narrow roads, traffic congestion, lack of vitality, and potential fire safety hazards.



Green Ecology
The community green space is concentrated in the northeast to southeast side, the internal ecological green space resources are scarce, and the animals and plants are single, almost no.

• Texture Extraction



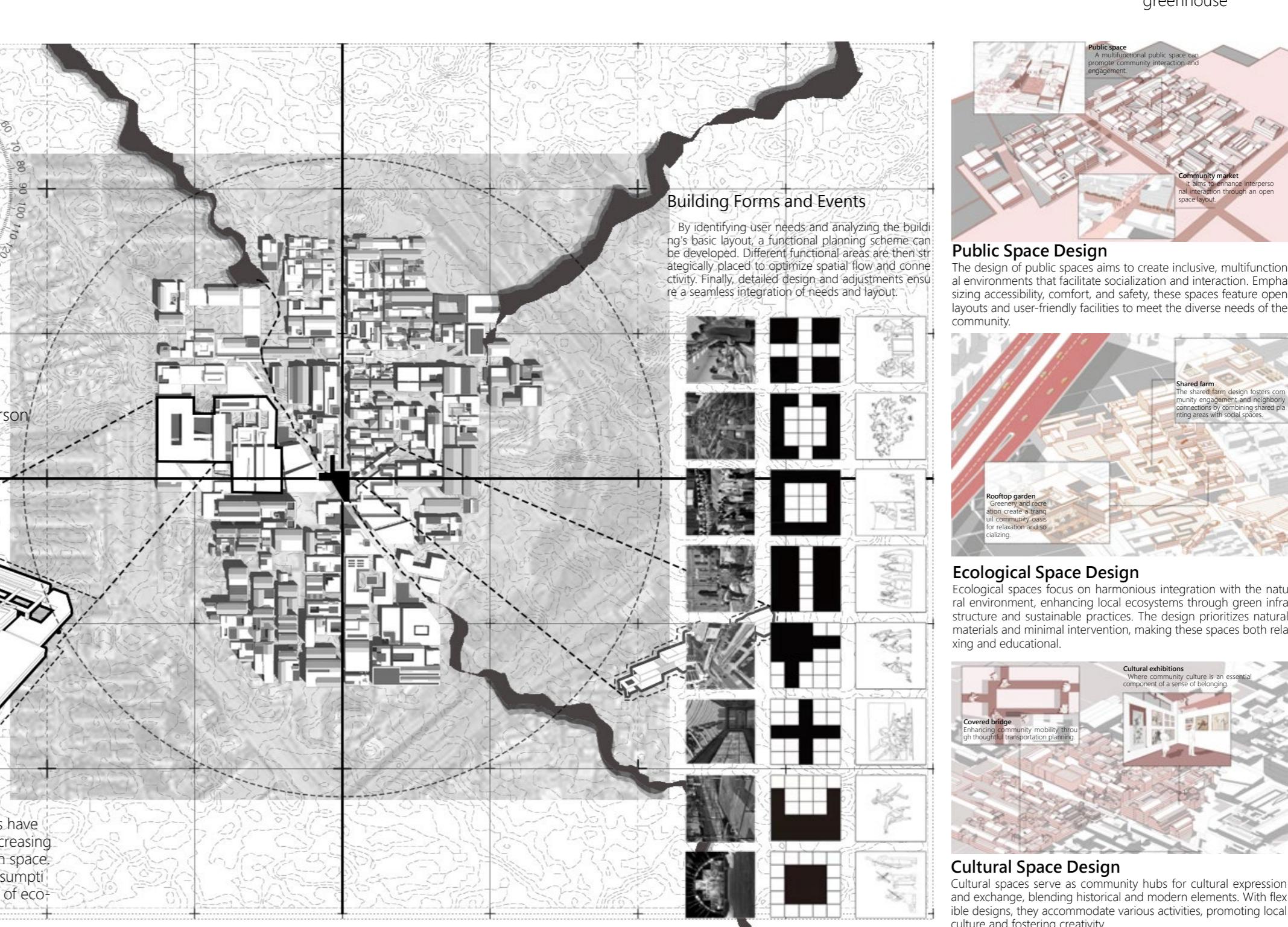
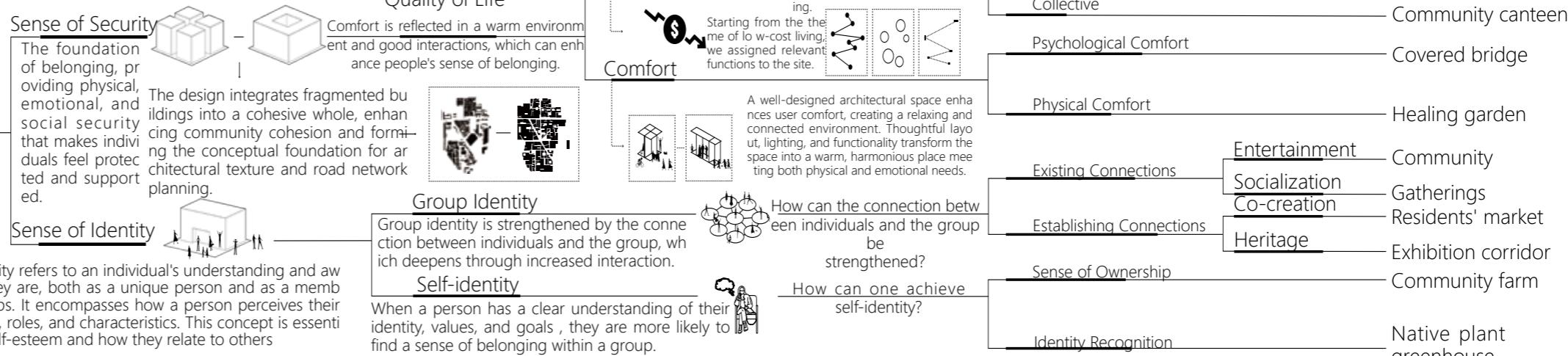
Disorderly texture

Texture extraction

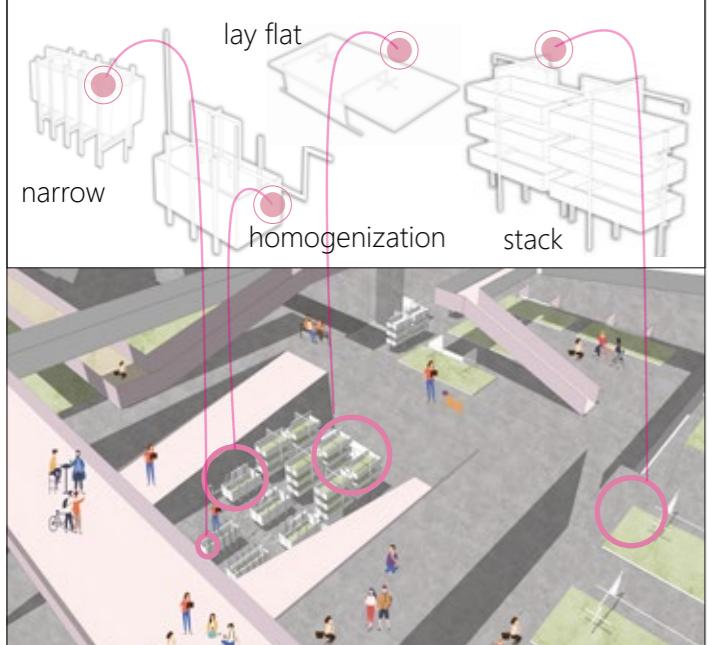
Reshaping texture

Texture integration

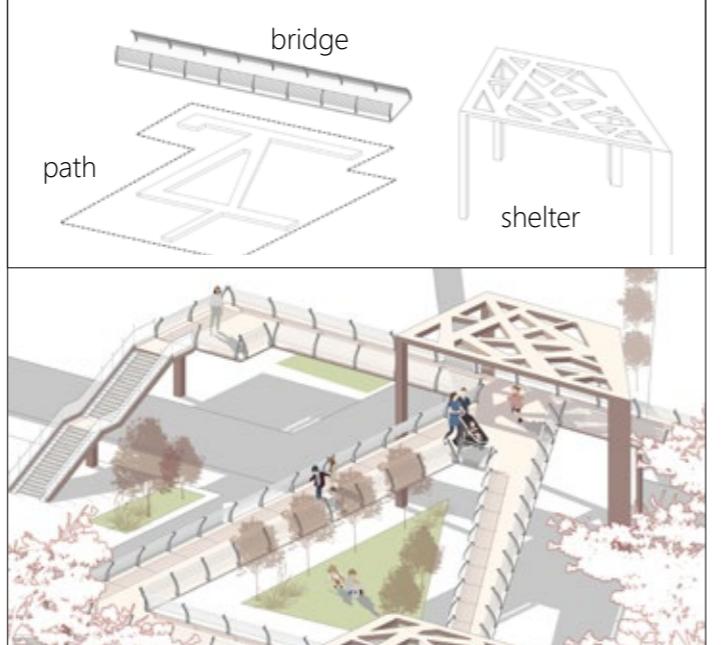
• Design Generation



• Agricultural Node



• Corridor Bridge Node



• Landscape Node



• Key Nodes

New area

In the area with low utilization rate, an open form of public activities will be added

