

Selected Works 2016-2023

PORTFOLIO

Architectural projects by Aili Hu

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San Francisco, California*

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San Jose, California*

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Sichuan, China*

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WASTE TO FARM

A Vertical Revolution

*Location: Sanfrancisco, America
Academic | Feburary,2022-April,2023
Personal, Individual work
Supervisor: Guvenc Ozel, Laure Michaelon*

Food delivery services have huge potential in North America, and according to forecasrs, the food delivery market will continue to grow at a high rate in the coming years.

We focus on the whole chain of the food industry, from production, processing, marketing, transportation to waste disposal. We hope that in this building, we can realize the self-circulation of the industry.

Our vision to respond to changing patterns of food supply and consumption after pandemic with technology integration in cyber physical systems to envision newer realities and speculate future possibilities based on fundamental principles of circular economy and internet of things.

"An environmentally responsive and agile food and grocery delivery services headquarter located in the heart of San Francisco Downtown at iconic Transamerica Tower site aiming to be highly connected, climatically responsive and self-sufficient."



Food Trend



Digital Marketing



Health Fads
(Vegan, Dairy Free, Gluten free trends)



Pop Culture



Celebrity Chefs



Tourism



Large Food Corporations

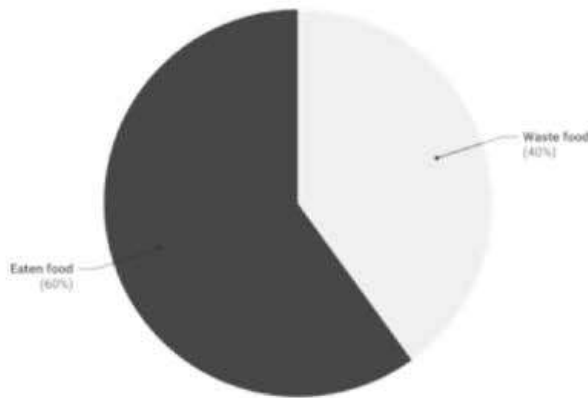


Natural Disruption
Pre-Packed Foods and Meal Kits



Agri Food Systems

Food Waste



40%
food in the U.S. is never eaten



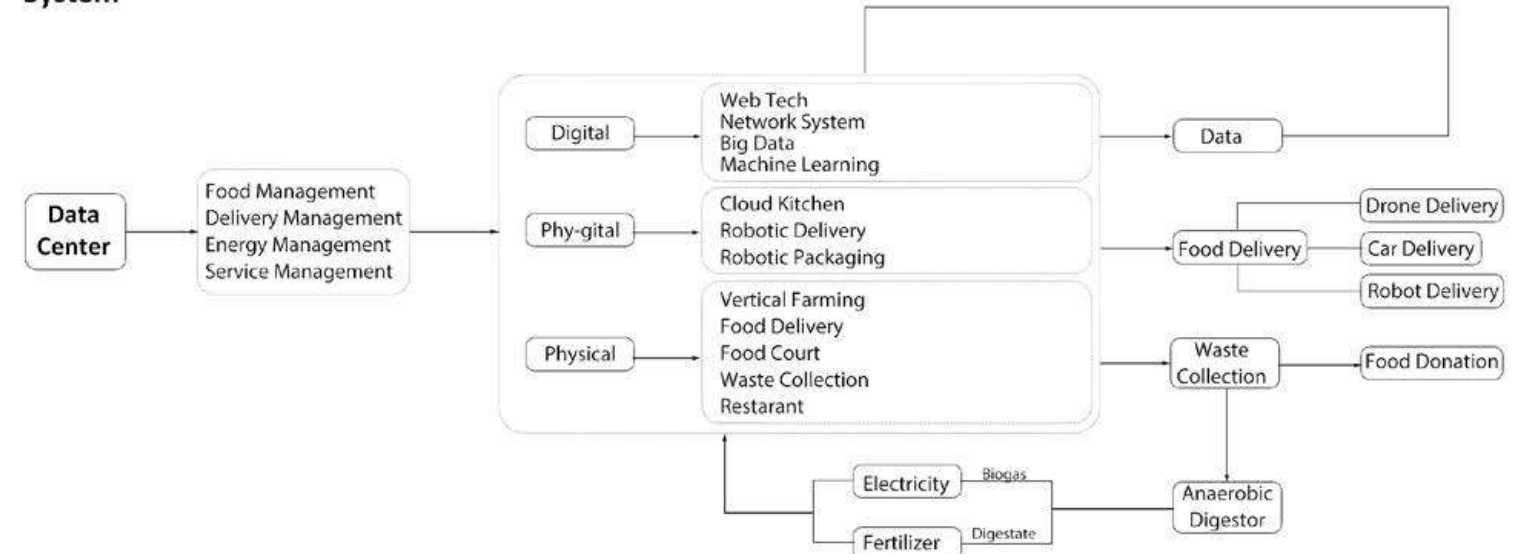
4 Billion
Tons of food is wasted each year



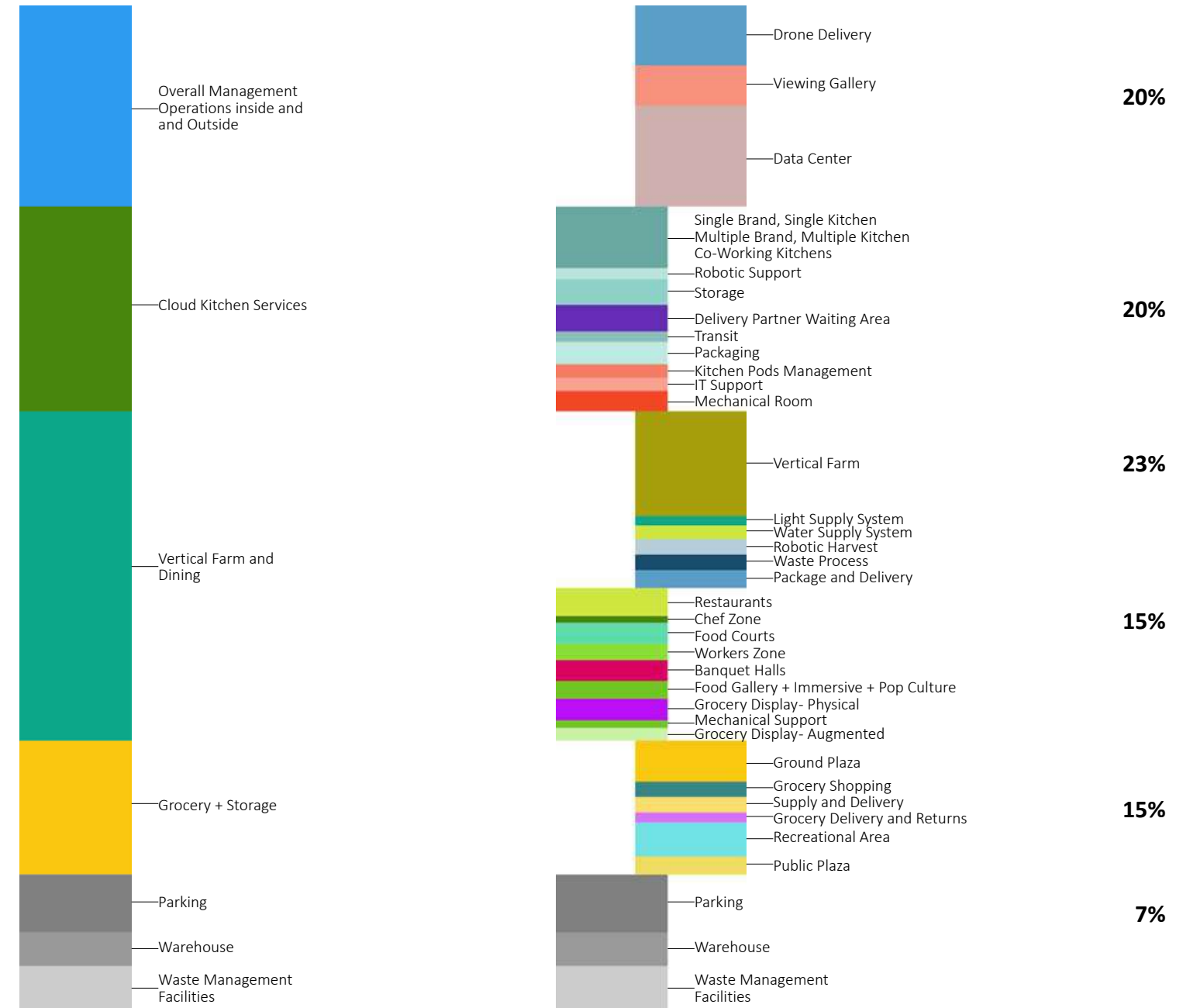
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System



Programmatic Function



Stable Diffusion Generation Progress



“Architecture is dominated by the **food industry** and exaggerated in its response to the building structure, with a large number of **mechanical structures** exposed to the air.”

