



Beyond Informality

Exploring strategies for redevelopment in informal
settlements in Guangzhou (China)

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1 INTRODUCTION

In China, the phenomenon of informal settlements is a consequence of rapid urbanization. Since the 1980s, the construction of labor-intensive industries has accelerated the expansion of urban areas. Numerous traditional villages in suburban areas were surrounded by newly built urban areas and became the so-called “urban villages”. People in the urban villages could no longer earn from agriculture as their farmlands had mostly been requisitioned, while luckily the increasing housing demand of migrants enabled them to earn from rental. The villages are empowered to elect village committees and self-organization for public issues, while there are still a lot of things that are difficult to manage by villagers without official guidelines and investment. Many villages lack public services and public spaces. And residents also suffer from living unsafety, overcrowded and social segregation.

A policy was carried out in 2009 for regenerating the old towns, old factories, and old villages in the city, in which upgrading the urban village is part of the focus. However, currently, the market-led redevelopment approach did not work well on balancing the interest among different stakeholders, for which the demand of migrants is always ignored. Some projects even led to gentrification in the city center.

Here the thesis aims to explore strategies for upgrading the living environment and mitigating social segregation in urban villages. It reveals the current challenges and potentials of redeveloping urban villages in Guangzhou. Finally, spatial and managerial strategies are given to improve the livability and enhance social integration between locals and migrants in the redevelopment process.

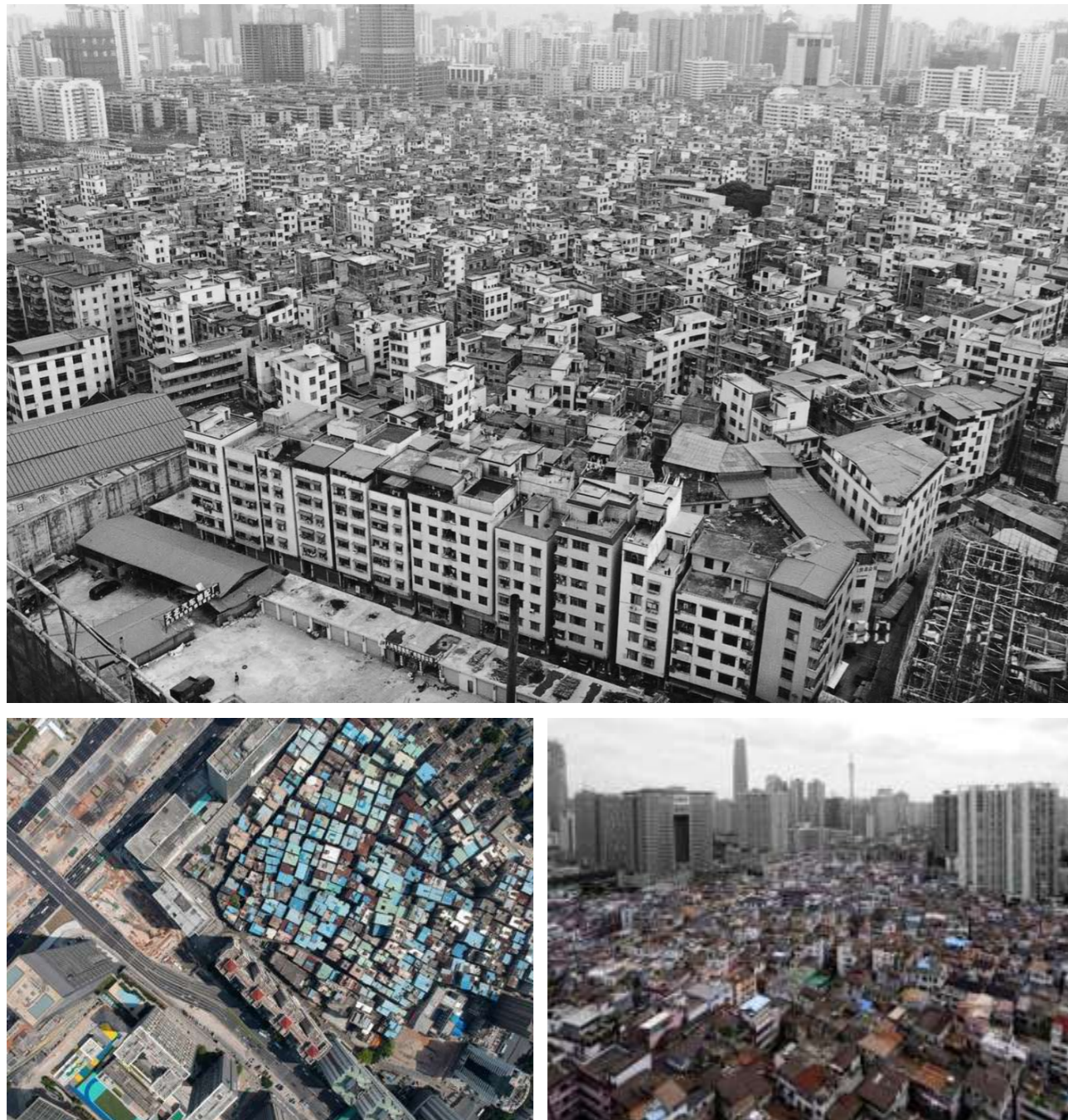


Figure 2. Urban villages are common to see in Chinese cities, especially in the large cities under rapid urbanization. The largest urban village in Guangzhou city, located in the city center (upper) (Source: <https://zhuanlan.zhihu.com/p/46276678>, [retrieved on May 20, 2020], edited by author); Urban villages in Shenzhen (bottom left) (Source: <http://www.archcollege.com/archcollege/2018/10/41938.html> [retrieved on Oct 26, 2020]); Urban villages in Beijing (bottom right) (Source: Wenweipost (2012), <http://paper.wenweipo.com> [retrieved on Oct 26, 2020]).

1.1 PERSONAL MOTIVATION

*“ Cities are at the heart of the problem,
and therefore also at the heart of the solution. ”*

*The ideal city
(Gestalten & SPACE10, 2021)*

The project derived from my interest in the informal settlements in China. After living for five years in Guangzhou, I got the impression that urban villages play a vital and active role in cultural cognition and social networks in Guangzhou city.

According to the “Three old transformation” policy (People’s Government of Guangzhou Province, 2009), numerous redevelopment projects have been progressed over these years in Guangzhou. Therefore, the debate on the approach to redeveloping urban villages has raised. Some people considered that the spatial fabric and the socio-economic structure should be preserved as much as possible, as they are important for vulnerable groups as a supplement to social welfare. But others criticize them as the informal settlements making negative impacts on surrounding urban areas as well as the image of a modern city. And the current redevelopment approach is also about

demolishing and rebuild. A lot informal settlements in downtown area have been demolished for building up new urban areas, which lead to the gentrification in downtown and the exclusion for vulnerable groups.

In the coming years, more than 57 redevelopment projects of informal settlements would be carried out in Guangzhou. Therefore, it is urgent to search for a new approach framework that not only include sustainability but also pay more attention to the social equality and help the vulnerable group in the city. I am motivated to contribute to this research and provide knowledge and views from an urbanist perspective.



Figure 3. A canal goes through the urban village in Guangzhou (upper) (Source: Image by Hexiaopang in Tuchong (2016), <https://mr-que.tuchong.com/12836123> [retrieved on Oct 17, 2020]); A narrow path in urban village at night (bottom) (Source: Image by Popaor in ZCOOL (2019), <https://m.zcool.com.cn/work/ZMzQ1MzQ0MDA=.html> [retrieved on Oct 17, 2020])

1.2 ROAD MAP

This report mainly contains four parts, which begins with an introduction of motivation, and ends with conclusions and reflections of the whole project.

The second part (Problem) is mainly about contextualization of informal settlements in Chinese cities, and problematization of current situations on poor livability and social segregation in the informal settlements, as well as the urgency of "regenerating urban villages" driven by the national policy. The second part ends with problem statement and leads to the main research question: "How to facilitate the redevelopment of urban villages in Guangzhou in a more inclusive and sustainable manner, which provides a livable environment, and promotes social integration?" (Research). The research section aims to explore further on redevelopment of informal settlements, and translate the research aims into process and outcomes by putting forwards frameworks with sub research questions, methods and research scales.

The methodology would be put into practice in the third part (Analysis, Strategy and Implementation). Here the main research question would be answered step by step in different topics. The analysis section is conducted in city scale and village scale (Analysis). It explores the form and role of urban villages in the city. And through the analysis on basic information, the urban scale

analysis ends with the classification of urban villages, which is the basis for site selection for a more detailed village-scale analysis on socio-spatial conditions and the transferability of methods and products in the final section. The strategy section gives proposals for both spatial planning and management (Strategy), with explanation on detailed actions and project phasing (Implementation). And a design test is used to see how it works on reality.

The final section (Conclusion & Reflection) concludes the findings of previous chapters and an assessment of the proposed vision. The reflections try to rethink the project in a more wider context, and give suggestions for applications and further research.

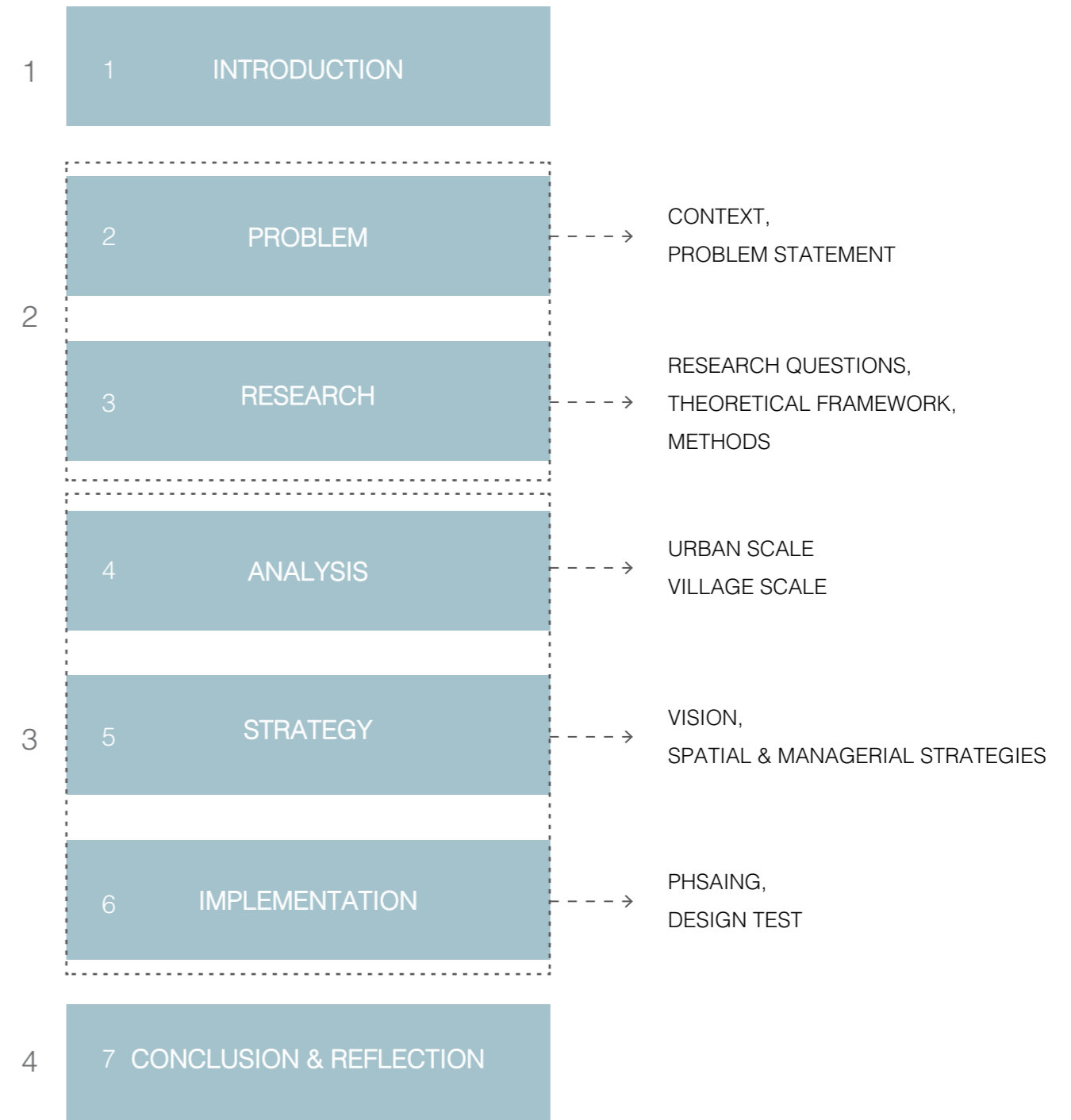


Figure 4. The roadmap for the whole report, involving six sections from problem analysis to design outcomes (Source: Author)



2 DEFINING THE PROBLEM

Chapter structure

- 1. Problem fields*
- 2. Current problems in urban villages*
- 3. Problem statement*

Figure 5. Urban villages in Guangzhou, China (Source: Image by worry in iStock (2016). <https://www.istockphoto.com/nl>. [retrieved on Sept 29, 2020])

2.1 PROBLEM FIELDS

2.1.1 INFORMAL SETTLEMENTS IN THE GLOBAL SOUTH

The term 'informal settlements' was generally defined as a new type of urban neighborhood that is unofficial and self-organized (Dovey et al., 2020). It has been studied by scholars as a typical type of living space since the 19th century (Ge, 2018). The rapid urbanization and migration flows have promoted the expansion and densification of the informal settlements around the world, which made it become a typical and essential type of urban housing. The characteristics and issues of informal housing were widely researched and elaborated in terms of spatial, social, architectural, economic, and planning in different sectors and regions. Informal settlements are seen as the opposite of 'formal', emphasizing a "lack" in those situations: the lack of infrastructure, space, legitimacy, and official governance (Ge, 2018). The term refers to housing and residential areas that are self-constructed and self-managed, and mostly without the formal control of the government. However, research shows that they are much more than the "squatter" settlement and "slums" that are commonly used, and not synonymous with spaces that are problematic and negative. To some extent, they are integrated with the surrounding urban environments and support the

city with affordable housing and facilities for vulnerable groups, which helps to promote the sustainability of the city.

In 2006, there were already over one billion people, or approximately one in seven people globally, living in "informal" housing settlements, such as "slums" and "squatters' settlements", and the population was estimated to climb up to around 1.4 billion by 2020 (UN-Habitat, 2006). As the number and size of informal settlements keep growing these years driven by the rapid urbanization, the existence of informal settlements has raised the attention of experts from different disciplines. From a political perspective, the informal settlement is the spatial manifestation of the exclusion of some people from the formal structure (Rocco et al., 2018). These places have become a main way of accommodating rural-to-urban migration and providing affordable housing to low-income people in underdeveloped areas (Dovey et al., 2020). Here the project would take informal settlements in Chinese cities as an example, revealing the current socio-spatial problems and exploring strategies for future development.

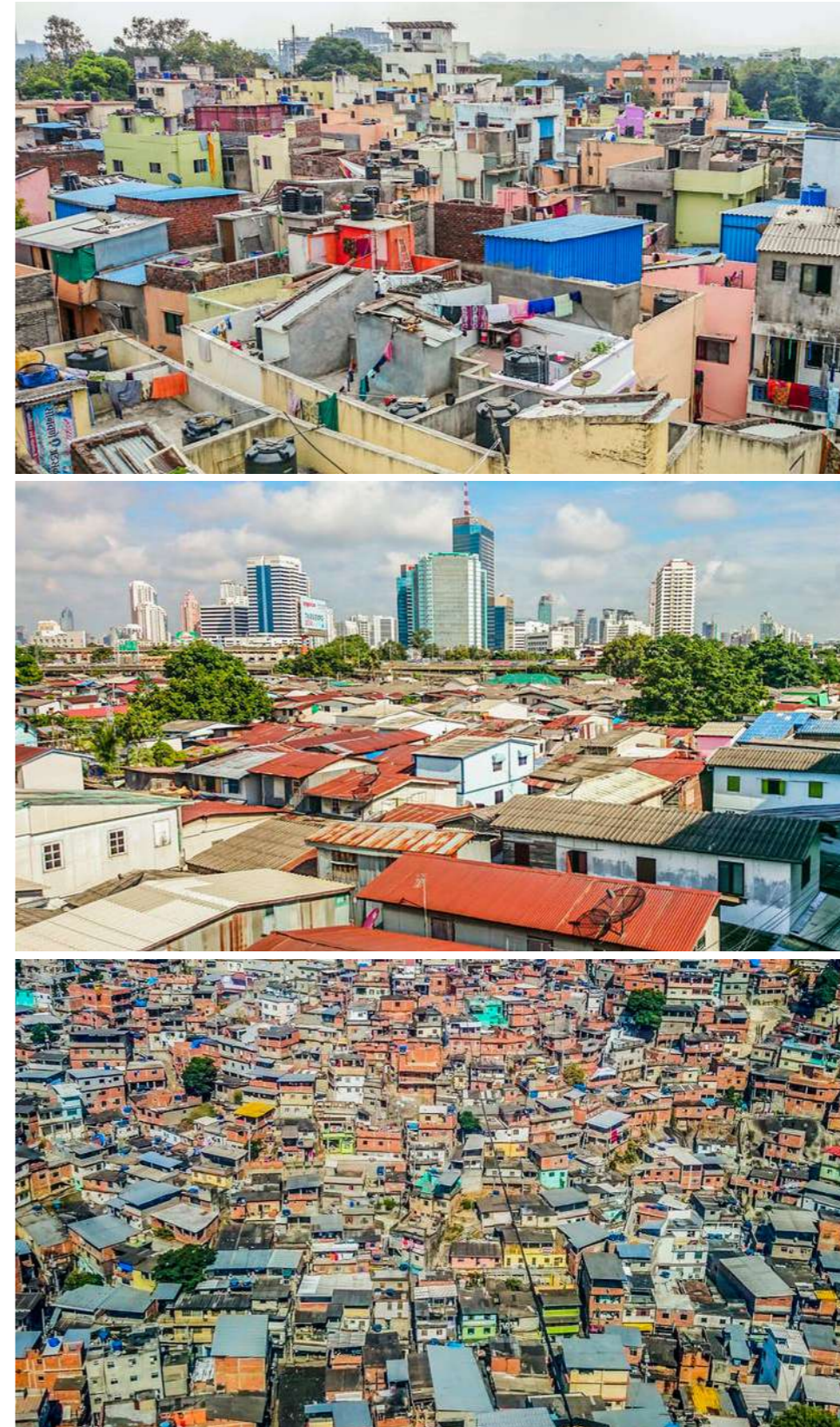


Figure 6. Incremental, on-site upgrading, such as the Slum Rehabilitation Project in Pune, India (upper); Informal settlements in Bangkok, Thailand (middle); Informal settlements in Rio de Janeiro, Brazil (bottom) (Source: Image by Hesam Kamalipour (2016), <https://www.rent.com.au/blog/planning-falls-short-challenges-informal-settlements>. [retrieved on Sept 29, 2020])

Informal settlements refers to housing and residential areas that are **self-constructed** and **self-managed**, and mostly **without the formal control** of the government.

2.1.2 INFORMAL SETTLEMENTS IN CHINA

When we look into Chinese cities, the term "informal settlements" refers to different types of housing areas based on specific housing regulations in different regions. Figure 8 shows the main types of informal housing in Chinese cities, which contains urban villages, basement apartment and metal container dwellings (Ge, 2018).

This project specifically focus on urban villages, which are the most typical and abundant informal settlements. It was classified as "informal settlement" as it had provided a large amount of unofficial and illegal rental for low income group, especially for migrants.

In China, the term **'informal settlements'** refers to **housing and residential areas that are constructed and managed without the formal control of official authorities.**

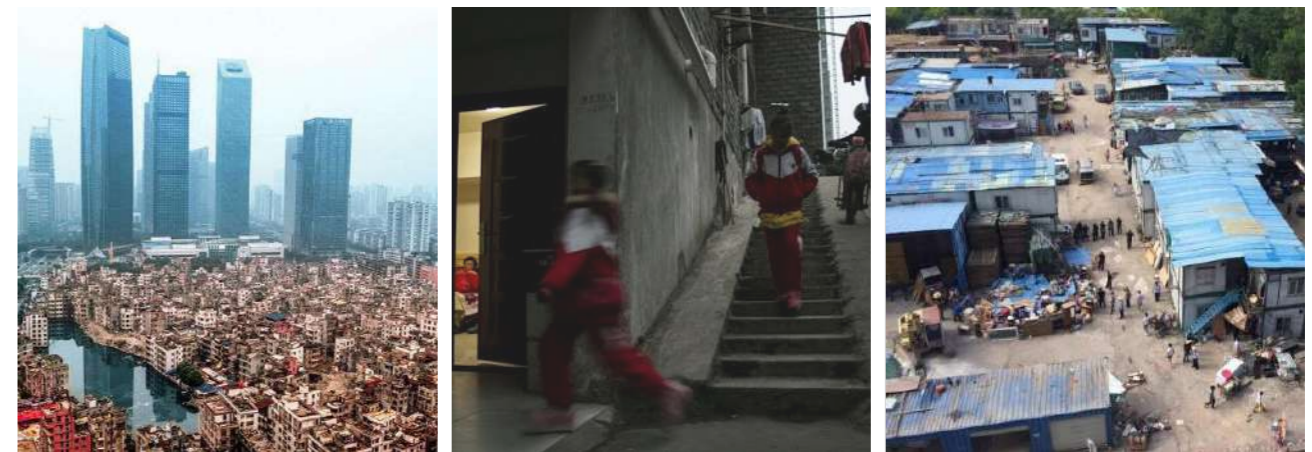


Figure 8. Informal housing in Chinese cities. Urban villages are the most typical one. Besides, there are also other types of housing classified as "informal housing" due to unofficial and illegal rental, for example, the "basement apartments" and container dwellings. Urban villages (Source: <https://zhuanlan.zhihu.com/p/46276678>); Basement apartment (Source: www.cnhubei.com); Metal container dwellings (Source: http://kb.southcn.com/content/2016-07/26/content_152355680.htm).

Urban villages are the most typical informal settlements in China, which also be called as "villages in the city".

Figure 7. Xian village, an urban village in Guangzhou, before demolition (Source: <https://zhuanlan.zhihu.com/p/46276678>, [retrieved on May 20, 2020], edited by author).

2.1.3 URBAN VILLAGES

The emergence of urban villages

Generally speaking, the phenomenon of urban villages is a consequence of rapid urbanization. Since the 1980s, the opening-up policy in the Pearl River Delta (PRD) has attracted large amounts of investment as well as migrant workers flowing into Guangdong province (figure 9). The construction of labor-intensive industries has accelerated the expansion of urban areas. Villages at the fringe of the city were surrounded by newly built urban areas. Farmlands were requisitioned by local authorities. While the residential areas in the villages were not renewed, due to the high financing compensation for them. Urban villages were then recognizable in the city based on their dual rural-urban patterns.

Development process

This process first emerged in the Pearl River region in Guangdong province (Lin et al., 2011), and also took place in other Chinese regions. The emergence of urban villages not only shows the result of modernization in the regions, but also a reflection of the dynamic process of urbanization in China (Al et al., 2014, p. 40).

Take the Pearl River Delta as an example, those villages existed long before the establishment of the People's Republic. After the post-Maoist era (after 1976), driven by the top-down policy of modernization and industrialization, villages

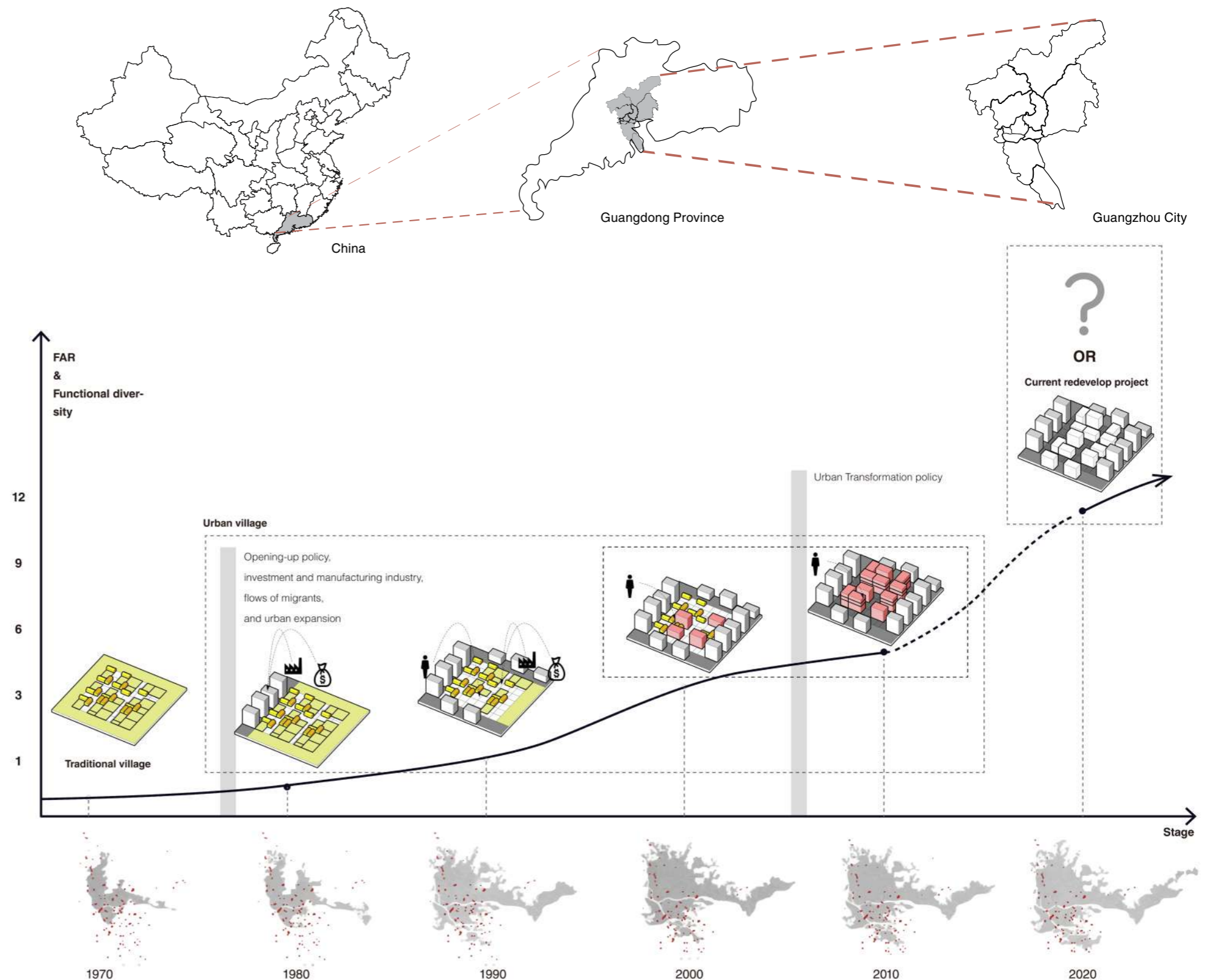


Figure 9. Location of Guangdong province and Guangzhou city (Source: Author); Development process of urban villages in Guangzhou, China (Source: Author, based on <https://www.jstor.org/stable/j.ctt13x0m8d>)

in the PRD started to grow and correlate with each other for sharing goods and laborers for supporting industrialization, which led to a kind of diffused urbanization in the region. These villages did not grow into cities but served as a network to promote regional development. From 1988 to 2000, a huge decline in agricultural land in Guangzhou showed that urbanization occurred as a new development in the rural areas rather than regeneration in the existing urban areas (Al et al., 2014, p. 51). This spatial pattern was identified by Terry McGee (1991) as *desakota*, recognized by the proximity of the villages to large cities and the coexistence of

urban and agricultural land use. Therefore, villages in PRD are not rejected by urbanization and urban activities but actually play an essential role in the process. No matter how their geographical positions change due to the urban expansion, in the city or outside the city, their relationship with the urban areas are very close. Once an urban village was formed, the influx of migrants then served as a force to accelerate the densification and development process of the village.

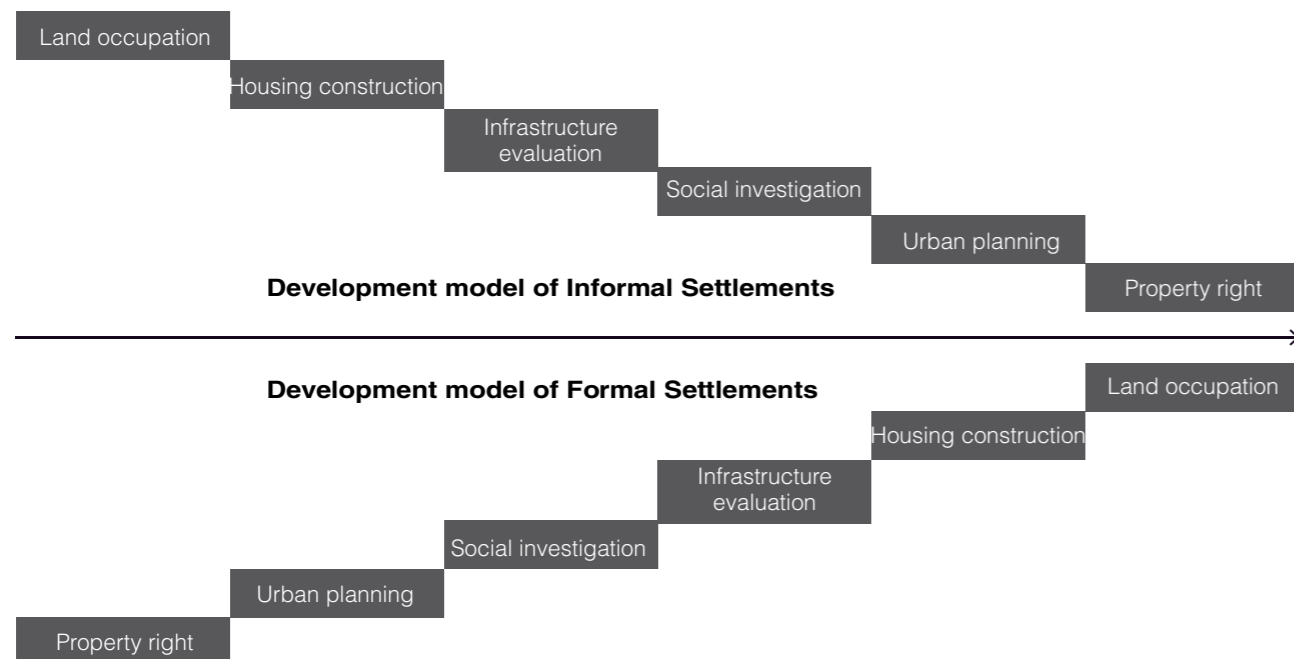


Figure 10. Development model of informal and formal settlements (Source: Macedo, 2000)



Figure 12. Formal residential areas in Guangzhou (Source: Image by Jinglu Zhu in Kknews (2018), <https://kknews.cc/zh-sg/news/ygl2mza.html> [retrieved on Nov 27, 2020])



Figure 11. Informal housing areas in Guangzhou, which are full of low-rise buildings, narrow streets and illegal constructions (Source: Image by Yi Zhang in NetEase (2016), <https://c.m.163.com/news/sub/T1474183731609.html> [retrieved on Nov 27, 2020])

2.1.4 “THREE OLD TRANSFORMATION” POLICY

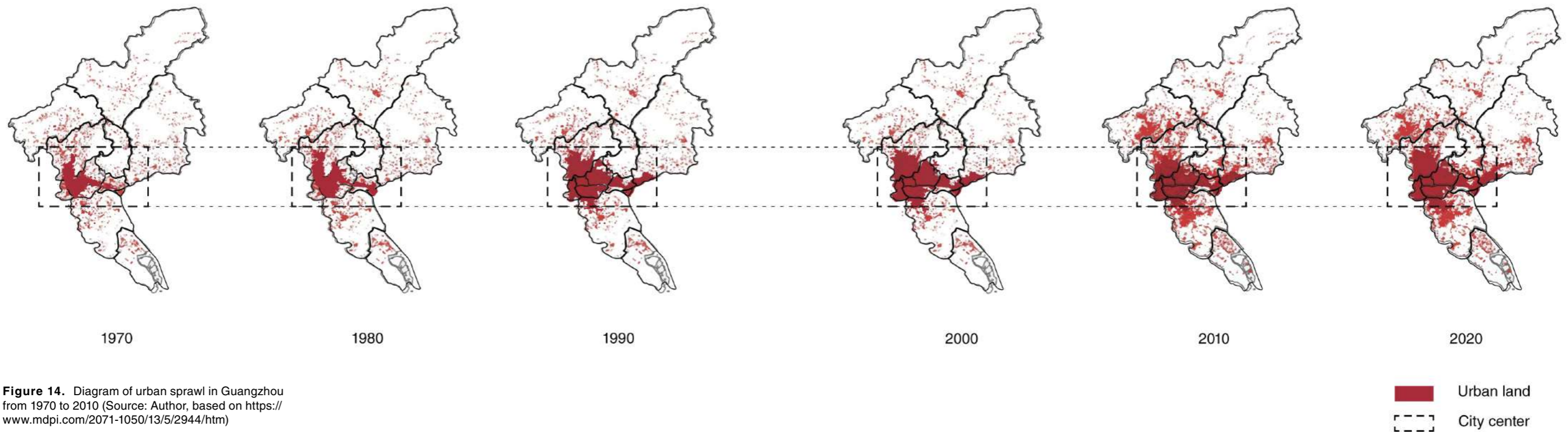


Figure 14. Diagram of urban sprawl in Guangzhou from 1970 to 2010 (Source: Author, based on <https://www.mdpi.com/2071-1050/13/5/2944/htm>)

Trend of urban regeneration in Guangzhou

There have been more and more urban regeneration projects in China over the years. By the end of June 2020, the local authority in Guangzhou had given permission to more than 57 urban village regeneration projects, covering 24.9 square kilometers in the city.

