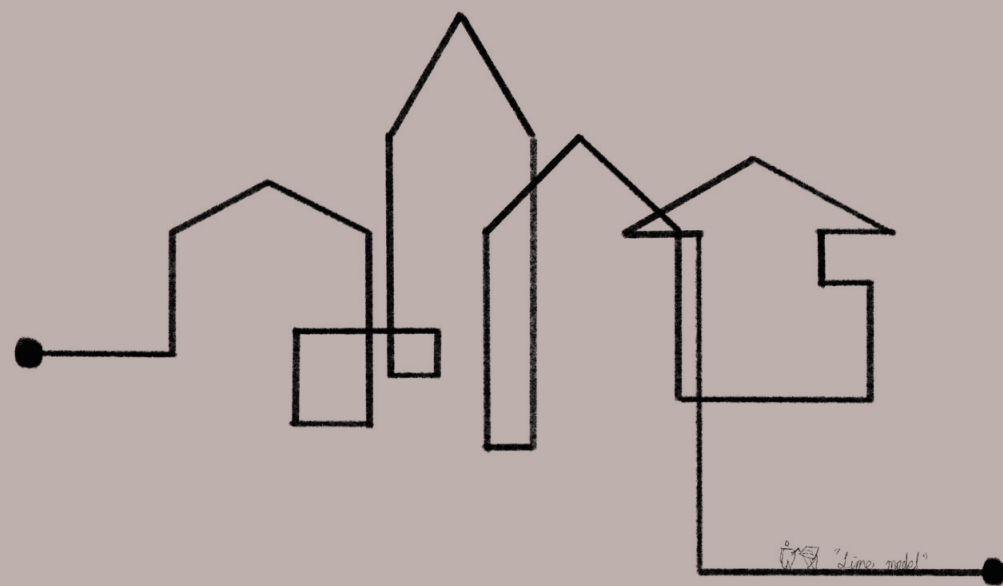


# Awakening Villages

Regeneration of Gangtou Ancient Village with the theme of Lime Modelling cultural tourism and Lime model exhibition hall design



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**POLITECNICO**

MILANO 1863

School of Architecture Urban Planning Construction Engineering

**MASTER IN ARCHITECTURE - BUILT ENVIRONMENT - INTERIORS**

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THESIS TITLE

Awakening Villages  
Regeneration of Gangtou Ancient Village  
with the theme of Lime Modelling cultural  
tourism and lime model exhibition hall  
design

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A.Y. 2022-2023

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# ABSTRACT

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The development of traditional villages in China faces with two major problems and challenges. On the one hand, due to the influence of the external environment, the acceleration of urbanization has led to the invasion of traditional villages by foreign cultures, resulting in the gradual decline or even disappearance of the material and non-material cultures that have been passed down in the original villages for thousands of years. On the other hand, the internal environment of traditional villages is deteriorating. The buildings with a long history in the ancient villages and the vacant land caused by the dilapidated buildings are not well organized, the appearance is not good, the industrial structure is backward, and the quality of life of the villagers is low.

Gangtou Village, a typical traditional Cantonese village in the Lingnan water town area, also faces the above problems. Due to the population loss caused by the young and middle-aged people in the village going out to work, the village has a large elderly population, and the cultural heritage is seriously broken. At the same time, due to the lack of labor to maintain the existing ancient buildings in the village and clear the open spaces, the quality of life of the villagers continues to decline. It is urgent to solve these problems.

To address the problem of village decline due to population loss in Gangtou Village, the thesis proposes a comprehensive program that combines the reshaping of the lime modelling industry and the development of cultural-tourism industries at the village level for the purpose of promoting economic development and population growth. At the architectural level, the concept of "site memory" is proposed, which means that the historical memory of the original site is preserved in the design of the new building. By preserving some elements or materials of the original building, the new building will be in harmony with the surrounding environment and will be able to pass on its history and culture, becoming part of the village's cultural heritage.

**Key-words:** Chinese rural renewal, Population loss, Rural traditional handicrafts, One village one product, Acupuncture, Memory of place.

# RIASSUNTO

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Lo sviluppo dei villaggi tradizionali in Cina deve affrontare grandi problemi e sfide. Da un lato, a causa dell'influenza dell'ambiente esterno, l'accelerazione dell'urbanizzazione ha portato all'invasione dei villaggi tradizionali da parte di culture straniere con conseguente graduale declino o addirittura scomparsa delle culture materiali e immateriali che sono state tramandate nei villaggi per migliaia di anni. Inoltre, gli edifici stessi nei villaggi tradizionali si stanno deteriorando. Nei borghi antichi, gli edifici storici e gli spazi vuoti a causa degli edifici fatiscenti sono lasciato andare, mentre la struttura industriale è arretrata e la qualità della vita degli abitanti del villaggio è bassa.

Anche il villaggio di Gangtou, un tipico villaggio cantonese tradizionale nell'area della città sull'acqua di Lingnan, deve affrontare questi problemi. A causa della perdita di popolazione, causata dai giovani e dalle persone di mezza età che vanno a lavorare altrove, il villaggio ha una popolazione anziana e il patrimonio culturale è gravemente danneggiato. Allo stesso tempo, a causa della mancanza di manodopera per mantenere gli edifici antichi esistenti nel villaggio e liberare gli spazi aperti, la qualità della vita degli abitanti del villaggio continua a peggiorare. È urgente risolvere questi problemi.

Per affrontare il problema del declino del villaggio a causa della perdita di popolazione nel villaggio di Gangtou, la tesi propone un programma completo che combina la rifunzionalizzazione dell'industria della modellazione della calce e lo sviluppo del turismo culturale nel villaggio, allo scopo di promuovere lo sviluppo economico e la crescita demografica. A livello architettonico viene proposto il concetto di "memoria del sito", in modo che la memoria storica del sito originario sia conservata e trasferita nel progetto del nuovo edificio. Conservando alcuni elementi o materiali dell'edificio originario, il nuovo edificio sarà in armonia con l'ambiente circostante e potrà tramandarne la storia e la cultura, entrando a far parte del patrimonio culturale del borgo.

**Parole chiave:** Rinnovamento rurale cinese, Perdita di popolazione, Artigianato rurale tradizionale, Un villaggio un prodotto, Agopuntura, Memoria del luogo.

# INTRODUCTION

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China was a rural society in history, and the rural permanent population has long been the majority. The development of urbanization in China has accelerated since the implementation of the reform and opening-up. The urbanization rate has increased from 17.92% in 1978 to 59.58% in 2018. Along with the rapid urbanization process, large-scale rural-urban migration leads to the rapid decline in rural population. The rural population in China decreased from 790 million in 1978 to 564 million in 2018. By 2021, China's rural permanent population will drop to 498 million, accounting for 35.3% of the country's total population. The permanent rural population may continue to decline in the future, and is expected to drop to 450 million by 2025, 330 million by 2035, and 245 million by 2050. However, other geographical elements of rural areas, such as land, cannot quickly adapt to this change in rural population due to policies, institution and other reasons. The dislocation of demographic and other geographical elements has produced a series of rural problems.

The most obvious of these problems is the hollowing out of rural areas. The hollowing out of rural areas is characterized by a large number of young and strong rural laborers leaving the countryside, an aging and impoverished population, and an exodus of population and capital to the cities, resulting in the decline of the rural economy and changes in the social structure; the hollowing out of infrastructure and social services, and the destruction of the overall pattern and landscape of villages; and the decreasing area of inhabited residential land in village centers. On the cultural level, the lack of successors in the development of village culture has led to cultural hollowing out. After being influenced by modern industrial civilization and urban civilization, farmers who go out to work will consciously or unconsciously make cultural choices to abandon and move closer to modern civilization, gradually accept and internalize urban culture, and reject and detach from the original native culture. Under the impact of information network technology, urban culture gradually penetrates and strengthens into the countryside, and few farmers are willing to inherit the original characteristics of rural culture, which is gradually marginalized.

How to avoid the hollowing out of the countryside is a major problem facing many declining

Chinese villages. How to return the population? How can village culture be preserved? The development of rural cultural tourism industry can be a good way. The local characteristic culture is unique, and the tourism industry developed by using the local characteristic culture as a carrier can better attract foreigners to come and watch. This approach not only promotes the local traditional culture very well and avoids the cultural fault line. It can also create many employment opportunities and promote the return of the local population.

This paper proposes methods of “One Village One Product” and “Acupuncture” through a series of studies of villages . The “O.V.O.P” is used to promote the cultural industry of the village, which is a good way to promote the local traditional culture and create many jobs to promote the return of the population. In addition, “Acupuncture” is used to target the abandoned buildings and land in the village, which is an excellent way to improve the appearance of the village with minimal intervention. Finally, the cultural architecture level also discusses how new buildings can preserve the original memory and integrate the new with the old.





SECTION **A**  
THE AREA



# TERRITORIAL SCALE

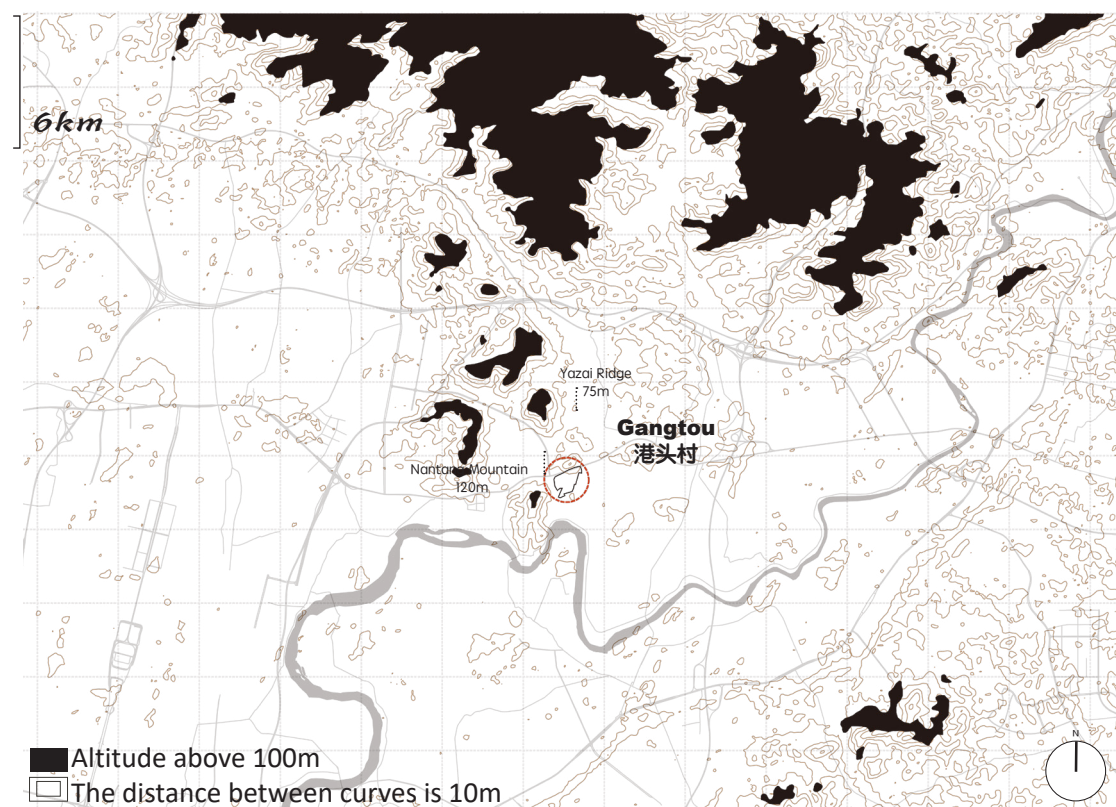
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## 1.1 Flat Soil

Gangtou Village is located in the plain area, the soil is relatively flat, and the average altitude is about 20 meters above sea level.

The village is surrounded by mountains, just nestled in a mountain depression. It can be seen from the contour topographic map that the highest point near the village is Nantang Mountain in the southwest, with an altitude of about 120 meters. The Yazai Ridge, which is adjacent to the north of the village, is relatively low in altitude, with a maximum of 75 meters.

There is a forest in the far north of Gangtou Village, with a high altitude. Looking north from the village, you can see mountains vaguely appearing in people's sight. This area is also a popular attraction for climbers.



III. 1 - Soil Analysis

## 1.2 Good Natural Environment

Gangtou Village is far from the city center of Guangzhou. There are abundant water resources around it, which can facilitate shipping. There are many nature reserves nearby, which is a pure land far away from the city.

This region is rich in water resources. There are so many vertical and horizontal streams, many ditches and ponds, and the characteristics of a traditional water town in the Pearl River Delta. The Xiliu River is the only main water system in Gangtou Village, with a total length of 157 kilometers. It flows through many areas in Guangzhou and is known as the "Mother River of Guangzhou". The development of the water system has greatly promoted the development of agriculture and transportation, so the stream and river play an important role in the formation and development of Gangtou Village.

Gangtou Village is located on the outskirts of the city far from the center of Guangzhou. In addition to the rich farmland, there are many nature reserves near Gangtou Village, with high plant coverage and rich landscape resources, which can attract a large number of tourists from Guangzhou and surrounding areas to visit in their spare time so as to relax their body and mind. Gangtou Village, with its excellent geographical location, can just be a resting place for tourists, so it has a natural advantage to develop tourism.



III. 2 - Natural Resources near Gangtou village

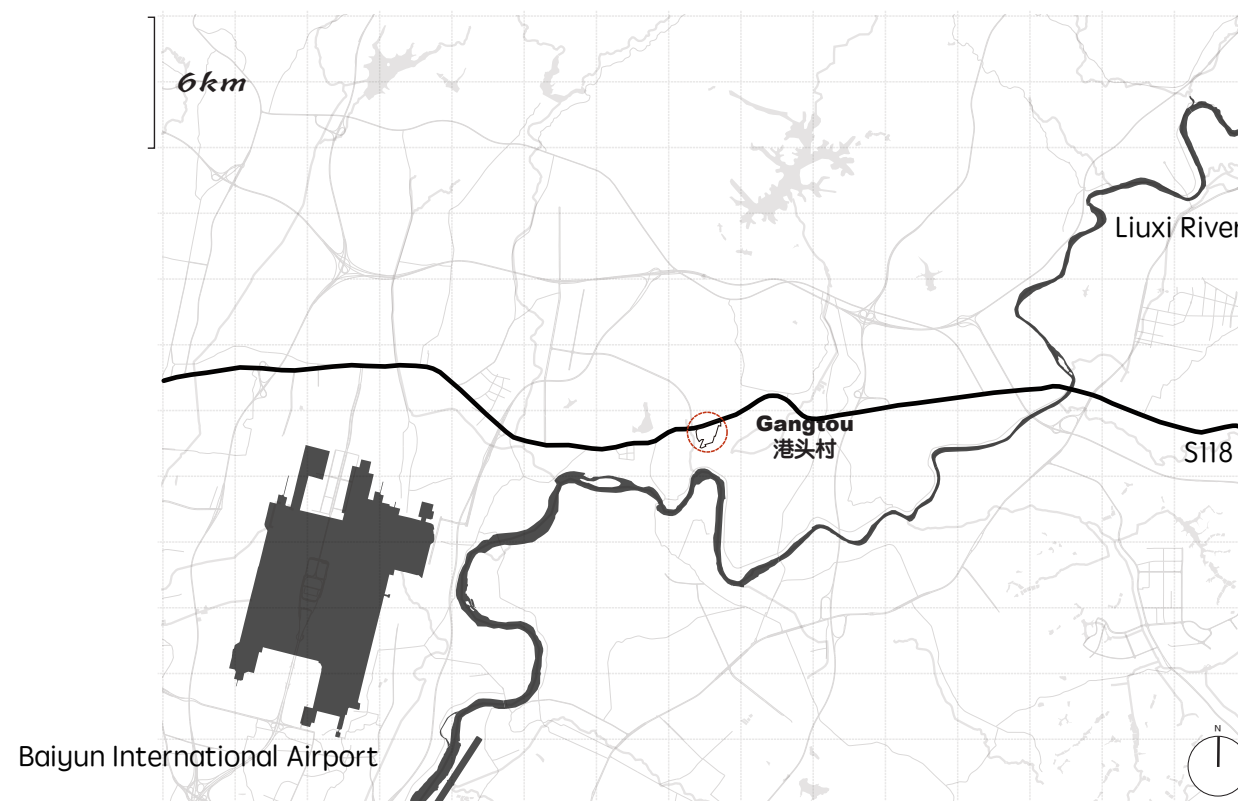
### 1.3 Convenient Transportation System

Gangtou Village has a dense water network and convenient water transportation. When the ancient land route was not fully developed, most villagers chose the Liu Xi River to the south of the village as a gateway to the outside world. The river is now not only a beautiful sight, but also provides ample water and irrigation resources for local agriculture and fisheries. The river can also become a local tourist resource, attracting more visitors to the area.

Today, the road system around Gangtou Village is well-developed, with National Highway S118 running through the northern part of Gangtou Village. The highway through the northern part of the village facilitates travel for village residents and brings convenience to the village's commerce and logistics. The presence of the highway also promotes the economic development of the village and the surrounding area.

Meanwhile the airport is only 20 km away from gn Gangtou village, which means that residents can easily travel to other cities or countries by air. The presence of the airport can also attract more business and tourism resources to the surrounding areas of the village, bringing more opportunities to the local economy.

In summary, the presence of highways, rivers and airports brings many benefits to villages, boosting local economic and social development and improving the quality of life for residents, while also providing more tourism resources and experiences for visitors.



III. 3 - Transportation Network near Gangtou village

## 1.4 Township's Economic Center

Gangtou Village is located in the center of the surrounding villages and groups, occupying the geographical and economic center. It is surrounded by three economic zones, namely Beixing Township Economic Zone, Huaqiao Township Economic Zone and Zhongluotan Township Economic Zone. The economic development of Gangtou Village can create more employment opportunities, which will directly affect the residents of the surrounding towns. When Gangtou Village's economy grows, it needs more human resources to support it, which will provide employment opportunities for the surrounding areas. The economic development of Gangtou Village can lead to the development of tourism in the area. As more people come to visit and tour the area, the surrounding businesses will benefit from it. In conclusion, the development of Gangtou Village will drive the development of three economic zones at the same time, forming a large economic zone with Gangtou Village as the leader, benefiting the whole township.



III. 4 - Settlement near Gangtou village



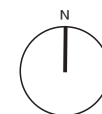
## 1.5 Synthesis

Generally speaking, Gangtou Village is very suitable for people to live in. It has flat terrain, beautiful environment, convenient transportation and it is far away from the city. It is a good place for vacation. In addition, the geographical location of Gangtou Village in the center of the economic circle of four townships, its development can better promote the economic development of the entire region, drive employment in the region, and promote the coordinated development of the region. Therefore, Gangtou Village is suitable as a base point for the development of the region and the development of the cultural tourism industry that drives the whole region.

III. 5 - Territorial analysis



Scale 0 3km 6km 12km



Legend:

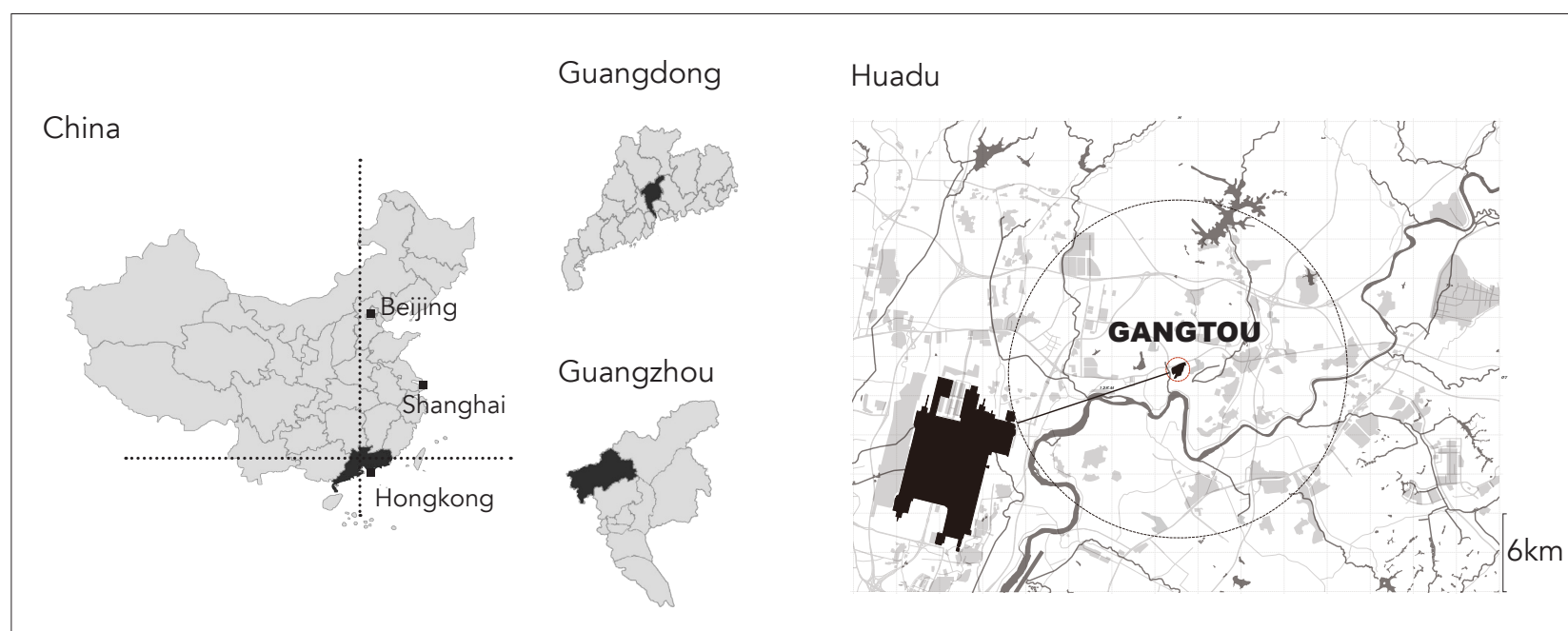
Settlement
  Water system
  Road system
  Nature reserve
  Airport
  Contour line (10m)
  Site

# SETTLEMENT SCALE

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## 2.1 Location Of Gangtou Village

Gangtou Village is located in the northeast of Huadu District, Guangzhou City, Guangdong Province, China, 23 kilometers from the center of Huadu District. The geographic location is 23 degrees 25 north latitude and 113 degrees 23 east longitude. Most of the villagers have the surname Zeng Helong and their dialect is Cantonese.



III. 6 - Location of Gangtou Village

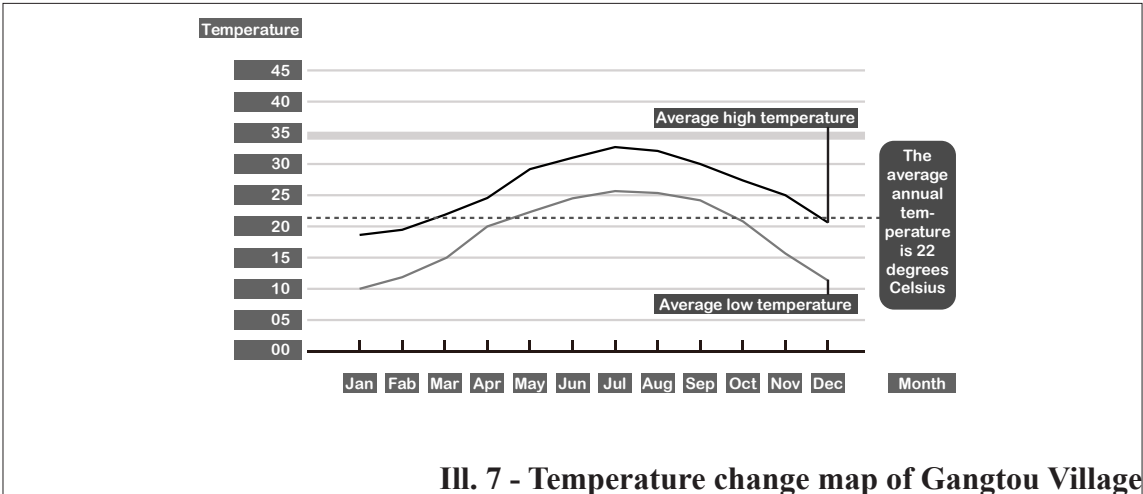
Gangtou Village is located in the subtropical area and belongs to the marine subtropical monsoon climate. Its climate is characterized by warm, humid and rainy, sufficient sunlight, long summer and short winter.

The annual average temperature is about 22 degrees Celsius. The hottest month of the year is July, with an average maximum temperature of 32.8 degrees Celsius. The coldest month is January, with a minimum average temperature of 10.3h degrees Celsius.

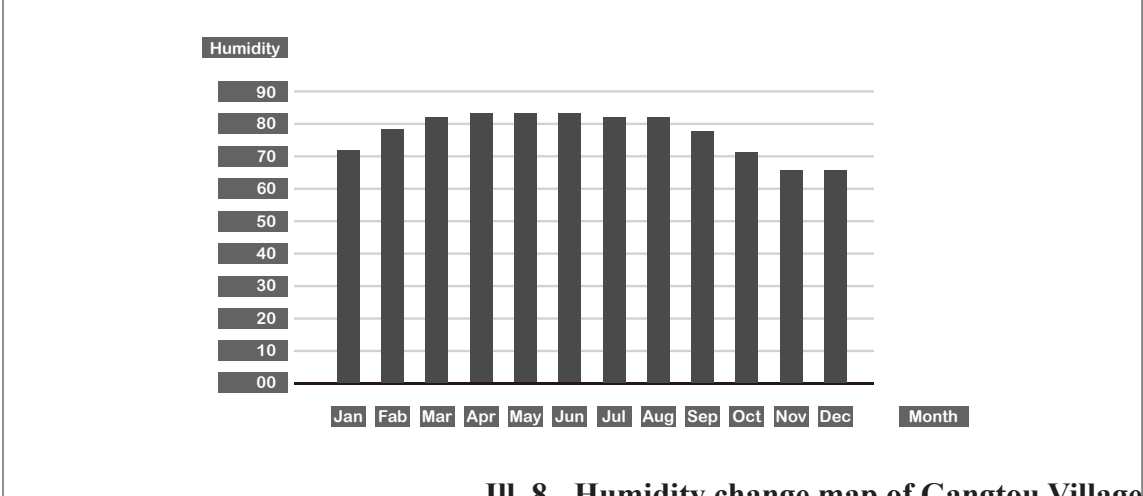
The annual average relative humidity is 77.5%. The relative humidity in April, May and June is high at 84%, and in November and December the relative humidity is low at 66%. The annual



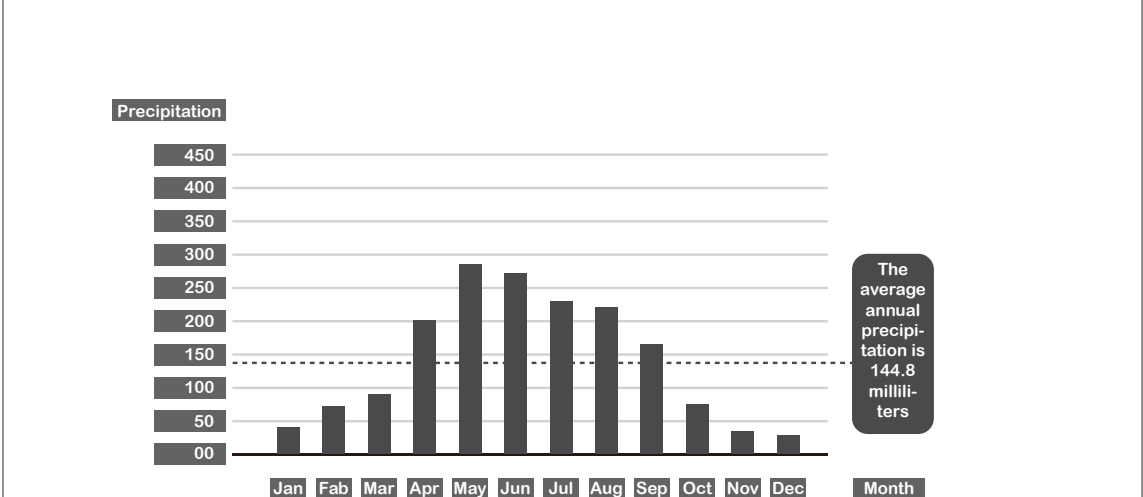
rainfall is about 144.8 mm, of which May has the most rainfall, about 283.7 mm, and the least rainfall is December, about 31.6 mm. The rainy season is from April to June in the whole year, and the typhoon season is from July to September, with the same period of rain and heat. Gangtou Village is always rainy and sunny, so it is necessary to pay attention to the rain shelter and sunshade of the building in the design.



