

Reinventing Beijing Courtyard House

Siheyuan

四合院

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Index

Part I. Beijing 北京

- 1.1 The architecture development of china 中国的建筑发展
- 1.2 The city development of Beijing 北京的建筑发展
- 1.3 Conflicts between city development and conservation of historic buildings 北京的建设与传统建筑的冲突

Part II. The culture of Hutong (local alley) 北京的胡同文化

- 2.1 The origin and the history 胡同的起源与历史
- 2.2 Strengths & Weaknesses 胡同发展的优劣势

Part III. The enclosure courtyard (Siheyuan) 四合院

- 3.1 Overall configuration 总体格局
- 3.2 Each elements (buildings) 单体建筑

Part IV. The traditional culture 传统文化

- 4.1 Fengshui 风水
- 4.2 Traditional culture & Modern society 传统文化与现代社会

Part V. Reinvent Beijing courtyard house Siheyuan

- 5.1 Location and transportation analysis
- 5.2 Site photo survey
- 5.3 Individual site design

Abstract _English

Beijing is a historical city and a gathering place of multiculturalism. Time pasts, Beijing's architectural style blends traditional Chinese architecture with various architectural styles around the world. Hutong and Siheyuan, as representatives of traditional Chinese architecture, showcase the characteristics of traditional Chinese dwellings. At present, the traditional courtyard houses have been greatly challenged. Due to the development of science and technology and the progress of society, the traditional courtyard houses can no longer meet the needs of modern life. Parking, electric cable, and various modern facilities do not fully enter the courtyard. Coupled with the various needs of modern people, the surrounding infrastructure is not fully compatible. Some residents have moved out to the modern community because of the demolition of the courtyard, while some of them have stayed, continue to live here.

Traditional culture is worth retaining and learning. The culture of the courtyard is a part of traditional culture, which is a good interpretation of Chinese traditional culture: close interaction with the neighborhood and good privacy. Today, we have the opportunity to help to change this situation.

Abstract_Italiano

Pechino è una città storica e un luogo di incontro multiculturalista. Il tempo passa, lo stile architettonico di Pechino fonde l'architettura tradizionale cinese con vari stili architettonici in tutto il mondo. Hutong e Siheyuan, come rappresentanti dell'architettura tradizionale cinese, mostrano le caratteristiche delle abitazioni tradizionali cinesi. Allo stato attuale, le tradizionali case a corte sono state molto sfidate. A causa dello sviluppo della scienza e della tecnologia e del progresso della società, le tradizionali case a corte non possono più soddisfare le esigenze della vita moderna. Il parcheggio, il cavo elettrico e vari servizi moderni non entrano completamente nel cortile. Accoppiato con le varie esigenze delle persone moderne, l'infrastruttura circostante non è pienamente compatibile. Alcuni residenti si sono trasferiti nella comunità moderna a causa della demolizione del cortile, mentre alcuni di loro sono rimasti, continuano a vivere qui.

La cultura tradizionale merita di essere mantenuta e appresa. La cultura del cortile è una parte della cultura tradizionale, che è una buona interpretazione della cultura tradizionale cinese: una stretta interazione con il vicinato e una buona privacy. Oggi abbiamo l'opportunità di aiutare a cambiare questa situazione.

Part I

Beijing

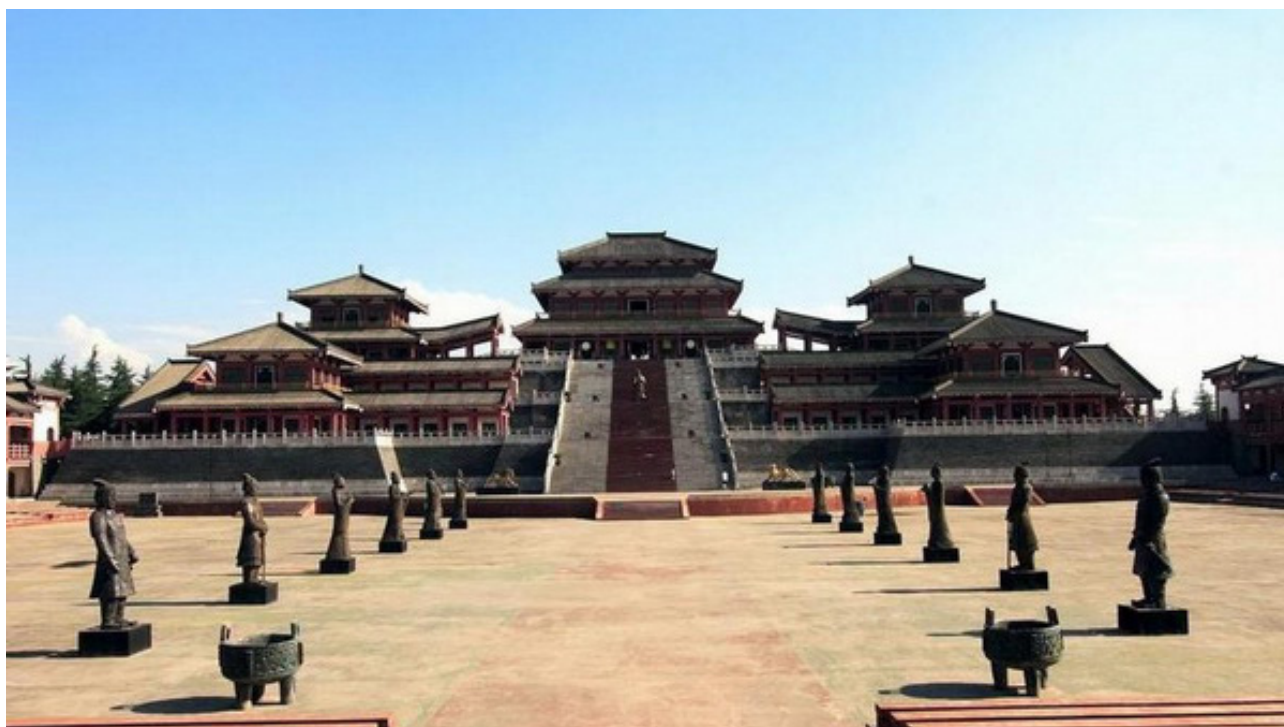
北京

1.1 The architecture development of china



The first climax

In 221 BC, after Emperor Qin Shihuang invaded Han, Zhao, Wei, Chu, Yan and Qi Liuguo, he established a centralized empire and used the workers and material resources of the country to build capitals, palaces, and mausoleums in Xianyang. Today, from the ruins of the A Pang Palace and the large-scale Terracotta Warriors and Horses on the eastern side of the Shi Huang Mausoleum, it is possible to imagine the majestic architecture of the time. In addition, it also built countless roads heading to all over the country and built the Great Wall to prevent the Huns from going south and digging the Lingqu Canal to transport water. In these huge projects, thousands of civilians were compulsory to work by hands. The Qin Empire finally overstretched its luxuries. In the end, people's power makes it end.



After the Han Dynasty succeeded to the Qin Dynasty, after about half a century of recuperation, it entered the large-scale construction period. Liu Wu, the Emperor of Han Dynasty, successively constructed the Great Wall on a large scale five times to open up the Silk Road to West Asia; he also built the Gui Palace in Chang'an City, which was bright. Jian Zhang Palace in the southwestern suburbs, Shanglin Garden. At the end of the Western Han Dynasty, Mingtang also built on the southern outskirts of Chang'an. The Eastern Han Dynasty Emperor Guangwu Liu Xiuyi built Luoyang City and its palaces on the site of the Eastern Capital City.



During the five hundred years of the Qin and Han dynasties, due to the unity of the country and strength of the country, the Chinese ancient architecture had its first climax in its own history. The timber frame of its structural body has matured, and brawls commonly used on important buildings. The forms of roofs diversify. The ancestral hall, the Xieshan, the hanging hills, the cusp peaks and the domes have all appeared, and some have been widely adopted. New developments make in the construction of brick and masonry structures and arch vouchers.



Sustainable development and Buddhism

In the Jin Dynasties, the Northern and Southern Dynasties was a period of great national integration in Chinese history. During this period, the traditional architecture continued to develop, and Buddhist architecture showed up. After the unification of China in the Western and Eastern Jin dynasty, the "Chaos of Eight" invaded. Several ethnic minority leaders were at the border of the northwest, and they led the way to the Central Plains. They established more than a dozen regimes and known as the sixteen-nation period. In 460 AD, the Northern Wei unified North China and then split again. In the south, Jin moved south to establish the Eastern Jin Dynasty regime, followed by the Song, Qi, Liang, and Chen dynasties. This is the history of the Southern and Northern Dynasties. Since then, the socio-economic development of the South and North of China has gradually recovered. The capital of the north built in Luoyang in the North Dynasty and Jiankang City built in the South. These capitals and palaces all built based on previous generations, and their scale was far less impressive than Qin and Han.



The Buddhism introduced to China in the Eastern Han Dynasty and developed at that time. The North and South regimes built Buddhist temples. For a time, Buddhist temple towers prevailed. According to the records, more than 30,000 Buddhist temples built in the Northern Wei Dynasty, and 1,367 monasteries were built in Luoyang alone. Jiankang, the capital of the Southern Dynasty, also built more than 500 Buddhist temples. In many areas, cave temples have been drilled and statues have been carved. Important cave temples include the Datong Yungang Grottoes, Mogao Grottoes in Dunhuang, Maijishan Grottoes in Tianshui, Longmen Grottoes in Luoyang, Tianlong Mountain Grottoes in Taiyuan, South Peak of Xiangshan Mountain and North Xiangtang Mountain Grottoes. This enabled the Chinese architecture of this period to incorporate many forms and styles of architecture from India and West Asia.

The second climax

The architecture of the Tang dynasty not only inherited the achievements of previous generations but also integrated external influences into an independent and complete building system, pushing the ancient Chinese architecture to a mature stage and spreading it far to influence North Korea and Japan.

Although the Sui Dynasty was a short-lived dynasty that was less than forty years old, it was quite effective in architecture. It built the capital Daxing City, created the Luodu of the East, and operated the Jiangdu in the lower reaches of the Yangtze River. The excavation started in Yuhang in the south, Dalai County (Beijing) in the north, Jiangdu in the east, and Changan in the west. It was a 2,500-km Grand Canal. It also used millions of people to build the Great Wall. During the Sui Dynasty (605 ~ 618), the famous craftsman Li Chun built the world's oldest open-ended shoulder bridge, the Dashiqiao Anji Bridge, in Zhaoxian County, Hebei Province.



In the early Tang Dynasty, after more than one hundred years of steady development, the economy was prosperous, the national strength was strong, and the territory was far expanding. It reached its peak in the period of Kaiyuan and Yuan Dynasty (714-741). In the capital city of Chang'an and Luoyang, the capital of the east, construction of large-scale palaces, courts, and government offices continued. In the country, there had many famous local cities, commercial and handicraft cities such as Guangling (Yangzhou), Quanzhou, Hongzhou (Nanchang), Mingzhou (Ningbo), Yizhou (Chengdu), Youzhou (Beijing), Jingzhou (Jiangling).), Guangzhou and so on. Due to the development of industry and commerce, there had many new changes in the layout of these cities.

The Tang Dynasty built a large number of pagodas and Taoist temples in the capitals, local cities, and towns, inherited the previous generations of stone cave temples and preserved the famous Wutai Mountain Foguang Temple Hall, Nanchan Temple Fo Temple, Xi'an Ci'en Temple Big Wild Goose Pagoda, and Jifu Small Temple. The Wild Goose Pagoda, Xing Xuan Temple Xuanzang Pagoda, Dali Qianxun Tower, and some cave temples. During this period, construction technology had developments that were more recent. The timber frame was able to use the material properties correctly. The architectural design was to use the standard of "wood" as the timber frame design, drawing and managing the creation of officials.



Song, Liao, Jin

The Development of Buildings in the Song, Liao and Jin Dynasties and the Enactment of "Building formulas"

Since the late Tang Dynasty, China had entered a period of three hundred years of divided warfare. First was the replacement of the five dynasties of the Liang, Tang, Jin, Han and Zhou dynasties and the separatist of 10 local regimes. Then it was the Song and Liao, the Jinnanbei confrontation, As a result, China's social economy greatly damaged, and buildings fell from the peak of the Tang Dynasty. There was no longer a large-scale capital city and palace in Chang'an. Due to the development of commerce, handicraft industry, urban layout, construction technology and art, there had been many improvements and breakthroughs. For example, the city gradually evolved from the previous generation of the Lifang system into a street-level shop and a street layout. In terms of construction technology, the early Liao Dynasty inherited the characteristics of the Tang Dynasty. In the later period, the Jin Dynasty and the architecture inherited the characteristics of the Liao and Song Dynasty and developed. In terms of architectural art, since the Northern Song Dynasty, the momentum of the Tang Dynasty's grand and magnificent development had shifted toward delicate development, and architectural decoration had also become more sophisticated.

In the second year (1103) of the Northern Song Chongning, the imperial court issued and published the "Building Formulas". This was a specification book on architectural design and construction. It was a complete book on building technology. The purpose of the publication was to strengthen the management of official buildings such as palaces, temples, government offices, and government offices. The book summarized the experience of building technology since the ages and formulated the building modulus system that used the material as its ancestor. The limits to the construction of the building were strictly limited as a criterion for budgeting and construction organization. The publication of this book reflected that the ancient Chinese architecture reached the Song Dynasty and reached a new historical level in terms of engineering technology and construction management.