“The exterior of the building was transformed into a **translucent membrane structure**.”
 “The internal composition of the building can be **vaguely** seen through the facade: there are mechanical elements, vertical farms...”

Dalle-2 Generation Progress

Vertical Farm



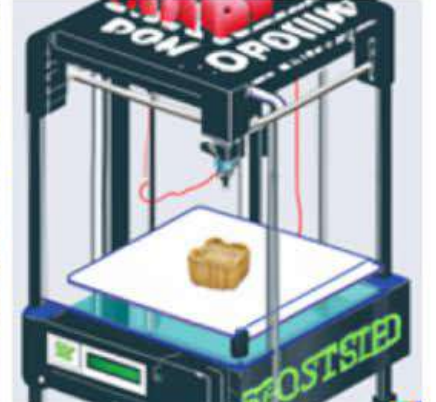
Waste Process



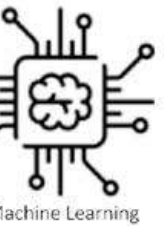
Cloud Kitchen



Dining Experience



Technology



Section Generation Process



Input

Based on the functional division of the building, we made a collage on the basis of the original Transamerica section drawing.



Section Generation Process



Input

"Photorealistic image of a retro futuristic industrial architecture, art nouveau, by Chris Moore"



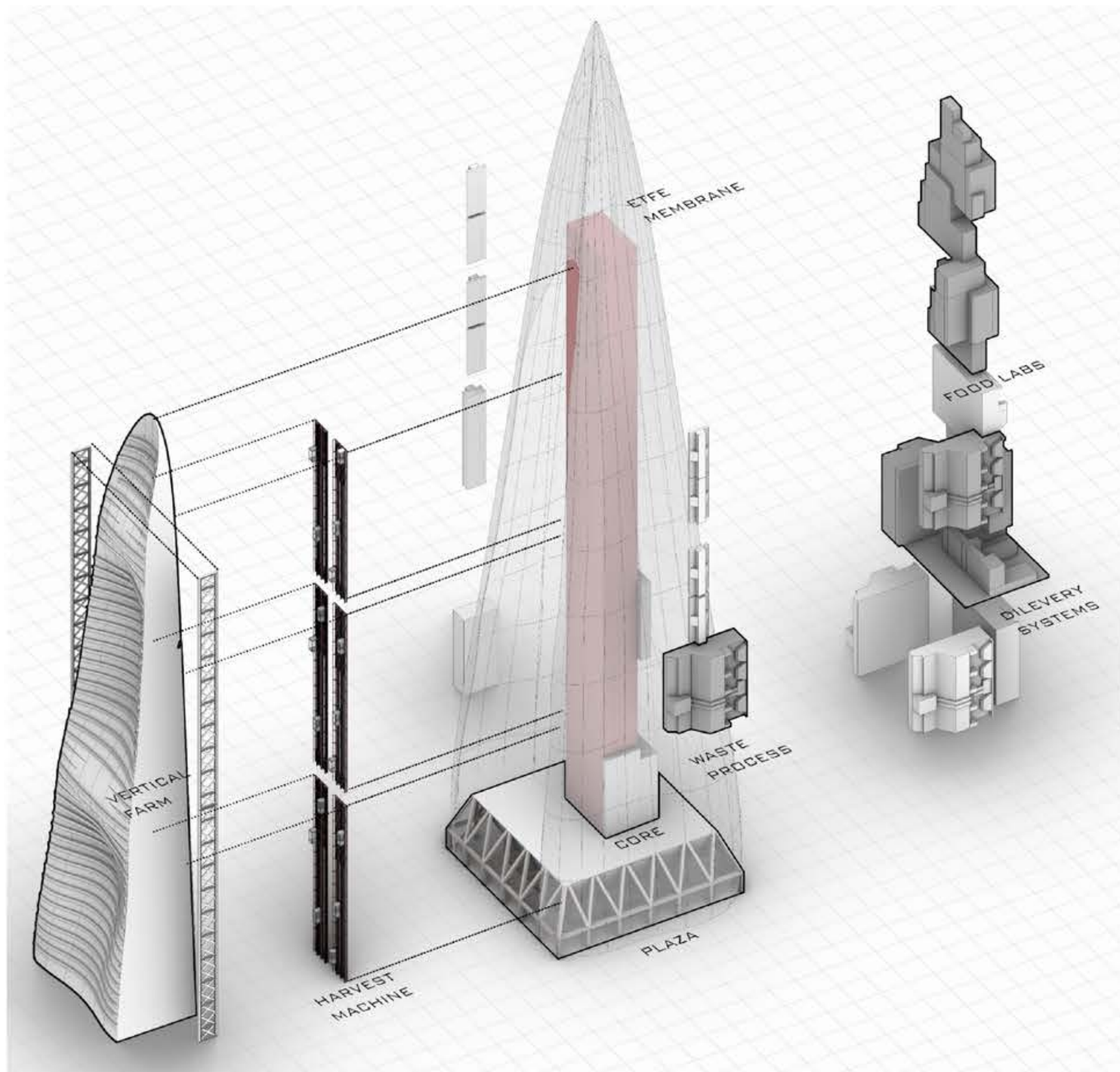
Output Generation 1



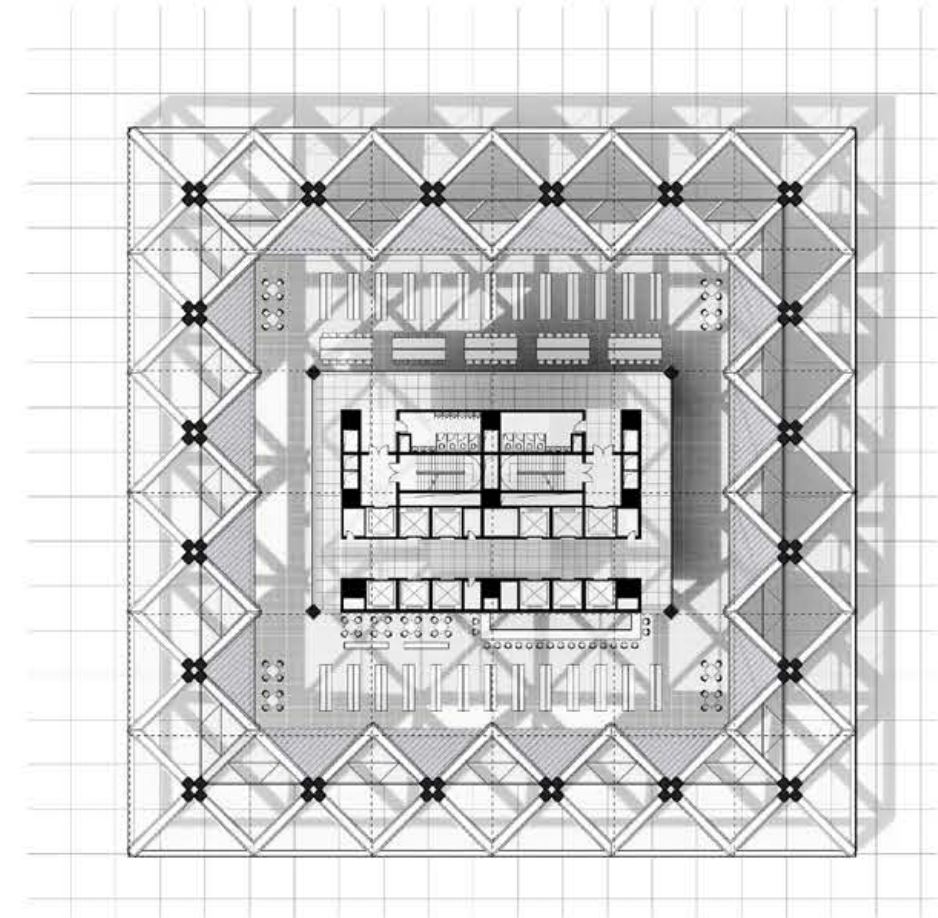
"Pictures of localized more industrial elements with some chimney tanks"

