

ABSTRACT

Title of Document: MEMORY AND ARCHITECTURE
| --- RENEWAL OF AN HISTORICAL
 COMMUNITY IN LINJIANG
 NEIGHBORHOOD, QUANZHOU, CHINA.

Wen-Hui Chen, Master of Architectur, 2012

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 AIA School of Architecture, Planning, and
 Preservation

China is developing at a tremendous pace. Today, walking along the streets of any major Chinese city is not unlike many western cities, except for the higher density of both buildings and of people. However, rapid economic development and urbanization have led to an enormous amount of demolition of traditional neighborhoods and the redevelopment and construction of new urban districts throughout the country. The historic neighborhoods are being devoured, resulting in a dramatic loss of tradition life style and living memory. In my thesis, I probe into the question, “how can we preserve traditional Chinese lifestyle while rebuilding the urban fabric of traditional Chinese neighborhood? ” I explode this question at the scale of the district and the scale of the family house..

MEMORY AND ARCHITECTURE
--- RENEWAL OF A HISTORICAL COMMUNITY IN LINJIANG
NEIGHORHOOD, QUANZHOU, CHINA

By

Wen-Hui Chen.

Thesis submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Master of Architecture
2012

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Dedication

I dedicate this project to my parents. Without their love, I could not have made it to where I am today.

Acknowledgements

A special thanks, in alphabetical order, to

Michael Ambrose

Ralph D. Bennett

Paul Mortensen

Madlen Simon

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“Image ability: that quality in a physical object which gives it a high probability of evoking a strong image in any given observer.”

“To these clear and differentiated forms people have made strong attachments, whether of past history or their own experience. Every scene is instantly recognizable, and brings to mind a flood of associations.”

Placement of memory: An “imagined landscape”, a created, constructed impression of the past”

---The Image of the City, Kevin Lynch¹

¹ Lynch, K. (1960). The Image of the City. The MIT Press

Chapter 1: **Introduction**

The expansion and redevelopment of Chinese cities is following a path reminiscent of the post-war reconstruction and Urban Renewal-enabled growth machines in Europe and North America –only at a scale many times larger. This massive amount of growth is projected to continue well into the future. The sudden dislocation and reformulation of urban communities – spatially and socially – is one cost of this “catastrophic investment,” as Jane Jacobs would put it. It is rare that any part of a city or any group of residents will be untouched by this whirlwind of development. Chinese cities grew enormously in the last decades, spreading nearly to infinity. Also, [A](#) multiplicity of interests and power arrangements conspire to prevent citizens from collectively trying to influence the fate of their neighborhoods.

In my thesis, I am proposing a community development strategy for Linjiang neighborhoods in Quanzhou, Fujian Province, China. The project will involve a different type of site planning than current Chinese standards. It will include a housing solution that addresses the difficulties faced by the neighborhoods today. Quanzhou is [an](#) historical city that is famous for its long maritime history, diverse culture and a fast developing industrial base. I seek for alternative way of preserving traditional lifestyle while rebuilding the urban fabric of traditional Chinese neighborhood.

Section 1 What is happening in traditional neighborhood in China?



Figure 1 a tradition building is waiting for demolish

With a mass migration of rural families moving to Chinese cities, expansion of standard residential programmatic requirements, and a rapidly developing economy in China, a burgeoning urban population

has created an immense need for new construction and infrastructure throughout the entire country. Modern new development has replaced traditional buildings and pedestrian oriented urban structure with haphazardly planned roads and highways, and monotonous high-rise buildings without taking into considering the typology of what is being replaced. Millions of people have had to face the predicament of being relocated and having their houses torn down and replaced with a “big new city”². As a result, the memory and historical conscience of a community has been lost.

² Zheng, Dong. "Dragonhead Dreams." *The Economist*. *The Economist Newspaper*, 05 Jan. 2006. Web. 19 May 2012.
<<http://www.economist.com/node/5364854>>

Compared with the traditional urban living conditions, residents living in new “modern” communities have more privacy but with less communication and trust in their neighbor than before. These populations, through design, are being denied the traditional culture and social interaction that was integral to past generations. The people no longer have the ability to create harmonious relationships with neighbors, or to take part in shared experiences.

Currently, the Chinese government has begun to focus on creating housing that considers both the physical and cultural dimensions of a community. However, they tend to preserve only certain building types and transform the historic residential areas into places that only attract tourists. But this kind of preservation of singular cultural buildings removed from any social context is oftentimes just as harmful as the removal of all the buildings. It seems as though functions are forced upon isolated buildings simply for the sake of preservation. These projects have some measure of success but have alarmingly destroyed the essential nature of the neighborhoods they used to support. These places have become enclaves of historic structure but not community.

The modern building and wide roads are all well constructed but look soulless. The apartment buildings are like machines for living and contain everything except people’s memories of family and community life. Sometimes, people feel the traditional neighborhood can bring more happiness to their daily life. For example they can grab breakfast on the way to work.

Section 2 Comparison Modern Apartment and Traditional Houses



Figure 2 Morning in traditional neighborhood



Figure 3 Morning in modern community

In order to explore the influence of the traditional Chinese collective housing to people, I have investigated the interaction of people via the “Chinese Facebook website” called “RenRen”.

This social media website has grown during the same time as the new superblocks full of rows of slab housing has proliferated. As more and more Chinese people in cities now live in isolated high-density residential buildings, this kind of media has become the most efficient way of meeting people. I posted the following questions

on RenRen to try to get a broad understanding of people’s insight into their physical and cultural environment within these modern cities.

1. Do you have experience living in collective housing? Which city? How long?
2. What kind of activities do you have in the residential community? How often does it occur?

³ "A Look Inside China." *The Atlantic*. N.p., 26 Mar. 2012. Web. 19 Dec. 2012.

3. Do you regularly communicate with your neighbors in the same building? How much do you know about them?
4. Are you satisfied with your living conditions and the public infrastructures presently? Are there things that need to be improved?
5. What are the advantages and drawbacks of high density housing to your social lifestyle?

In just two days, I received more than fifty responses from all around China. (I will attach my survey result at the end of paper). Following is part of the responses:

- “A:1. I live in ShenZhen for one year in low-rise collective Housing;
2. There are many activities at night in the community. For example, the old ladies will have group dancing, children play skateboards, and some walk with dogs. But I have never joined in any activity;
 3. No, not at all;
 4. The natural environment is good, the density is moderate, but facilities are not enough. Although they look busy in the community, but with a strong form sense such as dance together. I think there could be more insertion of open spaces for random activities and facilities for special activities;
 5. I think collective housing is an inevitable choice for China, and the most suitable type will be worth discussing. So far the common form of high-rise buildings cannot shape comfortable community scale internally, nor shape the sense of street externally, leading to the disappearance of multi-public activities and various real lives. People are lack of understanding and becoming narrow minded and selfish. “

B:“I would like to talk about the fifth point. The high-density living is much easier to bring in high quality supporting facilities such as hospital, school, entertainment and consumption, but it also is a challenge for the natural environment to bear the emission gas from air conditioners. Additionally, privacy is important as well. Less people do not mean more privacy certainly; it is sometimes easier to protect the privacy when many people lives together. I think the most difficulty for collective housing is to guide the unfamiliar people willing to know each other gradually, and then trust each other, finally to share a same space. ”⁴

In this survey, I tried not to lead the participants towards any certain point of view. However, most people who responded were not pleased with their living conditions at present. They believe that as time goes by their housing projects are getting old and falling into disrepair. People living in modern towers in the same community often do not feel close to their neighbors. Even though they identify an abundance of green space in their modern communities, 90% of residents do not take advantage of it. Through my experiences living in China, and from my RenRen research, I have come to the conclusion that the current design and development of modern high-density housing in China has caused many cultural and societal problems. These mistakes must be addressed! It is obvious that within the current and future urban context of China high-density housing will be required to meet current and future population growth. However, the systematic removal of the cultural and social context prevalent in historic Chinese cities is devastating and isolating. As such, the current

⁴ Appendix

environment seems to be more about isolating people into glorified cages rather than creating vibrant communities of people full of amenities promoting interaction. There is a coldness in these neighborhoods that is shaping the lives of the future Chinese society. The Chinese architect Wang Shu said, “The Chinese architects are controllers of people’s living style, and they lost their social memory altogether.” The question that I will tackle in my thesis is how we can incorporate social memory into our designs of neighborhoods, blocks and buildings.

Section 3 Problems about Traditional Houses



Figure 4 Pathways on Traditional Neighborhood

While traditional neighborhood offer rich family and communication life, the standard of living is low. With the current level of social and economic development and changes in family structure, the tradition neighborhood has many shortcomings for modern Chinese society.



Figure 5 Living Space in traditional neighborhood

Traditional neighborhoods face various problems such as dilapidated housing, which lacks necessary repairs and lacks of sufficient space for all family members. One of the most

challenging aspects with traditional housing is that given the age of the buildings as well as the dense and unorganized nature of past city planning, it is hard to achieve comprehensive repairs upon the structures, and typically, the repairs that are made are only temporary in nature. Thus, it is clear that much of the traditional housing needs to be replaced. However, we would like to replace the traditional structures with new structures that are able to capture the social, cultural and physical context of the original site. Infrastructure and Sanitary: most traditional neighborhood was built before modern technology development, therefore, these houses do not equip modern infrastructure. Also, the living area per/person is limited too.

Chapter 2: Quanzhou



5

Figure 6 Quanzhou Aerial View

⁵ Quanzhou Urban and Planning Bureau, n.d. Web. 19 Dec. 2012.
<http://www.qzghj.gov.cn/wszt/lswhmcbbhgh/201110/t20111027_3438.htm>

Section 1 Quanzhou's Location

Quanzhou, is located along the southeast coast of China facing the Taiwan Straits along the East China Sea. It closes to tropical of cancer line, and as warm as Miami. The distance between Quanzhou and Beijing is similar to the distance between Washington and Miami--- 3 hours flight.



Figure 7 Quanzhou's World Context

“The prefecture-level city of Quanzhou has an area of 11,245 square kilometers and, a population of 8,128,530 inhabitants, as of the 2010 Census. Its urban area (orange part in Figure 2.2) has an area of 892 square kilometers and a population of 6,070,617 inhabitants encompassing Li-Cheng, Feng-Ze, Luo-Jiang urban districts.”⁶

⁶ wikipedia contributors. "Quanzhou." *Wikipedia, The Free Encyclopedia*. Wikipedia, The Free Encyclopedia, 9 May. 2012. Web. 10 May. 2012.

Section 2 Geography

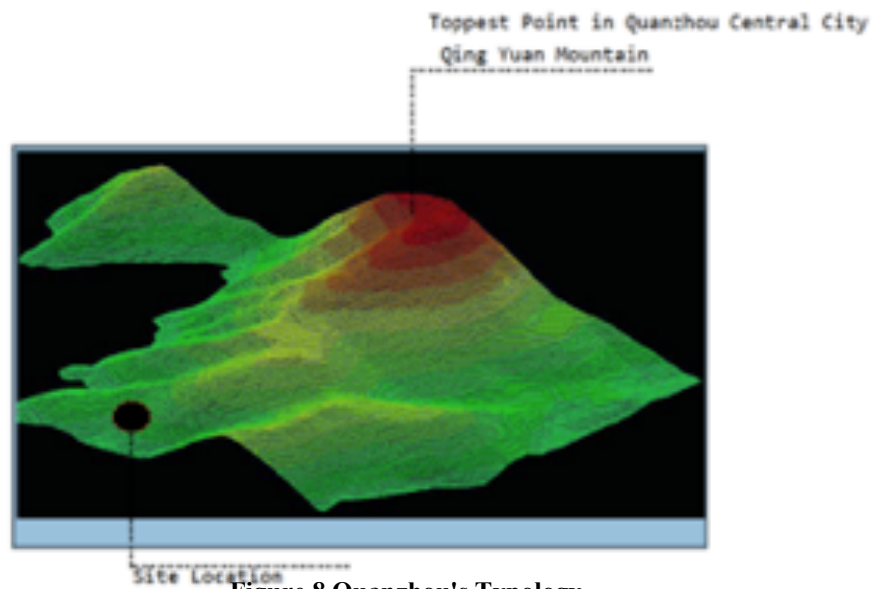


Figure 8 Quanzhou's Typology

Quanzhou is mountainous and has many rivers and tributaries originating from the

interior. The urban area is relatively flat in contrast to the surrounding county. The climate is warm and wet almost all year around with annual average temperatures of

around 18[°]C-20[°]C (64[°]F-68

[°]F). In the summer, there are often

typhoons that occasionally bring damaging rains to the city. In general, the climate is temperate and it is called “Coastal Yale” for its fantastic living environment.



Figure 9 Quanzhou's people and temples

Section 3 Quanzhou's People

People in Quanzhou have a very strong work ethic and are always working to improve their future. They are also conservative and stubborn, with an interesting mix of open-mindedness tempered with a respect for tradition. Currently, Quanzhou has an interesting mixture of the modern and the ancient urban form and traditions while still retaining the hallmarks of a modern Chinese city.

Quanzhou was the starting point of the historic maritime Silk Road, and therefore has many examples of Islamic, Hindu, and Manicheian ruins. It also retains the ancient culture of the Fujian province. Not only was Quanzhou the origin of many of the treasures of Ancient China, but it also is one of the primary repositories of Chinese art. Since the Jin Dynasty, many people from the northern territories of China migrated to Quanzhou and brought their traditional Cultures as well. Now the southern Fujian dialect has become similar to ancient Chinese.

Section 4 History

Quanzhou, was established in the Tang Dynasty (685 ad) and became a window into China for the world when it became the starting point of the Silk Road. It was the largest port in the world during the Song and Yuan Dynasties and was an important location for the construction of oceangoing ships. Given its central location for trade, it attracted a diverse population including Persians and Arabs. That's why we can

easily find temples of different religions and different styles of architectural details within the City today. The city was famous throughout the world and was known to the 13th-century Italian traveler Marco Polo. He described the city as the most amazing medieval city in the world. Nowadays, we can still see many relics of its medieval prosperity from the large number of intact buildings from this era.