Last climax

The Yuan, Ming and Qing dynasties ruled China for more than 600 years. In addition to the end of the Yuan Dynasty and the late Ming Dynasty, the period of the Ming and Qing dynasties maintained the unity of China. As the development of ancient Chinese society had ended, socio-economic and cultural development was slow, so the history of architecture can only be the last development boom. In the Yuan Dynasty, most of the buildings and palaces built. In the Ming Dynasty, Beijing built in the south and north. In terms of architectural layout, it was more mature and reasonable than the Song Dynasty. The construction of imperial courts and private gardens during the Ming and Qing Dynasties was a climax to the creation of gardens in Chinese history. The construction of Lamaism architecture was entirely due to the political needs of the Qing court. At one time, Mongolia, Tibet, Gansu, Qing, and other places were widely used to build Lama Temple. There were only 11 places in Chengde. These temples were large and beautifully made. They were an odd type in the history of ancient Chinese architecture. Since the late Ming and Qing dynasties, many architectural masterpieces had been preserved so far, such as the palaces of the capital, the emperors' tombs of the two dynasties, gardens, Buddhist temple towers throughout the country, Taoist temples, and Civil residences, city buildings, etc., had become the glorious history of ancient Chinese architectural history.

1.2 The city development of Beijing

Beijing is a world-famous historical and cultural city with profound cultural heritage. For many years, tourists have come to Beijing to visit the Forbidden City, the Temple of Heaven, the Summer Palace, and the Ming Tombs. These attractions mainly represent the royal culture. At the same time, the folk culture represented by "Hutong" also attracts many tourists.

As the capital city of China, Beijing has integrated not only northern and southern culture but also mixed with Asian and European culture. From ancient time, Beijing was built as a control base to fight with Mongolian. After Yuan dynasty, Beijing as a capital city accommodates the people come from all around the world. As a political center of the country, Beijing has displayed a variety of foreign cultures. It is worth noting that Western culture featuring Christian culture entered Beijing for the first time in 1305.



1.3 The conflicts between city development and conservation of historic buildings

Ancient Chinese architecture reflects the connotation of ancient cultures and profound philosophical thoughts, while contemporary architecture usually embodies the symbol of a rapid development of the times. Today, with the acceleration of China's construction, economic development, rural modernization, and expansion of transportation networks, historical buildings are at the crucial point. Many of the traditional building has been demolished because they lack maintains, at the same time, they don't have heritage value.

The traditional Chinese building is built by wood and bricks. Due to the construction material, it's easy to construct but also easy to corrode.

Beijing is a historical city and a concentrated place of multiculturalism. It brings a variety of cultural and architectural styles. Following the pace of history, today we are developing Beijing not only to cater to history and culture but also to advance with the times and develop a new culture of distinctive architecture belonging to Beijing.



Part II

The culture of
Hutong

Local Alley

北京的胡同文化

2.1 The Origin & The History

Hutong, named from Mongolian “gudum”, means the water well. In 1206, Genghis Khan united many of the nomadic tribes of Northeast Asia and established the empire “Mongol Empire”. In 1260, Kublai Khan became the fifth emperor of Mongol Empire, and in 1271 capital in Han’s Dadu (now Beijing), established Yuan dynasty.

The Beijing Hutong’s culture is much more than the context of the city and the road for traffic. It is also a place where ordinary citizens live in Beijing and an important stage for the development of the history and culture of Beijing. It notes the changes in history. At first glance, Beijing's alleys are gray walls and grey tiles. Actually, as long as you are willing to work on it and walking through a few hutongs, and talk to some old residents for a while, you will find that each Hutong has its own story. The experience, the joy, the timelines, and the rich cultural atmosphere are like a museum full of folk customs, which has imprinted people's stamps on various social lives. Among them, there are places of interest everywhere. In the Hutongs, you can find a lot of bricks have hundreds of years of history. From the courtyards, you can see the lives of Beijing residents, their lifestyles, interests and neighborhood relationships.





Somebody call "Hutong" or "Courtyard" culture as the traditional culture of Beijing, it's somehow right. Most questions have been asked by the tourists is "Where is the Hutong".

Hutong begins at Yuan dynasty, they have the history as long as the city of Beijing and reached the peak amount as more than 6000. Normally the main roads are for carriages, they are 24 steps wide (37.2 meters) and lead North-South. The secondary roads are 12 steps wide (18.6 meters). Hutong is mostly leading East-West, they are narrow, 6 steps wide (9.3 meters) designed for people walking only. Courtyards located on North sides of Hutong.

A lot of the Hutongs are less than 9 meters wide, they are the gap between the courtyard houses. All the Hutongs look similar but the specialty is quite different, they are not only the veins of the city but also the place where people living. Pekingese have such a special emotion with Hutong, it's the entrance to your home, it's also a museum of folk customs, to memorize the living society.

Hutong is normally close to the downtown, but it's not that noisy and crowded because there are not so many people walking by, that we call it "a quiet place in the noise". Hutong also connects the neighbors very well because they can meet each other every day.

2.2 Strengths & Weaknesses

Some of the Hutongs are in a quite good condition. For example the Hutong around "DongJiaoMinXiang" area, they have a beautiful environment, quiet and clean, well preserved the heritage of ancient culture. The per capita living area is large, Hutongs are wide enough to pass the cars, most of the inhabitants here are satisfied with the living condition here and they don't want to move to apartments.

The advantages of traditional Hutong is obvious :

First, it holds a very close relationship with the neighbors. The crucial point causing them not moving is the relationship. Most of the residents in Hutong belong to the same social class and their living conditions are similar. And because the living space is small, it is easy for neighboring families to have close-knit emotions.

Second, it has a strong cultural atmosphere. Hutong starts from the Yuan dynasty in the 13th century, they passed more than eight hundred years. Hutongs surround the forbidden city and full of places of interest, they recorded the history of the city.



But most of the hutong are unsatisfied, some of them even in a very bad condition. Because the buildings are so old, there are a huge amount of problems happening.

First, the infrastructures, there is no private bathroom and toilet. Some of the old Hutongs are broken and lacking public infrastructures, especially there is no water system, so all the people living there have to wash the foods by sharing one water tube. Also, the tourists use the toilet very usually, so that the local inhabitants have to wait sometimes. It's very inconvenient for elder people.

Second, the leaking roof. When it's raining, residents will have different kinds of dripping and wall peels. "The buildings are broken like artifacts, we don't wanna touch it," said by an inhabitant. Because the people living here are poor, they have no money to repair the building. Once they want to fix it by themselves, the building itself is so fragile that they can't avoid the accidents happen.

Third, the messy courtyard. Following the increase of the population, Siheyuan has been reconstructed and changed so far. Demolishing walls, constructing new floors, stacking daily items make the courtyard so small that can't even walk sometimes.

Fourth, the incomplete drainage system. There are people hired to clean Hutongs by time, but still, stagnant water happens after rain. Most of the people living in Hutong are the lowest social class, they are very poor and having a huge distance from modern life. They don't want to spend money on fixing the buildings. Not only the young teens but also the people who live here for whole life want to move.

Fifth, the absence of the markets. The market is one of the most important element for us in daily life, but they are absent in old Hutongs. There are only some small shops that you can buy few vegetables and fruits. It spends a half day to go to a proper market and buy enough stuff. Elder people cannot afford too much weight so they have to go very often, it's a waste of time.

The transportation is also a big problem. Coming with the improvement of the quality of life, cars become one of the most convenient tools for people. But the parking lot is absent in Hutong, the residents park there cars in the narrow Hutong let the Hutong becomes narrower. When the cars come from the different direction, it will block all the people and cars behind. It's even worse during the rush hours.

On the other hand, the commercialization also disturbing the residents. Hutong should be a very quiet place for people living. However, because of the propaganda of the Hutong culture in recent years, it has attracted numerous visitors from all over the world. With the opening of shops, the number of tourists is increasing, so the noise becomes a huge problem. Some of the tourists can't figure out which are the shops and which are the residents that they will go inside some of the courtyards really disturbing the people living there. Many shops and bars open till very late, the noise and drunk people during the night is annoying.





Current situation



Current situation

Part III
The enclosure courtyard
Siheyuan
四合院

The enclosure courtyard (Siheyuan) is a historical type of residence that was commonly found throughout China, most famously in Beijing and rural Shanxi. Throughout Chinese history, the courtyard composition was the basic pattern used for residences, palaces, temples, monasteries, family businesses, and government offices. In ancient times, a spacious courtyard would be occupied by a single, usually large and extended family, signifying wealth and prosperity. Today, remaining courtyard are often still used as subdivided housing complexes, although many of them lacking modern amenities and facilities.

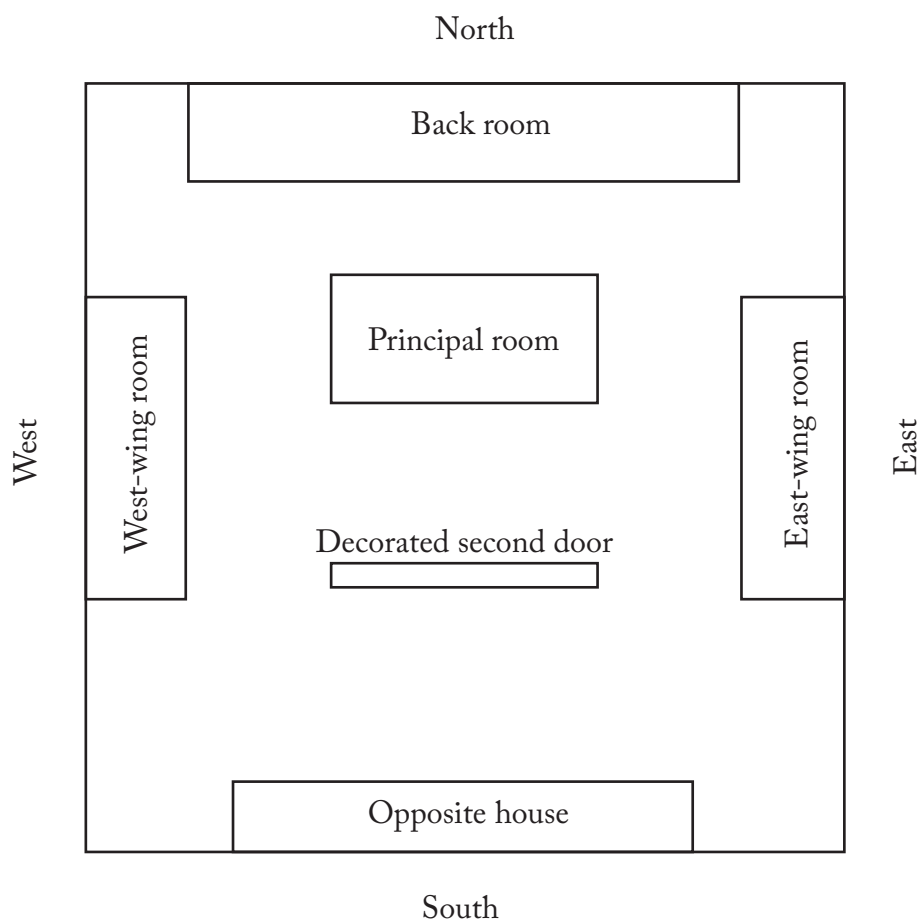
In the old times, courtyard houses basically met the needs of a family's life. At that time, the two depths courtyard houses and the larger courtyard houses were usually the residences of bureaucrats and gentry.

In modern society, on one hand, sanitation facilities such as water and heating system are not presented in the courtyard, and the courtyards have not been continuously improved to meet the needs of automobiles, air conditioners, and other types of equipment. On the other hand, large families such as four generations become rare because of the population control, wealthy people are usually willing to buy villas inconvenient suburbs, rather than living in densely populated urban areas.

3.1 Overall configuration

The courtyard house is located on both sides of the Hutong, Hutong's direction is directly related to the location of the Siheyuan. Hutongs mainly leading the East-West. Expect normal Hutongs, also there are some Hutongs are connecting the East-West Hutongs so they are North-South, and the courtyard houses that located on sides of these North-South Hutongs become facing the West or East.

Because of the geographical location and climatic condition, the best direction to build houses is to make it **located in North and openings facing the South**. The secondary solution is **located in West and openings facing East**, the East and South houses are not considered as a good place to live. As Pekingese said, "don't live in the East or South houses if you are wealthy, they are not warm in the winter nor cool in the summer". So when people building the houses, they will try to place the main building at the north and then build the other building in order.



The core of the northern traditional building is the courtyard (or water well), using the solid external flexible internal principle and the axisymmetric principle to build the buildings. Beijing's Siheyuan as the typical type of northern building presented us an idealized living style. "Si" in Chinese means four, in Siheyuan it means east south west and north as four directions. "He" means close in Chinese, and it means to close the courtyard by four sides of the buildings. And "yuan" means yard. Siheyuan in Beijing has a large inner courtyard, four buildings are independent and they are connected by the corridor, it's very convenient for living.