Output Generation 2

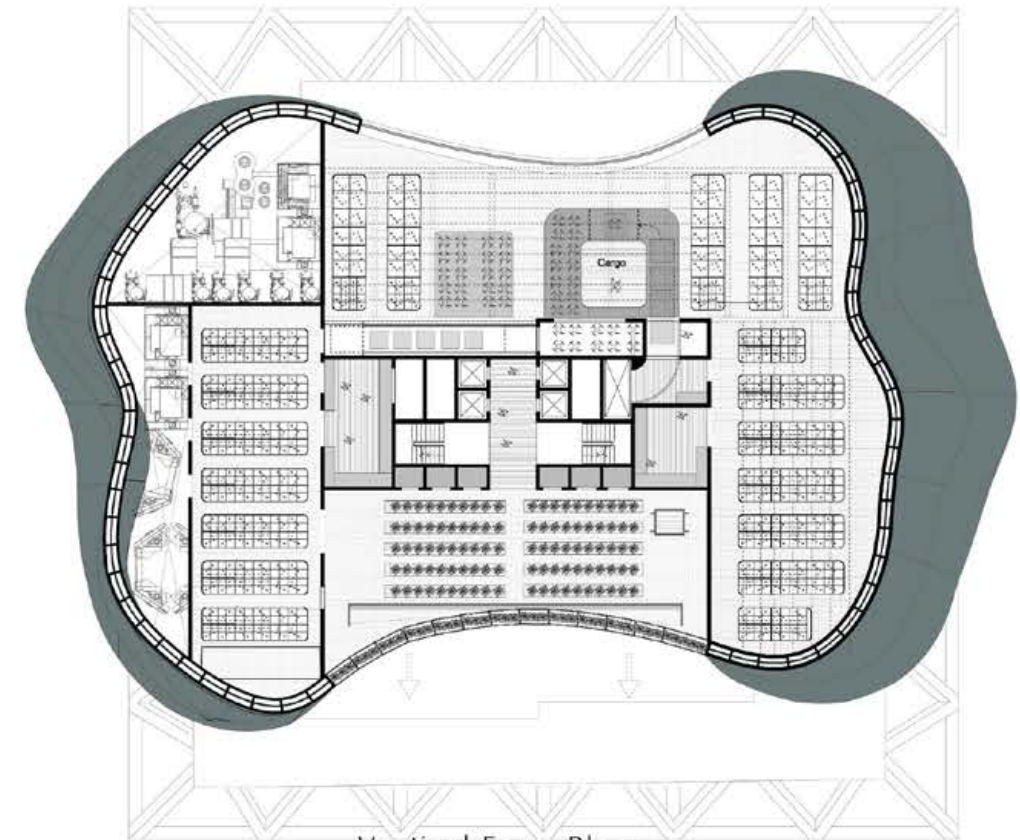
Axonometric Views



Plans



Ground Floor Plan



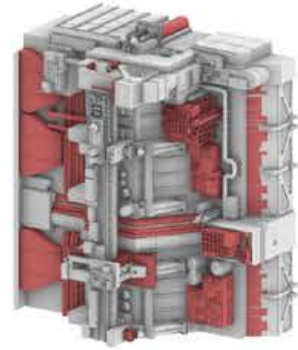
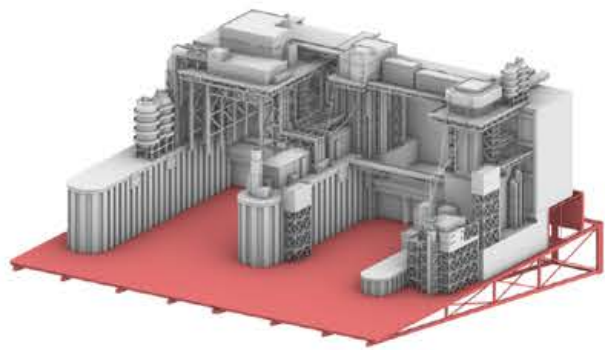
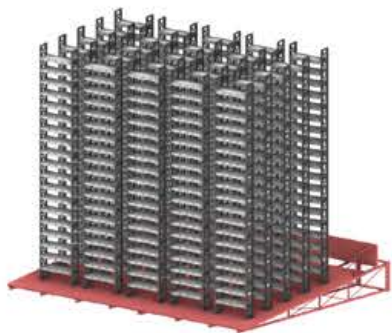
Vertical Farm Plan