Figure 10 Quanzhou's 718 AD City Boundary

From 718 AD (Tang Dynasty)

- Rectangle Shape
- Small Residential Town
- Two Main Blvd.



Figure 11 Quanzhou's 958 AD City Boundary

From 985 AD (Song Dynasty)

- Many immigrants moved to Quanzhou from central China;
- Urban Area expanded almost 5 Times;
- Began to develop waterfront area

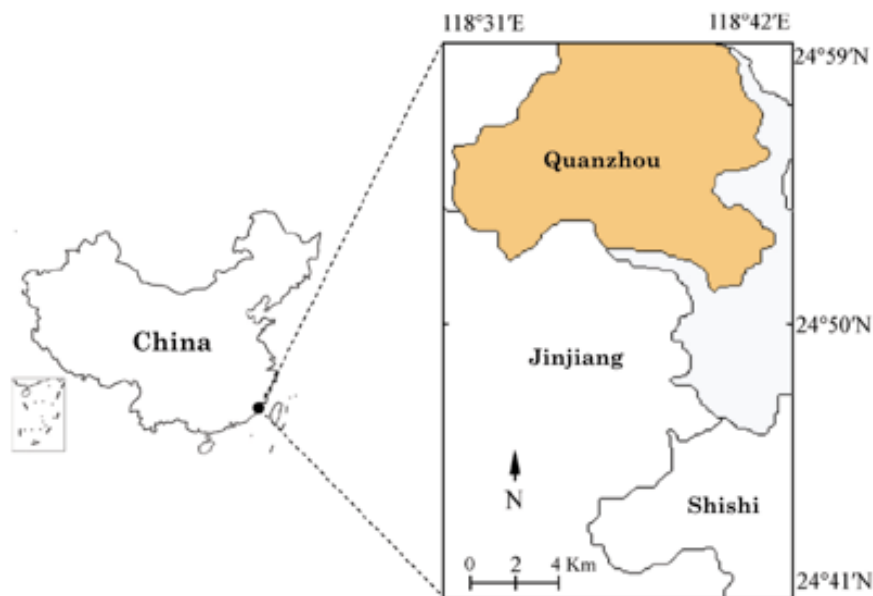


From 1311 AD (Yuan Dynasty)

- Urban Area kept on expanding;
- The biggest port in the world at that time
- Two Main Blvd.-

Figure 12 Quanzhou's 1311 AD city boundary

Section 5 Today's Quanzhou



- Today's Quanzhou encompassed Licheng, Fengze, Luojiang urban districts ; Jinjiang, Nan'an and Shishi cities ; Hui'an county and Quanzhou District for Taiwanese Investment; is known for its burgeoning economy. GDP ranks first in Fujian Province

for 20 years. “ From 1991 to 2010. In 2008, the production of sports and tourism shoes accounted for 80% of China, 20% of the world’s production. Stone exports account for 50%, resin handicraft exports account for 70%, ceramic exports account for 67%, and candy production accounts for 20%of the country’s production.”⁷

However, within the compact urban area of the city, small commodity manufacturing and sales makes up the largest percentage of the economy. Small family owned, private workshops, centered on inner-family employment fills most of this economic base. Many of these families have owned and run these shops for hundreds of years. And the downtown area has expand twice, built new building around the historical downtown.

Small commodity manufacturing and sales makes up the largest percentage of the economy. Small family owned, private workshops, centered on inner-family employment fills most of this economic base. Many of these families have owned and run these shops for hundreds of years.



From 1945 AD

- Urban Area kept on expanding;
- Developed to Ocean side and inland side
- Light-Textile Industry and Port

Figure 14 Today's Quanzhou's City Boundary

⁷ Wikipedia contributors. "Quanzhou." *Wikipedia, The Free Encyclopedia*. Wikipedia, The Free Encyclopedia, 9 May. 2012. Web. 19 May. 2012

Today's Quanzhou preserve relative intact historical city favor, and build modern building out of historical city boundary.



Figure 15 Quanzhou's skyline

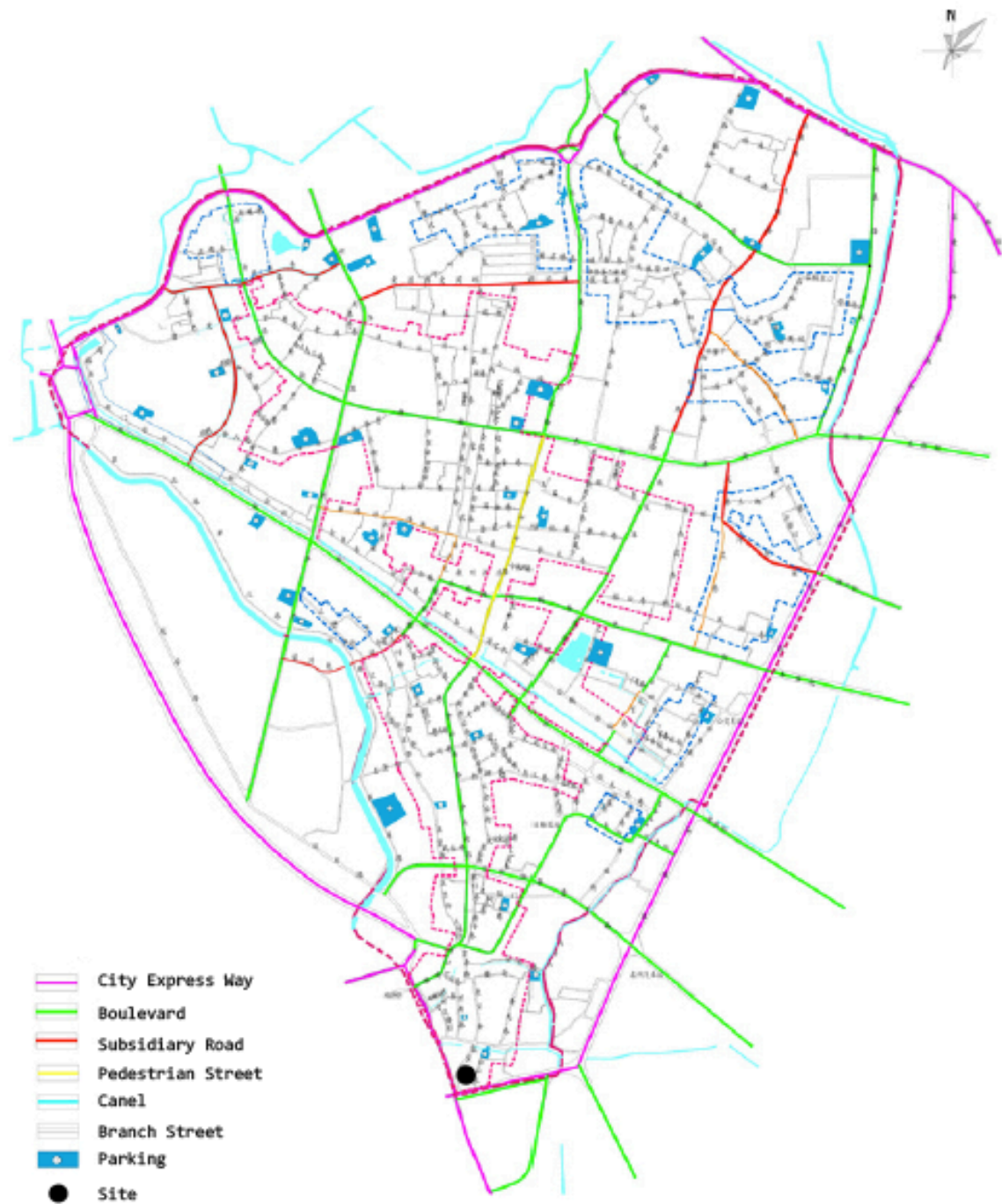


Figure 16 Circulation Diagram⁸

⁸⁸⁸ Quanzhou Urban and Planning Bureau, n.d. Web. 19 Dec. 2012.
http://www.qzghj.gov.cn/wszt/lswhmcbbhgh/201110/t20111027_3438.htm.



Figure 17 Water and public Space Diagram : Jing River merge into ocean on Quanzhou, a canal thought the whole historical city.

Chapter 3: Urban Analyze

Section 1 Unique Urban Element -Temple

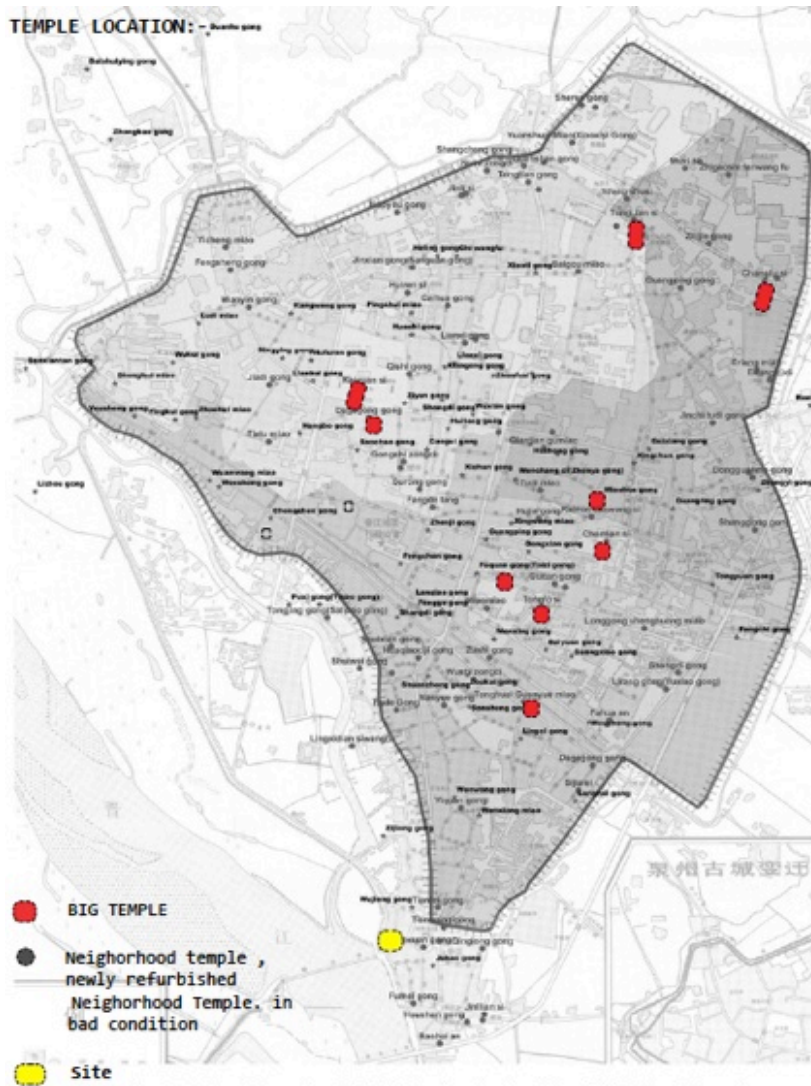


Figure 18 Diagram of Quanzhou temple: there are more than 18 mega temple in historical downtown, and almos⁹t every block has a neighborhood temple.

⁹ "Quanplanning." *Quanplanning*. N.p., n.d. Web. 19 Dec. 2012.
<<http://www.arch.mcgill.ca/prof/mellin/arch671/winter2000/kwan/thesis/quanplanning.htm>>

The city is known as the “world museum of religions.” Temples have great significance in Quanzhou and praying is a part of people’s daily life. There are 18 mega temples in Quanzhou Central city spanning multiple religions including Daoism, Confucianism and Buddhism, etc. Walking along the streets, you could always find something religious. Buildings representing different religions stood side by side. Buddhist temples co-existed with Muslim mosques, along with a Christian church not far away.



Figure 19 Kaiyuan Temple: the oldest and biggest temple in southern China

Additionally, a large number of small temples can be found along most streets



Figure 20 Festival on the square of mega temple

throughout the city. Traditional neighborhood temple rituals play an import role in the daily lives of all the Quanzhou neighborhoods.

In Quanzhou, mega temples play a significant social position. They occupy quite a large area in downtown with buildings on a large scale. On New Year's Day or other festivals, these temples will hold big celebrations or praying activities.

Small neighborhood's temples are quite different from mega temples. They do not have a specific building format and do not have specific people or city departments



that take care of them. However, these kind of temples are part of Quanzhou resident's daily life and can be found in every neighborhood. They will never disappear unless the neighborhoods disappear.

Sometimes a stage will be set up in open space in front of neighborhood temples to perform

folk and puppet theater, etc.



Figure 21 small neighborhood temple happens everywhere

"Small neighborhood temples are among the most characteristic features of the vernacular landscape of Quanzhou. Almost every street has at least one temple. They are strongly associated with a

particular place, and are dedicated to gods who once were virtuous officials, warriors, doctors, etc. They are distinctly different from the large temples of the city.”

---The 5th Pacific Rim Participatory Community Design Conference¹⁰

The primary features of small neighborhood's temples include:

1. Usually located on an intersection of two or three neighborhood pathways,
2. Have a close relationship with residents, and residents have strong interest in participating in all temple activities,
3. The management of temple are usually supported by spontaneous donations,
4. They are typically dedicated to small-localized gods that have significance to the community.