III. 7 - Temperature change map of Gangtou Village



III. 8 - Humidity change map of Gangtou Village



III. 9 - Precipitation change map of Gangtou Village

## 2.2 Mass And Void (Figure – Ground)

Gangtou Village has the rigorous layout of a typical Cantonese village. The "Sanjian Liangting" style courtyard house, commonly known as "Siheyuan" in China, is a traditional architectural style that features a rectangular courtyard surrounded by buildings on all four sides. The layout of the courtyard house typically consists of three main parts, with the central part being the largest and flanked by two smaller side parts known as "jian". The central part usually contains the main entrance and the most important rooms, while the side parts house the living quarters and ancillary rooms. The central part and the side parts are connected by two long covered walkways or corridors, known as "lang". The roof of the courtyard house is typically sloping and covered with tiles, with the eaves extending outward to provide shade and protection from rain. The courtyard is often landscaped with trees, plants, and a central water feature such as a pond or fountain, providing a peaceful and harmonious environment for the occupants.

There are still some areas in the site that do not follow the original layout well, and most of these areas are abandoned buildings and open spaces. We can see that these areas are slowly extending inward to erode the original typical village layout.



III. 10 - Urban Fabric of Gangtou village



III. 11 - Open Spaces of Gangtou village



III. 12 - The current area of the village that follow the typical Cantonese village layout





III. 13 - The current area of the village that unfollow the typical Cantonese village layout

## 2.3 Road Network

There are 8 vertical ancient alleys in Gangtou Village, which are the main components of the road network combining Gangtou Ancient Village. As can be seen from the plan, these vertical ancient alleys basically run through the entire ancient village, and then form a comb-like layout with the main roads along the lake. In addition to the most important verticals, this road system has a series of horizontal roads. The horizontal roads mainly provide space for horizontal crossings in the narrow vertical roads, but most of them do not run through the whole village, and their function is only to connect some of the vertical roads.

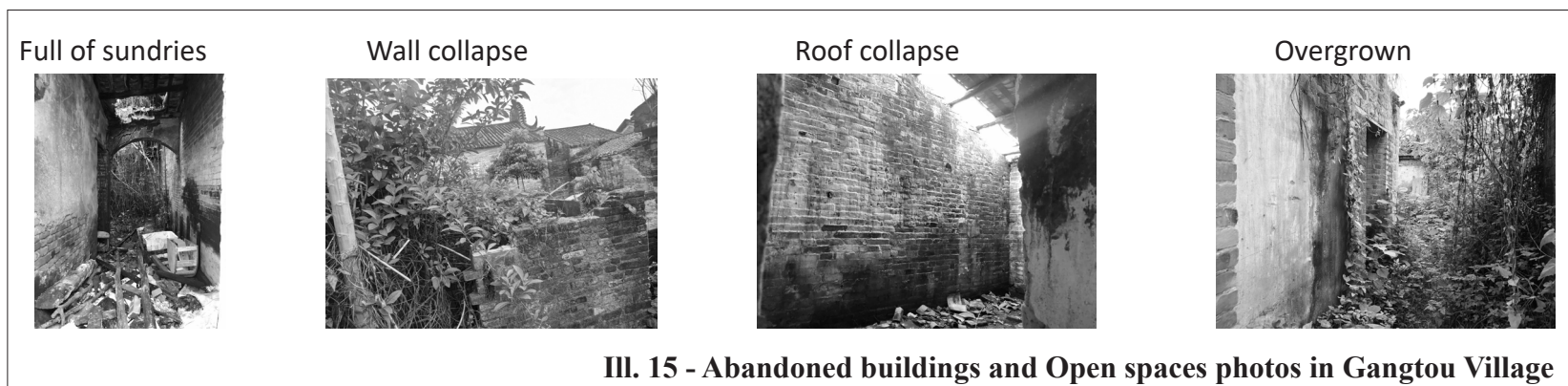
The road system also better accentuates the built fabric within the ancient village.



III. 14 - Road system and ancient alleys photos of Gangtou village

## 2.4 Abandoned Buildings And Open Spaces

In Gangtou Village, due to a large number of people going out, the houses are unoccupied. A large number of houses were left unattended due to the fact that their owners moved to the city and never returned. After a long period of rain erosion, the roofs of many houses collapsed, and even the walls collapsed. These buildings not only affected the overall appearance of the ancient village, but also caused a series of dangerous accidents. In addition, the open space of some infrastructure in the ancient village is also worrying. Due to lack of care, the public places that could have provided residents with a rest were overgrown with weeds and even trees taller than people. In this way, there are fewer and fewer venues for villagers' activities, and people's quality of life is getting lower and lower.



III. 15 - Abandoned buildings and Open spaces photos in Gangtou Village



III. 16 - Abandoned buildings in Gangtou Village



III. 17 - Open spaces in Gangtou Village

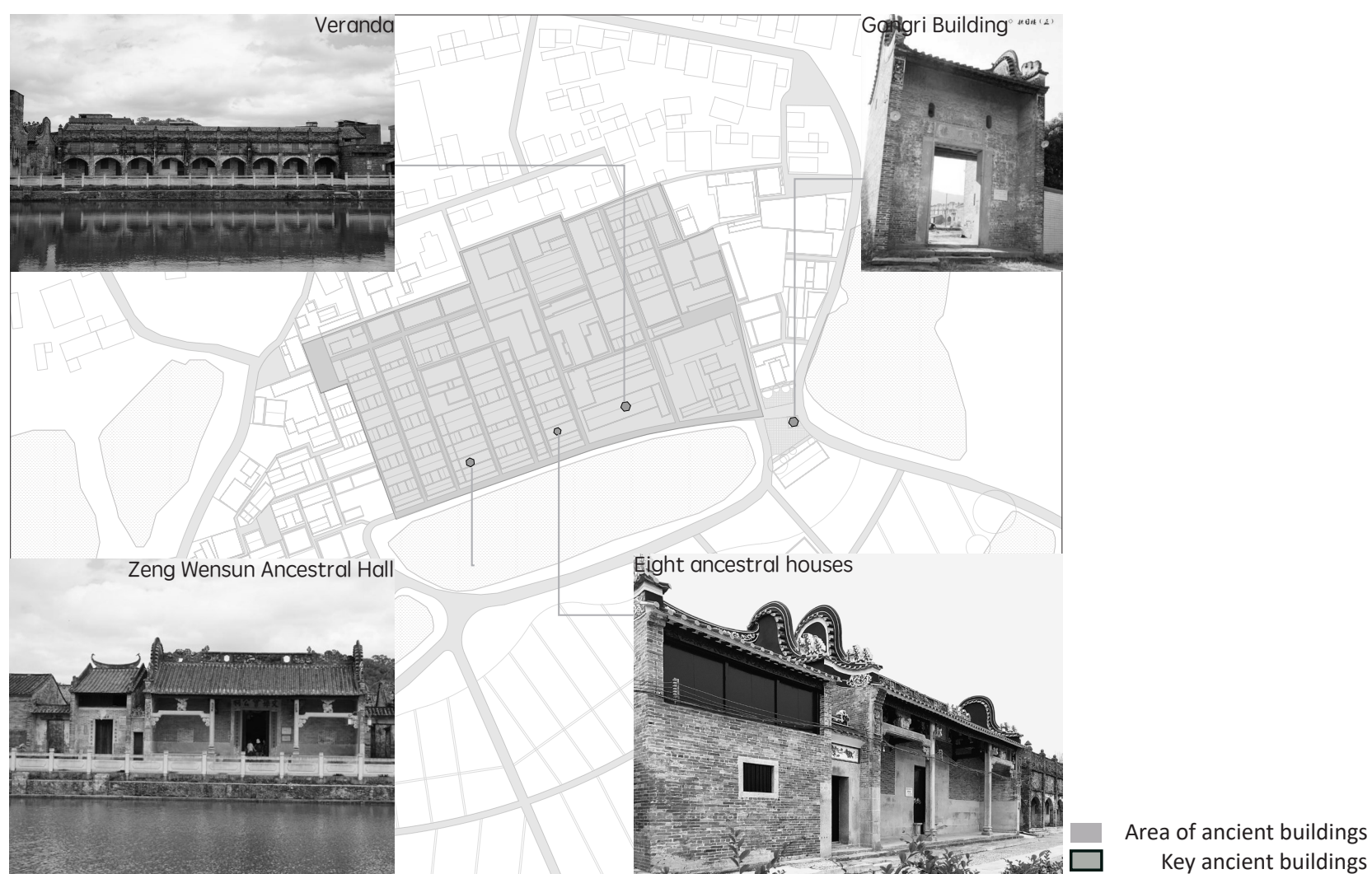


## 2.5 Traditional Architectures

Gangtou Village retains the largest Ming and Qing buildings(1368–1912)in Huadu District, Guangzhou. There are more than 60 relatively complete ancient buildings, which were basically built in the Ming and Qing dynasties(1368–1912). There are also individual buildings in the period of the Republic of China(1912–1949).

The ancient characteristic architecture of Gangtou Village is full of local features. Firstly, Zeng Wensun Ancestral Hall. The ancestral hall was built in the Ming Dynasty to commemorate the founder of the village, Zeng Wensun, who passed the imperial examination at the provincial level in the eleventh year of Zhizheng Reign in Yuan Dynasty (1351). With its rear wall in the north and main door facing the south, the ancestral hall with a footprint of 613 square meters has four columns on both the front (17.8 meters) and the sides (33.4 meters). Zeng Wensun Ancestral Hall has pot-ear-style fire-resistant gables, a ridge with lime model of dragon boat, green grey semicircle-shaped tiles, blue brick walls, granite stone base, and floors paved with red bricks. Secondly, Gongri Building. It is a concave gatehouse in the east of the village, with its rear wall in the west and main door facing the east. Its construction date remains unknown. The two-floor gatehouse has a loft inside and cedarwood floor slab. It is 5.4 meters in length, 6.1 meters in depth and 9 meters in height, and has a footprint of 38 square meters. The gate is inlaid with granite door clips. On its top there are pot-ear-style fire-resistant gables, a ridge with lime sculptures of dragon boat, green gray semicircle-shaped tiles, and blue brick walls. The first floor is 5.4 meters in length and 6.1 meters in depth, and has 11 purlins. Inside there is a statue of a high-spirited god called the "Great Savant". Above the lintel, there are lifelike portraits of eight immortals, and flower patterns and verses as well. There is a green brick wall that is tens of meters long and 2 meters high, and connected to the fish pond to fend off thieves at night. Gongri Building was also the main entrance and exit for villagers. On their wedding day, a couple must get off bridal sedan chair or horse and walk through the door. This was also the place where funerals were held in the past. But as the time goes by and the population increases, most of the villagers have built and moved to new houses in the north. As a result, many customs like these gradually disappear. Thirdly, Eight ancestral houses. They were built during the same period in the Qing Dynasty, each having a floor area of about 200 square meters. With unique design, reasonable layout and the same size, they all have two bedrooms, one living

room, two kitchens, and one courtyard, which is also known as the layout of "three bays and two corridors". The outer walls are built with blue bricks from the bottom to the top, and the inner walls are built with mud bricks, hence called "golden skin". The walls keep the houses warm in winter and cool in summer, very comfortable places to stay. The houses have wells that provide sweet and fresh water, and front doors that are tall, thick and solid enough to fend off any thieves. On both sides of the roof, there are pot-ear-style gables painted with all kinds of patterns. Fourthly, Veranda. Veranda in the period of the Republic of China (1912–1949) refers to a type of architectural structure that features a covered arcade supported by columns and typically built along the street-facing facades of buildings. The arcade provided shelter from the elements and created a shaded walkway for pedestrians, while the upper levels of the building provided living or storage spaces for residents or merchants. The four buildings mentioned above are extremely rich in local characteristics and are very different from modern architecture. This unique style of local historical architectural forms can well attract visitors from different regions who are interested in Guangfu culture.



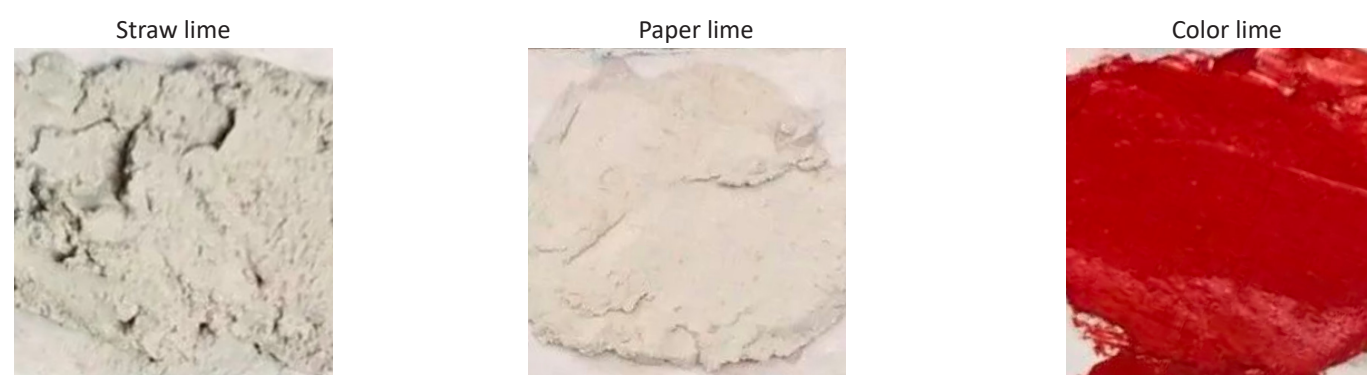
**III. 18 - Historical recommended buildings**

## 2.6 Traditional Cultural Crafts (lime model)

Lime modelling is a unique traditional architectural decoration craft in Lingnan area, mainly distributed in Guangzhou and surrounding Zengcheng, Huadu and other places. According to ancient books, the lime modelling process existed in the fourth year (884) of Emperor Xizong of Tang Dynasty. In the Lingnan area, Zengcheng Zhengguo Temple, which was built in the third year of Qingyuan in the Southern Song Dynasty (1197), has been decorated with lime model dragon boat ridges. In the Ming and Qing dynasties (1368–1912), Guangzhou's lime models were the most prosperous, especially in ancestral halls, temples, temples and mansions of wealthy families. All kinds of lime models with bright colors can be seen everywhere.

Guangzhou lime modelling pays special attention to adapt to the natural environment of Lingnan's humidity, heat, thunderstorms and typhoons, so from the material to the production of plastic parts, a special and complex process has been formed. With dried straw, jade paper, brown sugar, glutinous rice flour and various colors, After soaking, fermenting, stirring, mixing, blending and other processes, three necessary materials are produced: straw lime, paper lime, and color lime. Hence the name "lime modelling". The lime parts must be sketched on the spot according to different shapes and placement positions, and must be produced at room temperature. The technological process includes tying steel nails and copper wires to form a skeleton, applying straw lime to the upper layer of color lime to form the prototype, and laying paper lime to make the surface fine and smooth. Color the lime model surface for shaping and shaping, from light color to dark color, and finish with a black line at the end.

This traditional craft is mainly in the hands of the elderly, and fewer and fewer young people are willing to get in touch with this traditional craft, so it is also facing a situation where there are no successors.

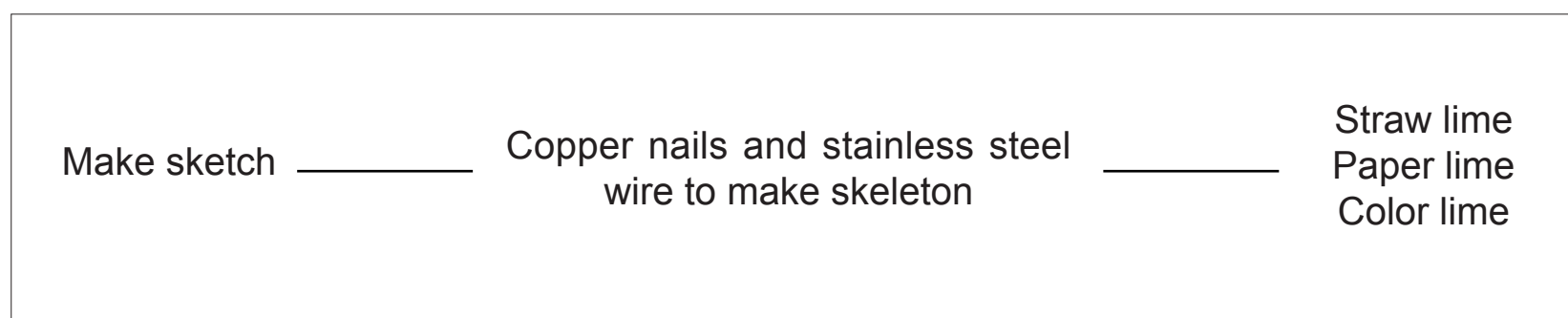
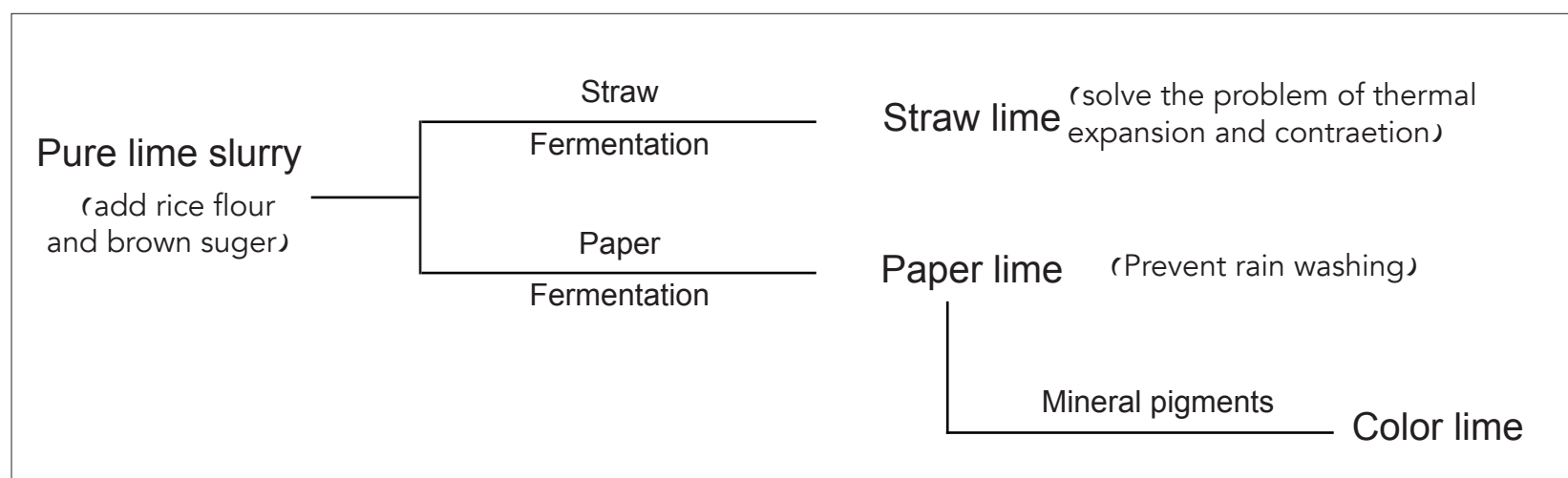
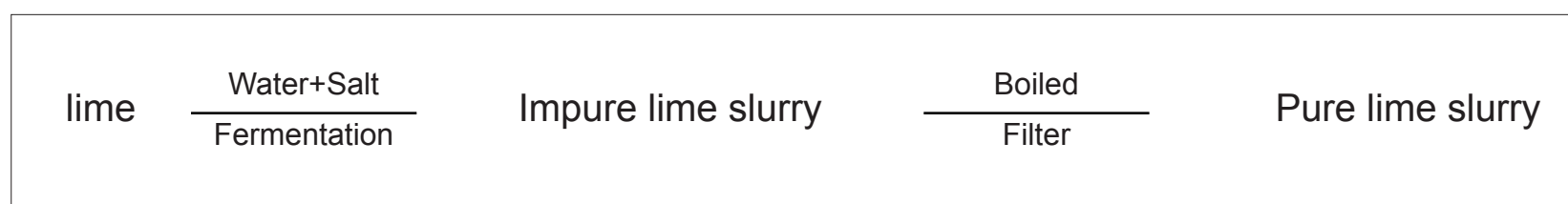


III. 19 - Different limes required in the process of making lime models



III. 20 - Three main steps to make lime model

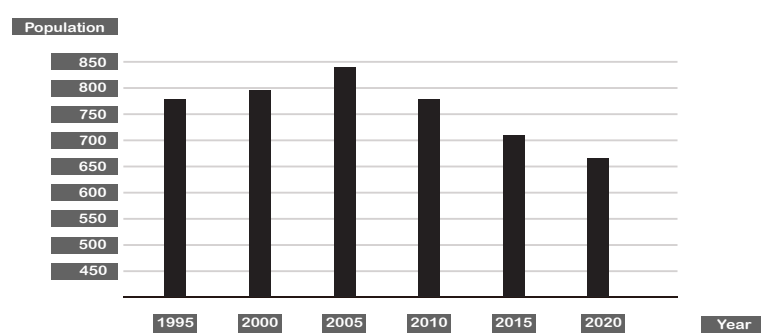
III. 21 - Lime model making process



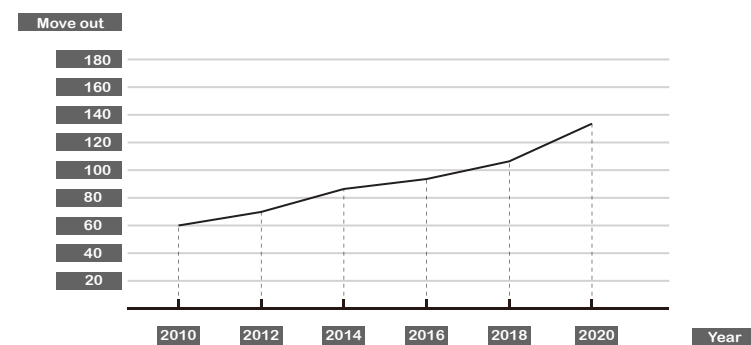


## 2.7 Population Change

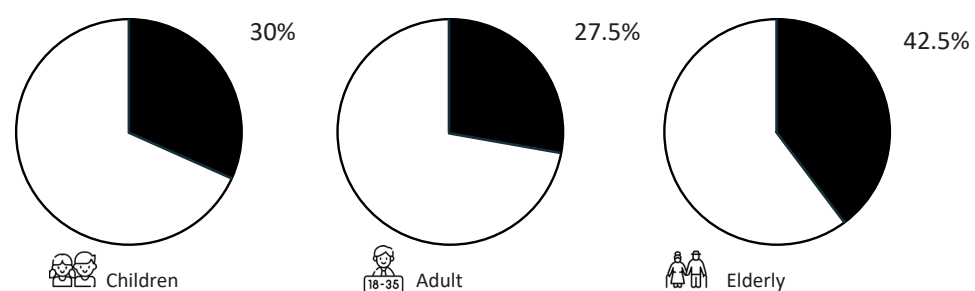
In recent years, the population in many rural areas of China has continued to decline, and Gangtou Village is no exception. This is mainly due to unstable agricultural income, accelerated urbanization, and the outflow of young people. First, low agricultural income is one of the main reasons for the population decline in Gangtou Village. As urbanization continues to accelerate, more and more rural people choose to seek better living and development opportunities in cities, resulting in a decreasing rural labor force and population. Secondly, the slow development of rural areas and the lack of opportunities and environment to attract young people also contribute to the decline of population in Gangtou Village. Young people prefer to live and work in cities, which also leads to an aging rural population structure, which has a great negative impact on the future development of Gangtou Village. The continued decline of population in Gangtou Village will bring a series of consequences. Firstly, the declining population will lead to a shortage of rural labor, making agricultural production unsustainable, which in turn will affect the development of the local economy. Second, as the population ages, the pressure on social welfare and health care will increase, placing a great burden on the local government and society. Finally, population decline will also lead to shrinking rural infrastructure and social and cultural decline, which will also have a profound impact on the future development of Gangtou Village.



III. 22 - Population change of Gangtou Village



III. 23 - Changes in the Move-out population of Gangtou Village



The elderly population is the largest, followed by left-behind children.

III. 24 - Percentage of different age groups in Gangtou Village

## 2.8 Main Problem

Based on the previous analysis, the following problems of the village can be summarized: First of all, since the main income of the village is based on agriculture, but the low income from agriculture may lead to the inability to improve the living standard of the villagers and the lack of diversified economic sources. Young people also prefer to go out for high paying jobs as a result. Secondly, there are a large number of elderly people and children left behind in the villages who cannot be cared for by their families due to migration for work or to the cities, which may lead to challenges in their livelihoods and health care. Finally there are many buildings and open spaces in villages that are left unattended, which can lead to these spaces becoming deserted and having safety hazards such as aging buildings, cave-ins or dangerous elements such as grass. Taken together, these issues can lead to impediments to the social and economic development of villages and require the search for viable solutions. In terms of design, focus on the three issues mentioned above. How to upgrade industries to develop secondary and tertiary industries with more added value. How to promote the return of population, increase employment opportunities and increase income. How to renovate the abandoned buildings and vacant land in the countryside so that the site can be reused and the landscape of the site can be optimized.



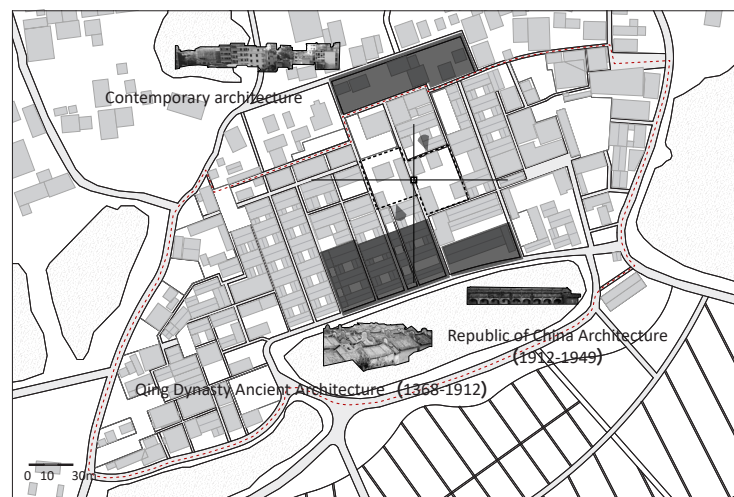
III. 25 - The main existing problems in Gangtou Village

# ARCHITECTURE SCALE

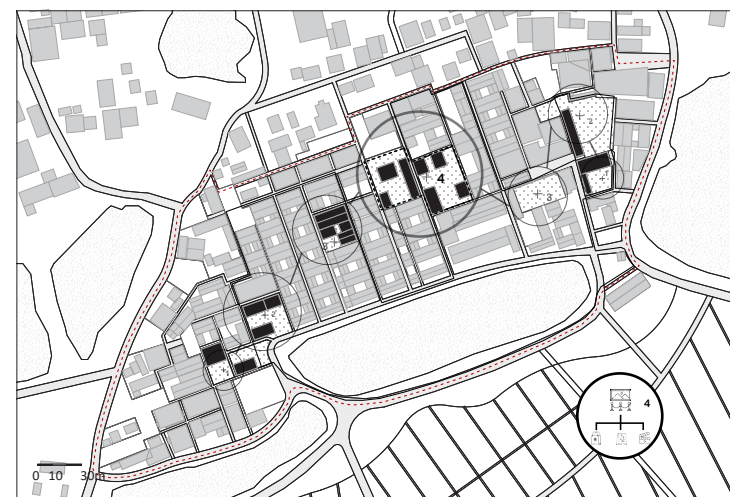
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## 3.1 Centrality

The site is at the geographical center of the entire village and is therefore very important. Looking out the windows from different directions of the site, one can enjoy the buildings of different periods. To the south of the building are some historical buildings including the Ming and Qing dynasties (1368–1912) as well as the Republic of China period (1912–1949). To the north of the building is a cluster of modern buildings. These different periods of architecture give the viewer a different visual experience. In addition, the site is located at the center of several abandoned sites and is the largest of them all. Therefore, by renovating this area, the idyllic appearance of the whole village can be greatly improved. The renovated site can become a multi-functional public space that can meet the cultural and recreational needs of the residents, while promoting community interaction and development. Such a site will not only improve the appearance of the village, but also provide a better quality of life for the residents.



