COLOR DESIGN FOR CITY IMAGE:

A Case of Wanxia Urban Village in Shenzhen

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Preface

The phenomenon of "village in the city" is a great challenge to China's city development in recent years. Most cities in China face the problem of city villages regeneration. People living in cities have a complex view of the city village, which stems from the great social transformation in China since 1978.

Before 1978, China was closed to the whole world, all trade was restricted, and only a few cities were allowed by the government to open to other countries. Therefore, China was lagging behind either on economy or culture, and the reasons behind this phenomenon are natural disasters and a decade of political struggle. However, due to the opening of China after 1978, tremendous capital flows into China, then cities developed in a blooming way. This fortune also comes with equivalent harm, the importance of dynamic developing process was ignored by the boosting urbanization, disappearances of urban culture and history were showed up because of the excessive dependence of modernization, abundant ancient architectures were destroyed and replaced by uniformed buildings. In the widespread opinion for most of Chinese, the city area is advanced, while the rural region is uncivilized. Therefore the urban villages were in an embarrassing situation. They were indulged in concrete jungles but remained the original rural form and habit.

The reason why I choose the urban villages phenomenon as the research object is inspired by a project I participated, for the internship in the third-semester program. That project was a regeneration project of a factory in an industrial use urban village; our group was designing an exhibition hall for the Urbanism\Architecture Bi-City Biennale (UABB). Meanwhile, this is one of the regeneration projects advocated by the Shenzhen government. The exhibition, UABB, invited the number of designers to revitalize the urban villages. Thus, base on the internship experience, the thesis will take in-depth research of urban villages phenomenon.

However, the major transformation mechanism for most urban village renewal projects is still restricted to the scale of architecture, and there is a lack of measurements from the urban scale. Meanwhile, there are more transformation projects on building façades or urban public space by using color in European countries, and the coloring seems to be an efficient, economical and flexible approach, lots of successful transformation cases have brought tourists and economic benefits, which became a major way for cultural regeneration.

The urban village problem had a significant effect in other Chinese cities because of the renewed attention of the Shenzhen government, and many local governments are no longer dealing with urban villages by demolishment. However, there are still limited urban transformation cases successes. Thus, the article tries to globally seek urban renewal projects similar to the circumstance of urban villages. Improve urban villages' condition by color intervention on an urban scale.

Ill. 1 The Old district of Shenzhen

Ill. 2 The Old district of Shenzhen

Abstract

"Village in the city" in China, or called city village, as a distinct urban form, attracts great academic attention. Meanwhile, Chinese metropolises facing the problem of too excessive urbanization caused by the rapid accumulation of economic interest, and the current situation is that traditional buildings and heritage are replaced by new anonymous buildings. The typical dynamic city, Shenzhen, a massive city with a population of 13 million, transformed from small fishing villages by the Chinese government's Reform and Opening-up Policy after 1978. While with fierce protests from residents and scholars after accumulative demolition of traditional city villages, the renewal of villages in the city has been put on the agenda by the Shenzhen government in recent years. At the same time, many villages in the city, although there are many physical problems, their architectural form, color and material make them different from the majority buildings in the city, their historical and cultural value should be re-estimated, especially in Shenzhen, a city whose regional characteristics and city image are deprived by modernization. Therefore, the purpose of this thesis is to develop an urban design framework that corresponds to the urban village problems through the case of Wanxia village, based on the cognition of the existing context, to improve the physical condition of the urban village by the color intervention.

Key words: City village, color, city image, regeneration, Shenzhen

Reading guide

This thesis report is divided into seven chapters, expect the last section that includes the reference and appendix.

The first chapter is the introduction to the research thesis on its motivation objectives and research question, the research question which this thesis majorly investigates on will be presenting on the end of the chapter.

The second chapter is the methodology for this thesis research, the process of thesis structure is detailed described in methodology phase, the introduction of the site selection and the method applied are included as well, along with the statement of the integrated design process.

The third chapter presents the theoretical research of the thesis study, associated with the analysis of the relationship between color to the city and the "villages in the city" phenomenon to study the case and the site from different perspectives of history, society foundation, and development plans.

The fourth chapter contains the policy review, within the content, several important government's regeneration masterplans are deeply researched in order to create a further understanding on the city structure and the origin of the research thesis.

The fifth chapter is mainly presented the multi-dimension analysis of the thesis site in Shenzhen, including the three phases of analysis from major to minor size scale, meanwhile, the historical analysis of the site and its belonging city, the study of current social public condition, the description of the project site specialties and other scale analysis of the thesis problem are all included in this chapter. These surveys conclude major

problems at the end to inform the design framework in the next chapter.

The sixth chapter presents the recommended design framework to the chosen thesis site by seeking solutions for each of the six major problems in the Wanxia village through the design parameters. The design concept of the framework is concluded and followed after. At the end of this chapter, the illustrative plan along with visual illustrations of how the design might develop in the site are presented.

The seventh chapter is the conclusion of the thesis project, discussion of the limitation and development of the design framework is recorded in the content, as well as the introspection and further recommendations of design framework are included. Reference and appendix are followed after.

All maps throughout the report face north unless otherwise specified.

Ill. 3 Residential buildings in urban villages

CONTENT

1.1 Introduction

With the process of urbanization globally, different cities and different regions of the world are facing the problem of urban regeneration, especially in China, where cities are changing rapidly, and most old urban areas have undergone varying degrees of renewal. While the common problem is that cities are losing their identities as a result of modernization, many cities realize that culture and history should be regarded as essential considerations for urban transformation. Therefore, in Shenzhen, such a metropolis sets the strategy of the development and economic growth leading by culture and technology, looking for the coordinated measure of urban renewal, in order to strengthen the cultural characteristics and promote the protection of history. At the same time, the city village, as the best container of city culture and history, has experienced significant transformation after 1978, now becomes the issue of urban development. The present situation of city villages present with a backward tendency and the poor living conditions have always been considered as the cancer of the city. On the other hand, because of the economic value of villages' land, many of the villages gradually disappear, so it is necessary to find a sustainable method to regenerate the city village. In this thesis, put forward the research on the city village phenomenon by the case of Wanxia village in Shenzhen, with the spatial contextual analysis, and develop the design framework by integrated with color intervention from an urban design perspective.

The following pages present the research question and research objectives will form the methodology and content of the thesis.

01

INTRODUCTION

Ill. 4 A corner of the Wanxia village

1.2   Objectives and aims

Objective 1: Take research on the relationship between color and city image and review literature about the temporary city image.

Objective 2: Explore the possibility of improving village conditions in cities by using color design interventions, learn different successful cases of using color as a regeneration method, make empirical conclusions of renewal measurements.

Objective 3: Investigate the city image of Shenzhen by the urban village phenomenon and study on the policy and strategy of Shenzhen Government promote.

Objective 4: Synthesize analyzes the process and historical changes of the urban village in Shenzhen, and probes into the historical and cultural significance of the village to Shenzhen and collects data of the present situation of the urban villages.

Objective 5: Take an insight into village phenomenon by the case of Wanxia village, analysis base on the literature of city image, try to develop the framework with consideration of historical and cultural preservation.

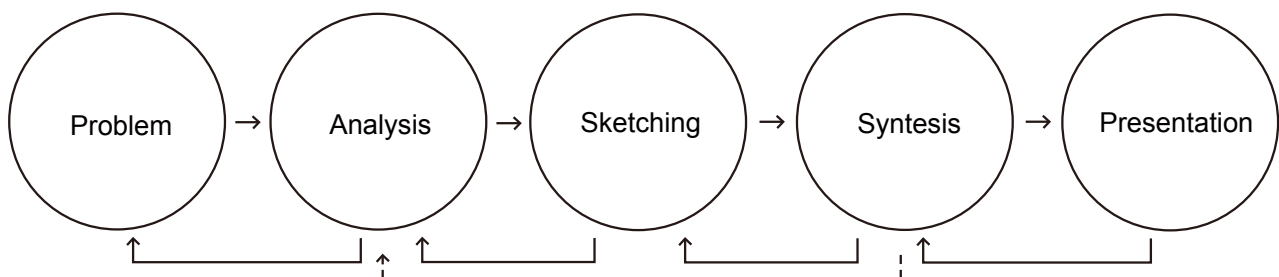## 1.3   Research question

**How can color be used as the one way of urban renewal
based on the Chinese "urban village" phenomenon
to enhance the city's cultural and historical identities,
meanwhile foster the city image under the circumstances
of uniformed urbanization?**

2.1 The Integrated Design Process

The integrated design process is an iterative holistic method to design by five phases that interact with each other. It is usually adapted to the engineering, design, or architecture fields. Through the process, all the specialisms which are considered separately will bring together and interlinked. Therefore, it is always available for back to the previous phase if there is a need to be updated or changed. (Knudsrtup, 2004)

Through the design process, to identify the problem is the first phase, aim out the purpose of the design with possible solutions and requirements. These needed information for the problem analysis can be acquired from the site of Wanxia village and relevant studies in the second phase. Review and check the project purpose through the site data evaluation. Further on, in the third phase, sketching or modeling techniques can be used for possible solution development. Due to the problem behind the design that has already been studied on both local relevant humane and historical factors, and analyzed in three different scale levels from city, district to the site, a more detailed and precise design framework can be adapted on the project. In the synthesis phase, all the results from previous works will

be reviewed and concluded again in different circumstances and aspects, apprise the effects from all of the possibilities. In the final phase, a presentation for the project will be performed by the assist from the research, report, model, and other visual materials.

Problem → Analysis → Sketching → Syntesis → Presentation

Ill. 6 The integrated design process (Knudsrtup, 2004)

02

METHODOLOGY

Ill. 5 Buildings in villages

2.2 Phases of methodology

This project has been majorly composed of three research phases; each phase of research is interrelated and influences each other in order to achieve the objectives mentioned in Chapter 1. Furthermore, each phase uses different research methods with different objectives. The research content is divided into four parts: literature research, policy review, analysis, and design framework. Phase 1 includes the literature review and policy review, aims to achieve objectives 1 to 3, the phase 2, analysis chapter aims to achieve objective 4, and the final design framework is to complete the objectives 5.

In the first phase, will take the literature review of topics with color, city image and urban villages, by reading the academic publications refer to urban design which discusses these topics, therefore build the relationship between color and city image, and some of the current world's urban renewal projects through color and change the image of the city, forward to the unique urbanization of city village in China. Meanwhile, the policy review mainly focuses on the urban villages regeneration masterplan made by the Shenzhen government to understand the situation and upgrade treatment of the village in Shenzhen, the advantages and disadvantages of the policy are summarized from the perspective of sustainable urban development.

In the second phase, there are three different levels of site analysis, base on the scale of Shenzhen, the scale of Nanshan district, which is one city center of Shenzhen city, and the scale of Wanxia village, the selected site with fundamental historical identities. In order to comprehensively and empirically understand the urban village phenomenon. Some contextual analysis inspired by the perspective of the literature review chapter. For instance, the serial vision, legibility analysis, and coloring map of Wanxia village, trying to present a city image and spatial perception of urban villages.

In the third phase, the design framework, draw on the experience of successful urban regeneration examples from the literature review, then base on the consideration of the physical condition of Wanxia village, develop the design framework color intervention as a catalyst to upgrade Wanxia village, lastly illustrate the spatial progression of the framework. The next section of phase 3 will be some evaluations of the reliability of the intervention, to see if the program can promote social cohesion and historical inheritance. And the whole process in accordance with the integrated design process.

Phase 01

Objective 1: Take research on the relationship between color and city image and review literature about the temporary city image.

Objective 2: Explore the possibility of improving village conditions in cities by using color design interventions, learn different successful cases of using color as a regeneration method, make empirical conclusions of renewal measurements.

Objective 3: Investigate the city image of Shenzhen by the urban village phenomenon and study on the policy and strategy of Shenzhen Government promote.

Phase 02

Objective 4 :Synthesize analyzes the process and historical changes of the urban village in Shenzhen, and probes into the historical and cultural significance of the village to Shenzhen and collects data of the present situation of the urban villages.

Phase 03

Objective 5: Take an insight into village phenomenon by the case of Wanxia village, analysis base on the literature of city image, try to develop the framework with consideration of historical and cultural preservation.

| Phase 01 | Theoritical research | | February |
| | | | Start of master thesis |

Literature review

Case study

Policy Review

Shenzhen City Village Regeneration Masterplan

| | | March |
| | | Pin up 01 |

Technical supervision
2nd supervision

| Phase 02 | Analysis | April |
| | | Pin up 02 |

Analysis of Shenzhen

Analysis of Nanshan district

Analysis of Wanxia Village

3rd supervision

| Phase 03 | Design framework | May |
| | | 4th supervision |

Design framework

Design evaluation

Master thesis submission

June

Examination

1st supervision

Ill. 7 Phases of methodology
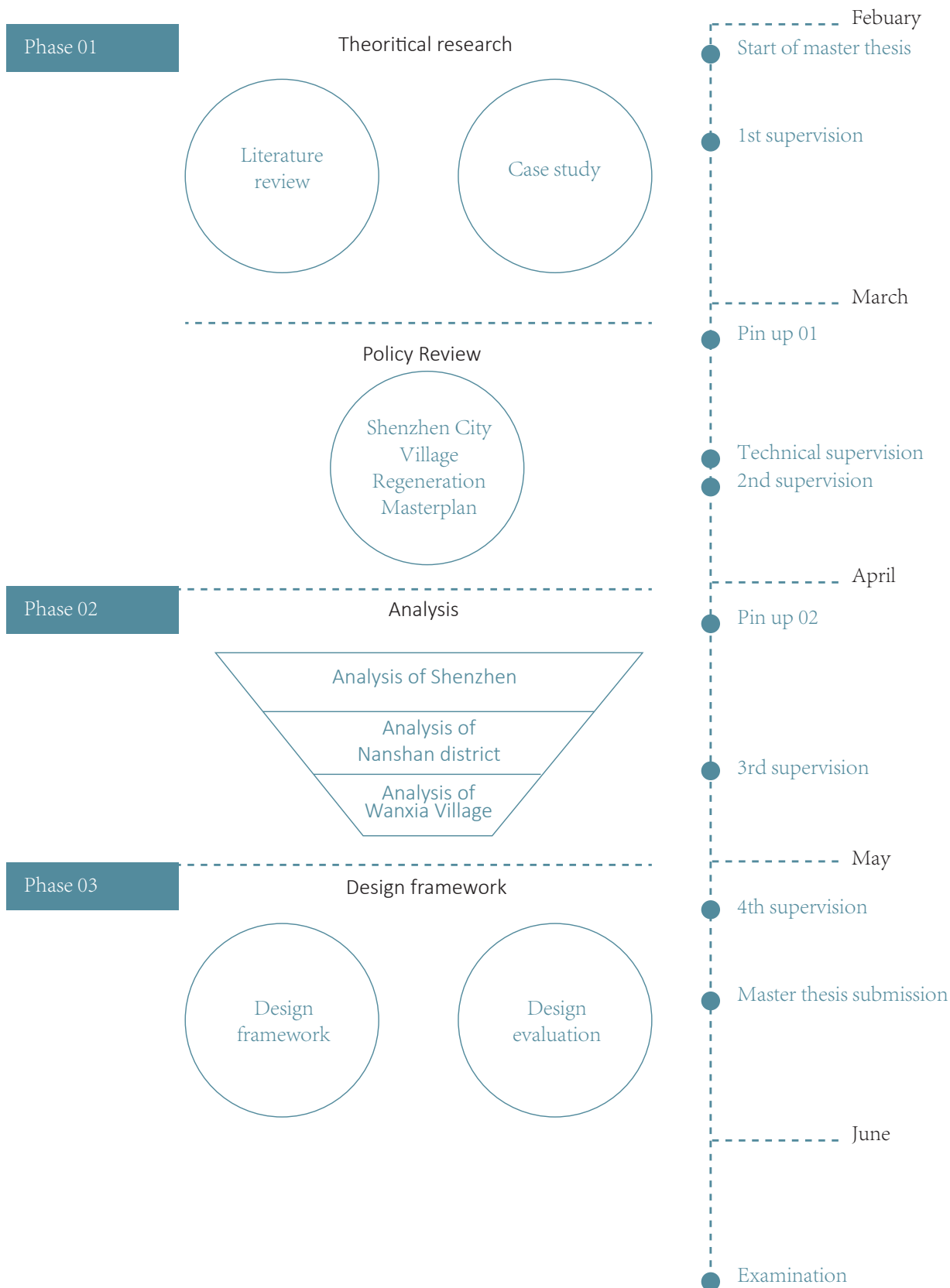
Introduction

This chapter presents the theoretical findings split with three main sections, which one relate to the role of color to build the city image, and the lose of city image problem within the contemporary urban context; the other section introduces the phenomenon of villages in the city; the last section investigates two cases of city regeneration by color interventions and discusses the potentially related factors behind them.