Figure 22 Different locations of small neighborhood temples

¹⁰ *The 5th Pacific Rim Participatory Community Design Conference, 1997*

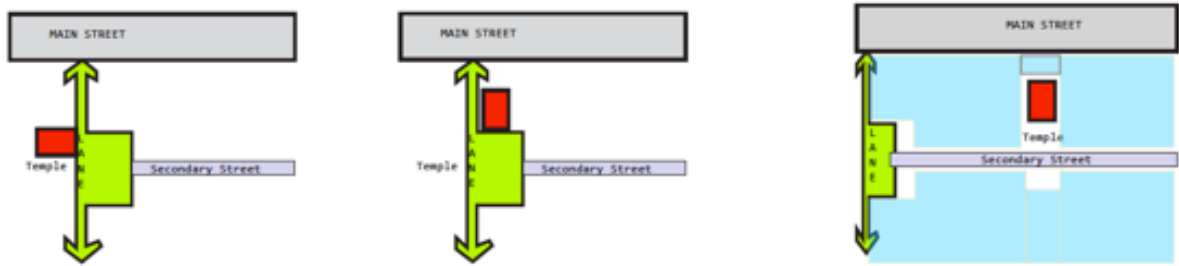


Figure 23 The relationship of small neighborhood temple and community

Section 2 Neighborhood Composition, Unique Housing ownership And Informal Hosing

In China, Historical neighborhoods usually were developed from a small signal houses. With the family expansion, ancestors built new houses next to the old house for their children. In suburban areas, the neighborhood was developed horizontally, however, in urban areas, it was developed in the vertical direction.

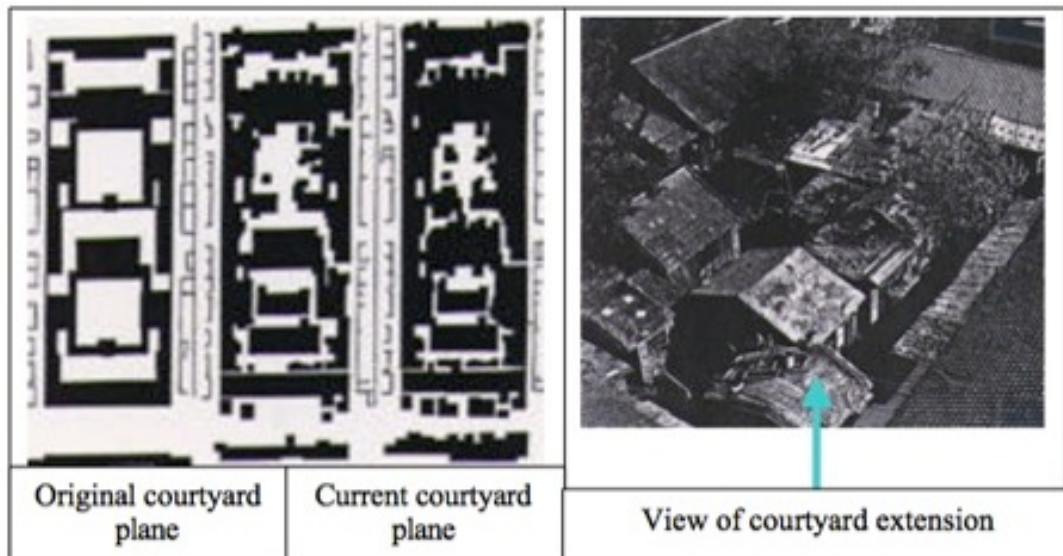


Figure 24 informal houses

Different from most Chinese cities, Quanzhou maintains a 90% rate of house ownership. Because of the long distance from central China underscored by very poor roads in the mid-twentieth century, and its close proximity to Hong Kong, Macao and Taiwan, the city was exempt from the collectivization of housing initiated by the People's Republic in the 1950's. This exemption allowed house owners to be liberated and to be able to rebuild their houses with government approval. Because of this unique housing ownership paradigm, today's Quanzhou neighborhood still maintains a strong urban and social organization lacking in most parts of China. Most people on the street know each other or are related somehow to families who have lived in the community for over 100 years. At the same time, it has directly lead to the problems of informal housing¹¹.

Most of the current residents live in very poor quality construction that lacks urban planning. City managers tend to think of this current housing as a cancer of city modernization.

Although there are some drawbacks of these kinds of informal housing, I do not think they are bad enough that entire neighborhoods should be demolished. This kind of demolition represents the worst aspects of urban renewal.

¹¹ Informal housing : United Nations Division for Sustainable Development 19/03/1999, United Nation Sustainable Development Report.

Section 3 Street System

The street dimensions have to match what is going to take place there (or conversely, what goes on there has to match the dimensions). We must see to it that the dimensions of space, large or small, are appropriate for the functions they may be expected to serve."

- Herman Hertzberger, 'Lessons for students in Architecture'¹²

The spatial structure in historical Quanzhou City is based on an irregular network of streets, roads and passageways, centered around two horizontal east-west streets (Xi Jie and Tu Men Jie) and a vertical north-south street (Zhong Shan Road).

Subsection 1: Main Business Street

Zhong Shan Road



Zhong Shan Road forms the core of the Quanzhou city extension and is the busiest center of commercial activity in the historic district. The total length of Zhong Shan Road is about 2,500 meters, from south to north and spans nearly the entire city.

Figure 25 Zhong Shan Road 's location

¹² Hertzberger, Herman. *Space and the Architect: Lessons in Architecture 2*. Rotterdam: 010 Publisher, 2010. Print.



1930 Zhong Shan Road



2010 Zhong Shan Road

¹³Figure 27 pictures of old and new Zhongshan Road

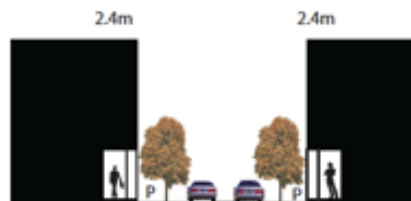


Figure 26 Zhong Shan Road's Street Section 1

¹³ Quanzhou Urban and Planning Bureau, n.d. Web. 19 Dec. 2012.
http://www.qzghj.gov.cn/wszt/lswhmcbbgh/201110/t20111027_3438.htm.

Street Characteristics:

1. Framed by small-scale buildings;
2. A wonderful human scale with a strong pedestrian focus;

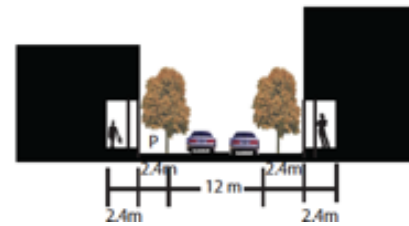
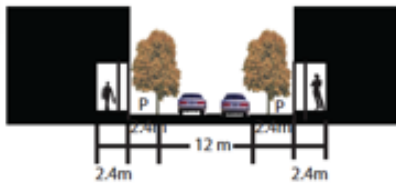


Figure 28 Zhong Shan Road Street Section 2

The pedestrian realm shaped by arcades forming special spaces that give identity to neighborhoods and allow residents and visitors to feel safe and close. Provides protection from the rain.

Xijie Street



Figure 29 Xijie's Elevation

Xijie Street was established in the Tang Dynasty (685 ad) and is the oldest street in Quanzhou. Its length is 1,227 meters and the street width is 10 meters (building face to face) . This street crosses the historic city from east to west. The largest temple in southern China – Kai-Yuan Temple - is located on the side of the street. In order to not obscure the historic Temple, all buildings in the area are restricted to a maximum height of 2 stories or 7 meters. The area immediately surrounding Xijie Street is the earliest residential area in Quanzhou City dating from the 8th century. Based on Tang Dynasty urban planning -- ,



Figure 30 Xi Jie's Section

Tu-Men Jie



“Tu-Men Jie” is located in the heart of Quanzhou, and its latest iteration was redeveloped and completed in 1995. It was widened to accommodate infrastructure upgrading. Before redevelopment only single family houses occupied this area. Now, it has been replaced with higher

density multi-story housing with commercial units on the ground level. The government has also tried to promote tourism in this area. For this reason, residents were relocated to other locations in the neighborhood or elsewhere within the city. Two significant historical sites, the Qing Ling Mosque and Quanzhou's most popular Taoist temple -- Guan Yue Miao have been preserved as open plazas with the heights of surrounding buildings restricted in this area. During the redevelopment process at Tu-Men Jie, the government tried to respect and reflect the traditional elements of the adjacent urbanism, such as using traditional building styles, materials, details, etc. However, the large scale of new buildings and



their effect on urban space was disastrous to the community and destroyed the historic urban fabric of the neighborhoods as seen in Figure 4-4 to the left. The former 12-meter wide local retail street

was replaced by a 24-meter city boulevard. Today, traffic congestion and higher than average driving speeds prevent people who shop on this street from being able to cross in most locations. This has damaged the retail and pedestrian nature of the street and neighborhood.

Section 4 Lanes

As stated before, lanes are the roads that radiate from the main business streets into the residential areas. The width of these narrow roads is between 1.5 meters to 4.0 meters.



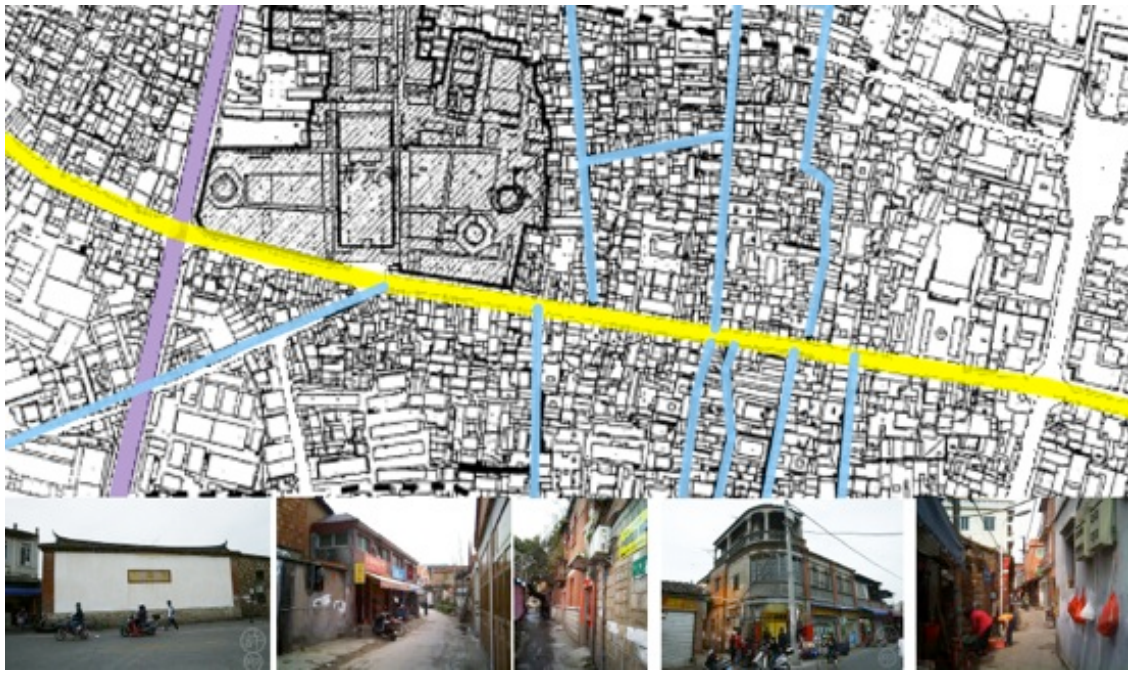


Figure 32 Lanes on Xijie

Section 5 Residential Road & Pathway

The Residential Road is the primary means of circulation connecting house to house.

It is the main space for social interaction and activities. I will talk in more detail about these most important roads in the next Chapter.

Alleys form the gap between house to house. These spaces are very narrow of no more than 2 meter.



Figure 33 Different types streets' sections

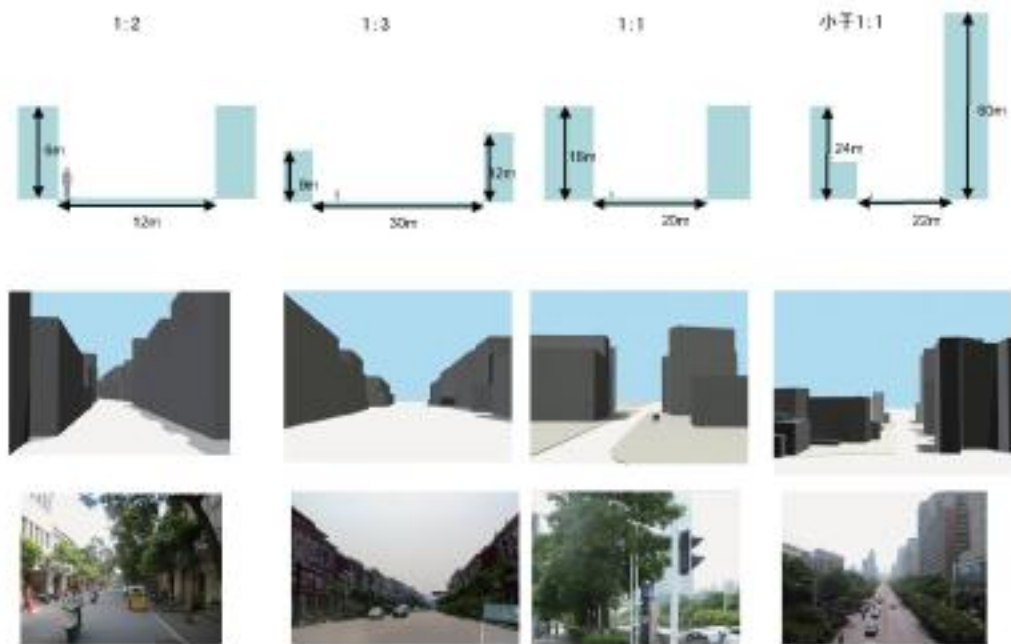


Figure 34 Main Streets in Quanzhou's Section

Chapter 4: Quanzhou's house and space

Section 1 Architecture Style

The historic buildings in this area are predominately two or three stories and consist of a shop facing onto the street at the ground level, and a residential area located styles over 150 years ago. These buildings were created in a variety of architectural format.