Typical Siheyuan connect with East-West Hutong, located on the north side and facing the south. The houses are axisymmetrically managed referred to the middle line. The principal house located in the north, both side build with wing rooms, and the south house called opposite house because its door is facing north. After all, surrounded by the high wall without window and having a main door on the southeast corner to achieve enclosed house, only one main entrance facing the Hutong. All the interior doors and windows are facing the interior courtyard, give the courtyard house good privacy.

The courtyard is the center core. The courtyard is very spacious, it's very common to plant some trees in it. Also, people would like to cultivate golden fish in the water tank, it means fortune in Chinese culture. The inhabitants can live in a beautiful place with nature, during the day, the trees and flowers give a gorgeous view. During the night, sitting with the fresh air and the smelling of the flowers, people can have a rest, chat and have some tea, to enjoy the stunning night. Most importantly, when the main door is closed, nobody can see what is going on inside the courtyard house, it becomes an isolated place. This is consistent with the characteristics of the Chinese.



Except for the classification of the directions, there is also the depth classification. From the basic type which is the one depth courtyard, up to the classic type with three depth courtyard, and it can go even deeper. Imagine the forbidden city as the biggest Siheyuan system, then you can understand how the owner develops the courtyards to show the wealth.

The construction of Siheyuan is quite simple and easy. There is no steel and concrete, but only wood and brick. The structure of Siheyuan is very flexible, light and anti-seismic.

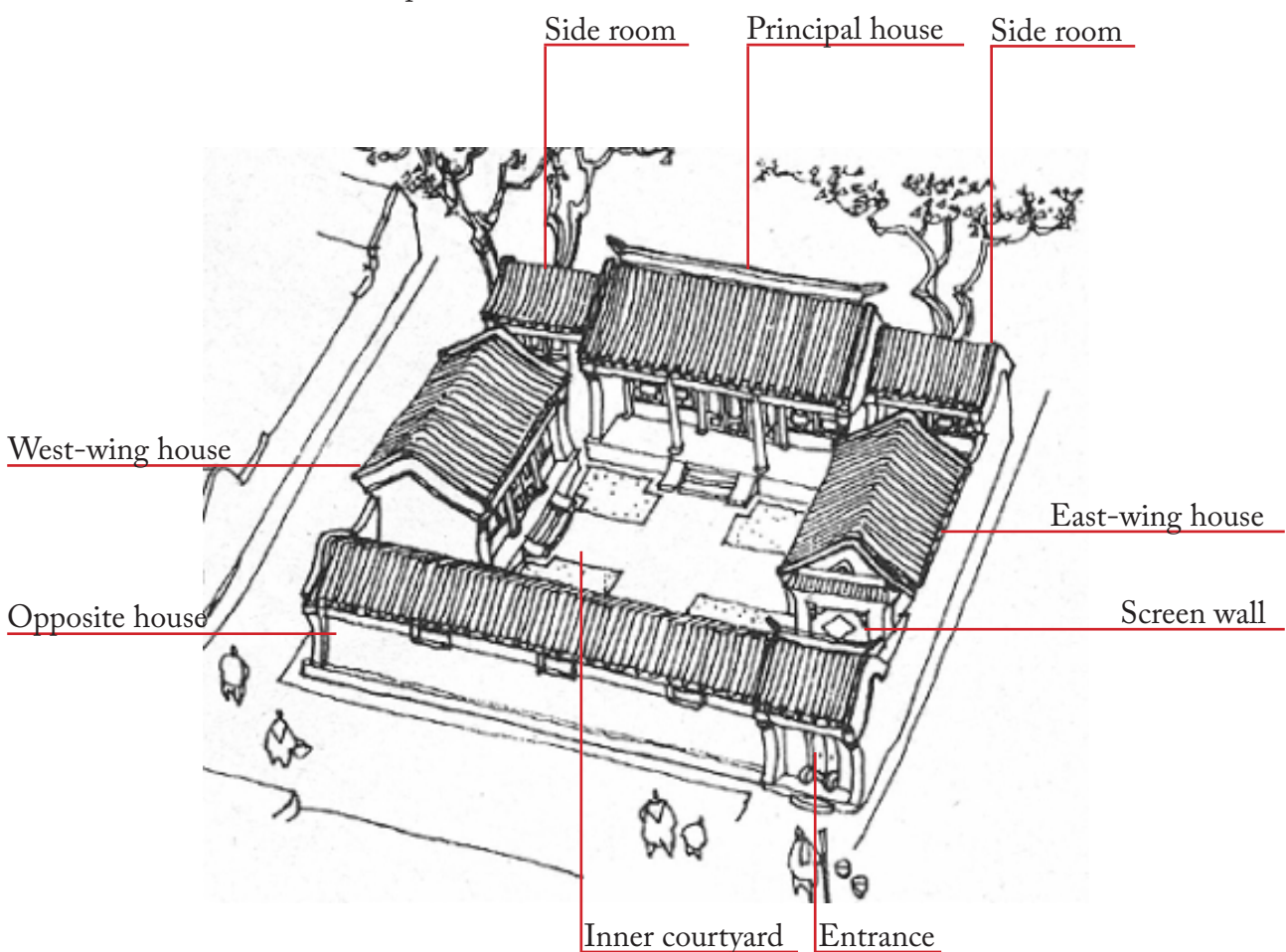


3.2 Each Elements(buildings)

One Depth Courtyard

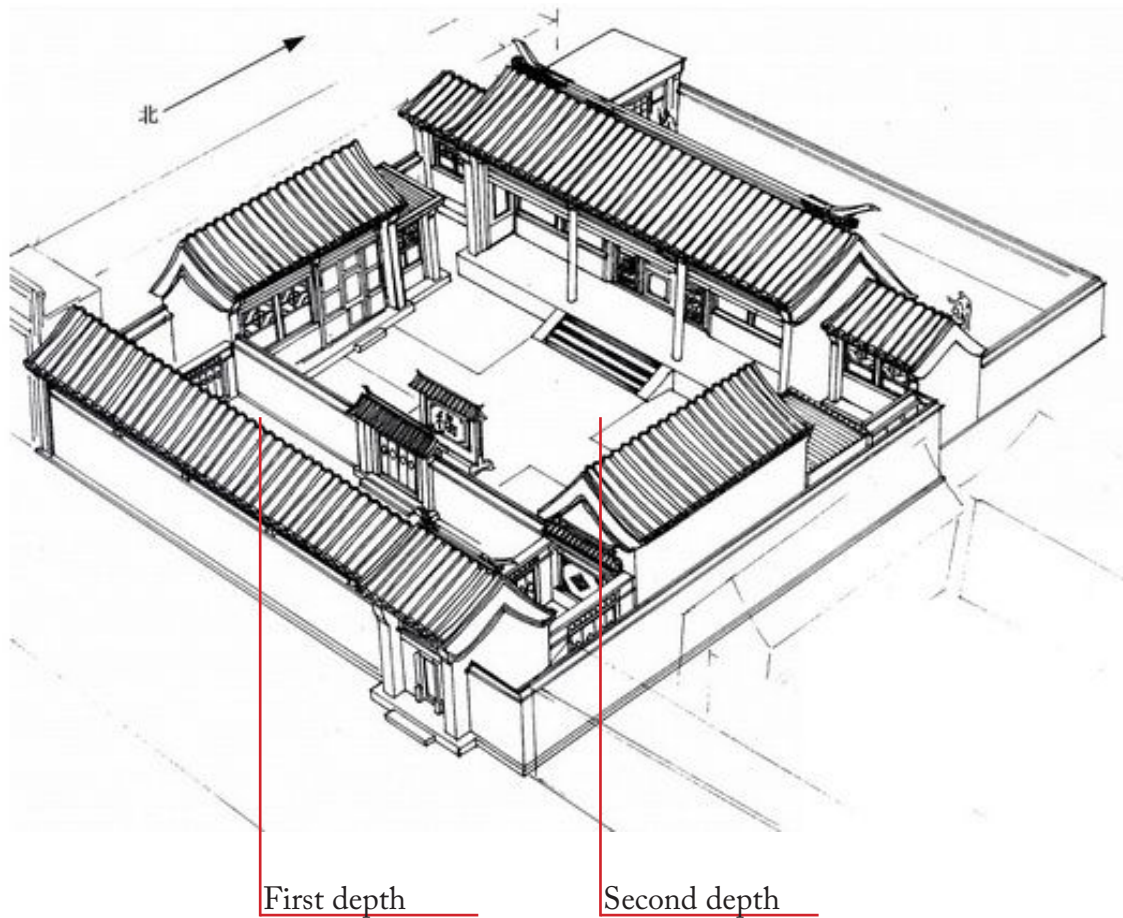
One depth courtyard is the basic type of Siheyuan. There is only one inner courtyard in the courtyard house. It's presented by four sides of the buildings. The north building called the principal house. On both sides of the principal house, there are two side rooms. Then the East-wing house and West-wing house are connected with the two side rooms, finally closed with the opposite house and the screen wall. The opposite house has the same amount of rooms on the north side, so here it has three rooms. But because of the presence of the entrance, the east room will be taken half of the space.

"Depth" is a unit for the courtyard, it can tell how many courtyards do we have inside the Siheyuan.



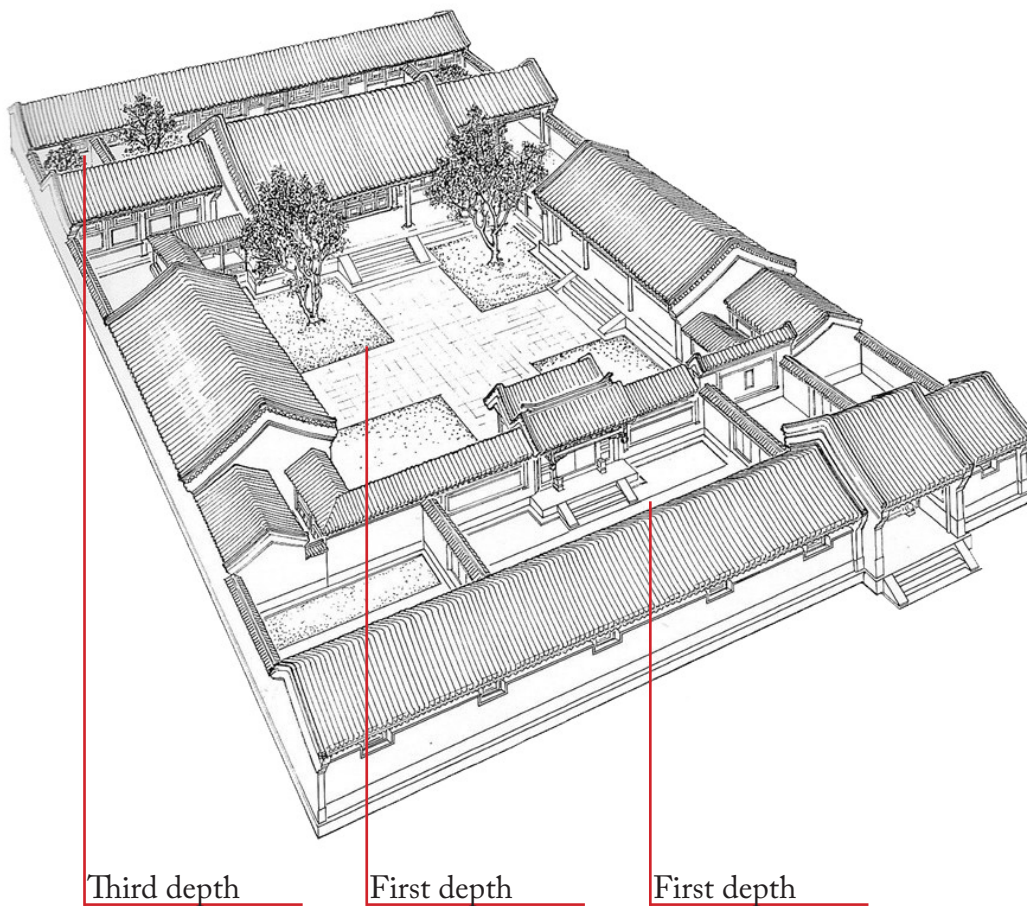
Two Depths Courtyard

Two depths courtyard is vertically enlarged base on one depth courtyard. Usually, they just build a wall **at the end of the wing rooms**, to cut the courtyard by two parts, open with a decorated second door. During the old times, this wall is designed for dividing the owner's family and the servants, it is elegant, also keeps the privacy. There's an old saying "not going out of the main door, not even step on the second door", it says during the feudal period, the girls not married shouldn't show off in front of strangers, most of the times, the girls stay at home as always.