The reasons that the number of redevelopment projects in informal settlements has been kept rising are as follows. Due to the fast urban sprawl in these years, there is not much land left for urban construction in the areas surrounding large cities. Therefore, the government put for-

ward the “Three old transformation” policy in 2009, which means to regenerate the old industrial areas, old urban and rural villages, and old towns in order to achieve a more ecological and sustainable urbanization process (People's Government of Guangzhou Province, 2009). Figure 14 shows the rapid urban expansion from 1970 to 2010. And since 2010, the urbanization process transfer from an "expansion" mode to a "regeneration" mode.

The renewal of the urban villages is one of the main goals of the policy. Additionally, as the

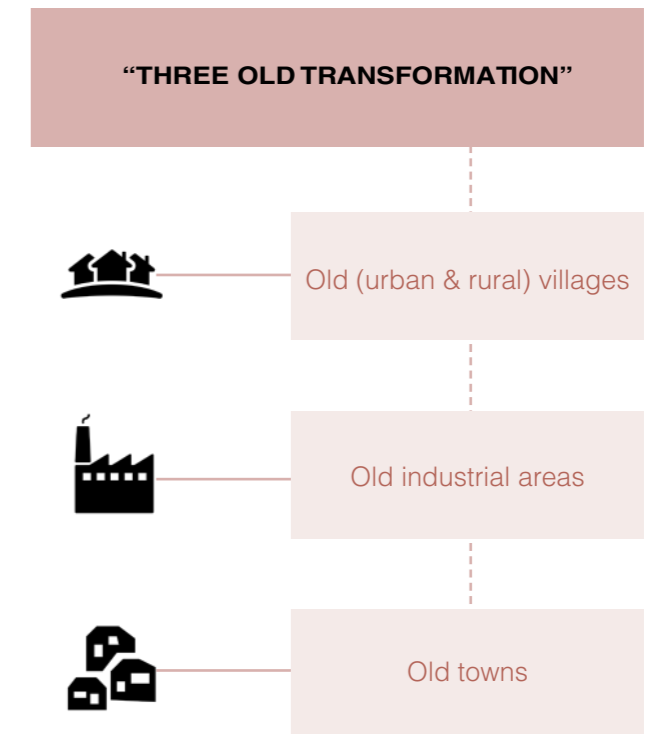


Figure 15. Redevelopment project in Liede Village, Guangzhou (Left)(Source:); “Three old transformation” Policy (People's Government of Guangzhou Province, 2009) aims on renewing old villages, old factories and old towns in urbanized areas, to increase the economic and environmental value of the land (Source: Author, based on http://www.gd.gov.cn/zwgk/wjk/zcfgk/content/post_2532575.html)

city keeps growing, the geographical position of many villages has also changed from the peri-urban areas to the new city centers, which leads to an increase in the economic value of land in urban villages. The local authorities tend to requisition more land from urban villages and sell it to real estate companies to raise local revenue and attract investment (Lin et al., 2011). What's more, the demolition of informal settlements is also linked to the desire for building up urban image and place identity (Dovey et al., 2011). Urban villages in Guangzhou are criti-

cized as "having negative impacts on the image of the modern city" due to the problems of overcrowding, disorder, and unsafety (Zhao, 2008). Therefore, nine urban villages in the downtown area have been demolished and rebuilt during the time when preparing for the Asian Games in Guangzhou (figure 16). The demolition of villages had made room for building new central business districts and venues.



Figure 16. Nine urban villages have been demolished and rebuilt during the time when preparing for the Asian Games in Guangzhou. Before (upper) (Source: Image by fuyoucanghai in SohuNews (2020), https://www.sohu.com/a/416063917_120263571 [retrieved on Nov 12, 2020]); After (bottom) (Source: Image by xiaoruanzi in GZNF (2018), <https://www.gznf.net/neighbor/16551.html> [retrieved on Nov 12, 2020])

2.1.5 CURRENT REDEVELOPMENT APPROACHES

According to the existing research, there are three main approaches applied in China in redevelopment projects of urban villages, which are the market-led approach, community-led approach, and small spatial interventions organised by informal management companies (Lin et al., 2011).

1. Market-led redevelopment

There are numerous market-led redevelopment projects of urban villages approved by the local authority. However, due to the difficulty in balancing the interest among the main stakeholders, the implementation did not appear until 2009 (Ren, 2018). The first market-led regeneration of urban villages was carried out in Guangzhou. The main financial compensation to the villagers comes from the profits that the real estate companies made from leasing the land for commercial development (Ren, 2018). Besides, a part of the collective land is still reserved for villagers to self-develop their industries (Lin et al., 2011). This project has benefited both the developers and the villagers. However, the demand of migrants was totally ignored, as the construction of social housing was not taken into account (Zhang, 2005). In most cases, the market-led regeneration often leads to the demolition and reconstruction of the whole informal settlements, which leads to the gentrification in downtown areas and the exclusion of migrants.

2. Community-led redevelopment

The community-led projects include “self-development projects, collective facility projects and villager apartment projects”, which are organized by collective companies made up of villagers (Lin et al., 2011). These collective companies tend to cooperate with enterprises outside the villages, due to a lack of expertise and management experience.

3. Small spatial interventions

The small spatial interventions led by informal management companies include the renewal of facilities, buildings, and alleys. These projects mainly aim at getting profit from raising the rental prices. The renewal is more for the rental apartments, which leads to the spatial segregation inside the villages.

To sum up, these approaches pay less attention to the demands of migrants and low-income groups. The regeneration projects always cause an increase in the rental price, which leads to the ejection of migrants.



Figure 17. Market-led redevelopment project in Liede village, Guangzhou city, China (Source: SohuNews (2019), https://www.sohu.com/a/344468189_692677, [retrieved on Nov 12, 2020])



Figure 18. Community-led redevelopment project in Dafen village, Shenzhen city, China (Source: URBANUS (2007), <http://www.urbanus.com.cn/projects/dafen-art-museum/>, [retrieved on Nov 12, 2020])



Figure 19. Small spatial interventions in Shipai village, Guangzhou city, China. (Source: SohuNews (2019), https://www.sohu.com/a/319124196_655928, [retrieved on Nov 12, 2020])

2.2 CURRENT PROBLEMS IN URBAN VILLAGES

2.2.1 PROBLEMS OF URBAN INFORMALITY

As we said before, the formation of urban villages is the consequence of rapid urbanization. Since the 1980s, there have been hundreds of villages in Guangzhou city. People in the villages could no more earn from agriculture as their farmlands had all been requisitioned, while luckily the increasing housing demand of migrants enabled them to earn from renting their houses. As the informal houses keep growing in the urban villages, they gradually become extremely dense communities for low-income people in the cities.

Yet official authorities have so far taken little action to urban village issues. Although the villages are empowered to elect village committees and self-organization for public issues, there are still a lot of things that are difficult to manage by villagers without formal guidelines and investment.

1. Social segregation

According to the *hukou* program, a population register program in China, villagers and migrants are restricted to access to public services and social welfare in the cities. Therefore, it is more difficult for them to get into the formal market for jobs, education opportunities, and other social sources. They tend to suffer more from poverty and unsafety. Data shows that the average household income of residents in urban villages is 50% less than that of other urban residents (figure 20).

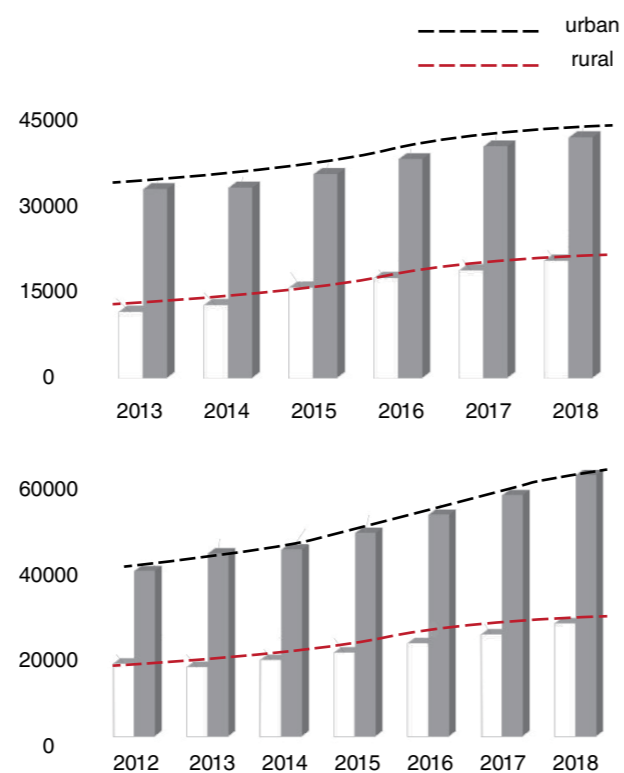


Figure 20. The per capita disposable income of rural and urban residents in Guangzhou (upper); Per capita consumption expenditure of rural and urban residents in Guangzhou (bottom) (Both Source: <https://zhuanlan.zhihu.com/p/99951991> [retrieved on Oct 22, 2020])



Figure 21. Xian urban village in Guangzhou (2015) (Source: Image by Institution of Urban Dreaming Research (2015), <https://iudblog.wordpress.com/> [retrieved on Feb 8, 2021])

2. Lack of public facilities & public space

As there are no official permissions for construction activities in urban villages, there are also no official guidelines, plans, and subsidies. Therefore, problems of overcrowding, lack of public facilities, and unsafety have risen. Villages try to densify their house as much as possible in order to earn more from rental. The self-constructions in the informal settlements are mostly “room-by-room accretion”, which results in extending horizontally and vertically to five or six stories above the original roofs, leaving no places for public spaces and public buildings.

The lack of public facilities not only made it inconvenient for everyday life but also dangerous. Data from 2009 to 2014 showed that there were 4,132 fires happening in urban villages in Guangzhou, accounting for about 57.44% of all fires in the whole Guangzhou city, and 61 deaths, accounting for about 70% of all fire deaths in the city (Chinanews, 2020). Most of the self-constructed buildings were not equipped with safety equipment.



Figure 22. Overcrowding in urban villages. (Source: SohuNews (2020), https://www.sohu.com/a/385898218_120018472); Alleys without lighting system in Shipai village (Source: SohuNews (2018), https://www.sohu.com/a/256478406_99997541)

3. Informal economic activities & Community enterprises: Pollution and stagnation

There are a great number of informal economic activities and community enterprises established by villagers in the urban villages, which lack guidance from expertises as well as basic infrastructure for further development.

Being excluded from formal market exchange, urban villages are pushed into mutual benefit: informal economic activity as the main source of income (Lin et al., 2011). Villagers self-organized the informal housing market with their friends and relatives for renting the house. With the rising number of migrants coming into Guangzhou, the demand for rental housing also rose. The influx of migrants also has driven the development of informal economic activities, as

they are also hard to get employed in the formal job market. Most of the villages have developed diverse small businesses, such as hair salons, restaurants, medicine shops, grocery stores, and repair shops. For villages near the transport stations and industrial areas, manufacturing has become the dominant industry. However, as most villagers are uneducated and have less experiences on business, the community enterprises often get into trouble. Moreover, the large number of factories also cause heavy pollution in the city as the infrastructure system is incomplete in urban villages. Data shows that 70% of the river pollution in the Futian district (in Shenzhen) comes from urban villages.



Figure 23. Informal markets in urban villages (left) (Source: <https://dy.163.com/article/EUBVU78F054599BS.html;NTESwebSI=5F6C6BAA9D3879637EEF7B7B05123F89.hz-subscribe-web-docker-cm-online-rpqqn-8gfzd-no6gz-957844fpwj7-8081>); Slogans are mainly about "lodgings" and "rental houses" (Source: Image by Ximin Zhou in Untapped Cities, <https://untappedcities.com/2014/08/01/a-look-inside-baishizhou-and-the-urban-villages-of-shenzhen-china/>)

2.2.2 PROBLEMS CAUSED BY REDEVELOPMENT PROJECTS

There have been several redevelopment projects in Guangzhou, turning the urban villages into formal residential areas.

However, the current approach is mainly market-led, which mostly benefited the developers and the villagers, while the demands of migrants was mostly ignored, as the construction of social housing was not taken into account (Zhang, 2005). Gentrification also took place in these ar-

1. Gentrification



Figure 24. Leide village before (upper) and after (below) the regeneration project in Guangzhou (Source: Ai et al., (2014) p.75 & p.84, <https://www.jstor.org/stable/j.ctt13x0m8d>)

reas. The redevelopment process caused the displacement of the low income groups, and the local small business were also replaced by high-end shopping malls.

The first redevelopment project was conducted in nine urban villages in the downtown area in 2009. All these villages were demolished and rebuilt in order to make room for building new central business districts and venues for the 2010 Asian Games in Guangzhou (figure 24). After the demolition and reconstruction, this area has become one of the most expensive area for living. More high-rise office buildings have been built and attracting more luxury stores, which replaced the traditional streets and local shops.

2. Stakeholder conflicts

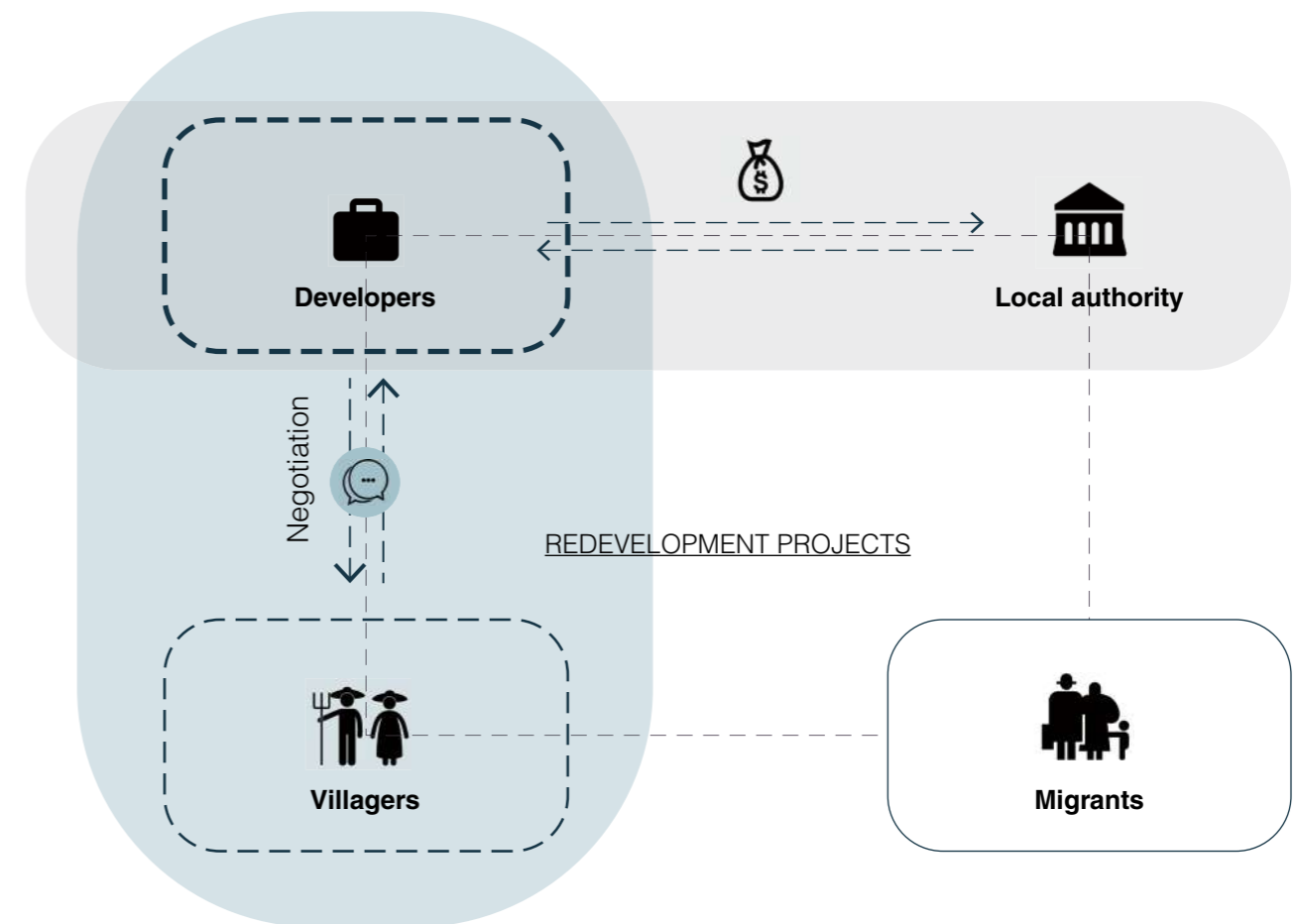


Figure 25. Main stakeholders in the first redevelopment project of nine urban villages in Guangzhou (Source: author)

The most difficulty in the implementation process is balancing the interest among the main stakeholders (Ren, 2018). The existing cases shown that the only villagers, developers and local authorities were involved in the decision-making process. Villagers could get apartments in the new built residential areas as compensation, which made them benefit a lot from the redevelopment projects. While as migrant did not own the land in the villages, they

could not receive any compensation from the project. What's more, after the project finished, the housing price in the new residential area is much higher than before, which made migrants hardly rent houses in the same area.

2.3 PROBLEM STATEMENT

With the rapid modernization and sprawl of the city, villages in suburban areas have been surrounded by new built urban areas, which evolved into urban villages in the city.

Social segregation are common to see around these places. Compare to other citizen, residents in urban villages mainly are people who have less accessibility to public services and social welfare, as well as the opportunities to employment and education. Due to the lack of formal guideline and investment on public goods, most urban villages lack of public facilities and public spaces. The liveability are also much worse than other neighborhoods in the cities because of the overcrowding and unsafety. What's more, the agglomeration of low-end industry in the villages also brings negative externality of increasing criminal rate and pollution.

As the city keeps growing, more urban villages emerge. The local authority put forward redevelopment projects in these places in order to address the current problem and wipe the negative impacts on urban image. However, current approaches cannot balance the interest among different stakeholders, and always ignore the housing demands of migrants. The market-led approach has already cause gentrification in these projects.



3 METHODOLOGY

Chapter structure

- 1. Research aim*
- 2. Research questions*
- 3. Research framework*
- 4. Conceptual framework*
- 5. Analytical framework*
- 6. Ethics considerations*

Figure 26. Demolition of several urban villages in Guangzhou in 2018 (Source: Image by Sight Girl in Kknews (2018). <https://kknews.cc/>. [retrieved on Sept 29, 2020])

3.1 RESEARCH AIM

The project aims to improve the liveability of urban villages, while at the meantime help to enhance social integration between locals and migrants in the redevelopment process.

To realize this, the project provide strategies for spatial interventions and management, which contains design guidelines and toolbox.

3.1.1 OUTCOMES



ANALYTICAL FRAMEWORK

- An analytical framework: to understand the formation and roles of urban villages in Guangzhou. One village is selected for detailed analysis in terms of socio characteristics, facilities, public space, and management scheme. The analysis reveals the driven forces underneath the urban villages, as well as the challenges and potentials on redevelopment. The analysis chapter sets a base for making design proposals.



VISION



STRATEGIES

DESIGN GUIDELINE

TOOLBOX

MANAGEMENT

- Strategies provide guidelines and toolbox for spatial interventions and management, which aims to improve the livability and enhance social integration in the urban village. The strategies enhance the positive aspects of self-construction and community-based organization while providing technical and financial support that the villages rarely achieve on their own.



DESIGN TEST

- The deign test shows how strategies integrated with specific context, and give detailed discription on project phasing.

3.2 RESEARCH QUESTIONS

MAIN RESEARCH QUESTION

How to facilitate the redevelopment of urban villages in Guangzhou in a more inclusive and sustainable manner, which provides a livable environment, and promotes social integration?

SUB GROUP 1

THE FORM AND ROLE OF URBAN VILLAGES IN GUANGZHOU

- 1) What are the driven forces underneath the emergence of urban villages?
- 2) What are the roles of urban villages in the city?
- 3) How are urban villages managed at present?

SUB GROUP 2

UNDERSTAND THE SOCIO-SPATIAL STRUCTURE IN URBAN VILLAGES

- 1) What are the criteria for livability and social integration in urban villages?
- 2) What are the current spatial and social characteristics in the urban village?
- 3) How do different stakeholders interact with urban villages?
- 4) What are the demands of different stakeholders?

SUB GROUP 3

STRATEGIES AND IMPLEMENTATION

- 1) What are the strategies to improve liveability in urban villages and enhance social integration?
- 2) How to implement the strategies?
- 3) How are different stakeholders influenced by the project?

3.3 RESEARCH FRAMEWORK

The research would be conducted in three stages. At each stage, different methods would be applied based on the purpose of the research:

1) Defining the problems: to discover and expose the current spatial and social problems in urban villages.

2) Analyzing: at this stage, the problems would be analyzed within a broader context. To understand how and why the social segregation happens, the evolution and the characteristics of social network in urban villages would be elaborated. Maps would be used to show the spatial structure in terms of facilities, infrastructure, public spaces in order to find challenges and potentials for making spatial interventions.

3) Exploring the solutions: case in other urban villages would be studied to find out the potential strategies for applying in Guangzhou. Literature review and mapping would be the main methods.

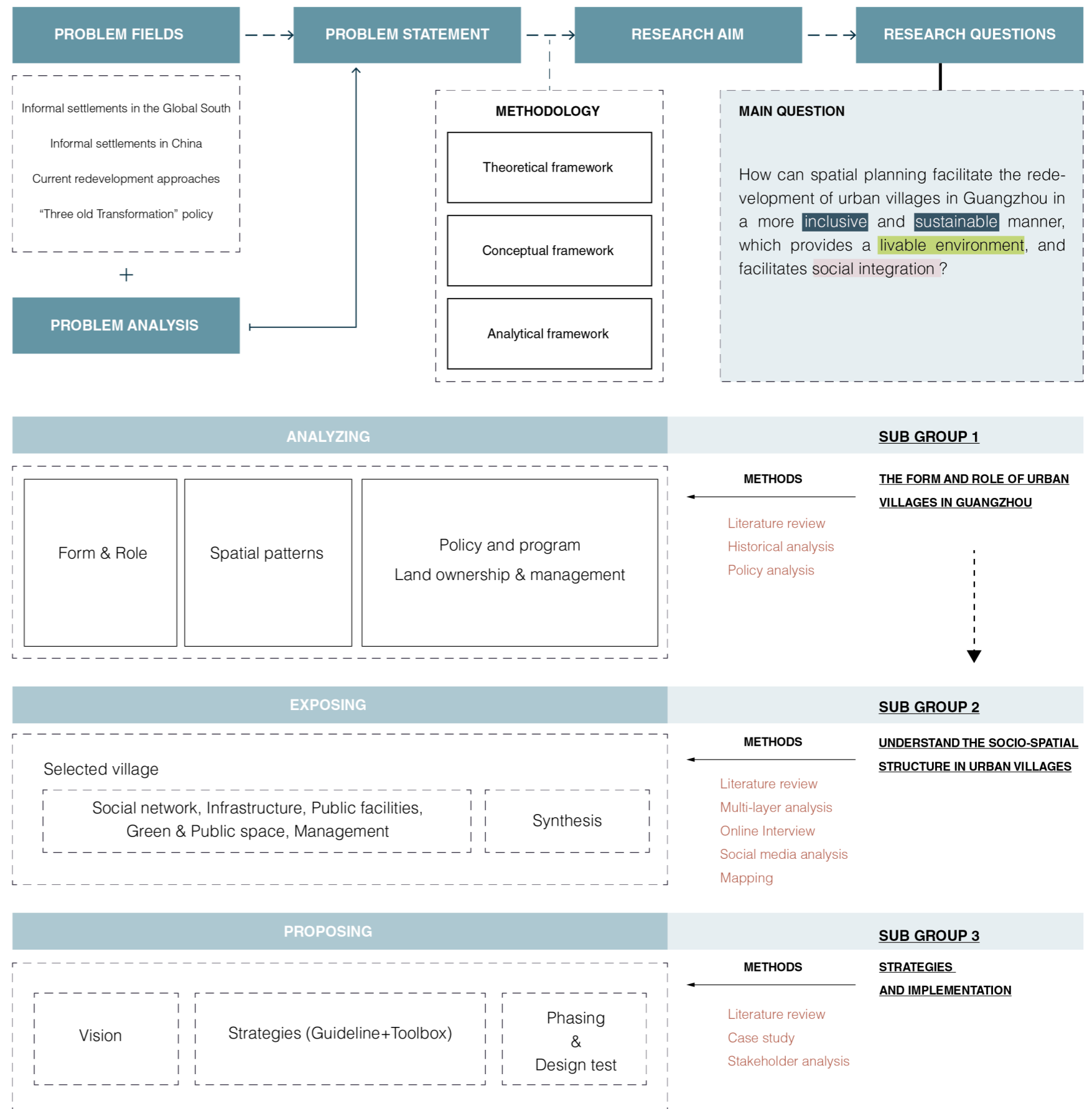


Figure 27. Research framework (Source: Author)

3.4 CONCEPTUAL FRAMEWORK

The thesis focuses on the future development of informal settlements in Guangzhou, which aims to achieve a more livable environment and promote social integration.

Urban village, also called the village in the city, is the key point of the research. This term refers to the enclaves in the city settled by villagers and migrants, which shows different socio-spatial patterns compared to the formal urban neighborhoods. These places are facing problems caused by lack of formal investment and guidance.

Based on the research aims, the theoretical part mainly focuses on two main concepts: urban livability and social integration (which would be elaborated in the theoretical chapter). An understanding of these two concepts are required to form an assessment framework for measuring the improvements of proposed plan, which is supported by vision and strategies.

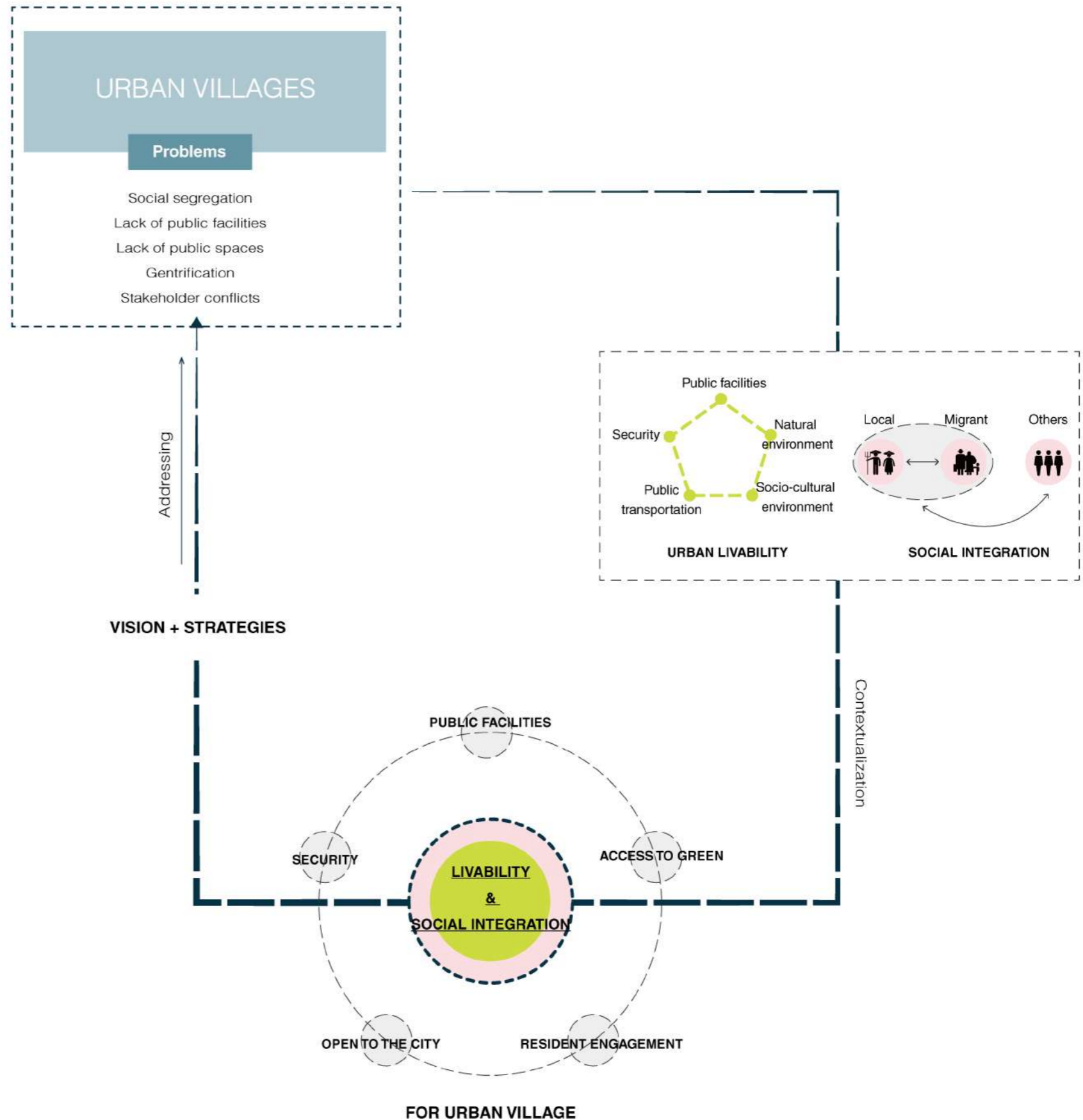


Figure 28. Conceptual framework (Source: Author)

How to facilitate the redevelopment of urban villages in Guangzhou in a more **inclusive** and **sustainable** manner, which provides a **livable environment**, and promotes social **integration**?

3.5 ANALYTICAL FRAMEWORK

METHODS

OUTCOMES

SUB GROUP 1

THE FORM AND ROLE OF URBAN VILLAGES IN GUANGZHOU

- 1) What are the driven forces underneath the emergence of urban villages?
- 2) What are the roles of urban villages in the city?
- 3) How are urban villages managed at present?

Literature review: Literature studies that focus on the formation, socio-spatial characteristics, economic activities as well as the current redevelopment approaches in informal settlements in Guangzhou, China.

Historical analysis: A study focussing on the emergence and evolution of the urban villages in Guangzhou.

Typology analysis: A study on identifying the morphological patterns of urban villages and setting criteria for site selection.

I ANALYZING

- Form & Role
- Spatial patterns
- Policy and program
- Land ownership & management

SUB GROUP 2

UNDERSTAND THE SOCIO-SPATIAL STRUCTURE IN URBAN VILLAGES

- 1) What are the criteria for livability and social integration in urban villages?
- 2) What are the current spatial and social characteristics in the urban village?
- 3) How do different stakeholders interact with urban villages?
- 4) What are the demands of different stakeholders?

Multi-layer analysis: A study on selected sites in terms of multiple aspects (Social network, infrastructure, public facilities, green space, public space, management) to understand the system of urban villages and reveal the potentials and challenges on redevelopment.

Literature review: studies on criteria for livability and social integration in the specific context of urban villages; studies on the roles of urban villages in city; the relationship among different stakeholders related to the redevelopment projects and their demands.