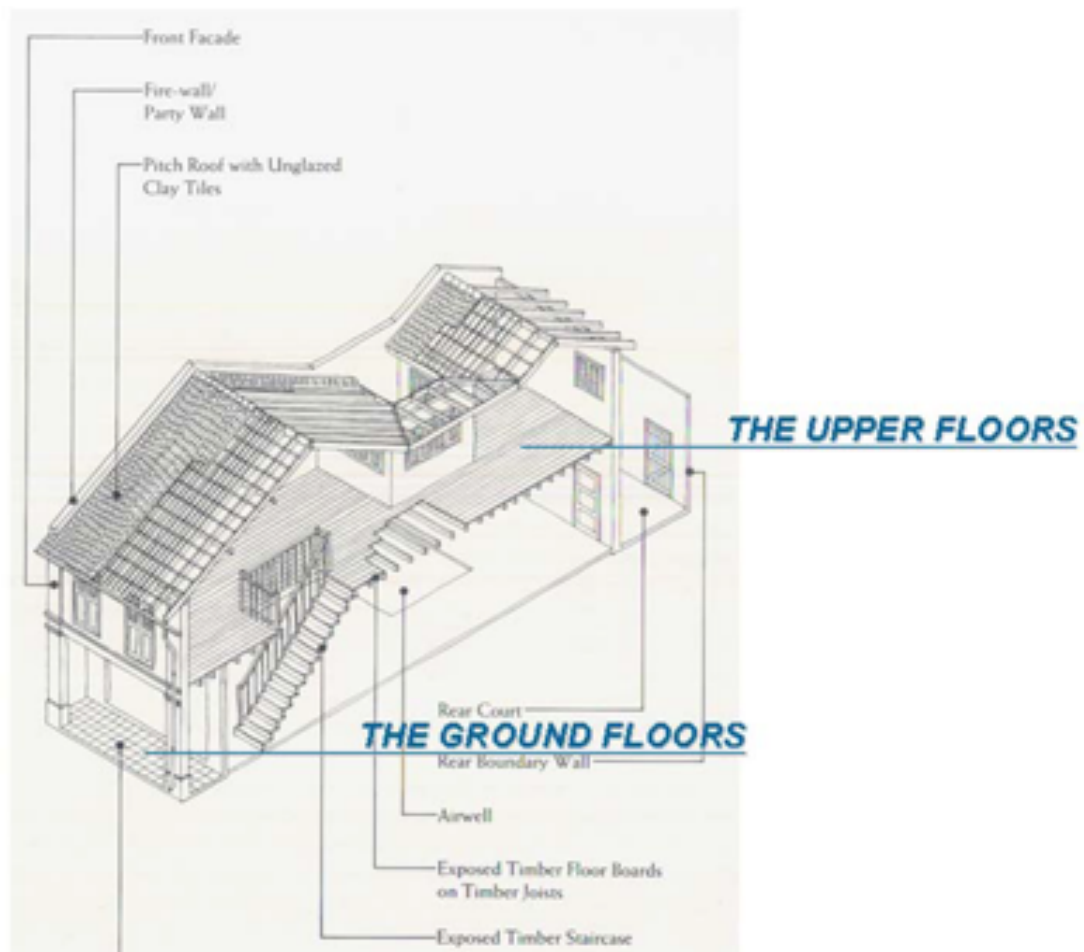


Figure 35 Axon Section of traditional shophouse



Figure 36 Shophouse Plan



Figure 37 Skywell in a traditional house



Figure 38 Courtyard in a traditional house

Section 2 Unique Space

Traditional urban areas have an abundance of special functions and spaces. Major roads feed into small lanes and squares, which are then, framed by private yards and living spaces. All of these spaces gradually change from open areas to enclosed areas and from public to private zones. In the process of transferring from the public domain to the private domain, residents pass through multiple different layers of outdoor neighboring spaces, which stimulates neighborhood communication and interaction at multiple levels.

From my observations, the most obvious difference between a typical Chinese city and a western city is in the street layout. YunJin Lee pointed out that, “The organizational form of the Chinese cities experienced a lot of change, but no matter what form, a traditional city’s organizational spirit is still retained, they are manifested as a ‘Chinese city’. (“China artistic conception” Pg. 400) “Spirit” refers to the spirit of contacting each other and taking care of each other on the lane - “Fang” (Street).

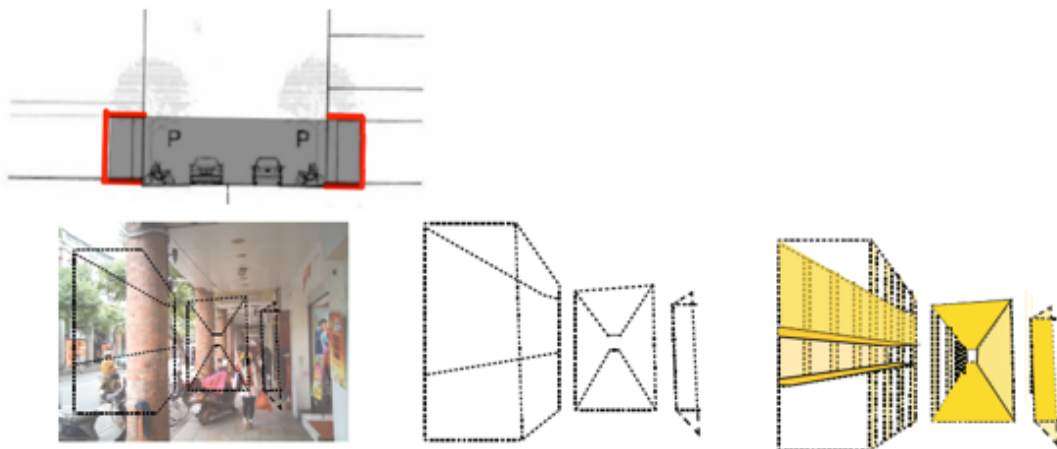


Figure 39 Business Street Diagram

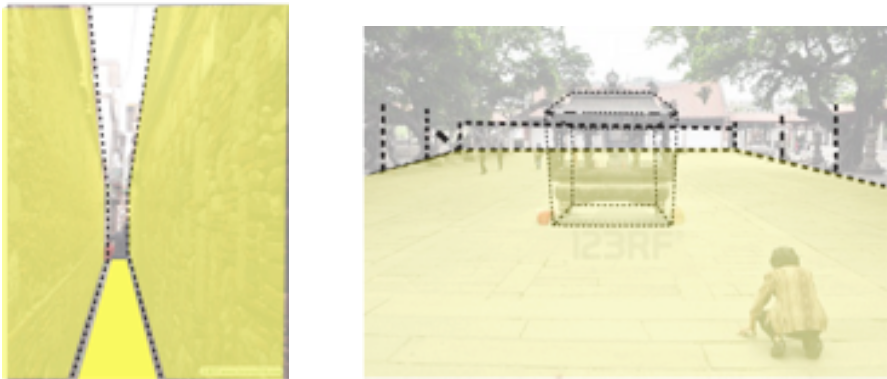


Figure 40 Small Pathway and Square

Comparing maps between Chinese cities and western cities, I could not find any public space without walls in ancient Chinese cities. Even some of the public spaces for celebrating festivals and praying are attached to large temples and enclosed by walls. However, these tiny open spaces (just a little wider than street) are seen everywhere and contribute to a vibrancy within the community that is dynamic and remarkable.

At the beginning of urban renewal in China, a guiding tenet was the creation of large urban spaces for community gatherings. Modern Chinese urban planners claimed that one of the primary drawbacks of ancient urban planning was the lack of larger community spaces which is popular in most cultures. Although these larger spaces have importance for large civic gatherings, it is the small intimate spaces that make traditional Chinese cities and neighborhoods both safe and unique. In this renewal process, they pulled down historic areas to build the huge squares which Chinese people were not accustomed to. It is most apparent to me that the Quanzhou historic

precedent of small intimate spaces tied together with a multi-layered street network system generated vibrant safe neighborhoods and communities. As this type of system has been so successful for thousands of years in China, maybe we can conclude that Chinese people are most comfortable with more intimate street spaces for walking, shopping, and socializing.

Since history has shown that people have an intimate relationship with the street, it seems that City Planners should care more about this relationship. The modern Chinese city plan theory, which emphasizes speed of construction and speed of travel on monotonous enormous streets, has proven to lack any meaningful community identity. Because of this lack of identity and a hierarchy of nuanced streets and spaces, people feel puzzled and trapped in open fields of monotony.

This kind of structure also requires and promotes the use of cars and increases geographic distance between people according to Jane Jacobs's The Death and life of Great American Cities. This kind of development is similar to post-World War II city development in the United States and Europe. Within this paradigm, streets became a most convenient way to move cars rather than the primary organ of public life within the city. It has become rare for people to be seen walking along all of these speedy motorways in Chinese cities today. The street as the center for people's social life has disappeared with the demolishing of old buildings and neighborhoods and the simplification and expansion of the road networks. With the focus on speed of navigation of cars, the normal comfortable street activity provided to the pedestrian

for social interaction has become damaged which has caused insecurity and isolation within communities.

The modern city plan of China today consists of wide streets for cars surrounding large undifferentiated, ill-defined superblocks. This model has led to the decline of small commercial activities, has sacrificed social interaction and intimacy, and weakened community relationships. In contrast, the traditional streets designed for people strengthen social interaction and a sense of trust in communities and makes it easier to create safer neighborhoods. These streets offer a more humanistic society, which is healthier for inhabitants.

Section 3 Conclusion

According to research on Quanzhou City, the following elements should be especially incorporate into future designs.

1. Linear Circulation: Should be clear, narrow, and have defined boundaries,
2. “Grey Space”—(in western culture called transitional space), is semi public space that creates a transition, or threshold from space to space and it must be both vague but familiar,
3. Small Open Spaces should be established that create shadows and places of rest, Opportunities for shop houses should be established where people can live and work in the same building,
5. Establish meaningful Neighborhood Temple sites for neighborhood activities.

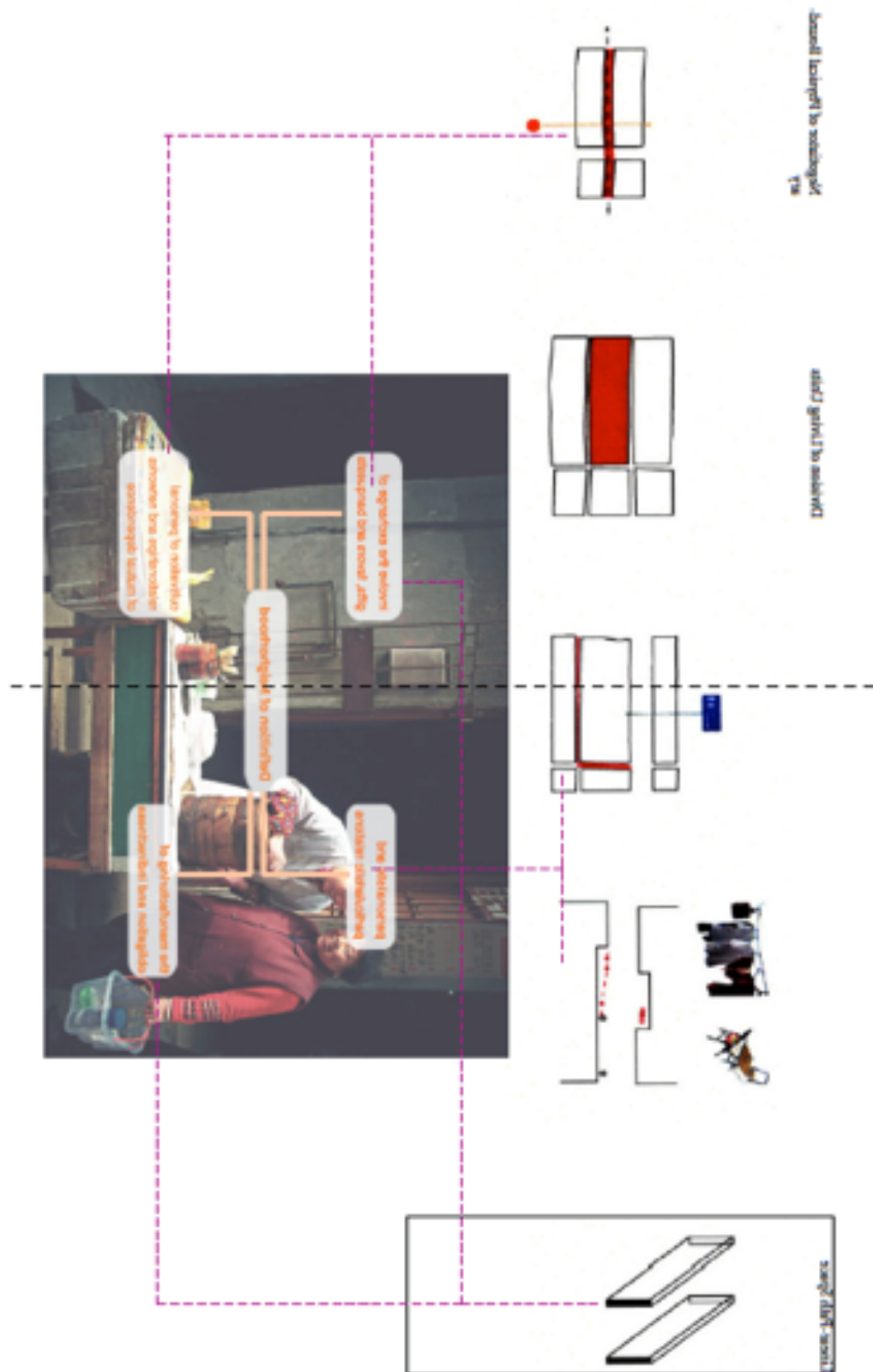


Figure 41 Daily Life happen in Different Space

Chapter 5: The Site



Figure 42 Site's location in Quanzhou

The site is a triangular shaped area that has its longest side to the west adjacent to the historic [Jinjiang](#) riverbank. [To the east of this triangle site is Ju-Bao Street which is the most famous historical street in Quanzhou.](#) Ju-Bao Street is also adjacent to a canal-Bagua Canal, which [runs along the northern side of the site and](#) used to feed one of the largest trading markets in its historic Marine Time past.