III. 26 - Geography center of the village



III. 27 - Industrial center of lime modelling

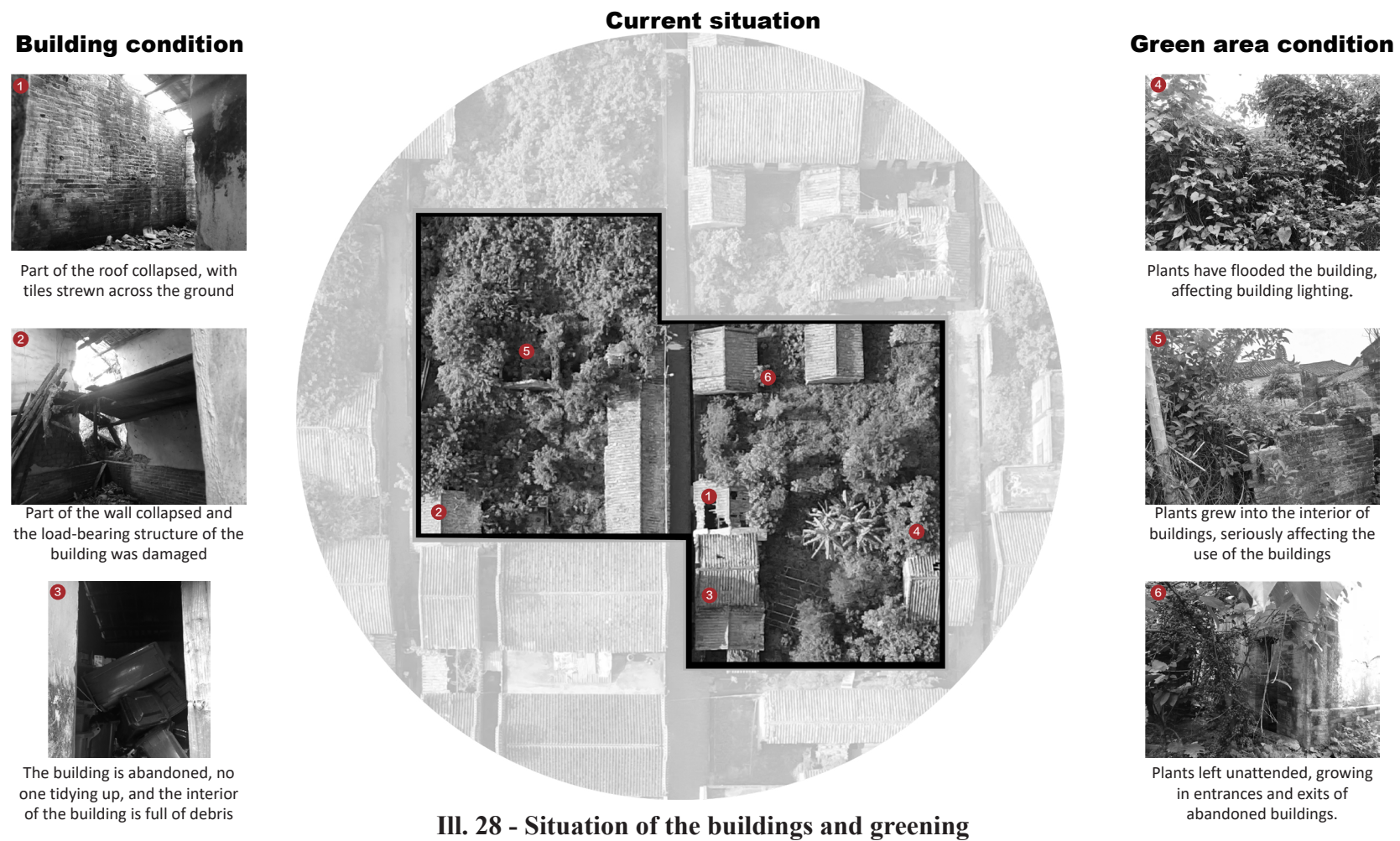
## 3.2 Situation Of Site Building And Greening

The existing condition of the building complex in the site is relatively poor. First of all, the problems of building wall collapse and roof collapse may be caused by the age and lack of



maintenance of the buildings. These collapses may affect the stability and safety of the buildings and require emergency repairs or demolition. Secondly, building vacancy may be due to factors such as owners leaving or economic downturn, while clutter accumulation may be caused by unmanaged or lack of cleanup. These problems may cause health and safety issues and need to be rectified in a timely manner. Then, the greenery is left unattended and messy. The unattended greenery may lead to problems such as poor plant growth and untidy branches, which in turn affect the landscape effect and environmental hygiene. Therefore, the greenery needs to be pruned and managed in a timely manner. Greenery that obstructs people's walking routes may lead to inconvenience and insecurity. Therefore, the greenery needs to be planned and designed, and the location of sidewalks and green belts need to be reasonably arranged so that they are coordinated and unified.

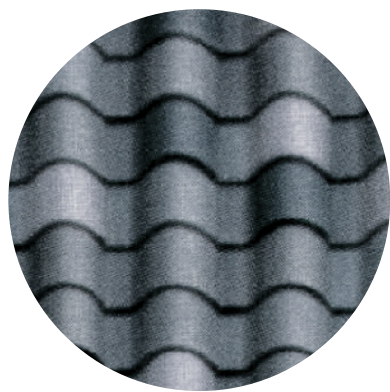
To sum up, the problems of building clusters in the site are complex and require comprehensive remediation. To solve these problems, reasonable planning and design plans need to be made, and the enthusiasm of local residents needs to be fully mobilized to implement orderly rectification.



### 3.3 Building Materials

The main construction materials of the internal buildings on the site are three parts, gray bricks for the exterior walls, wood for doors and windows, and tiles for the roof. The interior furniture and floors are basically wooden structures.

Tile is one of the common materials used in traditional construction in Gangtou Village. The main advantage of tile is that it can effectively prevent the erosion of water and wind, while having the function of heat insulation and soundproofing. The production cost of tiles is relatively low, which can reduce the cost of construction. Grey bricks are a hard, durable building material. It can play an important role in waterproofing, sound insulation, heat insulation and fire prevention. Finally, the main wood qualities used in traditional buildings in Gangtou Village are teak, nanmu and mulberry wood. The advantage of wooden material is that it can naturally absorb moisture and regulate indoor humidity, as well as heat and sound insulation. In addition, wood has the advantages of being environmentally friendly, sustainable and easy to work with. To sum up, tiles, grey bricks and wood materials are common materials for traditional buildings in Gangtou Village. They have their own advantages in terms of waterproofing, heat insulation, sound insulation and fireproofing, and you can choose the suitable building materials according to different needs and occasions. Using traditional building materials in new buildings has the following benefits: maintaining the style and culture of traditional buildings. Traditional building materials have unique characteristics in appearance and structure, and using traditional building materials allows new buildings to maintain the style and culture of traditional buildings, reflecting the historical value and cultural heritage of traditional buildings. Economical, traditional building materials mostly use common local materials, and the cost is relatively low in the process



Grey roof tiles



Local characteristic gray brick wall



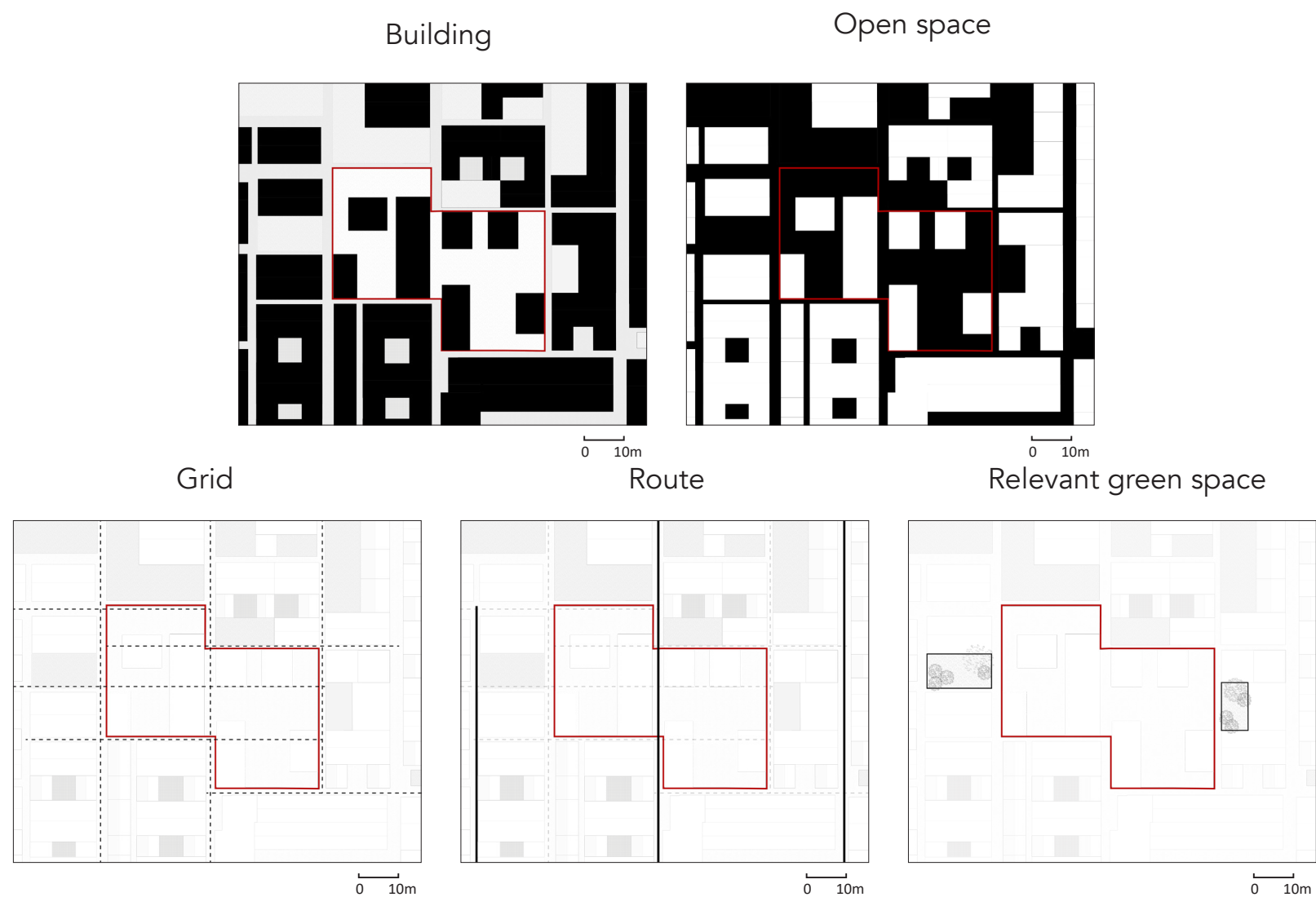
Some wooden materials in the interior

#### III. 29 - Three main building materials

of making and using, which can reduce the construction cost of new buildings. Better spatial effect, traditional building materials have certain texture and texture, which can make the new building more layered and deeper in visual effect, so that people have a better spatial experience when using and feeling.

### 3.4 Surrounding Site Conditions

The site is composed of two rectangular sites. Due to serious damage, the internal buildings are no longer in line with the built fabric. There are three vertical ancient alleyways and five horizontal alleyways around the site, which can be used as the guiding lines for new buildings. There is a recommended path in the middle of the site, which carries the main flow direction of people. There are two open spaces around the site. They are some development spaces in the closed ancient alleyway, which can interact with the site.

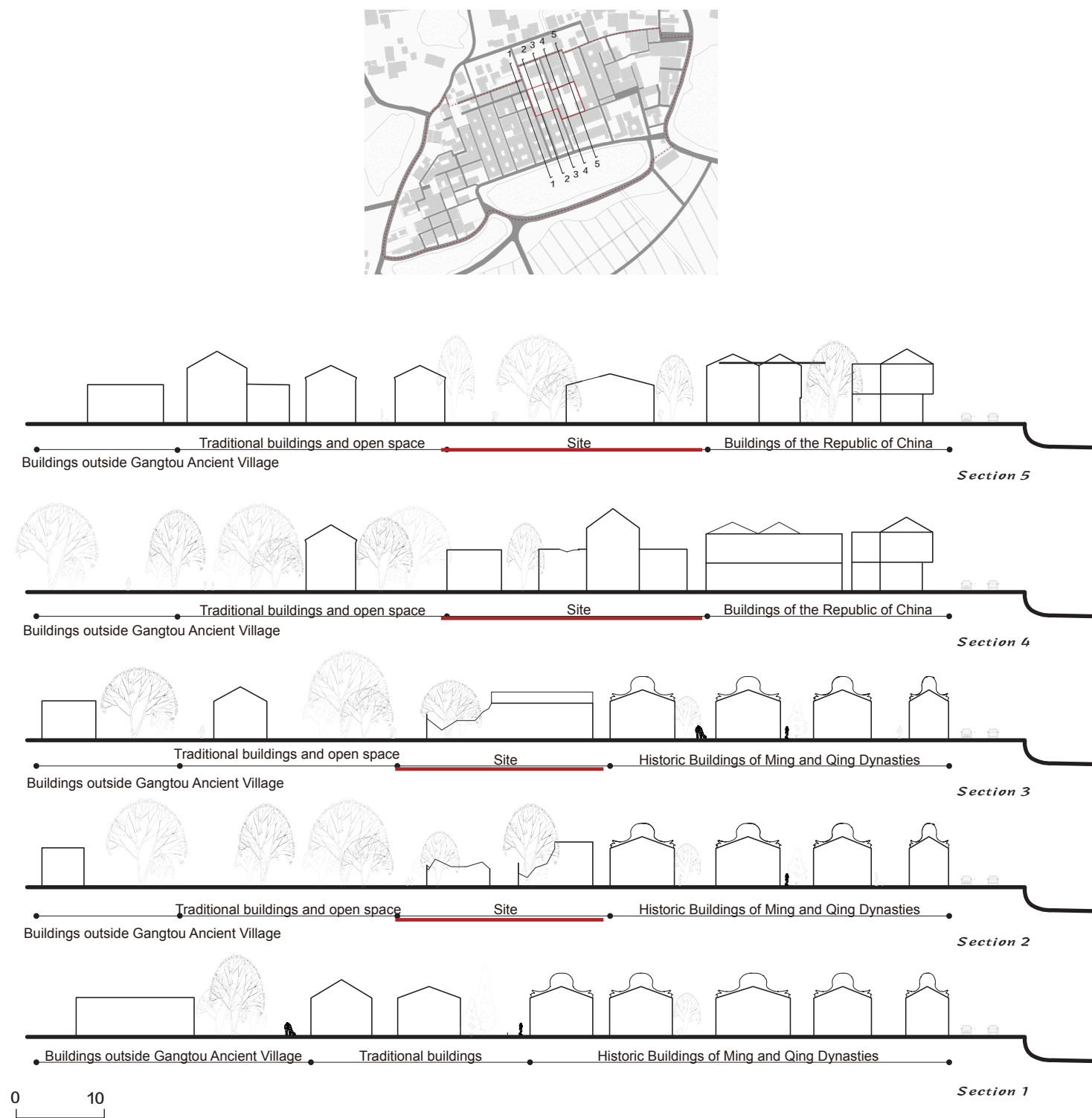


III. 30 - Surrounding site condition



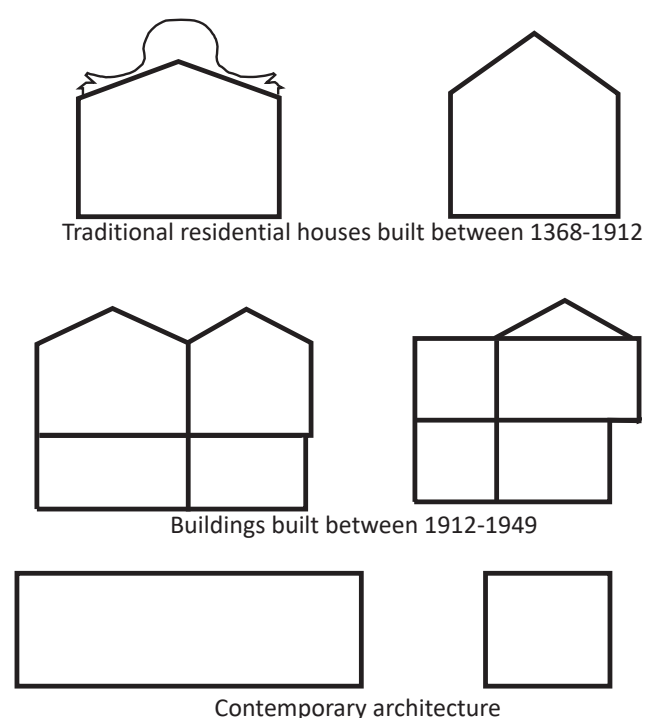
### 3.5 Site Section

Five site sections were selected, one of which was outside the site. From these five sections, it can be seen that the buildings inside the site are divided into buildings in the Ming and Qing Dynasties (1368–1912), buildings in the Republic of China period (1912–1949), buildings inside the site and contemporary buildings outside the village.



III. 31 - Site schematic sections

Buildings in different periods have different characteristics. Most of the buildings in the traditional and Ming and Qing dynasties (1368–1912) are one-story sloping roof buildings. Most of the buildings in the period of the Republic of China (1912–1949) were a combination of buildings, and the section form was mainly based on the sloping roof to obtain a new and more lively architectural form. Contemporary buildings are mainly square buildings. Gangtou Village Continuation of Historical Space The new buildings can have the following benefits and preserve the historical culture. New buildings continue the spatial experience of historical buildings, which can integrate new buildings with historical culture, retain the value of historical culture, and reflect the continuation and development of traditional culture. Increase spatial experience. The spatial experience of historic buildings is usually composed of various factors such as building structure, layout, interior space and decoration. Continuing the space experience of historical buildings in new buildings can add different space experiences to new buildings, so that people can feel the unique charm of historical buildings in new spaces. The architectural style is unified. If the spatial experience of the new building is not consistent with that of the surrounding historical buildings, it is easy to destroy the original architectural style and overall atmosphere, resulting in a lack of coordination between the surrounding historical buildings and the new buildings. Therefore, continuing the spatial experience of historical buildings can unify the style of new buildings with the surrounding historical buildings and form an overall architectural style.



**III. 32 - Schemas section of buildings in different historical periods**



### 3.6 Synthesis

The buildings on the site are abandoned and unattended, and the open space within the site is deserted. The ruins of the remaining buildings on the site do not follow the fabric of the site well, so the design considers the demolition of the original buildings on the site and the construction of new buildings. In the new building, it is also important to consider the relationship between the new building and the original site. How to realize that a new building is a continuation of a long site or long memory. It is very important to find the bond that can connect the old and new buildings.

Preliminary analysis shows that the building site texture is obvious, and the relationship around the site can be used to guide the physical relationship of the new building, thus extending the fabric of the site. Secondly, in terms of site culture, the main function of the new building is to popularize science, display and exchange lime models. Through the display of lime model culture, it can well continue the local traditional culture, which is also considered as the continuation of culture. In the site space, starting from the original site section, different forms of sectional roofs can be used to show the individual spaces inside. For the spatial combination of the building, we can refer to the original form of the Republican period (1912–1949) of the original section, and subtract the space under the original state of the sloped roof to make the space more active. Finally, it is the continuation of building materials. The building façade mainly uses three original materials to echo the original materials. However, innovation is needed in the form; the use of wood can be different and the forms of brick walls can be diversified.



SECTION **B**  
THE STRATEGIES





# “One Village One Product”

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## 1.1 A Case Study

The reliance on agricultural income as the only source of income in Gangtou Village may pose some problems: income is unstable. Agriculture is more affected by weather, natural disasters and other factors, and therefore income can be subject to Big fluctuations, which can put a lot of economic pressure on farmers. Slow economic growth. Agriculture, as a traditional industry, grows relatively slowly. If the whole village relies only on agricultural development, the rate of economic growth may not be able to meet the needs of the villagers. Low standard of living. Due to the low income from agriculture, villagers may have a relatively low standard of living to meet their basic needs, , which is also the reason why many young laborers go out. How to improve the industry, "Maji Village" in Japan gave an answer.

"Maji Village" in the eastern mountainous area of Kochi Prefecture is a small village with a population of less than 800 people. It was successfully reborn as a pomelo industry in the era of forestry decline, and has successfully become a well-known pomelo brand throughout Japan.

"Maji Village" has formed an overall rural development model of agricultural product cultivation + agricultural product processing + agro-tourism integration. In addition to the star product honey pomelo juice, various processed products and skin care products developed from pomelo skin to seeds are quite popular.

When you come to "Maji Village", you can first book a factory visit at the "Maji Village" Agricultural Cooperative Pomelo Forest Processing Factory, and then visit "Maji Village" Hot Springs and "Maji Village" commodity stores. On Sundays and national holidays, and during August, you can also experience the "Maji Forest Railway" and "Urarase Forest Railway" that were used to transport timber when the forest industry was flourishing in the past (Urarase Forest Railway is on weekends and national holidays in August). Boarding the forest railway, it is as if traveling back in time and space to the scene of transporting timber in "Maji Village" in the past. In addition to riding the Urase Forest Railway, you can also experience

railway driving. In addition, the "Maji Forest Inclined Railway" next to the Maji Forest Railway is an environmentally friendly ground cable car driven by the weight of water. It is now used to pick up passengers to the observatory. Experience the leisurely climb up the mountain and look at the simple scenery of the village from a height. Ultimately a remote village with no railroad, no highway, no signal lights, receives more than 300 groups a year to experience and study tours, sells more than 10 million pieces of goods, with annual sales of up to 200 million yuan.

The reason for the success of Japan's "Maji Village" is indeed closely related to the "One Village One Product" movement. By processing Pomelo, "Maji Village" has developed higher



III. 33 - The pomelo industry in "Maji Village"



value-added products such as Pomelo perfume, which has added new sales channels and higher profits to the local Pomelo industry. At the same time, by promoting pomelo-related culture and history, they have attracted more tourists to visit and buy the products, thus bringing more tourism income to the area. This diversified development model has made "Maji Village" economy more stable and provided more employment opportunities and better living conditions for local residents.

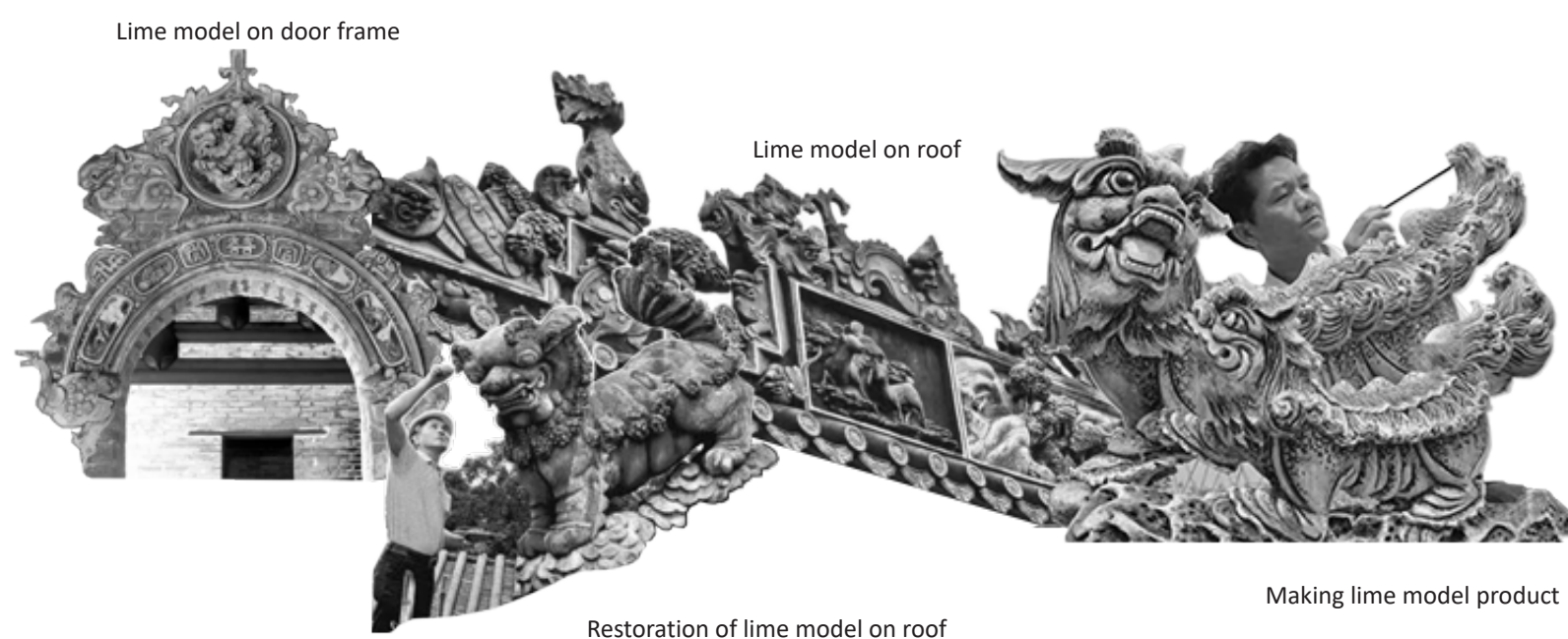
The Chinese government has taken a similar approach to the development of the village economy by borrowing from Japan's "One Village One Product" policy for "Maji Village". This policy encourages villages to develop their own special industries to improve the local economy and the quality of life of the residents. In China, some villages have begun to develop and promote specialty products such as tea, medicinal herbs, and handicrafts. By promoting these products, these villages have been able to succeed in the tourism and specialty agricultural markets, attracting more tourists and investors. Gangtou Village needs to take advantage of this policy to explore its own industries with special characteristics.

## 1.2 Select Lime Modelling To Activate The Village

When entering Gangtou Village, people will be attracted by the bright lime model sculptures on the roof. When you approach the building, you will also find that this kind of lime model also exists on the door frame and window frame of the building. As a decorative item, lime model can be seen everywhere on the buildings of the village. Walking into the village, you can find people repairing these lime model sculptures on the roof, and some people make lime model products in the house. As a handicraft with a long history, Lime model has entered the life of villagers.