Online interview & Social media analysis: Experts (intentions and visions for redevelopment); Migrants and villagers: current situation and future demands for redevelopment. Online research: on blog, video and etc.

Stakeholder analysis: A study on the needs and conflicts among different stakeholders.

II EXPOSING

- Selected site (Shipai village):
 - Social network
 - Infrastructure
 - Public facilities
 - Green & Public space
 - Management
- Synthesis

SUB GROUP 3

STRATEGIES AND IMPLEMENTATION

- 1) What are the strategies to improve liveability in urban villages and enhance social integration?
- 2) How to implement the strategies?
- 3) How are different stakeholders influenced by the project?

Literature review: Literature studies focussing on the spatial planning strategies, design principles, policy and programs of informal settlements in the Global South.

Case study: Focussing on the spatial planning cases of informal settlements in the Global South.

III PROPOSING

- For Shipai village:
 - Vision
 - Strategies (Guideline+Toolbox)
 - Housing
 - Infrastructure
 - Green
 - Public space
 - Management
 - Phasing & Design test

3.5.1 METHODS

Literature review:

(1) The first literature research would focus on the formation, socio-spatial characteristics, economic activities as well as the current redevelopment approaches of informal settlements in Guangzhou, China, which aims to give an in-depth understanding of local conditions.

(2) The second research aims to explore existing theories on planning and design for informal settlements in order to build up the overall analytical and design approach. Also, literatures about the criteria for urban livability, social integration, and sustainable development of informal economy are needed to give design principles and indicators in the specific context of urban villages; The outcome of this part is theoretical underpinning chapter, which gives theoretical support to the project.

Case study: Focusing on spatial and managerial strategies, design principles, policy, and programs in planning cases of informal settlements in the Global South.

Field trip (Online): It focuses on the observation of local spatial conditions and interactions, which based on online data from blog, video etc.

-Urban scale-

Historical analysis: A study focusing on the emergence and evolution of the urban villages in Guangzhou.

Trend analysis: A study focusing on the future urbanization trend, which includes the growth of population and the potentials of densifying or expanding urban areas.

Policy analysis: A study on current policies and programs on redevelop urban villages.

-Village scale-

Multi-layer analysis: A study on selected sites in terms of multiple aspects (geography, spatial patterns & buildings, industry, social network, and governance) to understand the system of urban villages and reveal the potentials and challenges on redevelopment.

Online interview & Social media analysis: Experts (intentions and visions for redevelopment); Migrants and villagers: current situation and future demands for redevelopment.

Stakeholder analysis: A study on the demands and conflicts among different stakeholders.



3.5.2 SCALES OF ANALYSIS



Figure 29. Location of Guangzhou (upper) (Source: author); Map of Guangzhou city (city scale) (Source: Baidu Map, [retrieved on Dec 5, 2020], edited by author);

Existing research has shown that the development of informal settlements is much related to the urbanisation process and housing policy of the city (see in the theoretical chapter), which means the analysis should start from a larger scale.

Therefore, the observations would firstly focus on Guangzhou city, which intends to find out the relations between city and urban villages, how they are managed, and gather the basic information to have an overall understanding of these villages. It ends up with a summary of four types of urban villages.

After that, the theoretical framework suggests to have a detailed analysis of the socio-spatial patterns on the neighborhood scale. The extreme-high density and the spatial conflicts brought by the city center location of the third type urban villages give a clue to zoom into one of these villages. Therefore, Shipai village is chosen. The analysis of different layers and the online survey would specifically focus on this village. The design proposals and design test would also mainly work on it. And in the final chapter, the two scales would be combined for discussing about transferability and further research.



Figure 30. Satellite map of Shipai village (Source: Google Map, [retrieved on Dec 5, 2020], edited by author).

3.6 ETHICS CONSIDERATIONS

The research contains a large part of the on-line survey on social media. Respect for all the research participants should be prioritized. Any identifying information will not be accessed by anyone but the author.

For potential applications, negotiation between migrants and locals will be expectedly difficult. Local inhabitants in urban villages belong to a few clans, which have a strong sense of ancestor worship and exclusive social networks. In this project, the neighborhood committee is used as an intermediary to reconcile the two social groups with the decision on future development. The committee needs to pay more attention to the operation progress to ensure that migrants express their views fully. Moreover, some spatial strategies that include the idea of self-organization might be also difficult to conduct. For example, long-term residents might be more willing to maintain the spaces than short-term residents. It requires the neighborhood committee to give some managerial solutions in the process of implementation.



4 THEORETICAL FRAMEWORK

Chapter structure

- 1. Theoretical underpinning*
- 2. Conclusion*

Figure 31. The comparison of low-rise urban village buildings and high-rise buildings in the city (Source: <https://zhuannan.zhihu.com/p/46276678>, [retrieved on May 20, 2020], edited by author)

4.1 THEORETICAL UNDERPINNING

4.1.1 LIVABILITY IN URBAN VILLAGES

Generally, the term livability refers to an urban system that contributes to the physical, social and mental well being and personal development of all its inhabitants. It is about delightful and desirable urban spaces that offer and reflect cultural and sacred enrichment. The indicators would be convenience of public facilities, natural environment, socio-cultural environment, convenient transportation and environmental health (Zhan et al., 2018).

It is a hot topic in urban study that is often used as an umbrella concept when talking about space quality, place making and living conditions. However, there is still no unified standard for assessment of the urban livability due to its complexity and multidimensionality. For instance, livability has been defined as suitability

for human living (Merriam-Webster, 2017), the quality of life experienced by the residents of a city or region (Timmer & Seymoar, 2005), and the standard of living or general well being of the population in an area (Okulicz-Kozaryn, 2011), all of which indicate that livability is a broad term encompassing a number of urban environment characteristics that affect the attractiveness of a place (Norouzian-Maleki et al., 2015).

Based on the Informal Armature approach (Gouverneur, 2014), the project defines urban livability as high accessibility to public services and high spatial quality of public spaces in neighborhoods. The measurement is qualitative, which comes from the residents' cognition and projection of their neighborhoods.

4.1.2 SOCIAL INTEGRATION IN URBAN VILLAGES

Social integration is the process during which newcomers or minorities are incorporated into the social structure of the host society (Ruiz-Tagle, 2013). Social integration, together with economic integration and identity integration, are three main dimensions of a newcomers' experiences in the society that is receiving them (Alba, 1997). The project here would focus on the integration of newcomers in the urban villages as well as the interaction between people in formal urban areas and urban villages.

Gouverneur suggested to provide spatial design strategies and community management measures to achieve the social integration of new settlers and the communication between formal and informal residents (2014). Main idea of the method is to strengthen the connectivity to existing formal urban areas, which enhance the social interaction between residents in formal and informal settlements. Additionally, by involving new residents into the citizen participation process could also increase social integration in the community. The project here try to propose spatial interventions that could boost interaction. Managerial strategy is also explored to facilitate resident engagement in the implementation process.

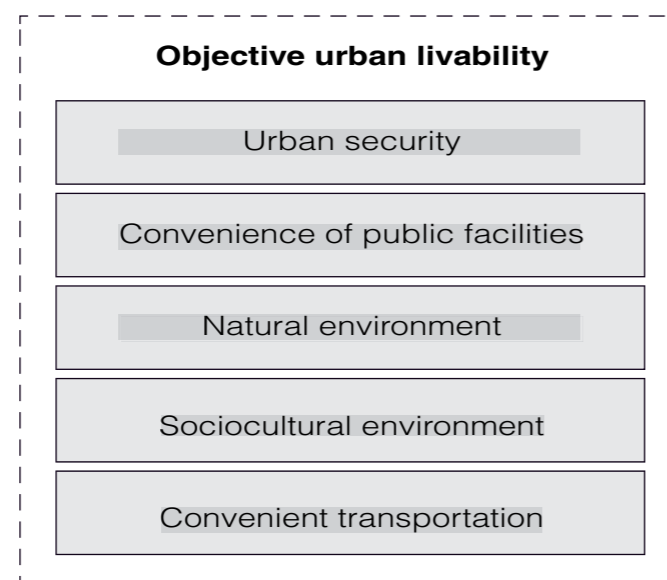


Figure 32. Conceptual framework of urban livability in Chinese cities. (Source: Zhan et al., 2018, edited by author)

4.1.3 SUSTAINABLE EVOLUTION FOR FUTURE INFORMAL SETTLEMENTS (Gouverneur, 2014)

The Informal Armature approach provided by the book gives an analytical and design framework to guide informal growth. In developing countries, the rapid urbanization process results in an influx of migrants flowing into cities, especially to big cities. More houses are needed to

meet the increasing housing demand. According to the existing research, informal settlements can provide a large amount of affordable housing for urban newcomers and urban poor due to its flexibility on self-construction. In many cities, the new settlers and urban poor are rejected by

the formal housing market because they don't have enough money or citizenship for owning property in the city. The informal housing market became the only choice for them.

The Informal Armarch approach proposes spatial and managerial strategies to improve the living conditions of informal settlements, which helps to offer more affordable housing but also mitigate the disparity between the formal area and informal areas. The main idea is to provide these informal communities with public services

The Informal Armarch approach proposes spa-

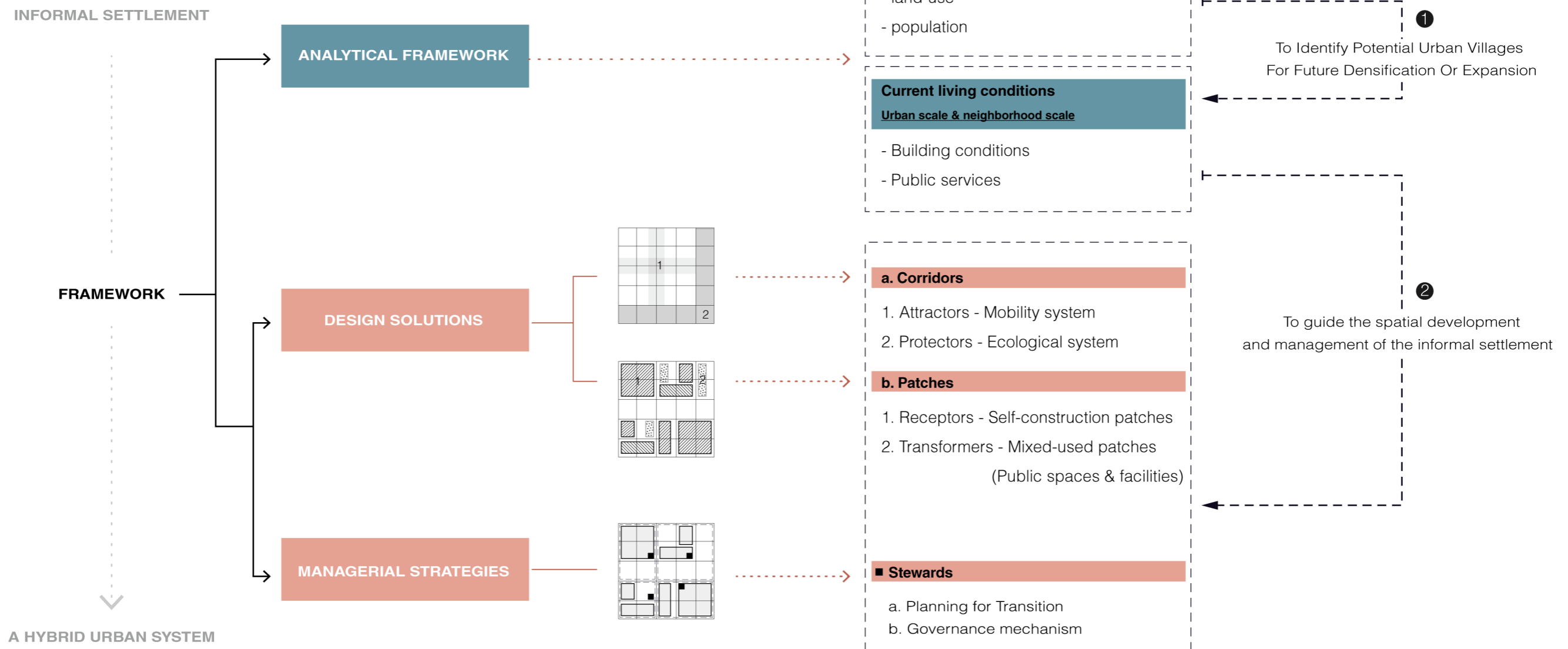


Figure 33. Conceptual framework of Informal Armature approach. (Source: author, based on <https://ebookcentral-proquest-com.tudelft.idm.oclc.org/lib/delft/detail.action?docID=1766929>)

that are difficult to provide by themselves and to strengthen the links between formal and informal areas, so that the informal settlement can develop into a hybrid urban system, which has the advantages of informal settlements but also shares the formal public services.

The first step is to analyze the current urban development trend to find out those informal settlements that have potential for accommodating more people and more functions in the city. The next step is to understand the current conditions of these selected informal settlements. The data and information need to be concerned here are: environmental risks, transportation system, public service system and basic building unit. Most theories and design strategies for informal settlements are focusing on neighborhood scale, while in this case the improvement of the community itself has limited impact on a larger scale. As for the Informal Armarch approach, the author emphasizes that analysis from the city scale could make the project have more positive effect on the whole city.

As for practical strategies, the author provides design solutions and managerial strategies, which could be summarized as three concepts: corridor, patches and stewards.

Corridors: There are two types of corridors, the protectors and the attractors. (1) Protectors - to define the natural reserve areas; (2) Attractors - to strengthen the connection between the formal urban areas by improving transportation systems and building up urban attractions.

Patches: There are also two types of patches. (1) Receptors: to define the patches for self-construction housing (2) Transformer: mix-used patches for public services and commercial.

Stewards: could be institutions, organisations or groups in the community. They are responsible for managing the public facilities to meet the needs of the growing population, and ensure the settlement keeps modifying and expanding in the proper way. The initial decisions are top-down, but later the residents would be involved in the decision-making process to define the modification and transformation by themselves. Stewards in the community need to make sure newcomers are always welcomed by the decision-making process. As communities grow, the functions of public spaces and public buildings may change. For example, it initially focuses on providing basic living services for new residents, while later it might provide services for a larger urban scale. The transformation process also needs to be monitored by stewards.

4.2 CONCLUSION

This section gives an answer to the sub research question: What are the criteria for livability and social integration in urban villages?

Based on the theory, urban livability are mainly measured by four factors: the access to public facilities, the quality of natural environment, socio-cultural environment, the access to public transportation and living security. It also related to the attractiveness of the place. For informal settlements, generally, due to the limitations on self-management and the lack of financial support, it is often harder to create livable environment than formal communities. The detailed analysis on current living environment is neces-

sary, which works to find out the current problems on social environment, public facilities, natural environment, public transportation and living security.

The social integration in informal settlements urban villages focus on the communication between migrants and local villagers, as well as the interaction between residents living in and out of the urban villages.

In the following chapter, a qualitative analysis would be conducted to expose problems on different factors that related to livability and the current situation of social interaction between locals and migrants in urban villages.

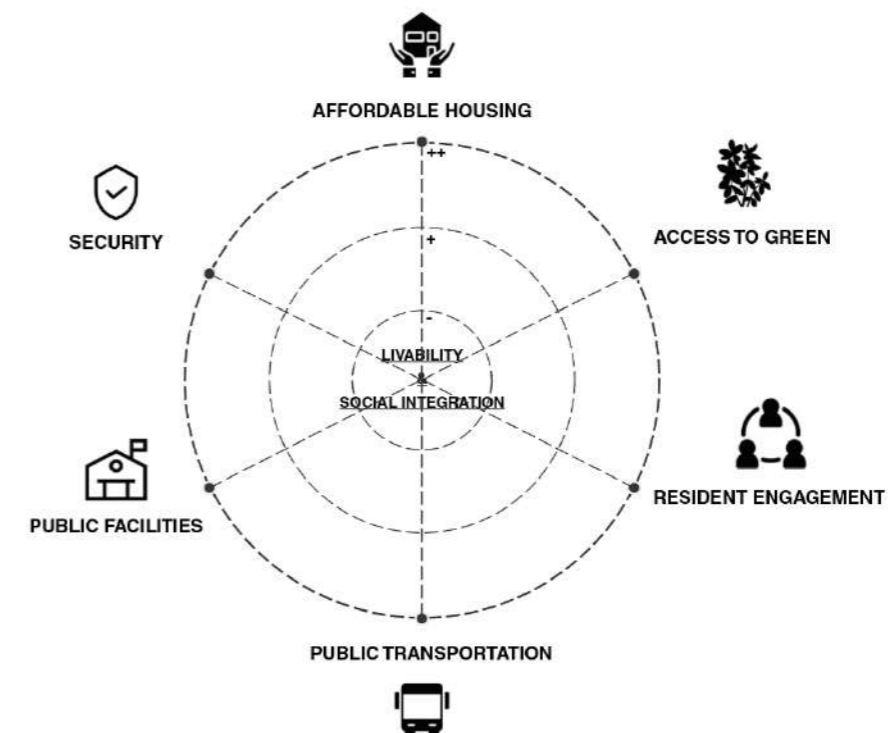


Figure 34. Assessment framework for livability and social integration in urban villages. (Source: Author)

5 ANALYSIS

Chapter structure

- 1. Urban villages in Guangzhou*
- 2. A case study: Shipai Village*

Figure 35. Flows in Shangshe Village in Guangzhou, where the slogans are full of "lodgings" and "rental houses". (Source: Image by Aisin Kyura Mitsui in Tuchong (2016). <https://tuchong.com/1102294/13365607/>. [retrieved on Nov 27, 2020])



5.1 URBAN VILLAGES IN GUANGZHOU

Guangzhou is one of the cities with the most urban villages in China. There are 288 urban villages in Guangzhou, covering 534.63km² (Wen, 2019).




Area of urban land in 2018

3,843.43 m²
Urban land


Area of urban villages in 2018

534.63 km²
Urban Villages
17%
of the total area of villages


Number of villages in 2019

1343
Villages


Number of urban villages in 2019

288
Urban Villages
21.4%
of the total number of villages

Figure 36. Data of areas and number of urban villages in Guangzhou. (Source: author, based on <https://tuchong.com/1102294/13365607/>. [retrieved on Nov 27, 2020])

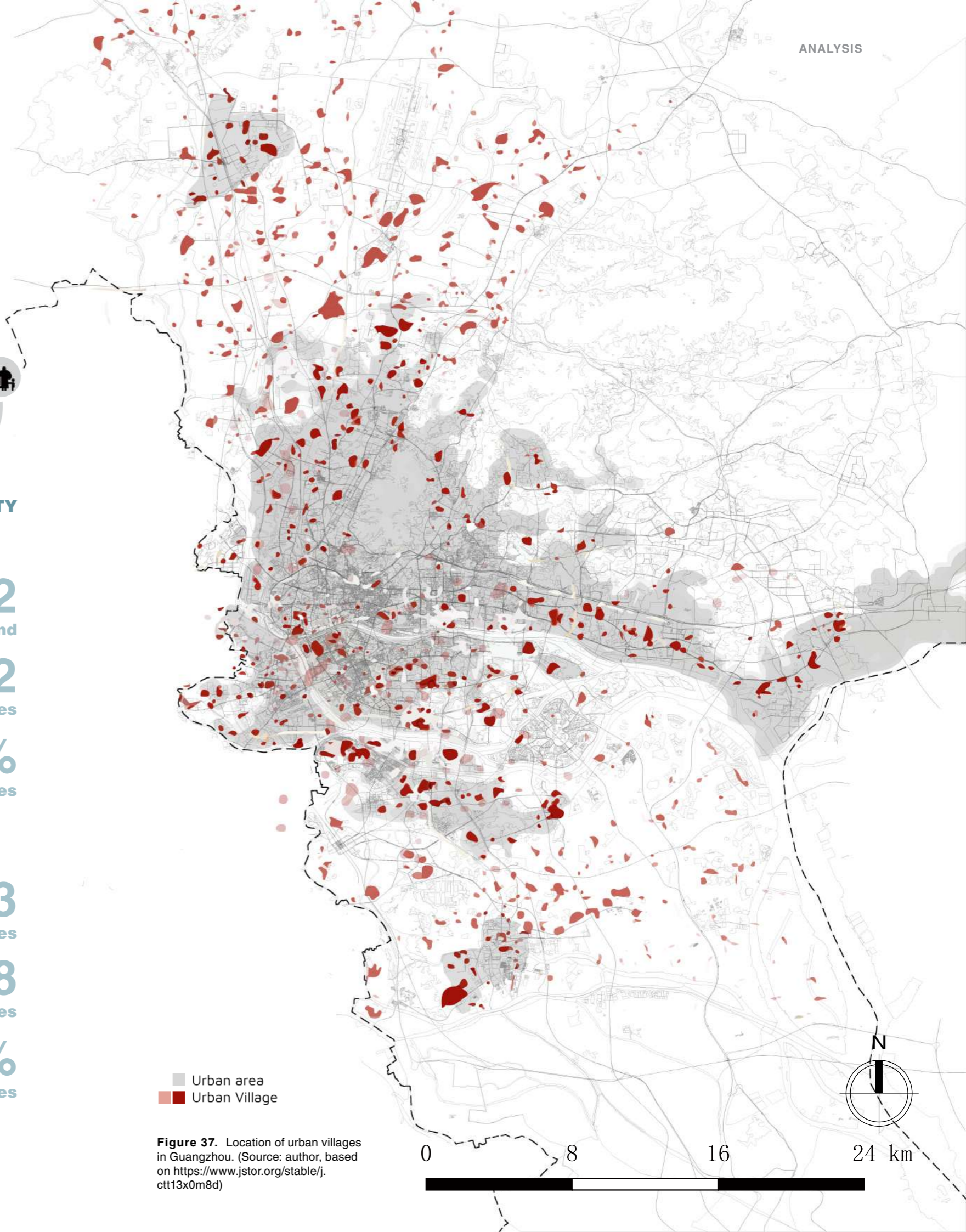


Figure 37. Location of urban villages in Guangzhou. (Source: author, based on <https://www.jstor.org/stable/j.ctt13x0m8d>)

5.1.1 ROLES OF URBAN VILLAGES IN THE CITY

1. As an indigenous community

After losing the farmland, renting houses on informal housing market become the main way for earning money for villagers. Houses have been kept densifying by the owners in order to have more rooms to rent. Besides, residents also self-organized schools, food markets, and other public services in the villages to serve for themselves.

2. As a migrant community

Since the 1980s, a huge migration has started to move from the countryside to the cities for getting jobs and better living conditions. While there is a registration system called hukou in China, which restricts rural residents from receiving social welfare and public facilities in the city (Lin et al., 2011). It sets up Institution-

al barriers for migrants as well as the villagers in the urban villages to get access to housing, education, employment, and other public services in the city. In many large cities, informal housing markets occurred in the urban villages for accommodating the migrants, which act as a supplement of social housing (Qu, L., 2016). Migrants could also get services in the village at a lower price than in other urban areas. The informal market provide food and clothing for them. Besides, they could also find a job in informal labor market. All these benefits make urban village attractive for migrants. Nowadays, in a lot of the urban villages, especially those in downtown area, the population of migrants is far more than local people.

FLOATING POPULATION IN HISTORY

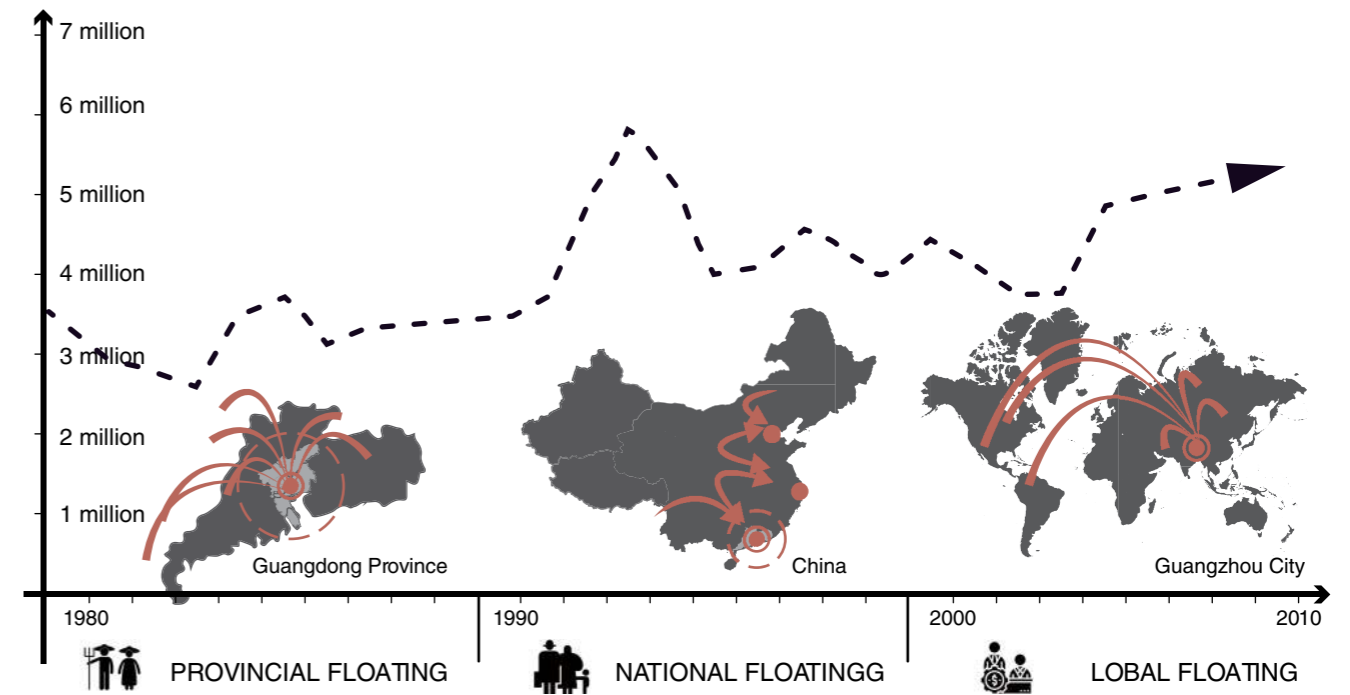


Figure 39. Guangzhou has been a popular choice for people to move in since 1980, while urban villages play a role as "arrival cities" for migrants (Source: author, based on <https://www.jstor.org/stable/j.ctt13x0m8d>)

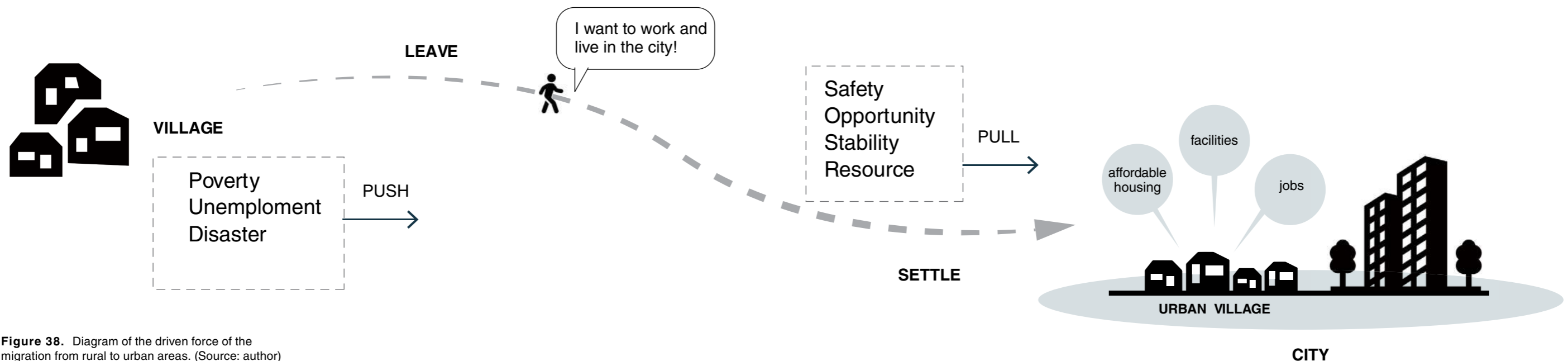


Figure 38. Diagram of the driven force of the migration from rural to urban areas. (Source: author)



FOR VILLAGERS

Figure 40. Villagers put up “advertising board” along the street to rent their houses (Source: Image by FISHERPHOTO in Weibo (2020), https://share.api.weibo.com/share/229977797.html?weibo_id=4579998348870318)



Figure 41. Villagers use the ground floor of their house to do some small business (Source: Image by Shiguangjun in Zhihu (2018), <https://zhuanlan.zhihu.com/p/41619612>)



Figure 43. Villagers play chess and watch TV in community center in the village (Source: <https://sdc-iesr.jnu.edu.cn/2019/0717/c16049a366328/page.htm>)



Figure 42. Villagers organise traditional events in clan temples in the urban village (Source: https://www.sohu.com/a/338173578_120045188)



FOR MIGRANTS



Figure 44. Advertisement for rental in urban village (Source: <https://sdc-iesr.jnu.edu.cn/2019/0717/c16049a366328/page.htm>)



Figure 45. Shops in urban villages offer services for people at a low price (Source: SohuNews (2018), https://www.sohu.com/a/271534017_100195259)



Figure 47. Musicians find a cheap house to use as a training room in Shipai village (Source: SohuNews (2016), https://www.sohu.com/a/122348332_515983)



Figure 46. Tenants work as delivery man in the village (Source: Image by monaludao in Weibo, <https://weibo.com/>)

5.1.2 SPATIAL PATTERNS

In the global range, most of the informal settlements share similar spatial features, which are high density, complex and organic patterns, and small building sizes (Taubenböck et al., 2018). Some empirical studies show that, impacted by the different cultural contexts and governance mechanisms, differences in building sizes and combinations could be seen in informal settlements (Taubenböck et al., 2018). It is also mentioned that the spatial boundaries of informal residential areas are changeable over time and not that clear, as the informality is always unstable (Dovey & King, 2011). Therefore, the morphological patterns could only represent

a general feature but not refer to a specific settlement.

Figure 49 shows that, for urban villages, the patterns show some similarity among villagers that share the similar geographical position and the conditions of farmland (Li, 2001). Villages locate in city center tend to have less farmland and higher density. It means that there are higher demands for accommodation, jobs and daily life services in these places, while the problems of overcrowded, social segregation, and lack of public services might be more serious.

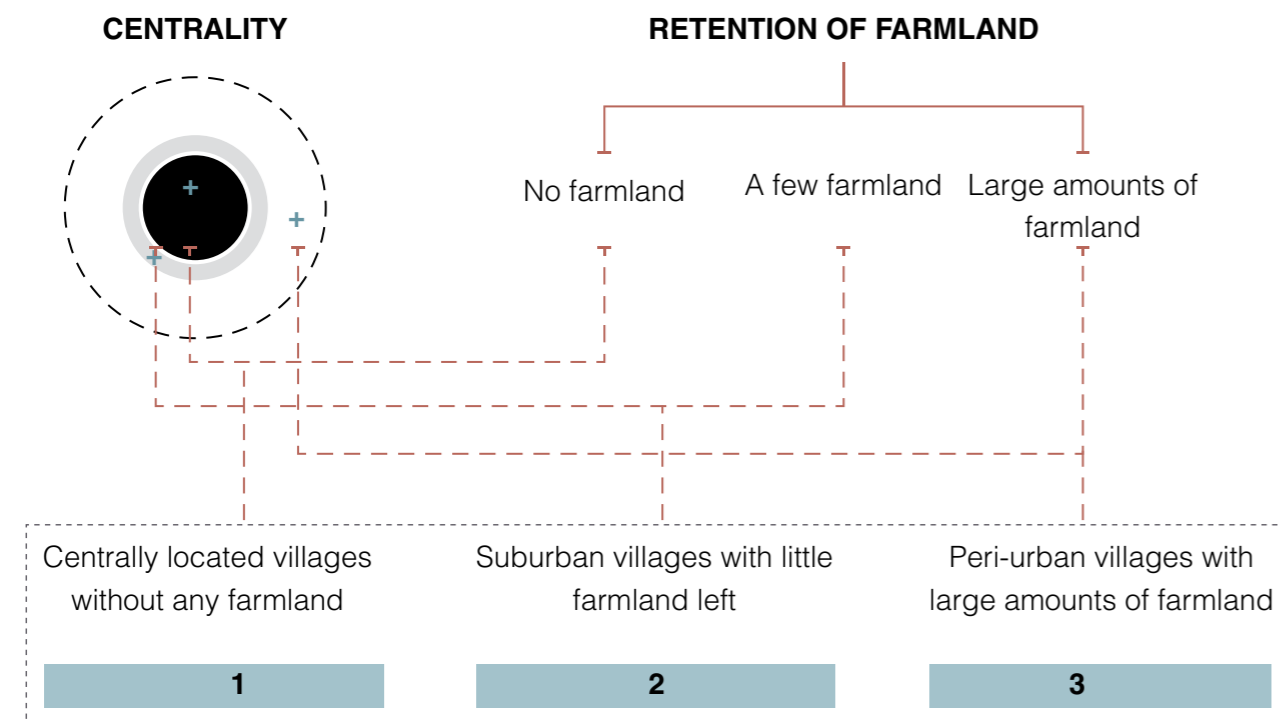


Figure 48. Diagram of different types of urban villages defined by centrality and retention of farmland (Source: author)

Traditional villages



Figure 49. Traditional villages in Guangzhou suburban areas (Source: Baidu Map, <https://map.baidu.com/>, edited by author)

Urban villages



Figure 50. Satellite map of urban villages with different geographical positions and conditions of farmland: 1.Shipai Village & Sanyuanli Village; 2.Suishi Village & Dongxiu Village ; 3.Hantang Village & Shuimen Village (Source: Baidu Map, <https://map.baidu.com/>, edited by author)

5.1.3 LAND OWNERSHIP & MANAGEMENT

1. Traditional village and kinship authorities (Land owned by village collective)

Before the 1950s, the urban villages were once traditional villages, organized by kinship authorities (Lin et al., 2012). They are so-called the “lineage villages” (Al et al., 2014, p. 64), a typical type of village in China, especially in South China, where residents defined themselves by sharing the same surnames or ancestors and forged a very powerful bond among each other. After the 1950s, the kinship authorities were replaced by communes, which were set up based on the national policy. The communes were planned to be self-organized by villagers for managing the collective land and enterprises, which acted as a start point for autonomy and reciprocity in Chinese villages. Even nowadays villagers in the urban villages still keep reciprocal networks with friends and relatives. They self-organized the informal housing market, collective land, and community enterprises together.