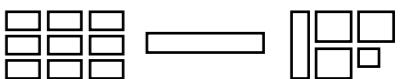
- Semi-open enclosure
- The whole block is deformed
- enclosure



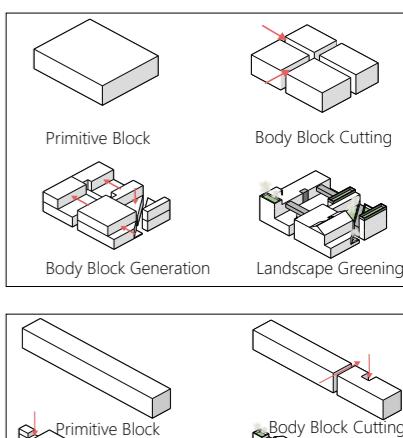
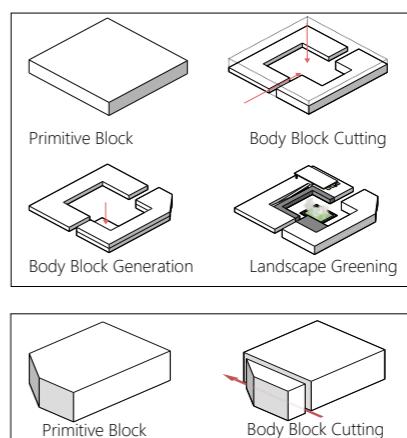
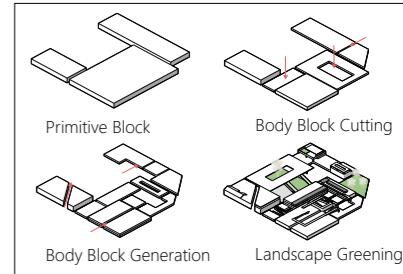
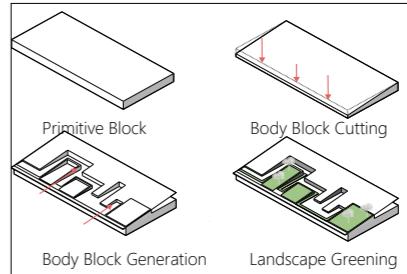
Update Area

The original chaotic and crowded residential area is transformed into a new residential area by combining the road network and urban texture, extracting common forms, and increasing greening.

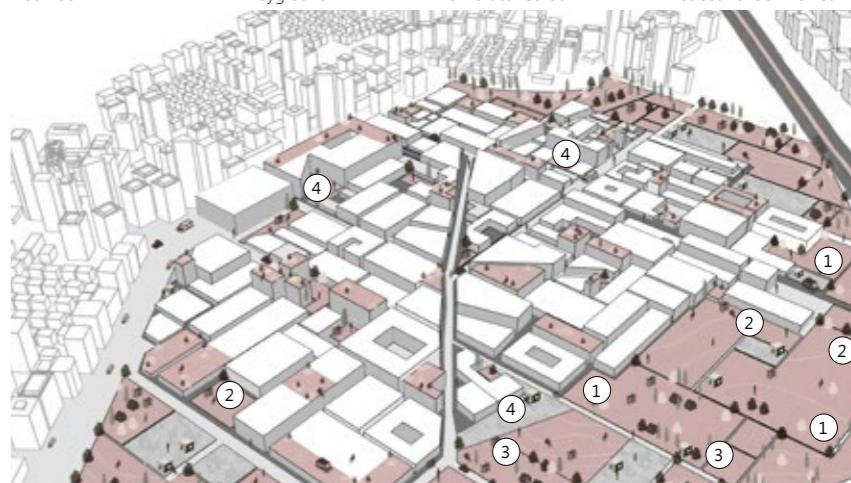
- Divided into small bodies
- Banded body block
- Add\Subtract\ Divide