It is feasible to take the lime model of Gangtou Village as the development direction of One Village One Product. One village, one product refers to the selection of a special product or culture in a village to create a special brand of the village, so as to attract tourists and businessmen and promote the development of the local economy. The lime model of Gangtou Village is the unique cultural heritage of the village and can become the village's One Village One Product. The lime model of Gangtou Village is a traditional handicraft with unique production process and high artistic value and cultural connotation. The lime model is made of lime as the main material, through the process of drafting, setting the skeleton,

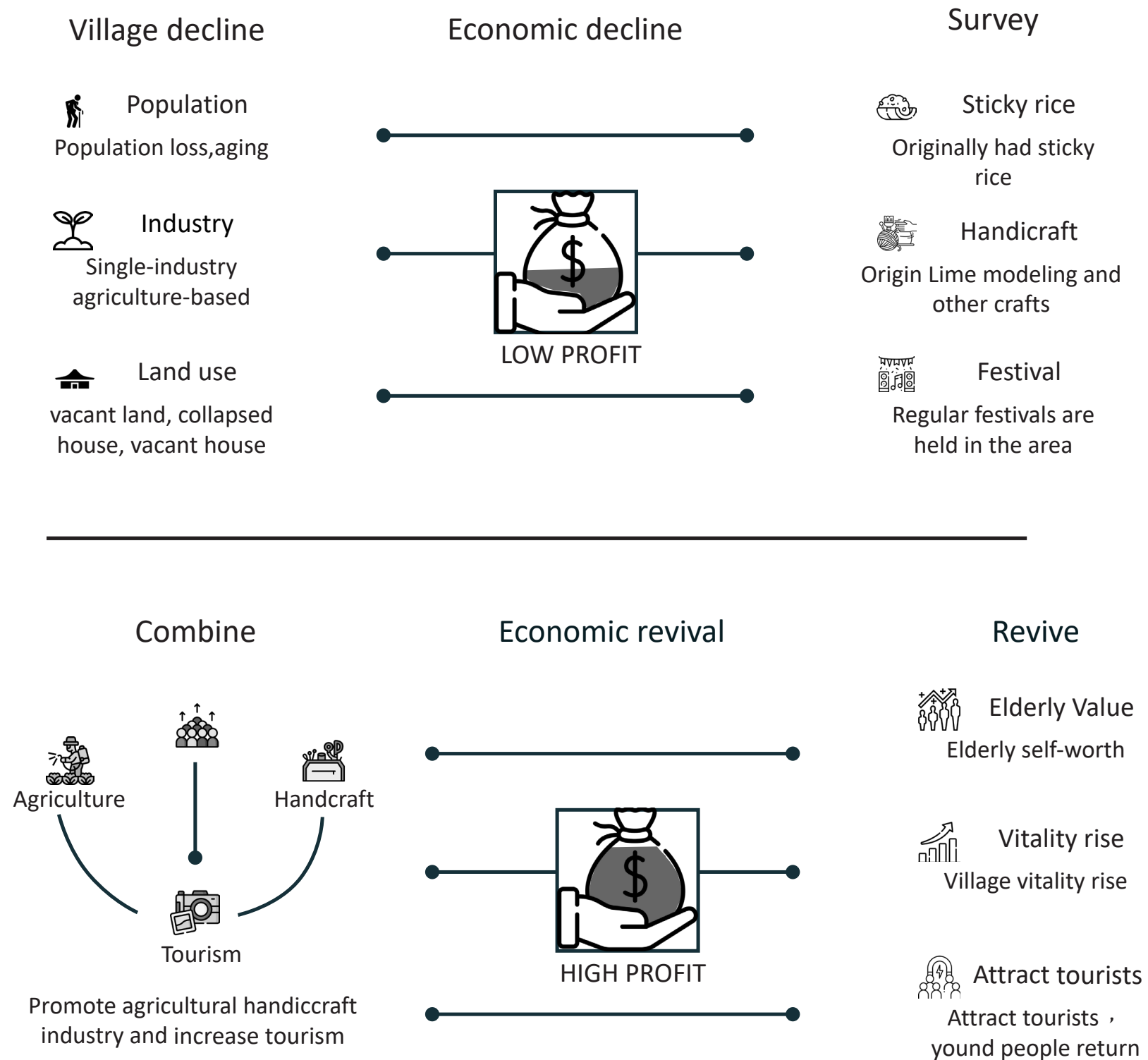
putting on lime, coloring and other processes, with different forms, lifelike and profound meanings, and is known as a "living fossil". In the process of developing one village one product, the lime model of Gangtou Village can be promoted as a brand through various means, such as establishing a lime model museum, carrying out a lime model cultural festival, and organizing lime model experience activities. Through brand marketing, cultural tourism and other means, tourists and businessmen will be attracted to visit, purchase and invest in the village, which will improve the popularity and reputation of Gangtou Village and promote the development of the local economy. In addition, improvements and innovations can be made in the production process and product design of lime model to meet market demands and development trends, and to promote the upgrading and transformation of the lime model industry so as to achieve better economic and social benefits.



### III. 34 - Lime model scene in Gangtou Village

Specifically, lime model activates the village mainly from the existing dilemma of Gangtou Village, which has serious population loss and demographic disorder. The income of villagers is mainly from agriculture, and the income is low. The buildings in the village are severely damaged and the overall appearance of the village is very poor. By introducing the lime model cultural industry, the secondary industry with higher income can be developed and agricultural products can be transformed into high value-added commodities. Older people can also use their special skills to teach this traditional culture. The land needed to introduce the industry can then also make full use of the originally abandoned site. Finally, the cultural

tourism industry in the village is driven and local jobs are increased. When the income of local residents increases, the mobile population will be more eager to return to their hometowns to work. After all, they don't have to travel far. People there can also earn more money and spend more time with their families.



III. 35 - The development of lime model industry brings high profit

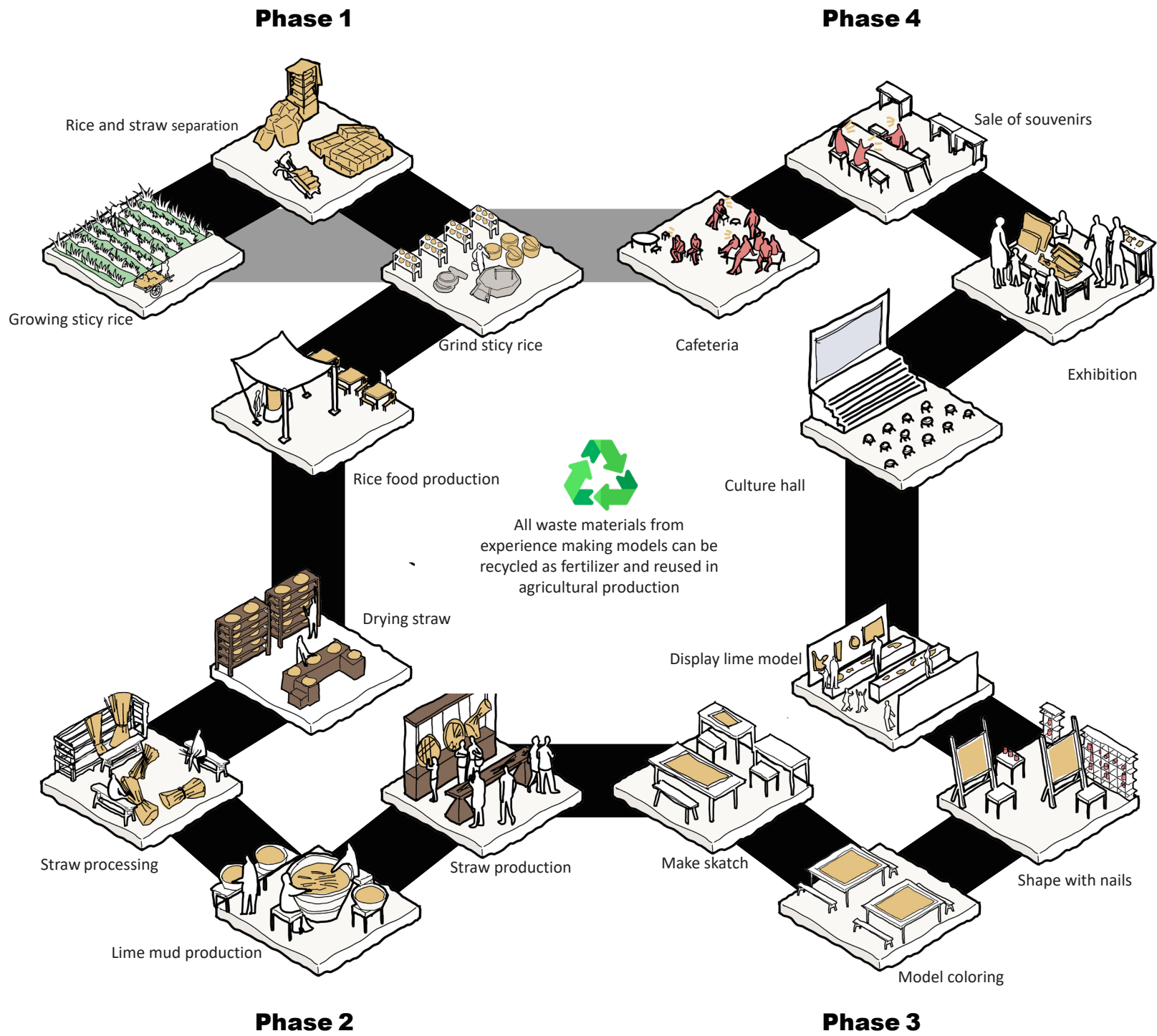


### 1.3 How To Place Lime Model Industry In The Village

There are three main parts to making lime model. The first part is mainly the collection of raw materials. This part is mainly for the agricultural industry in rural areas, the collection of rice. The second part is the processing of raw materials. The raw materials needed for lime model are the fermenting of collected rice straw mixed with lime. The third part is mainly the production of lime model sculpture. Lime model mainly goes through the steps of drafting, finalizing, plastering and coloring. Therefore, combining the village itself and the developing cultural tourism industry, the design intends to introduce lime model in four steps. The first theme is the collection of raw materials, which includes that visitors can participate in the planting and collection of rice, as well as some rice processing and tasting of rice delicacies. The second theme is about the processing of raw materials, which revolves around straw. Visitors can not only experience the fermentation process of straw, but also experience the use of straw to make some daily necessities such as straw hats, raincoats, and dustpans. The third theme is the production of lime model. Under this theme, visitors can experience how to make a complete lime model, including its draft, production, etc. Visitors can have their own DIY lime model products. The fourth theme is a summary of lime model. In this topic, you can have a more systematic understanding of lime model, including the history of lime model, tools, raw materials, realistic lime model, and a detailed display of the production process. The most important thing is that it also sells souvenirs and regularly holds cultural salons for lime modelling sculptures. The products and waste produced by the four themes are non-polluting, and can be used to fertilize farmland after recycling.

After these four themes, tourists will have a basic understanding and interest in lime model, which will help promote the spread of this culture. The second is that multiple themes have promoted the development of the rural job market and attracted population return. The process of making lime model is a very environmentally friendly way of making handicrafts. The main raw materials for lime model are lime powder, loess and paper pulp, which are widely found in nature and do not pollute the environment. Moreover, the lime model making process does not require any chemicals or harmful substances, nor does it produce any harmful gases or liquid waste. In addition, many wastes can be fully utilized in the lime model making process. For example, the leftover loess and lime powder from the making of lime model can be used as fertilizer for crops, and the lime model products themselves can

be reused or reprocessed, reducing waste and waste of resources. All these measures help reduce the negative impact on the environment and reflect the environmental advantages of lime model making.



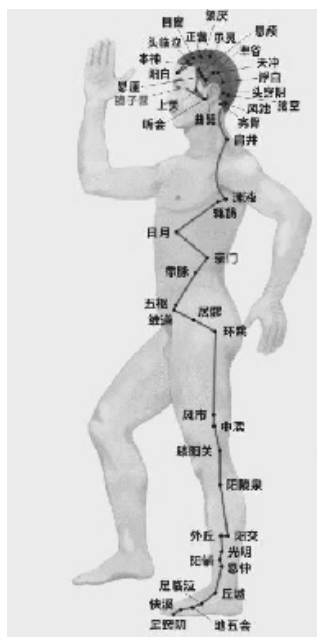
III. 36 - Four themes of lime modelling industry

# ACUPUNCTURE

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## 2.1 Principles Of Acupuncture

Chinese medicine believes that the human body has many different acupoints, and people get sick mainly because these acupoints are blocked. Therefore, in Chinese medicine, acupuncture is mainly used, which is to use small needles to specific acupoints to dredge the veins of the whole body to achieve the therapeutic effect. Many architects will also apply this method to the design of buildings. For the transformation of an entire village or even an entire city, it will be a time-consuming and labor-intensive act to completely overthrow and rebuild. Many architects find that as long as they find a pain point in the original site, it is a shortcoming. Then find a site that can improve these problems, it may be a building, or a public open space. Then transform this place, and finally this kind of transformation can often have a small impact on the entire village or city, but it brings great changes to the living environment of residents.



III. 37 - Acupuncture points of the human body and Acupuncture points of the village

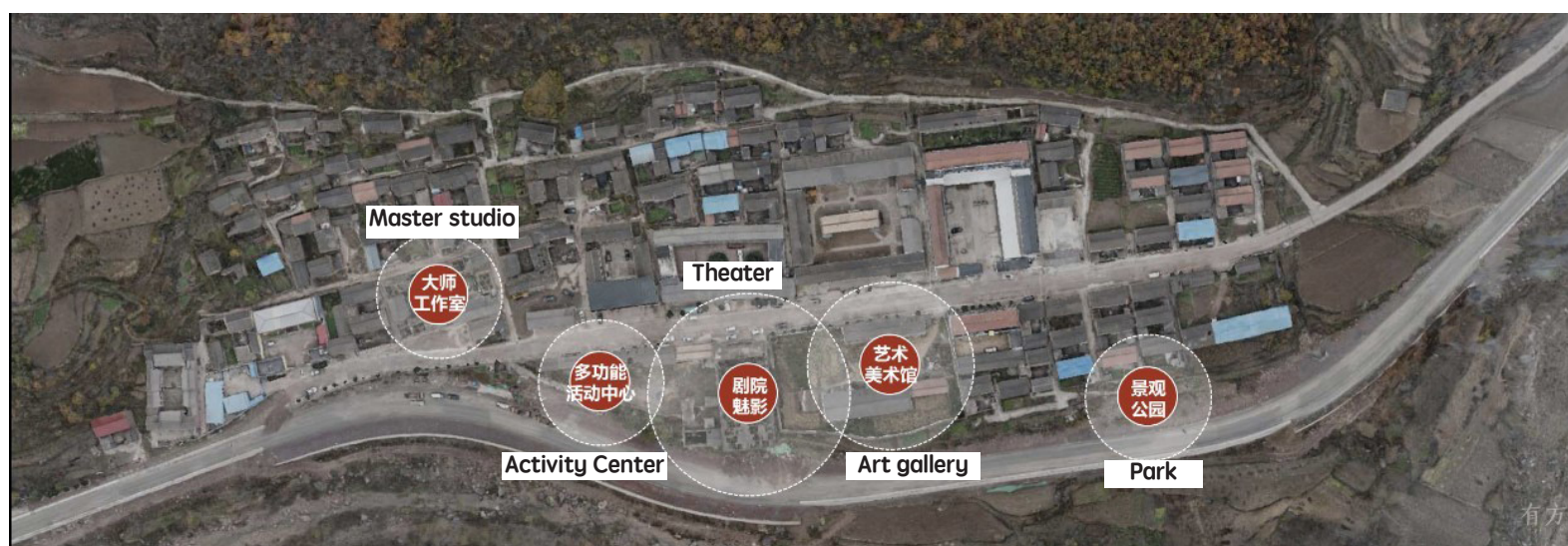
## 2.2 A Case Study

Li Geda Village is located in Dong Feng Village , Jincheng City, Shanxi Province, adjacent to Henan Province. The village is located at the foot of the Yunmeng Mountains with river on the north. Buildings there, which are well preserved and featured with Shanxi traditional characteristics, are spread along the east–west road in a shallow mountains area. The historical ancient stone carvings, strong local customs and unique scenery and landfoms have made Li Geda village a place for many artists and art students who bring popularity and vitality to the village, and a scale of 5,000 people come for art practice has been formed every year, for which the village has set up an art base. The village has developed a valuable tertiary industry, but there is still a need to improve the supporting facilities that can combine culture and art as well as tourism. Also, the street environment needs to be upgraded, and cultural resources such as old historical courtyards and figures need to be revalued.

The renovation of the countryside is a vulnerable zone with a very low tolerance for error. The historical village pattern and functional uses, their long–lasting psychological influence and the rationality of the local custom still remain. The village pattern can be identified easily as two strips and one street (main Street), with public buildings as the first layer along the street and private courtyard houses on second layer, showing clear and rational functional panels. It is still reasonable. So for the planning it is appropriate to preserve the existing pattern and achieve targeted improvements with minimum effort, which is the starting point for generating a restrained plan. The idea of restrained design interventions is not a renovation of the whole, nor a refresh of the look of individual buildings. Regardless of the aesthetic sensibilities of the outside observer, it is always tend to intervene too much. While, in the case of preservation, the approach of an ‘acupuncture’ stimulation of selected points of the buildings is identified. Instead of demolishing or building a large number of new buildings, we should focus on the basis of conservation and inheritance. By doing so, the street style is not heavily refreshed or made old, the new and the old elements are blended and echoed to create both a familiar and unfamiliar feeling, and vernacular environment, materials and landscape are combined with modern technology and design techniques. Acupuncture stimulation advocates the use of small–scale, precise interventions with a few important nodes, such as The Phantom of the Theatre and Art Gallery, so as to



drive a larger area around them, and even to promote the overall system; it is a step-by-step strategy for upgrading under a synergistic perspective. The importance of the nodes is therefore firstly promoting the industrial and economic upgrading capacity, secondly enhancing the rationality of the architectural design for the establishment and upgrading of industry, and thirdly creating the spiritual resonance of the users and online audience.



III. 38 - Acupuncture-style stimulation of important nodes



III. 39 - Before and after theater renovation

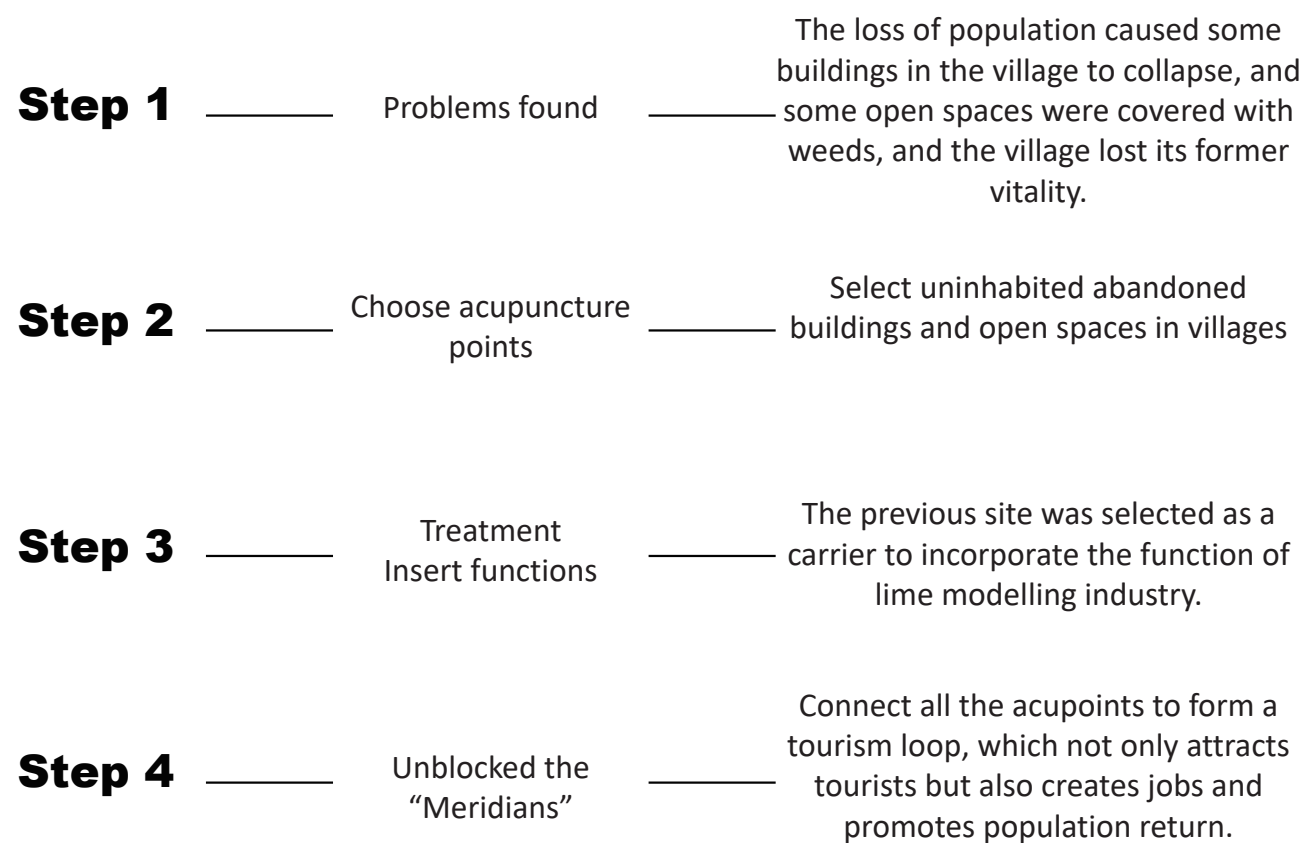
The regeneration is developed along the original main street of the village, and the nodes of "start-undertake - focus - exhibition - borrow - link" are selected in the main axis. Based on the premise of preserving the spatial scale and street appearance, a rhythmic rebuilding is rationally connected, and different elements and subjects are driven and unified. Through a systematical operation leading by a rational target, plan and progress, an organic micro-renewal system could be established through precise interventions.



## 2.3 How Acupuncture Is Implemented In Villages

As mentioned in the Li Geda village approach, the most appropriate architectural intervention needs to be selected for site selection and restoration of function. Therefore, in the regeneration of Gangtou Village, acupuncture is divided into four main steps. The first step is to identify the problems that exist in the village. The main problems in the village were the lack of maintenance of houses and open spaces due to the migration of young adults and the cultural disconnection caused by the reluctance of young people to accept traditional cultural crafts. The second step was to identify the location. The main transformation areas in the village remained focused on those unoccupied houses and public open spaces. The third step is to implant the function, implanting the four themes of the plaster industry into the previously identified spots. Finally, through an overall flow line, the different themes are linked together to achieve the effect of opening up the whole village.

This kind of intervention has the least impact on the village, but it achieves the greatest effect. It's like acupuncture.



III. 40 - Four -steps Acupuncture for Gangtou village

# SITE MEMORY RETENTION

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## 3.1 A Definition

People like to live in familiar places, familiar places give people a sense of stability, security and dependence, while people will feel unfamiliar and lost when they move in unfamiliar places, and then lack a sense of security. Places are places that provide people with activities in public space, and need to have the characteristics of meeting people's psychological needs, material needs, activity needs and aesthetic needs. To build a rich activity place, people need to identify with the place, and if it causes people's rejection, then the meaning of the existence of the place is lost.

Site memory is based on the broad extension of the connotation of the theory of place spirit and the theory of collective memory, and is a compound of both, which originated from the 1960s, based on the thinking and criticism of the social problems arising from the modern urban planning of functionalism. The so-called place is the premises and occasions for human activities in a specific building or public space, which has the quality of publicness and is open to the public and provides space for public activities. Memory, which can be unforgettable memories, deep impressions, and fantasies of going back to the past, is the feedback of people and events and environments experienced by the human brain, and memory perpetuates human emotions about past history, things, and environments. Losing the ability to remember, a person's sense of existence and belonging are reduced.

The goal of site memory is to awaken the residents' fond memories and stimulate their emotional identity. By shaping villages with humanized, distinctive, attractive and cultural connotations, the three characteristics of place memory, namely narrative, cultural and inheritance, correlate the life trajectories of residents and reflect the memory symbols of their times. Through the arrangement of site elements in urban space design, it can promote the reproduction and re-identification of historical things and daily life scenes in residents' minds, which in turn forms a sense of belonging and thus a sense of place identity. At the same time, through the arrangement of site elements and events, it has been generating and evolving from experience to the generation of new memories and then to the awakening of memories, and the positive memories of residents are conducive to becoming the inexhaustible power of the site's self-development.

### 3.2 A Case Study

Wugang, an ancient city in the center of southwestern Hunan, was once an important transportation hub to Sichuan, Guizhou, Yunnan, and Guangxi. It was also an important commercial port and the market was prosperous. Wantouqiao is a town under the jurisdiction of Wugang City. Local government has begun to build an integrated service platform after it has completed the construction of public service facilities such as township government centers and health centers. This platform aims to be a supporting project for the poverty alleviation and resettlement plan to provide livelihoods for underprivileged immigrants.

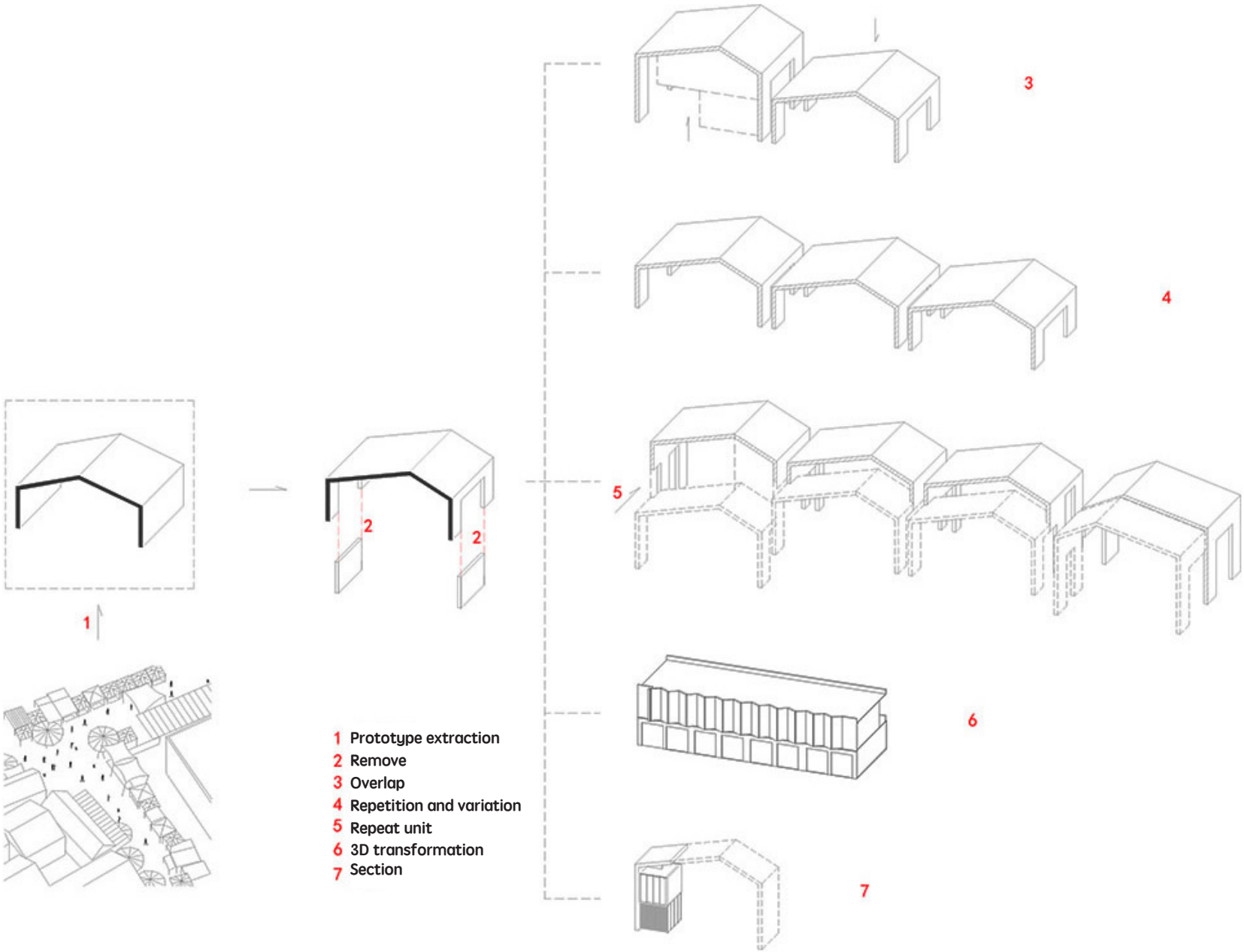


**III. 41 - Wantouqiao township center**

The Wantouqiao Township Center takes the unit scaffold structure which is commonly used in the market place as the spatial prototype. The group is constituted as a permanent public building with a complex system to replace temporary, non-standardized, chaotic and dangerous street market by the way of extraction, reconstruction and translation. The township center functionally provides a platform with one-stop service including a business center (market), a logistics center, an e-commerce center, a passenger transportation center, etc.; It spatially fills the lack of public space and continues the tradition of customs in terms of time; Moreover, it stimulates the revitalization of rural industries economically; culturally, it is the spiritual center to enhance the cohesion of the township.