03

THEORETICAL RESEARCH

Ill. 8 Fruit shops in Wanxia villages

3.1 Color and city image

3.1.1 Color is not only about urban aesthetics

"Wherever color maps surfaces the effects are not superficial. Color affects environments, forming and transforming them. In towns and cities it confers magic to everyday life and experience. The quest to find and record city color began with travel, and in time, as I applied my painter s eye to the camera, the role of color in urban dimensions crystalized."

(Lois, 2000, p5)

Color show city identity

There is no possibility to copy one city's characteristics in other cities, and the variation of culture, religion, and history can be shown in color. ' Modern cities, on the other hand, are cosmopolitan, comprised increasingly of migrating populations. Many bring their traditional color preferences with them, embellishing a host city's district, which they populate, with colors of their geographic origins - with mixed results.' (Lois, 2020) From Lois, since the geographical differences of cities, which cause the sunray at different angles, and different duration of daytime, then influence the color appearance of cities. The sense of color and the chromatic environment are part of the urban experience and participate in everyday city life. Colour creates identity. These biological functions do not only shape the natural environment – they also determine the aesthetics of the cultural space that illustrates the forms of visual communication between people. (Buether, 2014) Color is an essential visual element to create the environment and atmosphere, and at different districts of the world, the color will be shown differently. Further, color is one of the most prominent factors of the city atmosphere and image, and it can, therefore, play a crucial role in reinforcing city identity and is thus often considered when a design is used to initiate urban and social regeneration. (Motamed and Tucker, 2019)

Color create communication between people and space

Meanwhile, in some researchers' opinion that color is not only one element composed of the environment condition, it also could be orientations to people even to all species. (Buether, 2014; Meerwein, 2007; Gamito and Moreira, 2015) Color will make the communication happen between the environment with people, and lead people to recognize the features of places since color directly linked with visual perception, even before the form or the shape of objectives, so in the complex of environment, color will jump out to guide people, if the world loses its color properties, there are amount of information will demolish, and our human beings will lose some perceptions.

From Gerhard Meerwein, in his book 'Color — Communication in Architectural Space,' he conducted a " spatial color experience scheme" model to illustrate six factors to influence people's color experience, they are biological reactions, the collective unconscious, symbols and associations, fashion and style, cultural factors and personal factors. All of them interplay in the model and some of them interact with each other. Our eyes are the receptor of color; people can feel completely different about different colors, cause the color will change the environment atmosphere, and coloration will arouse our feelings about various things; even these feelings could involve smell, hearing, taste, and touch, those will relate to personal factors in the model. Moreover, the color makes people feel movement, balance, and comfort. Because of people's experience, the knowledge background is different which regarded as cultural factors in Meerwein's model, so there are different preferences for color, especially in the private space such as apartments, color appearance is different, but in the public area, people have many consensuses.

In addition to these colors to people's most intuitive feelings and guidance, some 'other' materialities will make people feel different because of different color choices, which are surfaces, voids, volumes (Jensen, 2016) And some sensations such as kinesthetic, balance will be different since color affects body, perception and also people's interaction. Generally, the use of light and architectural forms, materials, and colors are the key visual parameters for perceiving and experiencing space. (Meerwein, 2007)

3.1.2 Build city image by color

Ill. 9 One of the asphalt art in New York by New York City Department of Transportation's art & Event Programming Unit, 2010, Photo by Molly Dilworth.

After the second war, more and more industrial cities aim to get rid of manufacturing than increase their independence on the alternative sources of income, city regeneration is generally understood as a whole set of actions to build the positive image of the city and communicate it among various target groups via visuals, narratives and events locally and internationally to gain a competitive advantage among other cities. (Prilenska, 2012) Moreover, some great city regeneration will attract inward investment and more people to settlement. Cultural-oriented urban renewal has been much discussed in the field of urban renewal, amount cities targets to become the creative city, this kind of regeneration strategy to contribute to the construction of cultural industry, as well as the overall cultural atmosphere of the city. And then there is a lot of flagships and iconic project development, some of these artworks embody the theme of color, which has made the rise of fame and attracted a steady stream of tourists. (Booker and Angelo, 2019) Therefore, there are various ways to conduct urban regeneration in order to enhance the city image, and color seems like the idea of a quick, effective, and inexpensive way to upgrade environmental conditions. Its potential faculty coordinated with a mobile situation, environment experience, and could work with temporary terms. (Boeri, Calabi and Bisson, 2018)

There are many cases of using colors for city regeneration and contextual analysis. Most of color regeneration base on the existing context to upgrade the spatial qualification, for example, there is a series of asphalt art on streets, sidewalks, plazas, and utility boxes in cities across the U.S. and the world, these reforms will improve the traffic environment and promote neighborhood interaction through the initiation of colored public facilities. Those street asphalt art e give priority to streets and shared space, guide citizens or visitors refocus on the neighborhoods and cities they live in. (Bloomberg Associates, 2018)

At the same time, there some research on the color function of urban contextual consultation and planning already conducted in the urban design field. Some color scheme involves the participation of public authorities, citizens, color experts, and urban designers, the purpose of such a mechanism is to arouse the attention and discussion of color among the people related to the urban construction. The case of Farbraum Stadt (Colour-Space-City) project was initiated in 2005 by the Baucollegium (building advisory commission) of the City of Zurich, finished by a team of Haus der Farbe which composed by architects, engineers, urban designers, scientists, provide the possibility of the urban color scheme. For instance, the idea of urban context collection and material profile by color, with the use of systematic methods such as photography, videos, descriptions and surveys. Meanwhile, the classification of color by year of construction could provide another hint to analyze and understand the urban history context. Those urban color palette could be used by urban designers and architects, as the source and base for consideration of color and material options, to construct the high-quality adaptin with the existing environment. In general, the investigation of color scheme indicates the new way for urban consultation and planning. (Lino and Stefanie, 2014)

Ill. 10 The Colour-Space-City project in Zurich. (Haus der Farbe, 2005)

"Colour must first and foremost undergo a holistic perception of its function as an element that shapes lines, areas, objects and spaces."

(Buether, 2014)

3.1.3 Review city image at present context

There is no denying that Kevin Lynch's book "The Image of the City," make a significant influence on the city planning and urban design academic realm as a legacy; meanwhile, it has inspired designers to reflect on the current state of urban design, even today it has a profound impact on the design of many cities, not only in the urban design field but also to social science and some cities established was inspired by the "city image". (Hospers, 2010; Raynsford, 2011)

"Image is the pride of any city – something impossible to replicate elsewhere." (Askari, Dola and Soltani, 2014) From Kevin Lynch, we know that classified five elements of city image that influence citizens' perception are paths, edges, districts, nodes, and landmarks. Moreover, all the elements are defined by each other, and all the elements composed of the city image. (Lynch, 1962) Moreover, from this perspective, there are some new ways to make people in the city to experience and perceive all the urban elements in the city as mentioned in some academic research, such as the embodied experience, which says influence people perception by some objects, related to the route narratives and visual communication, such as the building facade, walking surface material even the speed of cars, color as well. (Jensen, 2012)

However, with the urban development, more cities are moving towards the same model of modernization, and the change tendency acts with repeatability from city to city; thus, there is an issue that some cities will lose their identities, and the city image cannot be formed distinctively to citizens at present. This issue could be reflected in the rise of skyscrapers, that temporary architecture, whose shaped independently and objectives is aesthetic within the environment and jump out of context, target to show the wealth of cities and capture attention from people. Meanwhile, the grey color of street and highway as a universal visual element to the urban fabric and affects the tone of the city, which does not only show the street material or texture but also a symbol vehicle dispersal and the faster and convenient way of transportation. (Sepe, 2013) Moreover, those elements could be reflected by color in the city, and there are all color compositions in the city, thus 'The expansion of the color palette seems to have replaced variety in materials, surface structures and processing techniques. More recently, this has often led to discrepancies between architectural language, material and color. Historic characteristics are disappearing and living space, whether urban or rural, threatens to lose in aesthetic diversity and heterogeneity what it gains in colorful variety.' (Buether, 2014)

Ill. 11 Advertisements in Hong Kong streets.

Meanwhile, image is the result of various, different, and often conflicting messages sent by the city and is formed in the mind of each receiver of these messages separately. (Kavaratzis, 2004) The color, shape where objects are not only able to be seen but are presented sharply and intensely to the senses, set up the image of the city. (Lynch, 1962) But in modern cities, because of the uniformity of modern construction, cities have lost the contextual diversity and organic fabric, high-rise buildings, streets with no connection of sight, same kind of houses form, this causes the lack of connection and comprehension produced a kind of mental incoherence. (Raynsford, 2011)

The same problem happened in China, many modern big cities bring a lot of wealth with the rapid development, the urban form has also changed dramatically in a very short time but duplicated, the image of the city already changed a lot compared to 40 years ago,

people can not perceive history from the urban environment. The phenomenon of " village in the city" of China can well reflect these contradictions caused by rapid development.

Ill. 12 Collage of city village in Shenzhen
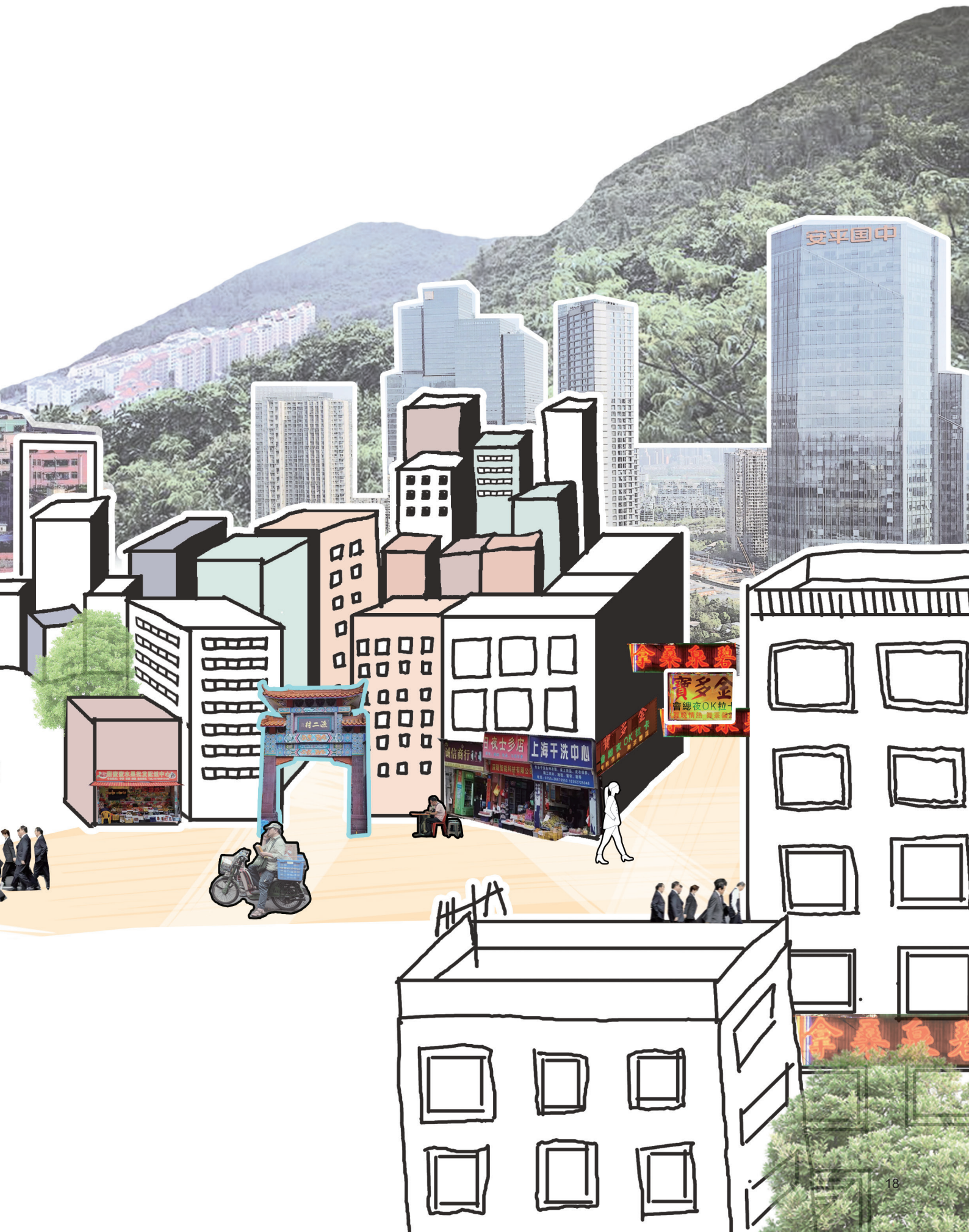
3.2 "Villages in the city" phenomenon

"The truest moment in any urban village is that everyone who has made the leap here—man or woman, elder or child, isarduously struggling for a better tomorrow."