Functional Unit

Vertical Farm

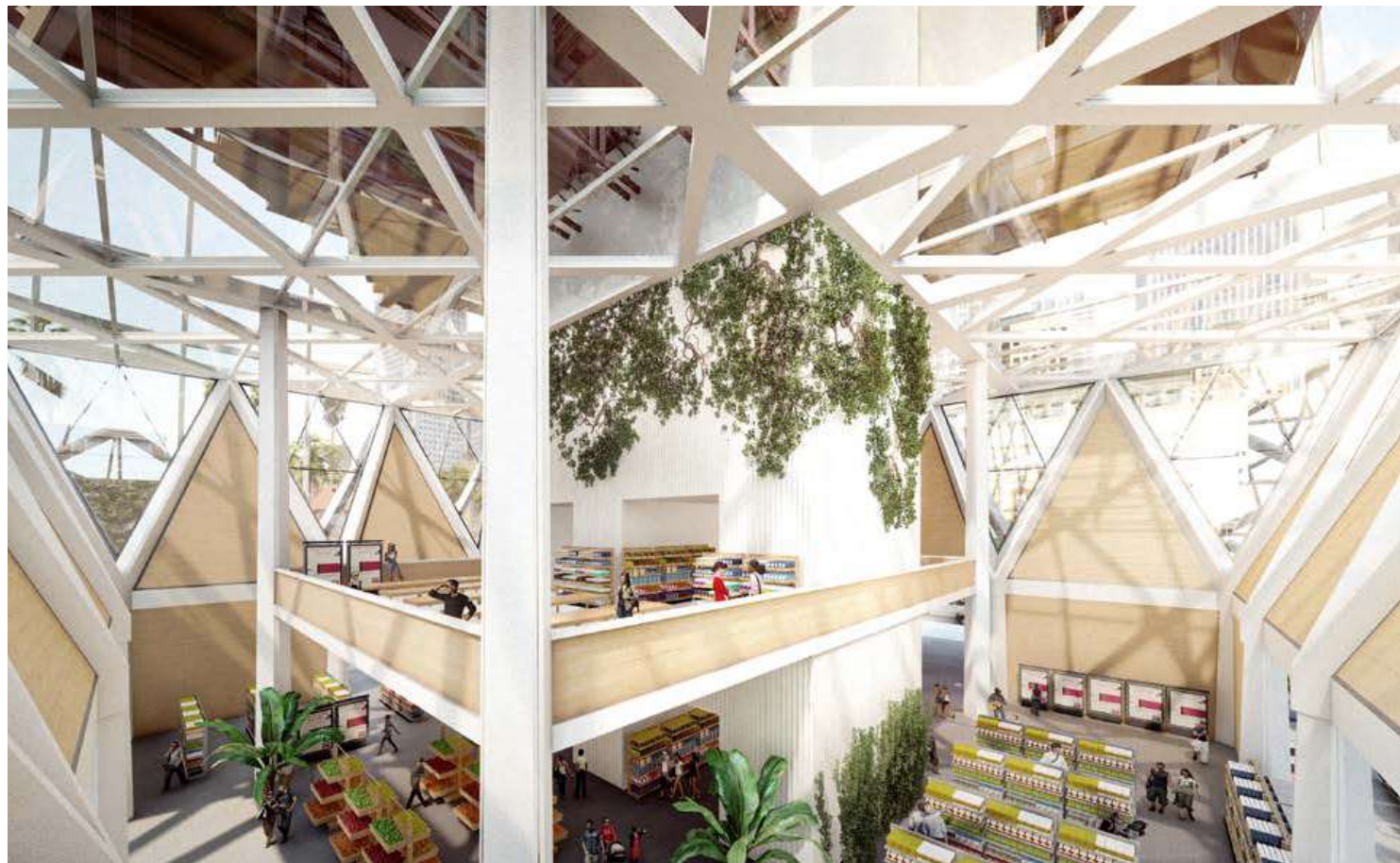
Drone Platform

Waste Process





Grocery Store View



AN ICON AWAITS

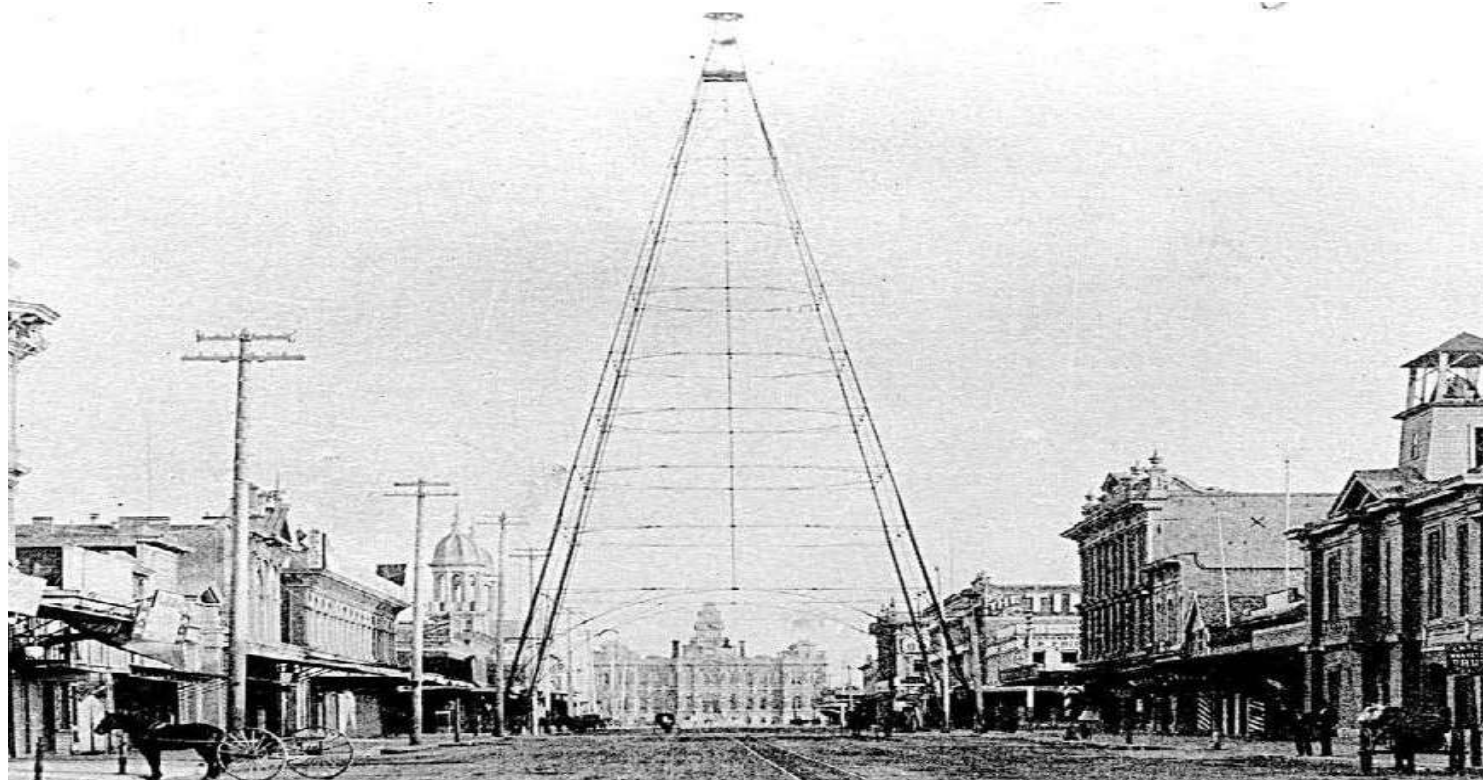
Urban Landmark Building Design

*Location: California, America
Academic | February, 2021-April, 2021
Personal, Individual work
Supervisor: ChenXiang Meng*

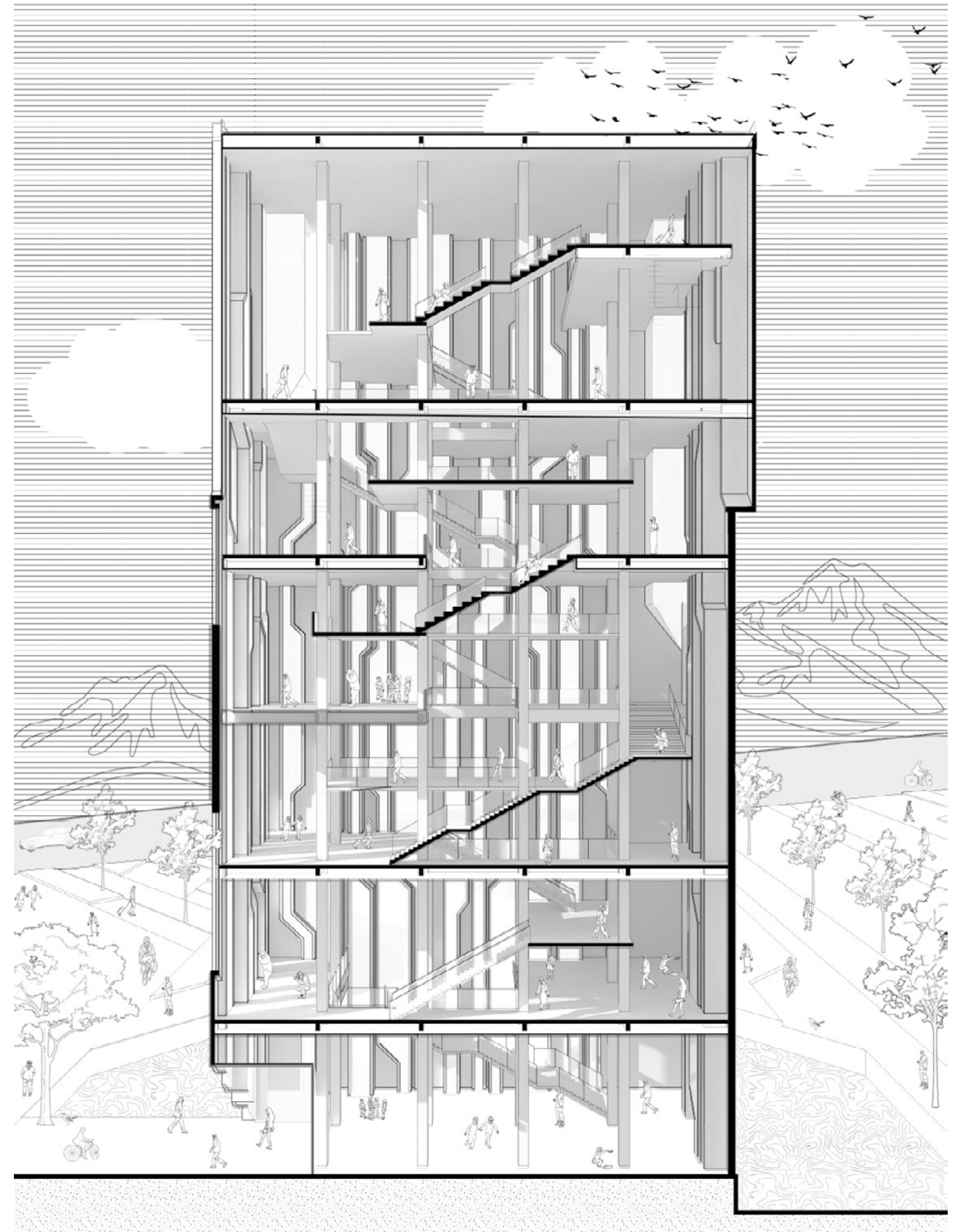
Around the world, great cities often have unique landmarks. The birth of a landmark is a concrete expression of a city's identity, a collection of civic ideas, and a vision of the city's prosperous future. It explores the spiritual core of the city and creates a space full of hope, healing, and interpersonal harmony.