Massing Evolution



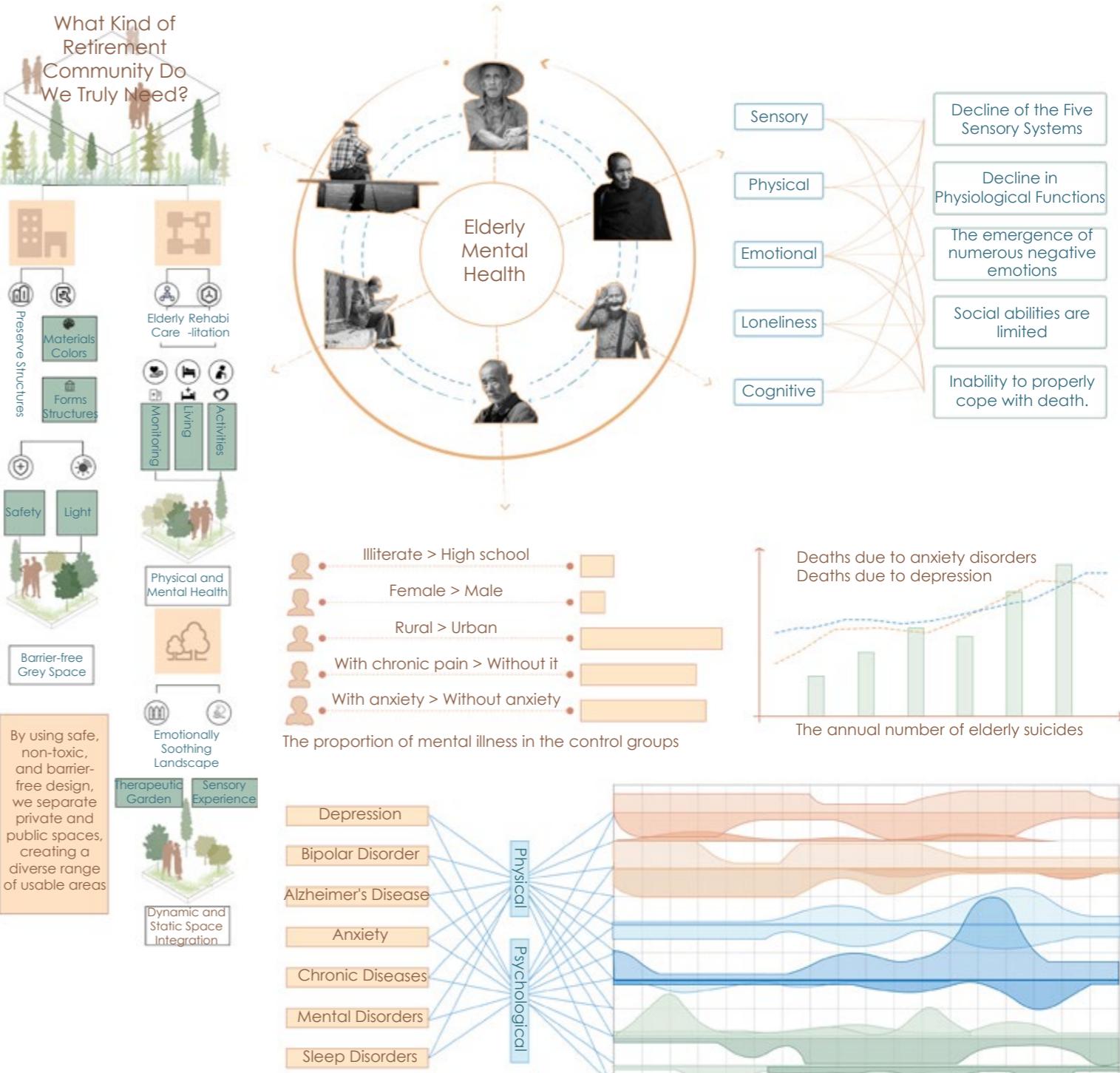
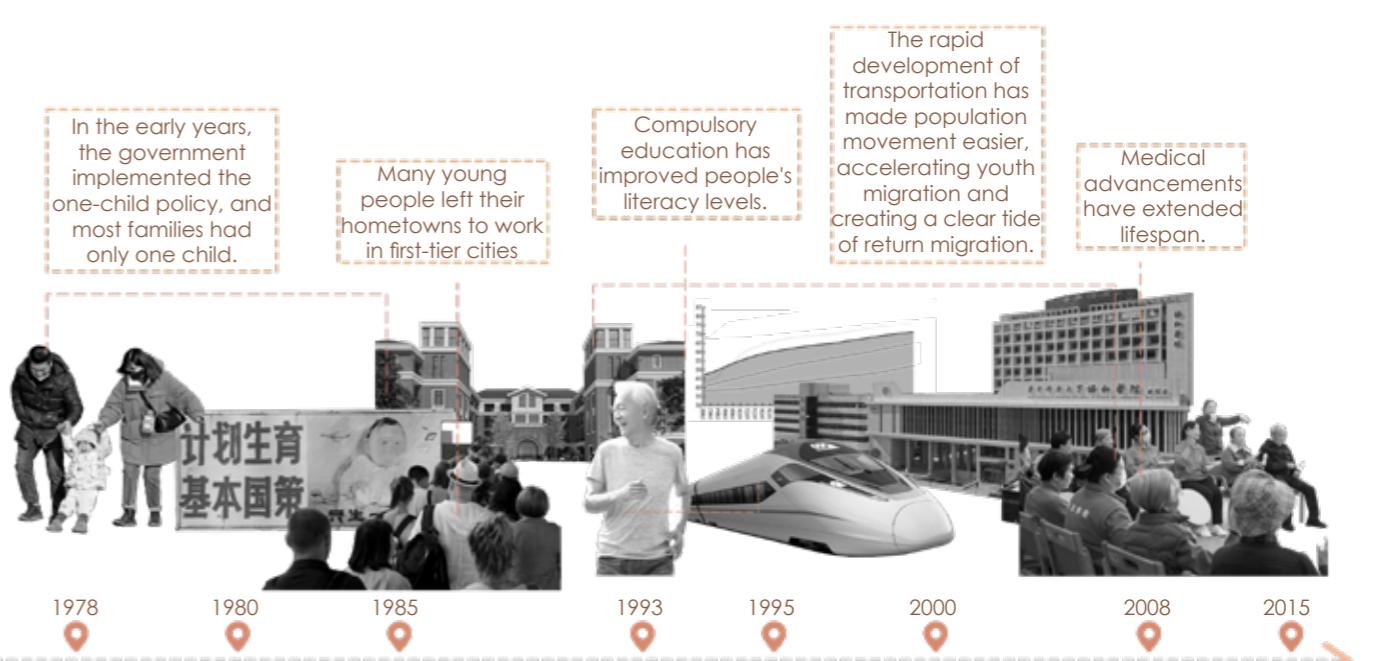
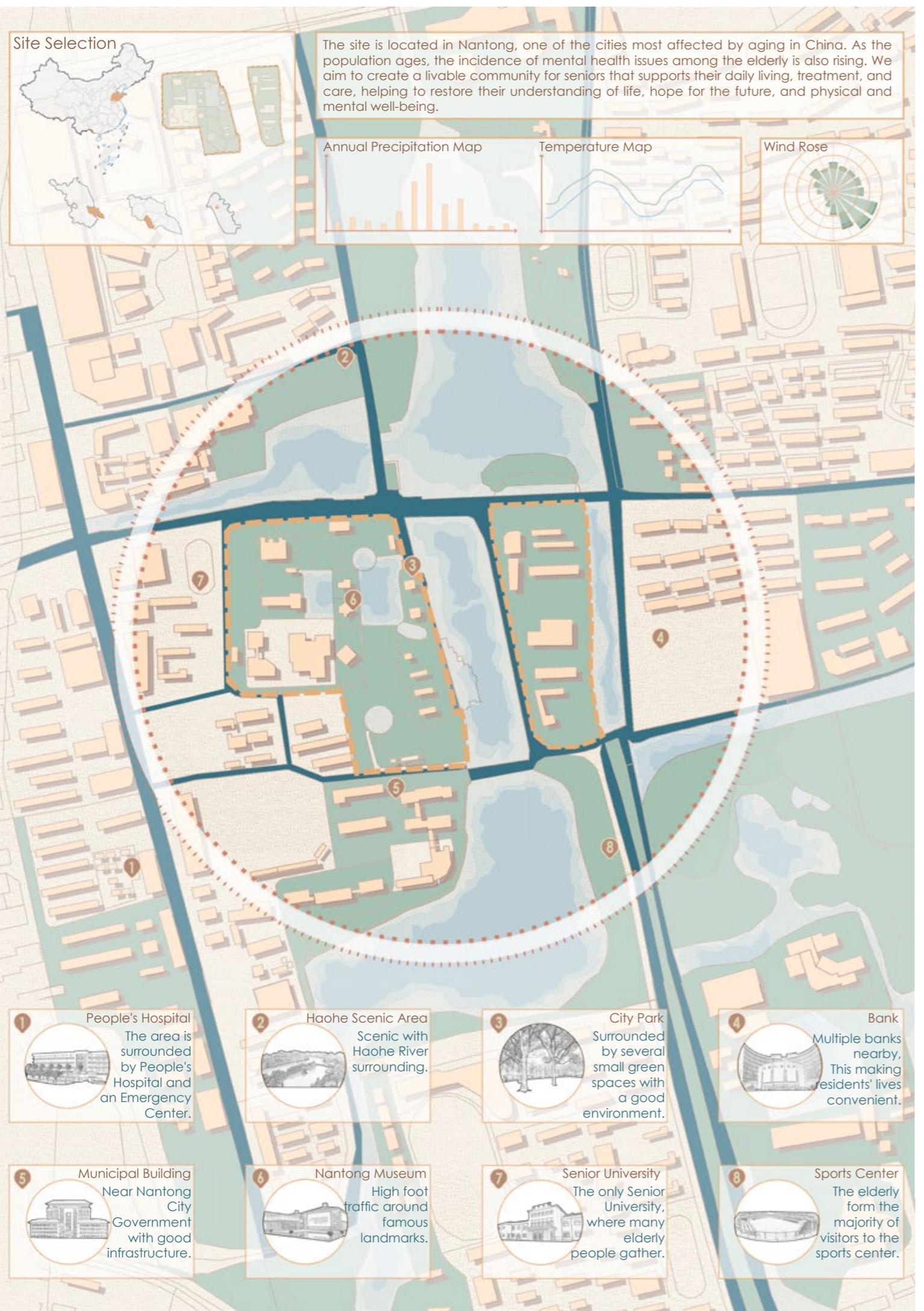
• Landscape Strategy