Zuo Li, at a photo exhibition, OCT B10 Gallery, 2012

Village in the city is a unique urbanization phenomenon in China, which occurs in some big cities with rapid development, such as Shenzhen, Guangzhou, Beijing, and Shanghai. The definition of urban villages in China, in general, cannot be fitted neatly into written words, much like their existence cannot be neatly fitted into cities. Different from the literal meaning, the city villages in china is not similar to the city villages in Britain or some European countries, is not the same definition from a concept which likely has its origin in the garden city movement of Sir Ebenezer Howard in the first three decades of the twentieth century (Wang, 2016; He,2010; Chung,2010) They pose a stark contrast to the surrounding urban fabric, resulting in a fragmented landscape between the old and the new, and urban and rural. The existence of villages-in-the-city against the backdrop of an urbanized modern landscape has become a rather unique feature of some Chinese cities. (Chung, 2010)

The first construction of those villages in such city like Shenzhen because by the economic reform in 1978, Cities pour in large numbers of migrants, and traditional villages become their foothold since affordable rent and their more familiar living habits living in the village, such as they can farm around houses. However, with the modernization of the city, the trend of urban village development has become a difficulty to control until nowadays. As the reports from the official media or government, the primary reconstruction method of urban villages majorly by demolition, which will cause further contradiction of compensation between householders and developers. Meanwhile, due to the media are constantly reporting such news, the struggling impression of urban villages is built up stubborn among the public. For migrants, as the only victims, they will be forced to move out from their accommodations with no compensation, since in most of the urban regeneration projects, residential constructions will be demolished and the government is only responsible for people who own the properties on accommodation relocation. (Chu Hoi Shan, 2014)

Ill. 13 Bird view of Gangxia village.

Shenzhen is a typical immigrant city due to the rapid economic development of China, since after 1978, the establishment of Shenzhen Economic Zone, the population of Shenzhen from 30,000 to over 10 million. Today, it creates not only the miracle of the economy but also to city urbanization. The rapid economic growth is accompanied by an expansion of the population and migrants, then came the typical mixed-population settlement of the village in the city. Although urban villages are well known for their disorder and unruliness, they provide a temporary livelihood for indigenous villagers and inexpensive shelter for migrants and other urban residents. Urban villages are typically perceived as homogeneous low-income neighborhoods characterized by low quality and high-density housing. (He, 2010)

Nevertheless, from some sustainable urban development academic perspective, the exciting and somewhere deserve to investigate is that even the environment condition of city villages is not that orderly and tidy, the complex of culture and experience in those districts could be regarded as the symbol of social cohesion, and various elements in the street can also evoke one's feeling about history and memories of urban development, and that is why many of the technical nouveau riche elites who work at the high-rise office buildings on the main street will from time to time venture into the urban villages for hometown snacks. City villages, on the other hand, retain many traditional urban forms, which are root for the city to maintain, urban villages in Shenzhen should be viewed from a more comprehensive perspective that as the clumsy combinations of memories, senses, and experiences. (Chu Hoi Shan, 2014)

3.3 Case study

After some study on the relationship between color and city image, as well as urban phenomena of the village in the city, this section will introduce two cases about urban slums regeneration similar to urban villages which consist of immigrants used to face several physical condition problems similar to urban villages in Shenzhen, then explore the gentrification way and followed by a discussion of potential measures for adjustment and redevelop the alienated situation of city village from color aspects as well.

Case 01: Superkilen, Copenhagen, Denmark

Ill. 14 Superkilen, Copenhagen, Denmark.

Superkilen is an urban regeneration project by Danish architects BIG collaborates with German landscape architects Topotek1 located in Copenhagen, which sited in the neighborhood of complex ethnic composition, aim to transmit the perceptual image of homogenous by the gentrification of the plaza. As the masterplan of the plaza, almost 1 kilometer from Nørrebrogade to Tagensvej, and it was composed of three major parts, which were divided by distinctive colors: the black area is the center of Superkilen park, served as a social gathering urban living room and temporary market during the weekend, with much international furniture, such as Moroccan fountain, the Turkish bench, and the Japanese cherry-tree; the red square majorly provides some outdoor sports facilities and recreational functions; and the green park, with its soft, grassy hills, is family-friendly and a prominent picnic spot. All the colored surfaced integrated to increase the social possibility of local neighborhoods.

Case 02: Tianzifang, Shanghai, China

Ill. 15 Street view of Tianzifang, Shanghai, China.

Tianzifang is a cultural-leading rehabilitation with preserved abundant traditional row houses and aggregate plants in vernacular streets situated in the inner city. Now it transformed into a district of the creative industry, such as art galleries, retail stores, and many entertainment facilities for tourists. The streets keep with the original forms and upgraded with advanced surface material and sanitation, meanwhile, some local people still keep living in this district, running some business on the street. (Chu Hoi Shan et al., 2014)

This case is a successful version of how traditional residential district gentrification into a place keep the indigenous identities and memories, integrated with the modern urban development at the same time, in such dense city such as Shanghai. From review the regeneration framework of Tianzifang, the privileged proposed aspect was being socially sustainable, which aims to keep the social cohension into the local communities from all diversity of people, encourage social integration and cultural communication. (Yung, Chan and Xu, 2014) Besides, focus on employment and social equity, which act as the factors directly affecting social stability. And to enhance the sense of the city, to envoke people's feelings about a place by indigenous urban fabric and elements, such as the traditional constructions and old street textures.

3.4 Conclusion

This chapter takes the theoretical research from three sections. The first section is showing the relation between color and city image to introduces the lack of urban identity in the Chinese city context and the urgent need for urban renewal. Moreover, the culture-led regeneration already conducted in cities globally as a significant regeneration target. Meanwhile, the use of color, which used to ignore, being reconsidered as the main way to abundant regeneration projects and has been achieved great success.

In the second section, the "villages in the city" phenomenon as a research topic to reveal some existing urban problems in developing Chinese cities, such as Shenzhen. Because of the large number of demolition in recent years, it evokes much attention from numerous scholars, press, and citizens, which also led to the discussion of the development of the city village. So the last section regarded as the combination of two topics, the case studies present two regeneration projects within the site of multiracial collective to explore the experience of upgrading urban public space comprehensively.

The next chapter will discuss the policy of the city village regeneration plan published by the Shenzhen government, help to build the recognition of urban village problems from different perspectives.

Ill. 16 Street view of Gangxia village

Introduction

The literature review builds the definition and understanding of the urban villages phenomenon, the connection of the image. This chapter will introduce some policies and measures taken by the Shenzhen government to improve the phenomenon of villages in the city, including the upgrading of physical condition and the improvement of the lease mechanism of villages in the city. Building an innovative and sustainable city based on Shenzhen City Plan 2030, as the general city development strategy. The issue of urban villages is a considerable challenge, meanwhile an opportunity to improve the urban landscape in a sustainable process. So this chapter do an in-depth study on urban policy, and at the end will propose the possibility of improvement, the advantages and disadvantages of these urban village reconstruction plans. (Municipality, 2010)
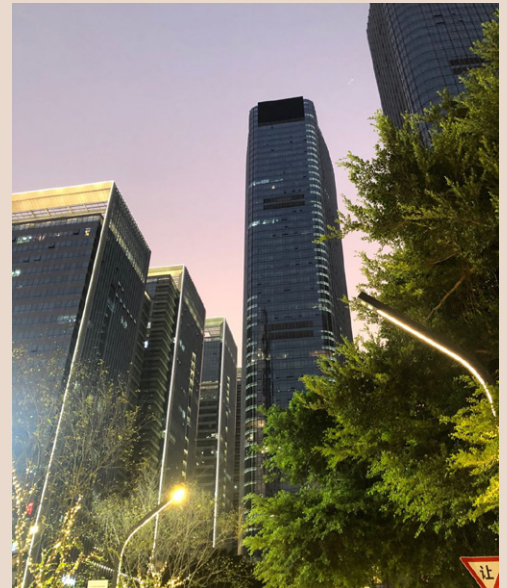
04

POLICY REVIEW

Ill. 16 Retail store in Wanxia Village

4.1 Shenzhen City Village Regeneration Masterplan

Ill. 17 Demolishment of Dachong village.

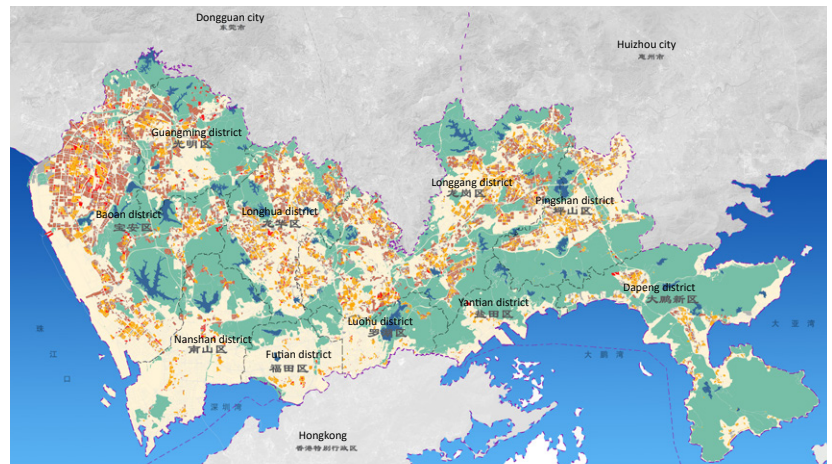*Ill. 18 Dachong village transformed into a commercial area*

In 2019, Shenzhen introduced a plan for the transformation of urban villages. Before that, there had been several versions of the urban villages regeneration plan in Shenzhen, such as the " Urban Renewal Scheme,2009 ", and the strategies and methods of the renovation had been changed with the city form and development strategy. The new masterplan (2019-2025), which was different from the previous ones, defined the overall tendency that no longer use demolition as the transformation mode of the villages.

Before the masterplan, there had been intense conflicts arising from the demolition of villages in the city, most notably between the government, village household who is owning the land, and some collective investing company, such battle always revolves around compensation of conveyance of land. The typical example of Dachong village, From a traditional village to an integrated commercial community, benefited less than 2% of the population, as well as the government and the developer. The household's income from renting the house from migrants before the regeneration and compromised with a huge amount of compensation after negotiated
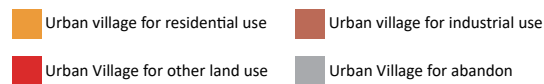
with government and developers, resulting in the ironic phenomenon of "nouveau riche," which resulted in the emergence of more than 400 millionaires. However, as the most vulnerable group, the migrants had to leave the land because they couldn't afford to live downtown. Urbanization in Shenzhen bring some wealth to the city, but it causes unequal distribution of wealth.

4.1.1 Distribution of city village

The current situation of urban villages in Shenzhen, which could be recognized from the distribution map that most of the villages vanished in Nanshan, Futian, and Luohu those inner-city areas. Because of the rapid development of these areas, many villages in the city have been replaced by modern constructions. On the other hand, the surrounded area of the city center is covered by most of the urban villages. The definition of the urban village is mainly divided into two types; the first is the urban village residential land, the other is the village industrial zone, which distinguished by landuse.


Ill. 19 Distribution of City Villages in Shenzhen City, 2019.

- ■ Urban village for residential use
- ■ Urban village for industrial use
- ■ Urban Village for other land use
- ■ Urban Village for abandon

4.1.2 Shenzhen city village regeneration masterplan (2019-2025)

The plan in order to accelerate the construction of modernization the first area as the goal, to improve the quality of urban development and enhance the city's competitiveness among the southern cities in China, give full consideration to the development of urban resilience, remain villages with historical and cultural value to improve the sustainable city development. The whole regeneration plan will be reasonable and orderly conduct of city village updating, steps to eliminate physical problems, preserve the urban fabric and heritage historical context, maintain low-cost apartments, improve the supporting facilities, improve environmental quality and achieve sustainable and comprehensive development of villages. The government plan that 55 square kilometers of land were allocated in the regeneration masterplan, accounting for 56% city area.

Ill. 20 City Village Regeneration Strategy Map, 2019-2025

- ■ Urban village need to regenerated
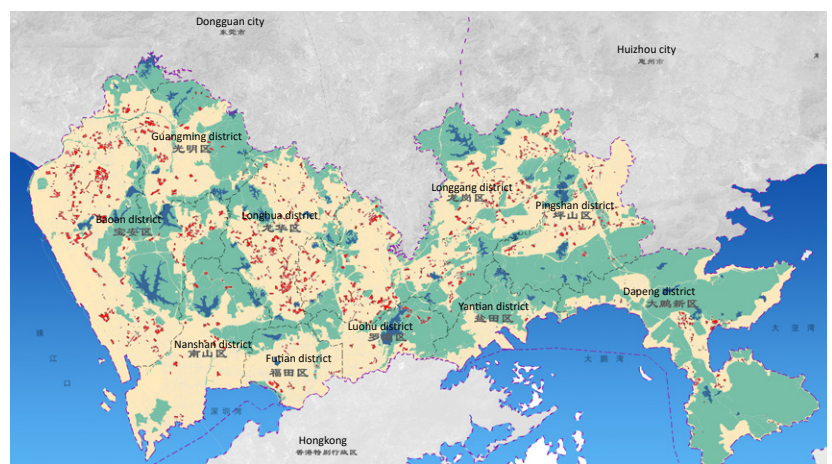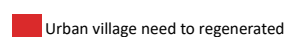
4.1.3 Measures of Shenzhen city village regeneration masterplan (2019-2025)

01. Demolish & renewal treatment at the same time

From the overall masterplan, some of the building quality is dilapidated, affecting the safety of the urban village buildings need to be demolished, if the building quality is good, the current situation of the development of high intensity of urban village land, should be classified into a regeneration project.

02. Strengthening the living quality of urban villages

Strengthen the urban design and architectural facade control in city villages and improve the integration of style, urban scale and culture between the existing buildings and the surrounding environment. Create more public space within villages, pay attention to open space connectivity, and to make sure the quality of public facilities, in order to increase the diversity of cultural and recreational life, help to build the social cohesion and communication, creating a sense of belonging to some urban spaces.

03. Conduct the supervision of the urban village rental market

The current rental market order is complex and disordered. Thus relevant government departments should strengthen the management of village leasing activities; this policy requires enterprises to control the cost of the regeneration project since all the regeneration will affect the price of rent in city villages. After the accommodation renovation, priority should be given to meet the rental needs of the original tenants, effective protection of the supply of low-cost living space in urban villages. Strengthen the market order rectification, severely crackdown illegal behavior in the village rental market, eliminate illegal information into the credit information sharing platform.