The design studio is located in SAN Jose, the center of Silicon Valley in the United States, which is one of the most innovative and diverse places in the world. Inspired by the original SAN Jose lighthouse, which existed from 1881 to 1915,.

In this studio I want to design an iconic space that represents the orchard but also innovates the future, a core landmark that "illuminates" the city and belongs to all residents, workers and visitors alike.



San Jose's Electric Light tower was built in 1881.



Formation Analysis

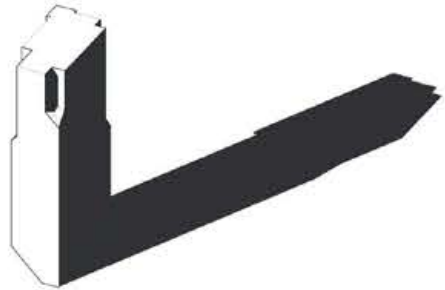


01 SITE



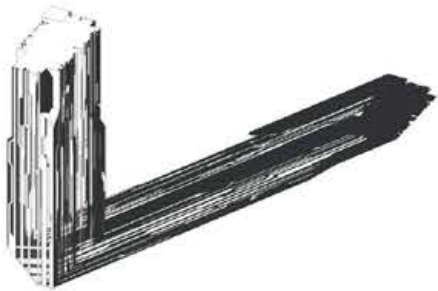
02 EXTRUDE

site footprint is extruded 60M UP



03 CARVE

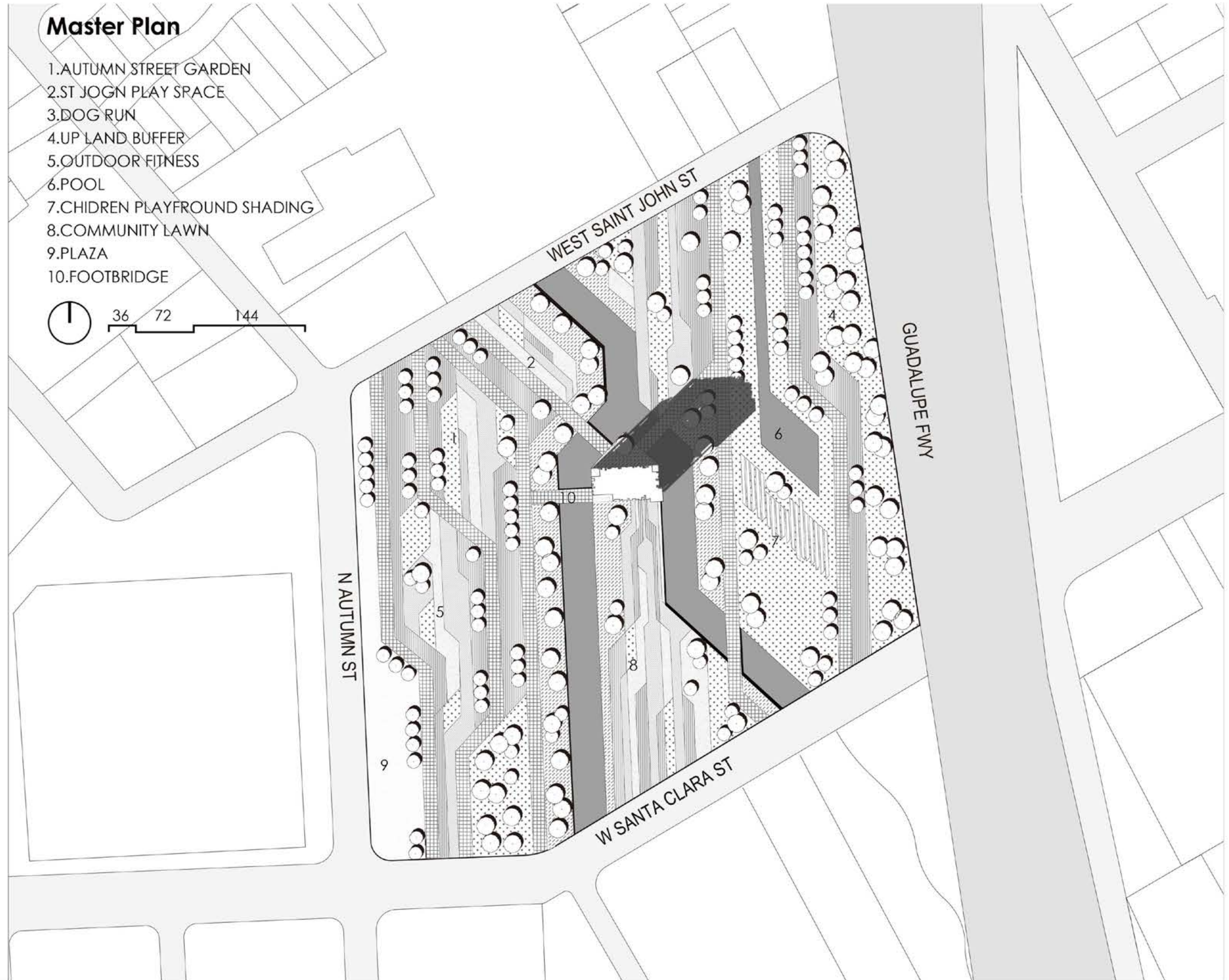
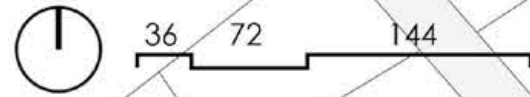
from the building envelope