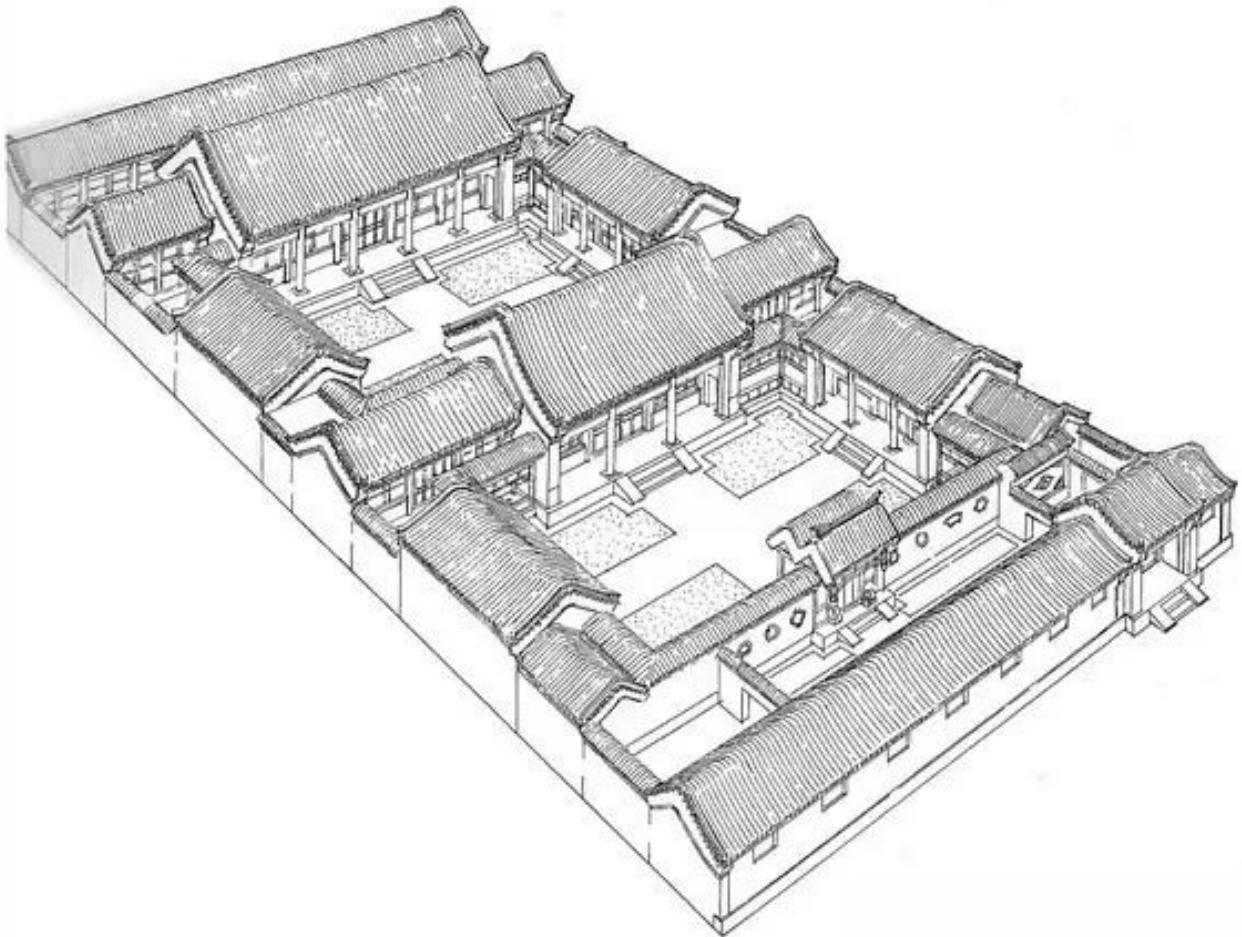


Three Depths Courtyard

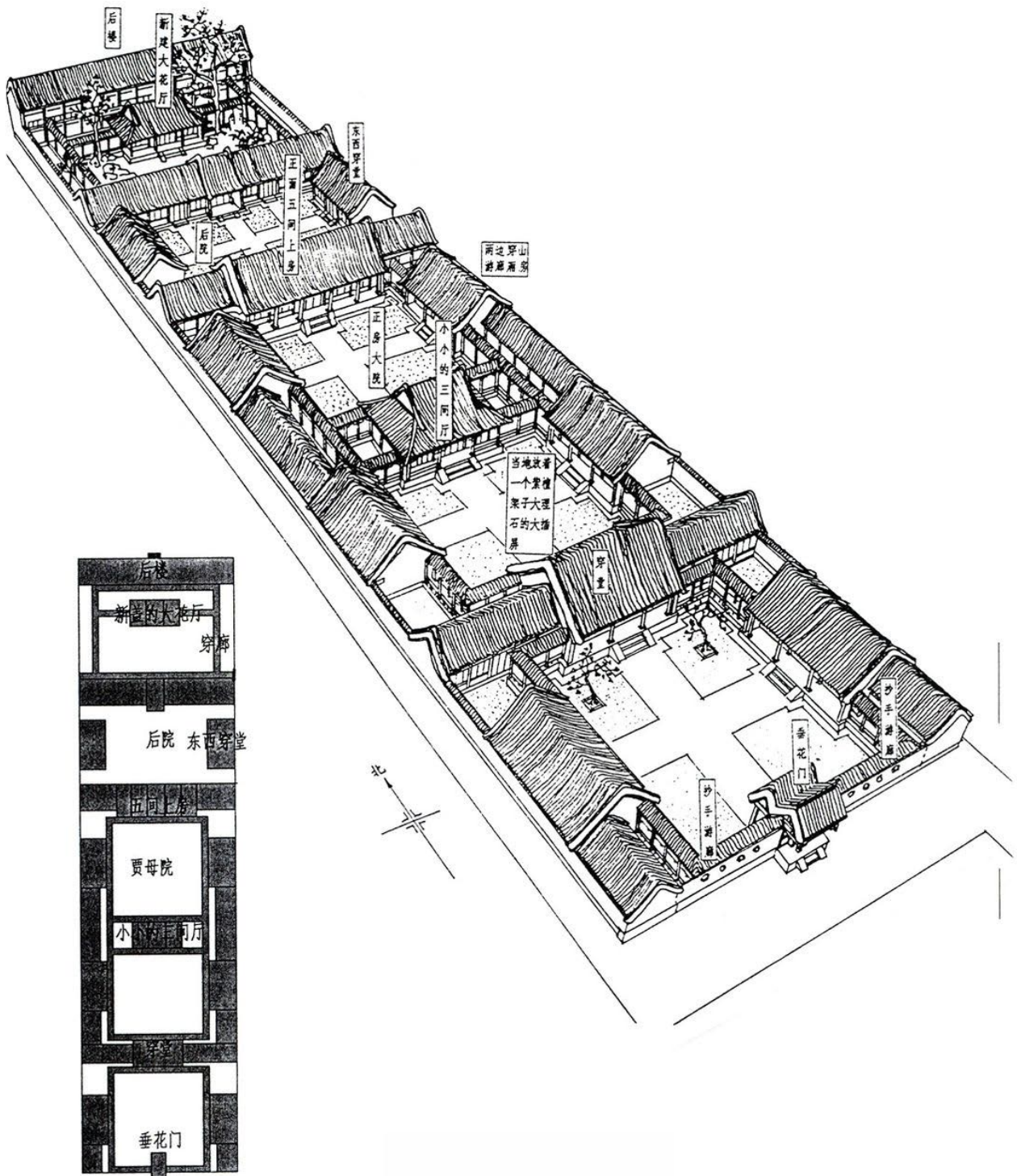
Three depths courtyard is enlarged base on two depths courtyard, which is adding a row of **back room**. The space between the back room and the principal house become to the **backyard**. This place is designed for girls, connects with the corridor on the east side of the side room. Three depths courtyard is claimed as the "typical" or "classic" Siheyuan, anyway, it's already a quite big scale courtyard that not so many people can afford it.



Four Depths Courtyard



Five Depths Courtyard



Part IV
The traditional culture
传统文化

4.1 Fengshui

Feng Shui, one of the traditional techniques, the method of on-site examination of geography, is used to select the palace site, the village site, the construction of cemetery as principles. The original idea is to choose a suitable place for living. The history of feng shui is quite old. In ancient times, feng shui was prevalent in the Chinese culture and was a very important factor in clothing, food, housing, and transportation.

Feng shui means wind and water in Chinese. Its original name is KanYu, means sky and ground. From the name, we can see it's a science about nature. Study wind and water are actually studying the atmosphere.

In Ming dynasty around the 16th century, there is a grandmaster of Feng shui had a tour to Dayu island (now Hongkong) said "What an amazing place, it has a very bright future". From a macro perspective, coastal cities have developed more rapidly than elsewhere. In Asia, Hongkong, Taiwan, South Korea and Singapore are most developed in the 20th century, they have different cultures, different language, and different economic system but they have one common point is they are coastal cities. This coincides with the concept of Feng Shui.

From ancient study to contemporary science, Feng shui has been discussed and studied for a long time, finally the academics and researchers finalized 18 principles of Feng shui.

The principles of Fengshui

An Integrated and Holistic System	整体系统原则
Being Suitable and Appropriate to the Restriction and Limitation of the Site	因地制宜原则
Ecological restoration	生态修复原则
Landscape of architecture	建筑景观原则
Bound by Mountains and Near Water	山水选择原则
Carry the Yin and Embrace the Yang	负阴抱阳原则
Observe the Form and Examine the Configuration	观形查势原则
Examine the Geology of the Land	地质检验原则
Analyze the Quality of Water	水质分析原则
Determine the Amount and the Standard	定量规定原则
Take Advantage of the Atmosphere	顺乘生气原则
Suitably Located in the Middle and Residing in the Middle	适中居中原则
Aesthetic Appreciations	审美原则
Greening the Environment	绿化原则
Feng Shui can be Transformed and Improved	改造风水原则
Yin Yang Dialectics to Achieve Harmony	阴阳调和辩证原则
Being Timely and Affectionate	合时有情原则
Detection to pollution of physical and Chemical	污染检测原则

We marked some of the principles with red just to give an example to understand them, also they are used very often in contemporary society, now let's take a look.

The principle of local conditions

Adapting to local conditions means adopting a lifestyle suitable for nature according to the objectivity of the environment. "Zhou Yi" proposed: "Conformity and stop."

China has a vast territory, huge climate and soil quality difference, so the construction form is also quite different. The north-west region is drought and rare to see the rain, so people use burrow cave dwellings. The caves are mostly south-facing, it's easy to construct, and not take place on the land, it saves materials, it can prevent the fire and also protect people from cold, cool in winter and summer, people are longevity, and chickens lay more eggs. The southwest is wet and rainy, with many insects and beasts, and people live in elevated bamboo buildings. "Old Tang Dynasty Manchu Biography" says: The mountains have poisonous grasses and snakes, people live in the high buildings, climb up the ladder, it called Ganlan (elevated bamboo building). "The ground floor is empty or feeding the animals, and people live upstairs. The air circulation of the bamboo building is cool and moisture-proof. Most of them are built in the mountains and rivers. In addition, the herdsmen in the grasslands use the yurts as houses to facilitate migration along with aquatic plants. The people of Guizhou and Dali (a city in the south of China, surrounded by mountains) built houses using rocks, and the people living in the flatland built houses using the dirt. These architectural forms were all based on the specific conditions of the time.

China is a pragmatic country. Local conditions are the embodiment of practical ideas. According to the actual situation, we must adopt effective and effective methods to make people and buildings suitable for nature, return to nature, and unite nature and humanity. This is exactly what Feng Shui has to offer.

The principle of facing the south

China is located in the northern hemisphere of the Earth, east of Eurasia, and most of the land lies north of the Tropic of Cancer. The sunlight throughout the year is injected from the south. South-facing houses make it easy to take in the sun. Sunshine has many benefits for people: First, it can be warmed. In winter, the temperature of southern rooms is 1-2 degrees higher than that of northern rooms. Second, it is involved in the synthesis of vitamin D in the human body. Children often suffer from sunburn and can prevent rickets. Third, the ultraviolet rays in sunlight have The bactericidal effect; the fourth is to enhance the body's immune function.

Located north and facing south, not only for lighting but also to avoid the wind from the north. China's topography determines its climate is the monsoon. In winter, there is a cold winter in Siberia, and in the summer there is a cool breeze in the Pacific Ocean, the wind direction changes throughout the year. There is a record of the wind in the bones of Oracle. "Historical Law Book" says: "Wind from the northwest, it is in October. The wind is from the north, it's November. The wind is from the northeast, it's January. The wind is from the east, it's February."

There is also a difference of yin and yang between the wind. At the end of the Qing Dynasty, He Guangting's "Geological Corrections" says: "the flatland always have winds, but there is a classification of yin and yang. The wind from the south and the east, they are smooth and warm, so it called YANG wind, so it's no harm. But the wind from the north and west, they are cold and freeze, it called YIN wind" It mentioned avoiding the northwest wind.

In a nutshell, the principle located in the north and facing the south is a recognition of natural phenomena, follow the natural to maintain the body and to uplift the mind and the spirit.