4.2 Critique of the city village regeneration masterplan

Lack of villagers' resettlement

The masterplan did not solve the housing settlement problem of low-income residents, according to the measurement 01, did not give the required targets after regeneration projects and where the original residents to live after some villages were demolished. From previous experience of village regeneration, urban village renovation projects require a huge investment, and investment is generally from collective company, which desire for profit from village land. Thus it is hard to reach a compromise between the villagers and collective company, so the collective company always as a crucial role in managing the rebuild process, even they are permitted responsible for the only small number of villagers' resettlement. Because of the abuse of power by collective company, there are some new building replaces the original village's housing, with an increment of rent, the low-income residents are excluded by the new accommodation. (Lin, Hao and Geertman, 2015)

Ambiguous definition of historical urban village

As from the literature review above, the village in the city is important because of its historical and cultural significance. For this issue, masterplan (2019-2025) have mentioned accordingly, and hope to be able to retain the history of urban villages during the urban renewal. Still, unfortunately, there is no specific definition or stipulate of a historical urban village. Such as traditional gate and ancestral hall could be identified as heritage easily, but how to distinguish some houses, retail stores, not mentioned in the masterplan. More explicit regulations and requirements would make the guidelines of transformation more directional, of course, need to coordinate with the identity and context at the same time.

4.3 Conclusion

This is the chapter that took deeply study about the issue of urban village transformation policy from the Shenzhen government. It can be notified that Shenzhen turned the direction to the renewal base the consideration of urban context instead of the previous urban development plan, which is complete demolition of the lagging area. The very first plan is able to consume all the urban villages, however, for Shenzhen, is not only result in the damage of culture and history but also will lead to a fatal consequence that losing the social equity. Migrants, as the major labor force in society, could be turned out the door of the growing city. Furthermore, this consequence is capable of creating the extremely infaust situation for Shenzhen, a city of immigrants. Shenzhen government has also aware of these problems in urban regeneration now; however, there is no comprehensive and detailed plan for a solution yet. Such as problems of migrant housing resettlement or price control in the rental market. It has natural difficulties to regulate things in such a giant scale under the complex social system of China, various perspectives need to be considered about their constraints and opportunities. Nevertheless, urban regeneration is inherently slow and sustainable, and this process should continually learn from previous experience.

The following chapter will do the spatial analysis about Shenzhen city，explore the formation of the urban village phenomenon from a historical perspectives. It will present the case of Wanxia village as a typical city village.

Chapter introduction

This chapter is majorly divided into three parts, which scales from major to minor, step by step to show the current situation in Shenzhen, urban development strategy, and urban problems that occur in the metropolis. In the Chinese context, Shenzhen is the newest and most modernized city, so many scholars would say that Shenzhen is lacked historical background. However, due to China's post-1978 Reform and Opening Policy, there is such a large economic zone coming up in the south coastal area.

Shenzhen might not be able to count as a significant place for Chinese history. However, stand at the point of the contemporary period to recording and analyzing Shenzhen is very necessary. As the most significant and progressive metropolis in the world, Shenzhen has excellent value to study whether on the economy, development history of the city or even in the form of human society.

Meanwhile, with the numerous possibilities that brought by development also comes many problems. Due to such a unique urban development model and totally different development patterns of the dimension and scale from the western world make urban analysis has more regional significance on Shenzhen. Also, the impossibility to replicate the same regionalism in another city makes the reason why Shenzhen deserves to be studied. Of course, there is no doubt that the study of Shenzhen can also reflect the typical characteristics of other metropolises, because these explorations will enable us to discover both connections and differences between the types of cities.

Therefore in this chapter, there will be three scales of analysis. The first scale is mainly focused on the region of Shenzhen city and its relationship with surrounding cities. The second scale is to analyze the Nanshan district where the site is located, understand the main urban functions of this district, explore the function and contact between the site and Nanshan district and reveal disharmony between the site and surrounding urban fabric. The third scale is focused on the site itself, the Wanxia village, with a high population, architecture density area and also exists in the city as a typical village. In the analysis of this scale, the purpose is to find problems existing in urban villages, which are strictly related to residents' living quality and city image perception.

Combined with all the discussion above, the results design purpose and parameters will be considered in the next chapter to generate the design results.
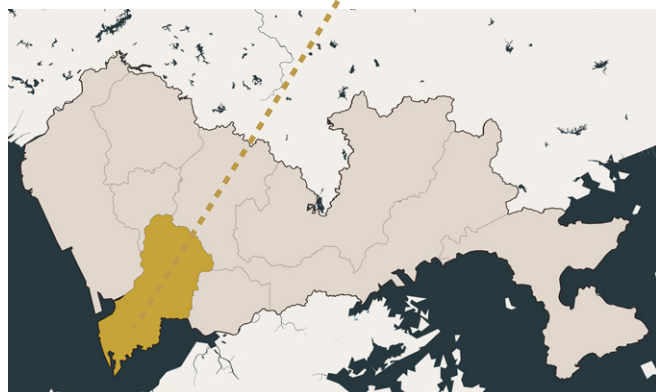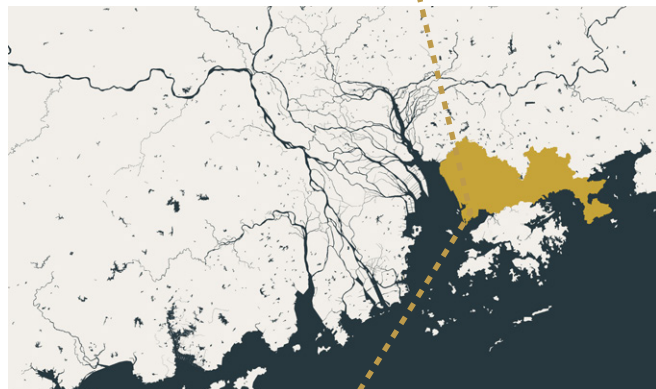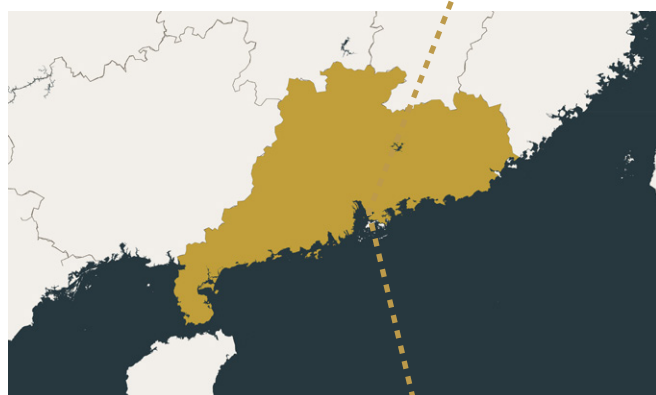
05
ANALYSIS

Ill. 21 Residential buildings in the Wanxia village

5.1　Analysis of Shenzhen

5.1.1　Shenzhen city in the strategic context within Pearl River Delta (PRD)

Shenzhen, located in the coastal area of the Pearl River Delta of Guangdong Province in southern China, bordering Hong Kong, has direct links with the large cities of Guangzhou, Macao, and Dongguan, meanwhile, with these cities constitute Guangdong-Hong Kong-Macau Greater Bay Area. Shenzhen is also a very young city, and its economic and technological success has made it a typical city for Reform and opening up after 1978. Relying on its geographical advantages and drawing on Hong Kong's experience in industrial and financial industry development, Shenzhen has now become China's science and technology industry innovation center, import and export trading center and China's three major financial centers (The other two financial centers are Beijing and Shanghai). Thus, the development of Shenzhen has exemplary significance for China today, which is transforming from traditional industry to manufacturing industry and science and technology innovation industry. (Dou and Chen, 2017)

Ill. 22 Location Map of Shenzhen
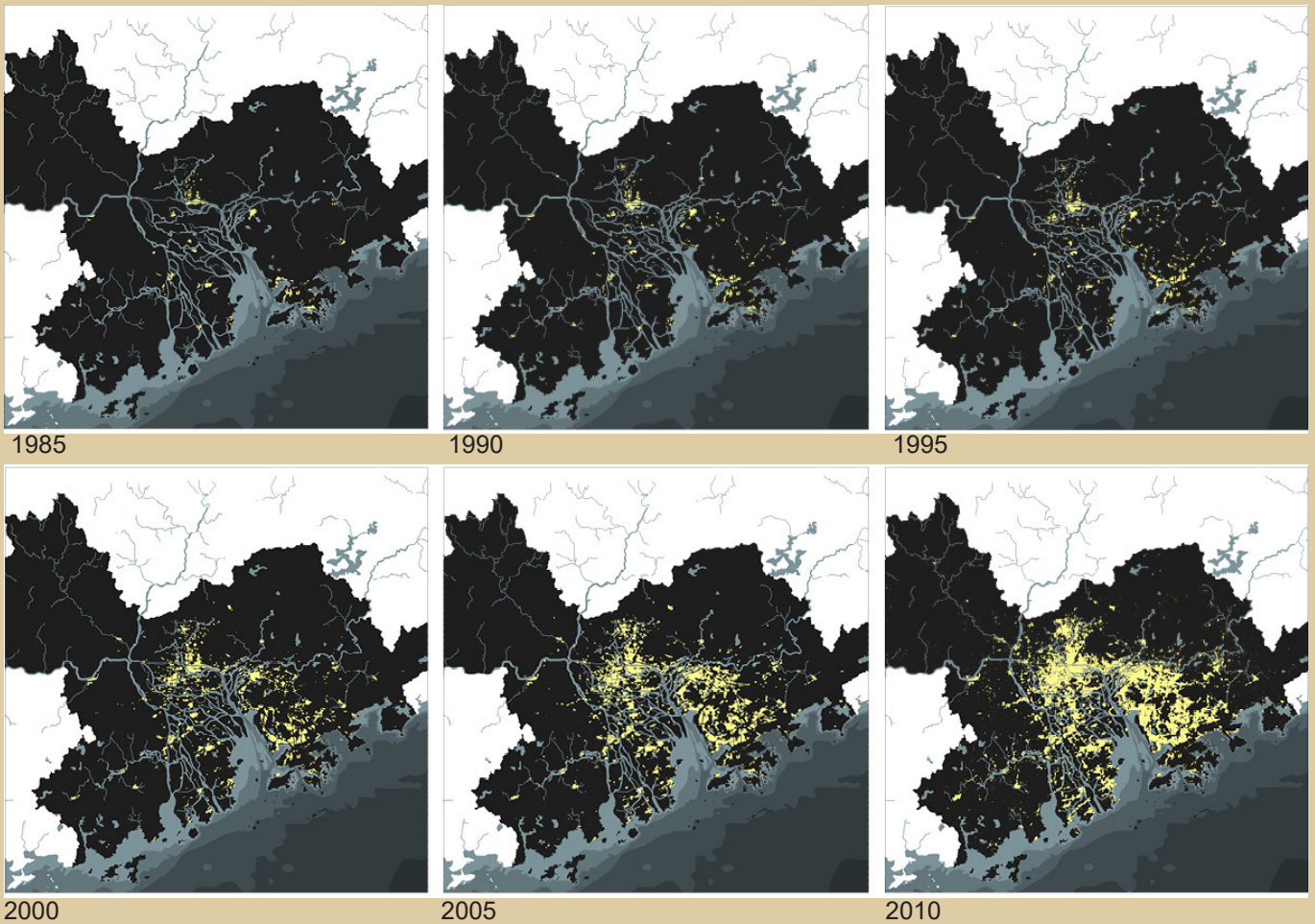
Ill. 23 Urbanization of PRD (Cleary, 2012)

According to the history, the direct reason for the development of PRD district during the 1970s is because Hong Kong's capital firms have moved some plants to PRD cities, since the cheap raw materials and labor, then PRD becomes the world factory, and the label of "made in Hongkong" becomes to "made in China." Meanwhile, Hongkong as a colony of Britain, industrialized rapidly from the 1950s to 1970s, and it was the original prototype of the Chinese factory. (Cleary, 2012)

Shenzhen is closely related to the development of surrounding cities. Since 1985, the Pearl River Delta region has only two major developing cities, Guangzhou and Shenzhen. But to this day, all the cities in the Pearl River Delta have developed into cities with a particular volume, and the urbanization process of these cities has shown a trend of mutual integration. (Cleary, 2012)The Pearl River Delta has now become one of the largest urban agglomerations in the world, with the same volume of urban agglomerations, including the New York Bay area, the San Francisco Bay area, and the Tokyo Bay area of Japan.

Ill. 24 Shenzhen strategic location in PRD

Shenzhen borders Hong Kong, with close economic and cultural ties, there is various public transportation option connect with Hongkong, for example, the Hong Kong-Shenzhen Bridge, which takes only 15 minutes to drive, meanwhile, residents also commuting by ship and high-speed rail. As far as the functions of the airport are concerned, Shenzhen Airport is mainly responsible for transportation within China, and it becomes the largest transition hub in the southern part of China. Shenzhen also has the largest express delivery company, the S.F. Express. The Hong Kong International Airport, not far from Shenzhen, is primarily responsible for international flight transport.

For the overall development strategy of the Pearl River Delta, the general function of Shenzhen is to provide technical support for Guangzhou, Dongguan, and other cities which are responsible for the manufacturing and processing of high-tech industries. The development of Shenzhen will also drive the development of surrounding cities, but in terms of urban functions and industrial proportions are different. However, the Pearl River Delta region is moving from industry to technology, that is because Shenzhen

has the most significant number of high-tech companies, such as Huawei, Tencent, and DJI, meanwhile to lead the progression of many small companies. (Municipality, 2010) Unlike the surrounding large cities, such as Guangzhou, Shenzhen does not rely on heavy industry to complete capital accumulation. Learning from Hong Kong's development experience, the city industrial direction from agriculture directly to the development of high-tech after 1978, so Shenzhen has no problem of environmental pollution compared to its surroundings. (Lin, Hao and Geertman, 2015) Because of the city's strategy of developing science, technology, and culture, Shenzhen still adopts a policy of attracting talents and migrants, so Shenzhen still maintains population growth and keep a high demand for the labor force. Shenzhen's 2020 resident population reached 13¬ million, the urban density reached the country's first, and still maintain population growth.