2. The establishment of village committee (Land owned by village collective)

After the 1980s, a new system was established in all the villages, in which the village committee and communist party branch replaced the communes. The new system allowed villagers to elect their own committee directly, and the

committee was responsible for managing the collective property and providing public services for residents (Lin et al., 2012). This system is still used in today’s villages as well as most of the urban villages in China.

3. From Village Committee to Residents’ Committee (Land own by state (except the land occupied by clan temples))

In recent years, the management scheme has been changed in some urban villages, which aims to mitigate the disparity between formal urban areas and urban villages in terms of population management, social welfare, and other institutional affairs. It tends to happen in villages located in the city center. In these places, the Village Committee transfer to Residents’ Committee, which are not only responsible to villagers but all other inhabitants in terms of public affairs. One Residents’ Committee serves for 4~6 neighborhoods in the urban villages. Meanwhile, those local villagers are also registered as citizens in the hukou system, which means they have the same rights to social welfare as other urban residents. The informal collective economic organization in the village would be registered as formal enterprises, which still responsible for managing the collective property.

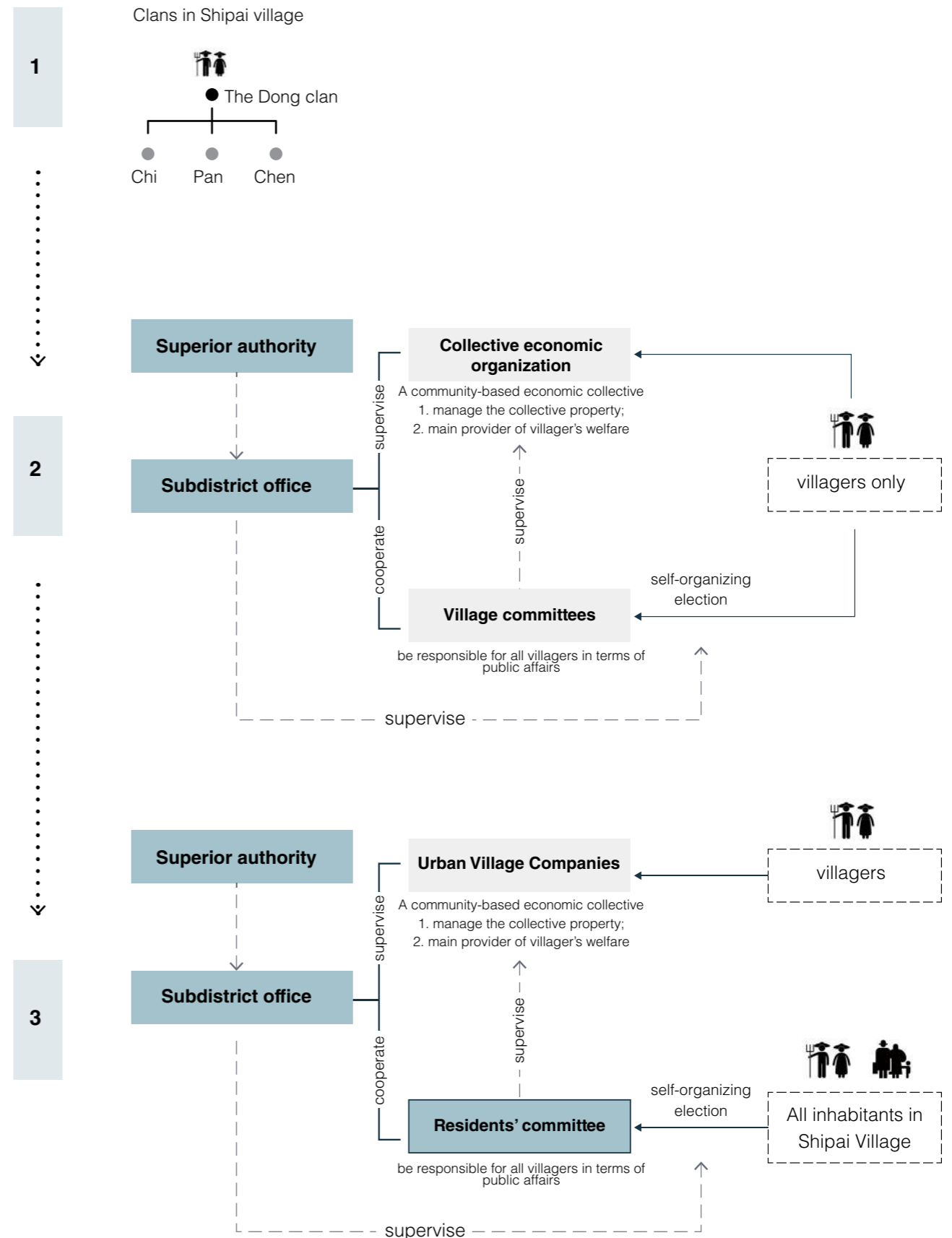
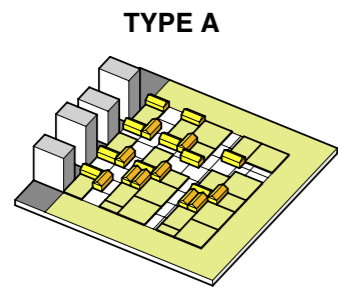


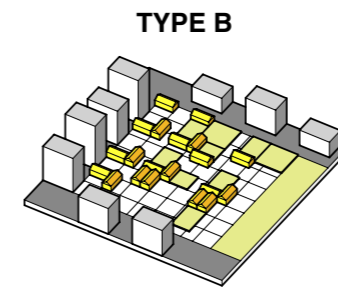
Figure 51. A: kinship authorities; B: Management scheme in Hantang Village, Guangzhou (Village committees); C: Management scheme in Shipai Village, Guangzhou (Neighborhood committees). (Source: author)

5.1.4 SUMMARY

Base on the analysis, the urban villages in Guangzhou could be categorized into four types. Each type have similar spatial conditions, in terms of position, density, the number of farm, and management scheme (Hukou status & Land ownership).



Typical case: Dongxiu Village



Typical case: Suishi Village

Density	■ ■ ■ ■ ■
Location	
Hukou (villagers)	peasant
Land ownership	owned by village collective
Farmland	Large amounts of farmland
Management	By village committee and collective economic organization

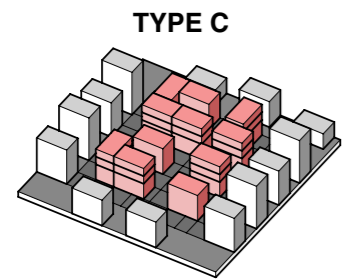


Figure 52. Map of Dongxiu Village (upper) (Source: Baidu Map, <https://map.baidu.com/>, edited by author); Streetview of traditional villages (below) (Source: Image by xingwangfusuizi in Weibo, <https://weibo.com/>)

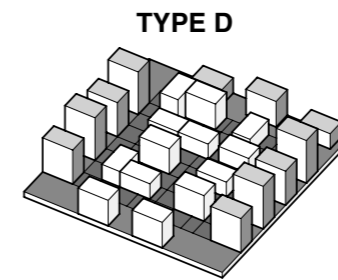
Density	■ ■ ■ ■ ■
Location	
Hukou (villagers)	peasant
Land ownership	owned by village collective
Farmland	A few farmland
Management	By village committee and collective economic organization



Figure 53. Map of Suishi Village (upper) (Source: Baidu Map, <https://map.baidu.com/>, edited by author); Streetview of Suishi village (below) (Source: https://zh.wikipedia.org/wiki/File:Archway_of_Suishi_Village_in_HMEC.jpg)



Typical case: Shipai Village



Typical case: Liede Village

Density	
Location	
Hukou (villagers)	urban
Land ownership	owned by the state
Farmland	No farmland
Management	By residents' committee and Urban village company



Density	
Location	
Hukou (villagers)	urban
Land ownership	owned by the state
Farmland	No farmland
Management	By residents' committee and Urban village company



Figure 54. Map of Shipai Village (upper) (Source: Baidu Map, <https://map.baidu.com/>, edited by author); Streetview of Shipai village (below) (Source: TencentNews, <https://new.qq.com/d/gd>)

Figure 55. Map of Liede village (upper) (Source: Baidu Map, <https://map.baidu.com/>, edited by author); Streetview of Liede village (below) (Source: <https://kknews.cc/zh-sg/news/kynx5q.html>)

Though the analysis on urban villages in Guangzhou, **the research questions of Sub Group 1 (the form and role of urban villages in Guangzhou) could be answered.**

The driven forces for the development of urban village is the rapid urbanisation and the the huge flow of migrants since 1980s. Urban villages play an essential role in supporting the urban equality in Guangzhou. They provide affordable and well-located housing for migrants, as well as basic public services for everyday need. Also, the informal housing enable villagers to earn their lives by renting or doing small business after losing the farmland. Moreover, the collective lands (for building public facilities or for religious use) help to improve villagers' living conditions, and keep their lifestyle and culture.

The spatial pattern section reveals that urban villages in city center has the higher density compare to others, which also suffer more spatial and social problems caused by high density and increasing population. The management scheme in these villages has been changed. This policy aims to to mitigate the disparity between formal urban areas and urban villages in the city center. Villagers in these places have the same right on social welfare as other citizens.

FOR NEXT SECTION

The extreme-high density and the sptial conflicts brought by the city center location of the third type urban villages give a clue to zoom into one of these villages. Therefore, an urban village in the city center would be chosen for detailed analysis in the next section, to have a closer view on the spatial problems and social conflicts inside the village, which would give a clue for future upgrading.

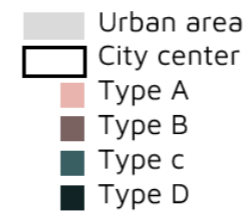
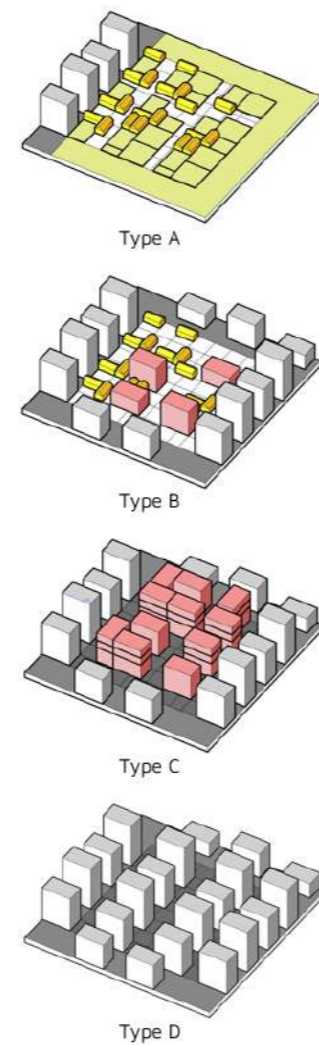


Figure 56. Four types of urban villages in Guangzhou. (Source: author)



5.2 A CASE STUDY: SHIPAI VILLAGE



Figure 57. Aerial image of Shipai village.
(Source: Image by Kevin Sun in Behance
(2020), <https://www.behance.net/> [retrieved
on March 10, 2021])

5.2.1 LOCATION



Figure 59. Location of Shipai village (Source: Author)

Shipai, which means stone. The village is the largest urban village in Guangzhou, covering an area of 0.73 square kilometers with 50000 residents. It locates in the center of Tianhe district, which is one of the main commercial areas in the city. The whole district began to urbanize since 1980s. Driving by the construction of Tianhe sports center and railway station, the whole district urbanized rapidly and become the most expensive areas full of symbolic landmarks and highrise buildings.



Figure 58. Images of Tianhe district (Source: Wikipedia, https://en.wikipedia.org/wiki/Tianhe_District [retrieved on April 10, 2021])

5.2.2 HISTORY

The history of Shipai village could be tracked back to 1273, when Dong family settled on where the village locates today. As the family grows, their settlement then develop and expand into small hamlet. The descendants with different surname (Chi,Dong,Pan,Chen) move out of the original settlement and settled in the nearby areas. As the population keep grow-ing,the settlement of each families expand and merge into one large village.

By 1912, the village agriculture landscape, covering 14km², which contains 4800ha of farmlands, hills, ponds and houses. Since then, farmland was requisitioned by govermant to build several campus and horse-court.

By 1987, in order to build sports center and railway station, the whole area began to urbanze rapidly. All the farmland in Shipai village had been requisitioned and only left for dwelling and collective use (land for clan temples, factory and village companies). Villagers were registerd to citizens in hukou system. Four residents' committees are established to replace the village committee. Since then, renting informal houses has become the main way for villagers to earn their life (Chi et al., 2003).



Figure 60. Traditional village buildings in Guangzhou. (Source: <https://www.sh-gongxin.com/kejixinwen/22550.html>)



Figure 61. Construction of Tianhe sports center and railway station in 1987 (Source: <https://www.sh-gongxin.com/kejixinwen/22550.html>)



Figure 62. Informal housing in Shipai village (Source: TencentNews, <https://new.qq.com/d/gd>)

5.2.3 SOCIAL NETWORK

There are 51317 people living in Shipai village, and it is a nest for almost 40,000 migrants (City Search Site, 2020).

Locals VS Migrants

In the old days, the village was organised based on clans and kinship, where people share a closed and exclusive social network. Villagers still keep closed relationship today, and manage the communities through working in urban village companies and residents' committee.



Figure 65. Population of Shipai village in 2019 (Source: Author, based on http://www.chengshicx.com/info/gzthq_shipaijiedao.html)

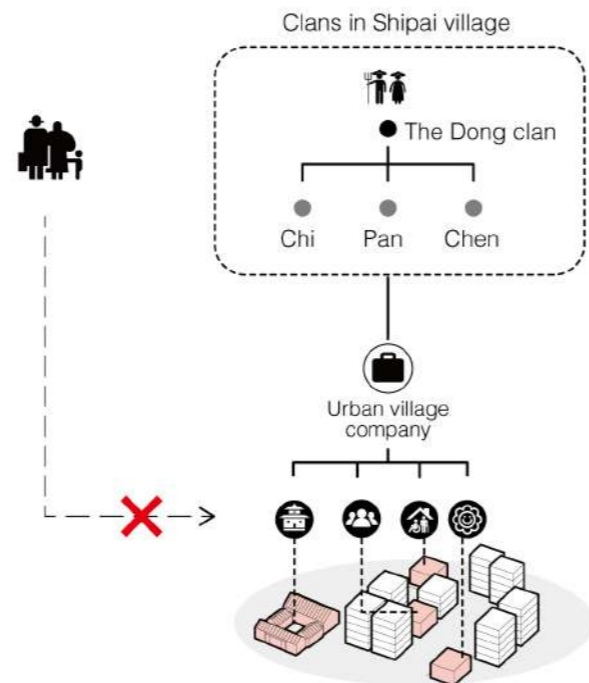


Figure 64. The social segregation caused by clan culture (Source: Author)

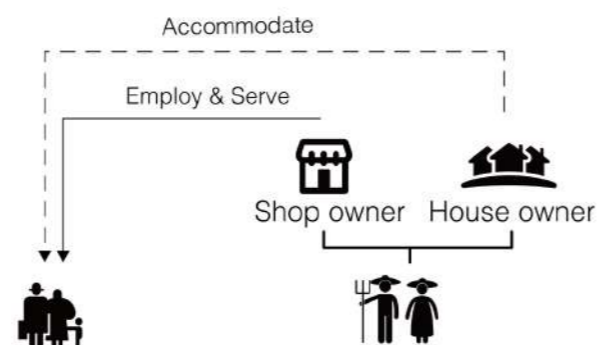


Figure 63. Connection between villagers and migrants (Source: Author)



Figure 67. Locals in Shipai village (Source: Image by sansansancan in Weibo, <https://weibo.com/>)



Figure 66. Migrants in Shipai village (Source: SohuNews (2018), https://www.sohu.com/a/256478406_99997541)

5.2.4 PUBLIC FACILITIES

Formal facilities

There are formal shops on the main road as well as on the high streets, which provide all kind of basic services for restaurant, supermarket and clothing.

There are also social facilities like schools, community activity center and elderly activity center. However, these facilities are owned by the village economic organisation (Shipai Sanjun Enterprise Group Company), and only could be used by villagers.



Figure 68. Commercial buildings on the main road around the village (upper) (Source: Image by Hanbin Zhu in Weibo, <https://weibo.com/>); Formal shops inside the village (below) (Source: <https://gz.leju.com/news/2018-10-06/07086454114811881242879.shtml>).



Figure 69. community activity center (left) and kindergarten (right). (Source: SohuNews (2018), https://www.sohu.com/a/256478406_99997541)

Informal facilities

Some villagers use the ground floor of the building to do small business. Along the street there also informal market and street vendors.



Figure 70. Informal shops and street vendors (Source :<https://www.gznf.net/column/20810.html>)



- Formal facilities**
- Formal shop
- Hospital
- Supermarket
- Clinic
- Community center
- Elderly activity center
- School
- Clan temple
- Informal facilities**
- Informal shop
- Area for street vendors
- Access only by Villagers

Figure 71. Access to public facilities in Shipai village (Source: Author, based on OpenStreetMap <https://www.openstreetmap.org>)

5.2.5 INFRASTRUCTURE

Main roads around Shipai village



Figure 74. Shipai east road (left) (Source: <https://www.163.com/news/article/58K9367A000120GR.html>); Tianhe road (right) (Source: SohuNews (2018), https://www.sohu.com/a/256478406_99997541)

High streets in Shipai village



Figure 75. Main entrance of shipai village, linking to the high streets (Source: SohuNews (2018), https://www.sohu.com/a/256478406_99997541)

Lanes in Shipai village

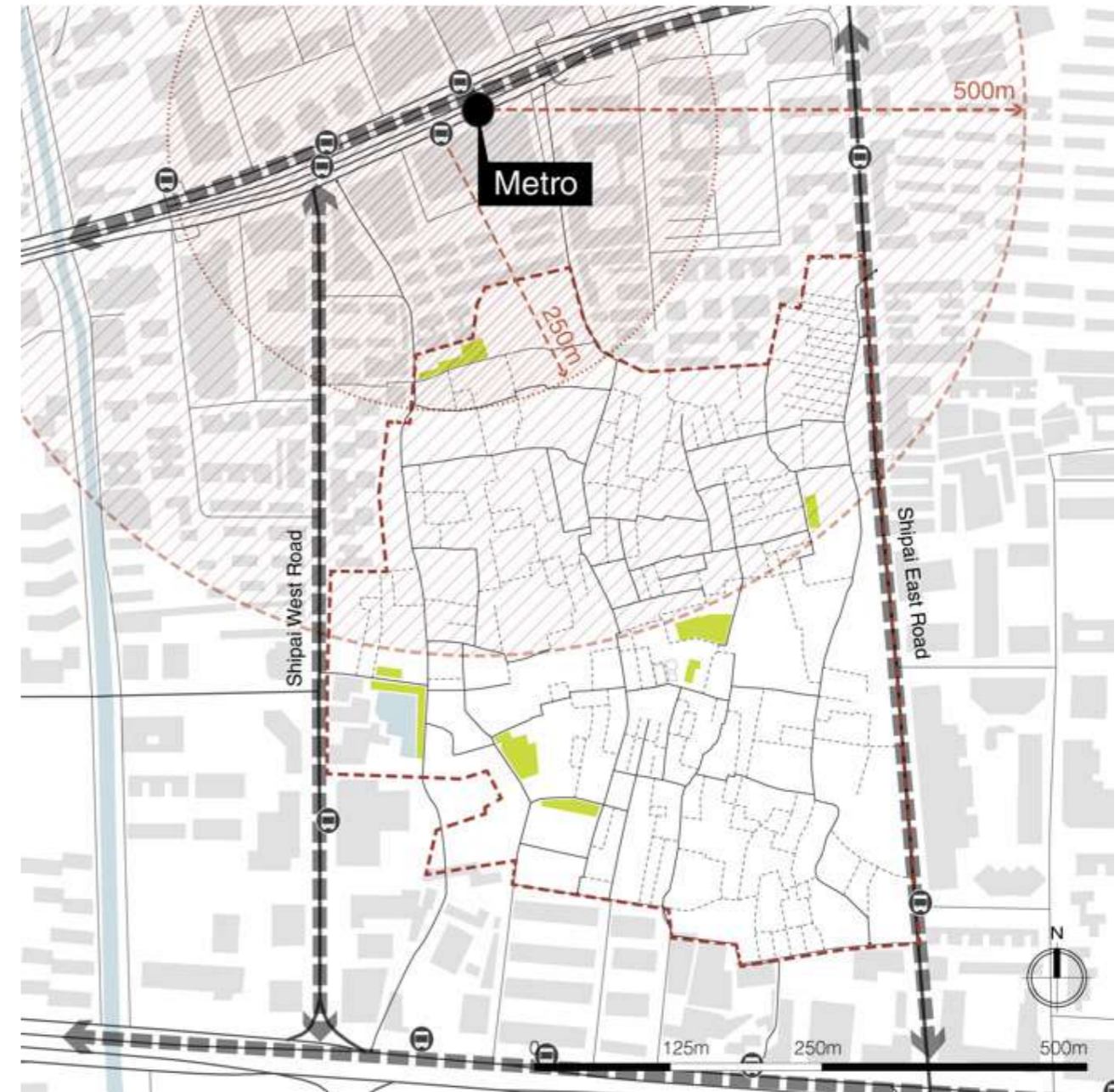


Figure 76. A lot of streets are around 4~5 meters wide with a mix of formal and informal shops (Source: <http://web.anyv.net/index.php/article-4397855>); (Source: SohuNews (2018), https://www.sohu.com/a/256478406_99997541)

Alleys in Shipai village

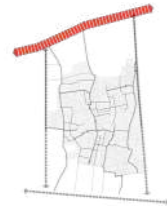


Figure 77. A large amount of small alleys are only one or two meters wide, which always lack lighting and sewage system (Source: SohuNews (2018), https://www.sohu.com/a/256478406_99997541)



- ▬ Main road width: 7-8m
- ▬ High street width: 7-8m
- - - Lane width: 4-5 m
- ⋯ Alley width: 1-2 m

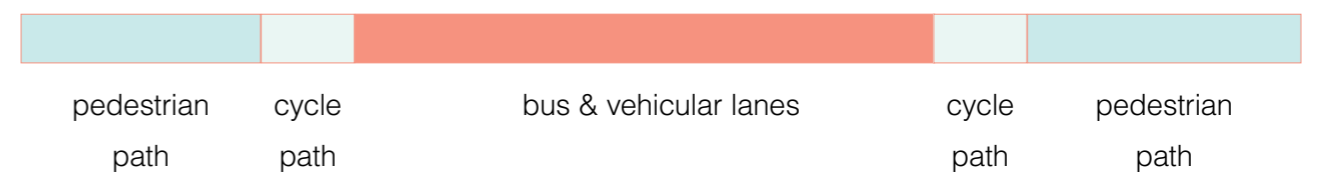
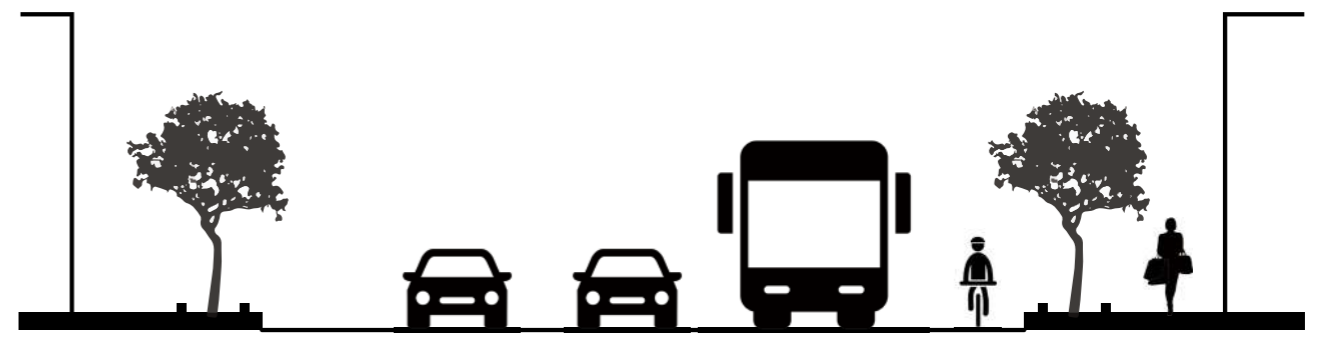
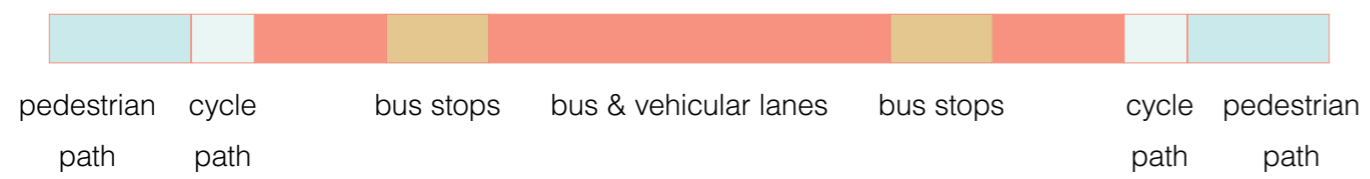
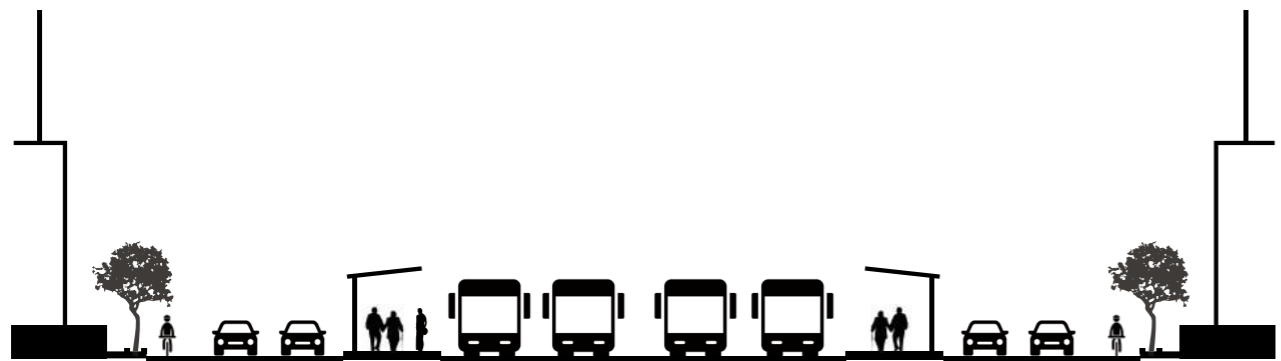
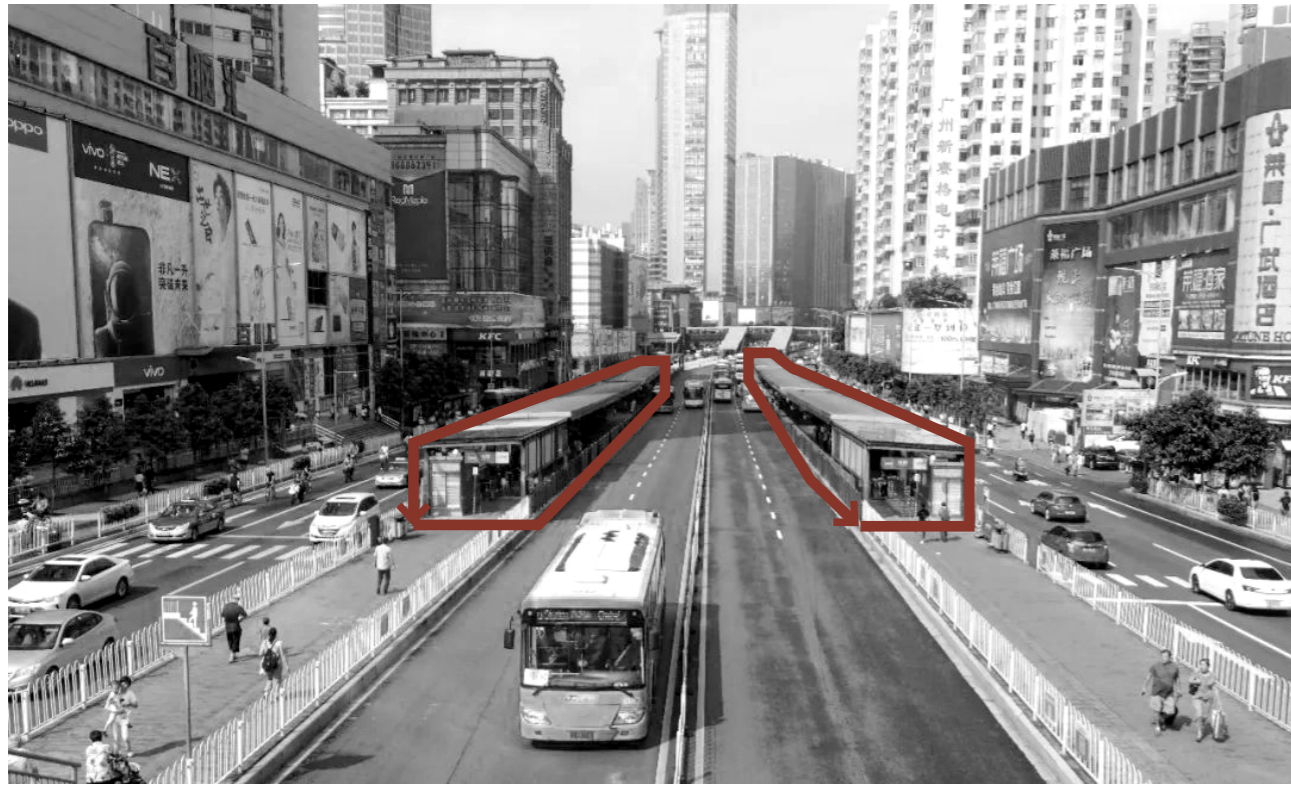
Figure 78. Access to public transportation in Shipai village (Source: Author, based on OpenStreetMap <https://www.openstreetmap.org>)