Township market is homogeneous small scale commercial space, which gathers to a large commercial group with a scale of up to 10,000 people. The homogeneity of the space unit originates from the production and sales of small and family-oriented workshops in rural

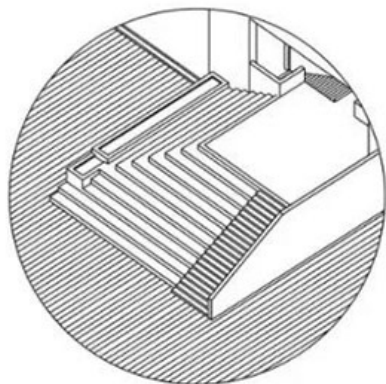
areas. Therefore, for this market, a small lightweight scaffold structure that is easy to disassemble, transport and erecting is needed. This kind of uniform and small commercial unit is suitable for fields of various shapes and scales. The homogeneous space symbolizes the relatively equal social structure and geographical texture of the countryside. Therefore, our design takes the scaffolding structure which is common in rural markets as the space prototype, and integrates the chaotic functions into homogeneity spatial forms. This not only maintains the vitality of the market, but also produces certain market discipline through the order of space. The basic logic of this design is composed of the concrete pouring slope top and two solid concrete walls inserted into the ground. These units make up for missing sense of sequence and ritual.



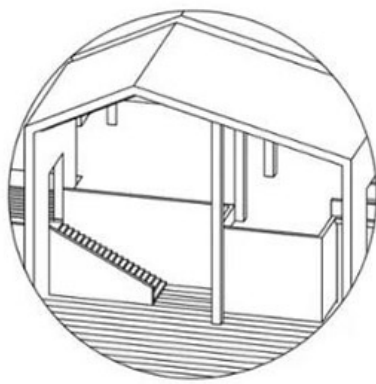
III. 42 - Design concept analysis diagram



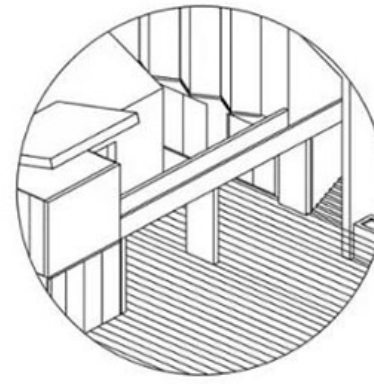
The sense of ceremony used to be an important thing in the countryside. Many rural customs and activities such as festivals, weddings, and funerals are inseparable from the space of ritual sense. Traditional village buildings or space such as ancestral halls, temples, axes, courtyards, openings, and halls are significant spatial and places for ceremonies. With the disappearance of traditional space, the rituals in rural life are also faded. However, the demands of residents for ritual have not changed. The word “ceremony” here does not simply mean a series of events related to or specific to a specific culture or religion, but a term used to describe a set of behaviors in daily life, which may be as common as wander on the street or meditating. When defined as a repetitive action in space, ritual becomes a controlled, focused approach to everyday life. At the same time, the sense of place is enhanced by this recurring event. As a daily event in the township, the fair is an important carrier of rural memories. The design intends to construct people’s sense of identity towards the local place through the connection of space, materials and events. Moreover, by subtly fitting local traditional space in such as stage, bridge, attic, ancient pagoda, and threshing floors, people can establish a new understanding and a new dialogue with the familiar environment.



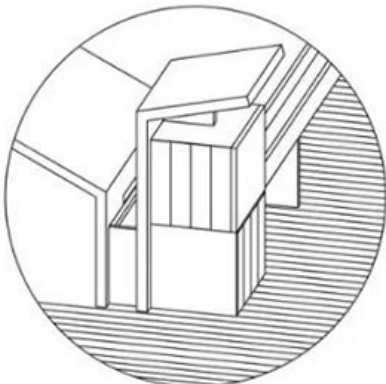
Stage



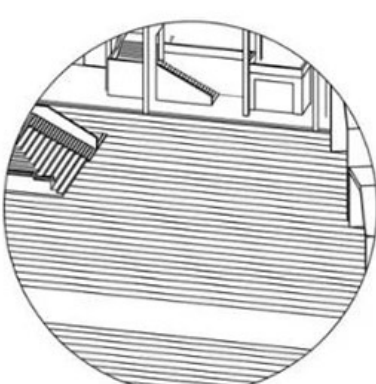
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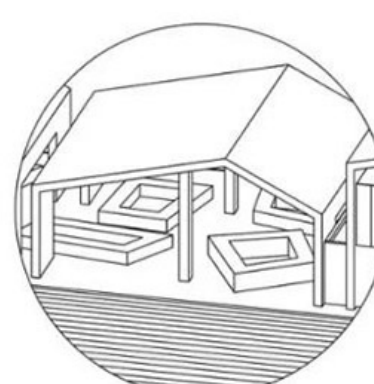
Bridge



Ancient pagoda



Threshing floors



Bridge

**III. 43 - Detailed diagrams**



### 3.3 The Unique Memory Of Gangtou Village

The site memory of Gangtou Village has the following, the village built fabric of the historical and cultural old city. Gangtou Village is a village with a long history and rich ancient city built fabric. The ancient alleys also play an important role as the dividing line of the village fabric. Traditional materials. The buildings in Gangtou Village usually use traditional materials, such as wood, grey bricks and tiles, which create a quaint and natural atmosphere in the whole village. Spatial relationship between building interiors. The buildings in Gangtou Village usually have unique interior spatial relationships, such as the single space of sloped-roof buildings in the Ming and Qing dynasties (1368–1912) and the combined sloped-roof buildings in the Republic of China (1912–1949). Passing on these spatial relationships can give new buildings a greater sense of belonging. Traditional Culture. The site memory of Gangtou Village also includes rich traditional culture, such as lime model culture. These traditional cultures are the villagers' identification and expression of their cultural heritage and development, as well as the source of the village's character and charm.

Continuing the site memory of Gangtou Village will bring many benefits. Firstly, to protect the historical and cultural heritage, the site memory of Gangtou Village represents the history and culture of the village and is a valuable historical and cultural heritage. By continuing the site memory of Gangtou Village, the historical and cultural heritage of the village can be better protected and inherited. Secondly, to enhance the characteristics and attractiveness of the village, the site memories of Gangtou Village are the unique characteristics and charm of the village. Continuing these site memories can enhance the characteristics and attractiveness of the village, attracting more tourists and residents to visit, live and invest in the village. It then promotes community co-creation and sharing. The site memories of Gangtou Village represent the common memories and cultural heritage of the villagers. By perpetuating these site memories, it can promote communication and interaction among villagers and enhance the awareness and action of community building and sharing. Later, it will promote local economic development. The site memories of Gangtou Village are closely related to the local tourism and cultural industries. By continuing these site memories, it can promote the development of the local economy and create more employment opportunities and economic benefits.

SECTION C

The proposal



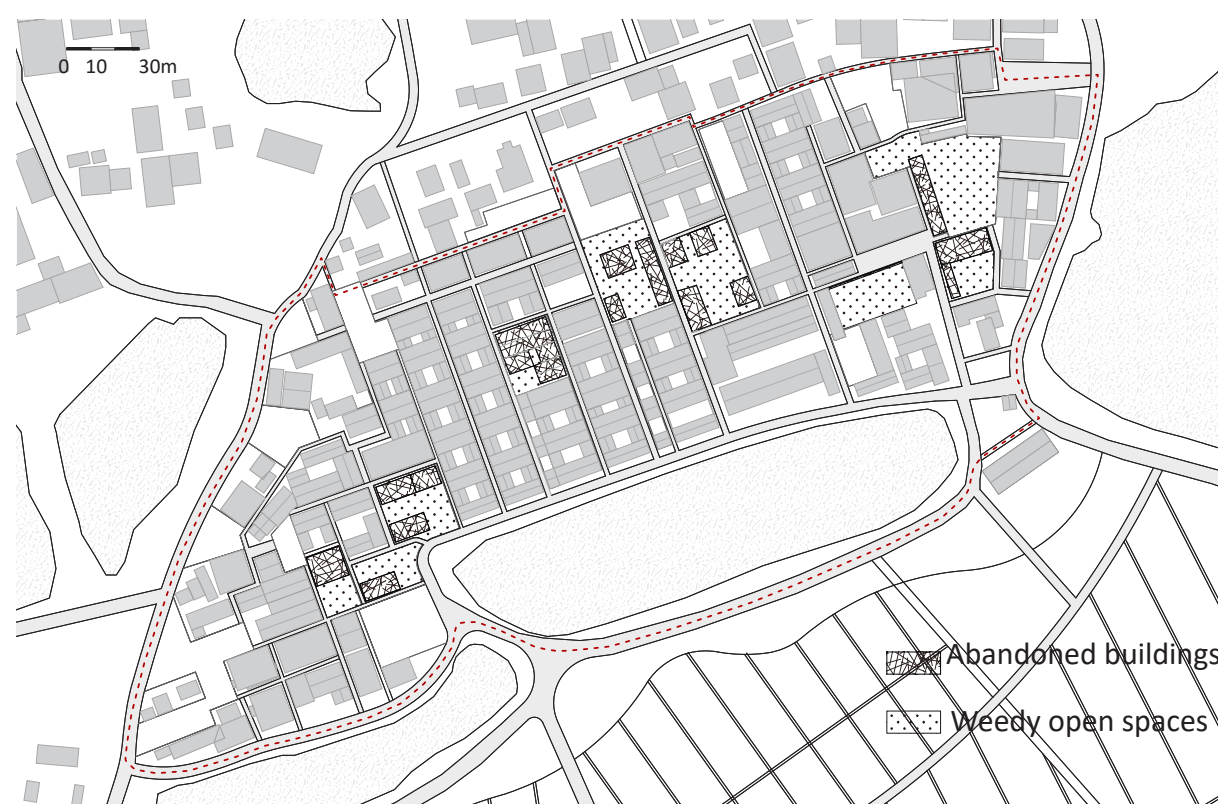
# SETTLEMENT SCALE

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## 1.1 Acupuncture Actions Transformations

The most important aspect of acupuncture therapy applied to Gangtou Village from the strategy is to identify the acupuncture points and activate the functions. The identification of acupuncture points is mainly the abandoned buildings and open spaces in the village, and the transformation of these small areas can improve the appearance of the village to a great extent. For functional placement, the one-village, one-product strategy above also mentions the division of the lime model industry into four parts, which are just the right four themes to place in the sites identified by acupuncture therapy.

Through this method, Gangtou Village can not only solve the problem of abandoned buildings and vacant land caused by population exodus, but also preserve and pass on the traditional culture of lime model.



III. 44 - Renovation space



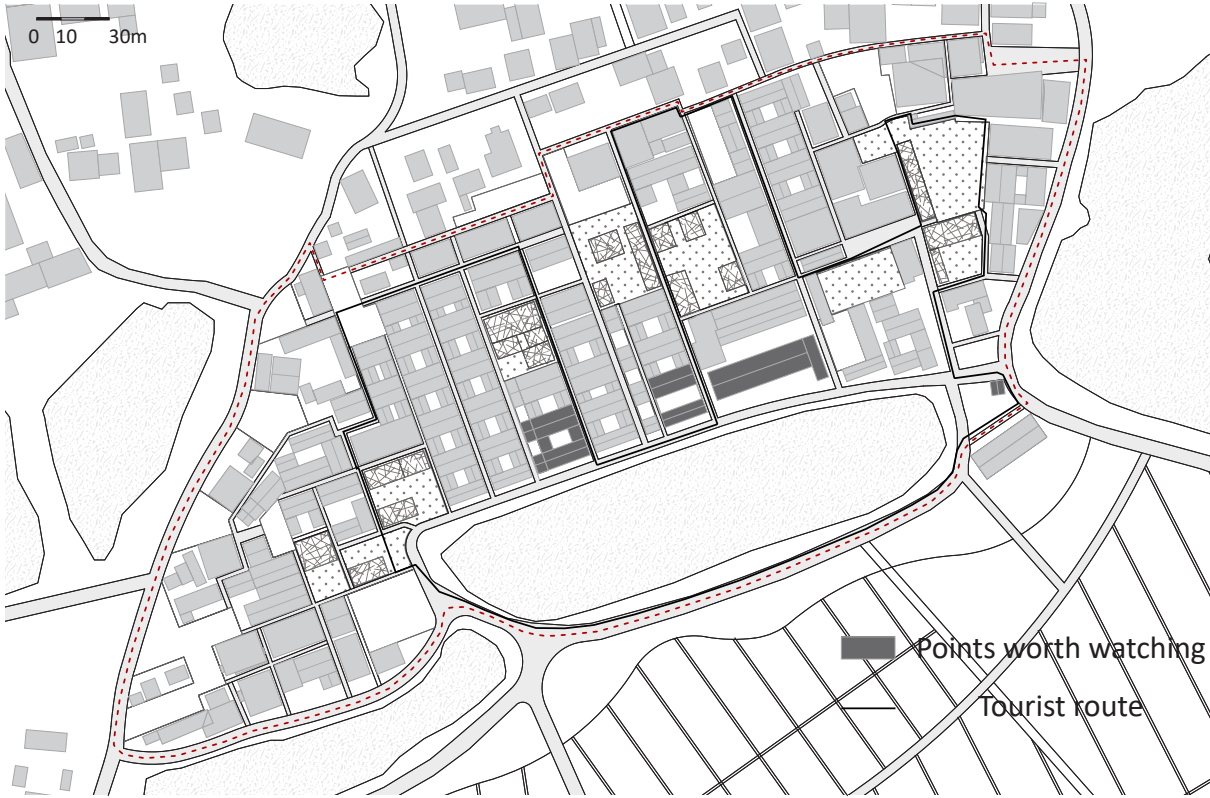
III. 45 - Industrial convergence

## 1.2 The Tourist Route

The integration of the previous renovation sites with the original historical recommended buildings of Gangtou Ancient Village creates a tourism loop. This tourism loop can increase the tourism attraction. The integration of cultural sites and historical architectural sites can form a more complete tourism loop and increase the attractiveness and visibility of tourism. Tourists can visit multiple sites in one area, making it more convenient and affordable. This tourism loop can also promote cultural heritage. The integration of cultural sites and historical architectural sites can promote cultural heritage and development. Visitors can learn about local history and culture by visiting historical buildings and cultural sites, increasing their knowledge and understanding of traditional culture, and also promoting local cultural development. This tourist route can also increase employment opportunities. Tourism can create jobs for the local area, and the tourism loop formed by integrating cultural sites and historical architectural sites can provide more jobs for the local tourism industry. For example, providing services such as tour guides, hospitality, and catering will



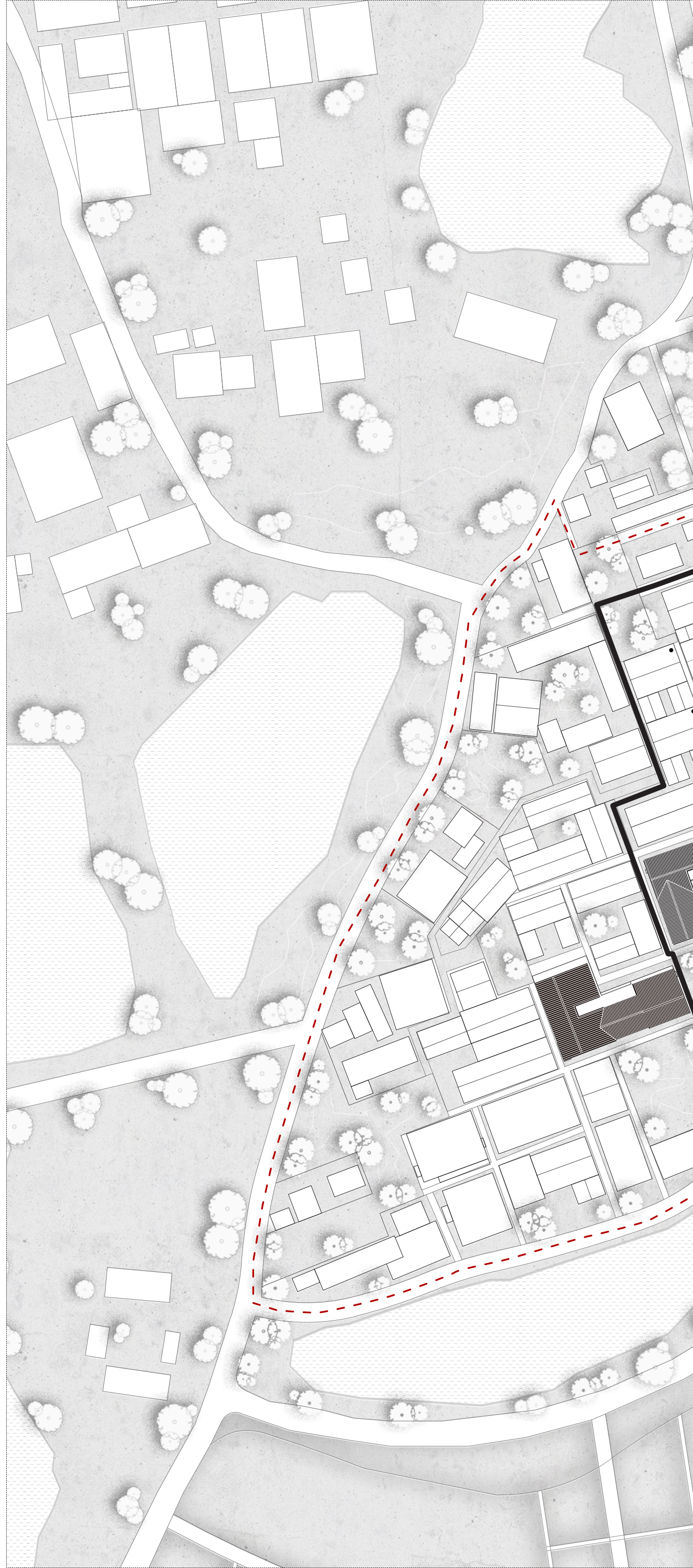
provide more employment opportunities for local residents. This tourist route can also promote economic development. The tourist route formed by integrating cultural sites and historical architectural sites can promote the development of the local economy. By attracting more tourists, it can bring more demand for local industries such as catering, accommodation, and transportation, which in turn can promote the prosperity of the local economy.



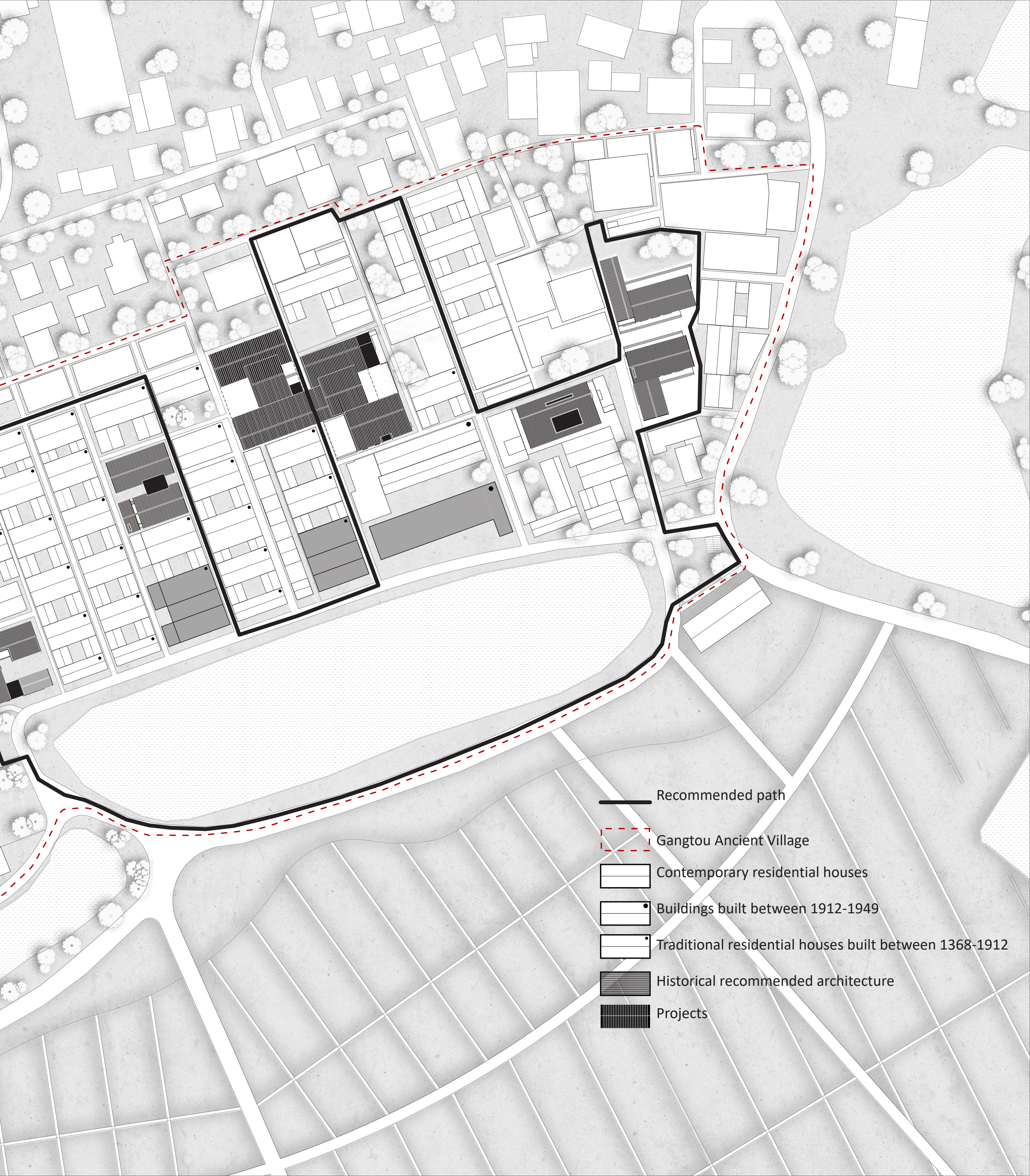
III. 46 - Recommended path



### 1.3 Gangtou Village Masterplan







- Recommended path
- Gangtou Ancient Village
- Contemporary residential houses
- Buildings built between 1912-1949
- Traditional residential houses built between 1368-1912
- Historical recommended architecture
- Projects



# ARCHITECTURE SCALE

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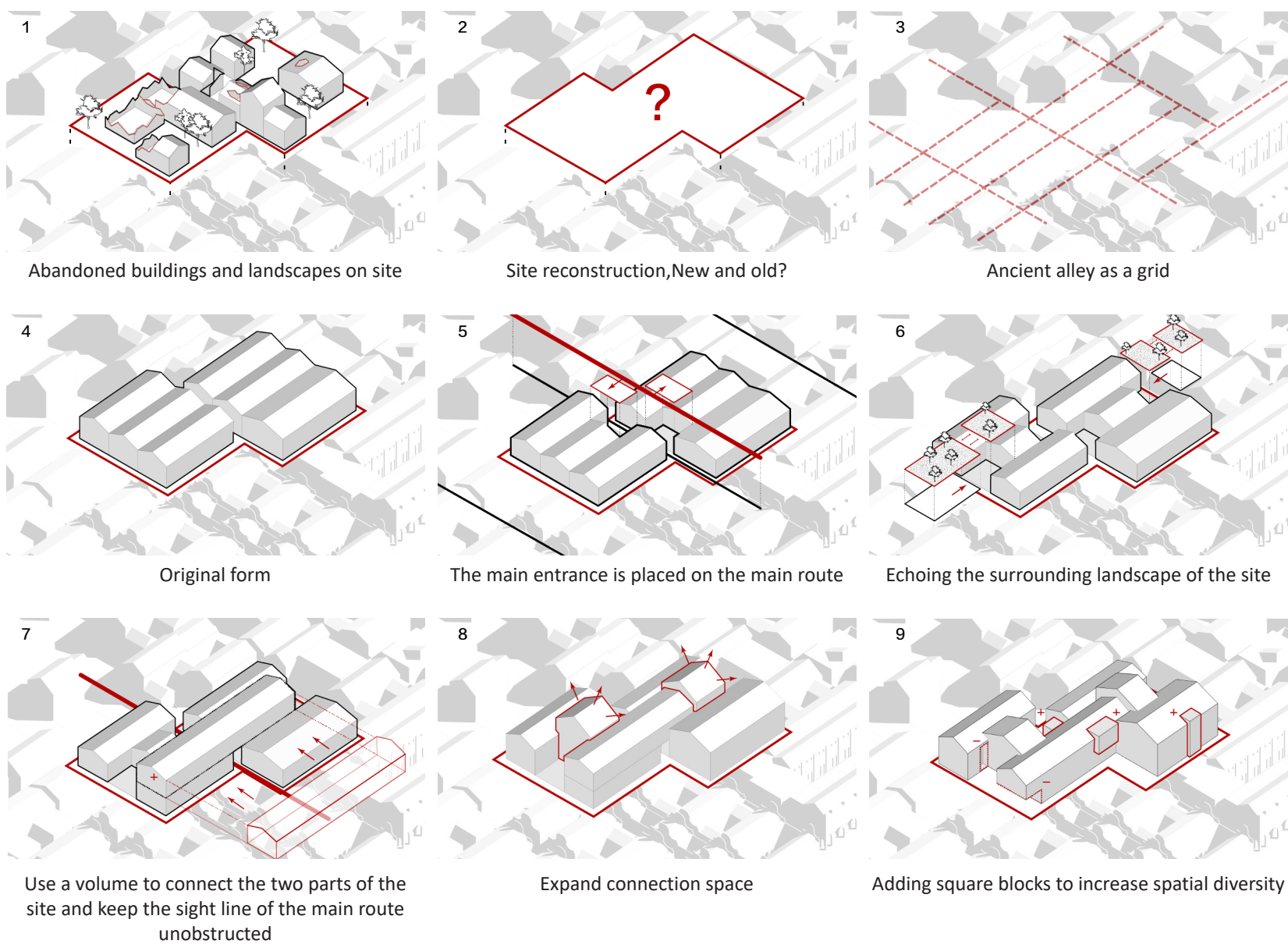
## 2.1 Reinterpreting The Historical Built Fabric

Built fabric is a symbol of an area, and reinterpreting the local historical built fabric is a way for new buildings to get in touch with the original site. This project starts from a rural planning perspective, echoes the surrounding buildings and environment, considers urban fabric coordination in depth, and makes full use of the existing conditions of the site. This can be seen very well in the form generation. First of all, the buildings and open space inside the site are abandoned, collapsed and disorganized, and the current situation is quite different from the built fabric, so the buildings inside the site are considered to be reconstructed. The ancient alleys of the village can be used as a good reference for the built fabric, and the site is roughly divided by extending the horizontal and vertical alleys to form six zones. The six zones are arranged horizontally with the original sloping roofs to form the most original architectural basic form. Considering that the main alley passes through the center of the site as a recommended path, two entrance plazas are formed near the middle of the building. The greenery around the site is extended into the interior of the site to form two larger green spaces. Then the left and right blocks are connected by a longer form to form a whole large building, and the connection is made to ensure a clear view of the road in the middle. Then the central building block is enlarged to connect the front and back buildings. Finally, some square blocks are added to increase the diversity of space and break the dullness of only the sloping roof. The final shape of the building echoes the surrounding environment of the village.