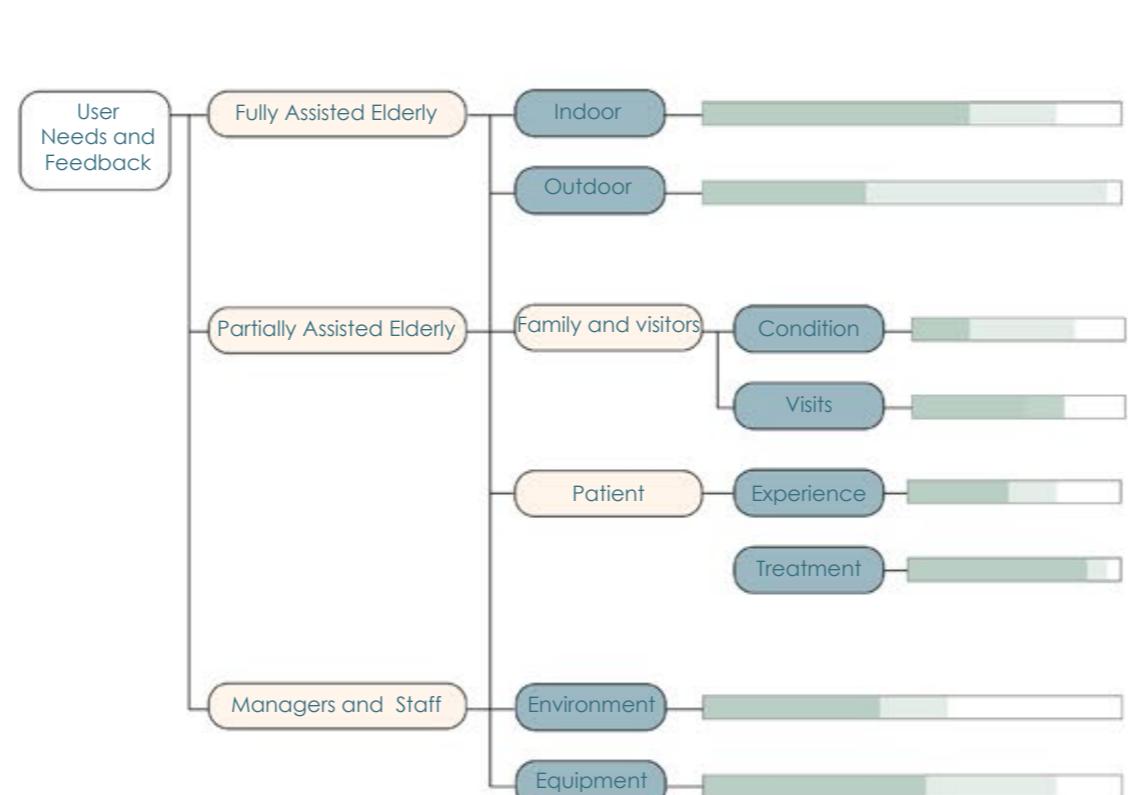
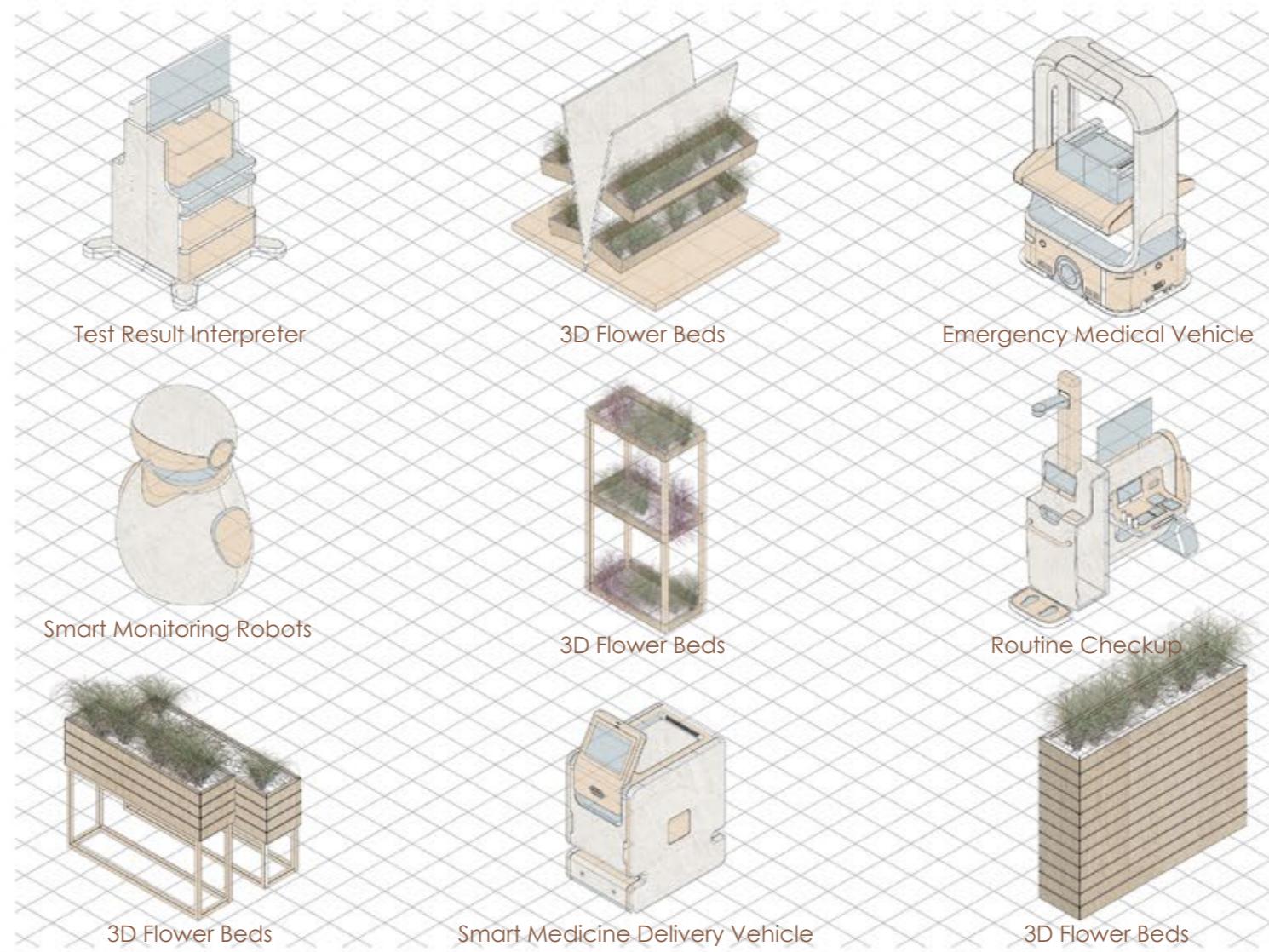
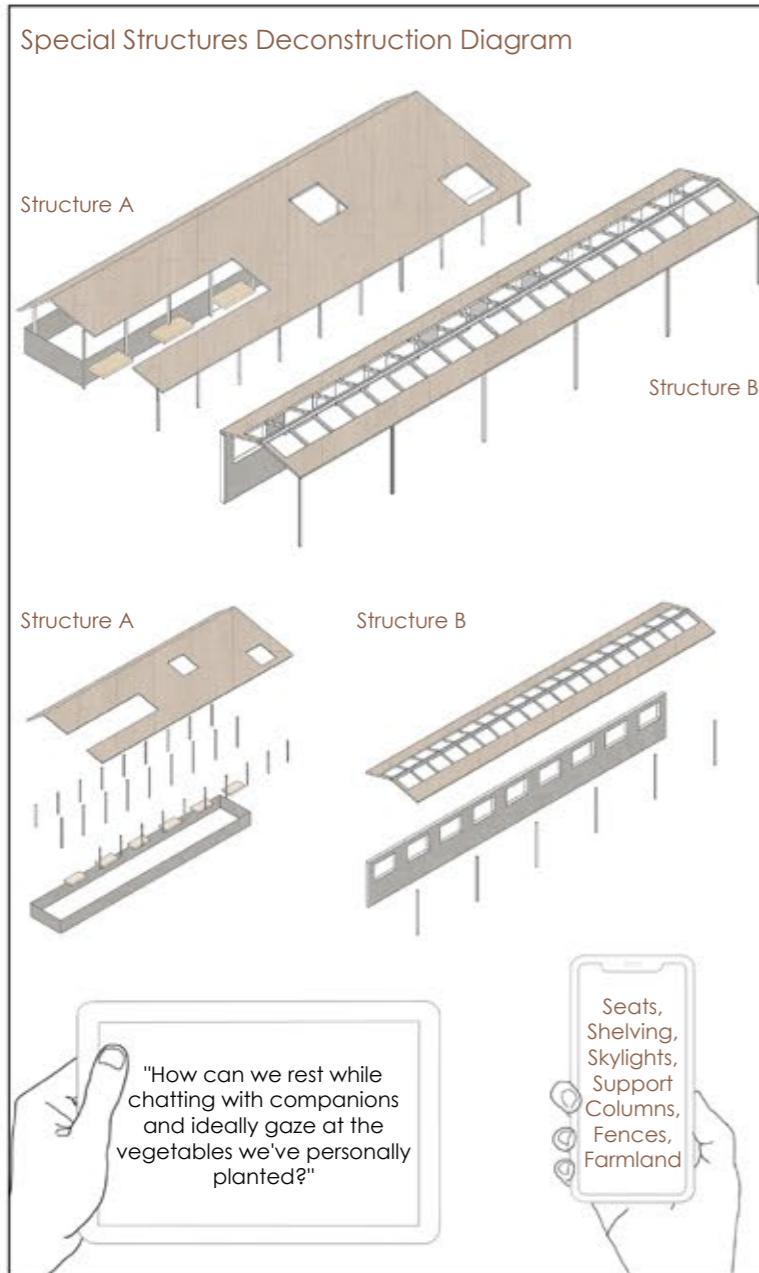
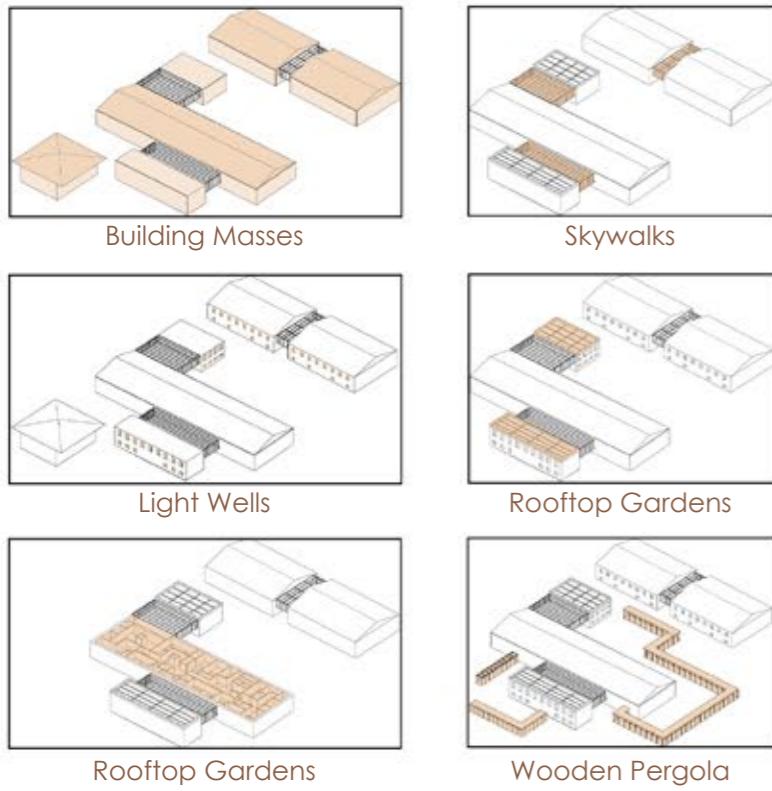