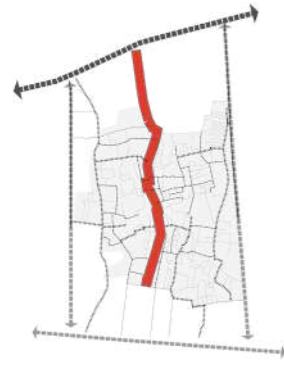
TIANHE ROAD



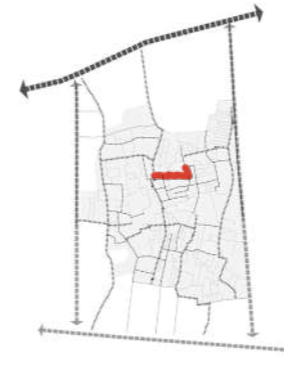
SHIPAI EAST ROAD



TYPICAL CROSS SECTION



HIGH STREET



LANE



pedestrian path

trees/stacking

parking

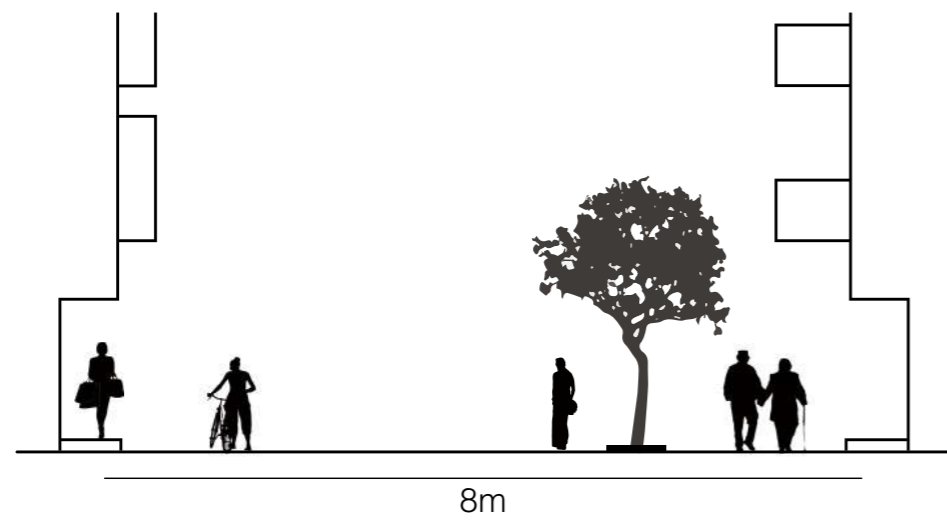


parking/stacking/sitting

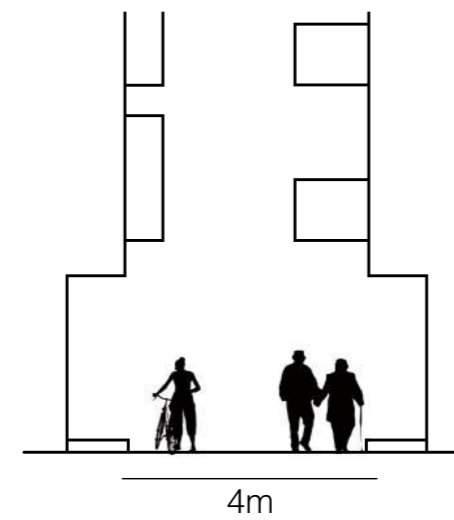
pedestrian path

vendors

parking/stacking/sitting

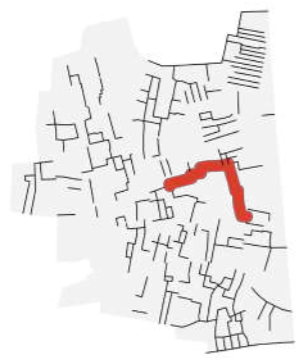


8m



4m

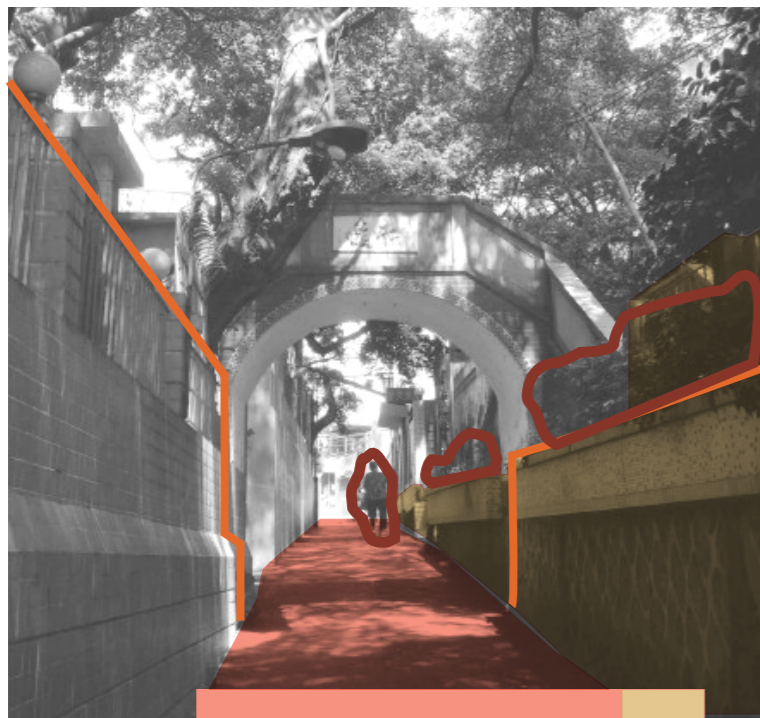
TYPE A



TYPE B



TYPE C



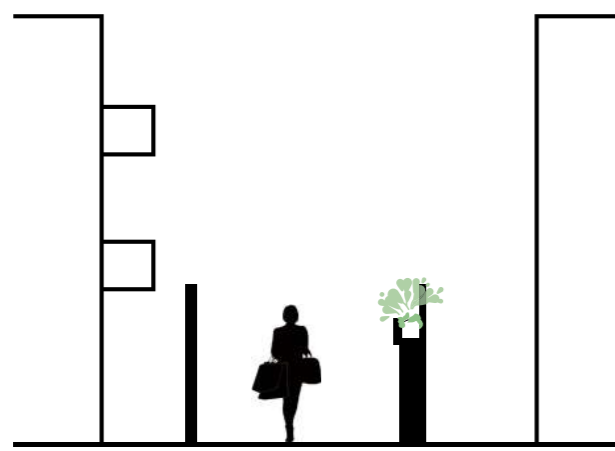
pedestrian path trees



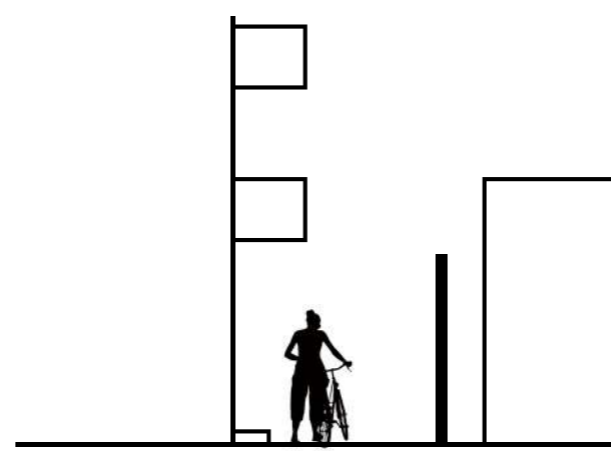
stacking/sitting pedestrian path parking/stacking/sitting



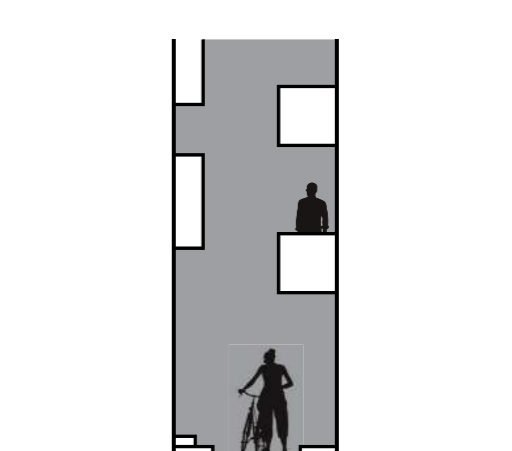
parking pedestrian path



2m



2m



2m

5.2.6 GREEN SPACE

Due to limited space, large green and public space are few. Most of the green space are in the yard of clan temples and community center, while the places are only access for villagers. While the climate is suitable for planting, some residents would keep plants in front of their house, using the alleys as a place for planting.



Figure 79. Gardens in clan temples (upper) (Source: <https://kknews.cc/zh-sg/other/zb94yjq.html>). Green space in community center (below) (Source: <https://sdc-iesr.jnu.edu.cn/2019/0717/c16049a366328/page.htm>).



Figure 80. Resident plants along the alley in Chebei village (Source: <https://kknews.cc/society/en9z4or.html>)

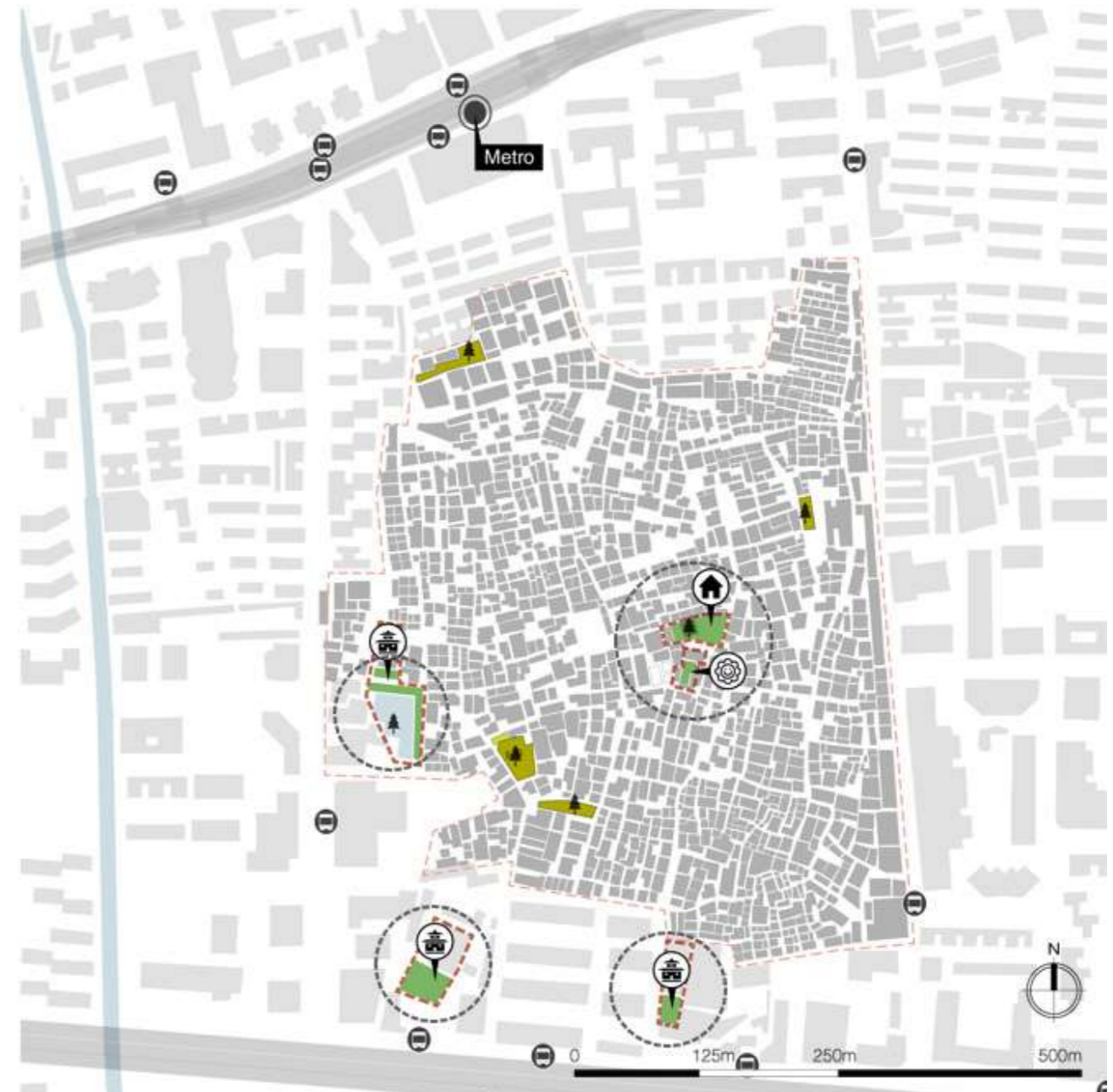
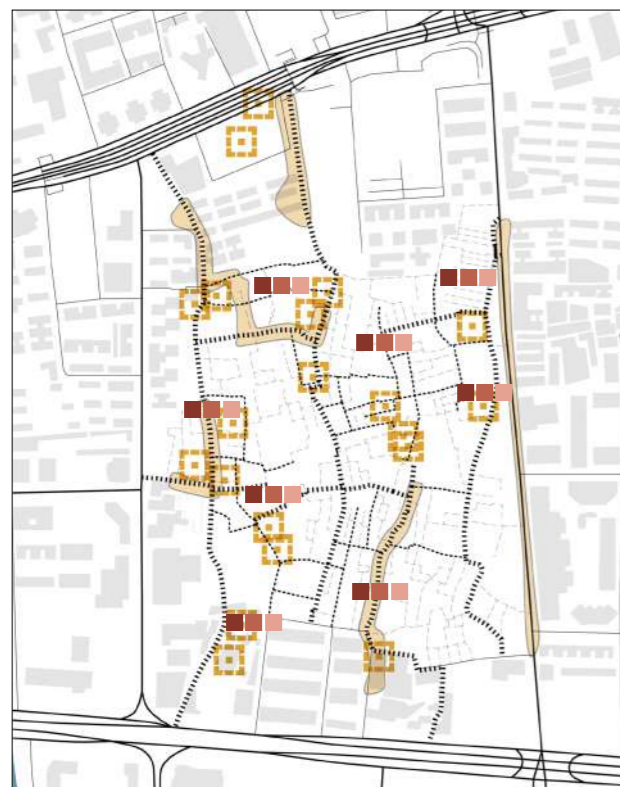


Figure 81. Access to green spaces in Shipai village (Source: Author, based on OpenStreetMap <https://www.openstreetmap.org>)

5.2.7 ONLINE SURVEY

In this part, data mining on social media is conducted to get information about residents' preference on outdoor spaces and activities and the improvements desired by people.

Firstly, we filter out all posts that contain keywords shipai or shipai village in Weibo (one of the biggest social media platforms in China). There are 567 posts in total, which were posted from 2014 to 2021. The most frequently used words in all posts are in the table. Words that relate to outdoor activities and use of outdoor spaces are highlighted to find out the popular gathering spaces in the village.



*cleaning all lower case, punctuation, common words, links and user names.

WORD	COUNT	WEIGHT
Shipai Village	564	1
Guangzhou	326	0.9299
Shipai	68	0.8723
Urban villages	64	0.8481
■ "Five people"(A local band name)	64	0.7982
■ The Tianhe District	42	0.7792
■ Roast duck rice	37	0.7461
■ The boss	36	0.7393
■ "DAKA"	20	0.7309
■ Guangyuan Road	19	0.7126
■ Dragon Boat Festival	17	0.7122
■ The villagers	24	0.7101
■ Renke (A local musician)	23	0.7024
■ The dragon boat	17	0.6972
■ Daoyue Club (Food channel)	20	0.6903
■ take-out	14	0.6865
■ prison	17	0.6862
■ alley	14	0.6859
■ A single room	15	0.6856
■ A Qiang (A famous local song)	11	0.6806
■ Zhujiang New Town	11	0.6762
■ Street	17	0.6761
■ Bus station	12	0.6756
■ Liede Village	16	0.6705
■ city	19	0.6693
■ house	16	0.6672
■ assistance to the poor	14	0.6671
■ Pickled fish	11	0.6643
■ Avenue.	15	0.6642
■ epidemic	13	0.6641
■ The band	13	0.6612
■ children	16	0.6604
■ Huangpu avenue.	14	0.6587
■ Xian Village	14	0.6583
■ sublet	10	0.6569
■ Story	15	0.6548
■ culture	16	0.6507

All the outdoor activities are categorized into three types, necessary activities, optional activities and social activities (Gehl, J, 2011) (1) Necessary activities/ under all conditions - compulsory, everyday tasks and pastimes (going to work, school, shopping); (2) Optional activities/

WORD	COUNT	WEIGHT
Guangzhou	13	0.6491
meaningless	11	0.6476
The landlord	10	0.6456
■ petittoes	8	0.6427
■ Chopin	10	0.6411
■ organization	14	0.6405
■ high-rise building	12	0.638
■ The crowd	13	0.6371
■ security	13	0.6362
■ demolition	10	0.6343
■ photography	11	0.6341
■ traditional	13	0.6335
■ facemask	8	0.6325
■ live show	10	0.6319
■ Computer city	9	0.6316
■ rural	10	0.6312
■ history	12	0.6279
■ Fisherman's	8	0.6264
■ aerial photograph	7	0.626
■ prevention and control	8	0.6249
■ Chebei station	10	0.6246
■ Hair salon	7	0.6233
■ friend	11	0.6229
■ clan temple	7	0.621
■ propaganda	11	0.6195
■ clean	9	0.6189
■ The traffic	10	0.6187
■ Chaoshan	7	0.6171
■ dream	9	0.6167
■ delicious	8	0.6166
■ balcony	8	0.6157
■ Primary school	10	0.6153
■ The subway station	7	0.615
■ Shipai street	9	0.6126
■ Tianhe Shopping Mall	6	0.609
■ Zhanjiang city	7	0.6084
■ taste	9	0.6084
■ square	9	0.6075

only under favorable exterior conditions - taking a walk, standing around, sunbathing; (3) Social activities/ all activities that depend on the presence of others in public spaces. And it comes out that there are mainly four types of areas where residents tend to gather: (1) Food market

WORD	COUNT	WEIGHT
■ old man	8	0.6073
■ wet	7	0.6059
■ regeneration	8	0.6057
■ happy	8	0.6023
■ Jinan University	5	0.6006
■ Shenzhen city	8	0.6001
■ tourism	8	0.5995
■ post	6	0.5991
■ Xu Zhiyuan (Famous TV host)	7	0.5989
■ Village	6	0.5985
■ public transportation	7	0.5981
■ Legend	7	0.5977
■ cheap	7	0.5974
■ slippers	6	0.5965
■ Shipai East Road	7	0.5963
■ Sunshine	7	0.5941
■ Hotel	7	0.594
■ Mobile phone	8	0.5933
■ Duck meat	5	0.5928
■ Living	7	0.5928
■ tailgating	5	0.5922
■ dog	6	0.5913
■ lovely	7	0.591
■ Cultural festival	6	0.59
■ health	7	0.589
■ Out of poverty	5	0.5889
■ Science and technology	7	0.5885
■ Real estate	7	0.5879
■ digital	7	0.5865
■ headlines	5	0.5861

■ Necessary activities
 ■ Optional activities
 ■ Social activities

& Supermarket; (2) Entrances of the main high street; (3) Community center (includes a range of activity areas, such as basketball fields, seats and shelter); (4) Clan temples and other historical landmarks that owned by families.



GATHERING SPACE FOR MIGRANTS

1 Along the street



Figure 83. Residents are chatting near the food market (Source: Image by Shiguangjun in Zhihu (2018), <https://zhuankan.zhihu.com/p/41619612>)



Figure 82. People gather on the pathways next the supermarket (Source: SohuNews, https://www.sohu.com/a/394105962_120249982)

2 Near the entrance of the village



Figure 84. Residents are chatting near the food market (Source: http://slide.tj.sina.com.cn/news/slide_48_88056_578283.html#p=1)

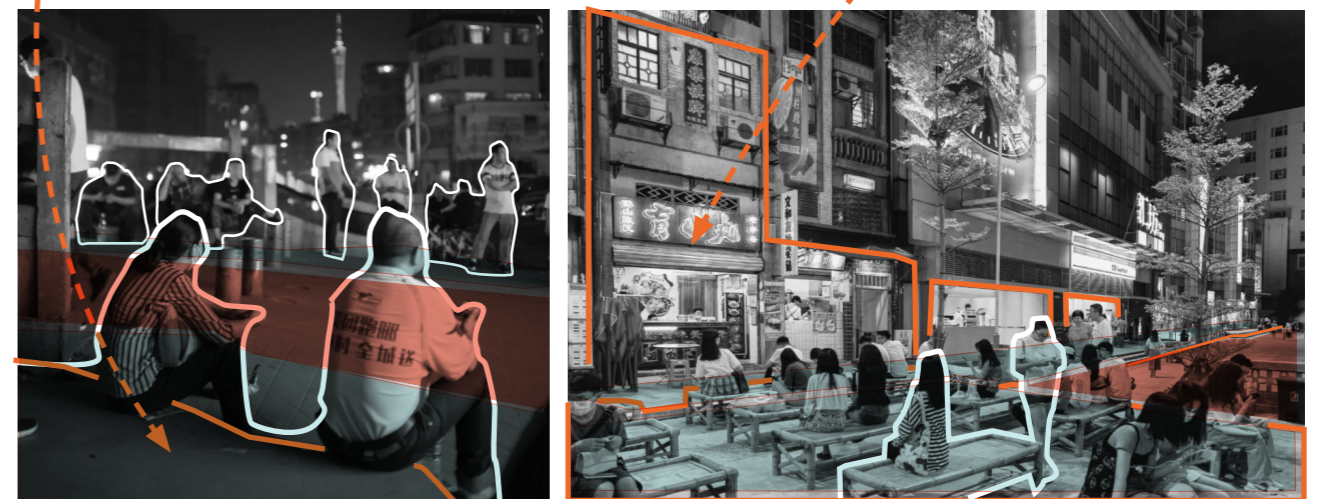


Figure 85. Residents are chatting near the food market (Source: https://www.sohu.com/a/449266265_669860)



GATHERING SPACE FOR VILLAGERS

3 Around clan temples and other historical buildings that owned by clans.



Figure 88. Social activities inside the clan temple and historical buildings (Source: <https://twgreatdaily.com/zh-cn/sD96om8BbDmBVZuPI5mF.html>)



Figure 87. Social activities outside the clan temple and historical buildings (Source: <http://web.anyv.net/index.php/article-4397855>)

4 Around public facilities owned by urban village companies (Community center, elderly activity center, and schools)



Figure 92. People are sitting under the pergola outside the courtyard (Source: https://en.wikipedia.org/wiki/Shipai_Village)



Figure 89. Social activities in the courtyard of the community activity center (Source: https://en.wikipedia.org/wiki/Shipai_Village)

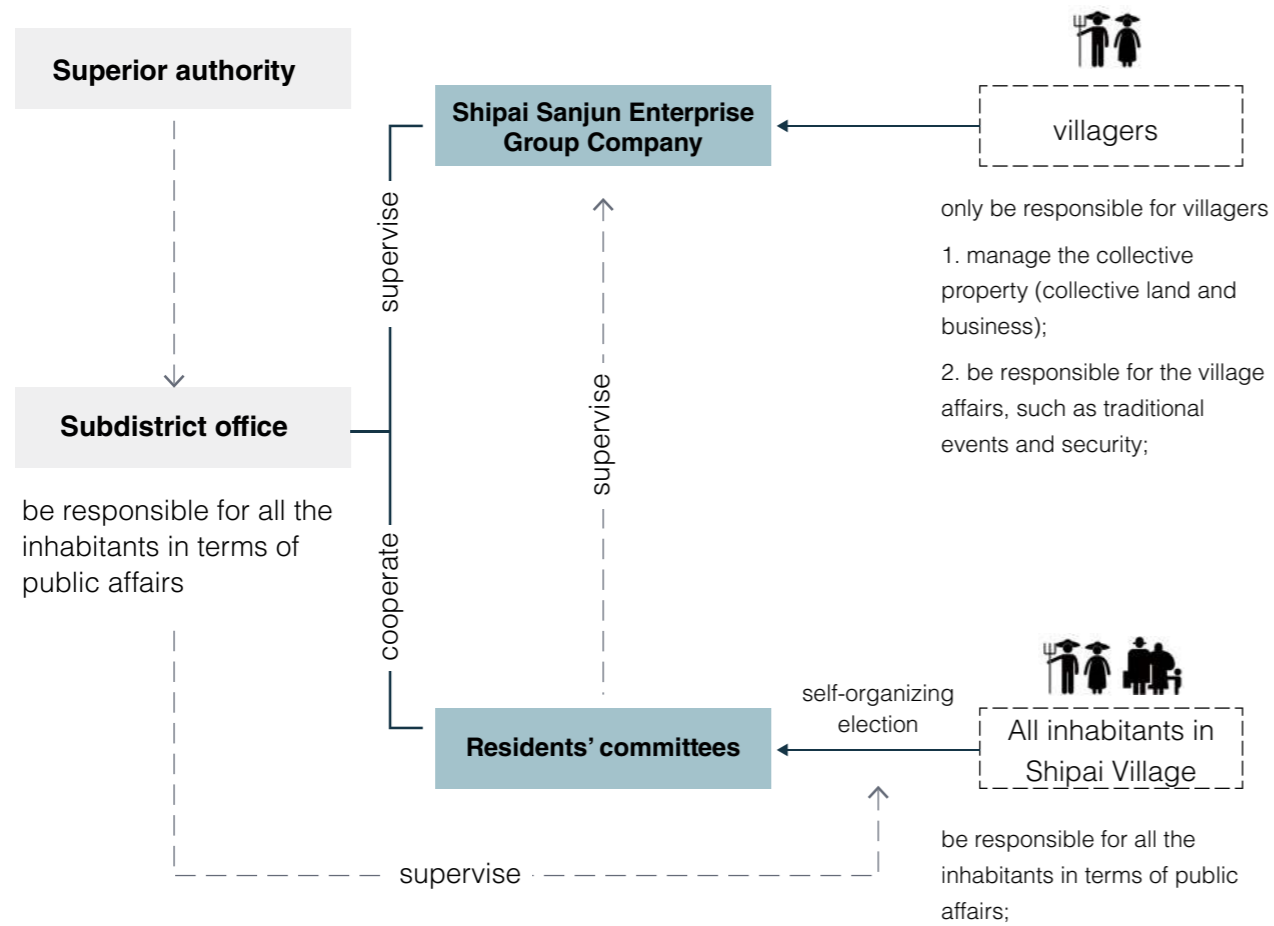


Figure 91. People are sitting under the tree.



Figure 90. People are gathering at the gate of the activity center (Source: SohuNews (2018), https://www.sohu.com/a/256478406_99997541)

5.2.8 OWNERSHIP & MANAGEMENT



Currently, the maintenance and management of the public facilities are mainly done by urban village companies, which are totally organised by villagers. Villagers could decide the use of collective land (community center, clan temples, schools and elderly activity center). Residents' committee are responsible for all inhabitants in

terms of public affairs. While in practice, members in the residents' committee are also villagers. Elections are held every five years. Tenants show less willing to participate in residents' committee.

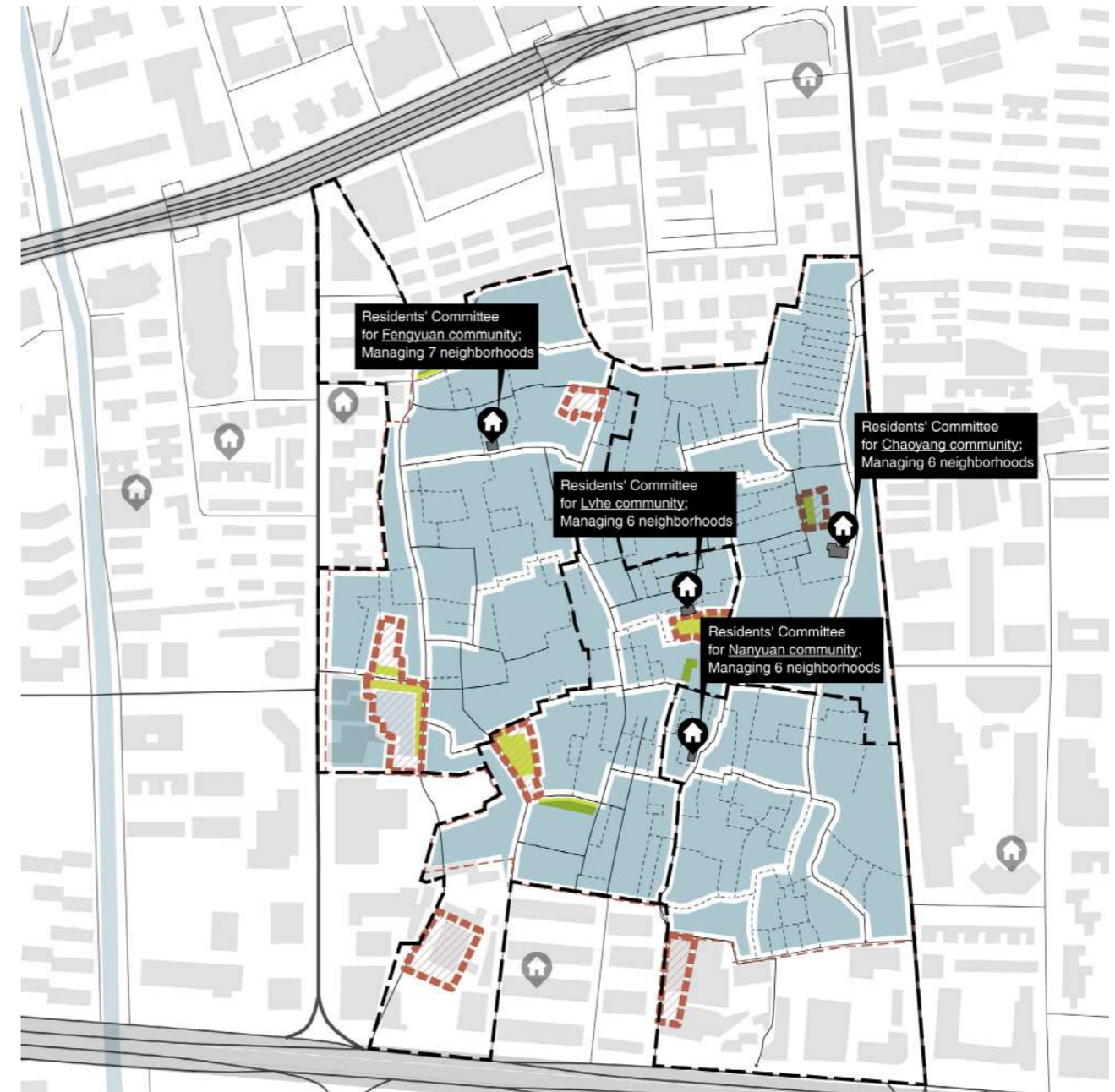


Figure 93. Location of residents' committees and collective land in Shipai village (Source: Author, based on OpenStreetMap <https://www.openstreetmap.org>)

5.2.9 CONCLUSIONS

WHAT ARE THE PROBLEMS?

Residents in urban villages are facing extreme living conditions caused by high density, limited spaces and lack of basic infrastructure. Also, the use of public facilities and outdoor spaces reveals the segregation between local residents and tenants. Currently, the maintenance and management of the public facilities are mainly done by urban village companies and residents committee, which are totally organised by villagers. Tenants have less opportunities in participating in public affairs.

Online survey shows that many residents in Shipai village want their living conditions improved. Tenants want to improve living safety and wish to use community center and clan temples for rest, sunbath and sports. Also, they want more interactions with locals, to feel not lonely in new city. Tourists and passer-bys want signals along the street to avoid losing, and keep the look of commercial street.

WHY THESE PROBLEMS?

The reason for segregation could track back to the clan culture of villages, where closed and exclusive social network. And the self-management in some extend deepthen the inequaty in urban villages. In practice, members in the residents' committee are also villagers, tenant mainly short term rental, less willing to participate in electe for working in residents' committee. The incomplete of basic infrastructure is normal to see in all urban village, due to the lack of financial and technique support by local authority. Also, as a lot locals have moved out of the village, the left people care less about upgrading physical environment.