By reinterpreting the historical built fabric, the sense of integration of the building can be enhanced. By echoing the site fabric, the new building can enhance the integration of the building and make it more harmonious with its surroundings. By coordinating and echoing with the surrounding environment, the building can better adapt to the site environment and avoid conflict and abruptness with the surrounding environment. It can also improve the overall quality of the site. The new building echoes the texture of the site can improve the



overall quality of the site and make the whole site present a more complete and harmonious image. It enhances the visual effect of the site and improves the quality and image of the site.

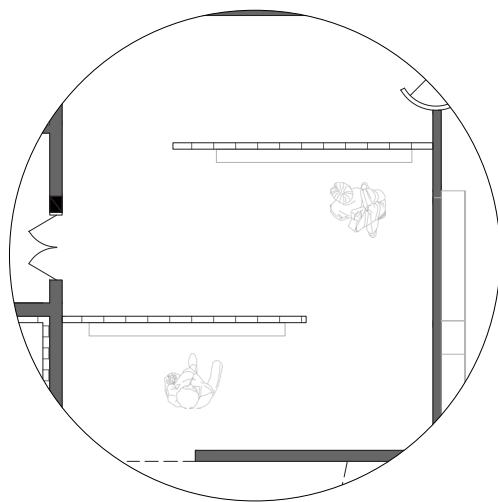


### III. 47 - Shape Generation

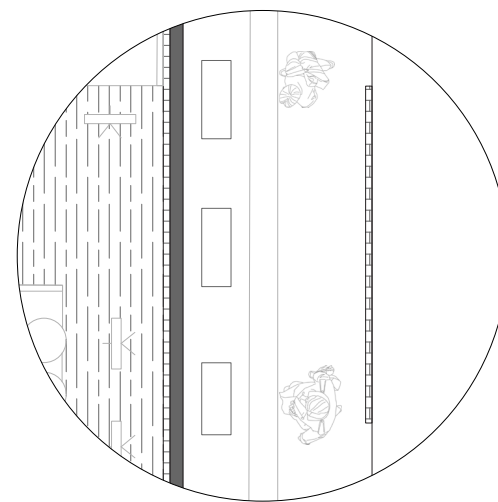
## 2.2 Inheriting The Local Culture

Inheriting the culture is also seen as an echo of the new building to the old site. The main consideration in the design is the extension of the local traditional culture – lime modelling culture. As the center of the lime model cultural industry, the main functions of this new building still revolve around lime model. The main functions include: an exhibition on the history of lime model, where one can learn about the origin and development of lime model. An exhibition of tools for making lime model, where you can see the tools used in each step of lime model making. The exhibition of raw materials and by-products of lime model, where you can see the raw materials of lime model and the by-products produced from them. The exhibition of lime model, where you can see two forms of ash sculpture, the roof form and the door frame form. The lime model production exhibition, where you can see how the lime model is made, from drafting, to shaping and coloring. After that, there is a souvenir store where visitors can buy their favorite lime model souvenirs. Finally, there is the lime model hall, where lime model-related events are held regularly to promote lime model.

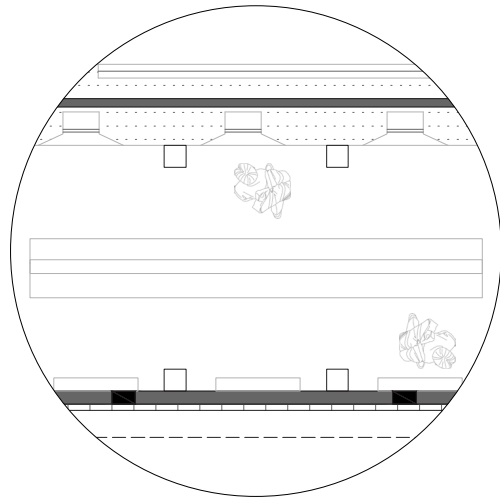
The main functions of the building are centered around lime model, which can well spread the knowledge related to lime model, inherit the culture related to lime model, and promote the development of lime model industry.



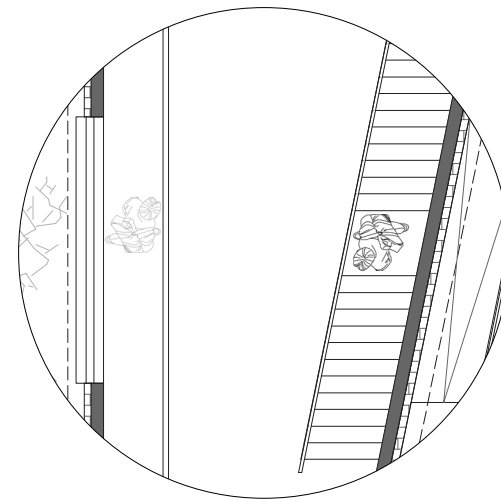
History of Lime modelling



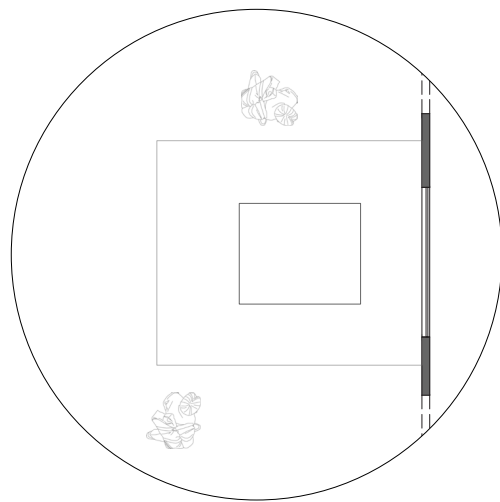
Tools used in Lime modelling



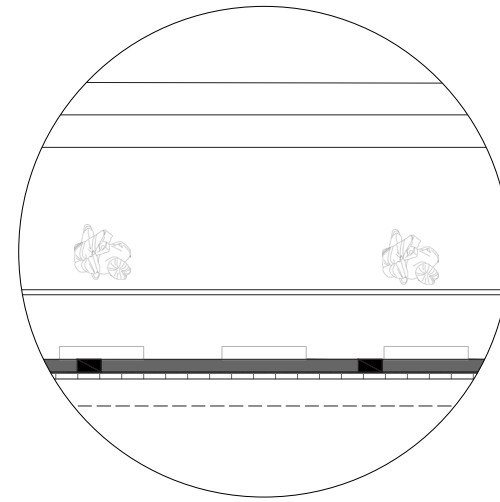
Raw materials and by-products



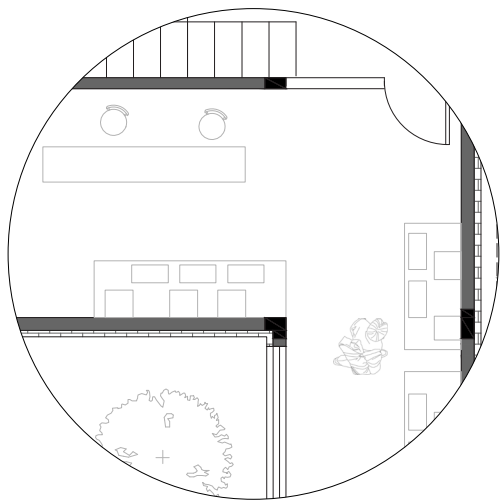
Roof Lime model



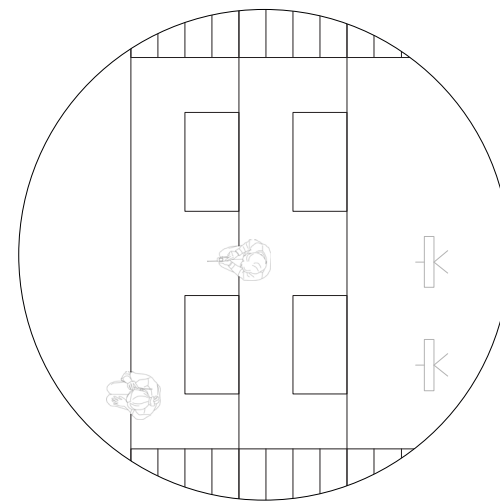
Lime model on door frame



The main steps of Lime modelling



Lime model souvenirs



Lime modelling Culture Salon

**III. 48 - Different lime model-related functional spaces**

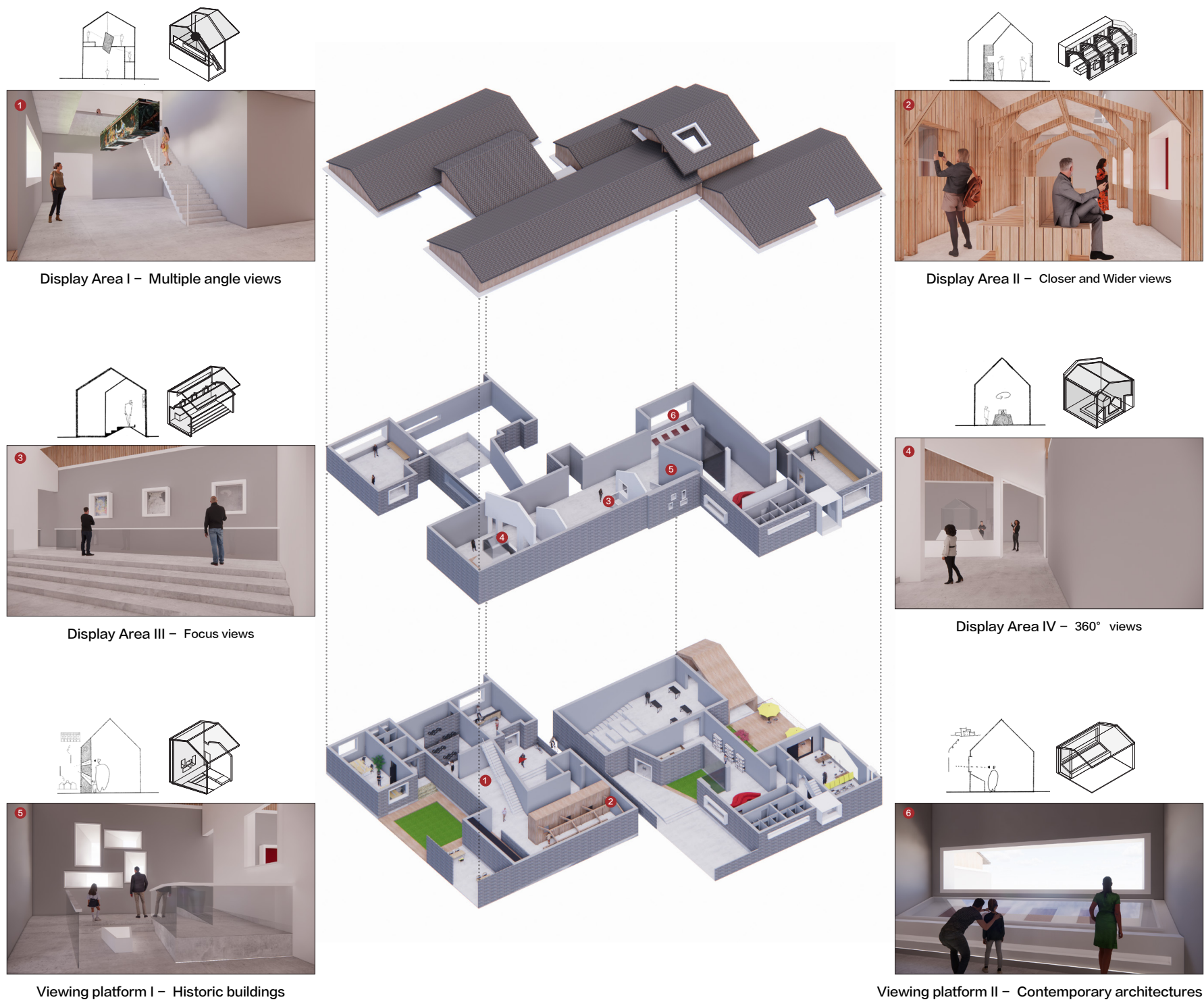
## 2.3 Working On The Spatial Relationships

For the spatial continuity, the design focuses on finding spatial features in the original site sections and applying them to the design of the new building. For the individual spaces, the spatial inspiration comes mainly from the original traditional building (1368–1912) sections. The basic concept is that the sloped roof serves as the prototype for each single space, and all functional spaces are designed from simple sloped roof spaces and then put all of them into large sloped roof spaces, boxes in boxes, with different designs for different functional spaces. The space for displaying the raw materials and by-products of the lime model is summarized as closer and wider views, because in this space visitors can see the raw materials of the lime model on one side and the by-products in the glass on the other side. The space for the display of the roof lime model is summarized as multiple angle views, in this space visitors can enjoy the roof lime model in different directions, or even choose to look down, this perspective is generally not visible from the outside. The space for displaying the lime model of door frame is summarized as 360 degree views, in this space visitors can view the lime model products in all directions. The space to show the production process of lime model is summarized as focus views, in this space visitors need to go up three stairs and then focus on the perspective of observation. It consists of three large display panels, the first one showing the shape of the lime model with steel nails after the draft, the second one showing the effect of lime and the third one showing the effect of coloring. In addition to the four main display spaces, there are two main viewing spaces. The first viewing space, in which there will be a thicker wall with openings to guide the view, can be seen in two directions: the Qing Ming period (1368–1912) buildings and the Republican period (1912–1949) buildings respectively. The second viewing platform is a long framed view with the changes of the village history visible above the booth below the window, and looking up to the window is the modern Gangtou village buildings, a kind of timeline in sight.



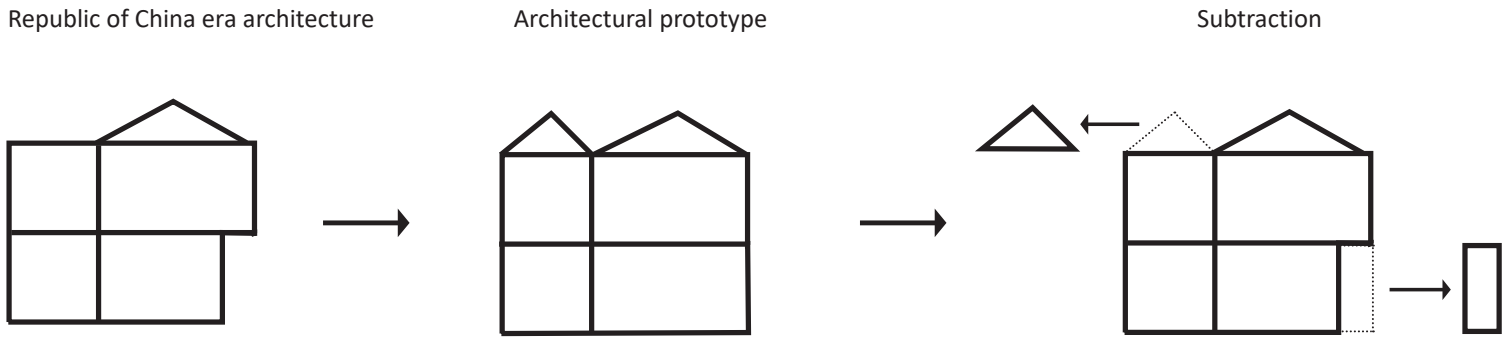


III. 49 - Single space design concept

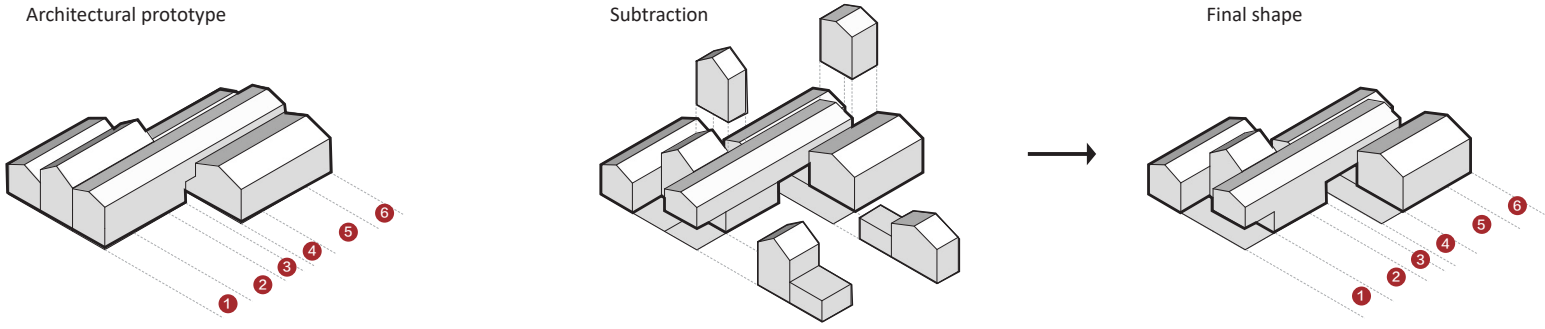


III. 50 - Functional space concept and design

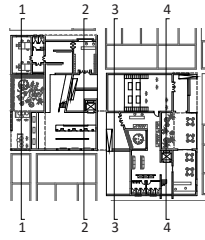
For the spatial combination, the inspiration comes mainly from the site section of Republican period (1912–1949) building profile features. The main prototype of these buildings is still a combination of multiple sloped roofs, using subtraction to divide the buildings and create a more diverse spatial feeling. So I also adopted this subtraction technique in the design. By subtracting some space from the original regular form, the regular space is changed and the spatial diversity is increased. I took four consecutive sections, and you can see that they have become active inside due to the reduction of external space.



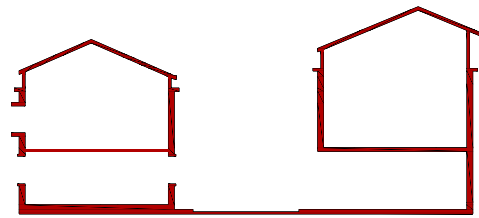
III. 51 - Analysis of architectural features of the Republican period (1912-1949)



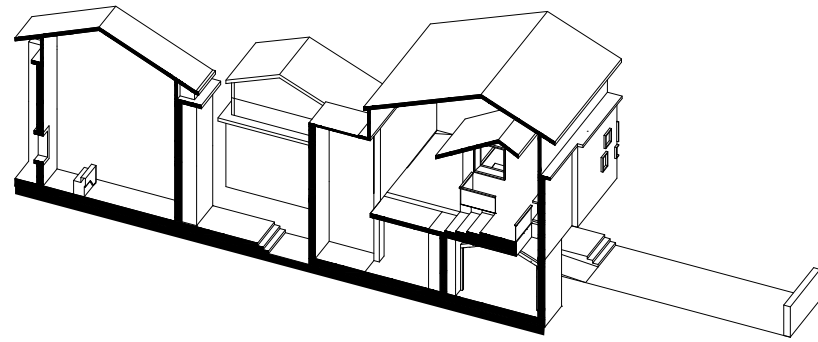
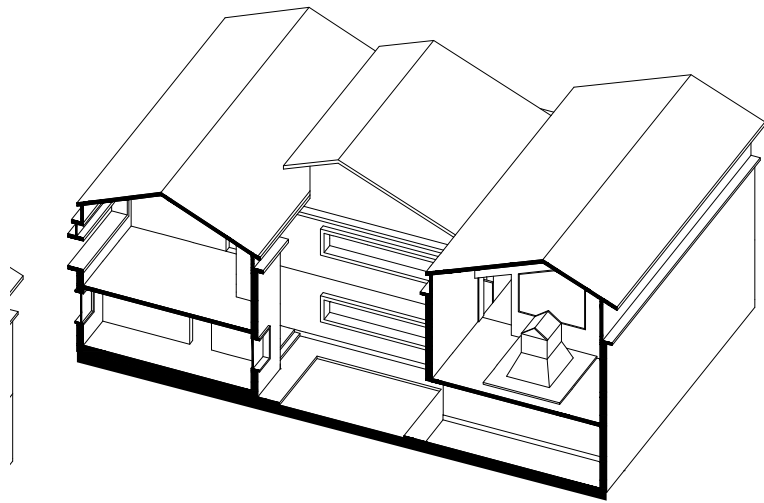
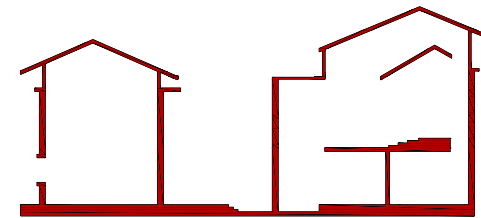
III. 52 - The use of spatial subtraction



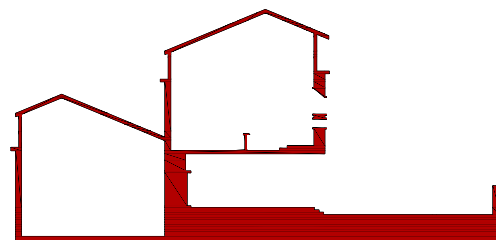
Section 1-1



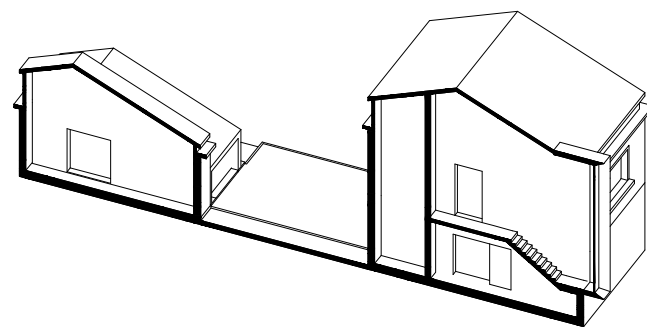
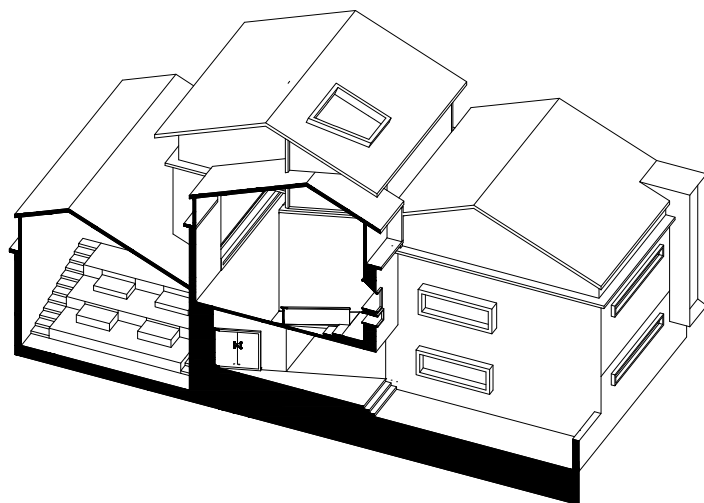
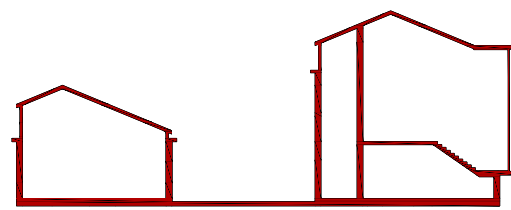
Section 2-2



Section 3-3



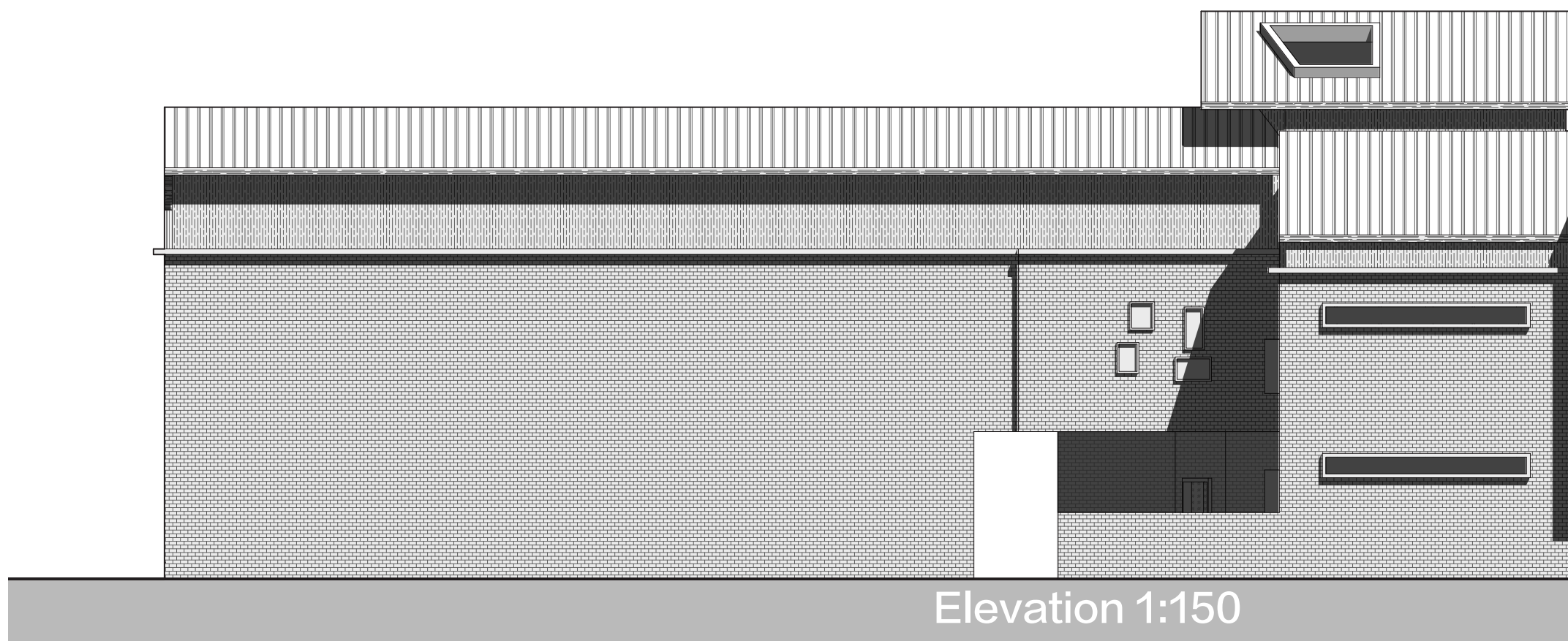
Section 4-4



III. 53 - Continuous sections

## 2.4 Contemporary Use Of Traditional Materials

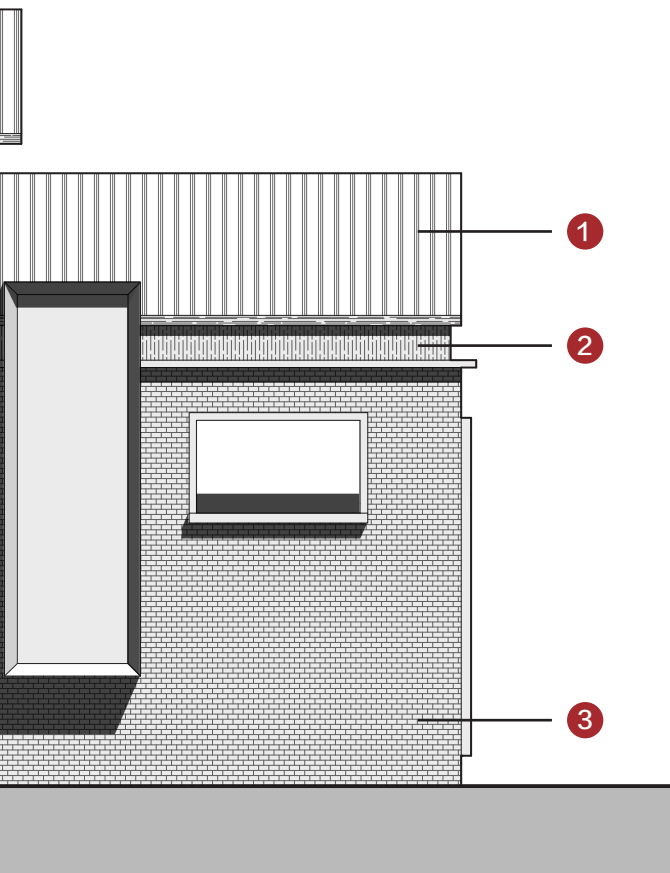
Using traditional materials in new building is also an approach that echoes the local area, and the materials used for the building are the original village building materials. Grey bricks, a local specialty, are the traditional exterior wall material, low in price and easy to make. Tile is the local roofing material, and the layer upon layer is excellent for rain protection in the south. Wooden material was originally used for elements such as windows and doors as well as internal support structures, which is a low-priced material and can have different shapes. So the new building is also intended to utilize these three types of construction as the main building material. Grey bricks were still used for the outer skin of the building, and tiles were also used as roofing materials. Wooden material is mainly used to connect the grey bricks to the roof, mainly because it has a more vibrant color than the grey bricks, and when placed high, it can attract the attention of visitors from different directions of the village and guide them into the area. But when they actually enter, they will find that the new building's cinderblock blends in with the local architecture without much difference.