Figure 43 Existing Condition



Figure 44 Model Picture

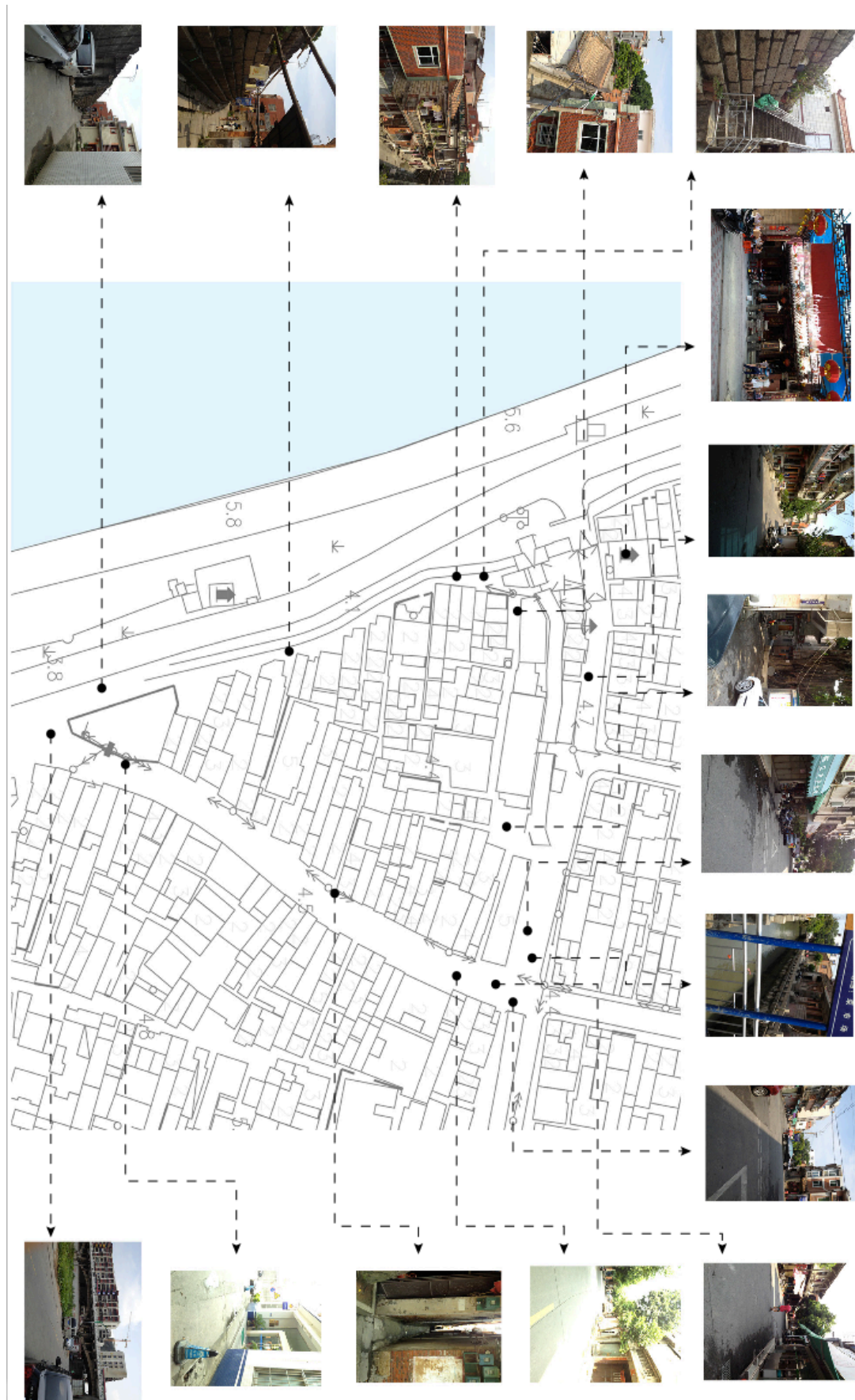


Figure 45 Interesting Points in the Site

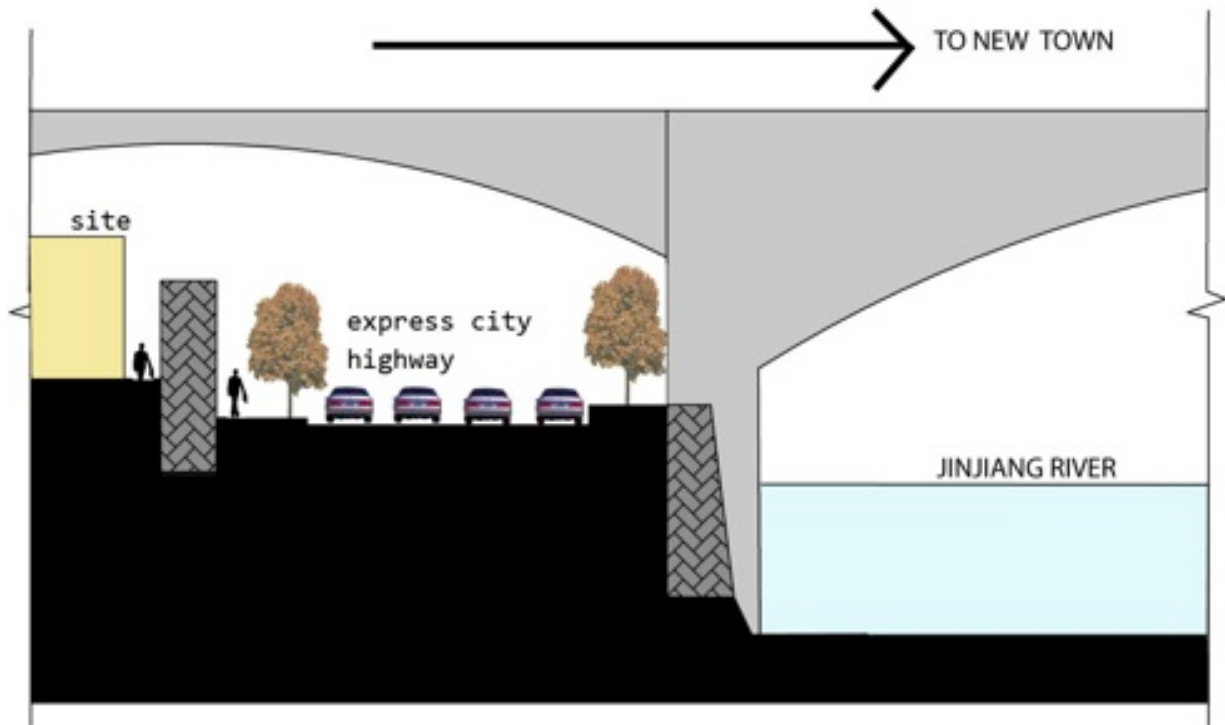


Figure 46 Site Section

Ju-Bao Jie

Ju-Bao Jie [is](#) located [at](#) the southern end of Quanzhou Old Town, [It was created](#) in the era of the Song and Yuan Dynasties, [This Street is](#) 12 meters in width and 400 meters [long with](#) cement pavement. Phoenix trees and traditional buildings have stood on both sides of Ju-Bao Street for hundreds [of](#) years.

Quanzhou was one of the biggest ports in the world in the 12 century and Ju-Bao Jie Street was one the most prosperous business streets in Quanzhou City. Merchant ships came around the world stopped in the river port. Businessmen gathered along this street to trade a variety of gold and silver jewelry, silk cloth, spices, herbs, tea, porcelain and other goods. Chinese merchants would then ship these products into China by the canal. The street name “ Ju-Bao Jie” --- in Chinese means a street that

accumulates fortune. However, with the fading of maritime business in the Qing dynasty in 15006 ac , Ju-Bao Jie gradually changed from a Business Street into residential and local retail street.



Figure 47 Street View of Jubao Jie

The canal into North Ju-Bao Jie and South Ju-Bao Jie divided ju-Bao Jie. In 1985, North Ju-Bao Jie was designated and planned as part of the Quanzhou historical city. South Ju-

Bao Jie was not included in the old city's boundary in 1985 (Quanzhou government set the old city's boundary by canal). In 1992, the construction of Quanzhou Bridge, which connects Quanzhou Downtown and Jinjiang- industry area, brought south Ju-Bao Jie into the primary traffic node again. Today, north and south are completely different scenes altogether. The north part kept its quite historical neighborhoods but the south Ju-Bao Jie adjacent to the bridge, has a modern face.

Comparing the figure ground characteristics of the south Ju-Bao Jie site with the surrounding characteristics, I concluded the following pertaining to the urban character of the site.

1. Primarily consisting of fragmentary space and has lost the sense of neighborhood;
2. There is confusion between the front and back of the house,

3. There is no continuity of façades along the street side
4. Discontinuity and fragmented from the historical sites.

The current living conditions at the site are not ideal. The following diagrams and bullet points explain these conditions.

Subsection 2: Site Area and other information

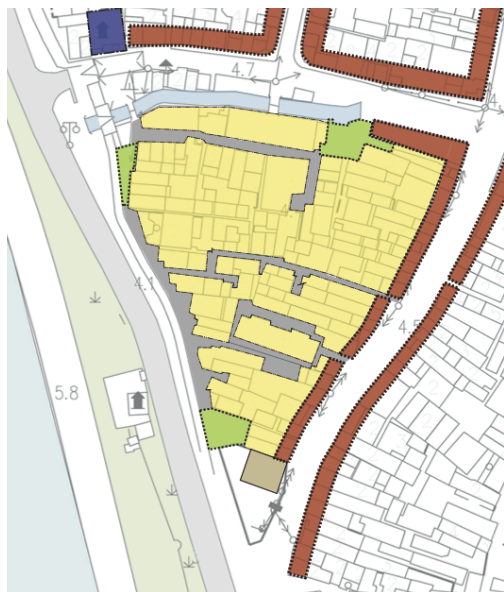


Figure 48 Existing Land Use



Figure 50 Existing Business Street -Jubao Jie(Street)