Ill. 25 Shenzhen Bay Bridge connect to Hong Kong

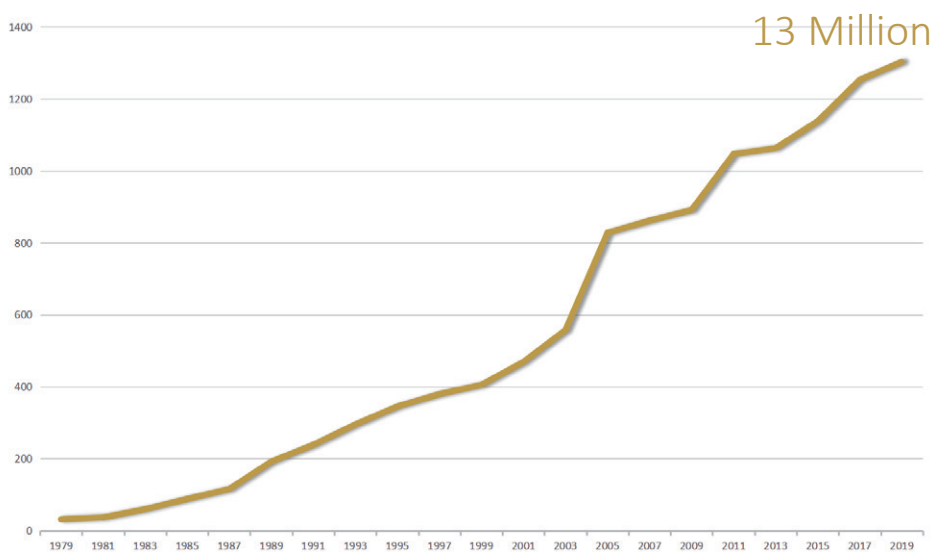## 5.1.2 Demographics of Shenzhen City

13 Million

Figure 1. Shenzhen Population Growth from 1978 to 2019

The population in Shenzhen is the fifth largest, with 13 million in 2020, but highest density in China, the turning point of population in Shenzhen was 1978. Because the location advantage of bordering Hongkong, Shenzhen became the first special economic zone. From that time, immigrants poured into the city. So from the population growth linear graph, it is obvious to see that the population is growing at a rapid speed from 200,000 to 13 million today.

From the data collection, Shenzhen's migrant occupies the majority of the urban population, and foreign residents account for 9.1% of the total population. Furthermore, the average age is 32.5, known as the "youngest" city in China.
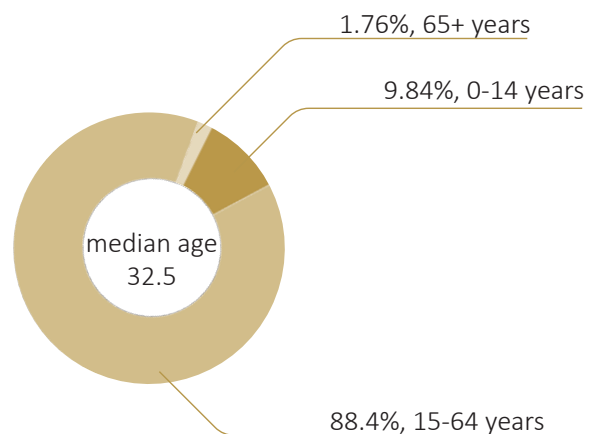

1.76%, 65+ years

9.84%, 0-14 years

median age 32.5

88.4%, 15-64 years

Figure 2 Distribution of Shenzhen Population by Age in 2019
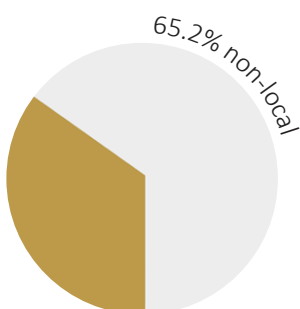

65.2% non-local

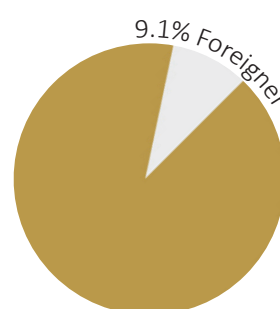*Figure 3 Ratio of local & migrant population in Shenzhen in 2019*

9.1% Foreigner

Figure 4 Ratio of local & foreign population in Shenzhen in 2019
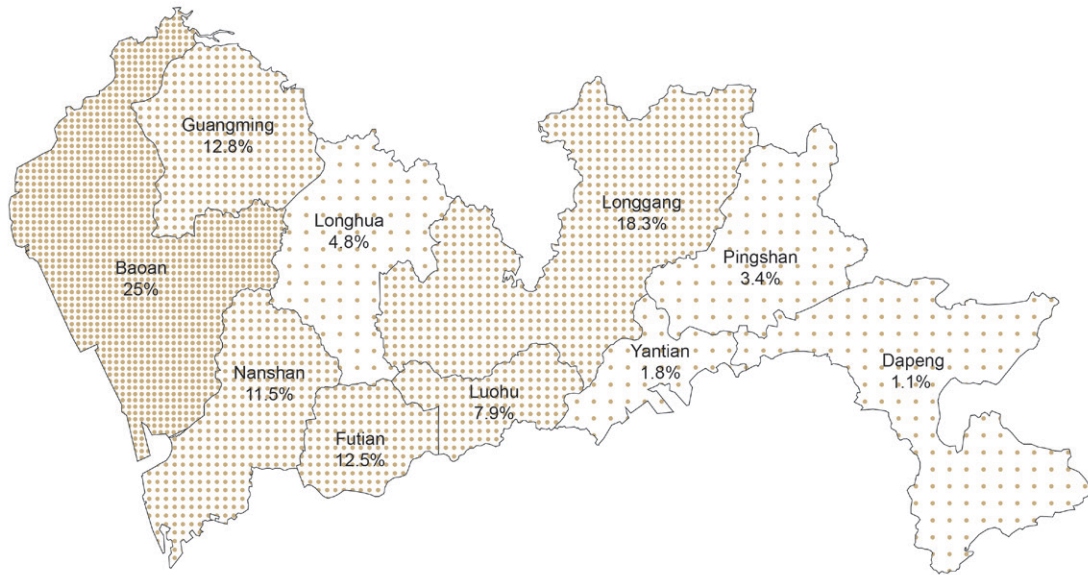
From the population distribution map, the areas of concentration are the coastal areas of the city and the historical industrial zones, which are related to the multiple economic and industrial compositions. For example, in the Baoan region, there are sizeable industrial production bases, mainly related to industrial production, so there are large numbers of migrant workers. The neighboring Nanshan district target with the development of innovative industries, so there are few factories and industries that need workforce, even as the central urban area of the city, so the proportion of the population is only 11.5% of the city. In large cities such as Shenzhen, housing prices and rents are also critical considerations for people to live in. In the more developed areas such as Nanshan and Futian, the rent is two to three times that of suburbs. (Chu Hoi Shan et al., 2014)

As a new city, the tertiary industry has developed into a leading industry in Shenzhen, as can be seen in the industry chart. In the classical theory of the three-sector model of economics, according to the model, the primary industry is mainly raw material production, such as agriculture, forestry, animal husbandry, etc. (Roe, Smith and Saracoglu, 2010) The secondary industry is processed by the manufacture, using the achievements of the primary industry, while the tertiary industry is the service, such as finance, electronic technology, education, etc. At present, the development direction of Shenzhen is mainly oriented to the tertiary industry. It takes Nanshan and Futian as the center to vigorously develop the post-industrial cities, and Nanshan District takes the cultural oriented industry as the development direction.
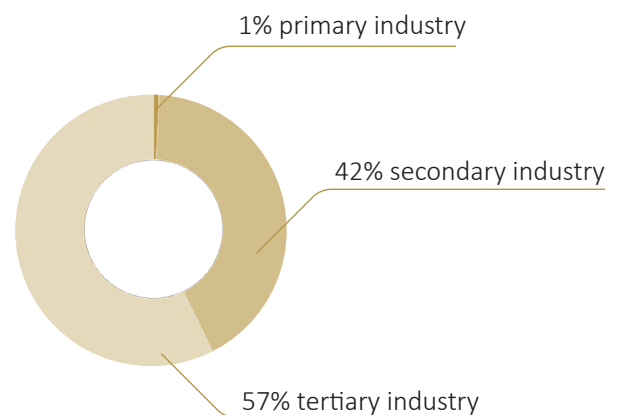
5.1.3 Shenzhen: from a fishing village to modern city

There are a large amount of people believe Shenzhen is not essential to Chinese history, because of the geographical location of Shenzhen is away from the political and cultural center in history. However, Shenzhen's historical position in the Chinese Reform and opening-up is the pioneer city. (Chung, 2010) Therefore, the urban history of Shenzhen should be viewed with a sustainable historical view. In this section, the urban expansion and history will be divided into two parts, using a timeline to connect the development history of China and the story of Shenzhen city. In this way, we can have a sight of the historical and cultural connection between the development of the whole country and Shenzhen, to give us a more comprehensive understanding of the significance of Shenzhen city. Of course, there is too much history in China, so this timeline shows only only the time range of China after the modern period, and precisely China after the Opium War.

In historical records, the establishment of Shenzhen was because of the wave of migration to avoid the war in the interior of China. But for now, a large number of migrants because of the economic development，before 1978 Shenzhen was under the management by Dongguan, and until 1978 that Shenzhen had its city name. Nanshan and Hongkong have a close relationship with history, during the First Opium War (1840-1842), and the Second Opium War (1856-1860), Hong Kong and Shenzhen were places of wars which took place between the Qing government(China) and Britain, Hong Kong was ceded and colonilized by Britain in the end. Meanwhile, Hong Kong began industrial development under the rule of the British government. But China still regarded agriculture as the first important industry in the city, and the whole country rejected to open to the world for trading and commuting; the only open port was Guangzhou city, which near to Shenzhen and Hongkong. In the history of Shenzhen, the main industries were fishing, tea, and rice production. It is fertile land both for agriculture and fishery

that has nourished people for generations and cultivated profound cultural heritage. According to the industrialization process, the only worth mentioning is the Nanshan area, in 1872, China's first industrial factories were set up here, while large cities such as Wuhan, Shanghai, set up similar factories, that was the symbol of beginning of the Chinese industry revolution.

During the period 1912-1949, which was the historical stage under the leadership of the Republic of China, the war was still continued, in the other hand, the whole society was in the course of class revolution. The foreign war was Resistance Against Japan (World War II), so the entire nation had no breath to developed peacefully and steadily. But after 1949, the Communist Party came to power. It established the People's Republic of China (P.R.C.), the volatile situation had improved, seems the whole society was going to peace, but the entire society was still in a panic, due to the political infighting. Meanwhile, The Cultural Revolution began, a decade-long political campaign had devastated China's culture and economy; as a result, the industry was lagged, without any development, and culture had suffered unprecedented harm. This situation retained to 1978, Deng Xiaoping became the new leader of China and gradually dismantled the policies associated with the Cultural Revolution. After 1978, China then opened the whole system to the world, started with the Reform and Opening-Up Policy, allowed the free economic trade activities, therfore Shenzhen became the quickest development city, from a traditional fishing village to a modernized city.

China's history

Qing Dynasty

1840
the First Opium War

1842
Hong Kong ceded
to the British

1872
China Merchants Group
established in Shekou

Republic of China

1912
Establishment of the
Republic of China

1937 - 1941
Second Sino-Japanese War
(World War II)

The war and social unrest
have made Shenzhen stay
mainly in agriculture.

People's Republic of China

1949
Establishment of the People's
Republic of China

1966 - 1976
the Cultural Revolution

1978
Chinese economic reform

1979
Shenzhen becomes the first
Special Economic Zones

Shenzhen's history

Ill. 26 Shenzhen historical timeline (all photos from Shenzhen Museum).

5.1.4 The rise and decline of urban villages

1980

Traditional village & city

1990

City expansion and village demolished

2000

2010

Village in the city

Urban area

Village

Ill. 27 Shenzhen urbanization model sketch

9%

Self-built housing

6%

Welfare housing

62%
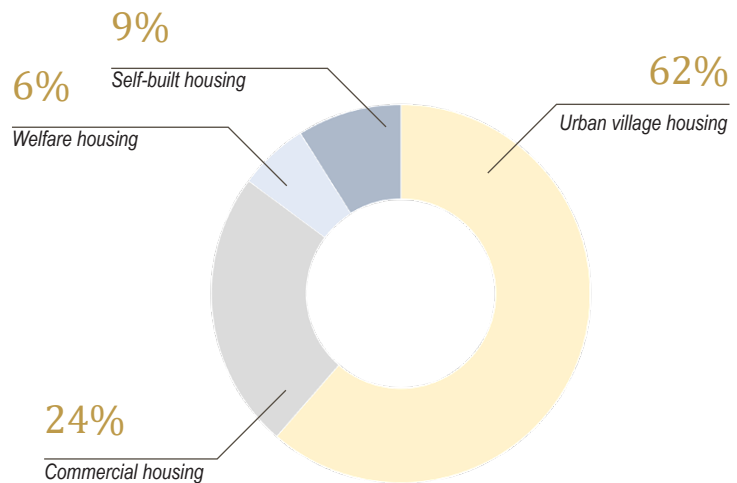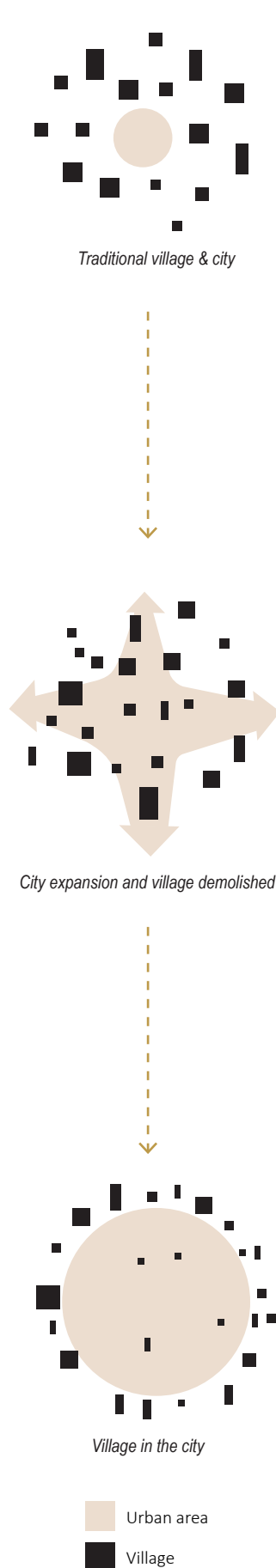
Urban village housing

24%

Commercial housing

Figure 7 Proportion of housing area (Municipality, 2019)

The literature review chapter introduces the "village in the city" phenomenon, which is a particular city form existing in China, caused by the rapid development of the city. It shows specifies in Shenzhen because of the unique development process after the Opening and Reform Policy, the formation process of the city village is also worth to studying with. Only based on the research of the city village phenomenon could be acquainted with its urban context, and help to build a better understanding of problems that a large number of floating population and poor infrastructure.