Sunset Serenity: Smart Elderly Care Community

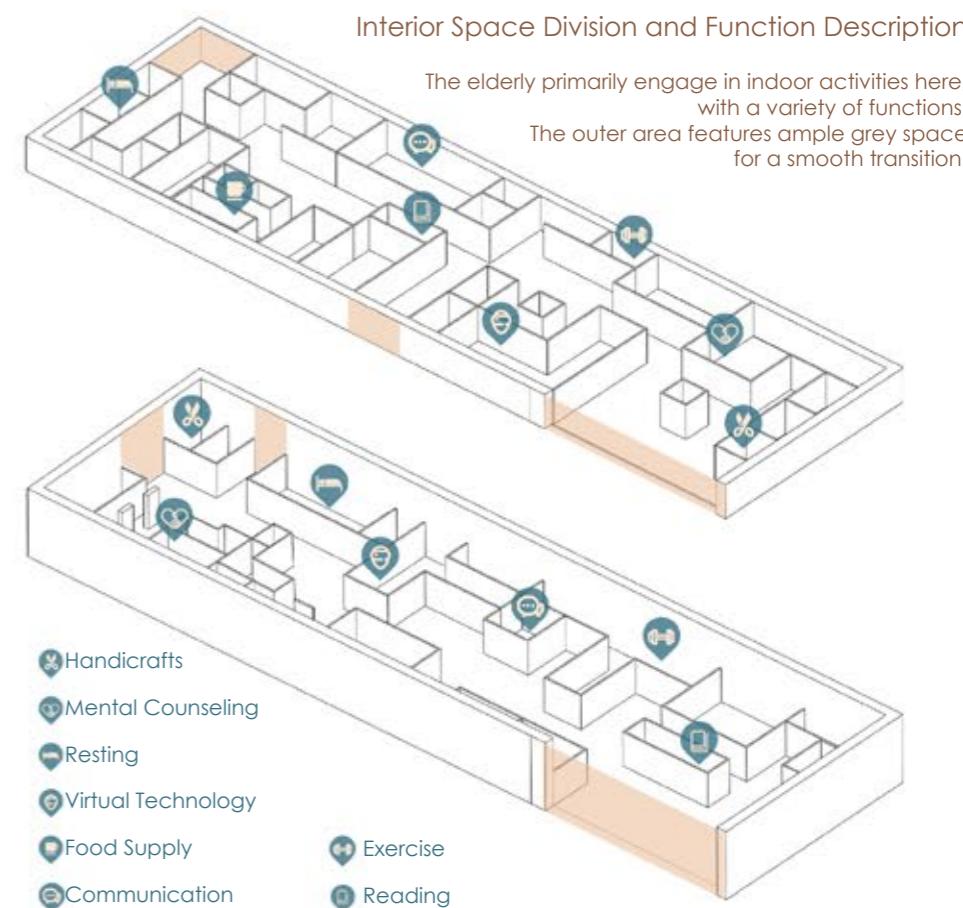
This project addresses Nantong's aging population and mental health issues by creating a smart elderly care community with virtual rehabilitation technology and therapeutic gardens. Combining natural landscapes and advanced technology, it helps alleviate depression and anxiety, while improving quality of life. The community is equipped with smart monitoring and remote medical services, ensuring the elderly's health. The therapeutic garden offers a multi-sensory experience to reduce stress, and social spaces foster interaction, reduce loneliness, and contribute to the local community.