III. 55 - Looking at the building from a distance



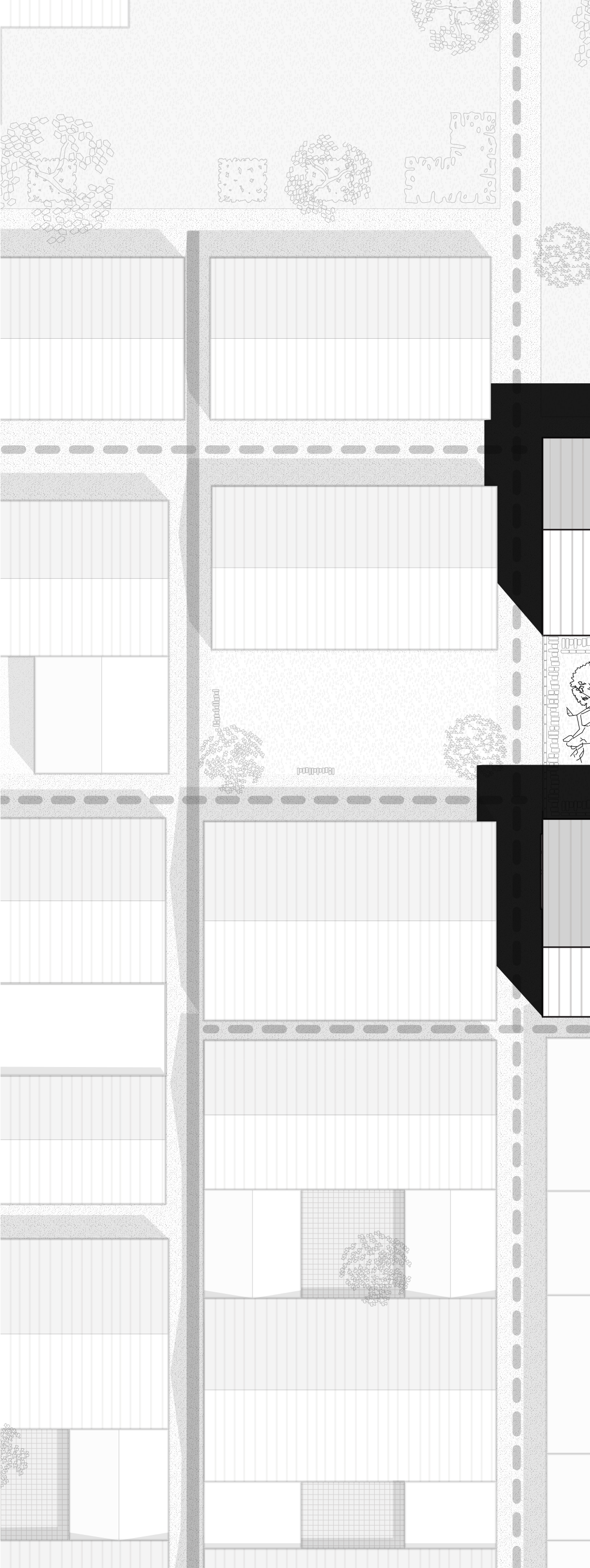
III. 54 - Diagram of construction materials



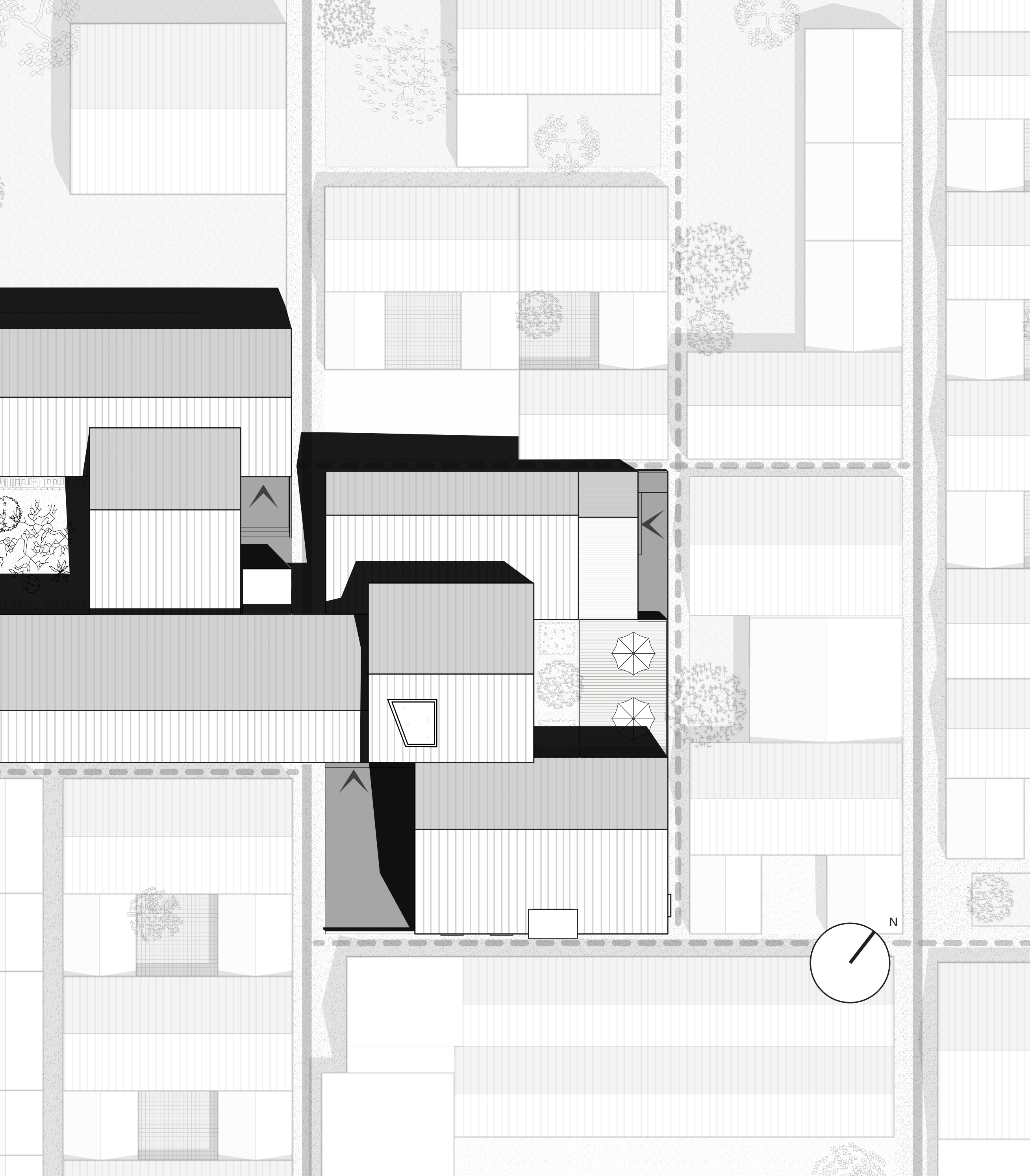
III. 56 - Close up view of the building

2.5 Technical Drawing And Views

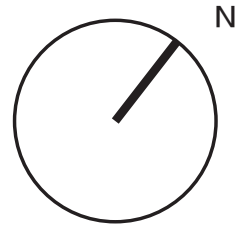
**Masterplan 1:200**



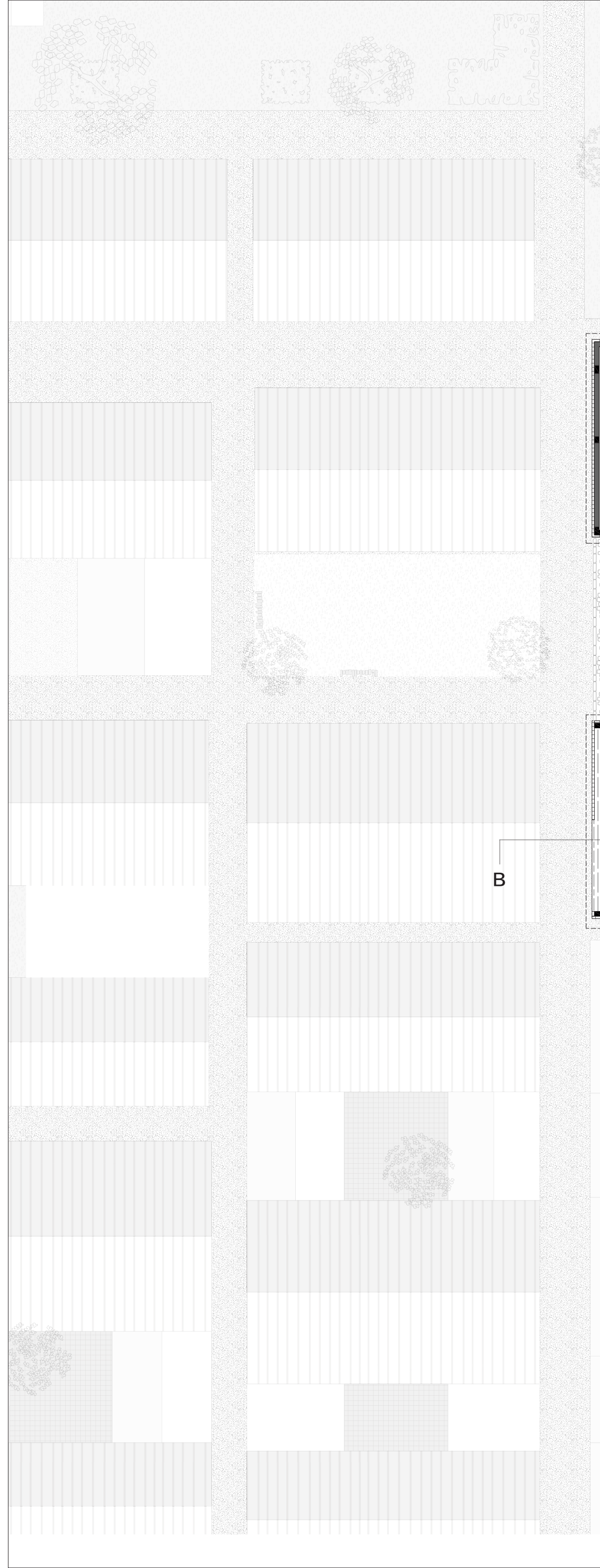




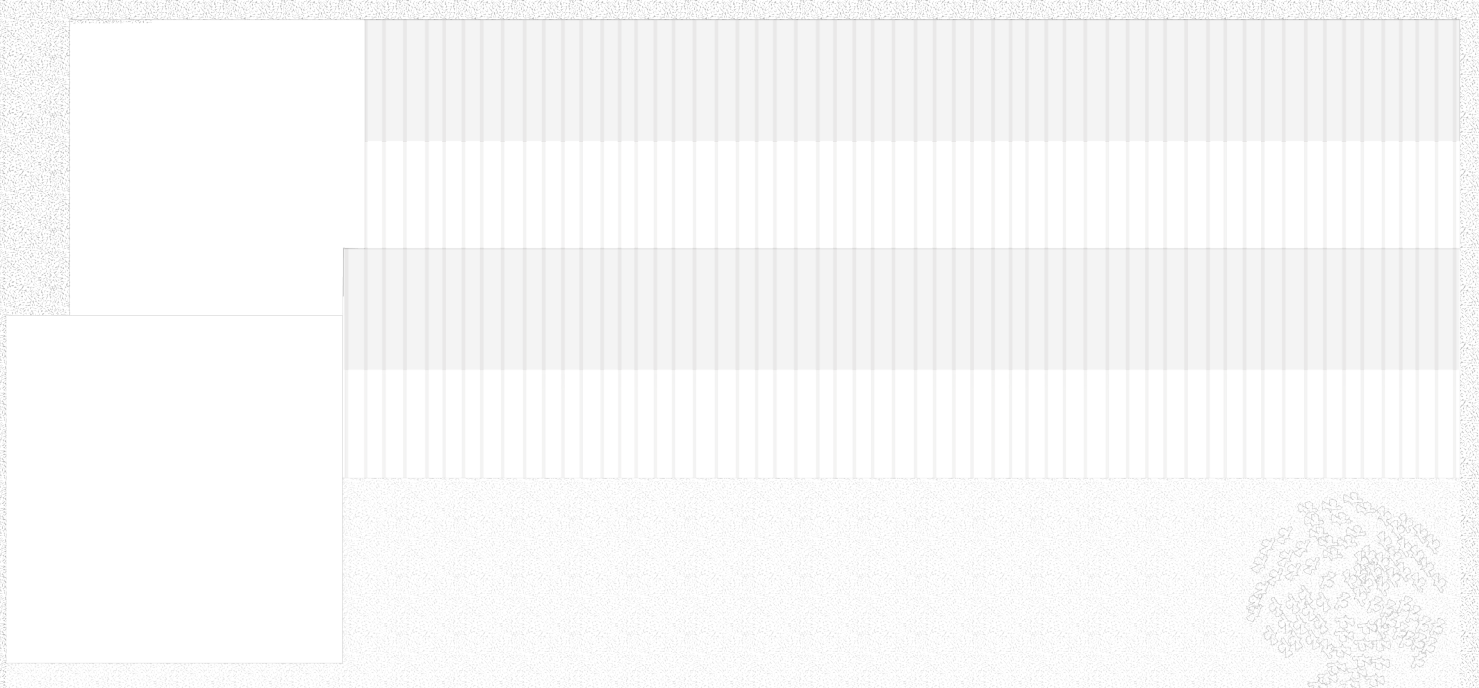
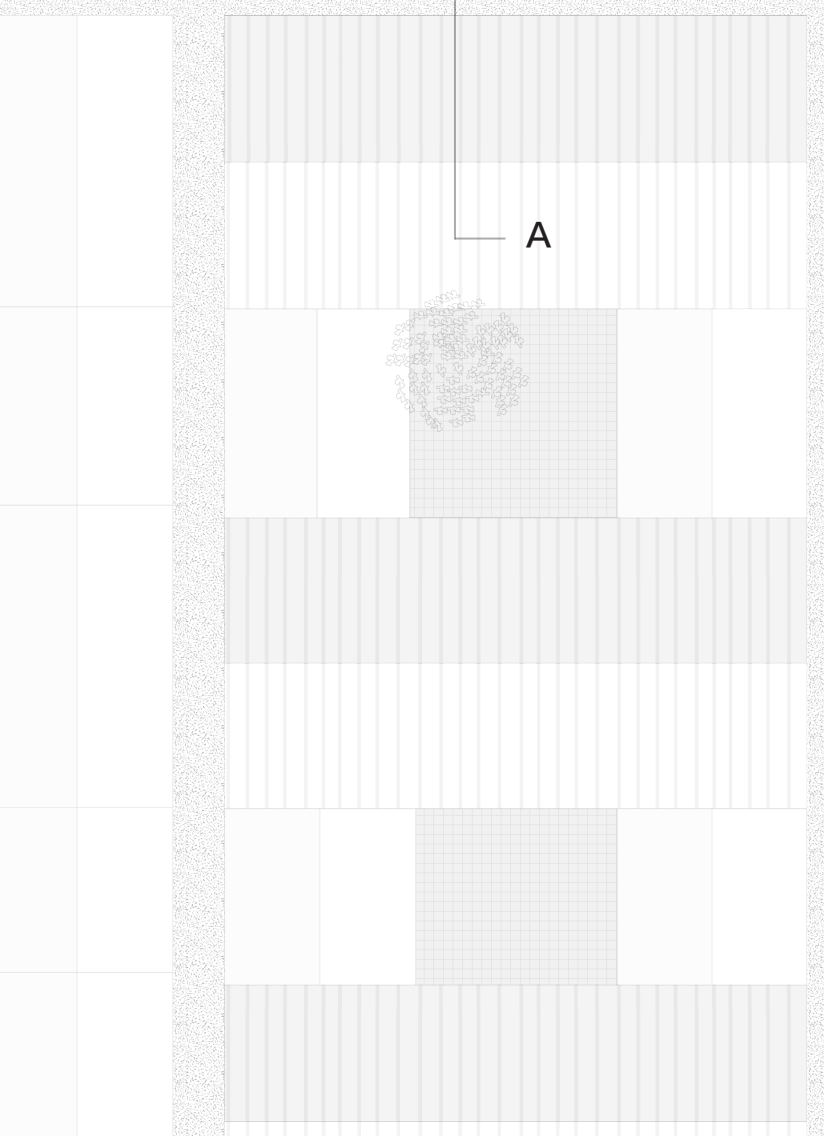
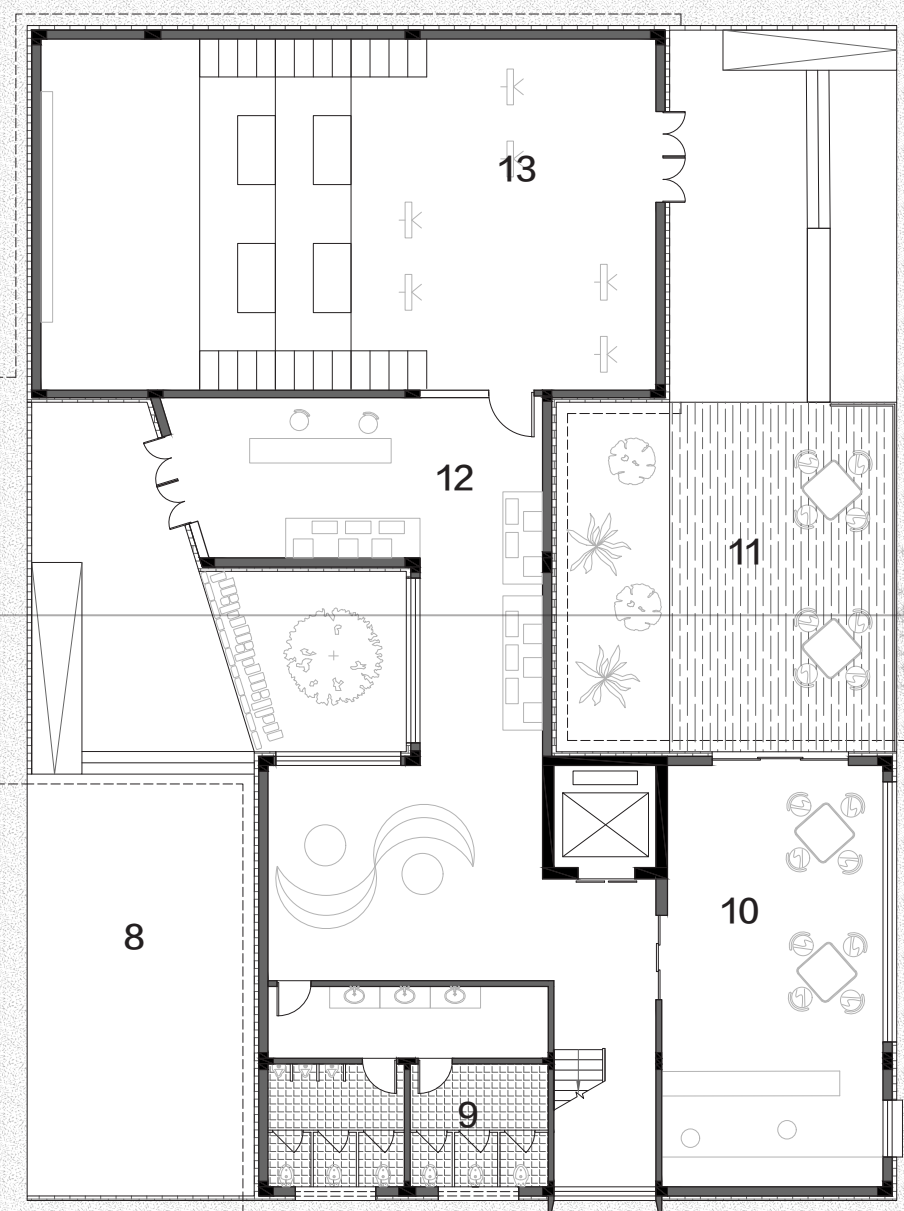
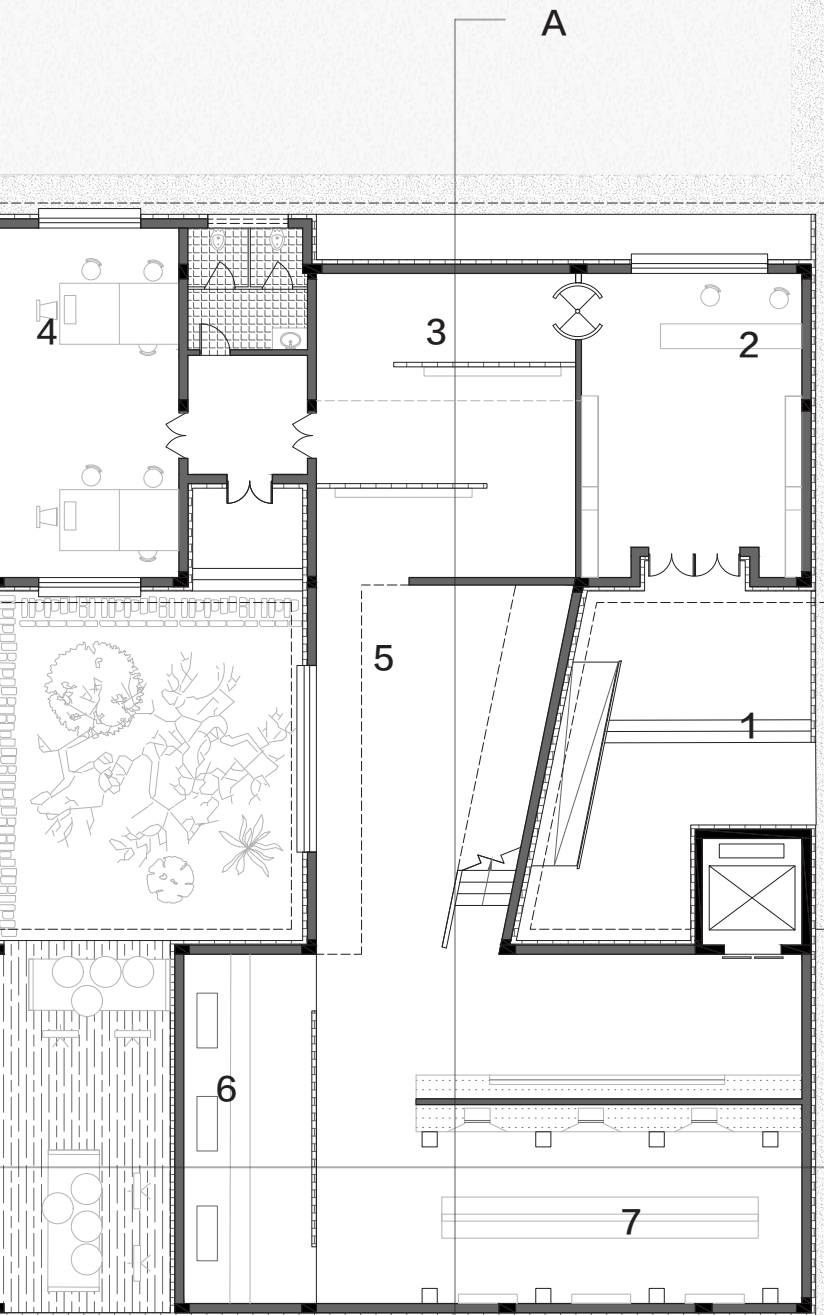
## Ground floor 1:200



1. Entrance plaza
2. Tourist Information
3. Lime model history exhibition
4. Office
5. Roof lime model exhibition
6. Lime model tools exhibition
7. Lime model raw material
8. Entrance plaza
9. Toilet
10. Cafe
11. Outdoor dining area
12. Gift Shop
13. Cultural Salon Area