The overall situation of the villages in Shenzhen can not be described only by some pathological terms, including people living inside the villages in Shenzhen, consider that the urban village is a problem in the city, and these villages are portrayed as "cancer" or "scar" of the city. (Chu Hoi Shan et al., 2014) As a result of these physical problems, people ignore the value of urban villages, compared to the overwhelming skyscrapers in the metropolis, the ancestral temple, pedestrian-friendly street scales, and cultural heritage are more worthy of protection and treasure, especially in big cities where no one has a sense of belonging.

According to the history of Shenzhen, before 1978, it maintained the form of primitive agricultural villages, with the urban modernization, the city annexed the traditional villages. Many of the original villages disappeared with the urbanization, Today's urban villages are mainly located in the suburbs but serve as the housing for most of the city's labor force, and their accomdations count to 62% of the total housing area to the whole city, (Municipality, 2019) there are only a small number of urban villages in the city center and being incompatible with surroundings, forming an unusual phenomenon of urban villages.
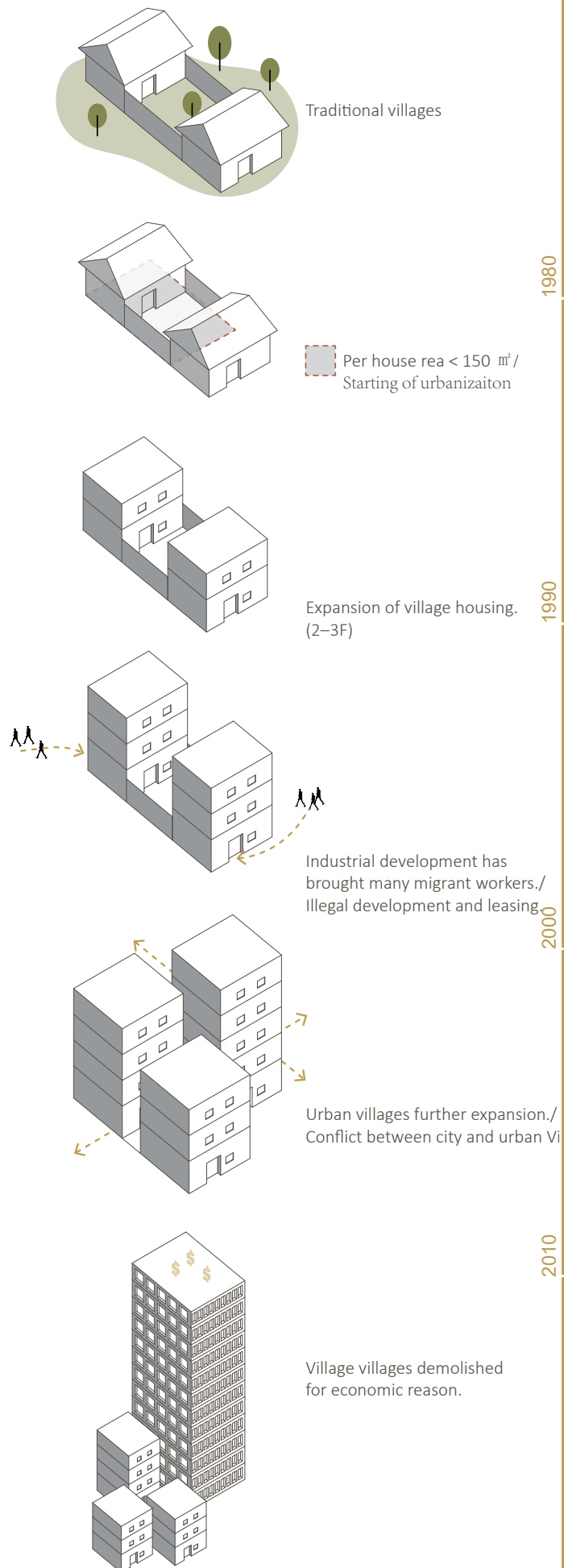
5.1.5 Urban villages keep changing

The development of the village in the city has been accompanied by the development of the city. It can also be told as a story of urbanization.

Before 1978, Shenzhen was a traditional fishing village without any modern industry, and the form of villages was some housing with a courtyard. For now, some houses with regional characteristics were preserved, mainly concentrated in the suburbs.

After the special economic zone set up, it was expected that residents would build houses. In order to control housing development in villages, a 'Provisional Regulation on Village Household House Building and Land Use' was issued in 1983 by the government with a restriction that each household within 150 square meters of land. While the government has begun to impose restrictions on villages, the influx of capital and industrial development has brought large numbers of migrants, which has led to a growing demand for low-rent housing; thus, the government increased its control over village housing in 1986. The land allocation standards were adjusted: A limit was set for the height of private houses: No houses should be built over three stories. The average construction floor space should be under 40 square meters per person.

After 1993, urbanization went further, and most of the villages in the city were affected. Meanwhile, private property letting became a main economic activity in villages, and there are a lot of illegal leasing problems. From the view of economic interests and housing needs, the government began to adjust the need for urban village construction, hoping to control the rental market, so permitted housing construction floor space was capped. This makes the village from horizontal development to vertical development, from the number of layers generally 3 to 7,8 or even higher, so the dense village pattern formed. (Wang, Wang and Wu, 2009)

Today there are decreasing villages in urban centers, and their disappearance is because of the enormous economic benefits of property development, on the other hand, to the poor condition of urban villages. Thus those villages replaced by luxury uniform apartments, a large number of migrant residents can only move out of the city center and choose to live in remote suburbs. (Lin, Hao and Geertman, 2015) Such a long commute, it will cause the city lack of social diversity, and becomes to the ghost town. (Chu Hoi Shan et al., 2014)
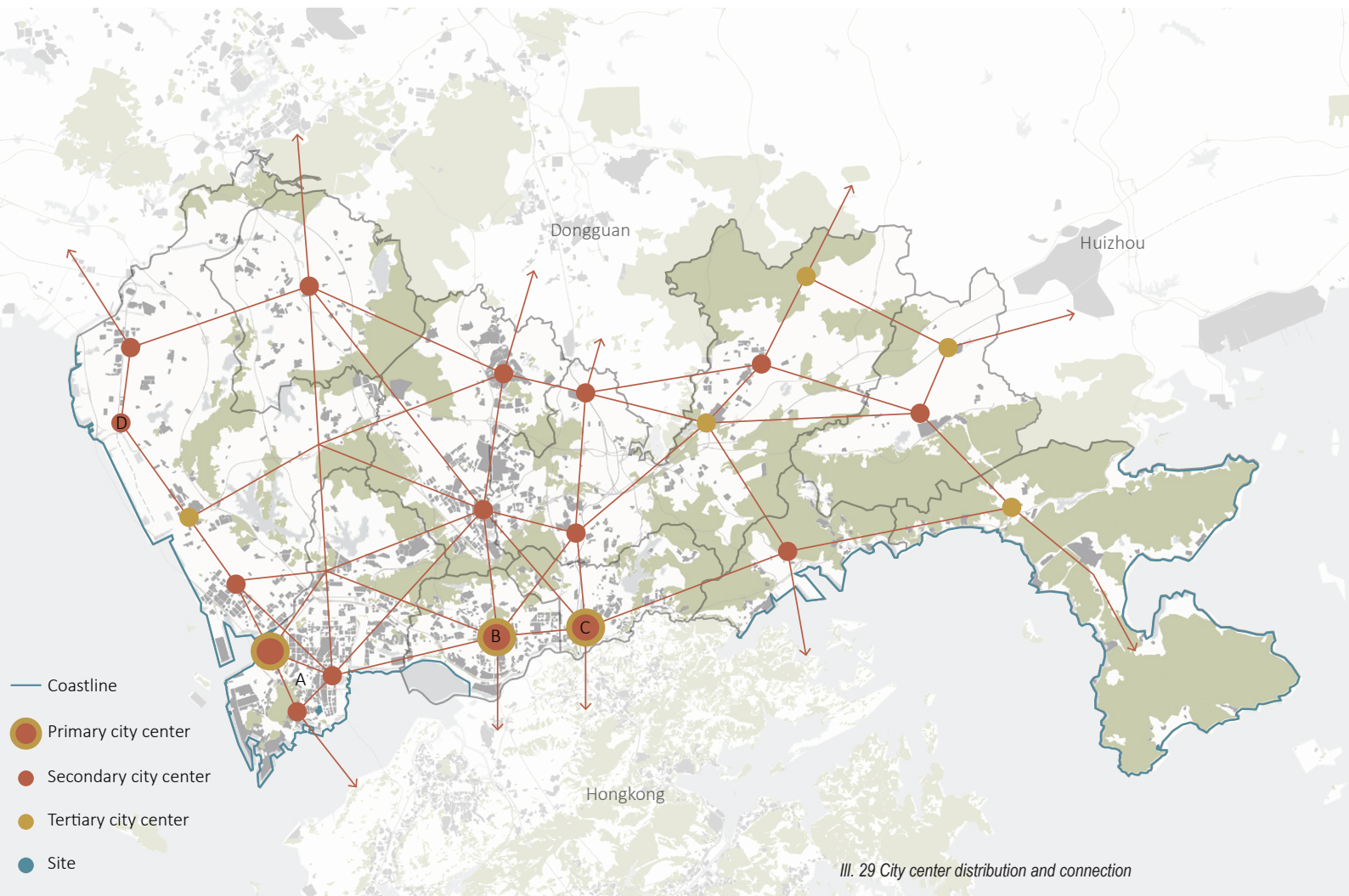
Traditional villages

1980

Per house rea < 150 ㎡/
Starting of urbanizaiton

1990

Expansion of village housing.
(2–3F)

Industrial development has brought many migrant workers./
Illegal development and leasing.

2000

Urban villages further expansion./
Conflict between city and urban Vi

2010

Village villages demolished for economic reason.

Ill. 28 City village transformation timeline

5.1.6 Shenzhen, the city for the future: different districts image of Shenzhen City

The city of Shenzhen is divided into nine districts. Among these districts, Nanshan, Luohu, and Futian are the primary city centers, marked as A, B, and C on the map. Due to the large scale of the city, different city centers are needed to perform the different urban functions, which has a similar urban structure with Tokyo. The A district Nanshan (the district where the site is located) is planned to develop as a primary city center with the major industries of the internet, high-Tech, and design-oriented by culture. The arrangement of the Nanshan district is also the overall development direction of Shenzhen. With the early expansion of Shenzhen city, the B district Luohu developed into another high-density primary city center, which is majorly focused on industry and finance. Futian district,

marked as C, is the oldest primary city center of Shenzhen. Because of the proximity to Hong Kong, Futian developed the financial industry firstly, and it is now the second most important financial center in China. (Municipality, 2010)

Coastline

Primary city center

Secondary city center

Tertiary city center

Site

Ill. 29 City center distribution and connection

Ill. 31 Ancient Hakka villages in the city.

Nanshan as the most historical district among all of the others in Shenzhen, it owns numerous natural and historical heritage, as well as the oldest streets. Backing against the Nanshan mountain, this district has a great natural environment, and the environment is not subject to too much industrial pollution. From the map of cultural elements distribution, it can be seen that most ancient villages in Shenzhen are distributed around the city, such as the ancient Hakka villages.
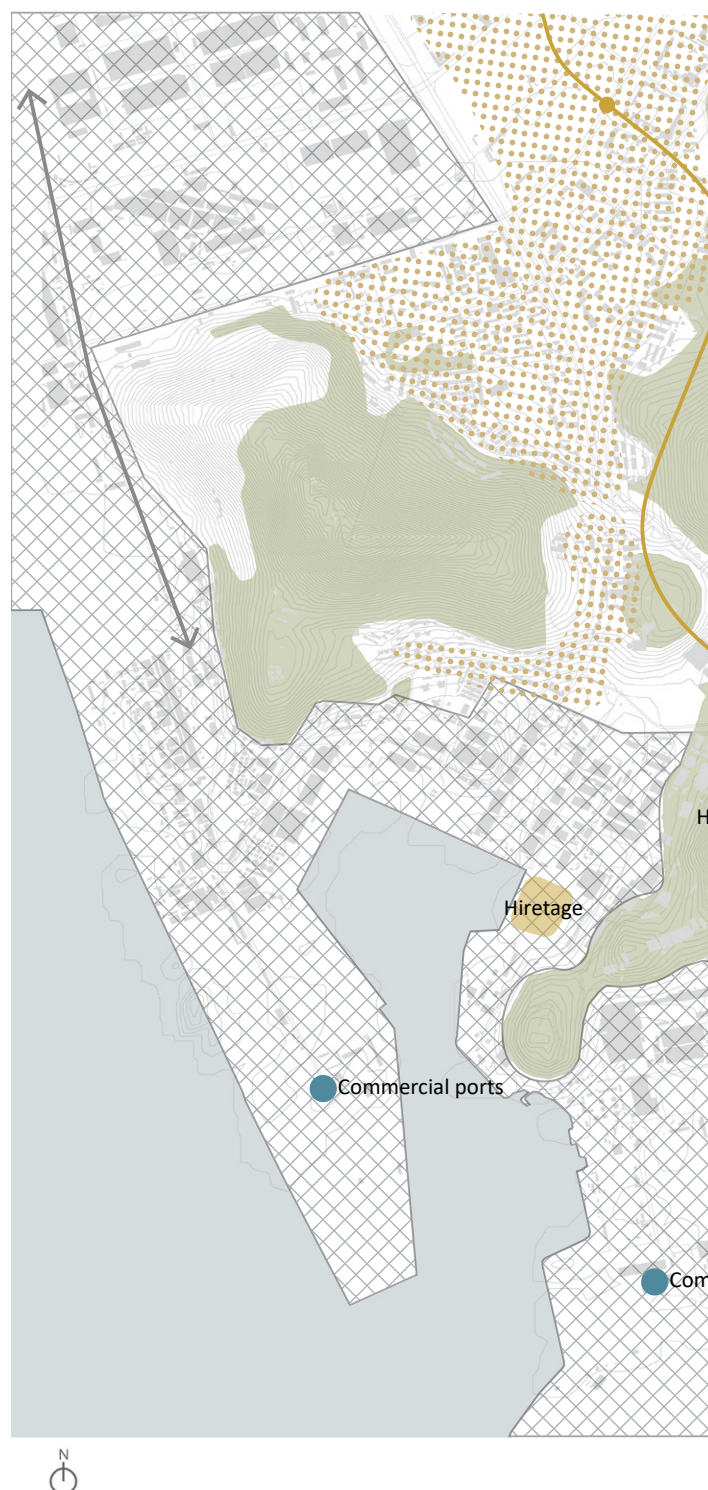

Ill. 30 Culture elements distribution

5.2 Analysis of Nanshan district

5.2.1 Strategic context of Wanxia village

The site of master thesis located in Nanshan District of Shenzhen City, this area is named Shekou, near Shekou bay, most of the surrounding residential areas. As the oldest area in Shenzhen, Shekou has the earliest foreign-funded enterprises, and it's the most densely immigrant area in Shenzhen. For example, the sea world at the foot of Nanshan is the theme complex of western culture, with restaurants and bars from all over the world. Nanshan also has many high-tech industrial parks, not far from the site has Shekou Valley, such as the illustration, gathered a large number of Internet and technology companies.