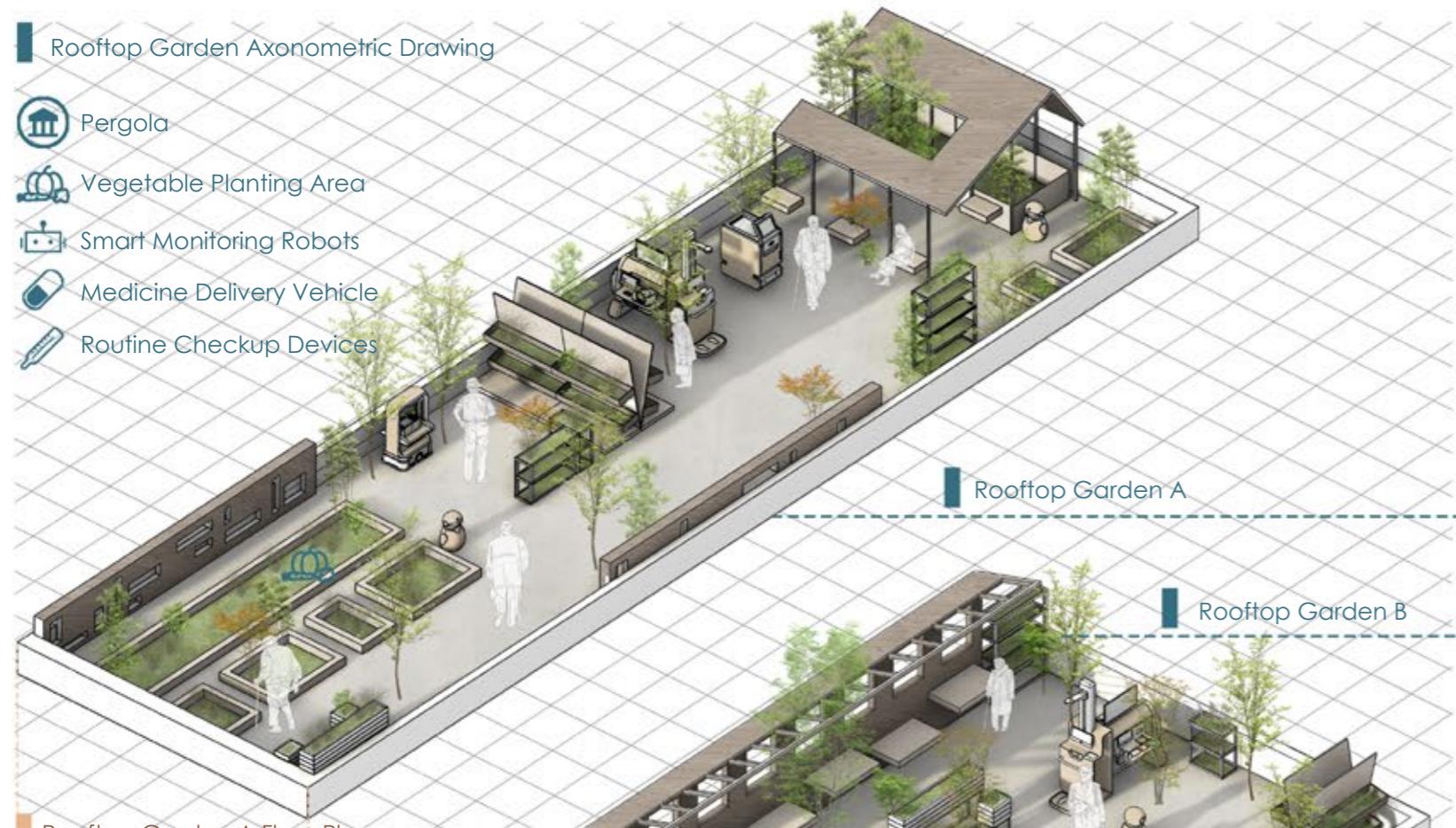


Note: Dark horizontal bars represent user expectations, while light horizontal bars represent actual quality

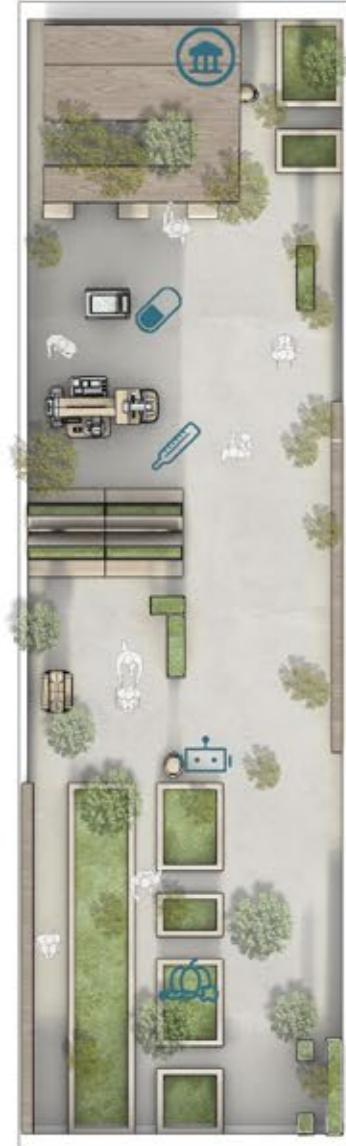


Rooftop Garden Axonometric Drawing

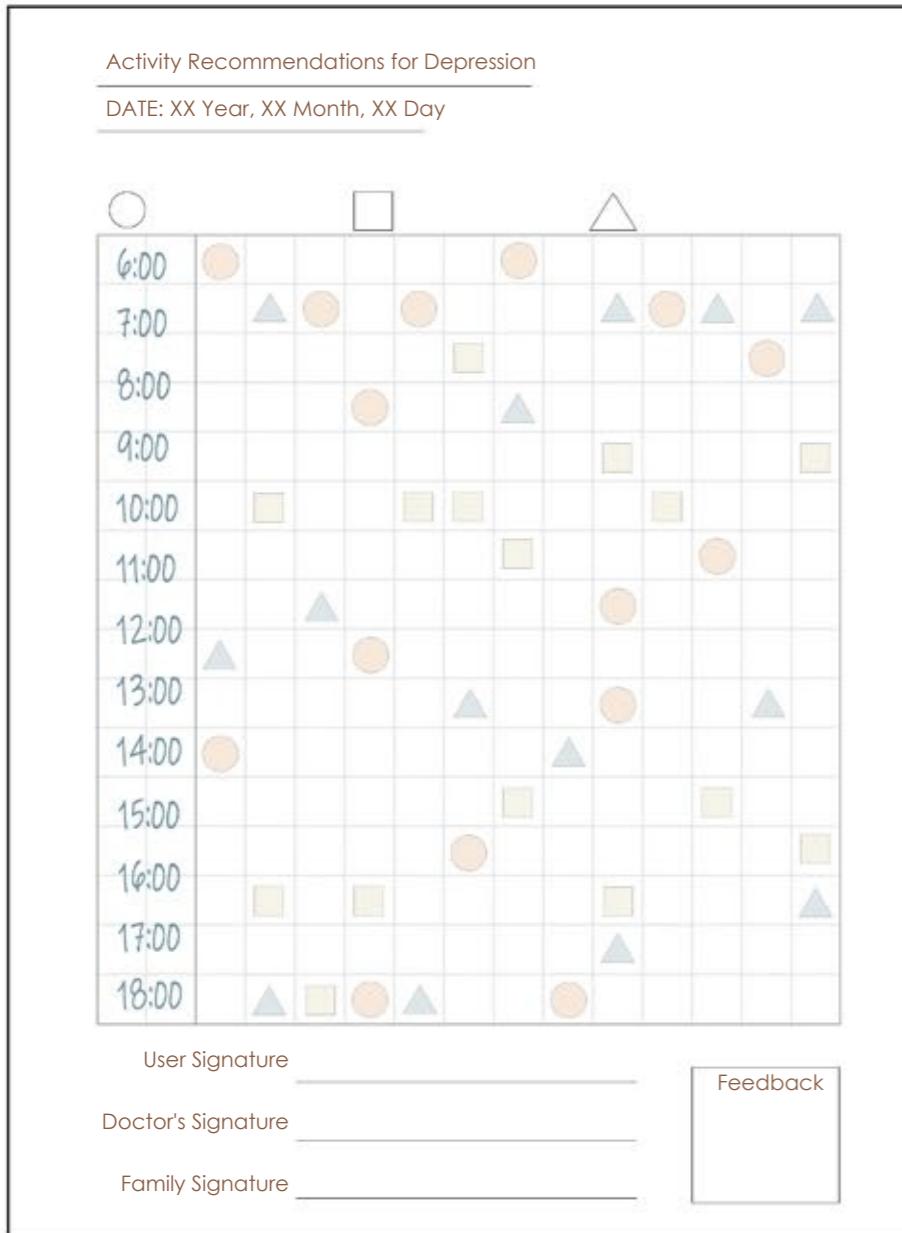
- Pergola
- Vegetable Planting Area
- Smart Monitoring Robots
- Medicine Delivery Vehicle
- Routine Checkup Devices



Rooftop Garden A Floor Plan



Daily Activity Schedule for Elderly with Illness



User Activity Pathways:

Users typically start their day with a routine check-up after waking up. They then proceed to activity areas such as the restaurant, outdoor garden, or vegetable garden for work or relaxation. In the afternoon, they can cross the viewing bridge to reach the largest indoor activity space on-site, where they can engage in socializing, consultations, reading, and other activities.

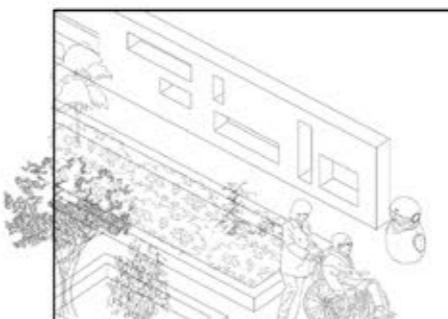
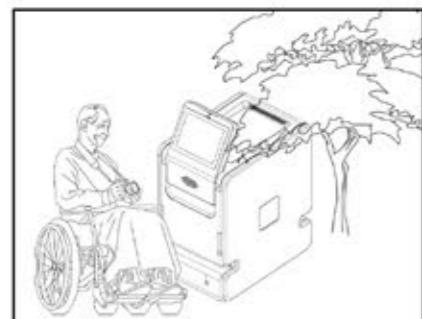
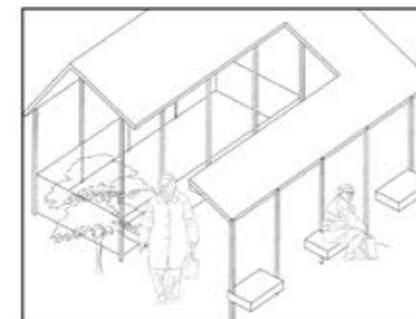
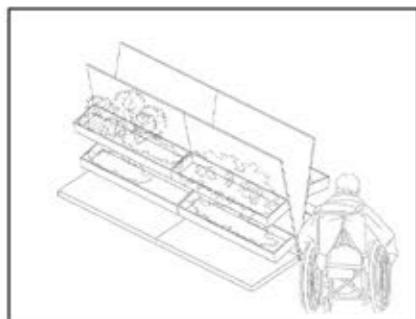
Spring Renderings