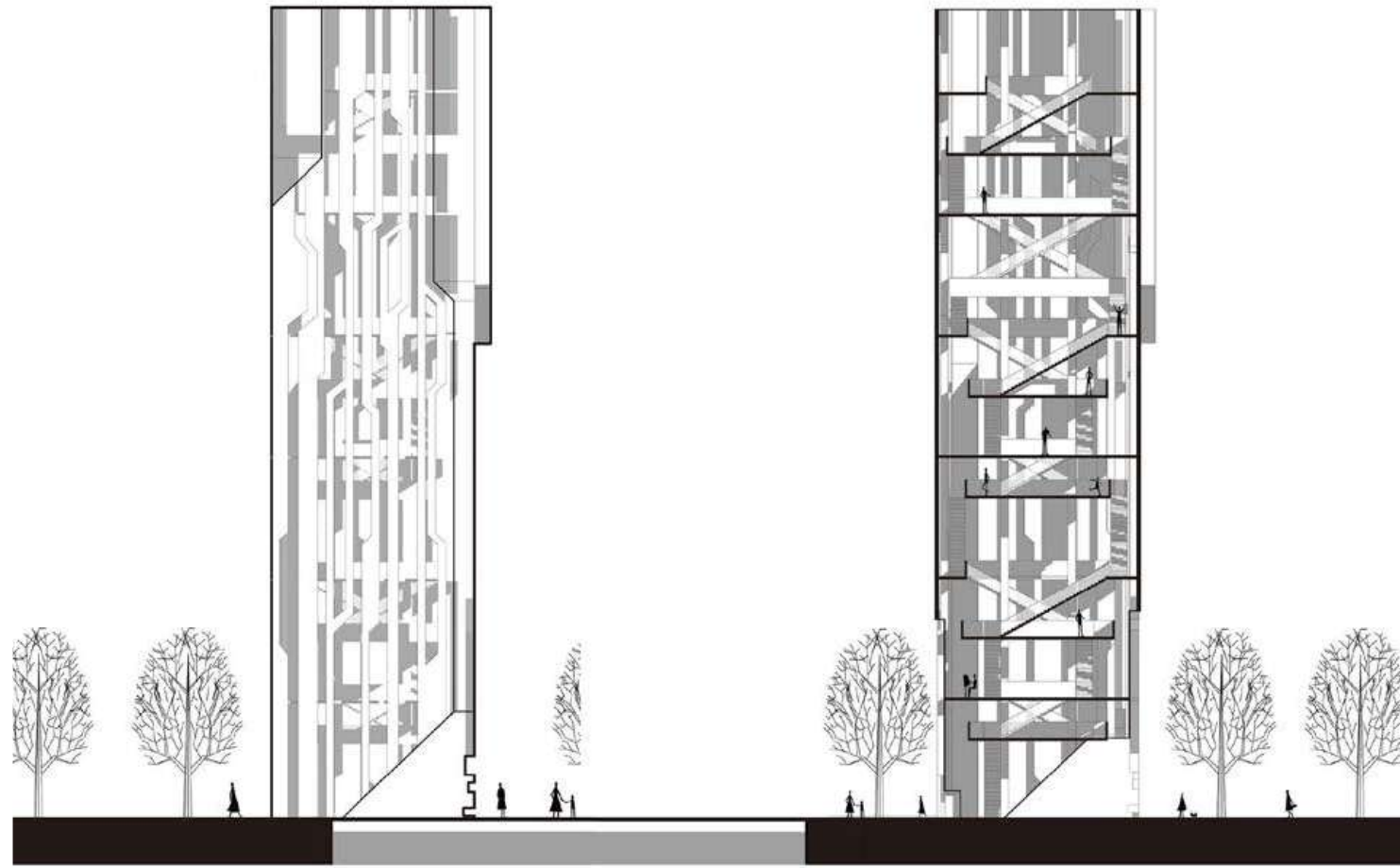


04 Create a unique space

Master Plan

- 1. AUTUMN STREET GARDEN
- 2. ST JOHN PLAY SPACE
- 3. DOG RUN
- 4. UP LAND BUFFER
- 5. OUTDOOR FITNESS
- 6. POOL
- 7. CHILDREN PLAYGROUND SHADING
- 8. COMMUNITY LAWN
- 9. PLAZA
- 10. FOOTBRIDGE



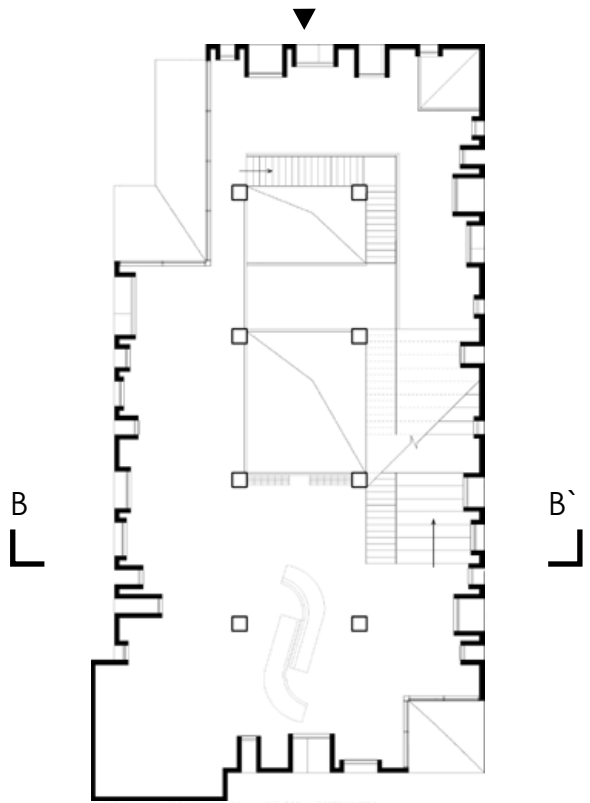


Elevation AA'

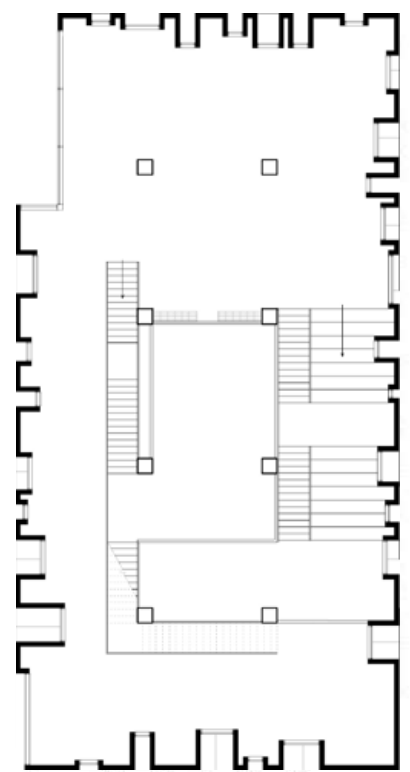
Section BB'



Interior View



Floor Plan 1



Floor Plan 2



Exterior View



Half-Mountain Garden

A Community Complex Design

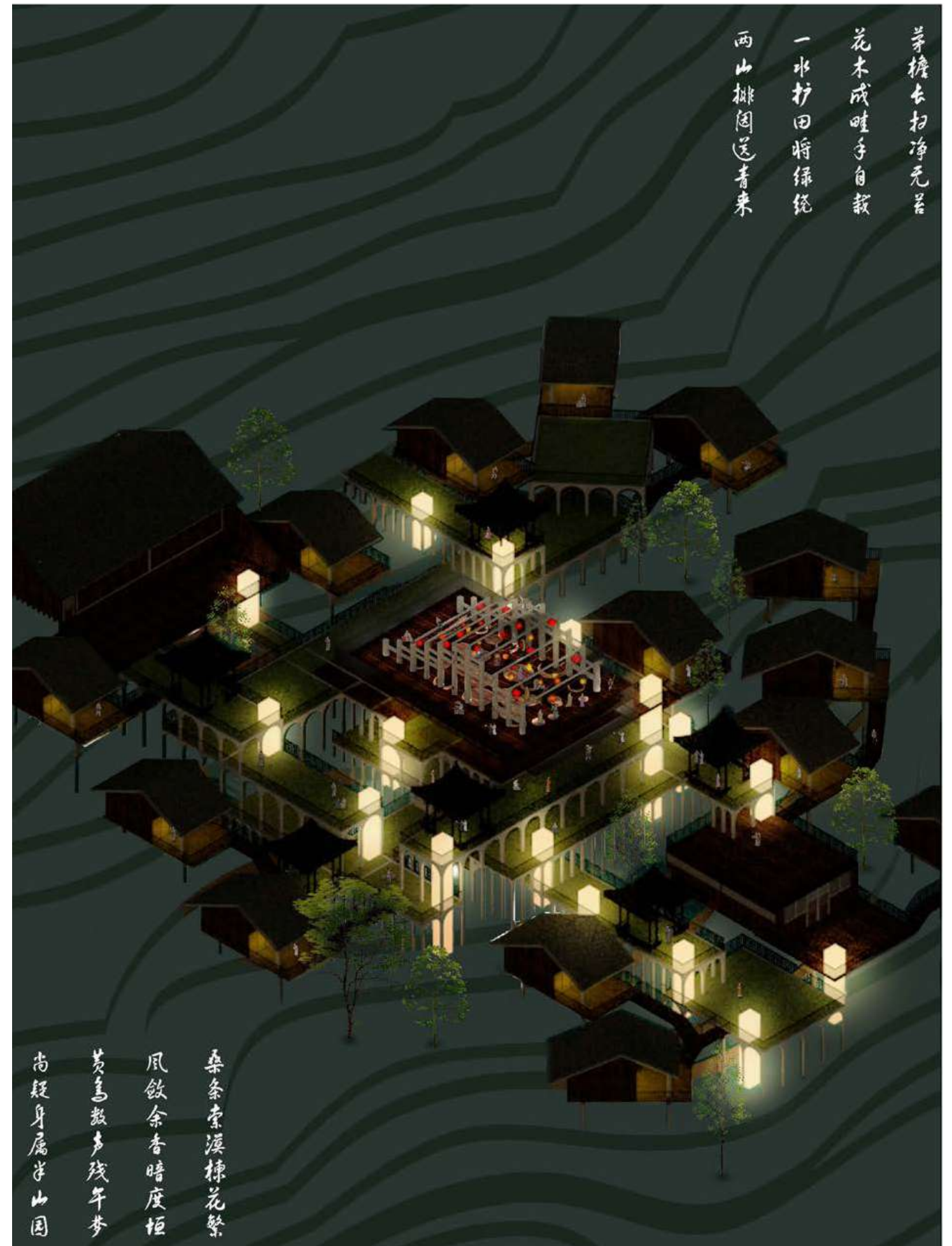
Location: Meishan, China
Academic | October, 2021 - November, 2021
Personal, Individual work
Supervisor: Chen Xiang Meng

As per international standards, when this proportion exceeds 20%, the society is classified as a super-aging society. According to the seventh national census conducted on November 1, 2020, China's elderly population aged 60 and above reached a staggering 264.02 million, accounting for 18.7% of the total population.