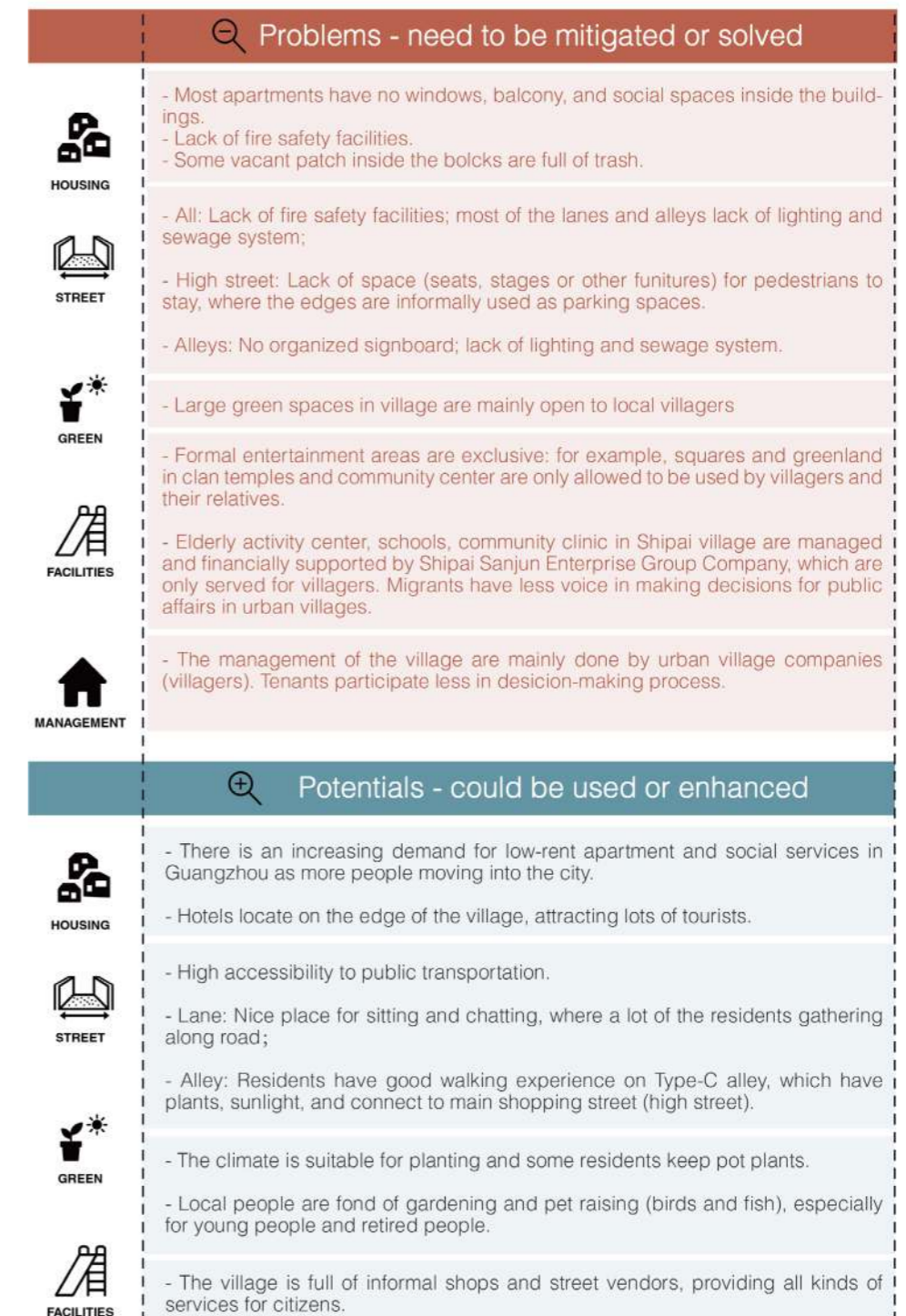


Figure 94. Problems and potentials of current living environment and management scheme (Source: Author)

5.2.10 ASSESSMENT

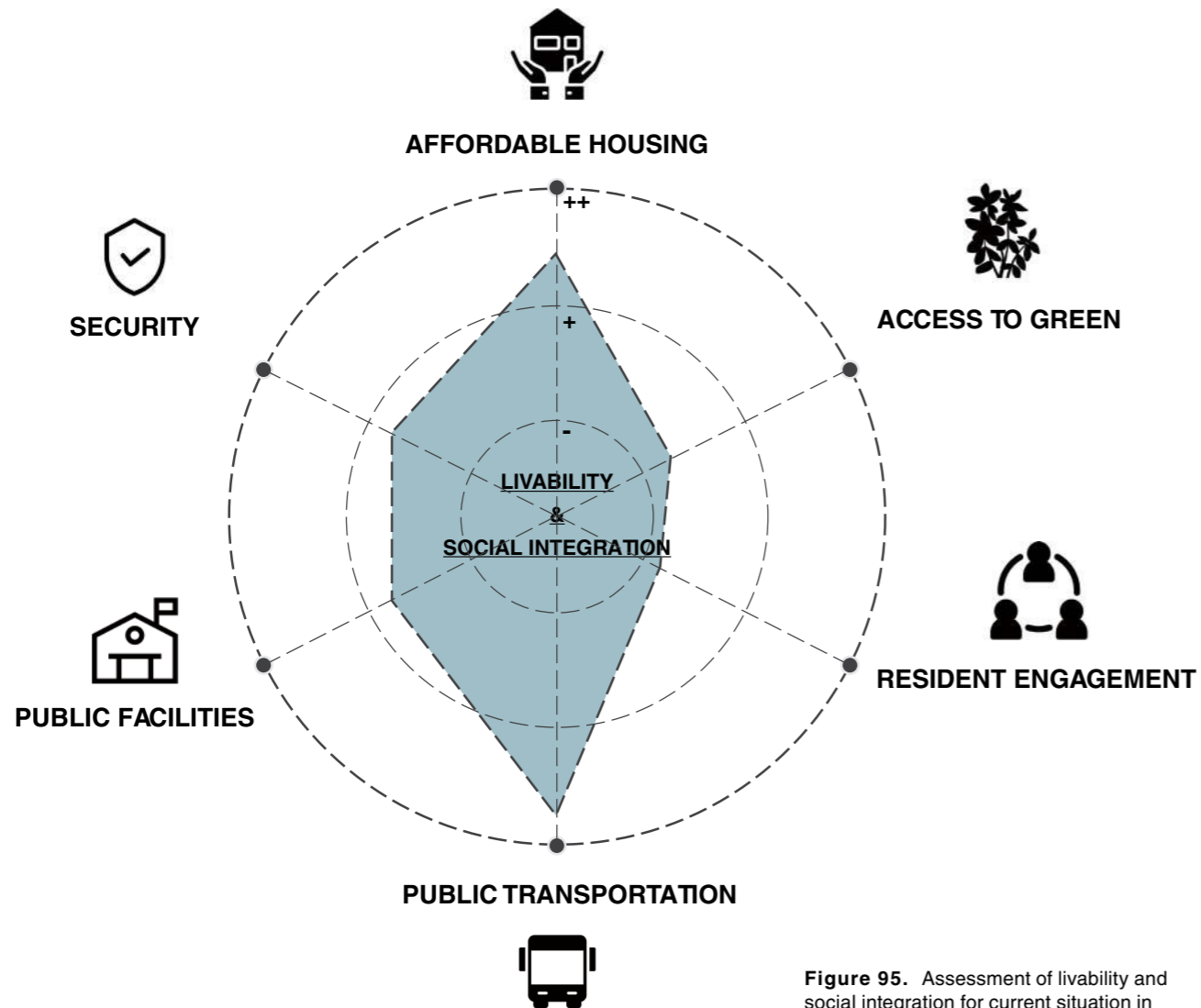


Figure 95. Assessment of livability and social integration for current situation in Shipai village (Source: Author).

Looking back to the assessment framework created in the theoretical chapter, the assessment for different factors that related to livability and social integration would be assessed. Shipai village gets very a high score in the access to public transportation because of the metro station and bus stops around the village. The low housing price and the huge amount of informal rentals also make it get a high score in providing

affordable housing. While it gets a low score in the access to green and public facilities, as a lot of the public facilities and green areas are only served for locals. Although the migrants take a large part of the population in the village, they have less voice in the self-management process. The resident engagement gets a very low score as the social segregation between locals and migrants is serious.

6 DESIGN PROPOSALS

Chapter structure

- 1. Vision*
- 2. Strategies*

Figure 96. New sports field in urban villages in Guangzhou.
(Source: Image by Black Station & Kevin Sun in Behance (2020),
<https://www.behance.net/> [retrieved on May 10, 2021])

6.1 VISION

Shipai village has become an essential settlement for urban newcomers. The construction of the new CBD and commercial areas in the surrounding districts has brought in huge flows of tourists, workers, college students in the whole area, which boost a prosperous urban life day and night. In 2021, more than 42,000 people are settled in Shipai village, counting for 90% of the inhabitants. Informal construction activities are still the driving force of the growth of the whole village.

The future Shipai village would provide more **affordable housing** to the low-income group and migrants in the city. Streets are safer and cleaner, and connect to diverse public spaces in the village. Residents have more places for outdoor activities and cultural events. The **just and liveable environment** not only activates **healthier lifestyle** among the residents, but encourage the **resident engagement**. The whole project would be conduct in several stages, for each the migrants have more opportunity to participate in the **decision-making process**. The future growth of Shipai village would shift to a more inclusive way, not only for the village itself, but also act as **urban attractions to the surrounding neighborhoods**.

The following section would explain the strategies of housing, infrastructure, green, public space, and management with simple design guidelines and strategic plans.



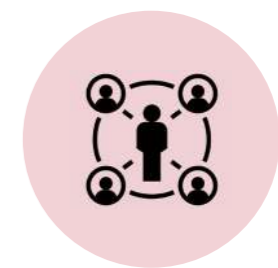
AFFORDABLE HOUSING



JUST AND LIVEABLE ENVIRONMENT



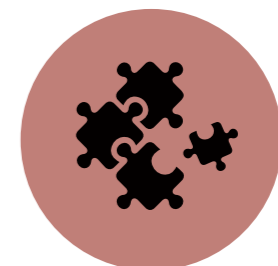
HEALTHY LIFESTYLE



RESIDENT ENGAGEMENT



SELF-MANAGEMENT



OPEN TO THE CITY

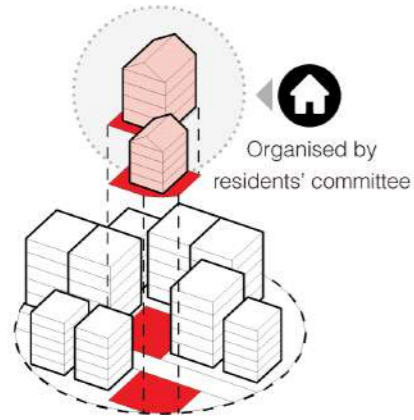
6.2 STRATEGIES



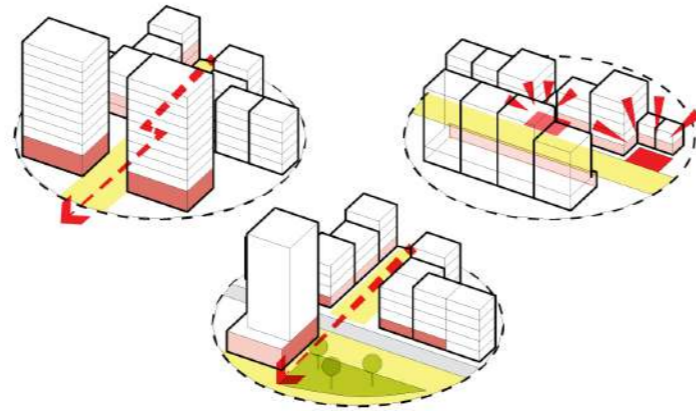
HOUSING

PROVIDE MORE AFFORDABLE HOUSES, AND BREAK THE EDGES

01 Increase affordable housing
Provide policy and financial support on increasing affordable housing on vacant lands.



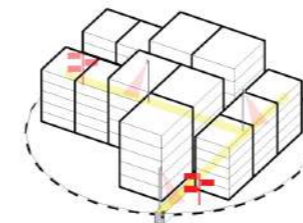
02 Open the edges
Integrated with surrounding neighborhoods or break up some existing buildings on the edges to open the site up.



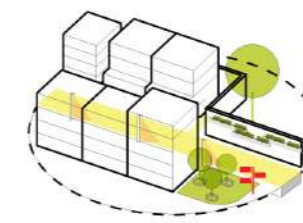
INFRASTRUCTURE

SAFE, LIVABLE, AND BOOST VIVID STREETLIFE

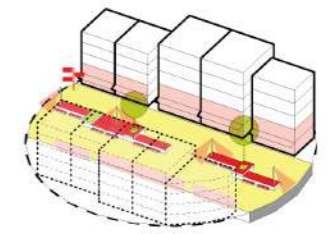
01 Lighten the path
Provide lighting and drains to make the path safer and cleaner.



02 Green the path
Place signal boards for passer-by and tourists to find their way easily. Put small green stuff along the path.



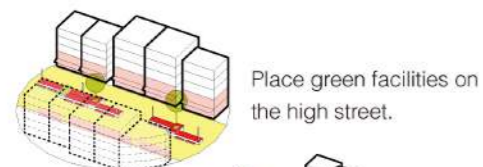
01 Be attractive and interactive
High streets would integrate with informal market, green facilities and interactive facade to make it more walkable.



GREEN

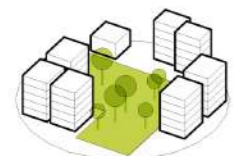
GREEN FOR EVERYONE

01 Public green spaces
Integrated public green spaces and recreation facilities with public facilities and commercial streets.



Place green facilities on the high street.

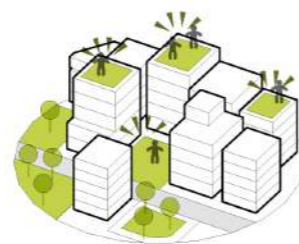
Place garden near clan temples for traditional events.



Existing green spaces integrate with recreation facilities (seating, chess, and sports fields).

02 Planting activity and semi-public green spaces

Encourage residents to use vacant lands, courtyards, and house roofs to make semi-public green spaces (community farm, pocket park and roof garden) by their own.

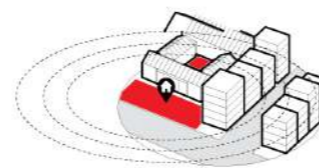


PUBLIC SPACE

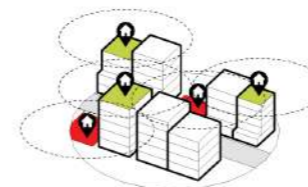
CREATE DIVERSE OUTDOOR SPACES, AND GIVE GUIDELINES FOR SELF-ORGANIZED

A toolbox for public spaces is given. For each tool, it gives description on the level (for what range are the tool used), main users, main functions and recommendation for where it should be placed.

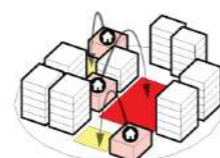
Public space for Shipai subdistrict



Public spaces for neighborhood

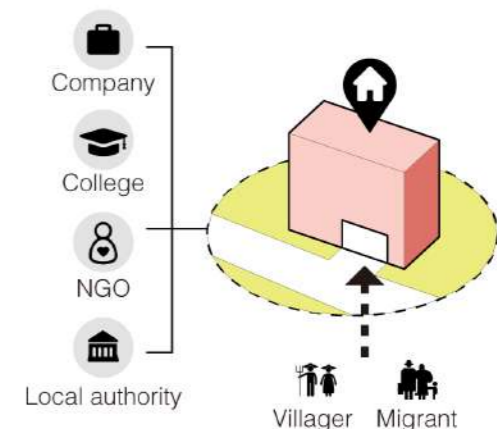


Public spaces for specific groups



MANAGEMENT

Residents' committee would work as an intermediary to contact with local authority, companies and other institutions for technical and financial supports. A "Tenant Office" will be established in the committee, which encourage tenants to participate in public affairs.

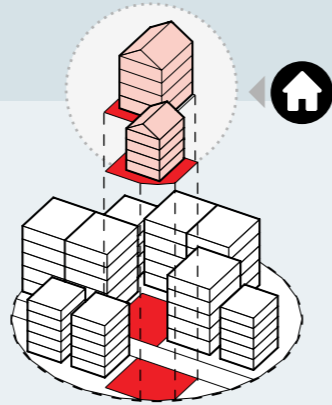


6.2.1 HOUSING

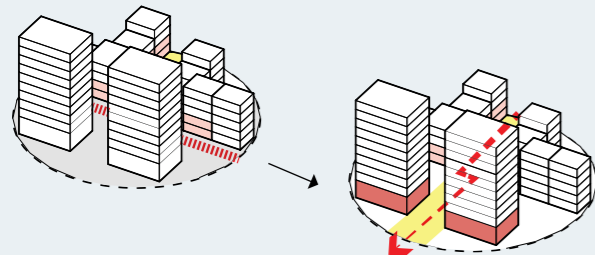
PROVIDE MORE AFFORDABLE HOUSES, AND BREAK THE EDGES

01 Increase affordable housing on vacant lands.

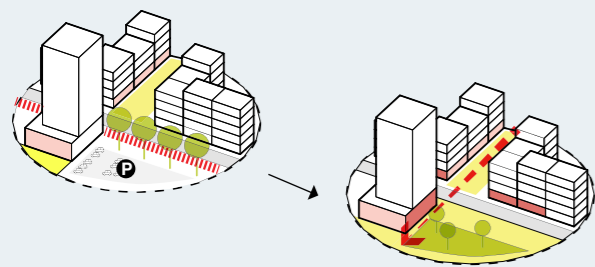
Residents' Committees are responsible for managing the building process and maintenance of these long-term rental apartments. These apartments would be counted into social housing system in Guangzhou. Based on the social housing policy, migrants and low-income people have priority on applying for these new apartments.



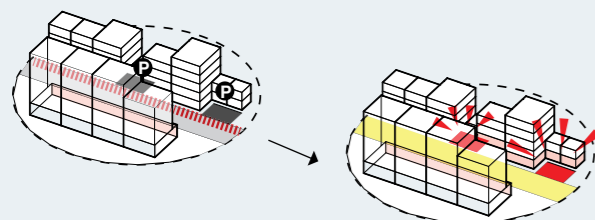
02 Break up some existing housing blocks on the edges to open the site up.



(1) expand the commercial street to the surrounding neighborhoods by reusing the podium and abandoned buildings. **1 2 3**



(2) redesign the in-between spaces to connect with surrounding commercial areas. **1 4**



(3) remove parking areas along the commercial street and on the main entrance; replace them with squares or pocket park. **5 6**



Figure 97. Strategic plan for housing (Source: Author)

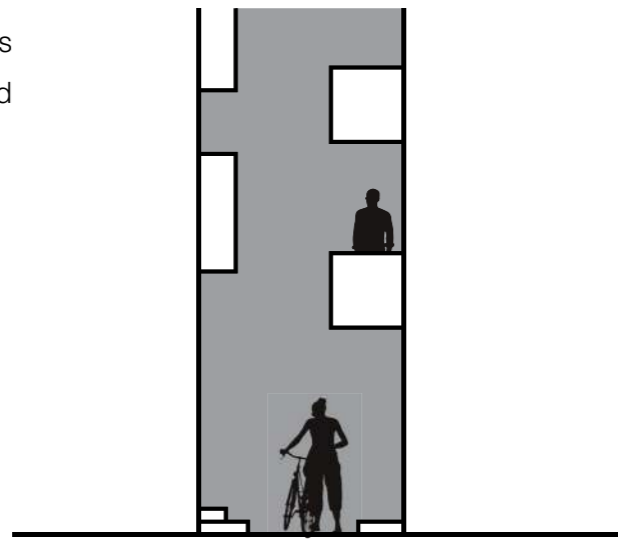
6.2.2 INFRASTRUCTURE

 BE SAFE, LIVABLE, AND BOOST VIVID STREETLIFE

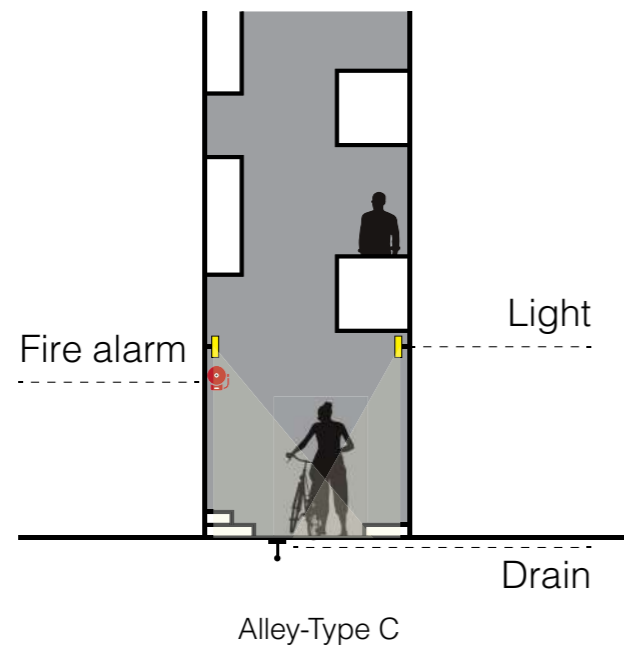
STEP 1  





Provide lighting and drains to make the path safer and cleaner

BEFORE



AFTER



-  Lighting
-  Sewage system
-  Activity route
-  Greenery

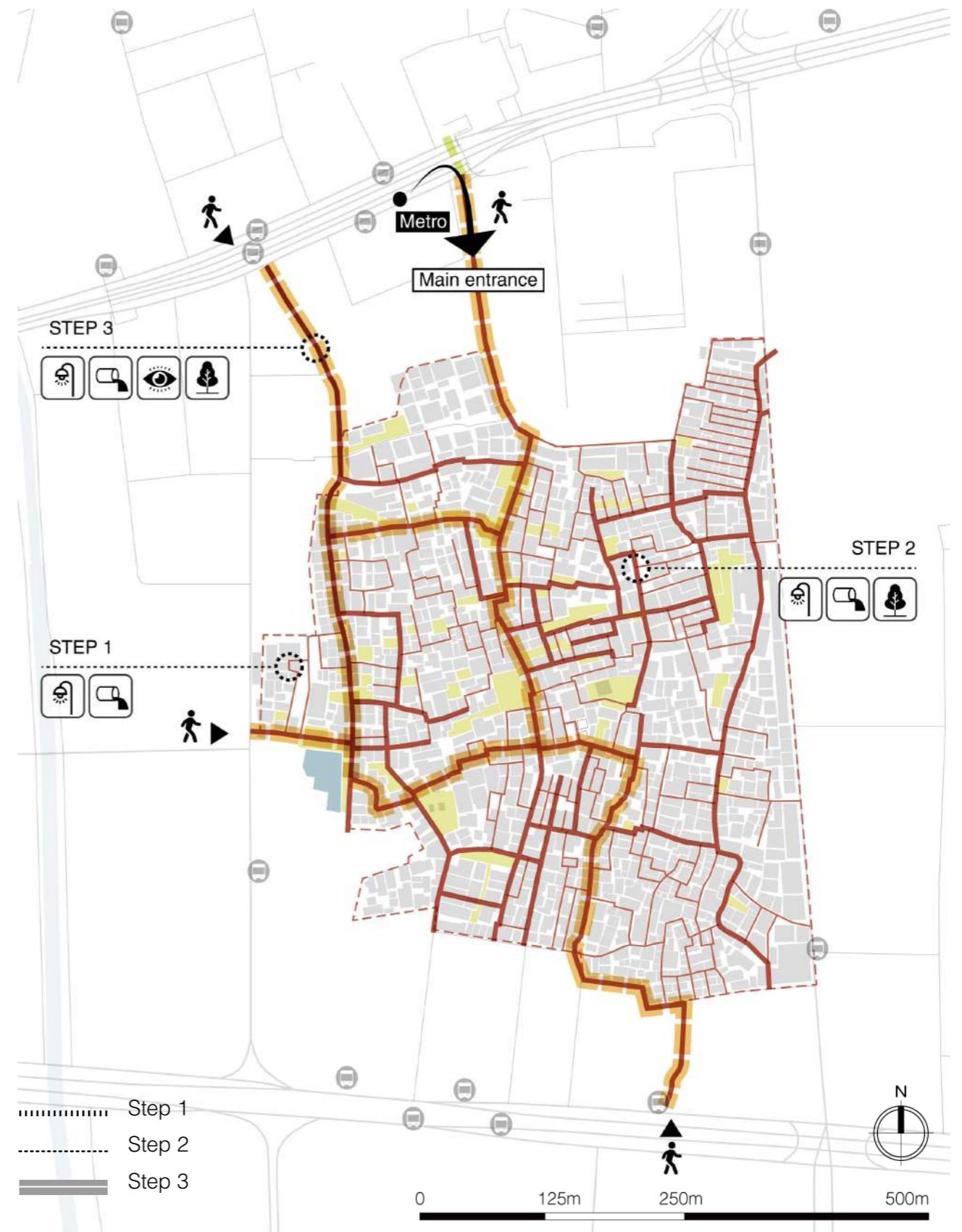

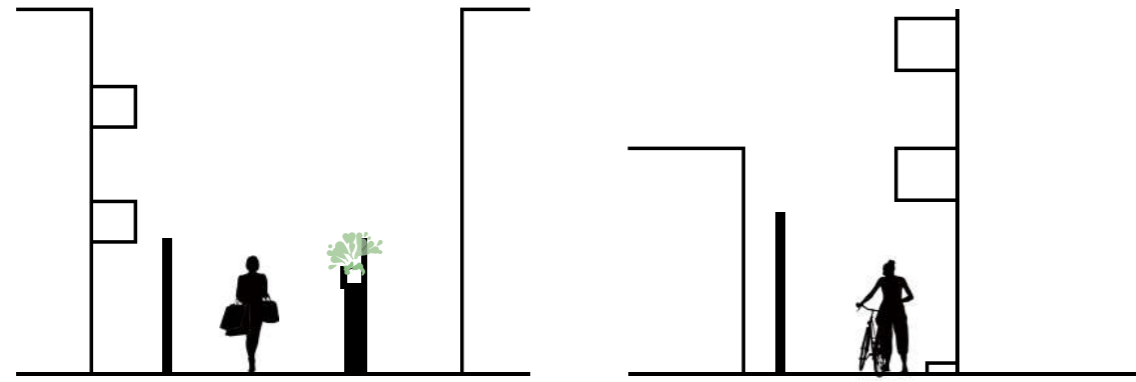


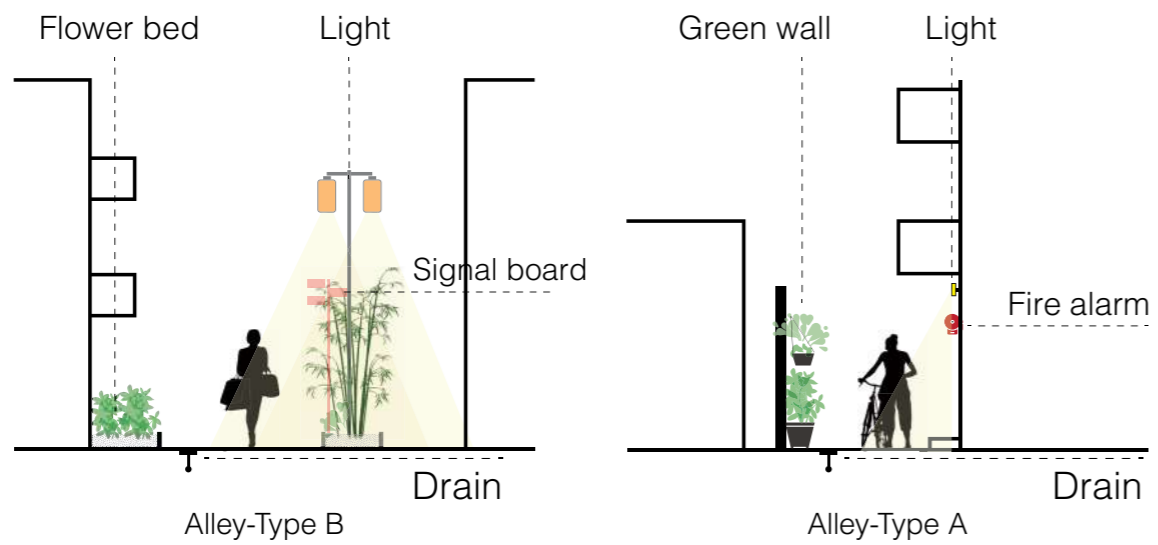
Figure 98. Strategic plan for upgrading street (Source: Author)


STEP 2  Place signal boards for passer-by and tourists to find their way easily. small green stuff.

BEFORE

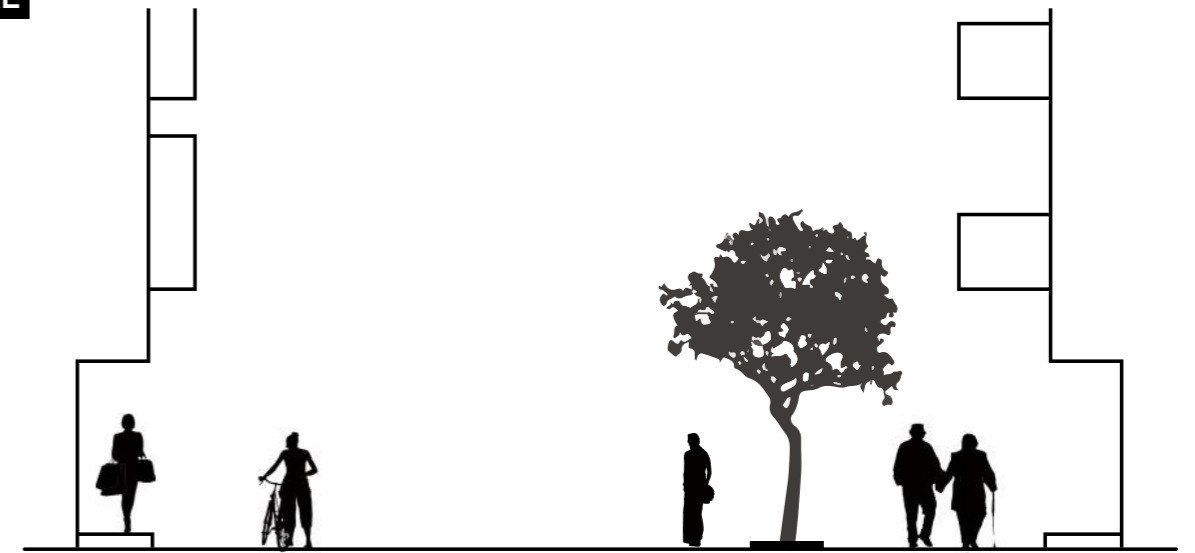


AFTER

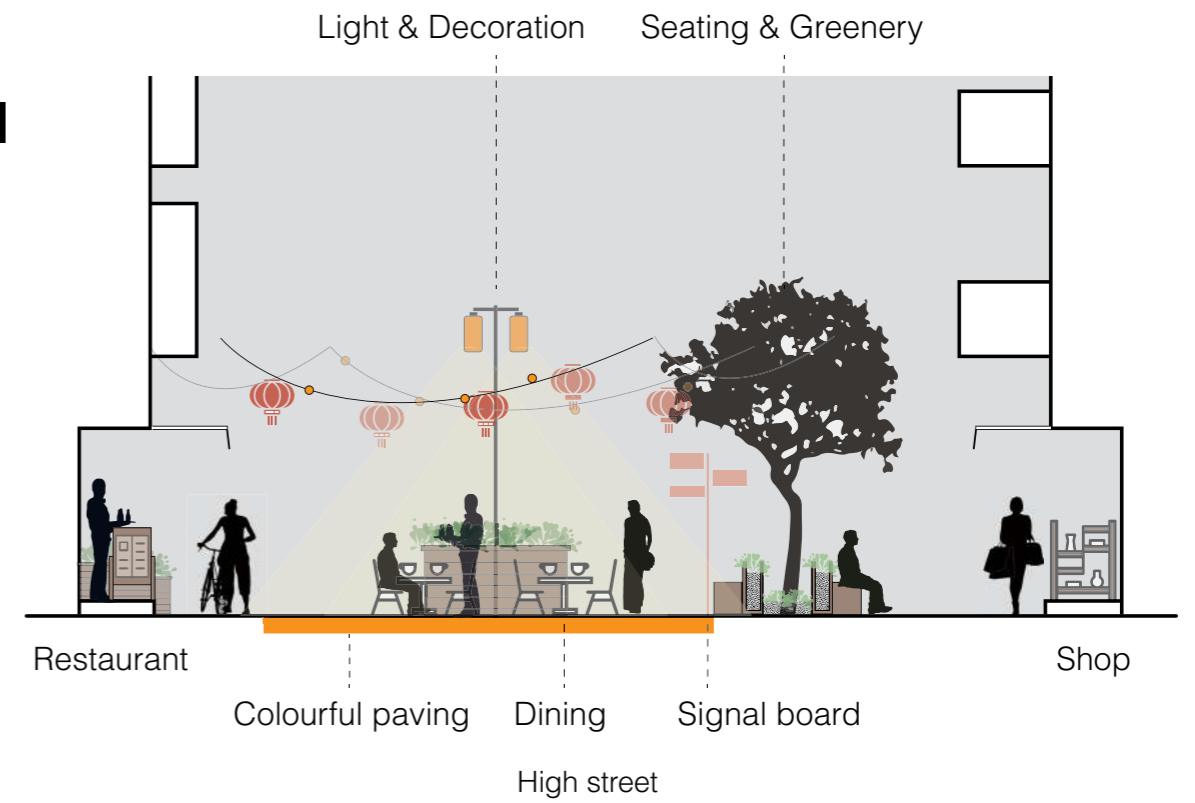


STEP 3  High street would integrate with informal market, green facilities and interactive facade make it more walkable.