Summer Renderings



Behavioral Analysis in the Rooftop Garden:



Autumn Renderings



Winter Renderings

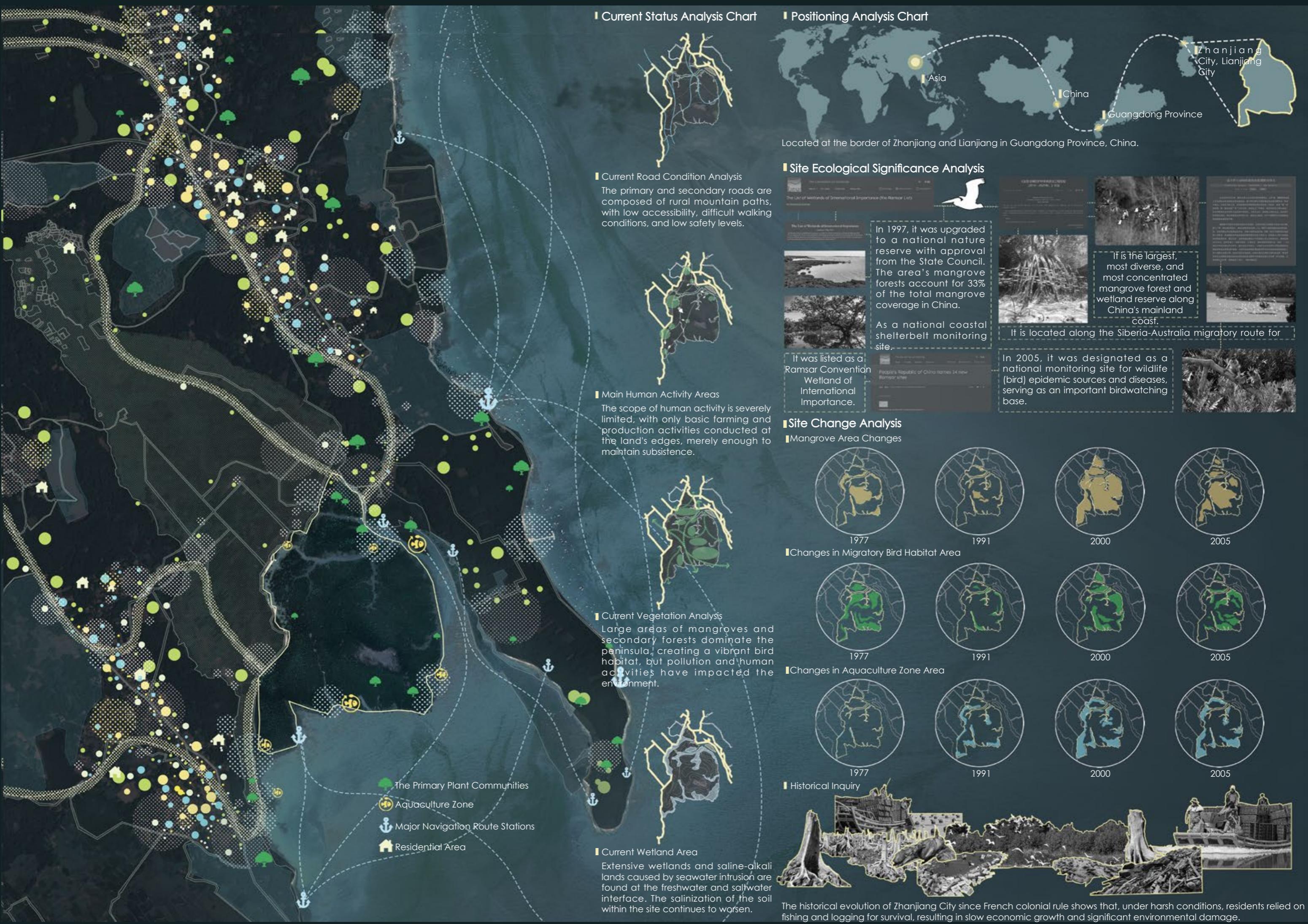




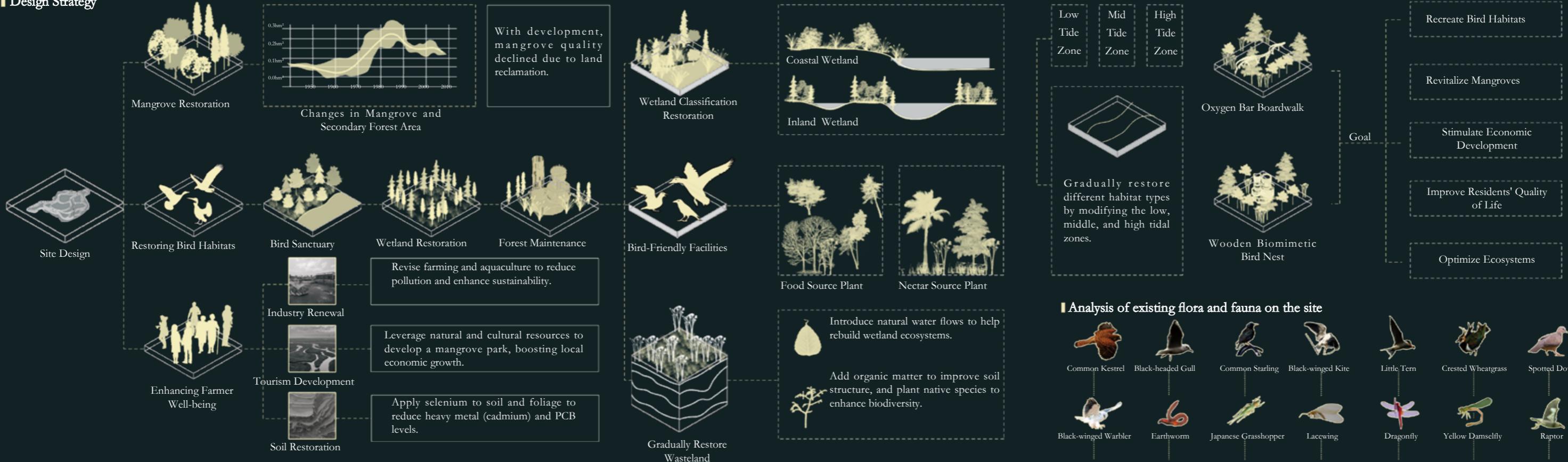
Mangrove Ecosystem Rescue Plan

Revive the Mangrove Haven: A Journey Through Nature's Sanctuary

This project focuses on rebuilding critical bird habitats in the mangroves. With the rapid development of agriculture and industry, the mangrove wetlands in Zhanjiang, Guangdong Province, are facing severe degradation. The loss of wetland ecosystems has led to a reduction, and even disappearance, of habitats for many species of plants and animals. Our goal is to holistically restore these ecosystems, addressing the challenges faced by birds and plants, and transform the region into a vibrant and healthy sanctuary for wildlife.