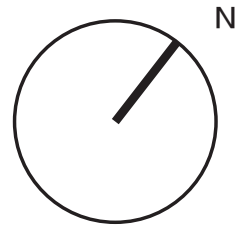




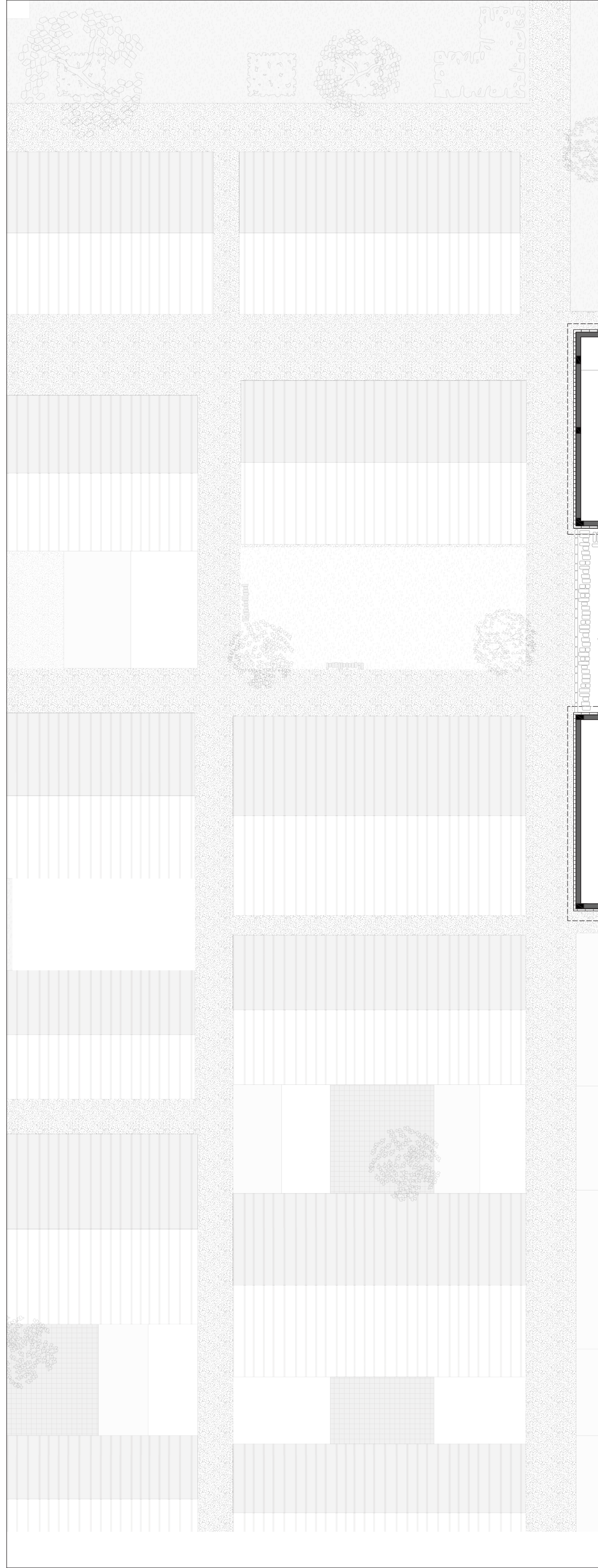




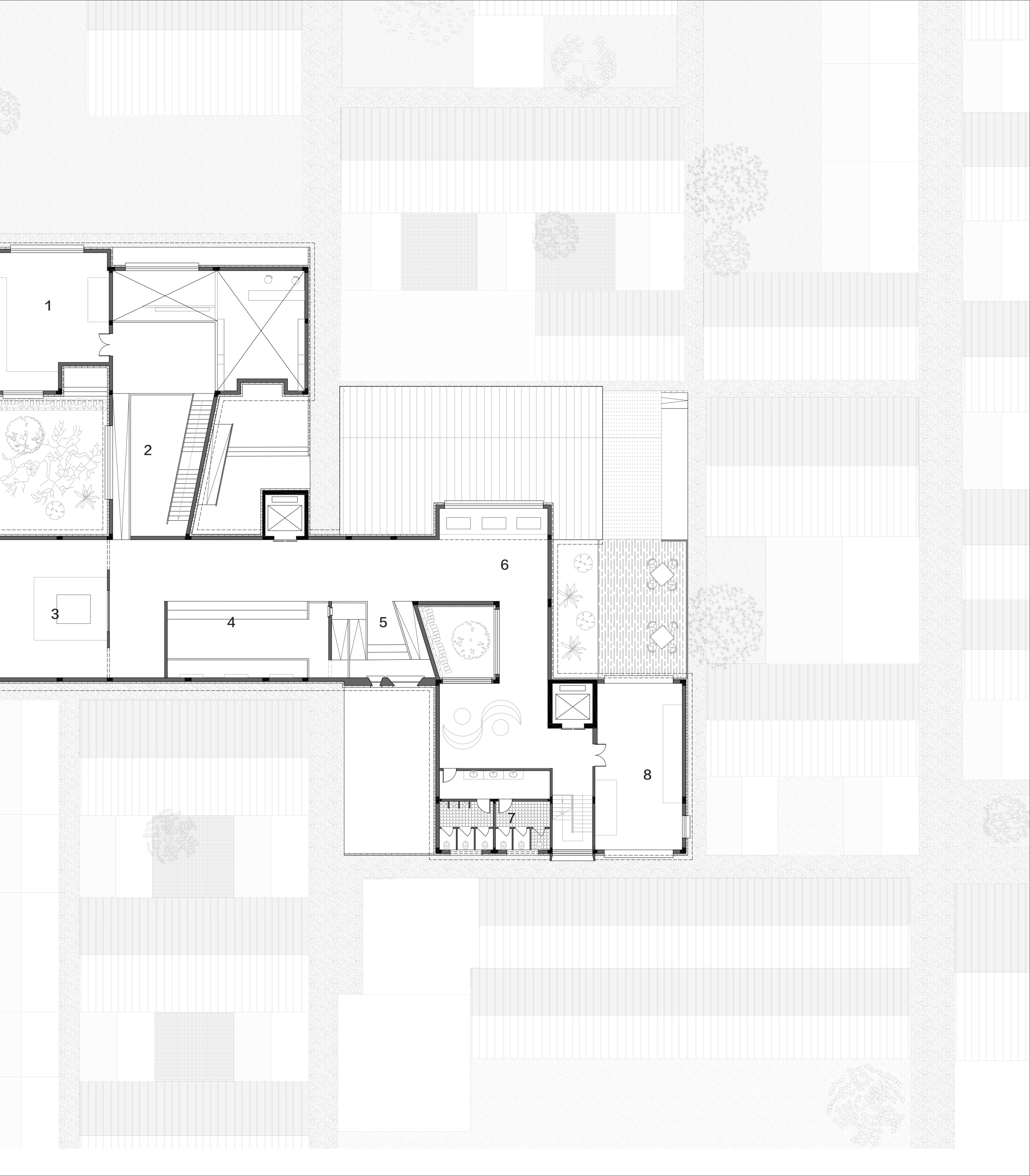
## First floor 1:200



1. Leisure
2. Lime model history exhibition
3. Roof lime model exhibition
4. Door lime model exhibition
5. Viewing platform for traditional buildings
6. Viewing platform for contemporary buildings
7. Toilet
8. Leisure







1

2

3

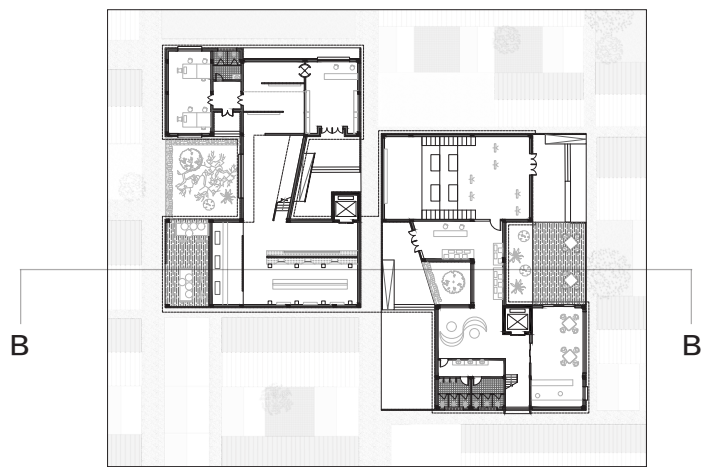
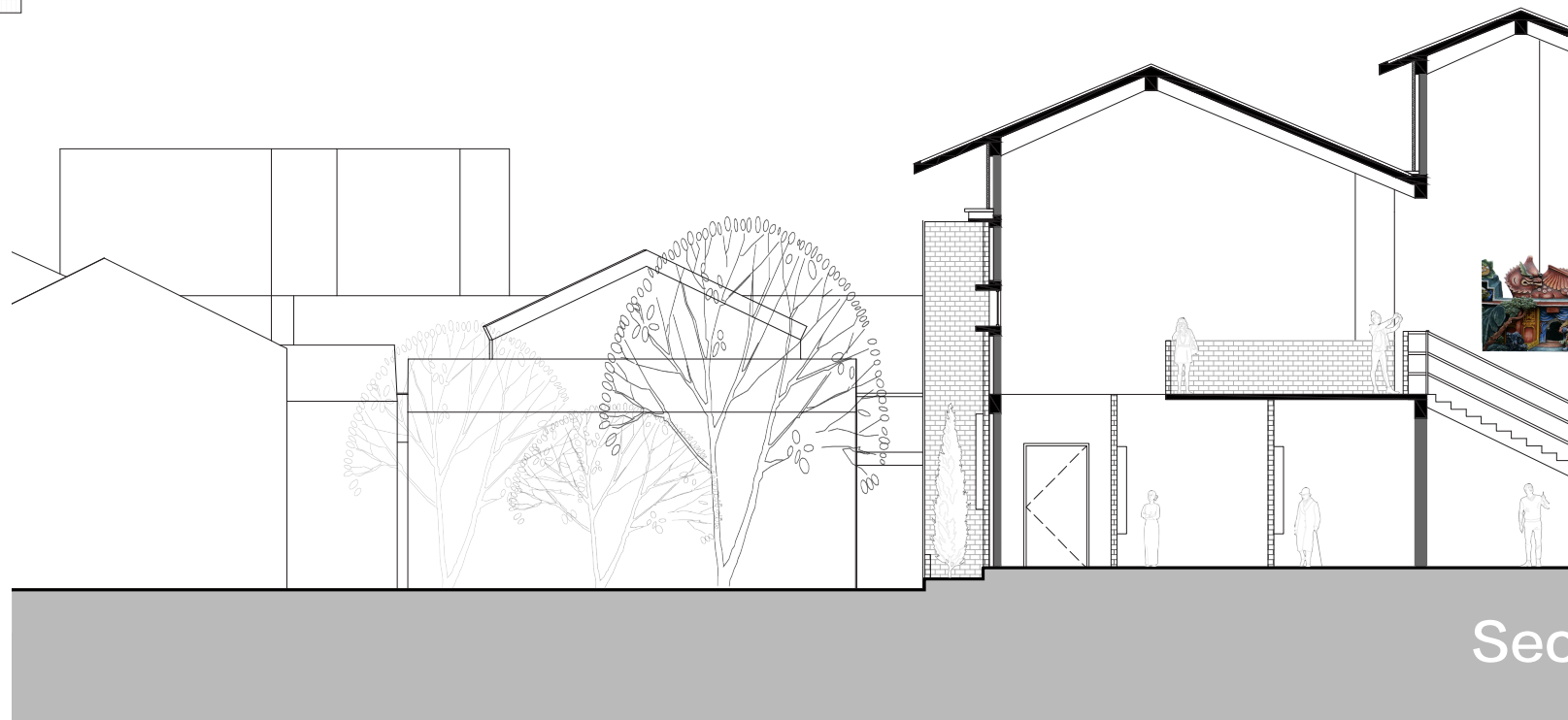
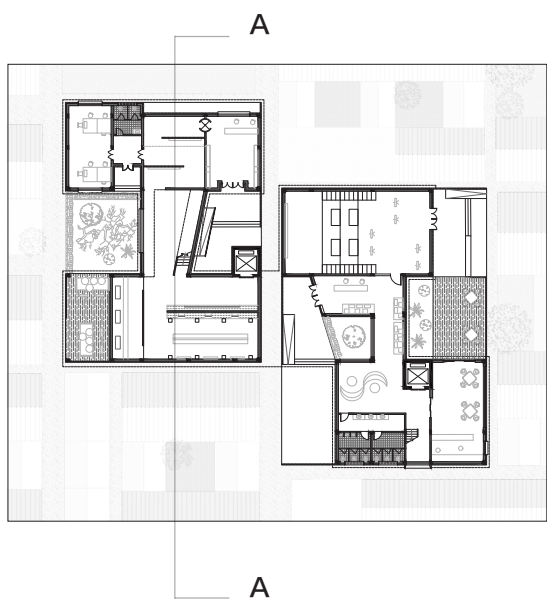
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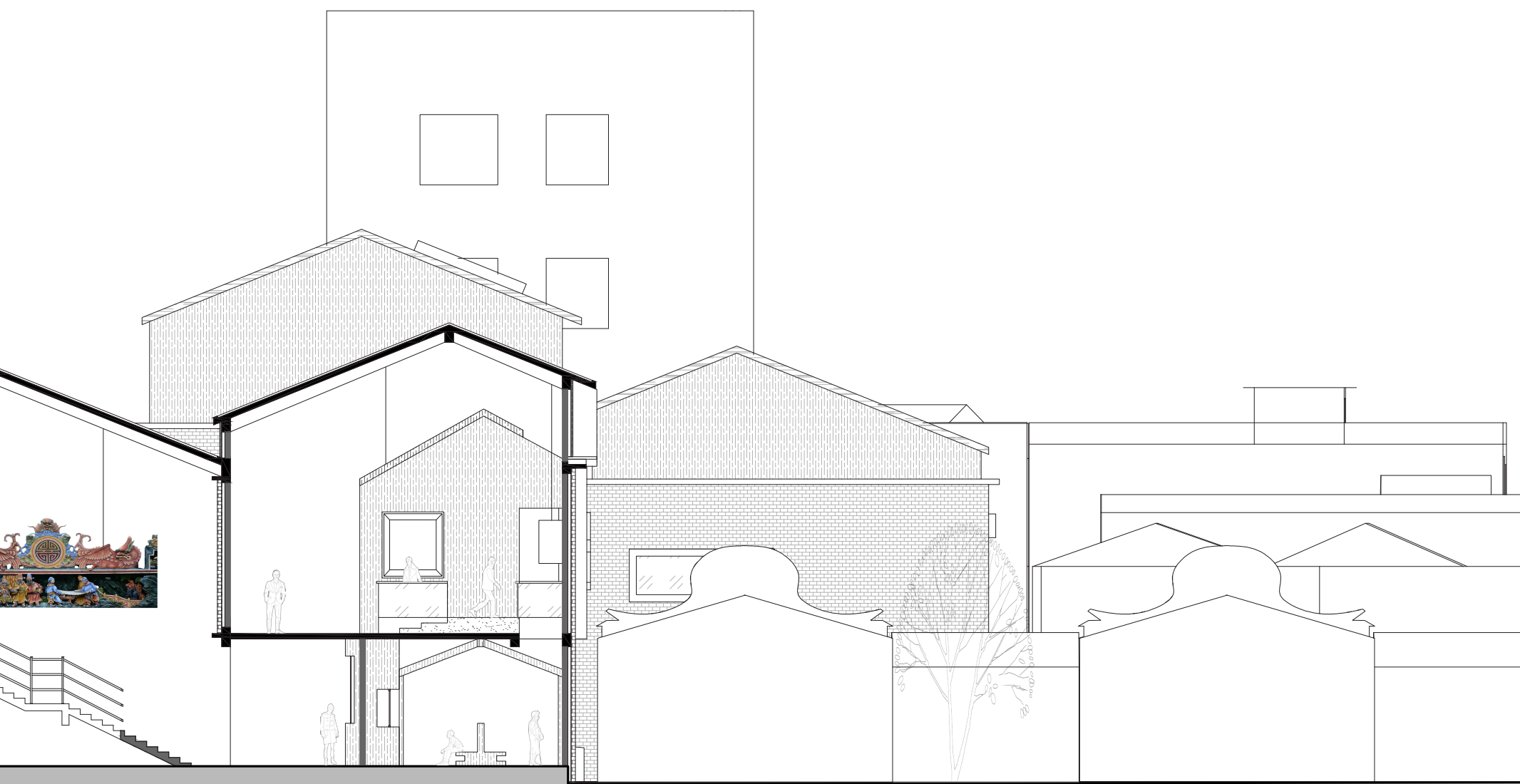
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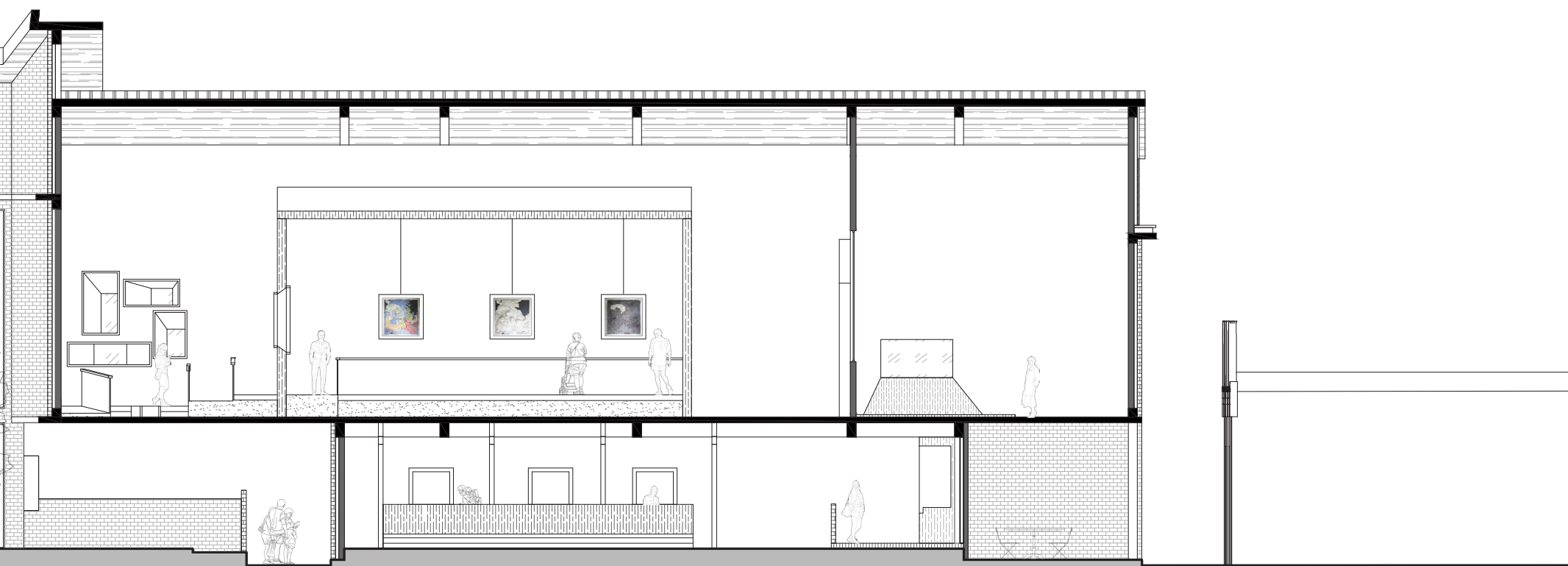
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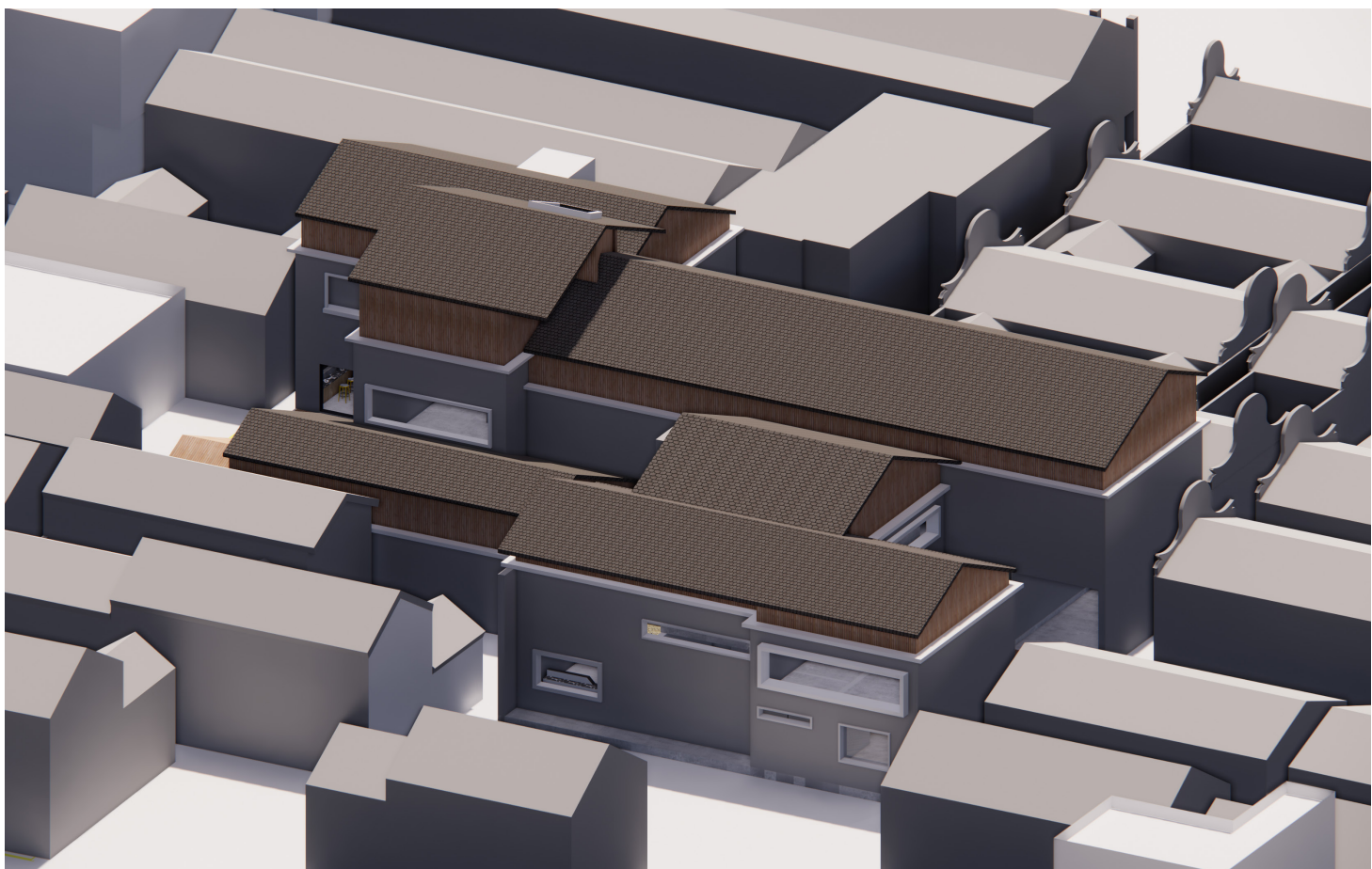
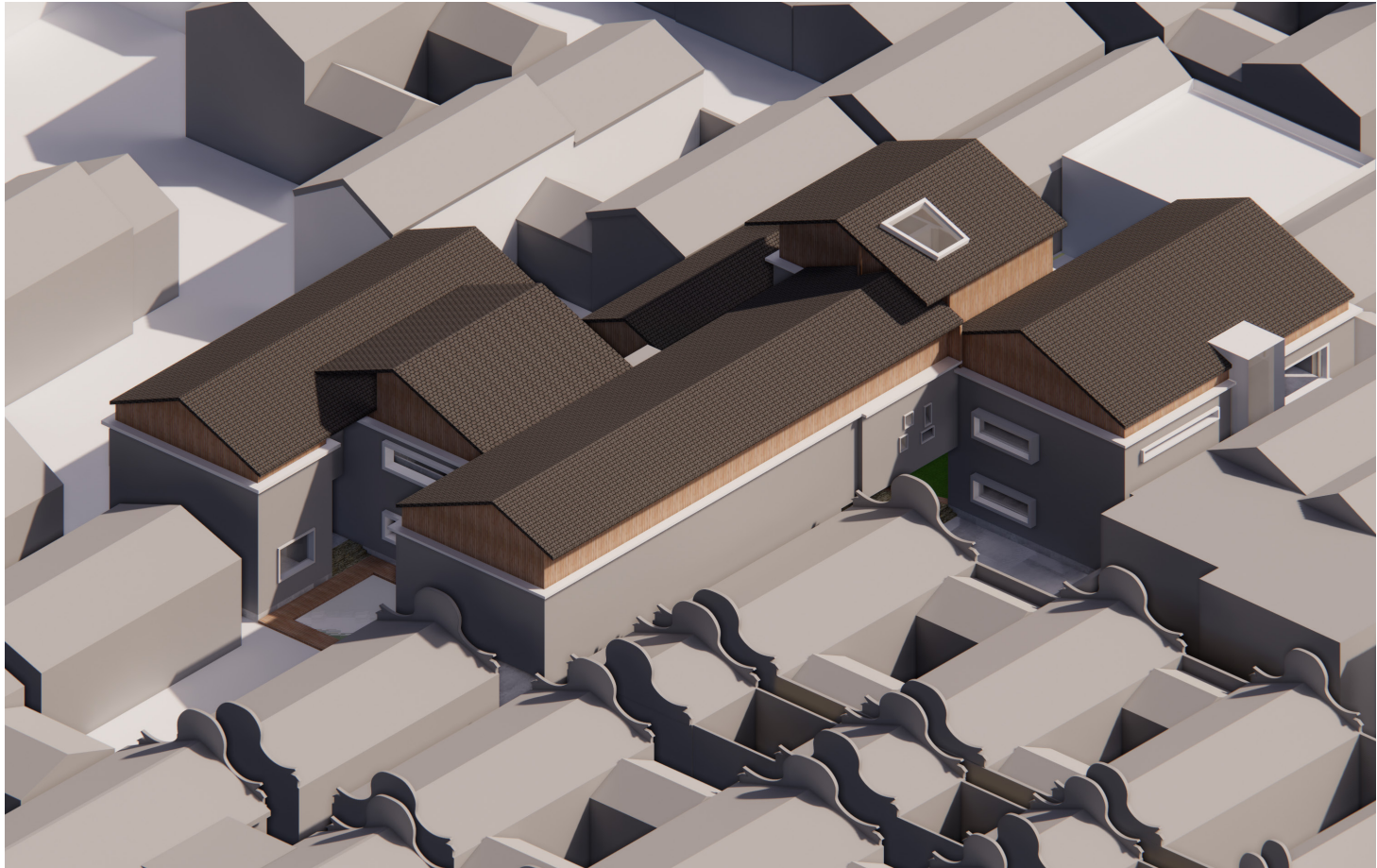




Section A-A



Section B-B



# CONCLUSION

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Gangtou Village, an ordinary Chinese village, faces the same problems as many ancient Chinese villages. The population loss is relatively serious. The outflow of people has caused the buildings and open spaces in the ancestral home area to fall into disrepair or even collapse, causing great safety hazards, and has also led to a fault in the excellent traditional culture. Through the research on the site, the design found that the excellent lime modelling culture can be used as a good local feature to attract foreign residents. The lime model industry can be well used as a product in "O.V.O.P", so four themes of lime modelling are reasonably designed and placed in the ancient village. Secondly, make reasonable planning for the abandoned buildings and open spaces inside the ancient village. "Acupuncture" means to transform a small part of the site to greatly improve the living environment of the village. Abandoned buildings and open spaces in the village were selected as the acupoints that needed to be "acupunctured" and put into lime model for corresponding functions to be transformed. The reconstruction of the entire village revolves around the theme of lime model, using abandoned buildings and open spaces for localized transformation. At the architectural level, the most important building is selected for renovation description. The location of this building in the geographical center of the village and the center of the plaster industry speaks volumes for its importance on the village. The buildings on this site collapsed seriously, and the messy greenery seriously affected the landscape of the village, and it did not conform to the built fabric of the local buildings. The design intends to overthrow and rebuild the building, so how to find the connection with the old building in the new building has become a big challenge. The design echoes the memory of the original site through four aspects, continuing the site texture, site culture, site space, and site materials. Through these four aspects, the new building and the old site create a bond that echoes each other.

As an architect, addressing tourism means designing buildings and spaces that not only meet the functional requirements of the Architecture can tell stories, convey cultural values, and create a sense of place that resonates with visitors long after they have left.

Looking back at the whole design, I think the architect is not only a designer, but also a miscellaneous scholar with various abilities. In this design, for example, the local culture,

population flow and economic factors are taken into consideration while designing the building, and they are solved one by one by means of architectural design. In addition, I learned different knowledge in the design, and I even learned how to make ash sculptures during the preliminary research. Maybe this is the charm of architectural design.



SECTION **D**  
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# ILLUSTRATIONS

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ILL. 37 Human Acupuncture. [online] Available at <<http://www.a-hospital.com/w/%E4%BA%BA%E4%BD%93%E7%A9%B4%E4%BD%8D%E5%9B%BE>>

ILL. 38-39 Li Geda Village Acupuncture Renewal [online] Available at <<https://www.gooood.cn/li-geda-village-acupuncture-type-renovation-by-common-city-architecture-design-consulting.htm>>

ILL. 40 Own illustration

ILL. 41-43 Nomadic space: Wantouqiao township center, China by WCY Regional Studio[online]



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ILL. 44-56 Own illustrations

# ACKNOWLEDGEMENTS

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I would like to express my heartfelt gratitude to my supervisor, Fabris Luca Maria Francesco, and my co-supervisor, Semprebon Gerardo, for their unwavering support, guidance, and encouragement throughout my thesis research. Their expertise, patience, and dedication have been instrumental in shaping my work and helping me achieve my academic goals. I am truly grateful for their mentorship and feel privileged to have had the opportunity to work with them. I would also like to extend my sincere appreciation to Politecnico Di Milano for providing me with a postgraduate opportunity to learn and grow. The knowledge, skills, and experiences I have gained during my time here have been invaluable, and have helped me to become a better researcher and a more informed citizen. I am grateful for the school's commitment to academic excellence, and for the opportunities it has provided me to travel and learn more about Europe. Furthermore, I would like to express my deepest appreciation to my family and Ms. Xu Shuchen, for their unwavering love, support, and encouragement throughout my academic journey. Their sacrifices, patience, and understanding have been the cornerstone of my success, and I am truly grateful for their constant presence in my life. Their love and encouragement have kept me motivated and focused, and I could not have achieved my goals without their support.

This is the end of my post-graduate architectural journey in Europe, but my career as an architect is starting to kick off.