BEFORE



AFTER



6.2.3 NATURE

CREATE DIVERSE GREEN FOR EVERYONE

01 For existing green areas, integrated with entertainment facilities. For vacant land near public facilities and commercial streets, provide public green spaces which are managed by the residents' committee.



Figure 100. Garden for ancestor worship.



Figure 103. Green facilities in high street.

02 Planting activities on semi-public green spaces: Encourage residents to use vacant lands, courtyards, and house roofs to make semi-public green spaces (community farm, pocket park and roof garden) by themselves.

This could first have a test in communities which have more local residents and retired people (age>60yrs). Provide basic planting tools for residents to use. Then use for other communities



Figure 99. Community farm.



Figure 101. Planting along the alleys.




Figure 102. Roof garden in Shenzhen urban village.



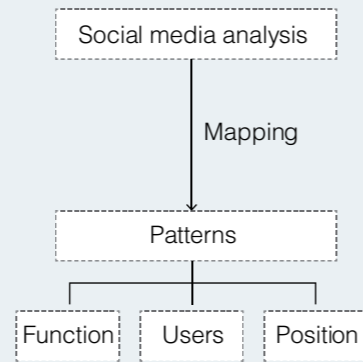
Figure 104. Strategic plan for green spaces (Source: Author).

6.2.4 PUBLIC SPACE

 CREATE DIVERSE OUTDOOR SPACES, AND GIVE GUIDELINES FOR SELF-ORGANIZED



















01 An analytical framework for building up a toolbox for specific site.

The toolbox is built up based on social media analysis (see appendix chapter), which shows the popular gathering areas and outdoor activities in Shipai village. Also, it shows what kind of functions and outdoor spaces are lack now. The analysis gives a clue for what kind of public spaces should be put in the village, and where it should be put.



02 Toolbox for Shipai Village.

A toolbox for green and public spaces is given. For each tool, it gives description on the level (for what range are the tool used), main users, main functions and recommendation for where it should be placed.

Level	For District	For neighborhood	For specific group
User	 Children <12yrs  Teenager 13~19yrs  Youth <30yrs	 Middle age 30~65  Elderly >65 retired	   
Function	 sitting  chatting  outdoor games  exercise  party  worshipg  arden  cultural events  shopping		

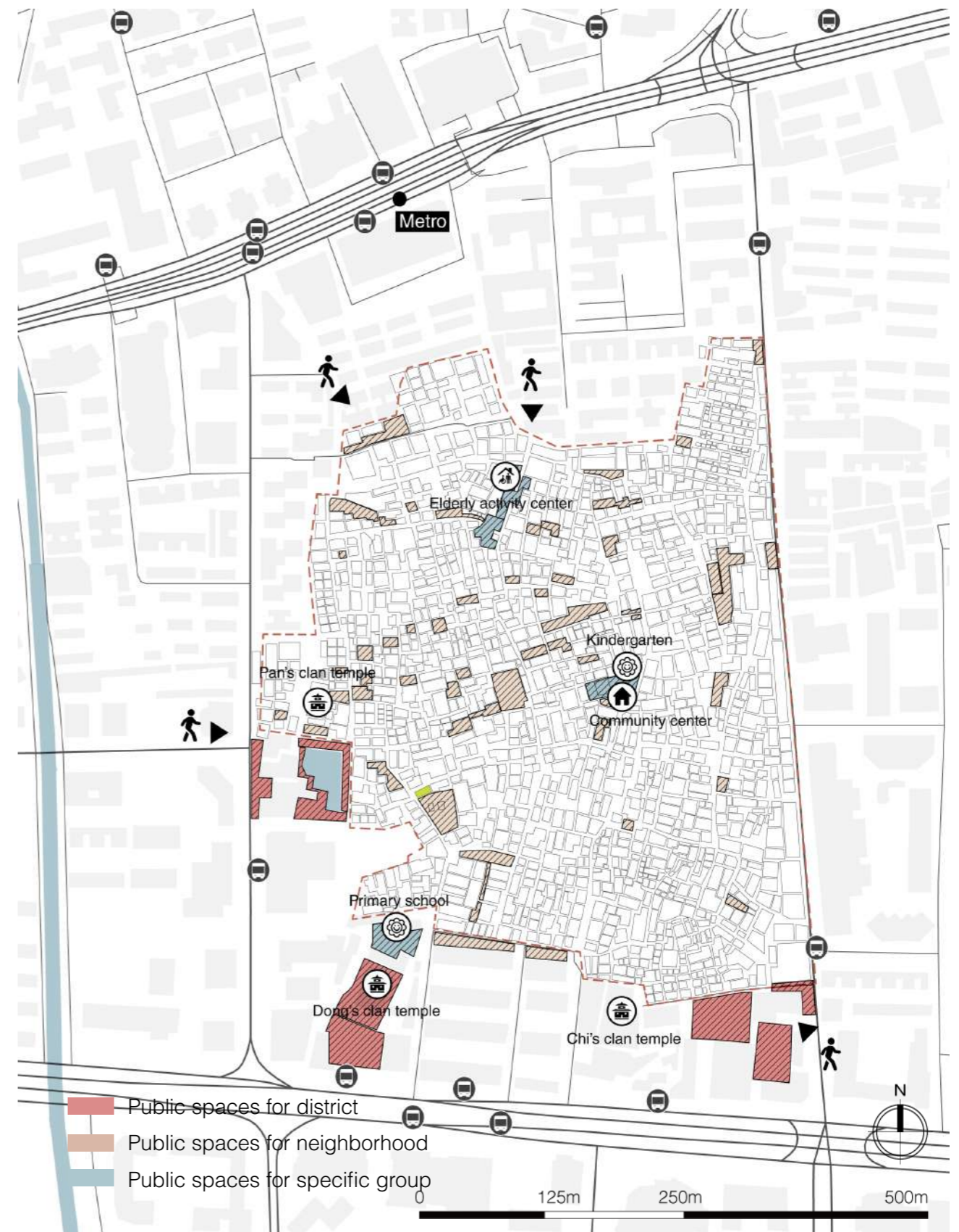
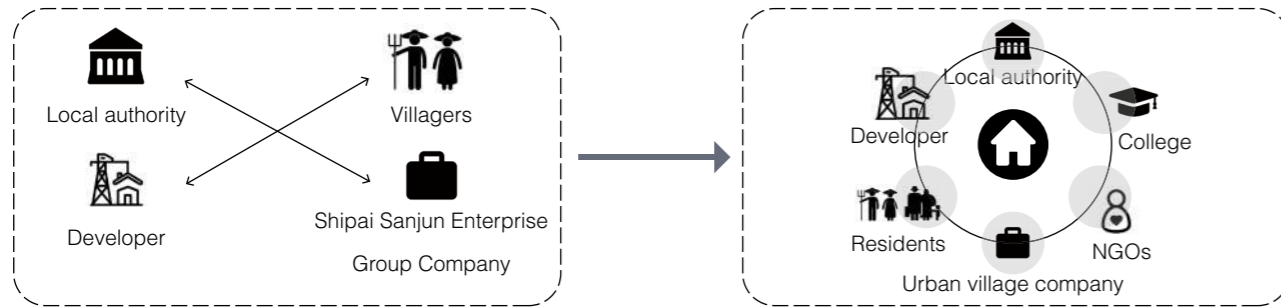


Figure 105. Strategic plan for public spaces (Source: Author)

TOOLBOX FOR SHIPAI VILLAGE

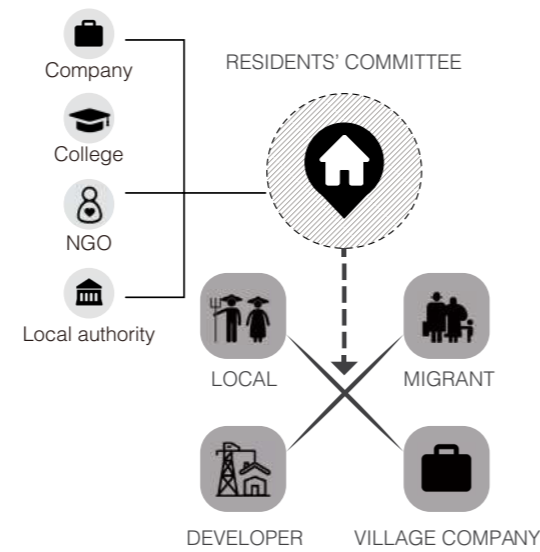
FOR SHIPAI SUBDISTRICT	<h3>URBAN SQUARE</h3> <p>User All</p> <p>Function [chatting icon] [umbrella icon] [music icon]</p> <p>This facility should be in a place with high accessibility and should be integrated with existing community center or (new) cultural buildings (library, museum, theatre etc.).</p>	<h3>(INFORMAL) MARKET</h3> <p>User All</p> <p>Function [chatting icon] [umbrella icon] [shopping cart icon] [music icon]</p> <p>An important eating and shopping place for all social groups. It should be placed on main squares or high streets. Provides shopping events during holidays.</p>	<h3>GARDEN</h3> <p>User Traditional festival - Locals Other time - All</p> <p>Function [chatting icon] [umbrella icon] [person icon]</p> <p>This tool provides shade, seats and places for ancestor worship. It needs to be integrated with clan temples or other religious facilities. The design should base on local religious culture.</p>																					
	FOR VILLAGE	<h3>SEATING AREA 1</h3> <p>User [elderly icon] [family icon]</p> <p>Function [chatting icon] [umbrella icon]</p> <p>It could be placed anywhere along high streets and better to be integrated with shops with high social interaction (bookshop, tea house etc). It provides shade, seats and small green stuffs.</p>	<h3>ROOF GARDEN</h3> <p>User [elderly icon] [family icon] [youth icon] [elderly icon]</p> <p>Function [chatting icon] [plant icon] [umbrella icon] [party icon]</p> <p>This tool can be placed on residential buildings to provide semi-private green spaces for gardening. It can also be placed on public buildings, integrated with chessing area and seats.</p>	<h3>PLAYGROUND 1</h3> <p>Type A Single Pingpong</p> <p>Type B Multi-function</p> <p>User [elderly icon] [family icon] [youth icon] [elderly icon] [youth icon]</p> <p>Function [chatting icon] [exercise icon]</p> <p>A place for all social groups to do sports. Located in places with high accessibility or vacant lands surrounded by buildings. It can be integrated with the gargen, park or square.</p>																				
		<h3>SEATING AREA 2</h3> <p>User [elderly icon] [family icon] [youth icon]</p> <p>Function [chatting icon] [umbrella icon]</p> <p>Located in streets (width>3m) or integrated with other tools (square, playground, garden ect.). A small seating area provides shade and seats for 2-4 people.</p>	<h3>COMMUNITY FARM</h3> <p>User [elderly icon] [family icon] [youth icon] [elderly icon]</p> <p>Function [chatting icon] [plant icon] [umbrella icon]</p> <p>A place for all residents! This tool can be placed in community center or on top of public buildings. It provides green spaces for gardening and party.</p>	<h3>POCKET PARK</h3> <p>User [elderly icon] [family icon] [youth icon] [elderly icon]</p> <p>Function [chatting icon] [plant icon] [umbrella icon]</p> <p>A small green space in between buildings to provide shade and sitting place. This tool can be placed on vacant lands within the residential blocks.</p>																				
FOR SPECIFIC GROUPS		<h3>CHESS AREA</h3> <p>User [elderly icon] [family icon]</p> <p>Function [chatting icon] [umbrella icon] [chess icon]</p> <p>Popular place for retired people. It can be placed near nursing home or community center. It can combine with other tools (park, playground, square, etc.)</p>	<h3>PLAYGROUND 2</h3> <p>User [youth icon]</p> <p>Function [chatting icon] [exercise icon]</p> <p>A place for children. It should be placed near kindergarten, primary and middle school; in neighborhoods with more children. It should be in a safe and quiet area where parents can easily watch the children.</p>	<table border="1"> <thead> <tr> <th>Activities</th> <th>Users</th> </tr> </thead> <tbody> <tr> <td>[chatting icon] chatting</td> <td>[elderly icon] [family icon] [youth icon]</td> </tr> <tr> <td>[exercise icon] exercise</td> <td>[family icon] [youth icon]</td> </tr> <tr> <td>[party icon] party</td> <td>[elderly icon] [youth icon]</td> </tr> <tr> <td>[music icon] cultural events</td> <td>[family icon] [youth icon]</td> </tr> <tr> <td>[umbrella icon] sitting</td> <td>[elderly icon] [youth icon]</td> </tr> <tr> <td>[chess icon] outdoor games</td> <td>[family icon] [youth icon]</td> </tr> <tr> <td>[person icon] worship</td> <td>[elderly icon] [youth icon]</td> </tr> <tr> <td>[plant icon] garden</td> <td>[family icon] [youth icon]</td> </tr> <tr> <td>[shopping cart icon] shopping</td> <td>[elderly icon] [youth icon]</td> </tr> </tbody> </table> <p> *This tool is organised and maintained by (local) residents.</p>	Activities	Users	[chatting icon] chatting	[elderly icon] [family icon] [youth icon]	[exercise icon] exercise	[family icon] [youth icon]	[party icon] party	[elderly icon] [youth icon]	[music icon] cultural events	[family icon] [youth icon]	[umbrella icon] sitting	[elderly icon] [youth icon]	[chess icon] outdoor games	[family icon] [youth icon]	[person icon] worship	[elderly icon] [youth icon]	[plant icon] garden	[family icon] [youth icon]	[shopping cart icon] shopping	[elderly icon] [youth icon]
		Activities	Users																					
[chatting icon] chatting	[elderly icon] [family icon] [youth icon]																							
[exercise icon] exercise	[family icon] [youth icon]																							
[party icon] party	[elderly icon] [youth icon]																							
[music icon] cultural events	[family icon] [youth icon]																							
[umbrella icon] sitting	[elderly icon] [youth icon]																							
[chess icon] outdoor games	[family icon] [youth icon]																							
[person icon] worship	[elderly icon] [youth icon]																							
[plant icon] garden	[family icon] [youth icon]																							
[shopping cart icon] shopping	[elderly icon] [youth icon]																							

6.2.5 MANAGEMENT



Functions

Residents' committee would work as an intermediary to contact with local authority, companies and other institutions for technical and financial supports.



The "Tenant Office"

A "Tenant Office" will be established in the committee, which encourage tenants to participate in public affairs.

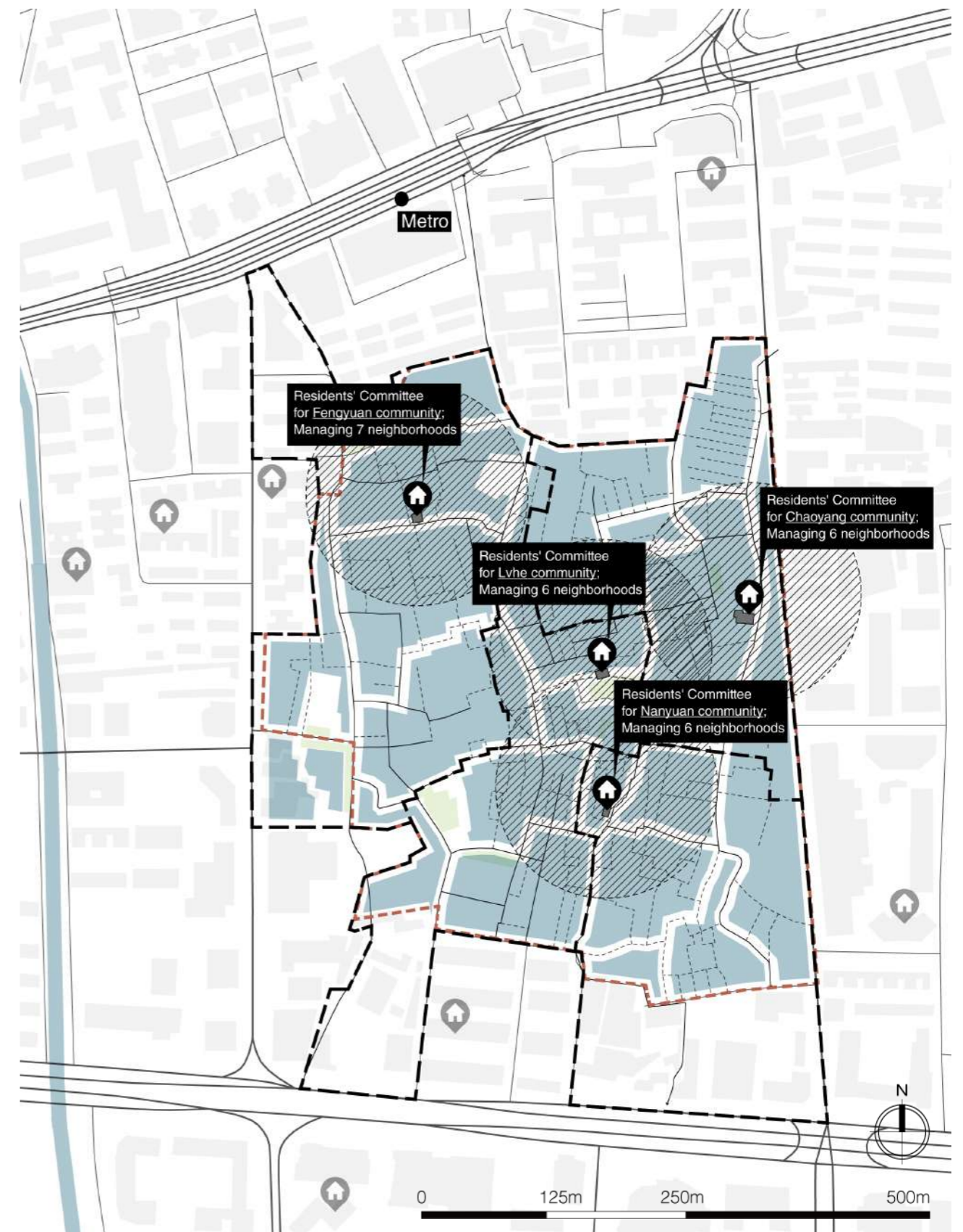
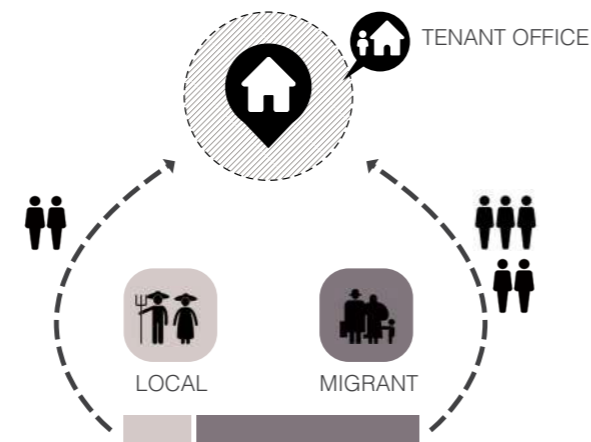


Figure 106. Management in Shipai village (Source: Author).

7 DESIGN IMPLEMENTATION

Chapter structure

- 1. Project phasing*
- 2. Timetable*
- 3. Stakeholders*
- 4. Design test*

Figure 107. Regeneration in urban villages in Guangzhou. (Source: Image by Black Station & Kevin Sun in Behance (2020), <https://www.behance.net/> [retrieved on May 10, 2021])

7.1 PROJECT PHASING

Phase 1

Improve living security and provide more affordable housing



- New affordable housing
- Path upgrading

Phase 2

Be livable and enhance residents engagement



- Tenants' office
- Path upgrading

Phase 3

Be attractive and integrated with surrounding neighborhoods



- Open the edges
- Commercial street

The process would take three phases. Phase 1: Improve living security and provide more affordable housing; Phase 2: Improve livability and enhance residents engagement; Phase 3: Be attractive and integrated with surrounding neighborhoods

7.2 TIMETABLE



2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040

Main actors



<p>HOUSING</p> <ul style="list-style-type: none"> Increase affordable housing Provide policy and financial support on increasing affordable housing on vacant lands. Open the edges Integrated with surrounding neighborhoods or break up some existing buildings on the edges to open the site up. 	<p>INFRASTRUCTURE</p> <ul style="list-style-type: none"> Lighten the path Provide lighting and drains to make the path safer and cleaner. Green the path Place signal boards for passer-by and tourists to find their way easily. Put small green stuff along the path. Be attractive and interactive 	<p>GREEN</p> <ul style="list-style-type: none"> Public green spaces Negotiate with locals to open the "village owned" green spaces. Planting activity and semi-public green spaces Encourage residents to use vacant lands, courtyards, and house roofs to make semi-public green spaces (community farm, pocket park and roof garden) by their own. 	<p>PUBLIC SPACE</p> <p>A toolbox for public spaces is given. For each tool, it gives discription on the level (for what range are the tool used), main users, main functions and recommendation for where it should be placed.</p> <ul style="list-style-type: none"> Public space for Shipai subdistrict Public spaces for the village Public spaces for specific groups 	<p>MANAGEMENT</p> <ul style="list-style-type: none"> Tenants' office Residents' committee would work as an intermediary to contact with local authority, companies and other institutions for technical and financial supports. A "Tenant Office" will be established in the committee, which encourage tenants to participate in public affairs.
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7.3 STAKEHOLDERS

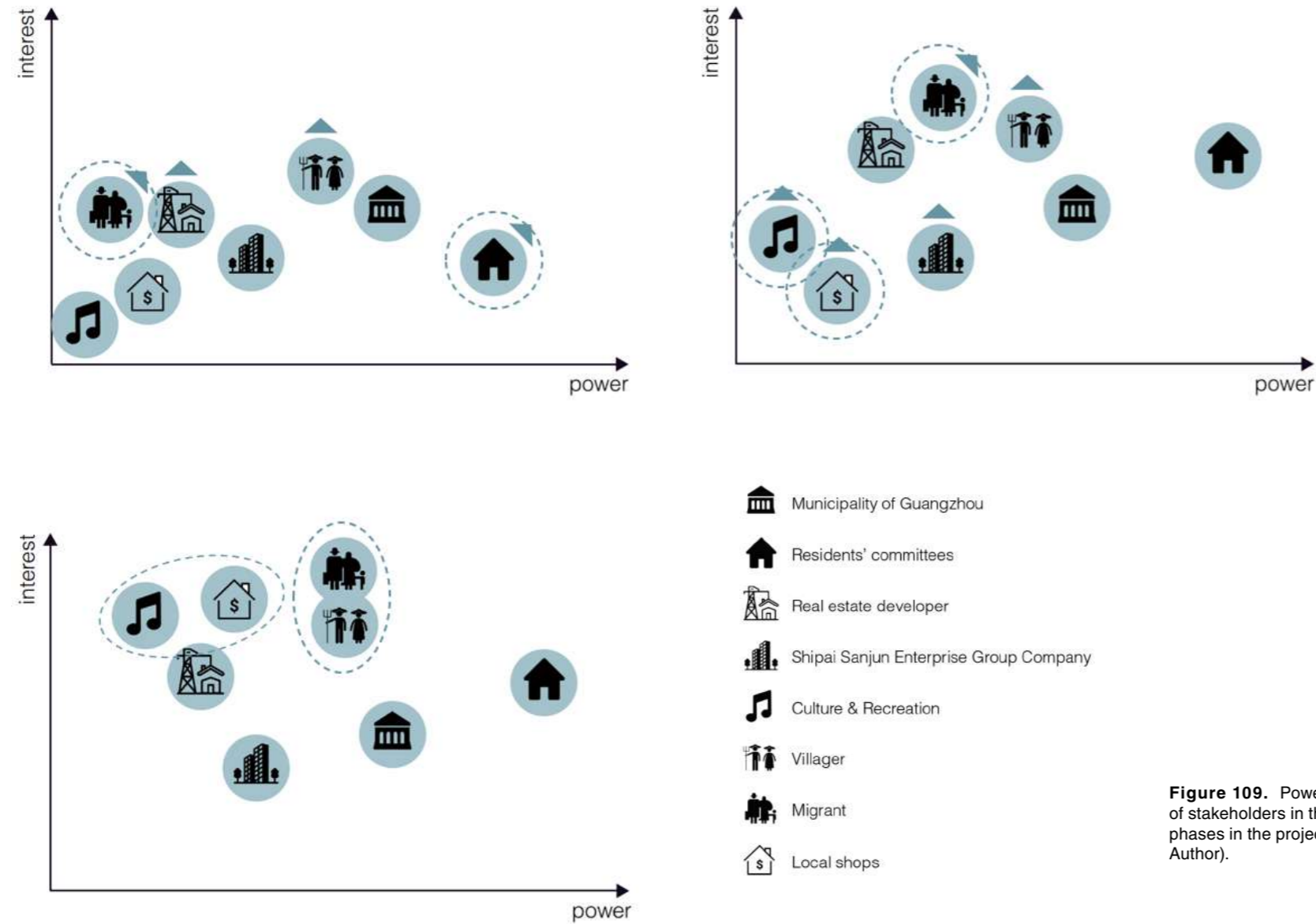


Figure 109. Power-interest of stakeholders in the different phases in the project (Source: Author).

The Shipai village is mainly managed by the residents committee and urban village company, while it also need to follow the regulations from the municipality. In phase 2 & 3, the migrants have more interest and power in the self-management process due to the establishment of the tenant office. There are more opportuni-

ties for local culture activities. The Shipai Sanjun company as well as the local shops would also benefit from the upgrading of commercial streets and the increasing flow of consumers attracted by the new recreation facilities.

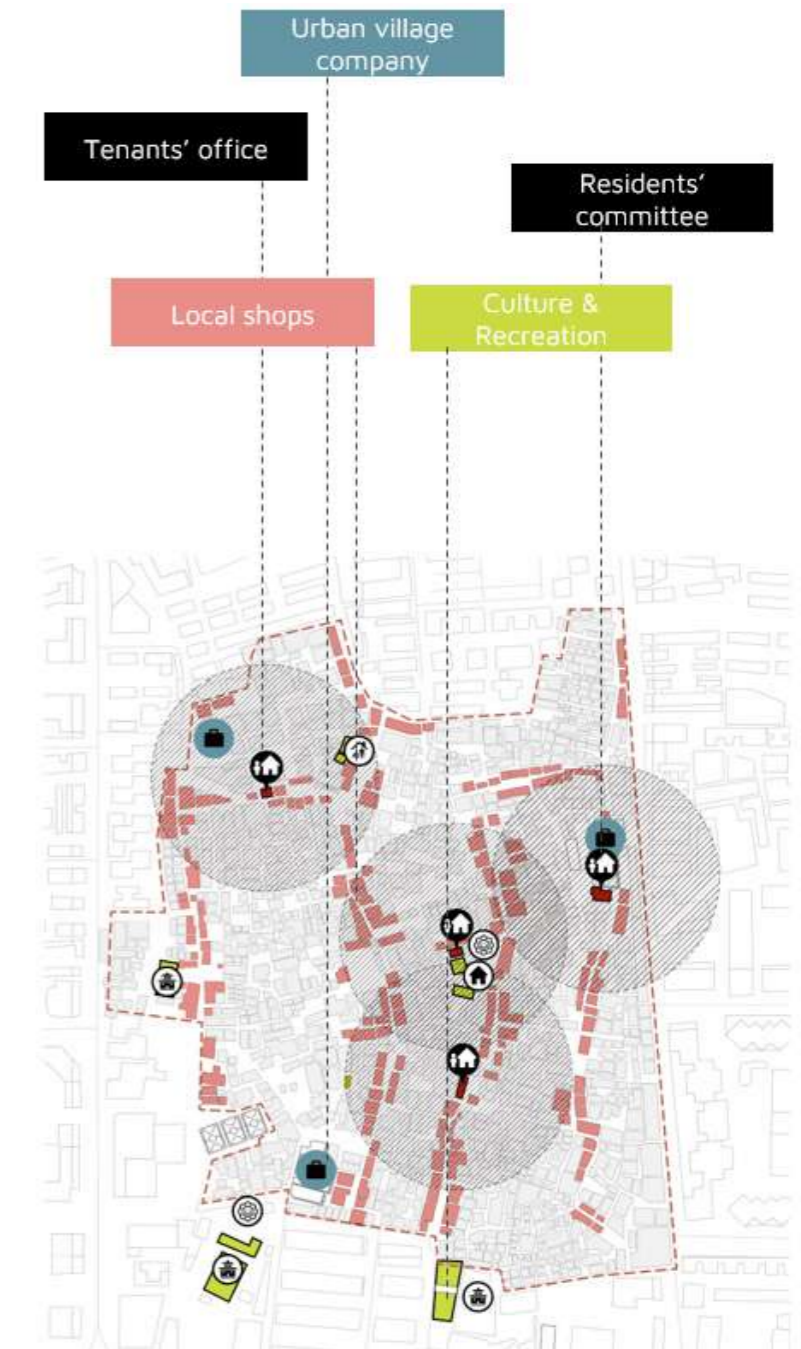


Figure 108. Stakeholders in Shipai village (Source: Author).

7.4 DESIGN TEST



Figure 110. Location of the selected site for design test (Source: Author)

The design test shows how strategies integrated with specific context from users' perspective. The chosen site is around the west entrance of Shipai village.



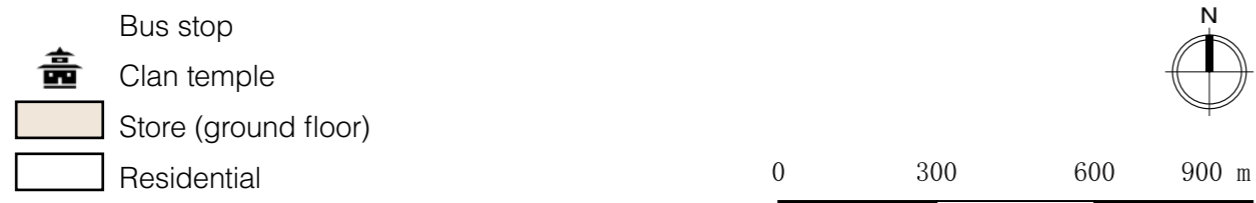
Figure 111. Current plan of the selected site. (Source: Author)



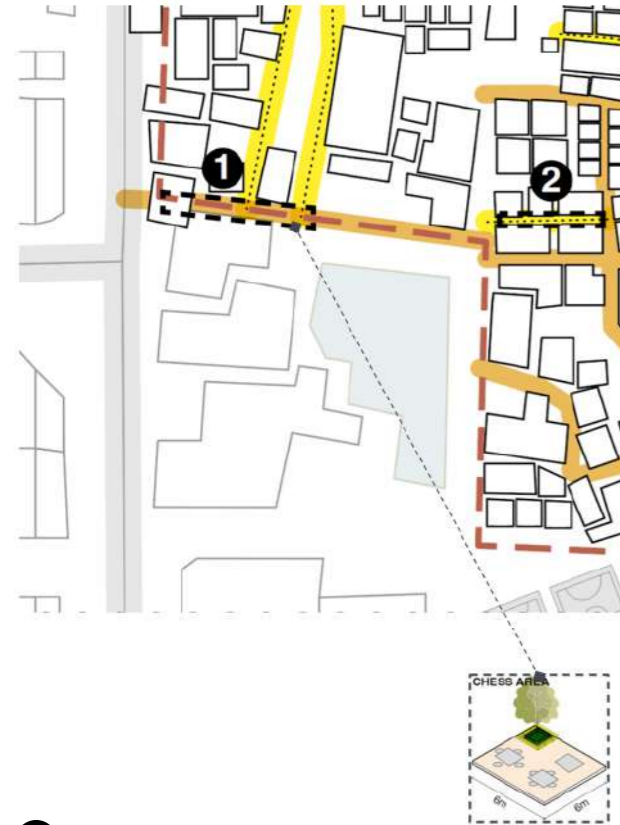
Figure 113. Street views 1 (Source: Baidu Map. <https://map.baidu.com/>)



Figure 112. Street views 2 (Source: Baidu Map. <https://map.baidu.com/>)



PHASE 1



In 2025, main changes could be seen in the infrastructure system, small but essential, which ensure the living security and provide a clean environment. More affordable housing are also provided for migrants.