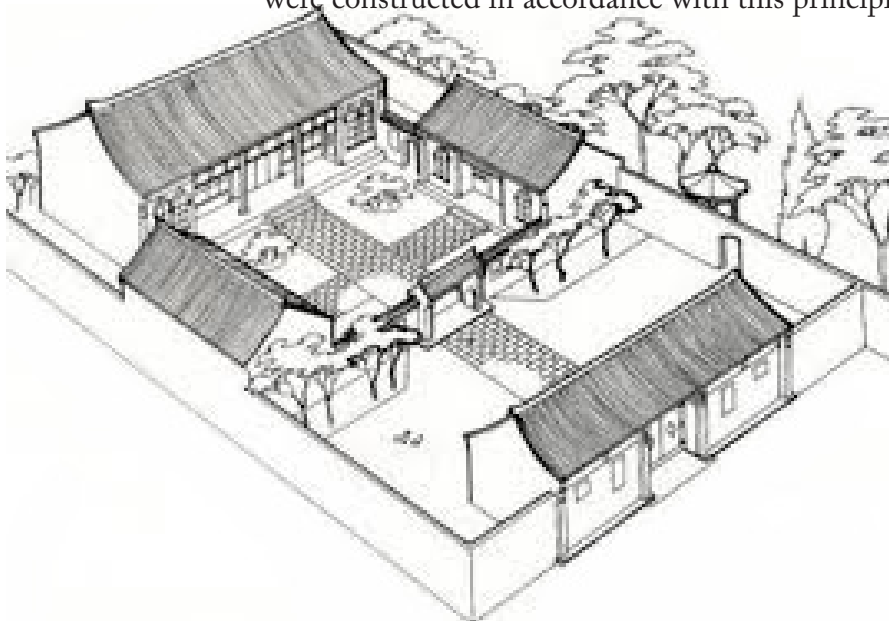
Suitably Located in the Middle and Residing in the Middle

Moderate Centering Principle

Moderately, it is just right, unbiased, neither big nor small, neither high nor low, optimized as much as possible, and approaching perfection. The "Guan's Geography guidebook" claimed that: It's high but not dangerous, It's low but not sink, it's distinct but not the exaggeration, It's quiet but not feel like imprisoned, it's special but not strange, it's delicate but not inferior."

Moderate feng shui principles have already been produced during the pre-Qin period. In "Lü's Chunqiu" has pointed out: "The bigger room, the more yin. The higher building, the more yang. Too much yin will cause the depression, too much yang will cause the restless. Unbalanced yin and yang are all suffering the discomfort." Overall, yin and yang balance is moderate.

The principle of moderateness also requires that the center should be prominent and the layout should be neat, with additional facilities closely surrounding the axis. In a typical feng shui landscape, there is a central axis that runs parallel to the earth's meridian and extends north-south. The northern end of the central axis is preferably a high building (as a mountain), forming a T-shaped combination. On the southern end, there is a spacious bright room (as a plain), axis lined with buildings on both sides and curved rivers (water). The mausoleums of the Ming and Qing Dynasties and the gardens of the Qing Dynasty were constructed in accordance with this principle.



4.2 Traditional culture & Modern society

Time pasts, traditional culture can no longer adapt to modern life. But the traditional culture has stability, it still influences the lifestyle. Although it's not a simple copy or inheritance, it keeps developing and changing to adapt to the modern society. On the other hand, the modern society also is creating a new culture.

Culture is timeliness. Traditional culture is developed from the ancient society, cannot completely adapt to the modern society. But the traditional culture has two sides, some of them positively encourage people being better, some of them are on the opposite side, they can obstruct the development of the society.

For example, in ancient time, people are living in the courtyard house. There are not so many people living together but they are very close to each other even they can have a close relationship. Now we are living in skyscrapers but we lack communication, we don't even know what's our neighbor's name. People become independent but meanwhile, they also become lonely. While enjoying the comfort and convenience that technology and progress have brought us, we are also getting away from the harmonious neighborhood we used to be.

Part V
Reinvent Beijing courtyard house
Siheyuan
四合院的重生

5.1 Location and Transportation

Different from the typically ordered Beijing courtyards, there are many tiny courtyards scattered in the old city of Beijing.

“Yuan’er” (Courtyard), is the most essential element in the composition of the old town of Beijing. For a long time, “Yuan’er” contains all the possibilities of working, entertainment, leisure and dwelling for the local people. The space inside is usually very small, and living in it can be hard yet colorful. It is part of Beijing’s realistic life, and is a miniature of China’s old cities.

After China’s rapid urbanization and modernization in the past three decades, what can we do for these tiny courtyards? What can we do for the residents living in these areas?

About BAITASI

Baitasi (the White Pagoda Temple) is a historical and cultural preservation zone covering about 37 hm² located just across Beijing's Financial Street in Xicheng district. To its north is the Xizhimen business district and to its west is the Fuchengmen commercial area and the Sanlihe administrative district. The Xidan and Xisi shopping areas border the temple to its east. Baitasi remains a peaceful cultural oasis for the public in the heart of new Beijing.

The Baitasi Historical and Cultural Preservation Zone can be traced back to the Yuan Dynasty and is preserved to this day through the Ming and Qing dynasties. It is the western starting point on the route to Chaofu, across the capital, and has a profound historical heritage with rich cultural connotations. The area is home to Beijing's most ancient attractions, including the Miaoying Temple (the White Pagoda Temple) constructed during the Yuan dynasty; the Archive of Buddhist Texts; the Lu Xun Museum built around the former residence of the philosopher; and the flower, bird, fish, and insect market. In the area are also seen a few republican-era courtyards reflecting a mix of Chinese and Western architectural styles. While the Xicheng district reflects ancient and civic culture and the homes of China's great thinkers, the Baitasi Historical and Cultural preservation zone carries with it substantial historical significance; yet, unfortunately, many of the area's old low-rise homes are lacking in municipal infrastructure and faced with modern challenges.

About BAITASI ReMade

Baitasi is located in an old low-rise residential district of Beijing, one of the last remaining traditional residential areas in the capital. Currently, options are being explored to provide an alternative path for urban renovation and community revival.

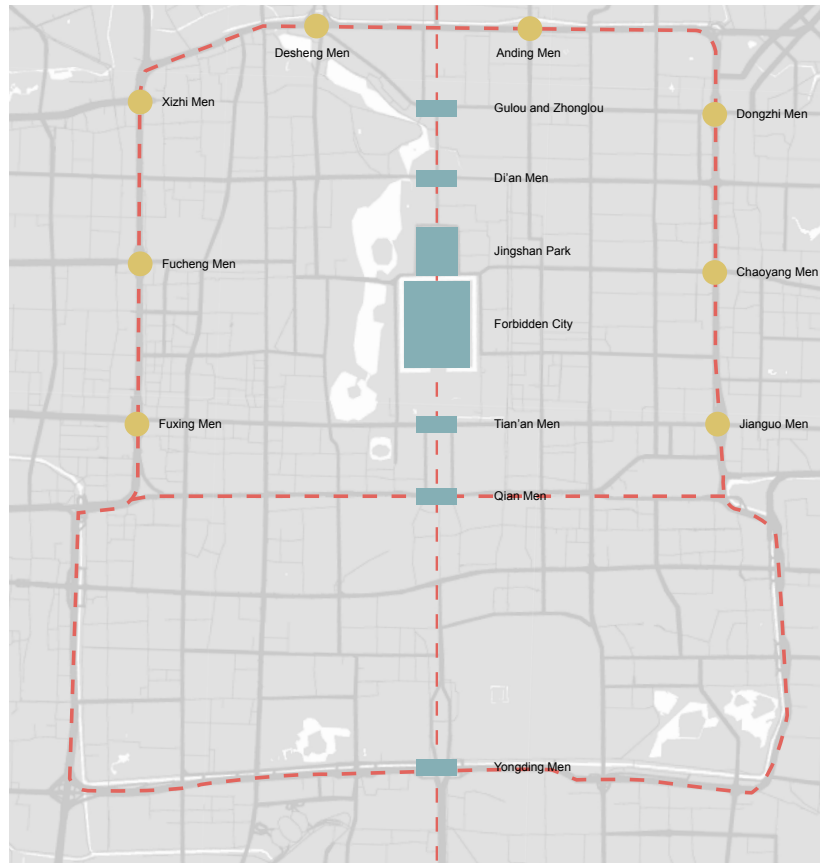
With societal advancements, people have realized that standard large-scale demolition and construction of Beijing's urban core is no longer viable. In its stead, small-scale, organic renovation models are attracting greater attention and use. The main objective of the Beijing Huarong Jinying Investment & Development Company's "Baitasi ReMade" project is to establish a new model for local residents with the aid of public participation and model enterprises and government leadership. It hopes to establish a sustainable population, revitalize the physical spaces, upgrade to basic energy sources, and re-engineer the public environment, thus fostering a cultural revitalization of the region as a whole. While maintaining the unique character of Hutong neighborhoods and the residential functions of traditional courtyards, "Baitasi ReMade" will inject new elements of design as well as cultural and creative models to create a new cultural district comprehensively integrating tradition, innovation, and style.

With regard to the Baitasi Historical and Cultural Preservation Zone, the goals of "Baitasi ReMade" are to

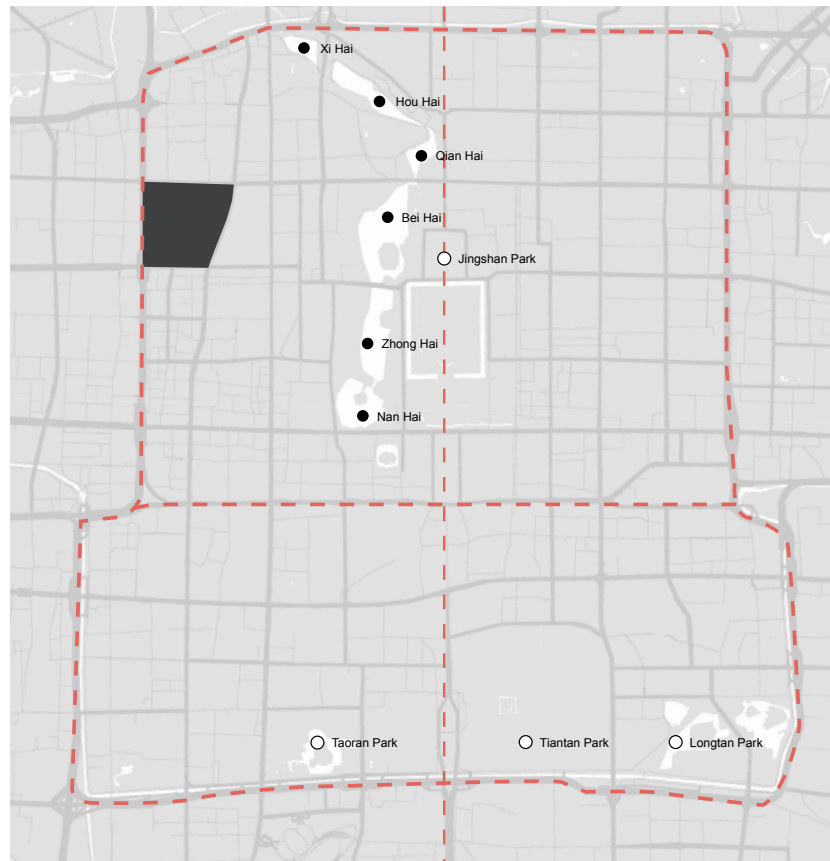
adjust the demographic structure of the area through population easing,
improve the commercial environment of the area by attracting respected businesses,
improve the basic infrastructure of the area, enhance the residential environment, and strengthen the sense of community,
revitalize the Hutong culture of the area thereby regaining the area's residential spirit.

Sources from www.gooood.cn
Project Baitasi ReMade-"Reinventing the Beijing Courtyards"

Central Axis Analysis



Site Location



Metro Lines



Accessibility Towards Main Transport Station









5.2 Surrounding Photo Survey

We would like to introduce some local roads in Baitasi area.