Figure 51 Pathway into other building



Figure 52 Good Conditional Traditional Building



Figure 53 abandoned precast concrete building

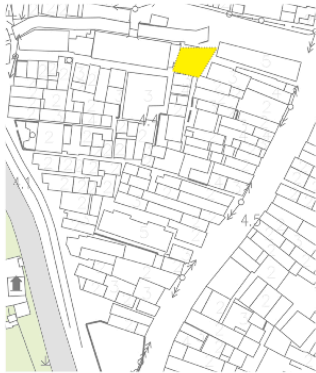


Figure 55 600 hundred year old tree

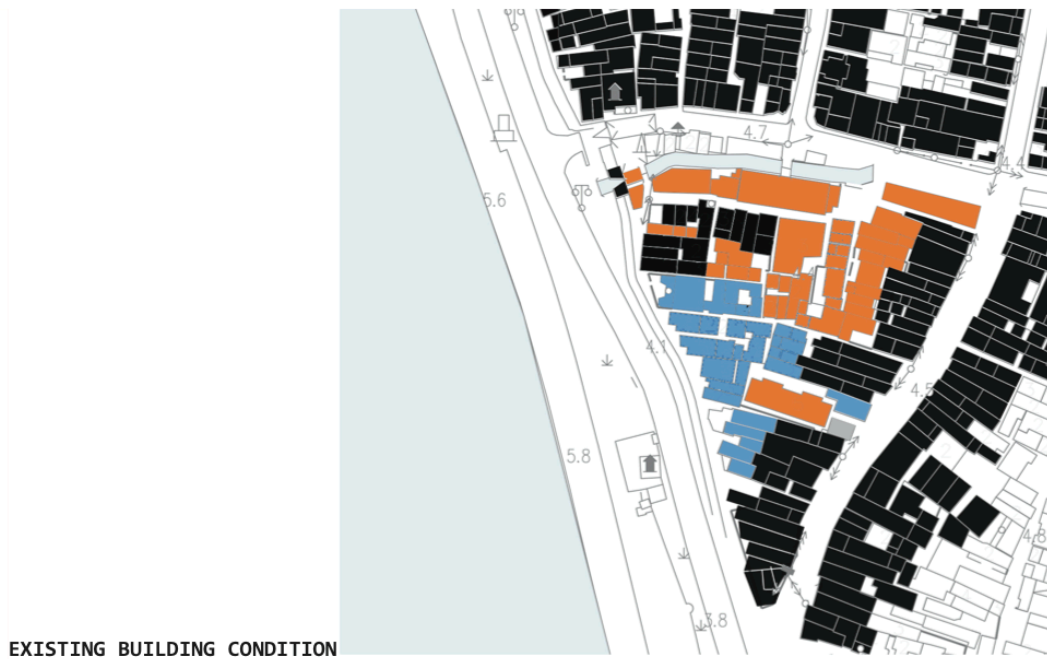


Figure 54 Building Situation on Site

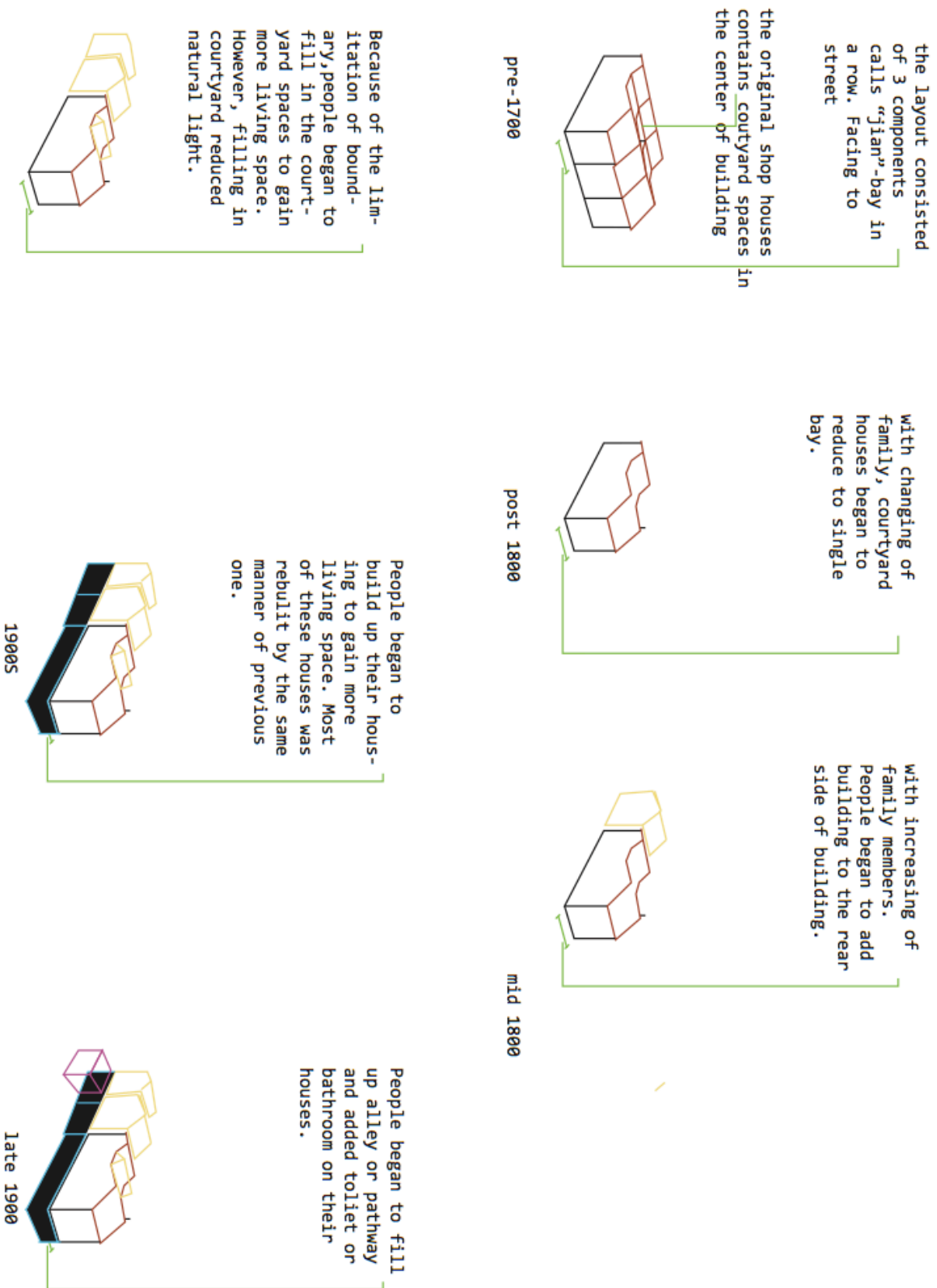


Figure 56 Buildings on the site develop history through 600 years



Figure 57 Nolli plan of the site

Most houses on the site was developed from small courtyard houses. With the increase of family member, residents began to rebuild their house and keep the original space layout. However, in modern time, residents found that the historical house could not meet their daily life requirement, and they need some modern amenity in their houses, such as bathroom, modern kitchen. It was kind of hard to add anything in skinny houses, therefore, residents began to take up some part of public space or pathway to build their kitchen or bathroom. That's the reason why the site looks so narrow.

Chapter 6: Precedent

Section 1 Azuma House



Figure 58 Azuma House

Architect: Tadao Ando

Location: Osaka, Japan

Date: 1976

Building: Row house

Construction System: Concrete

Climate: Semitropical

Context: Dense urban

Site area: 57 sq meters

Building area: 34 sq meters

Total floor area: 65 sq meters

Azuma House is Tadao Ando's first residential commission, and one of his most praised. There is only one opening and that is the opening to the house to enter. This indicates an oppressive feeling. The material used in its value left by this no further editing. As a result, the tapered holes in the concrete can be seen. This gives an beautiful unfinished look.

When it rains makes this unfinished appearance for an additional sober look. Once inside, the house consists of three equal blocks of repetitive volumes. The neighborhood is in the Sumiyoshi area near the center of Osaka City, where a lot of wood traditional residences survived the Second World War. Row houses are the typical living form in the Osaka area. These townhouses are usually two rooms wide with each house lying side by side to form a row. Tadao Ando had very limited space.

The lot is narrow but three houses long. Thus, the total space is a slim bar shape. The project was to replace three wood traditional row houses with a modern residence.

Tadao Ando plugged in a cubic concrete box into this very limited space in this environment. Ando wants to create a miniature of the cosmos in a concrete box: simple structure but with diverse uses of the space, closed space but with dramatic play of the light. Tadao Ando tries to create a residence, which is incorporated with nature although located in the dense urban setting.

The courtyard is the core of the house. It is located in the center, and it is open, which provides the source of dramatic natural light. Ando explains that “the courtyard is the focus of everyday life; it also offers a site for the life of imagination”. People enter from the constricted front entrance into the living room, and there is a courtyard, which separates the living room and the other half of the house: a kitchen, a dining room and a bathroom. At one side of the courtyard, the narrow stairway is near the wall, which goes to the second floor. The courtyard separates the master bedroom and the children’s room; both the two rooms can be entered through a bridge connected

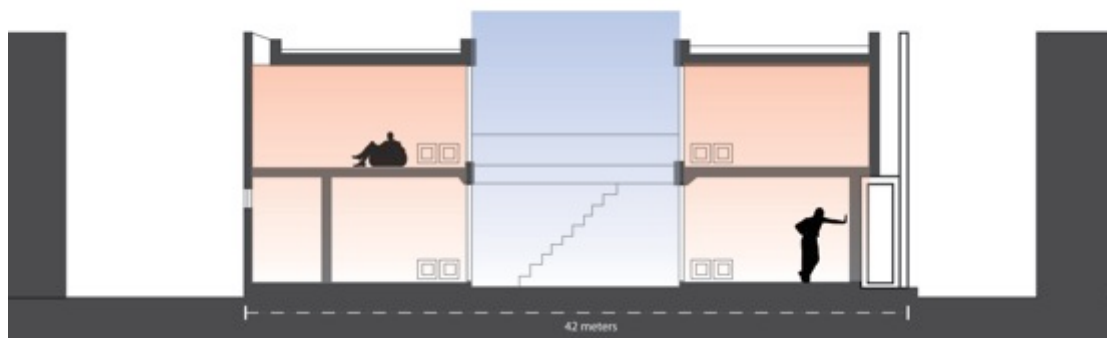


Figure 59 Private and Public Space Diagram

with the stair. The courtyard is open to the sky, which allows the light to penetrate through the interior. The opening of the courtyard makes the light very dramatic to the interior. The shades changing and flowing on the plain blank concrete walls give the stable and heavy material a light and poetic feeling.

The courtyard is a connection point of the two enclosed interior spaces of the building, and it is also a connection of people inside the house. Residents talk and interact with each other in the courtyard, which provides a point that draws the emotions to.



Figure 60 Daylight Diagram

What can be learned from the Azuma House:

- 1 Light as a media to conduct the space transformation
- 2 Minimum decorations as a respect to an historical site

Section 2 Ju'er Hutong



The Ju'er Hutong project, a government pilot program to rehabilitate dilapidated housing in inner city Beijing, was touted as a

Figure 61 Ju'er Hutong

successful model of housing design by academia and authorities alike. The total land area of the redevelopment program is 8.7 ha. The total population involved is 2,300 residents and the total number of housing units is 770. The designers employed several tactics to achieve this, including the use of traditional pitched roofs, which increases usable floor space without effecting sunlight penetration, and a basement level, which also solves the drainage problems.

What can be learned from the Ju'er Hutong:

1 Pitched roof, which increases usable floor space without effecting sunlight penetration

2 Courtyard as a media to conduct the space transformation

Section 3 Sarugaku, Japan



Architects: Akihisa Hirata

Program: Shopping

Site Area: 538 sqm

Constructed Area: 851.5

sqm

“An outdoor shopping mall, Sarugaku, in the Daikanyama district, which accommodates six

buildings and ten retailers on less than six thousand square feet; architect Akihisa Hirata does so by means of compression, allowing shops to sit atop one another and relying on shoppers and storefronts to fill an otherwise, unadorned public space. Tapering the second floor of the buildings, drawing the public realm up from the street level into the air as well,

accommodates balconies and projected walkways. I also

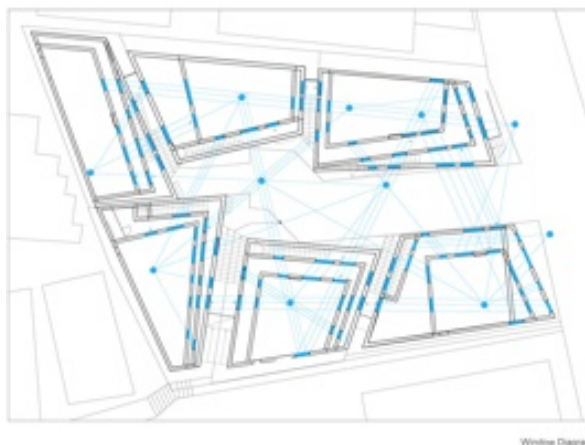


Figure 62 Sarugaku, Japan

appreciate the scale of the project, as well -- incremental additions are to be preferred to massive urban planning schemes, as a general rule, I think. Their spatial constraints frequently enable the architect to make bold gestures without being overbearing."

-ArchiDaily¹⁴

What can be learned from the Sarugaku:

1 According to existing street network, dividing a block into several small pieces then shifting them to increase the connection with surrounding area.

2 Irregular central courtyard, which increase the public space.

Chapter 7: Design

Section 1: Design Objections

Subsection 1: General objects

In General,

Providing varied, intimate and more public space for residents to be located throughout the site,

Reactivate the Riverbank for the entire community,

Maintain traditional commercial life styles within this neighborhood,

¹⁴"Sarugaku / Akihisa Hirata." *ArchiDaily*. N.p., n.d. Web. 19 Dec. 2012.
<<http://www.archdaily.com/8237/sarugaku-akihisa-hirata/>>

Maintain and enhance traditional urban social interaction,

Upgrade the living conditions of the community,

Increase the density of this neighborhood,

Provide multiple housing choices throughout,

Provide for vehicular parking and storage.

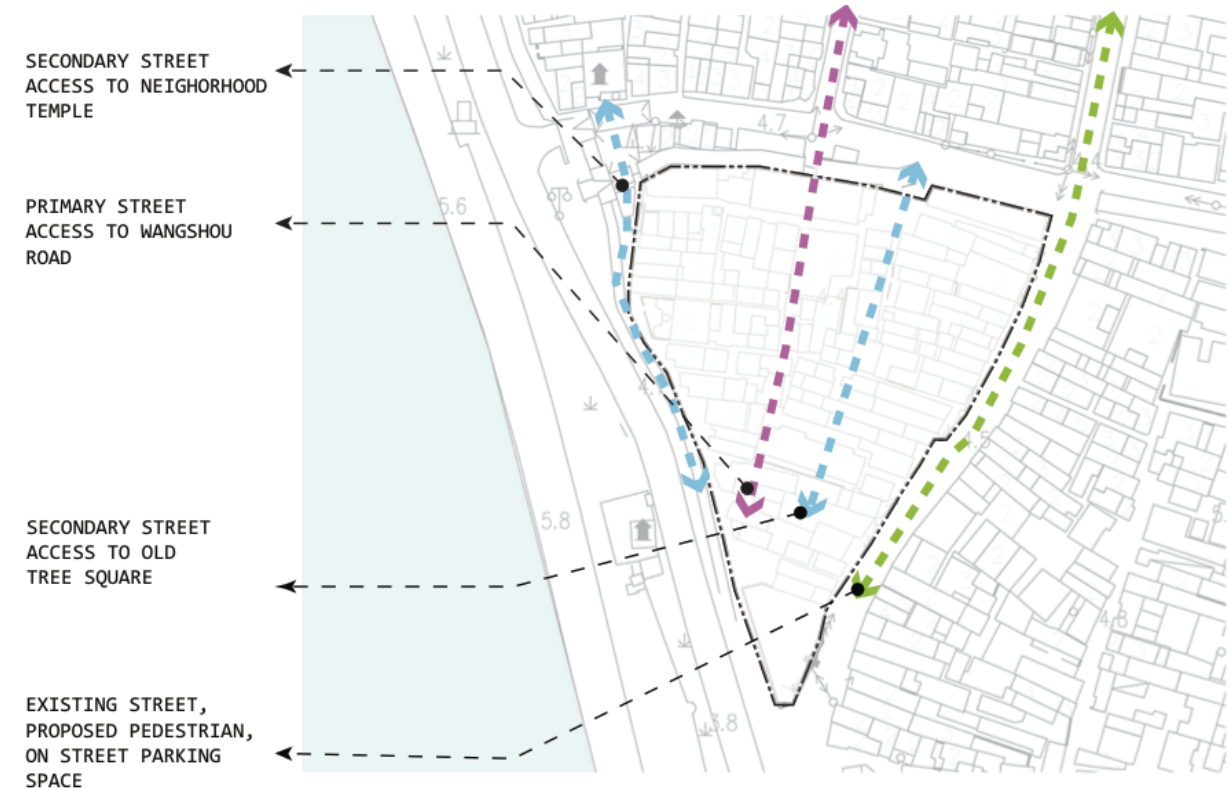


Figure 63 Diagram of Proposal Circulation

Subsection 2: Street

The building elevations will form the faces of the streets and will heighten a strong and dynamic public realm. Architectural and urban design will be used to slow down the public's movement and increase social interaction and communication between people. I am interested in the transition space between the house to house and the transition from a small lane to a big boulevard.



Figure 64 Author's Ideally Street

Subsection 3 Individual housing design:

I will attempt to transform a traditional shop house prototype into modern collective housing with 3 to 5 apartments in each building with traditional retail at the base. (Typical shop house dimensions are approximately 6 meters wide, 6 meters tall, and 30 meters deep) for 3-5 families in kinship. Each small family has 2-4 members.

1. Space: The space division of the building must consider the independent daily life of each family yet promote communication between different families.