-  Lighting
-  Sewage system
-  Greenery
-  Lighting
-  Sewage system

2 BEFORE



AFTER



Figure 114. Upgrading of infrastructure in alleys (Source: Street view from BaiduMap, <https://map.baidu.com/>; Photo from Weibo, <https://weibo.com/>)

1 BEFORE



AFTER



Figure 115. Before and after of the west entrance (Source: Street view from BaiduMap, <https://map.baidu.com/>; Photo from Weibo, <https://weibo.com/>)

PHASE 2



From 2025 to 2030, with the establishment of tenant office, more village projects could be conducted. The office provides a place for negotiation among the different social groups, and seek cooperation from the urban village company, local authority and other institutions. In this stage, new public spaces and recreation facilities would be placed in the village, to provide diverse leisure spaces for residents.

2 BEFORE



AFTER



Figure 116. Upgrading of infrastructure in alleys (Source: Street view from BaiduMap, <https://map.baidu.com/>; Photo from Weibo, <https://weibo.com/>)

1 BEFORE



AFTER



Figure 117. Before and after of the west entrance (Source: Street view from BaiduMap, <https://map.baidu.com/>; Photo from Weibo, <https://weibo.com/>)

PHASE 3



From 2030 to 2040, the village would focus more on connecting with the surrounding neighborhoods. The transformations will take place on the edges and the main commercial streets. Blocks on the edge will be integrated with public spaces for the subdistrict. The high streets will open for informal markets, social events, and be integrated with new public buildings like library and theatre, which make it attractive for people outside the village.

2 BEFORE



AFTER



Figure 118. Upgrading of infrastructure in alleys (Source: Street view from BaiduMap, <https://map.baidu.com/>; Photo from Weibo, <https://weibo.com/>)

1 BEFORE



AFTER



Figure 119. Before and after of the high street (Source: Street view from BaiduMap, <https://map.baidu.com/>; Photo from Weibo, <https://weibo.com/>)

7.4.1 ASSESSMENT

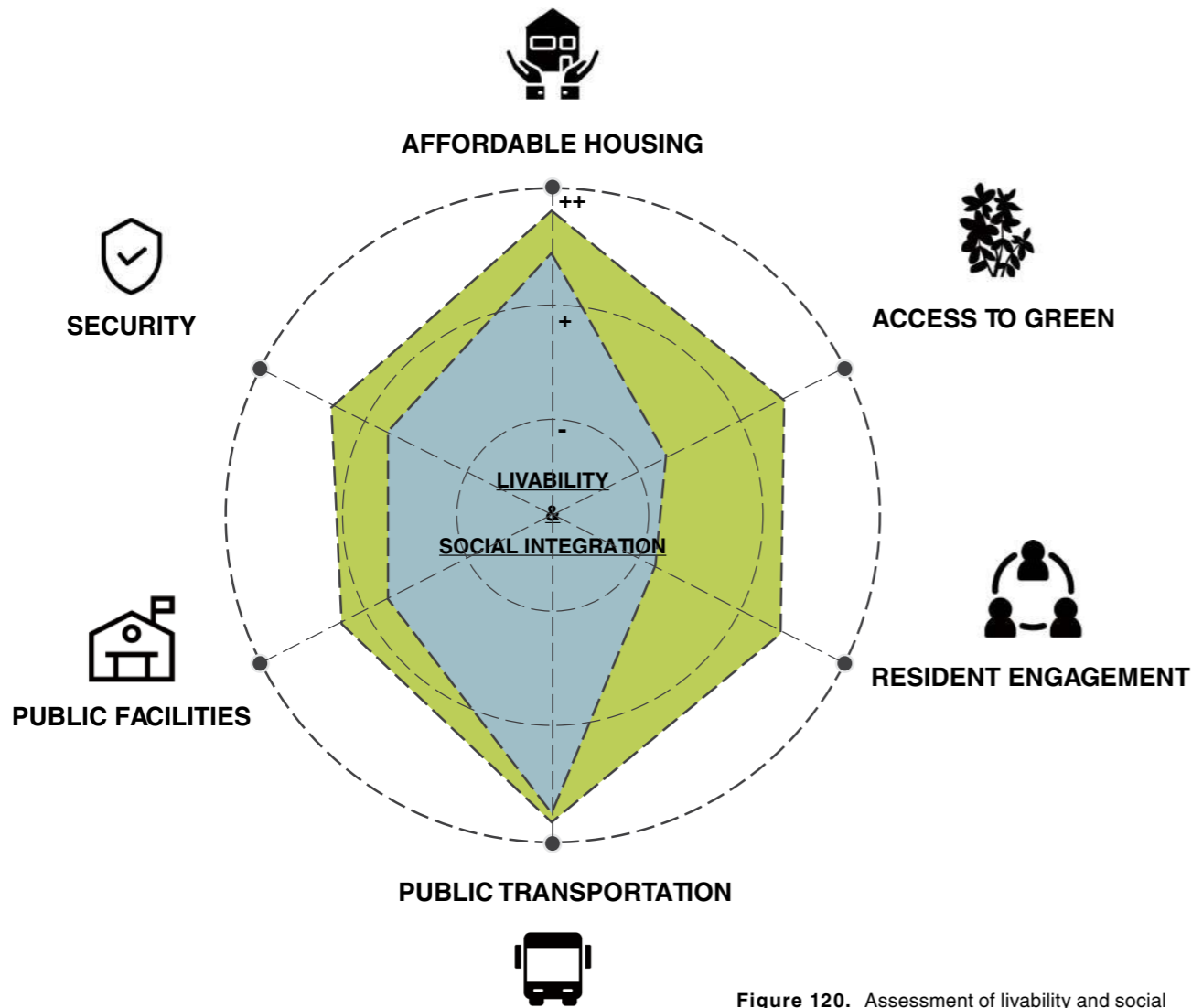


Figure 120. Assessment of livability and social integration for the proposed vision in Shipai village (Source: Author).

Now compared to the current situation, the improvement of different factors in this framework could be assessed. For most factors, the proposed vision and strategies have shown possibilities on making positive effects (figure 113). The village would become more attractive to urban newcomers because of the increase in affordable housing and higher access to green and public facilities. Also, the resident engage-

ment would be improved a lot with the help of the establishment of the tenant office and a set of public activities. The public transportation still keeps a high score because of the metro station nearby the entrance. For security and public facilities, the score improve a bit because of the renewal of streets. More public services could be found in the high streets and the small alleys would be safer to walk at night.

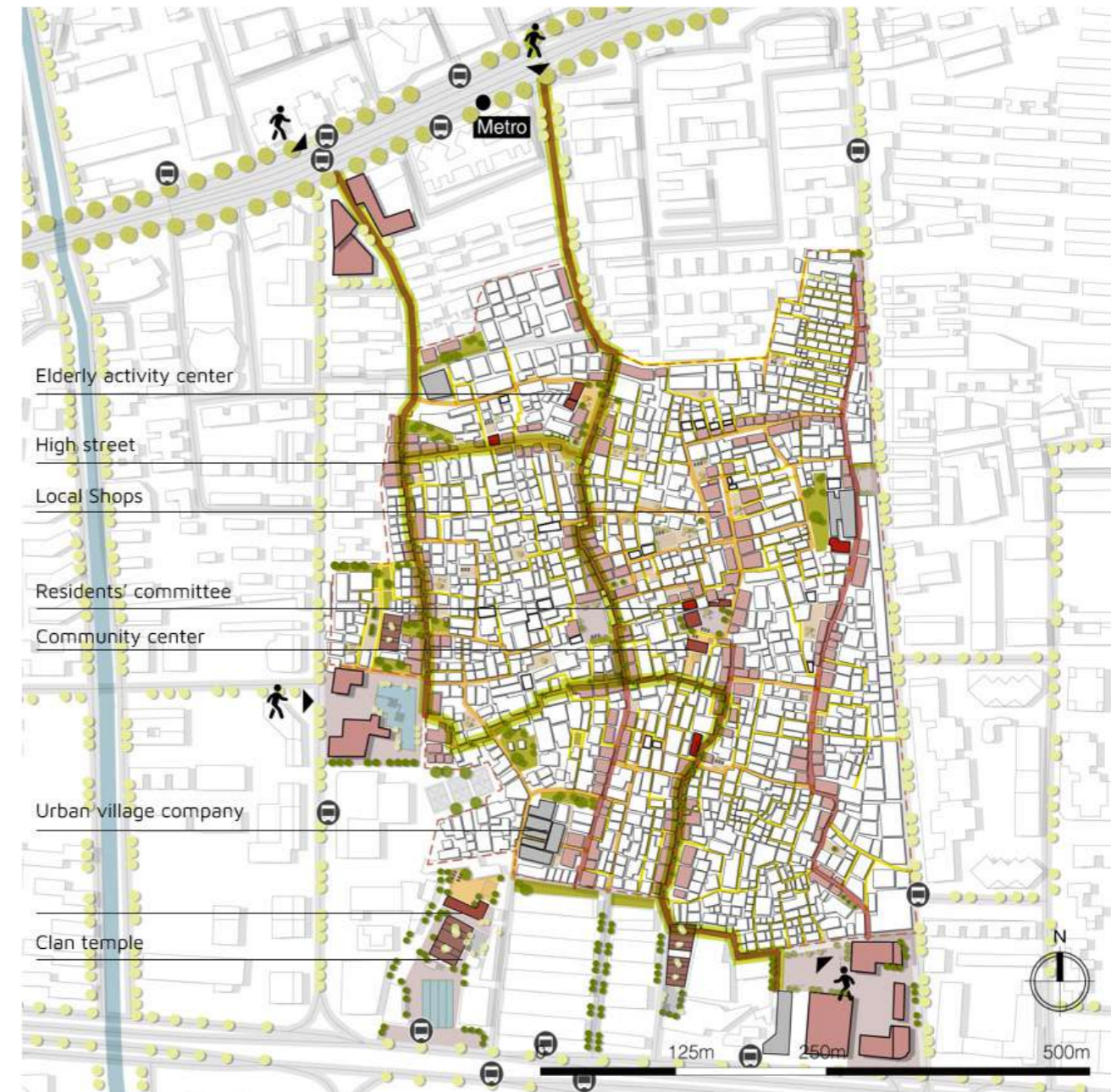


Figure 121. Masterplan of the proposed vision (Source: Author).

8 EPILOGUE

Chapter structure

Conclusion

Reflection

Acknowledgement

Bibliography

Appendix

Figure 122. An urban village located by the river in Guangzhou.
(Source: Image by Black Station & Kevin Sun in Behance (2020),
<https://www.behance.net/> [retrieved on May 10, 2021])

CONCLUSION

The initial definition of “informal” is always described as “problematic” and “negative”, which is defined as an opposite side of “formal” (Dovey & King, 2011). However, in these years, the discourse of informal settlement focuses more on the values and positive effects on the cities. The different definitions of informal settlements are elaborated to clarify the specific meaning of informal settlements in China. Urban villages are the most typical informal settlements in China. They are self-developing based on collective land ownership and driven by the informal housing markets, without the formal plans and interventions by official authorities. According to the “three old transformation” policy, numerous redevelopment projects have been progressed over these years in Guangzhou. The current redevelopment approach is also about demolishing and rebuilding. A lot of informal settlements in downtown areas have been demolished for building up new urban areas, which lead to the gentrification in downtown and the exclusion of vulnerable groups. Here comes the main research question: **"How to facilitate the redevelopment of urban villages in Guangzhou in a more inclusive and sustainable manner, which provides a livable environment, and promotes social integration?"** The main research question was answered by several sub questions in different topics in the report.

The first sub question group was about "the form and role of urban villages in Guangzhou". The analysis chapter reveals that urban villages play an essential role in supporting sustainable development in big cities. The villages not only provide affordable and well-located housing for migrants, but also a place for villagers to keep their culture and earn from the informal market. The Urban villages have similar spatial conditions, in terms of position, density, the number of farm, and management scheme (Hukou status & Land ownership). Villages in the city center suffer more socio-spatial problems caused by the high density and increasing population. Shipai village was chosen to have a closer look on the social and spatial aspects. Residents are also facing extreme living conditions caused by high density, limited spaces and lack of basic infrastructure. Also, the use of public facilities and outdoor spaces reveals the segregation between local residents and tenants. The reasons for segregation could track back to the clan culture of villages. In the old days, the village was organised based on clans and kinship, where people share a closed and exclusive social network. Villagers still keep closed relationship today, and manage the communities through working in urban village companies and residents' committee. The self-management process in urban villages in some extent accelerate the segregation between locals and migrants.

The project aims to improve the liveability of urban villages, while at the meantime help to enhance social integration between locals and migrants in the redevelopment process. To realize this, the project provide strategies in terms of housing, infrastructure, green, public space, and management. For each factor, design guidelines are given. In the future, Shipai village would provide more affordable housing to the low-income group and migrants in the city. Streets are safer and cleaner, and connect to diverse public spaces in the village. Residents have more places for outdoor activities and cultural events. The whole project would be conduct in several stages, for each the migrants have more opportunity to participate in the decision-making process. The future growth of Shipai village would shift to a more inclusive way.

REFLECTION

SOCIETAL RELEVANCE:

WHAT ISSUES DOES THE PROJECT FOCUS ON?

The phenomenon of informal settlements is a topic that is concerned worldwide, especially in the global south. From a political perspective, the informal settlement is the spatial manifestation of the exclusion of some people from the formal structure (Rocco, R., & van, B. J, 2018). People who are excluded from the formal housing market in cities get help from the informal market or build houses by themselves without official permission. In China, urban villages are the typical type of informal settlements, which cover most of the urban informality in large cities. The informal construction activities have raised problems of overcrowding, unsafety, and inequality, which were also criticized as having a negative effect on the city by the local authorities. However, the current redevelopment approach does not work well in organizing urban villages. The discourse on the challenges of urban poverty and migrants is still marginal in the planning progress, concerning less about the vulnerable group (J.Fokdal & P. Herrle, 2018).

Here the project provides an inclusive and sustainable redevelopment approach for informal settlements in China, which improves living environments, promotes resident engagement, and makes the village open to the city. Guangzhou is chosen as the object of the study, as it has the largest number of urban villages. In the coming years, more than 57 redevelopment projects of informal settlements would be carried out in Guangzhou according to the “three old transformations” policy. And more projects would be conducted in other large cities in China. The project represents some generic patterns for other informal settlements, which makes the analytical approach and proposed design solutions could be also applied in other areas. It suggests paying more attention to social equality and vulnerable groups in the future urbanization process.



Figure 123. Demolition of Xian urban village in Guangzhou in 2015 (2015) (Source: Image by Institution of Urban Dreaming Research (2015), <https://iudblog.wordpress.com/> [retrieved on Feb 8, 2020])

METHODOLOGY: ADVANTAGES AND LIMITATIONS

The project involves multi-scale analysis and multi-stakeholders within a complex context, which builds upon the analysis of 1) the type and evolution of urban villages in Guangzhou city; 2) the socio-spatial structures of the selected village (social network, infrastructure, nature, buildings) ; 3) different social groups and their use of outdoor spaces. The analysis reveals spatial patterns for urban villages, as well as the challenges and potentials for future development, which gives evidence for making planning decisions.

Geospatial and socio-economic data for Chinese cities are hard to find. Some of the maps and socio-economic statistics from the official documents mentioned in the project are out of date. The OpenStreetMap provides basic spatial layers. Existing literature also provides a lot of information in terms of development phases, socio-spatial data, and the discussion of current redevelopment approaches, which supports the preliminary analysis and site selection.

The research of social groups and their usage of public spaces is conducted by using word frequency analysis on social media. The social medium analyzed in the project is widely used in China, especially for people in large cities, which provides 567 posts contains comments for selected villages. As urban villages are home to a very large number of diverse cultures, in terms of socio-economic class, jobs, education level, worship, and so on. The different social groups have their distinct ways of using outdoor spaces. Social media is a good way to collect residents' opinions during this pandemic time. And it is important to look at the users' patterns and ensure the opinions are collected from all social groups. Otherwise, extra interviews are needed as a supplement.

DATA COLLECTION: PROBLEMS AND TRIALS

There were two main problems for data collection:

The previous section (methodology) has mentioned that geospatial and socio-economic data for urban villages are few and inaccurate. And most of the available socio-economic data from the official authority are out of date. The main source for spatial data is OpenStreetMap, providing basic layers of infrastructure, nature, and buildings, while data on neighborhood-scale and block-scale are incomplete. Detailed data could be found in some literature, which provides maps and sections for several most popular urban villages in Guangzhou. Social media and some photography websites provide a huge number of photos tagged with positions and comments, which supports the spatial analysis at human-scale. Socio-economic data (population, clans, migrants) could be found in existing literature, official documents, news websites, as well as some "unofficial source" like personal blogs, bbs, and local online communities. There is already numerous existing research on urban villages in Guangzhou. The initial literature review could ensure the chosen villages had the most amount of reliable and available data.

Due to the limitation on field trips during the pandemic time, it is difficult to get in touch with residents in urban villages. The analysis of different social groups and their use of outdoor spaces is initially planned to do by making a questionnaire, while I failed to contact a sufficient number of residents. Therefore, the project here tries to collect data from popular social media platforms. Positions of the posts reveal the users' preferences for choosing public space, and their comments give opinions on physical environments. However, online users cannot cover all social groups. People who rarely use the internet, for example, the elderly and children, did not have enough voice in this analysis. Also, reading the data of social media requires a certain understanding of the local language, as it contains different dialects and specific meanings based on local contexts. It would be a research barrier for non-native speakers.

HOW TO GENERALIZE THE RESULTS OF THE RESEARCH?

The project intends to convey a vision and a set of spatial strategies, which include a toolbox for designing public spaces. The spatial strategies and toolbox can be easily applied in other large cities in the pearl delta area, where share similar problems in urbanizing progress, and have the same political and cultural context.

The proposed methodology, analytical framework, and general strategies also can be applied in other areas outside the pearl delta area, where share the same problem of urban villages. The datasets used for spatial analysis are mainly globally available. And the analysis on social media also can be transfer base on local conditions. Additionally, the concepts of liveability and social integration are rooted in the specific context and have an essential factor in the whole planning process. A process of literature review and socio-spatial analysis to redefine the concepts for the target site is needed before making design aims.

ETHICAL ISSUES AND DILEMMAS IN RESEARCH AND FOR POTENTIAL APPLICATIONS

The research contains a large part of the online survey on social media. Respect for all the research participants should be prioritized. Any identifying information will not be accessed by anyone but the author.

For potential applications, negotiation between migrants and locals will be expectedly difficult. Local inhabitants in urban villages belong to a few clans, which have a strong sense of ancestor worship and exclusive social networks. In this project, the neighborhood committee is used as an intermediary to reconcile the two social groups with the decision on future development. The committee needs to pay more attention to the operation progress to ensure that migrants express their views fully. Moreover, some spatial strategies that include the idea of self-organization might be also diffi-

cult to conduct. For example, long-term residents might be more willing to maintain the spaces than short-term residents. It requires the neighborhood committee to give some managerial solutions in the process of implementation.

RELATION WITH GRADUATION LAB

The discourse that my project, the urbanism track, and the studio Planning Complex Cities have in common is the discussion about sustainable development and urban equality for future urbanization. The studio Planning Complex Cities make it specific by focuses on the complexity and transformation in metropolitans and regions. The project helps to mitigate current problems of social segregation and inequality in the development process of informal settlements. In the case of China, the emergence and development of urban villages are caused by rapid urbanization and institutional barriers, which highly relevant to the spatial planning and governance scheme that the studio focuses on.

ACKNOWLEDGEMENT

This report is a result of nearly ten months of work, which is developed from my personal interest in urban villages into an entire thesis. The whole journey of the year is a mix of joy and tears. Working from home is not easy, but thankfully, with a lot of help and support, the thesis could be finished on time.

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BIBLIOGRAPHY

- Al, S., Shan, P., Juhre, C., Valin, I., & Wang, C. (Eds.). (2014). *Villages in the City: A Guide to South China's Informal Settlements*. Hong Kong University Press. Retrieved November 20, 2020, from <http://www.jstor.org/stable/j.ctt13x0m8d>
- Alba, Richard; Nee, Victor (1997). "Rethinking Assimilation Theory for a New Era of Immigration". *International Migration Review*. 31, 4 (4): 826–874. doi:10.1177/019791839703100403. PMID 12293207. S2CID 41839076.
- Brown, D., McGranahan, G., & Dodman, D. (2014). Urban informality and building a more inclusive , resilient and green economy. Retrieved from <http://pubs.iied.org/10722IIED>
- Chi, J. H; Chi, D. J & Huang, Y. Z. (2003) *Shipai Village Records*. Guangdong People's Publishing House.
- Chien, K. H. (2018). Entrepreneurialising urban informality: Transforming governance of informal settlements in Taipei. *Urban Studies*, 55(13), 2886–2902. <https://doi.org/10.1177/0042098017726739>
- Chinanews. (n.d.). Retrieved October 25, 2020, from <http://www.chinanews.com/sh/2014/05-08/6149077.shtml>
- City Search Site (2020). Shipai Street, Tianhe District, Guangzhou City, Guangdong. Chengshicx (data of cities). http://www.chengshicx.com/info/gzthq_shipaijiedao.html
- DELO, C. (2012). What is livability. *Advertising Age*, (9), 58–58.
- Dovey, K., & King, R. (2011). Forms of informality: Morphology and visibility of informal settlements. *Built Environment*, 37(1), 11–29. <https://doi.org/10.2148/benv.37.1.11>
- Dovey, K., van Oostrum, M., Chatterjee, I., & Shafique, T. (2020). Towards a morphogenesis of informal settlements. *Habitat International*, 104, 102240. <https://doi.org/10.1016/j.habitatint.2020.102240>
- Gehl, J. (2011). *Life between Buildings: Using Public Space*. Washington DC: Island Press.
- Ge, L. (2018). How should 'informal settlement' be understood in Beijing China? PhD thesis, University of York. Retrieved from <https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.759889>
- Gestalten & SPACE10 (Eds.) (2021). *The Ideal City: Exploring Urban Futures*. Gestalten.
- Gouverneur, D. (2014). Planning and design for future informal settlements : Shaping the self-constructed city. ProQuest Ebook Central <https://ebookcentral-proquest-com.tudelft.idm.oclc.org>
- Jacobs, Jane, (1985), *Cities and the wealth of nations, Principles of economic life*, Vintage Books, a division of Random House N.Y
- Li, L. (2001) *Guangzhou Chengzhongcun Xingchen He Gaizao Jizhi Yanjiu (a Study on the Formation and Reform Mechanism of Villages-in-the-City in Guangzhou City)*. Guangzhou, China: Zhongshan University.
- Lin, Y., de Meulder, B., & Wang, S. (2011). Understanding the “village in the city” in Guangzhou: Economic integration and development issue and their implications for the urban migrant. *Urban Studies*, 48(16), 3583–3598. <https://doi.org/10.1177/0042098010396239>
- Lin, Y., de Meulder, B., & Wang, S. (2012). The interplay of state, market and society in the socio-spatial transformation of “villages in the city” in Guangzhou. *Environment and Urbanization*, 24(1), 325–343. <https://doi.org/10.1177/0956247811434362>
- Liu, Y., Li, Z., & Breitung, W. (2012). The social networks of new-generation migrants in China's urbanized villages: A case study of Guangzhou. *Habitat International*, 36(1), 192–200. <https://doi.org/10.1016/j.habitatint.2011.08.008>

Macedo, J. (2000). Land use policies and urbanization of informal settlements: Planning initiatives for environmental protection areas in Curitiba, Unpublished: University of Florida. PhD.

People's Government of Guangzhou Province (2009). Promoting the Reform of the "Three Old Transformation" and Promoting Economical and Intensive Land Use. Retrieved from http://www.gd.gov.cn/zwgk/wjk/zcfgk/content/post_2532575.html

Qu, L. (2016). Urban villages in Shenshen: A new type of social housing? In F. Janches, R. Amette, C. Jaimes, & M. Corti (Eds.), *From Knowledge to Development: New university challenges for a contemporary urban development* (Vol. 2, pp. 10-19). Eudeba.

Ren, X. (2018). Governing the Informal: Housing Policies Over Informal Settlements in China, India, and Brazil. *Housing Policy Debate*, 28(1), 79–93. <https://doi.org/10.1080/10511482.2016.1247105>

Rocco, R., & van, B. J. (Eds.). (2018). *The routledge handbook on informal urbanization*. ProQuest Ebook Central <https://ebookcentral-proquest-com.tudelft.idm.oclc.org>

Shun, Q (2001), "Village in the city: the anthropology research on Nanjing village of Guangzhou", Doctoral thesis, Zhongshan University; also Lan, Y Y (2005), *Village in the City: the Field Study on a New Village Community*, SDX Joint Publishing Company, Beijing, 449 pages.

Taubenböck, H., Kraff, N. J., & Wurm, M. (2018). The morphology of the Arrival City - A global categorization based on literature surveys and remotely sensed data. *Applied Geography*, 92(February), 150–167. <https://doi.org/10.1016/j.apgeog.2018.02.002>

Norton, Ginsburg, Bruce Koppel, T. G. McGee, eds. (1991) *The Extended Metropolis: Settlement Transition in Asia*. Honolulu: University of Hawaii Press.

UN-Habitat (2006) *The State of The World's Cities*. London: Earthscan.

Wen, Z. Y. (2019). Big data analysis Guangzhou in 2020: villages in the cities, or a city made by vil-

lages. Zhihu. Retrieved from <https://zhuanlan.zhihu.com/p/99951991>

Zhan, D., Kwan, M. P., Zhang, W., Fan, J., Yu, J., & Dang, Y. (2018). Assessment and determinants of satisfaction with urban livability in China. *Cities*, 79(March), 92–101. <https://doi.org/10.1016/j.cities.2018.02.025>

Zhang, L. (2005) Migrant enclaves and impact of redevelopment policy in Chinese cities, in: L. J. C. Ma and F. L. Wu (Eds) *Restructuring the Chinese City: Changing Society, Economy*

Zhang, F. (2013) "On-Site" Evolutionary village: Rescripting the transformation mode of urban villages, Shenzhen, China, Master thesis, Delft University of Technology

Zhao, Z. W. (2008) *The Case Study of Urban Strategies*. Guangzhou: Guangdong Science Press.

Zhou, Ping. (2020). China's Hukou System. Retrieved from <https://www.thoughtco.com/chinas-hukou-system-1434424>

APPENDIX I

ONLINE SURVEY ON SOCIAL MEDIA 01

- IMPROVEMENTS DESIRED BY PEOPLE

(Source: Posts in Weibo, <https://weibo.com/>)

1. Planner & Urban designer

/ Urban Designer in Guangzhou Planning Bureau

All the regeneration projects of urban villages that we have involved in are required to demolish and rebuild the whole areas. Generally, we would design them as new residential areas for real estate agents who buy the land.

The conduct of these projects is simple, once we define the areas that need to be reconstruction. All we need is a design plan, which focuses on general strategies. There is no need for micro-scale design, for example, the transformation of buildings, because there are all new buildings.

/ Urban planner

Most of the shops in Shipai village are owned and managed by the villagers themselves. The shop owners don't care about the profits, as running a business is just a way for them to kill time. As for other villagers, they do not work and just earn their living from renting their houses to migrants. As we can see, numerous low-income people move into the village, those who make money would move out while those who are still poor would stay. If the city cannot provide the residents with enough job opportunities, the urban villages can easily become slums in a few years.

But compared to other old communities, urban villages are easier to redevelop themselves. As they have a village chief as well as a village committee, they have more power on the self decision-making process.

2. Residents

/ Tenant - Female, rent a single room in Shipai Village

There is no sunshine in my room even at noon. The light should be on during the whole day. And I need to hang out the wash somewhere outdoors. The ground floor is full of restaurants. The bad smells would reach my room, especially at midnight. Although here are quite a lot of residents, I still feel lonely as we have less contact with each other.

/ Tenant - Male

The rent in inner city urban villages is much higher than those in suburb, while the living environment in inner city is worse.

/ Former tenant - has already moved to another urban village in the suburb

There are always traffic jams around the Shipai village. And the road inside the village is dirty and messy. I prefer living in villages in the suburbs. There are not that many public facilities in the suburbs, but it's cleaner and less crowded.

/ Tenant - Female

The alleys near the East Shipai Road are dark and full of chaos, which makes me feel unsafe.

/ Tenant - Female

There was no sunlight in the alleys, and the road was always wet and dirty. My favorite place to go is the Elderly Activity Centre in Shipai village. There are always many people chatting and playing chess in the square while enjoying the sunlight.

3. Tourists

/ Visitor

The village almostly has all the things it needs! It is self-sufficient and independent in the city center. The only negative impression for me are the streets. They are too narrow and dark, which makes me feel unsafe.

/ Visitor

The room I slept in had no windows. The high density and darkness makes me feel uncomfortable and depressed. But there's plenty restaurants for tourists to eat at night.

/ Visitor

My favorite place in the Shipai Village is the square near the kindergarten, where I could find markets, clinics and other public facilities.

/ Visitor

I miss the old bookstores in Shipai village so much. They are nice place to go while many of them have gone out of business.

4. Others***/ Local Housing Agency***

Every urban village in big cities (in China) are doomed to be demolished based on the current urbanizing program, while it is hard to realise in Shipai Village. As the land price keeps rising, the compensation fee for villagers is too high. These years, the redevelopment projects in Guangzhou tend to choose urban villages in suburban areas. The local authority not only sells the land to real estate agencies for building new housing, but also for industrial use. This process includes a lot of negotiations and takes a long time, which make it even harder to realise in the inner city.

/ Reporter

Shipai West Road and Shipai East Road are always full of traffic congestion. But the traffic jam also means high passing flow. The main streets near these two roads have gradually developed into food streets. Everyday after 8PM, food streets would light up, attracting crowds of people for dinner.

Most restaurants would serve takeaway. The delivery jobs are done by the migrants who live in Shipai villages. The entrance of the main streets are very crowded during dinner time, as a large number of delivery men are gathering there.

/ Delivery man

During the epidemic time, I have to park my motorcycle outside the village and walk to deliver food. The village is quite big and the sign for house number is hard to see. It always took me too much time and my clients always complain about waiting too long.

/ Programmer

I have been working and living in Shipai village since 2010. In 2010, the largest "Computer City (sell electronic products and components)" was built near the Shipai metro station (50m far from the Shipai village). Most of the tenants in Shipai villages are "IT workers" (information technologists) who work in the Computer City. However, since 2013, a lot of physical stores in the Computer City have been closed due to the development of e-commerce platforms. The building then transforms into a mix-used commercial center. IT workers have moved out of the village these years, and people who works in catering and service industries have moved in.

/ Band members

Ten years ago, residents in Shipai villages earned their life by selling pirate CDs and books. Surprisingly, my friends and I were impressed by the foreign music in the CDs and began to organize a band by ourselves. We set up a CD store in Shipai village in 2007 and started to write music. We enjoy performing in the bars in Shipai. We're famous now, but we still go back to sing a lot.

APPENDIX II

ABSTRACT OF THEORY ESSAY

Formation, Socio-spatial Characteristics and Redevelopment Approaches of Informal Settlements in China

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AR3U023 Theory of Urbanism (2020/21)

Date: 11/25/2020

Abstract:

The phenomenon of informal settlements is a topic that is worldwide concerned, especially in the Global South. From a political perspective, the informal settlement is the spatial manifestation of the exclusion of some people from the formal structure (Rocco et al., 2018). In the case of China, the emergence of informal settlements is a consequence of rapid urbanization. Since the 1980s, villages at the fringe of the city were surrounded by newly built urban areas and became the so-called "urban villages" (Lin et al., 2012). Restricted by the hukou system, people in urban villages have less access to market exchange and public services in the city. As survival strategies, they build up reciprocal networks and self-organizing informal sectors and informal housing markets inside the settlements. The booming of informality has raised a lot of problems and the settlements were criticized as having a negative impact on the city, which leads to more redevelopment.

This review aims to understand the formation, socio-spatial characteristics as well as the redevelopment approaches in informal settlements in China. Firstly, it gives an overview of different definitions of informal settlements, which clarifies the specific meaning within the Chinese context. Secondly, the socio-spatial characteristics are elaborated in terms of spatial patterns, building types, social networks, and governance mechanisms, which reveal the values of urban villages in urbanization progress and how they integrate with the urban environments. And the final part introduces the three main redevelopment approaches applied in China: market-led, community-led, and small spatial interventions led by informal management companies (Lin et al., 2011), as well as the stakeholders and forces underlying the redevelopment projects.

Key words: informal settlement, China, urban village, Guangzhou, socio-spatial characteristics, redevelopment approach