I Design Strategy



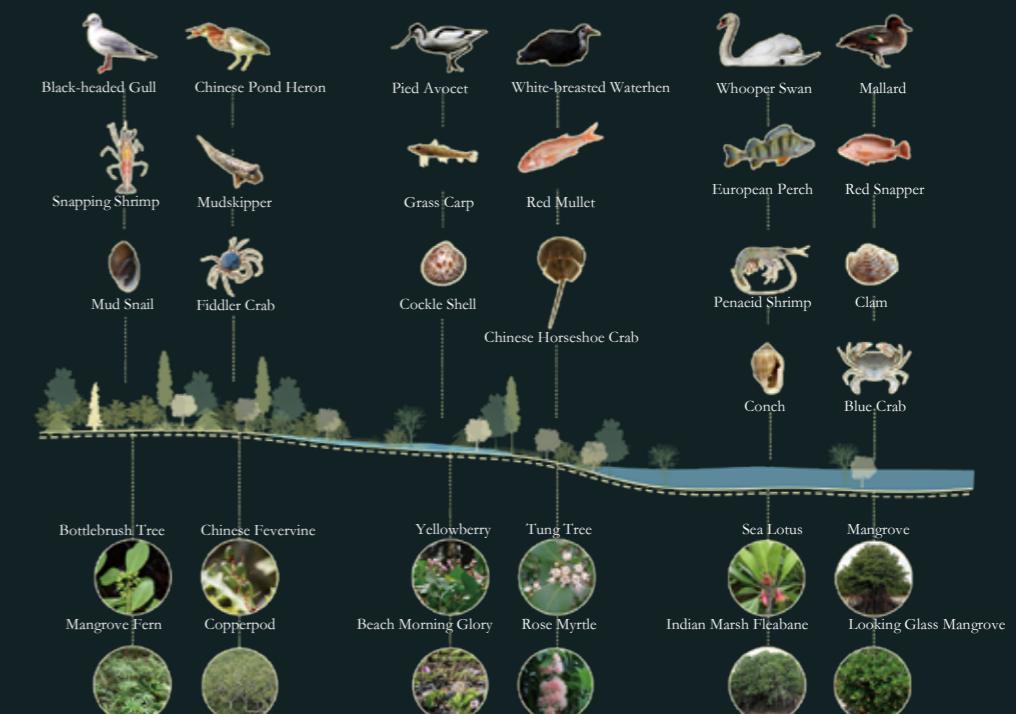
I Design node axonometric



I Analysis of existing flora and fauna on the site



Forest Area: Frequently home to raptors and songbirds, with diverse plant species. The low-tide zone is dominated by secondary forests, featuring a complex forest structure, a long, stable ecological chain.

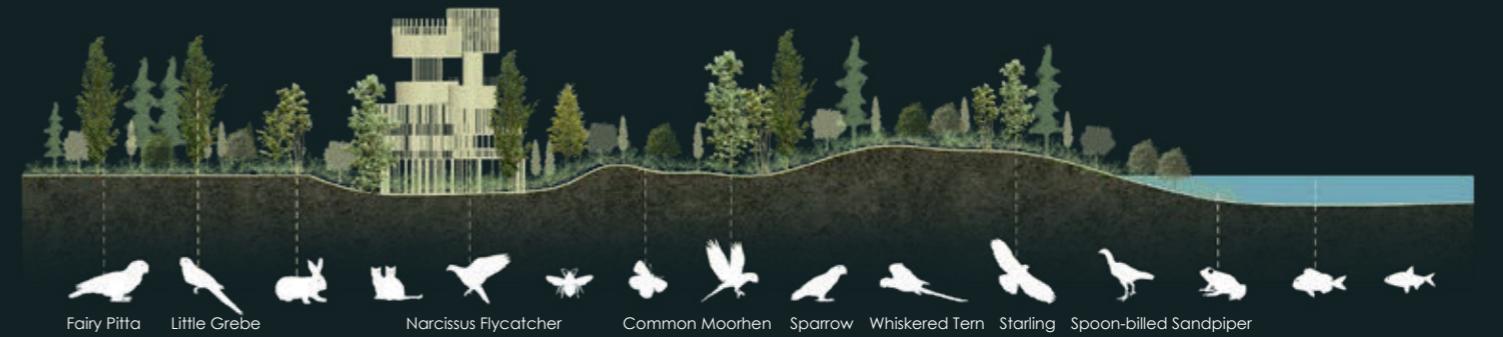


Coastal Area: A habitat for wading birds and waterfowl, rich in marine life, located in mid- and high-tide zones, and a key mangrove distribution area serving as a seasonal floodplain.

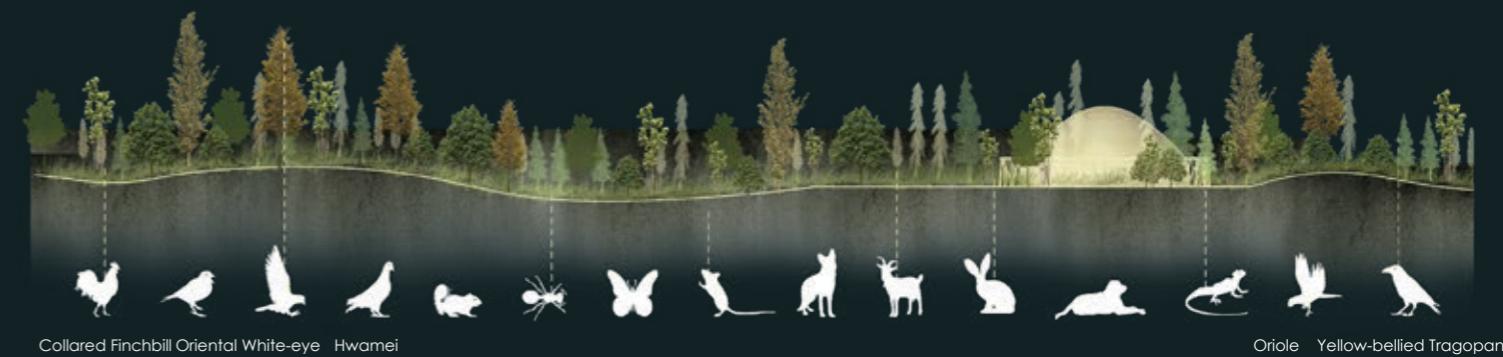
Site Plan



Elevation Display and Analysis



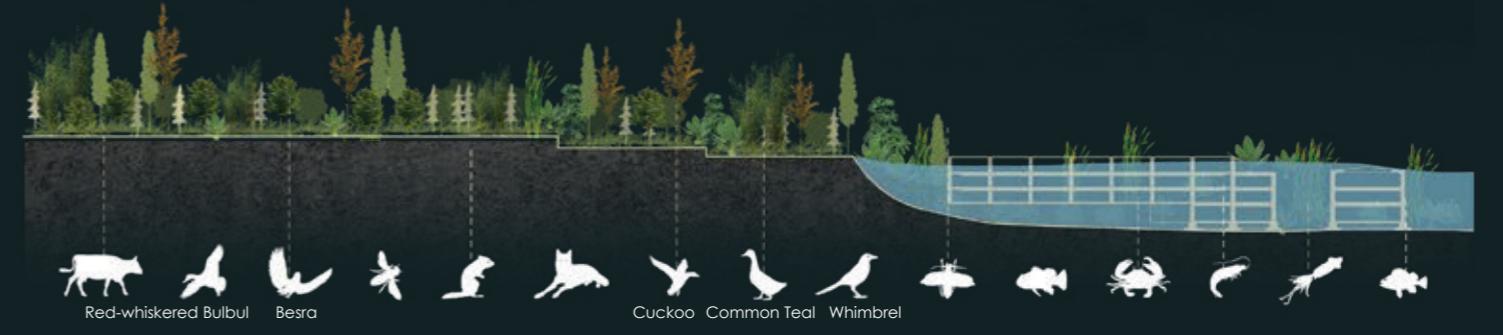
Dense Forest Bird Nests: Bionic bird nest structures are set up in the dense forest area to attract birds for nesting and resting. The forest provides a hidden habitat for many small animals, while the surrounding ponds offer essential water sources for survival.



Visitor Rest Area: Due to frequent human activity, the area is home to insects and birds attracted by nectar plants. It creates a serene, sunlit space for rest, offering a peaceful retreat that soothes visitors' minds.



Experience Boardwalk: Utilizing a wooden boardwalk with minimal support structures to reduce environmental impact, visitors can interact with the natural surroundings from elevated levels, providing a more immersive experience.



Coastal Aquaculture: Interactive educational aquaculture projects along the coast enhance visitors' experience of local historical development. Green spaces are used to mitigate pollution and noise.



Research Institute: The exhibition area provides educational information while conducting dynamic monitoring of the site's flora and fauna, particularly mangroves, to ensure sustainable development.



Large Visitor Rest Area



Bird-Friendly Structures



Oxygen-Rich Boardwalk



Wildlife coexists harmoniously, creating a more stable ecosystem



The renovated farmland achieves mutual benefits with nature.



The eco-island has become home to many animals.



The research institute further enhances the scientific management of the ecosystem.



The mangroves are gradually recovering.