The site is next to Shekou Old Street, one of the oldest city streets in Shenzhen. Shekou Old Street has many ancient shops and historical sites, but since the development of the city, few historical elements are preserved for now. The site (Wanxia village) near to Shenzhen Bay, the essential green connection of the city, it connects different urban centers as an important place to provide leisure for the public. A short distance from the site is Metro Line 2 station, and there are five subway lines in Shenzhen. Shenzhen, China's largest import and export city, Shenzhen is the largest import and export city to Chian, the port holds the country's economic dynamics.

All the character areas compose the Nanshan district, make it becomes the most multiple and historical regions to the city.
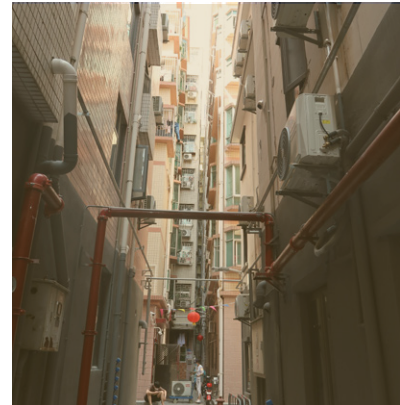

Hiretage

Commercial ports

Com

Nanshan mountain

Net Valley

24.1km to airport, 50 min.

28km to rail station,1h.

5km to city center ,15min.

Shekou old streets

Sea World park

Shekou Bay park

4km to Shekou port, 10min.

Heritage

Civil ports

Commercial ports

Harbour zone

High-density commercial zone
（business-oriented）

Residential

Green

Blue

Site

Character area

Metro

Green connection

Highway

Port

Bridge connect
to Hongkong

Major connection

Ill. 32 Map of Wanxia village strategic context in Nanshan district

5.2.2 Urban typology analysis of Nanshan district

Wanxia village is located near the historic old Shekou street, which is one of the earliest developed areas in Shenzhen. However, there are many modern high-rise residences nearby Wanxia village, and these modern style constructions form a sharp contrast with the traditional layout of the urban village. The urban building typology around the site mainly high-density residential areas, mixed commercial areas.

There are a few other urban villages in Nanshan district which are not far from Wan Xia village, located together and formed an old city-style area. Like the long history old Shekou street, residents here are mostly the indigenous people in Shenzhen, many shops and restaurants have been developed in this original old block, and became the most abundant nightlife area in Nanshan district, as the most friendly place in this city.

It can be told from the typology analysis map that to the dense residential area, there are also some public facilities around the site such as the hospital and high school in the south of the site. Meanwhile, the density of schools can reflect the residential density; basically, every block has one to two schools.
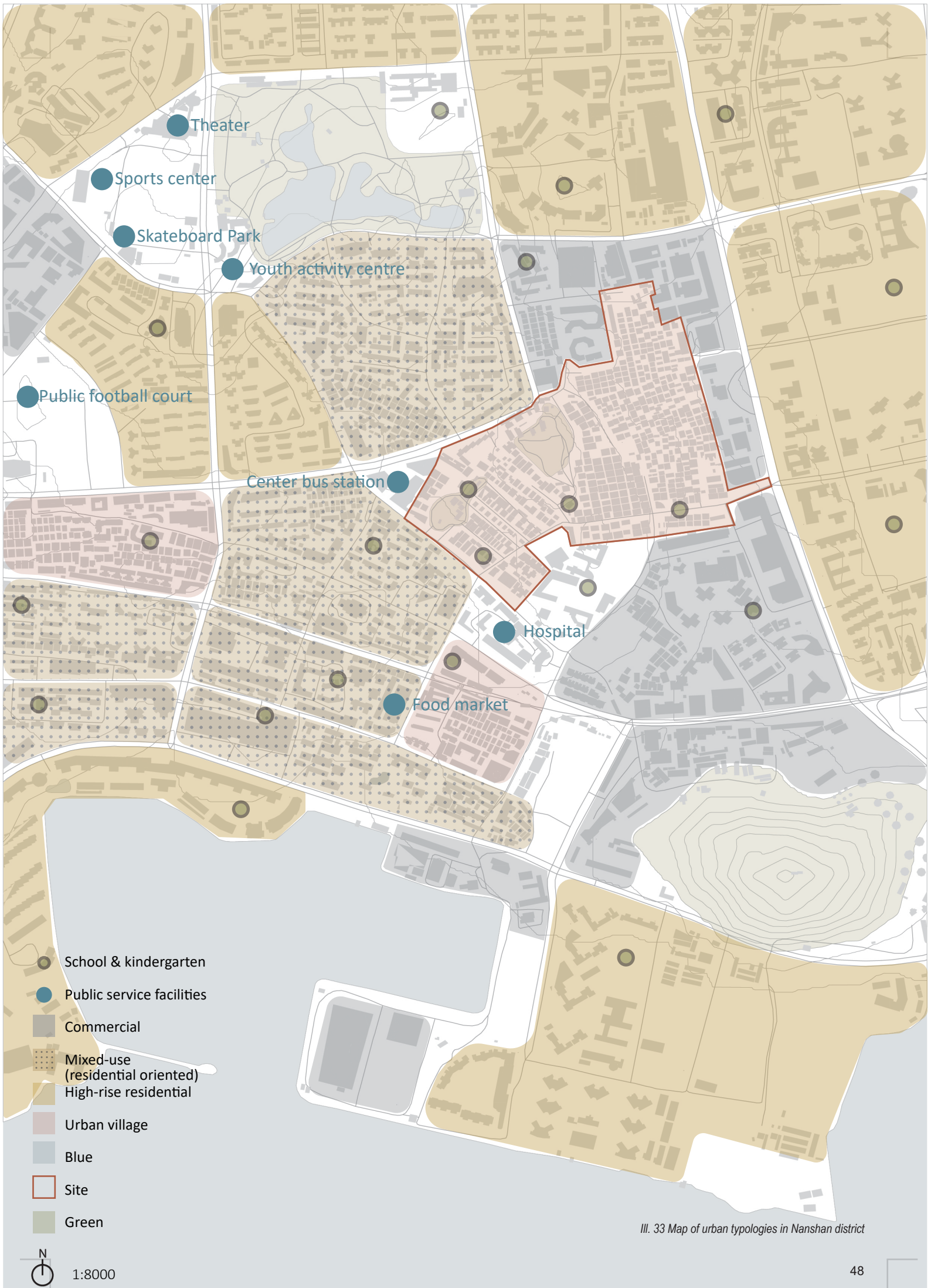

Ill. 34 Typology of urban village
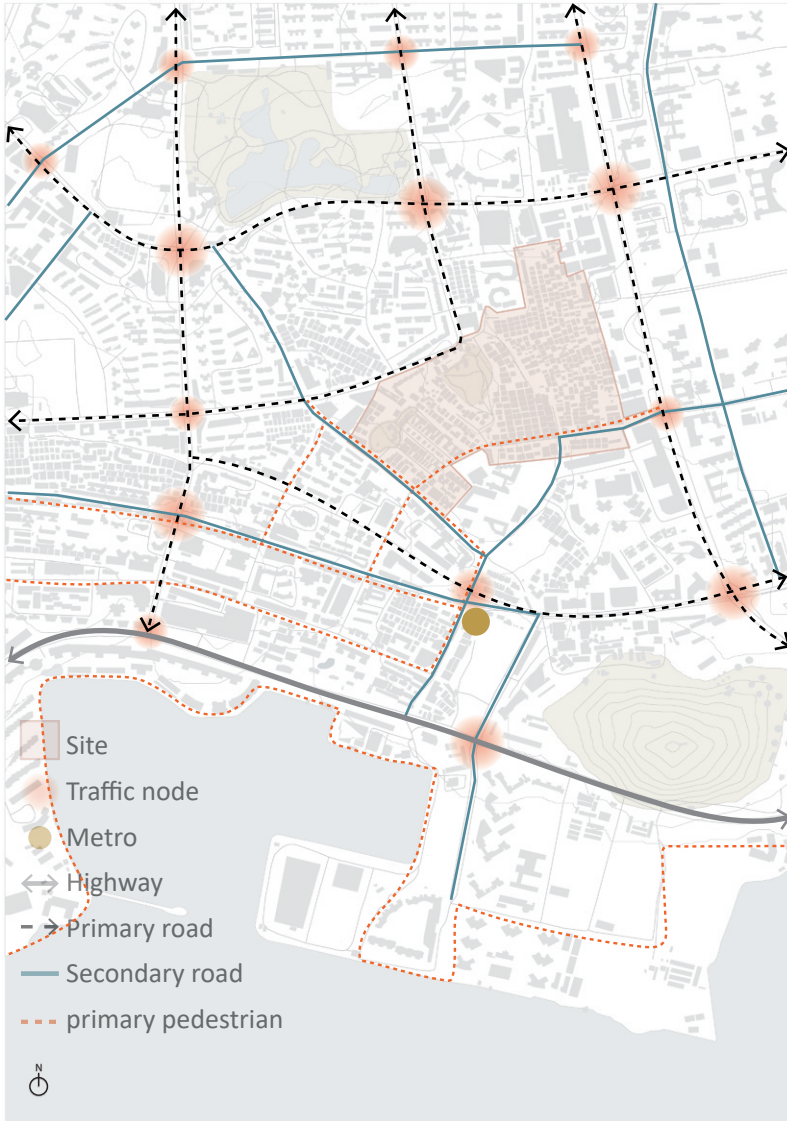

Ill. 35 Typology of mixed-use

Ill. 36 Typology of commercial

Theater

Sports center

Skateboard Park

Youth activity centre

Public football court

Center bus station

Hospital

Food market

School & kindergarten

Public service facilities

Commercial

Mixed-use
(residential oriented)

High-rise residential

Urban village

Blue

Site

Green

Ill. 33 Map of urban typologies in Nanshan district

N

1:8000

48

5.2.3 Connection & Traffic analysis

Ill. 37 Map of connection and traffic

Legend
- Site
- Traffic node
- Metro
- ↔ Highway
- – –> Primary road
- Secondary road
- - - - primary pedestrian

N

Ill. 38 The metro station which close to Wanxia village
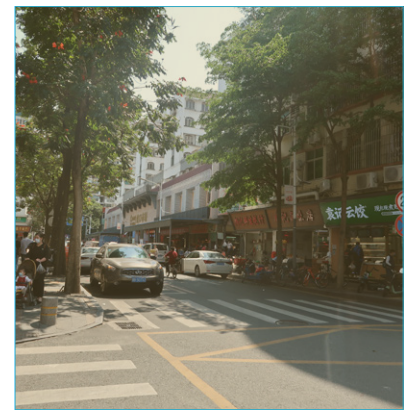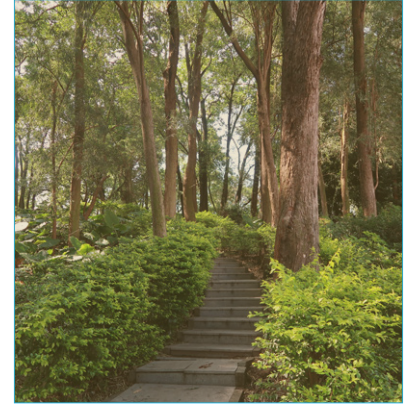

Ill. 39 The major road at west of site

The site is located in a significant location of transportation links and also connected to many crucial urban transportation hubs. The station of metro line 2 is less than 10 minutes' walk away from the site; additionally, the main entrance and exit of the site are located at the position of traffic node. The walking route of Wan Xia village and the night street in the old Shekou street area on the southwest side of the site is used by residents as important walking routes. The Shekou area of Nanshan district is planned to develop as the significant city pedestrian zone for the city in The Shenzhen City Plan 2030. There are very few urban highways in this area, only has the intercity highways near the sea, most vehicle roads are far away from the old streets, however, the phenomenon of many roads with large traffic flow through the residential area is still existing.

5.2.4 Green & social spaces analysis

Ill. 40 Map of green and social spaces

Legend:
- Active frontage
- Sport infrastructure
- Public space
- Green infrastructure
- Blue
- Site

Ill. 41 Green Park in the Wanxia village

Ill. 42 Public square next to the metro station

From the green and social Spaces map, it can be seen that there are abundant public event Spaces in this area, two pocket parks with greening in the site, and there are large urban green parks in the northwest and south of the site. Meanwhile, supporting urban public facilities are located close to Wanxia village, such as the Youth Activity Center and Shekou Bay Park. In addition, there is also a city square at the entrance and exit of the subway station connecting the old street and Shekou Bay Park.

The scale of old Shekou street is not suitable for vehicle, but more friendly for pedestrian and bicycles passing through; however, the daily walking flow is still massive. The street will be turned into an outdoor dining area in the night, which is different from the nearby high-density commercial area and the quiet, upscale neighborhoods on the atmosphere. These active frontages endow streets with vigor and potentially become the social space to the city.