Following the traditional local economic structure, I will keep the shops at the ground floor and use upper levels as living space. Entrances to the individual units will be accessed from the street and separated from the shop, which is different from the traditional shop house type.

2. Building: In response to the traditional shop house building type, I will provide the following elements to my designs:
1. The height variation between different space functions in order to strengthen the public space to private space relationships.
 2. The proportional relationship between open space and enclosed space.
 3. The expression and representation of local building material and architecture detail.
 4. The application of vertical and horizontal lines within facades in order to integrate new buildings into existing urban fabric and to heighten memories of traditional mandarin housing designs.
 5. Ventilation and Daylight: the site width/depth proportion is 1:5, which is quite different from today's Chinese building regulations. However, past generations utilized front yards, courtyards, and patios to get rid of the daylight and ventilation issue. I will study this strategy and apply it to my design in order to make it meet the current building codes.

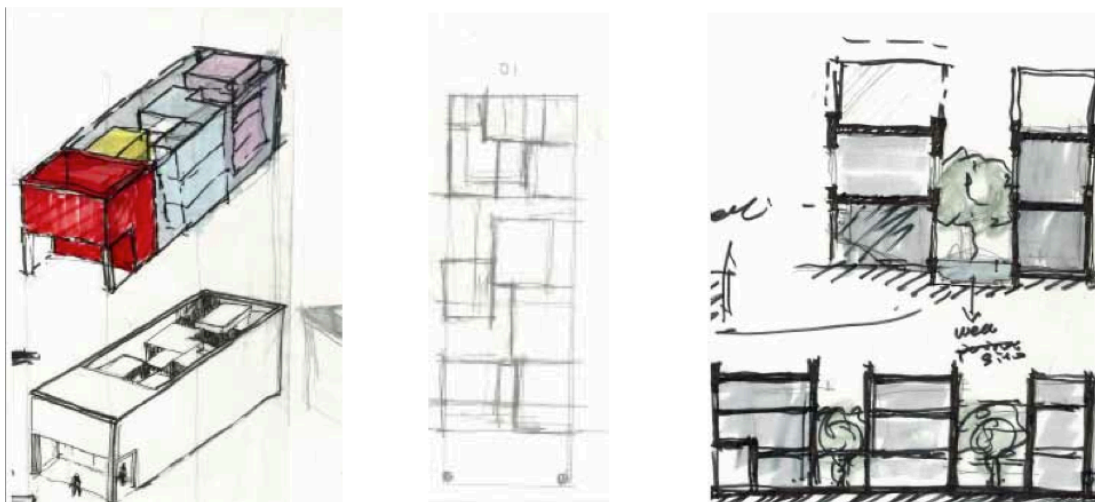


Figure 65 House Scheme



Section 2: Urban Design Strategies

Subsection 1: Street

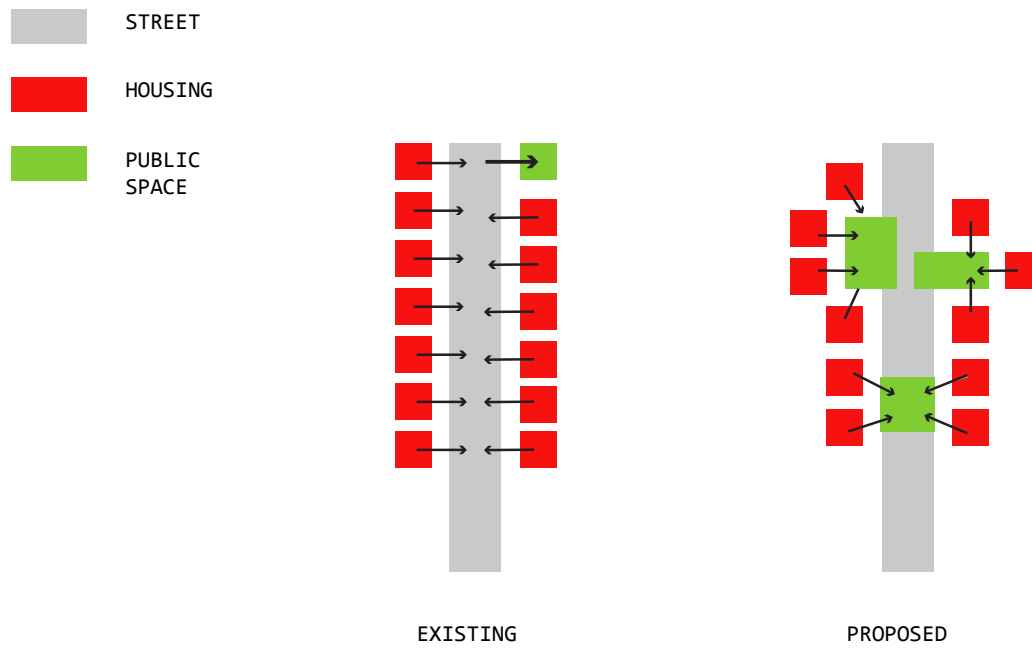


Figure 66 Main Street Diagram



Figure 67 Proposed street diagram

Versus what is happening in China, a linear street with a public space in the end, I proposed a street which several public space scats in the street.



Figure 68 over lap with existing figure ground

Also, I try to keep existing alley, I overlap the proposed diagram and existing diagram.



Figure 69 Proposal street

Subsection 2: Street Network



Figure 70 Street Network



Figure 71 Shift point

There are two different street networks. I keep both of them. And taken shift points as relatively open space.

Subsection 3: Demolish Area



Figure 72 Demolish Building Diagram

Versus to demolish the whole site, I evaluate the building situation, negotiate to not demolish buildings.

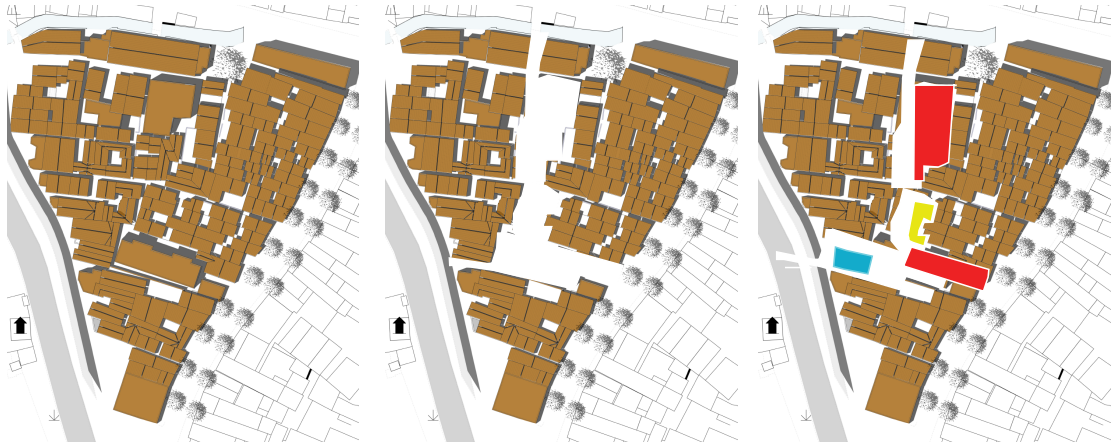


Figure 73 Renewal Process

Section 3: Proposed Site Design

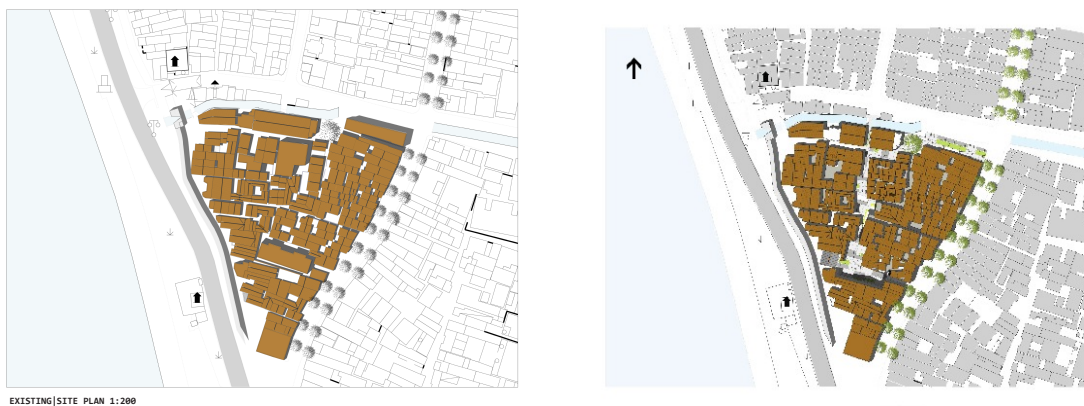


Figure 74 Comparison New and Old



Figure 75 EXISTING



Figure 76 Proposed



Figure 78 Perspective on main street



Figure 77 Perspective from Alley

In the my proposal, I proposed a relative big open space in front of neighborhood temple; and keep most of existing organic alley on the site.



Figure 79 perspective of house and square



Figure 80 SCHEME

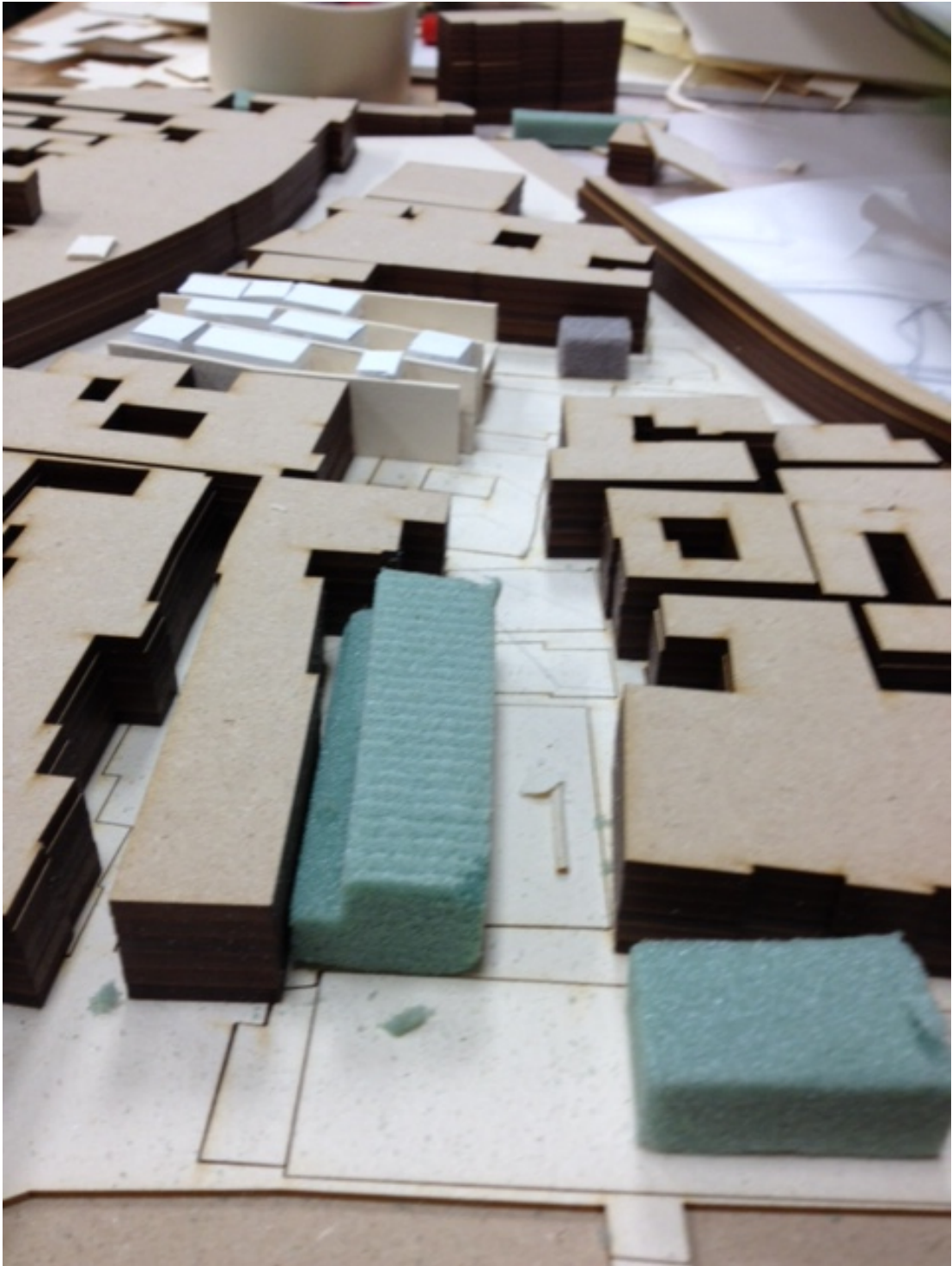
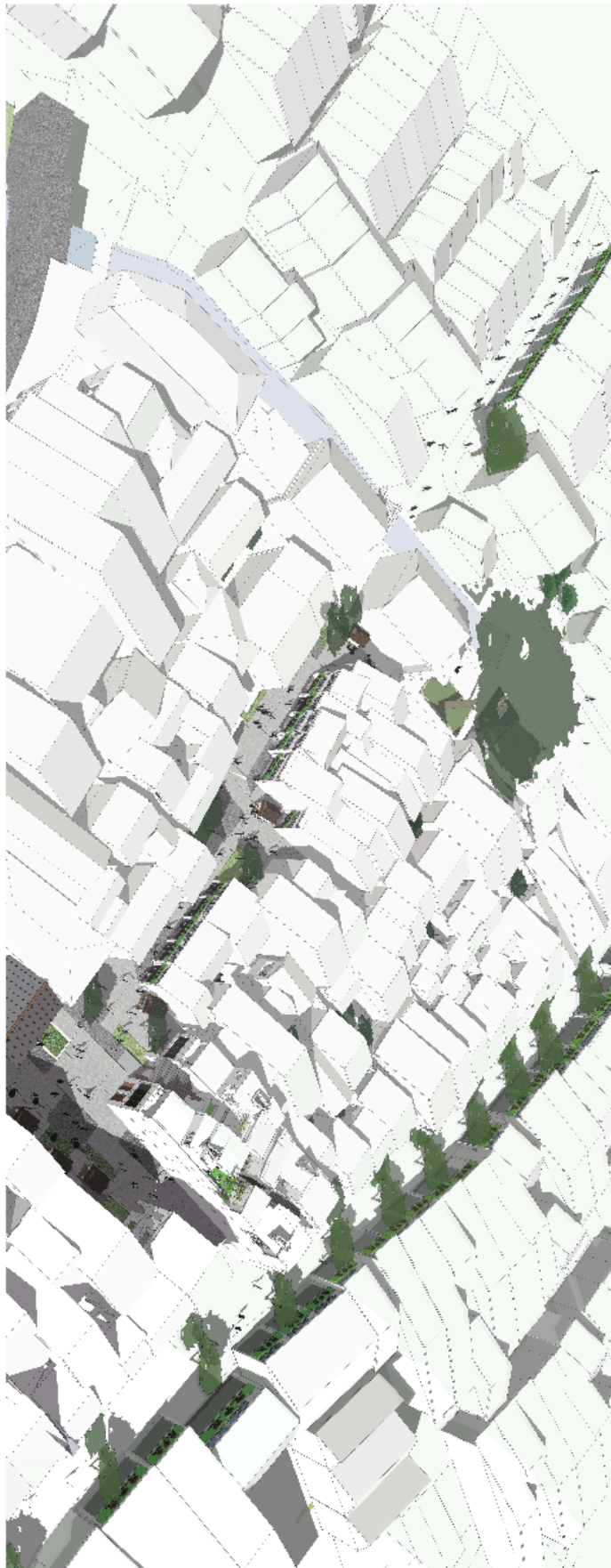


Figure 81 SCHEME

Figure 82 scheme



Section 4: Proposed House Design

Inspired by existing sun path and approach path to the existing house. I merged the two axes as the walls, which divided different houses.