BaiWanZhuang North Road



DaLiuBuKou Hutong



BinHe Road



DingFu Street



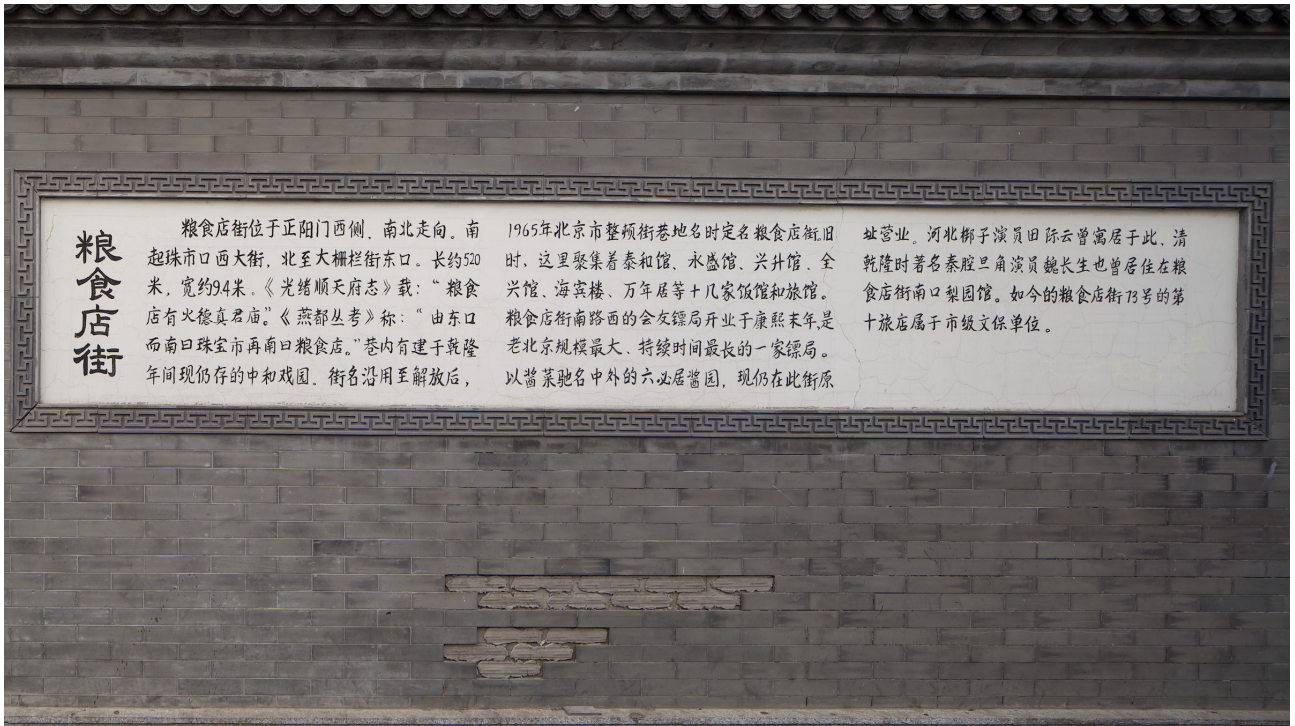
Black Kiln Factory Street



LanMan Hutong



LaoQiangGen Street



Food Shop Street



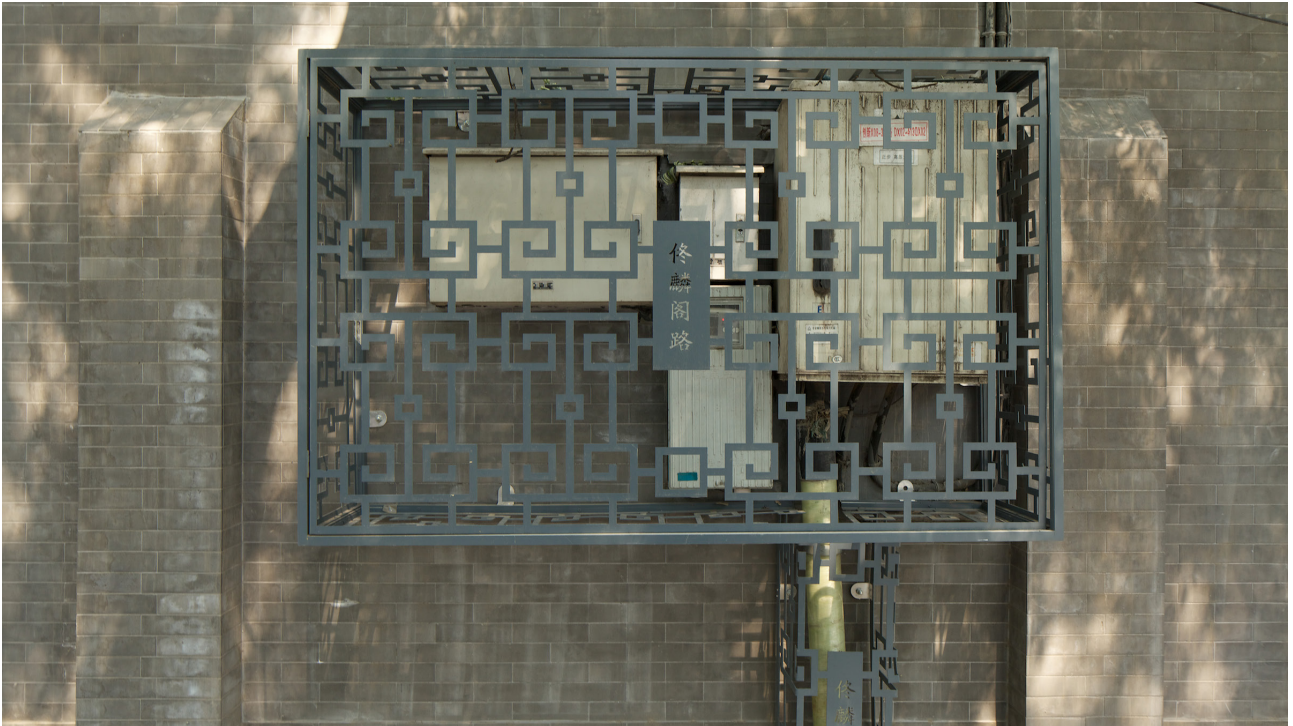
Glass Factory West Street



Pen'er Hutong



Overpass Market Oblique Street



Buildings are well preserved, the electric boxes are covered by a decorated shield with the street logo.



TongLinGe Road



XiRongXian Hutong



West 4th North 6th Alley



YanShou Street (1)



YanShou Street (2)



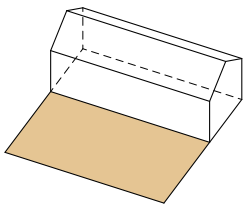
Yangrou Hutong



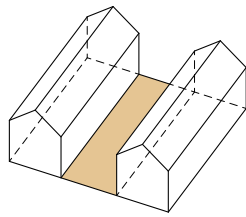
SheShanMen Street

5.3 Individual Site Design

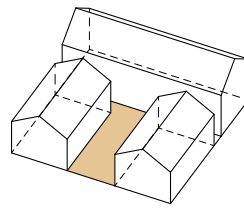
Our action area are all one depth courtyard. There are four possibilities to build them following the principles.



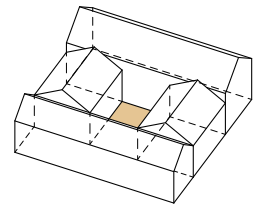
Single-sided enclosure



Double-sided enclosure

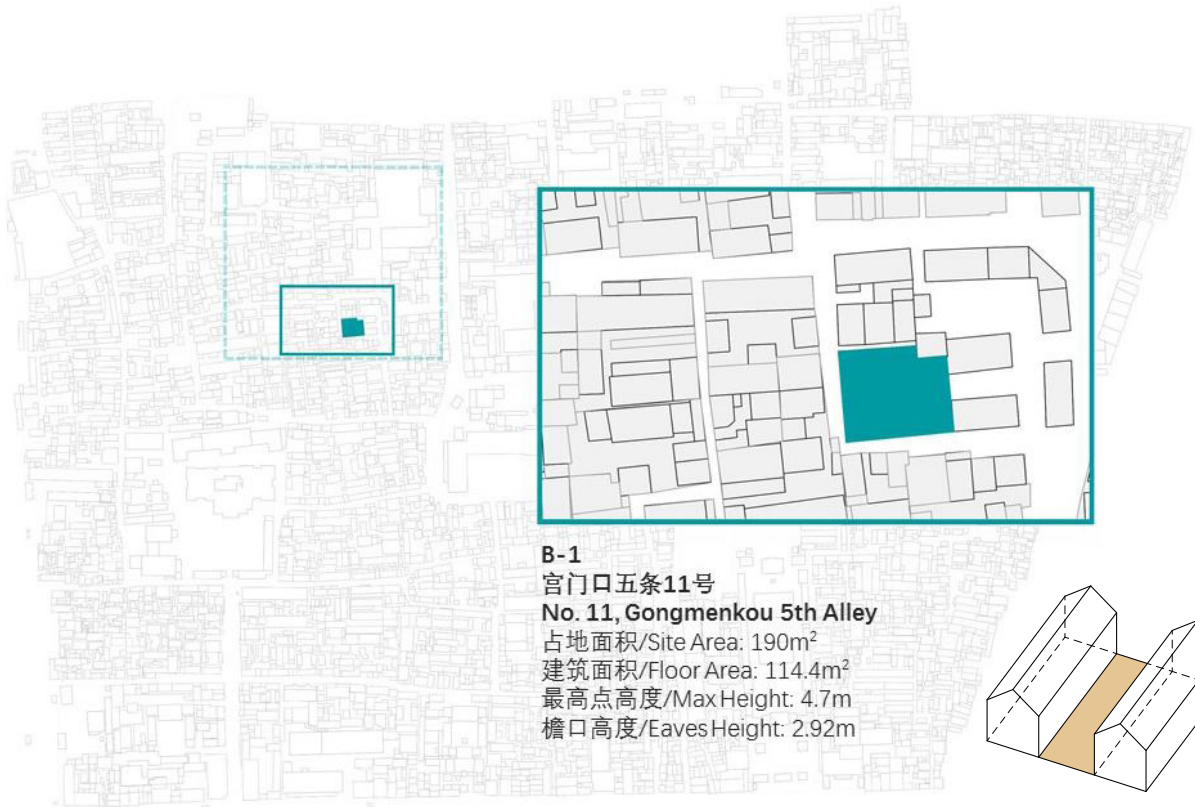


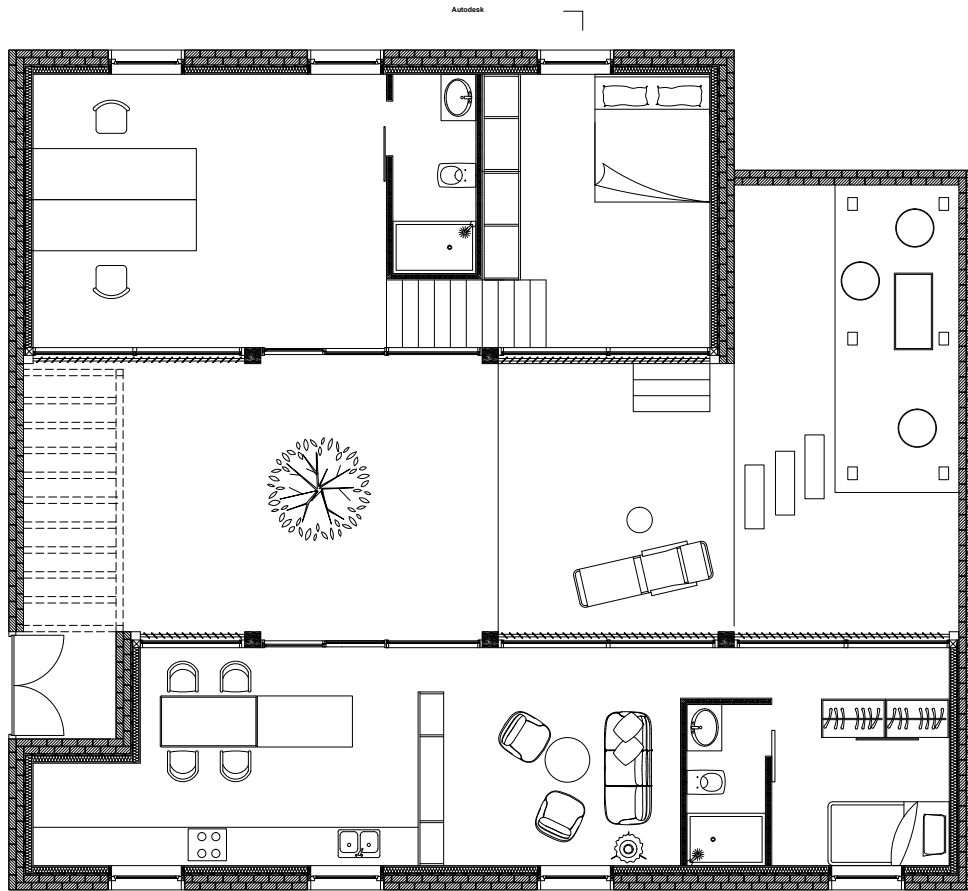
Triple-sided enclosure



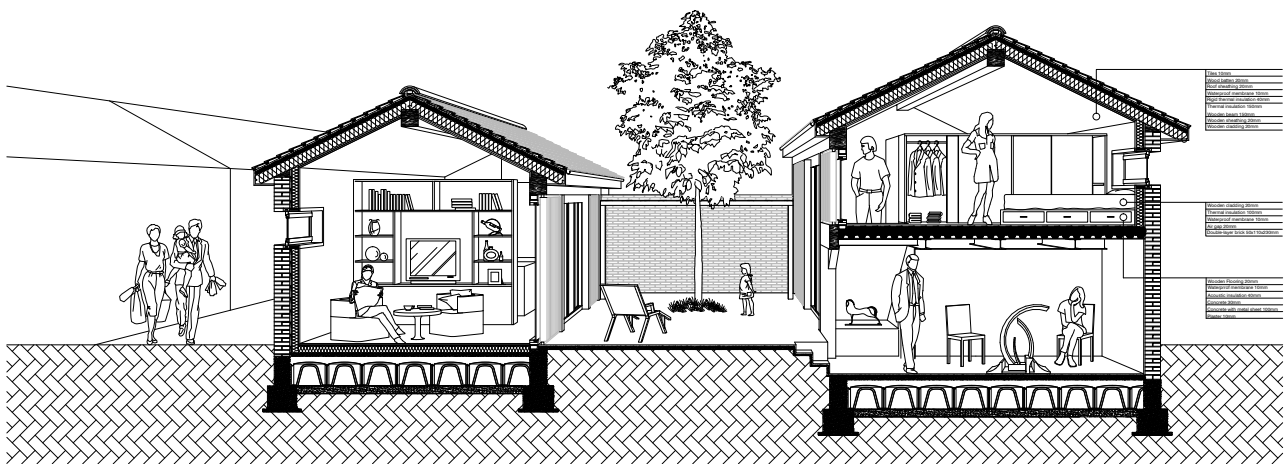
Full enclosure

Site 1.