The data from the census highlights the pressing need to address the well-being of the elderly in China. Notably, 90 percent of elderly individuals in the country prefer home care. This studio aims to develop a unique architectural complex design that enables the elderly to remain in the places they have cherished throughout their lives, fostering a sense of belonging and preserving their connection to their roots, rather than resorting to building distant nursing homes that may distance them from their original homes. By crafting a thoughtfully designed complex, I aim to create a nurturing environment that respects the aging population's desire for familiarity and home-based care. The project endeavors to enhance the life quality of China's elderly population while ensuring that they continue to thrive within the communities they call home.



The traditional building in Meishan

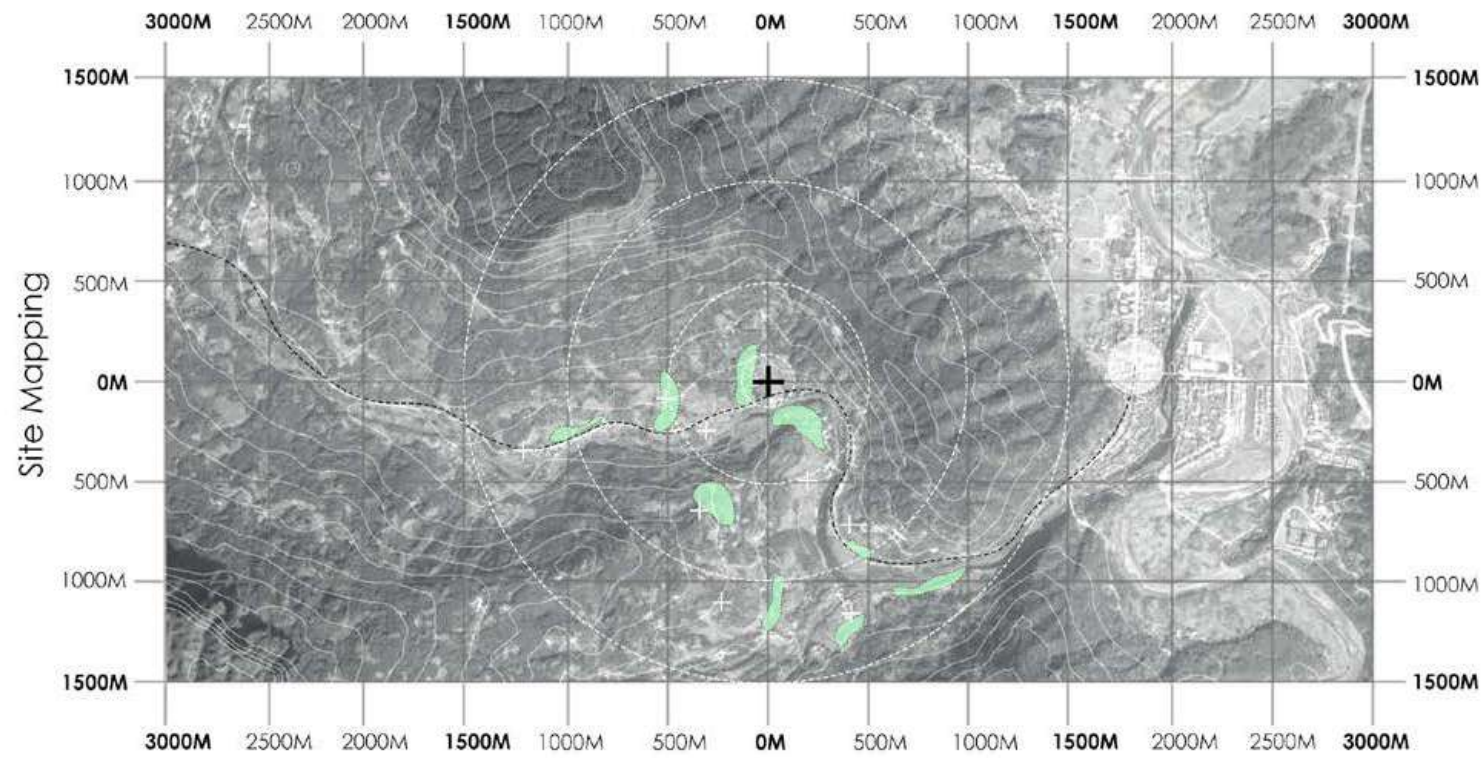
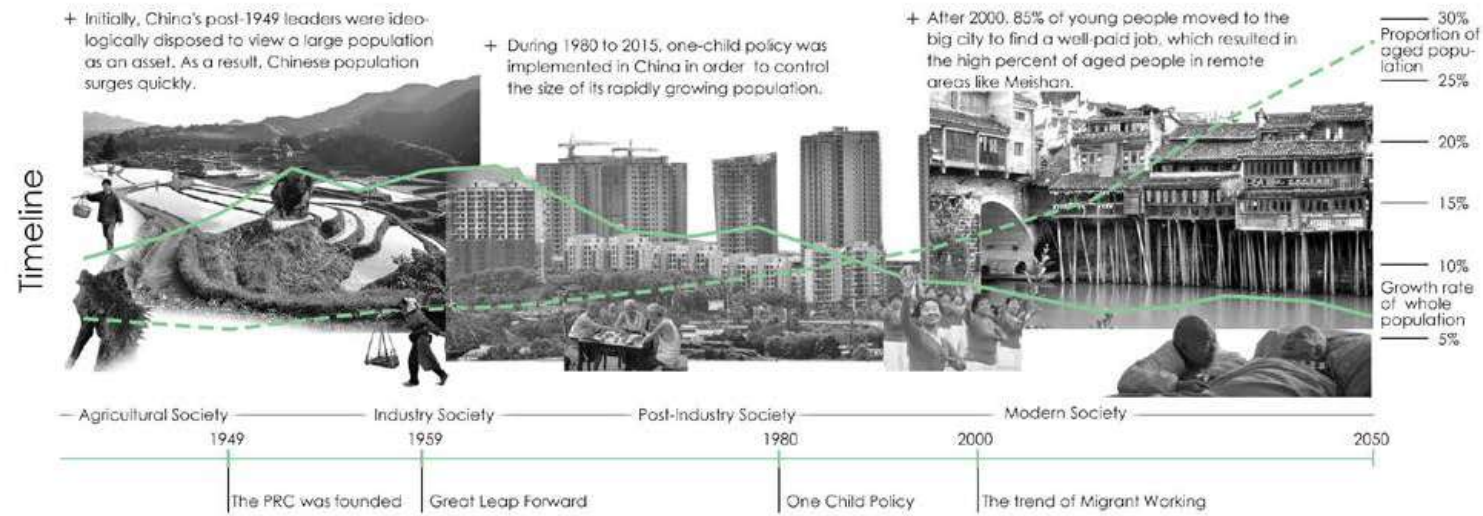