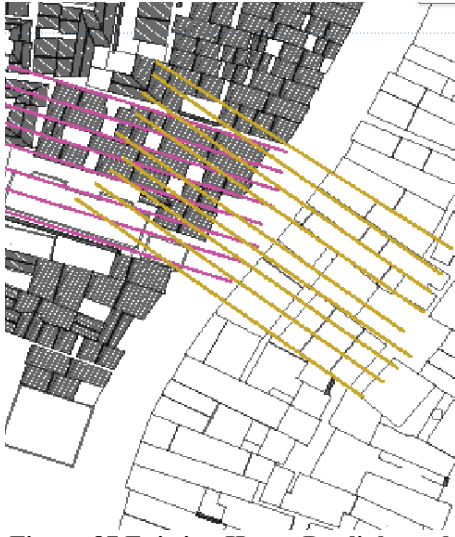


Figure 87 Existing House Daylight and approach



Figure 86 Merge Two Axes



Figure 85 Wall



Figure 84 Proposed Four individual houses



Figure 88 Second Floor Plan

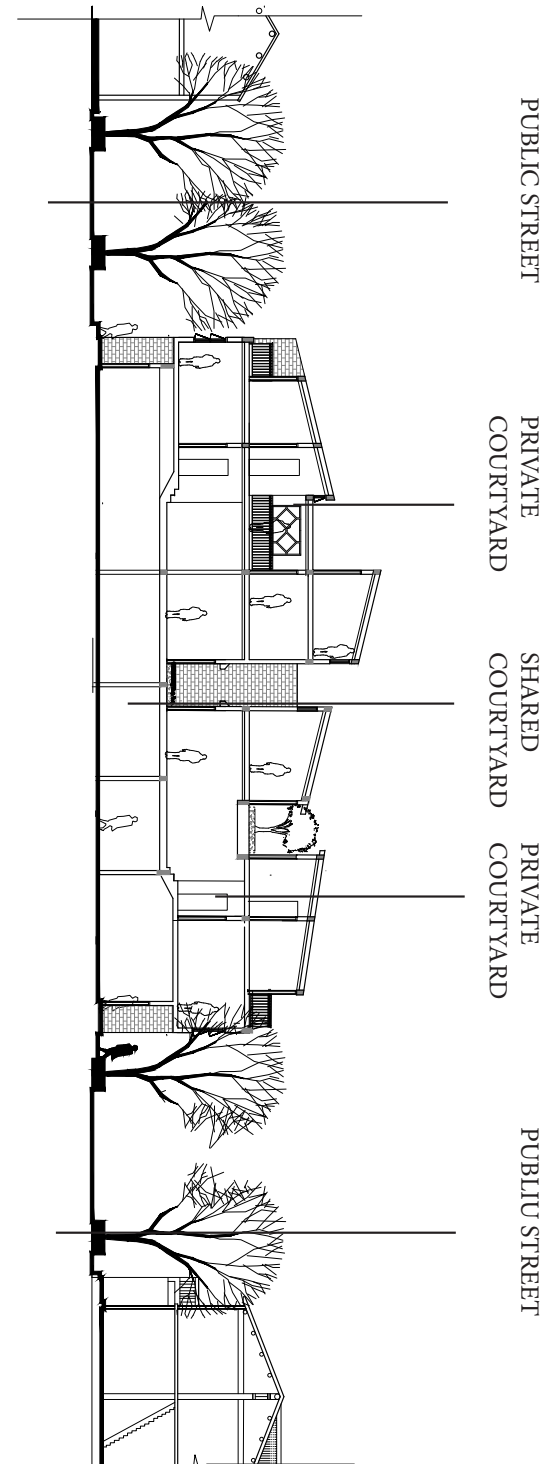


Figure 89 Section

- COURTYARD: ALL FAMILIES COMMUNICATION SPACE
- SKYWELL: STAIR, LIGHT, VENTILATION
- KITCHEN
- LIVING ROOM: FAMILY MEMBER COMMUNICATION SPACE
- BATHROOM: DIVIDED LIVING ROOM AND PRIVATE SPACE
- BEDROOM: PRIVATE SPACE





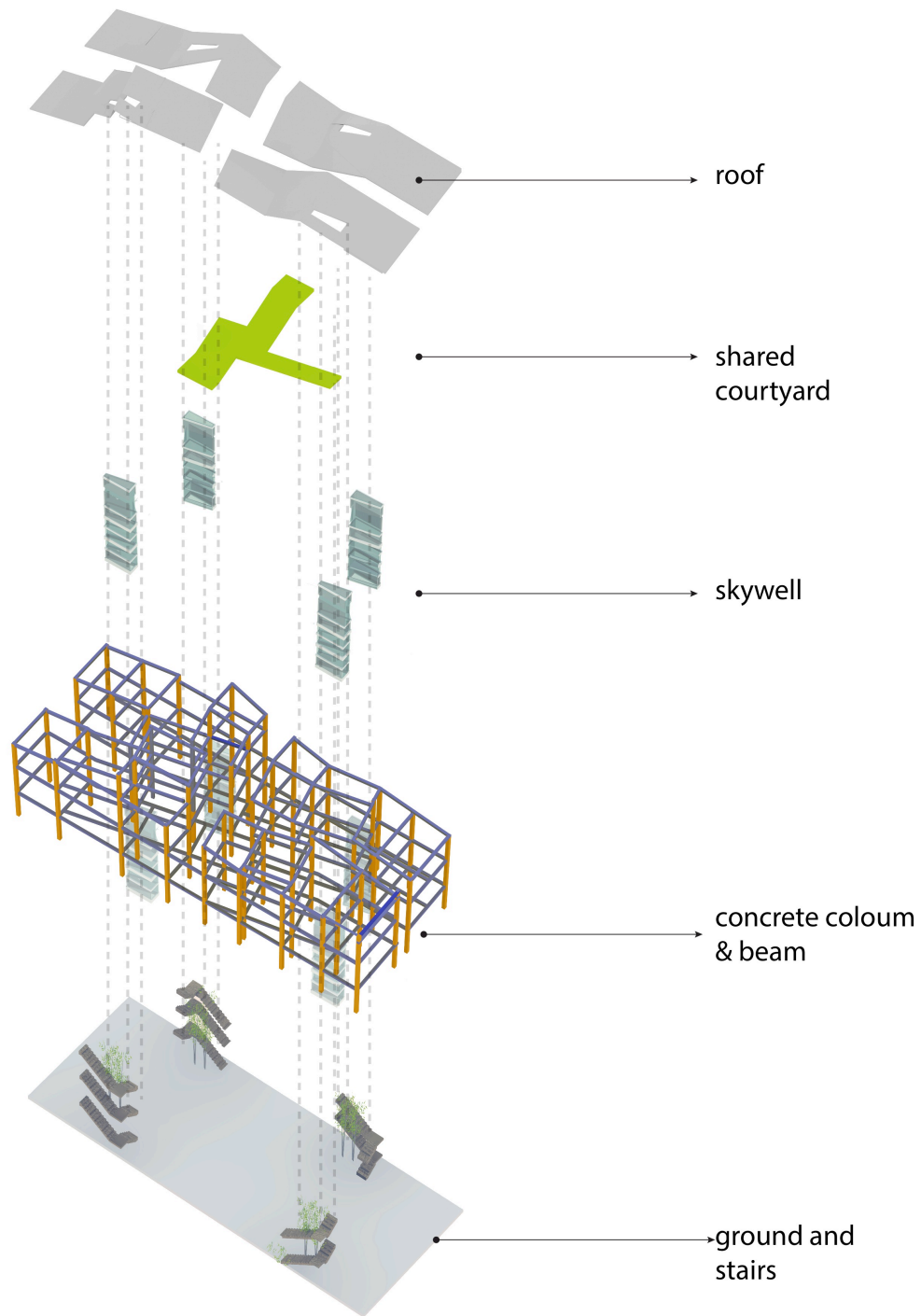
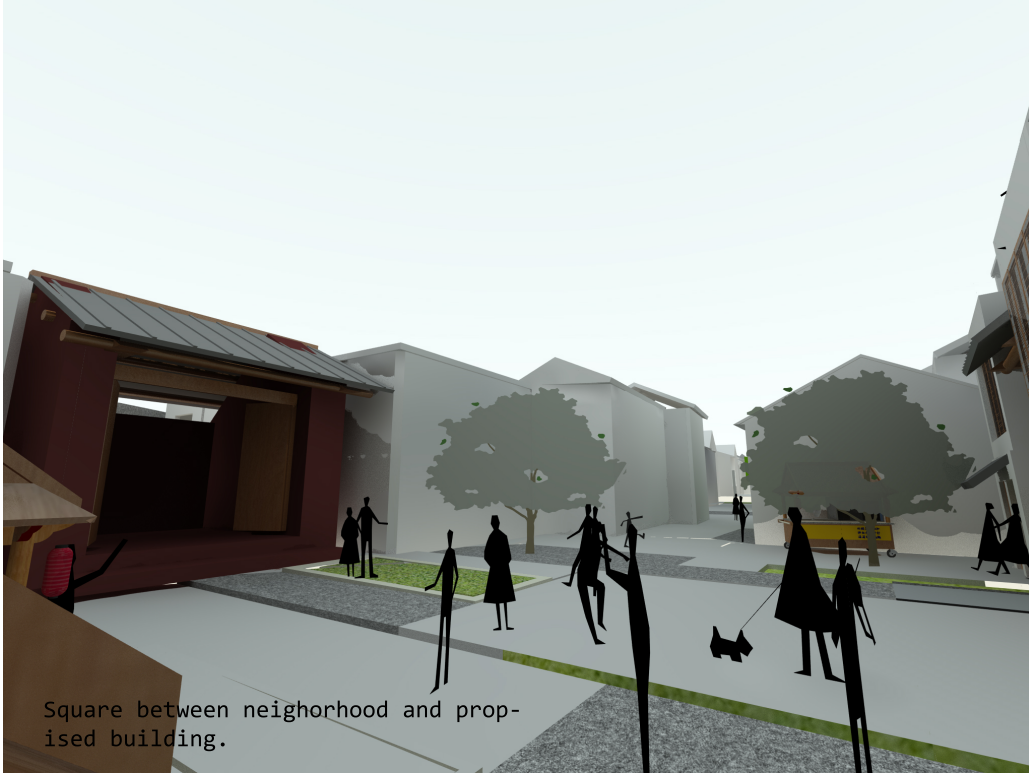
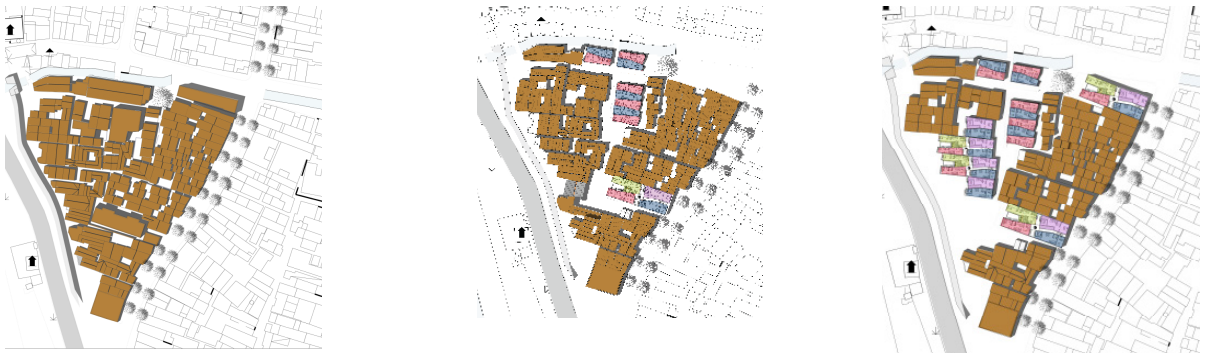


Figure 90 Structure Diagram



Chapter 8: Conclusion

The building gets daylight through skywell, so it can be easily reorganize and replace other building in future.



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