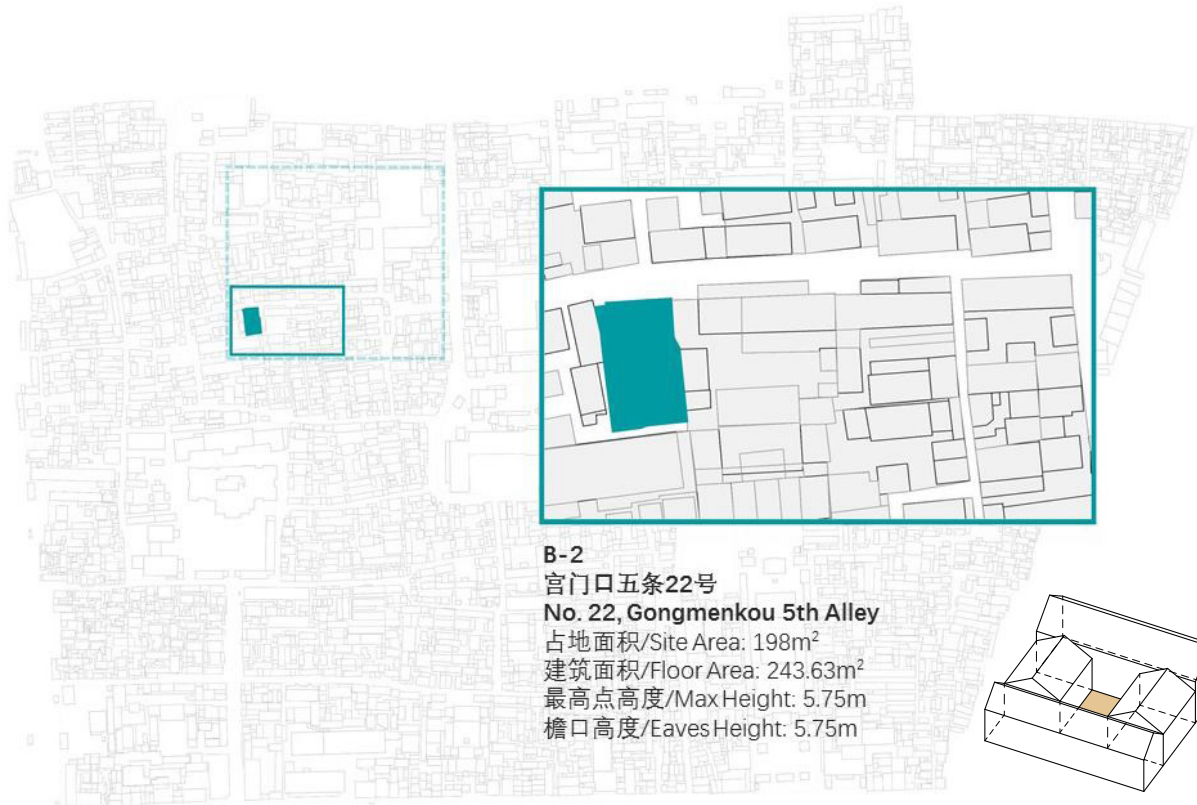


Ground Floor Plan

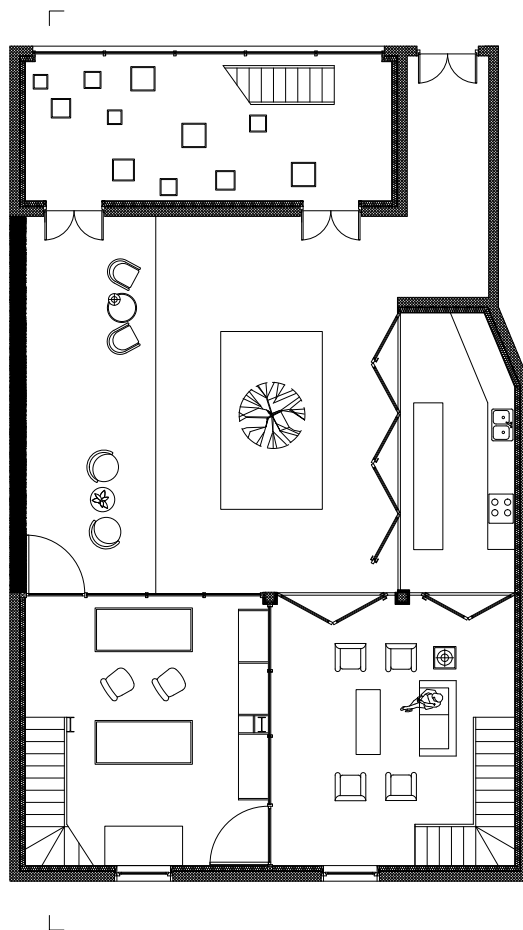


Section

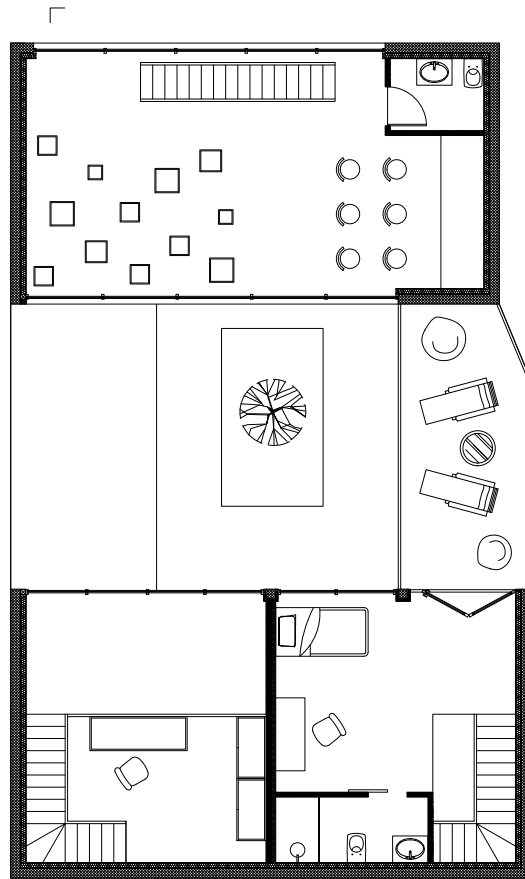
Site 2.



B-2
官门口五条22号
No. 22, Gongmenkou 5th Alley
占地面积/Site Area: 198m²
建筑面积/Floor Area: 243.63m²
最高点高度/Max Height: 5.75m
檐口高度/Eaves Height: 5.75m



Ground Floor Plan

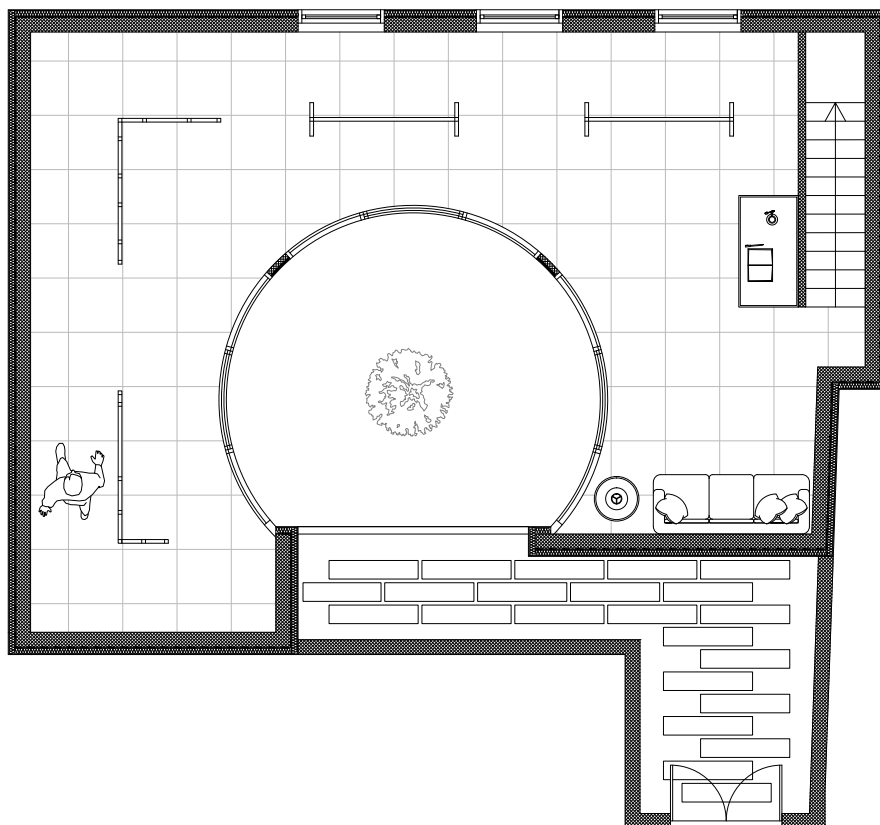
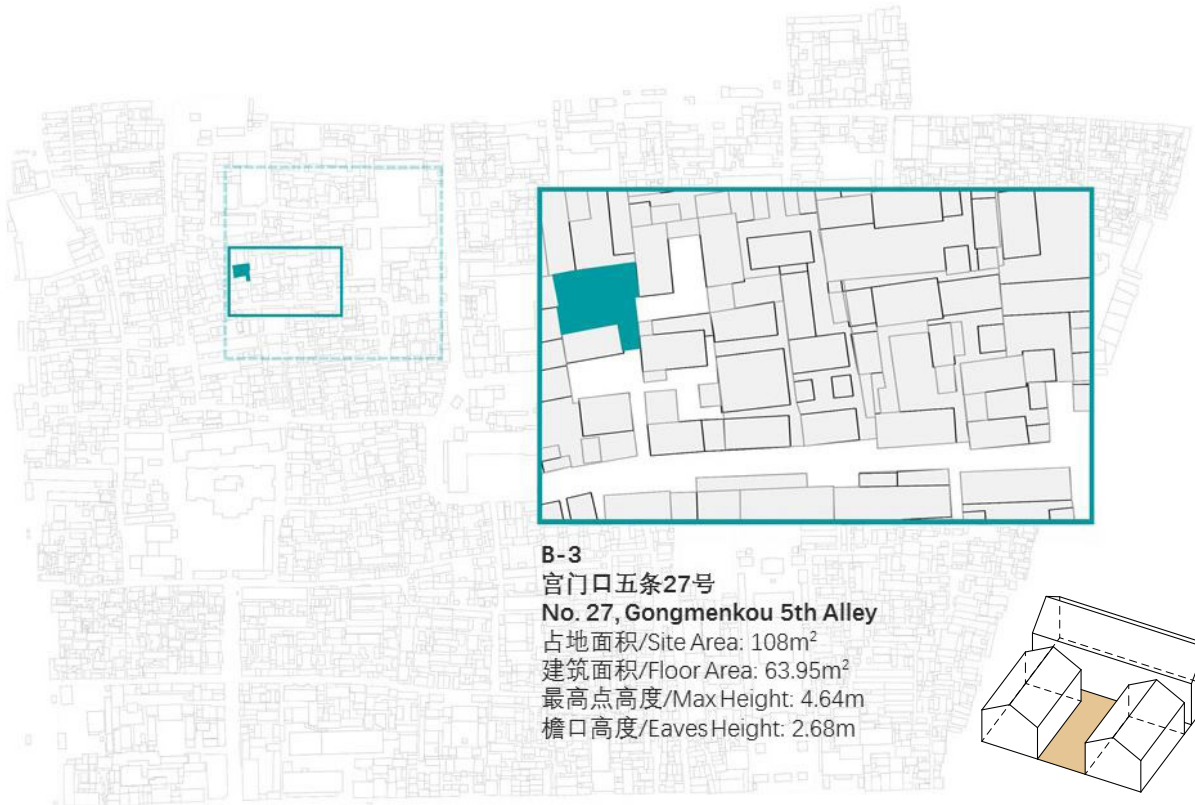