茅檐去扫净无苔
花木成畦手自栽
一水护田将绿绕
两山排闥送青来

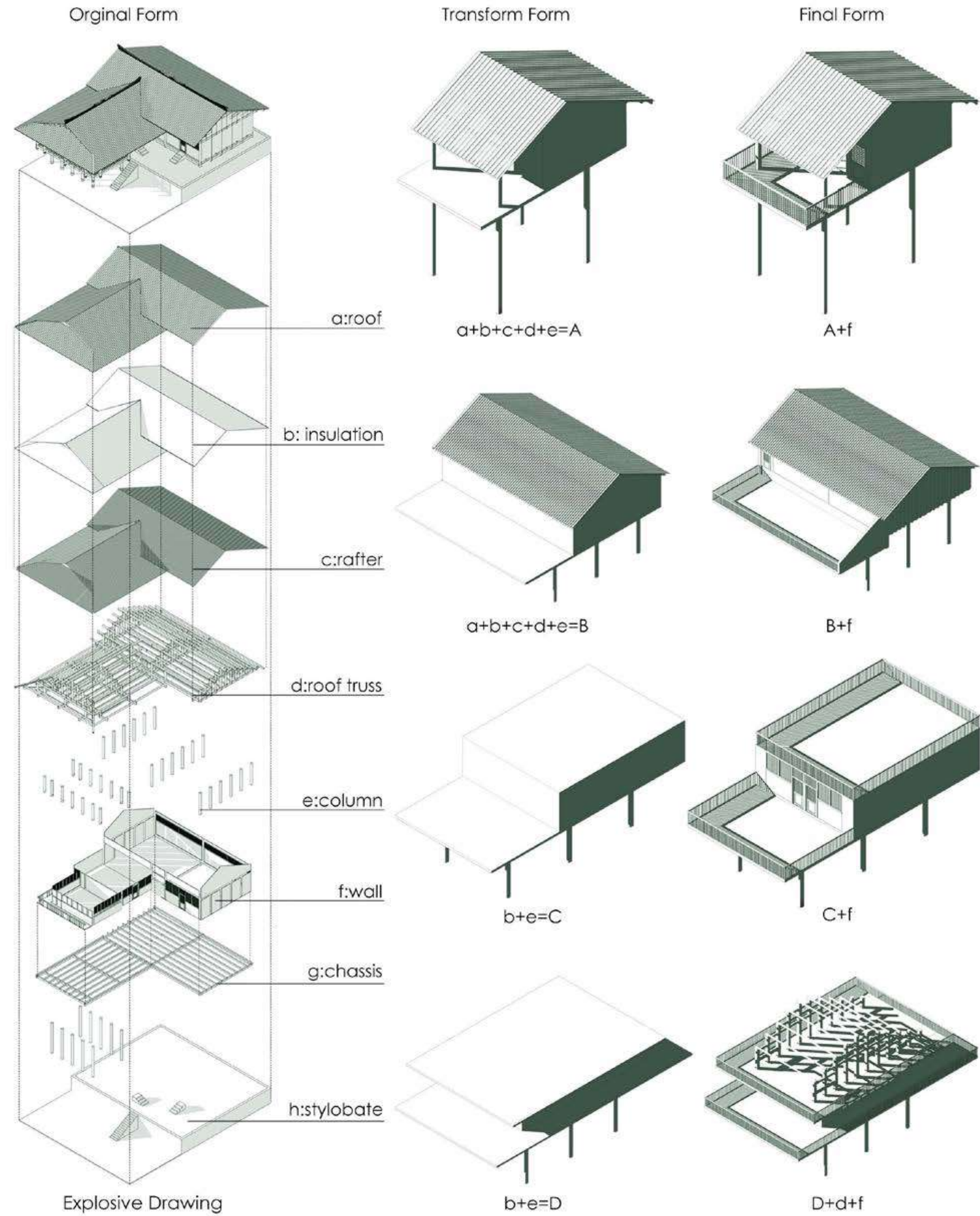
桑条索漠楝花繁
风敛余香暗度垣
黄鸟数声残午梦
尚疑身属半山园

TIMELINE & SITE STATUS

The site of this project was chosen in a terrace near Liujiang town in Meishan. It is entering deep ageing society because of the policy implemented in China and the movement of young people to the city, which ranks among the top 10 in China. The new building group for aged will be built here to enhance their sense of happiness.



FORM GENERATION





半山園



第一卷 凉亭
Pavillion
 Pavillion can provide inhabitants with a rest and also increase the beauty of the landscape.



茶烟香静净无苦
 花木幽雅手自栽

第二卷 饭铺
Kitchen

Disabled aged people can eat food here instead of cooking by themselves.



一水覆田得绿镜
 两山排闥送青来



第三卷 居室
House
 Residents can live in the house with good views, which benefits their health.

Map of Half-Mountain Garden



第四卷 粮仓
Granary

When the grain is harvested, it can be dried in the platform and then stored inside.



春种秋收好花景
 风鼓金香晒度佳



第五卷 连廊
Corridor

People can walk in the corridor to wherever they want.



春种秋收好花景
 风鼓金香晒度佳



第六卷 医馆
Clinic

When aged people is ill, they can get treated easily.



Section



Activity



7:00am Farming

12:00am Having dinner

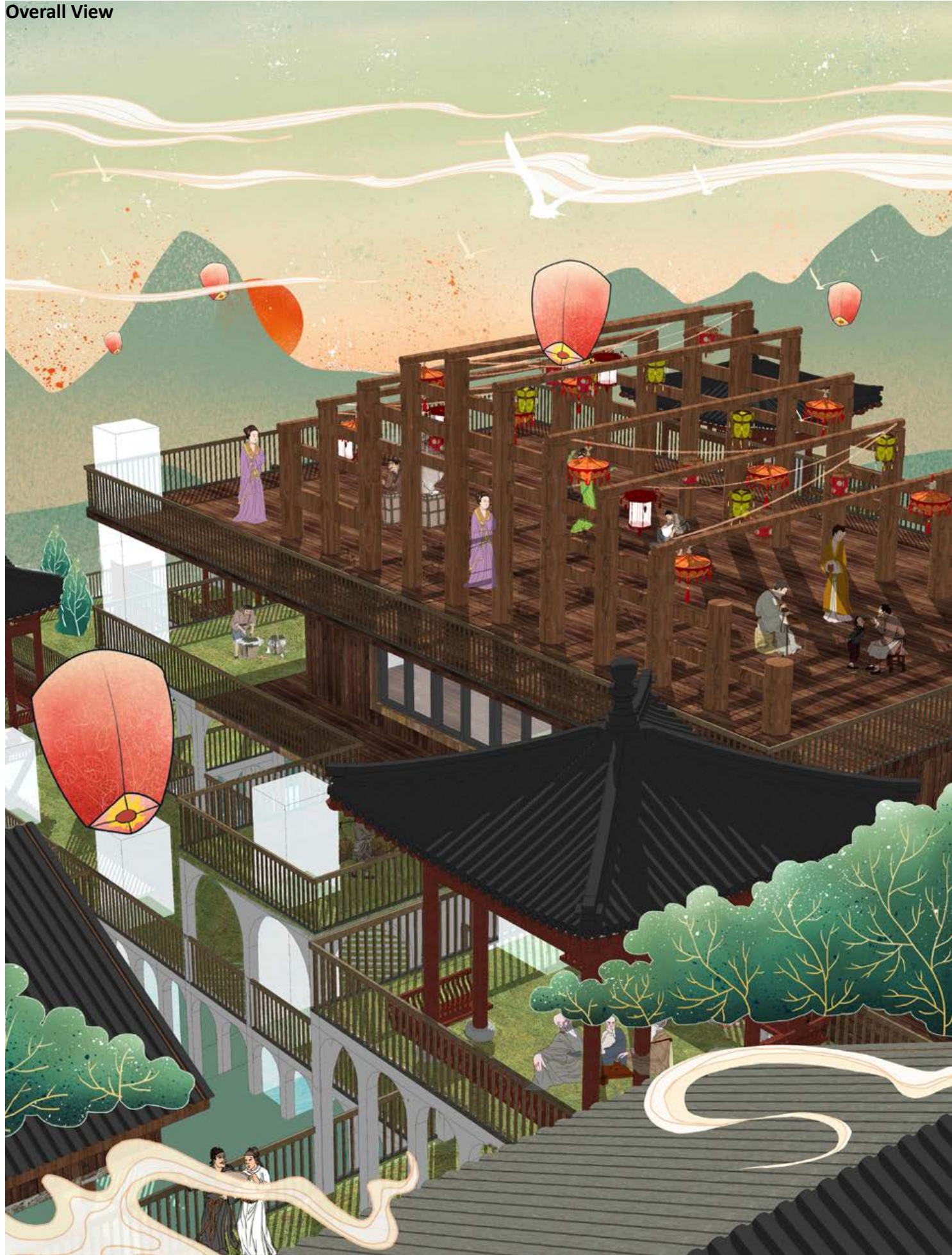
3:00pm Chatting

5:00pm Farming

7:00pm Dancing

9:00pm Sleeping

Overall View



Interior View





1

Other Works

1. Vertical Street Bar

July 2022

Micro Film

2. Dancing World

3. Cactus Wild Life

July 2022

4. Waste to Farm

March 2023

Interior design



2



3



4