First Floor Plan

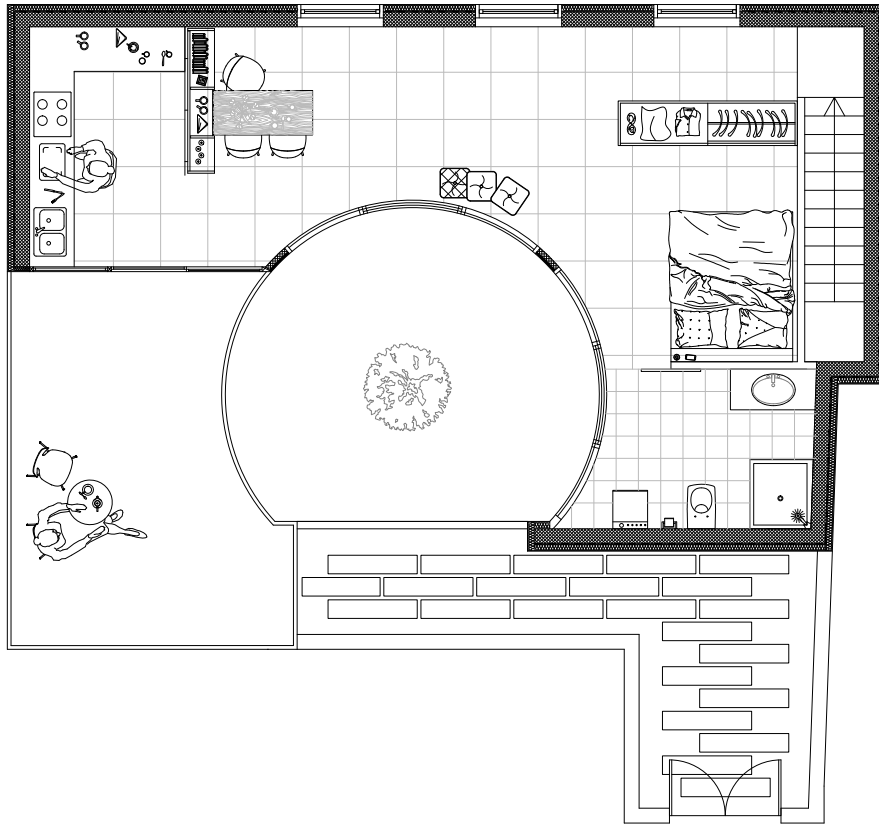


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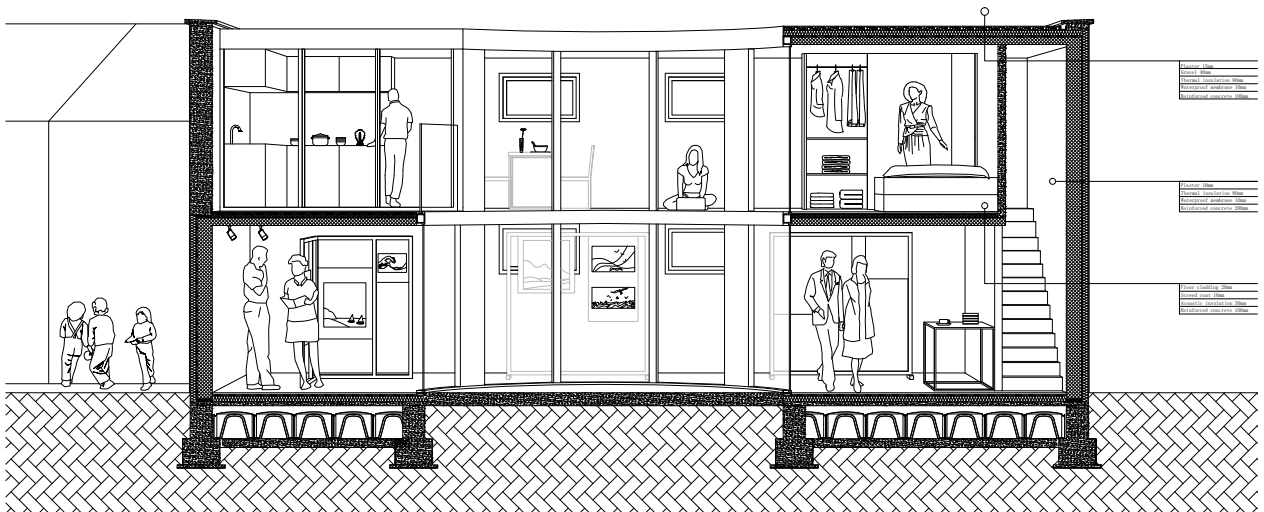
Site 3.



Ground Floor Plan

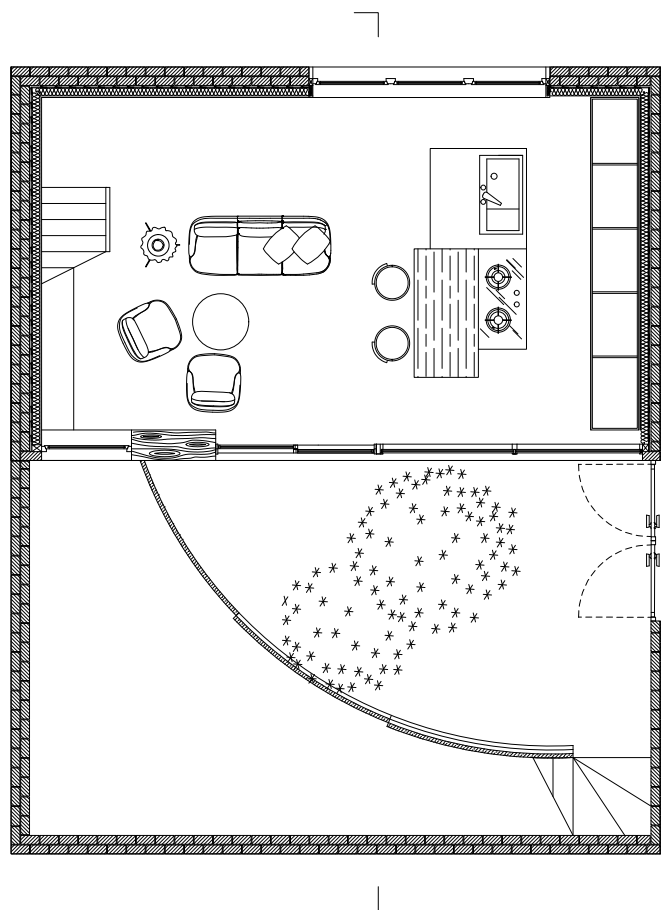
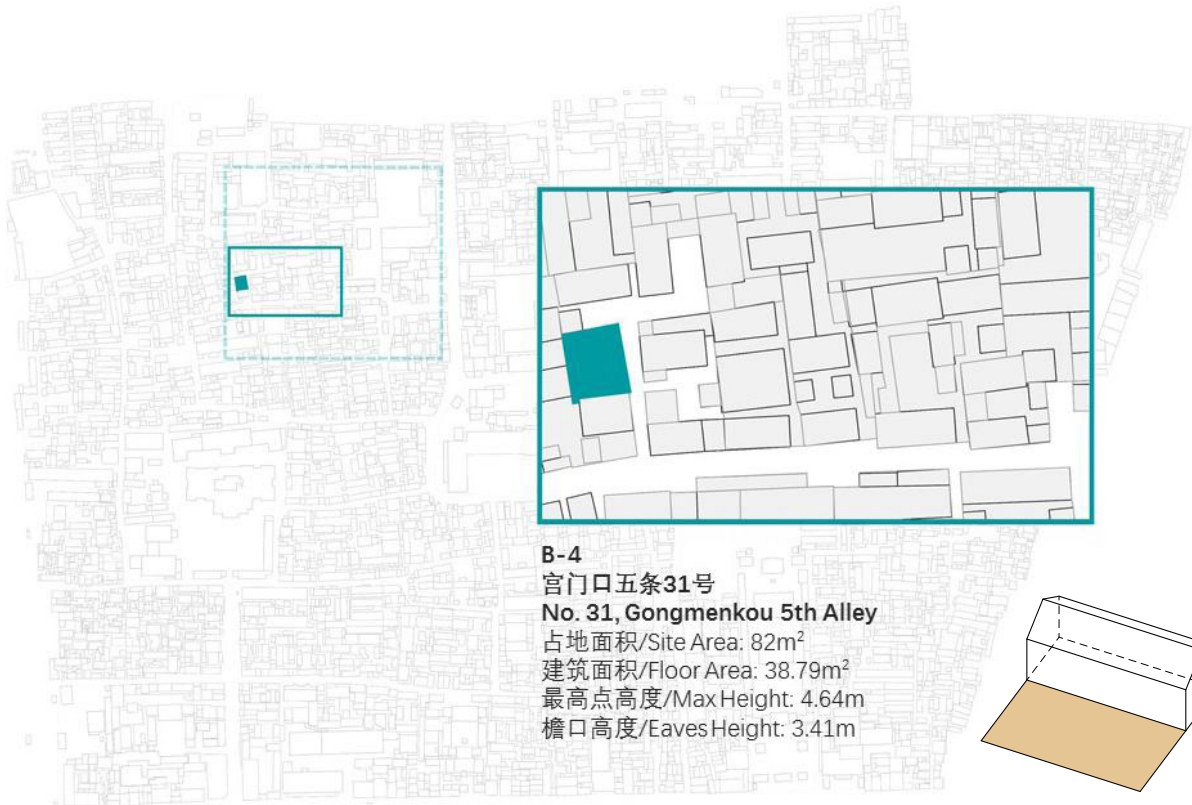


First Floor Plan

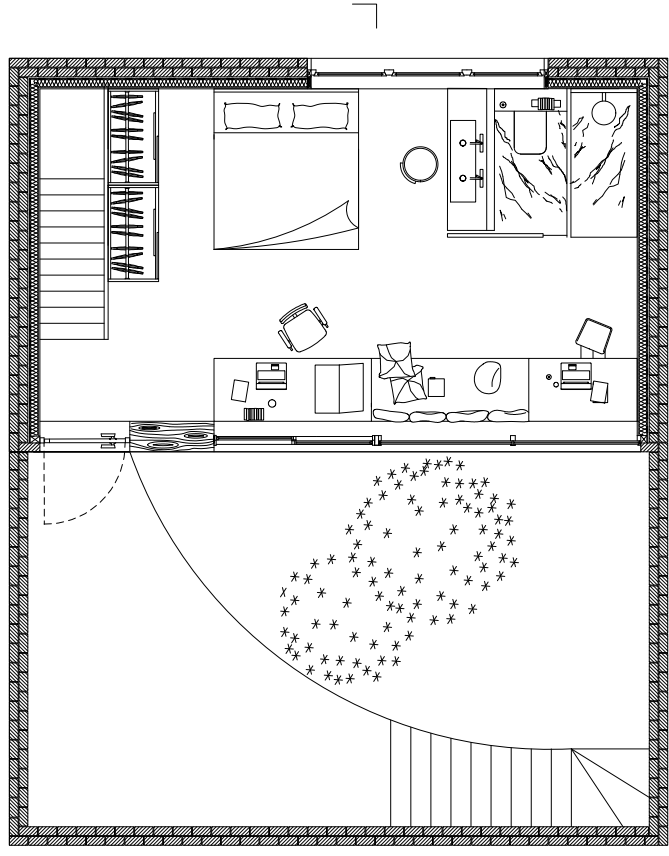


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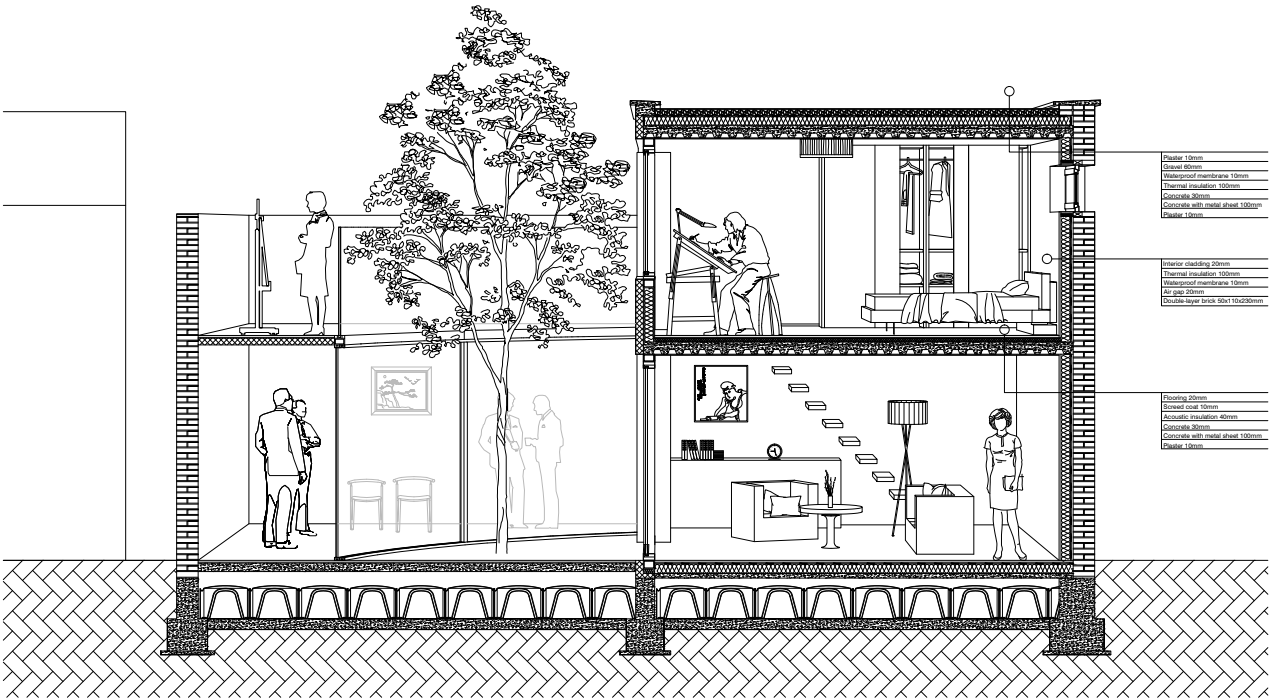
Site 4.



Ground Floor Plan



First Floor Plan



Section