5.3 Analysis of Wanxia village

5.3.1 Introduction of Wanxia village

Population: 0ver 20,000
Area: 35 ha

Ill. 43 Arial map of Wanxia village
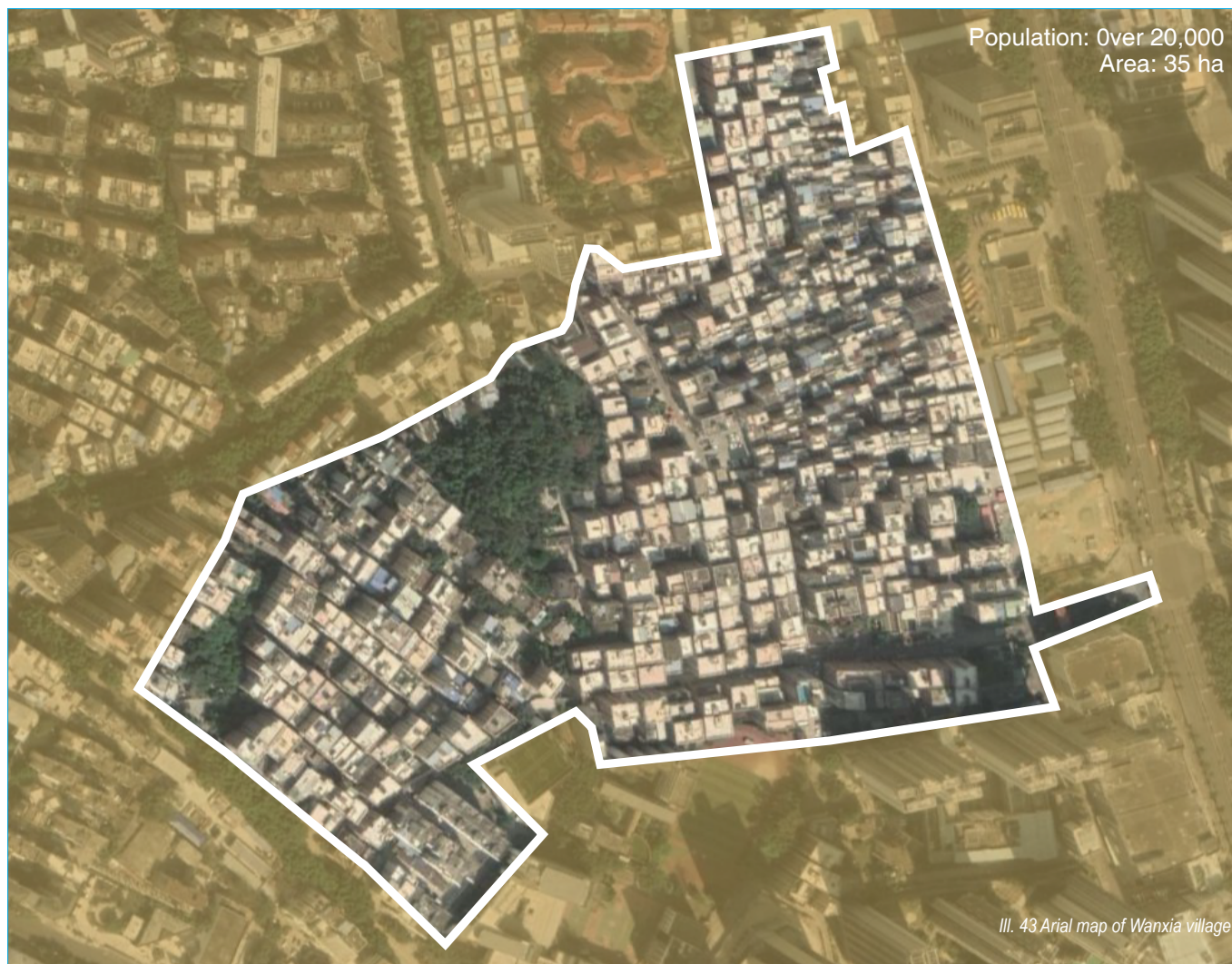
Wanxia village as a typical city village sited in the historic area, and it is one of the few villages that still keep the traditional form of streets and dwellings in the city center, from the chapters above, the image of city village is an enclave with migrants, lack of orderliness, and all of them are reflected in Wanxia condition. More than 200,000 people are living in Wanxia village with an area of only about 35 hectors, and 97% of the residents are migrants. But, still, many villages similar to Wanxia village have many potentials for transformation, except the biases, the scale of these villages is suitable for pedestrian, they are scattered (different from uniform buildings), with natural organic city form, there are different kind of people and social activities, showing the friendliness, vibrancy, and spontaneity.

As to the reasons for focusing on Wanxia, one is because of the location of Wanxia village,

since it embraced by high-density buildings and isolated by the context. Secondly, Wanxia village close to the historical old streets, and it keeps some traditional urban elements. The last reason is as one of the villages preserved from city transformation, it provides reference and thinking for many developing villages in the city and has high research significance.

The following chapter will explore the spatial characteristics of Wanxia village, from the specialism point of city image and color, based on the fundamental context analysis such as land use, frontages, materiality, etc. To seek the experiencing perception in the city, especially in that typical urban context with a lot of contrast between past and future, modern and tradition, to conclude the constraints and opportunities in the site.

Ill. 44 Houses in the Wanxia village

Landuse

The major land use function of Whaxia village is residential. Meanwhile, there are shops, retail stores, restaurants, pharmacies, and other daily businesses located on the main road of the site. It can be seen that the land use of Wanxia village has great diversity, provides convenience for the surrounding residents as well. Additionally, there are three kindergartens located in Wanxia village. However, due to land scarcity, all kindergartens are close to the street, which posing the security risks for children.

Restaurant
Pharmacy
Retail
Kindergarten
Other commercial (barber, tailor, etc.)
Municipal services
Residential

Ill. 45 Map fo public space in Wanxia village 1:8000

Social spaces

The two village parks in the site are the major social space, one facing the main urban avenue, another is Wanxia park inside of the village with a larger scale. However, due to the lack of defined functions, the Wanxia park is rarely used by locals. Public social space is very limited in Wanxia village; most of the social functions are forced to apply to the small central park. Parents gather in this square to pick up their children every weekday around 3 to 4 p.m. At night, this square will be a food market, where many residents dine here.

Outdoor sports facilities
Public square
Green park
Section line

Ill. 46 Map of land use in Wanxia village 1:8000

Section of Wanxia village

It can be seen that there are changes of topography in Wanxia Village, the highest is Wanxia Park, so the landscape of the site is complex, there are many ramps and stairs.

Major road

Village street

Active frontage

Active frontage is an identity in Wanxia village, and nightlife is especially abundant on the streets, most restaurants and bars running into the late night or even all night. It can be seen from the map that some active frontages are hidden in the alleys, and traffic is restricted to pedestrians only.

Active frontage

Ill. 47 Map of active frontage in Wanxia village 1:8000

Infrastructure

Wanxia village has a main road connecting the major roads on both east and west sides. However, the major road in the west is narrow, so it is limited to traffic flow. Therefore, most of the traffic flows into Wanxia village through the road nearby high school in the south. Another problem in the site is the mixed traffic of pedestrians and automobiles, which caused an unfriendly walking or biking environment.

Pedestrian
Car route

Ill. 48 Map of infrastructure in Wanxia village 1:8000

Green park

Village street

Major road

Ill. 49 Section of Wanxia village 1:2000

5.3.2 Serial vision
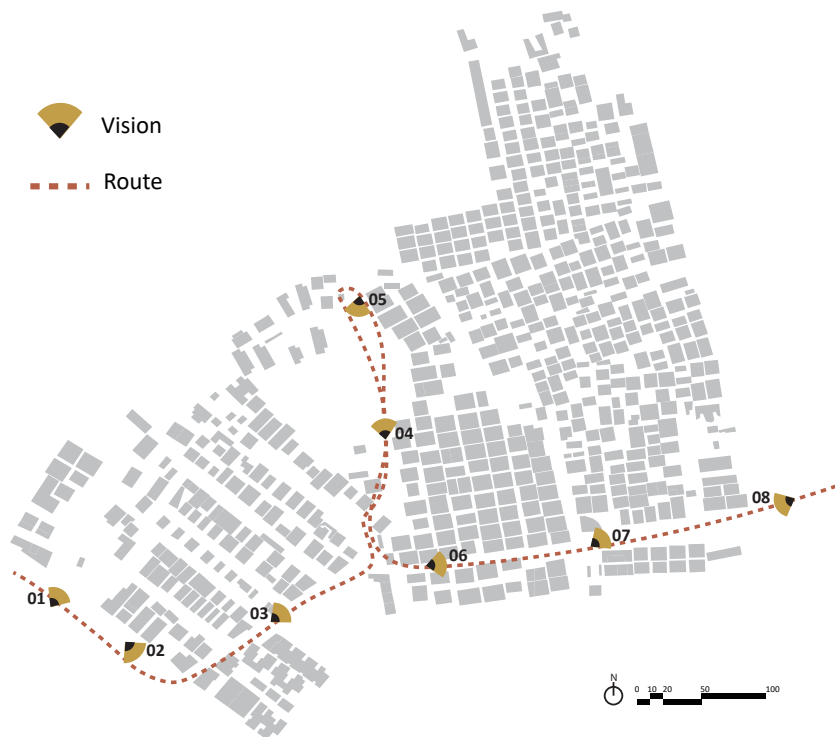
*Ill. 50 Serial vision of Wanxia village 1:8000*

Serial vision selects a route that links up the main features of the site, focusing on the various dimensions and details of the site, helps people to perceive the urban elements and links them by movement, to portrait the whole area or district with images. And the serial vision gets inspiration from Cullen, in his book of Townscape casebook in 1949, similar to Kevin Lynch's idea of consequences for urban design (Lynch, 1960). As a result, the line started on a road by the village, then passed through the main traffic lanes and social spaces, and the route ended at the main entrance of Wan Xia Village.

01
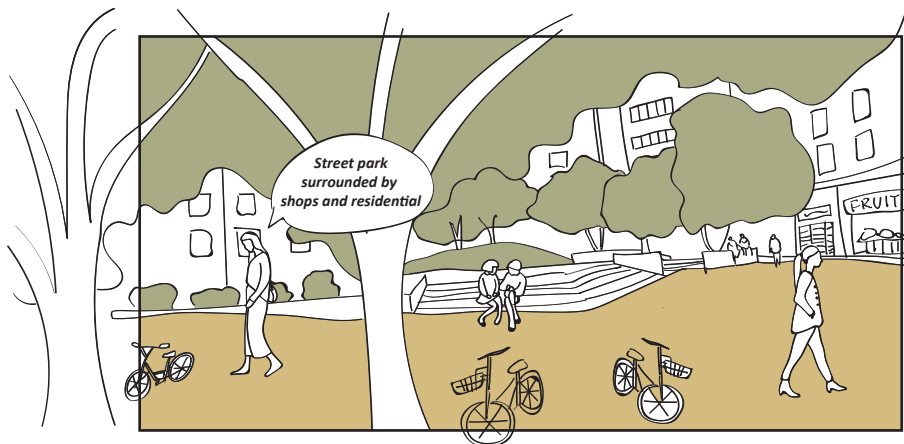
This is the square located on the site's west side and against the main road. The square is surrounding by shops, restaurants, and tall buildings. Most part of the square's space near the road is occupied by parking and bicycles.

02
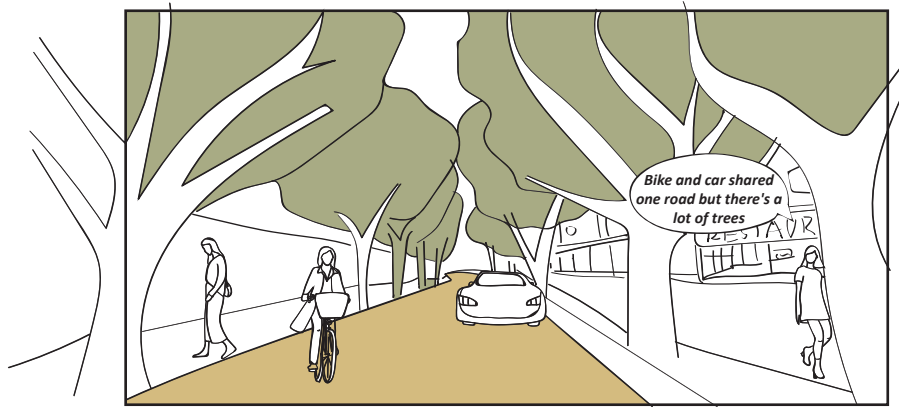
This view is from the major road in the west, which near to the entrance of the village. There is a lot of greening on the road, which separates the sidewalk from the roadway. It can be seen from the illustration that the road is lack of bicycle lanes, which is a common problem for most of the roads in Shekou, especially for areas with a bit of time in Shekou.

03

This is the ramp on the main road of the site. The highest point of Wanxia Village is in Wanxia Park, one side of the ramp are the retail stores and restaurants set along the road, another side is the wall of the middle school, which prevents pedestrians' sight come into the school.

04
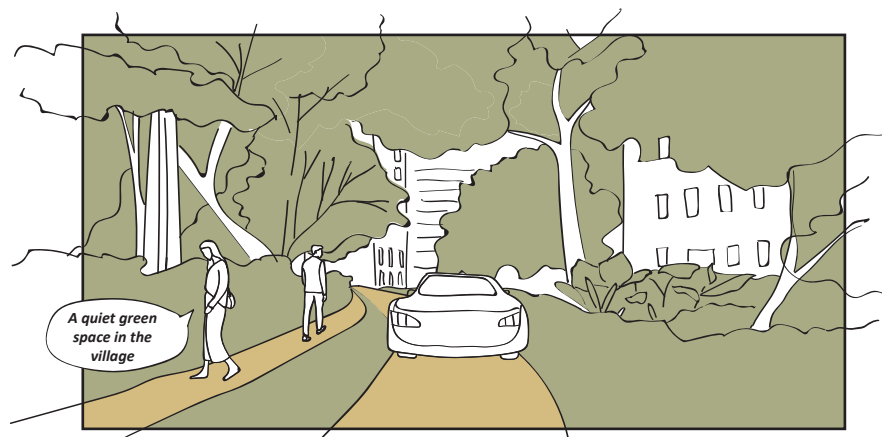
It can be seen from the illustration that the Wanxia park is on the left side, and with the high greening ratio. The contractions around the park are all apartments, which enable the residents to enjoy the peaceful atmosphere by the park.

This is the temple located in the north of Wanxia village, which has abundant local features. It can be told the site as a historical village since the religious and traditional architecture. Sometimes, there are usually ancestral temples and local temples in other villages.
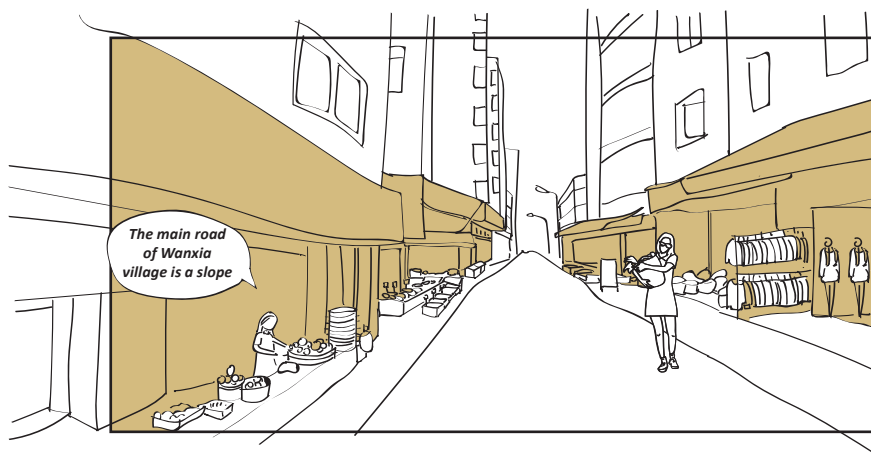
The main road is lined with shops and restaurants serving local residents and bringing vitality to this area. Most street-facing buildings have 7 to 8 floors, and the upper part is functional as housing except the ground floor.

07
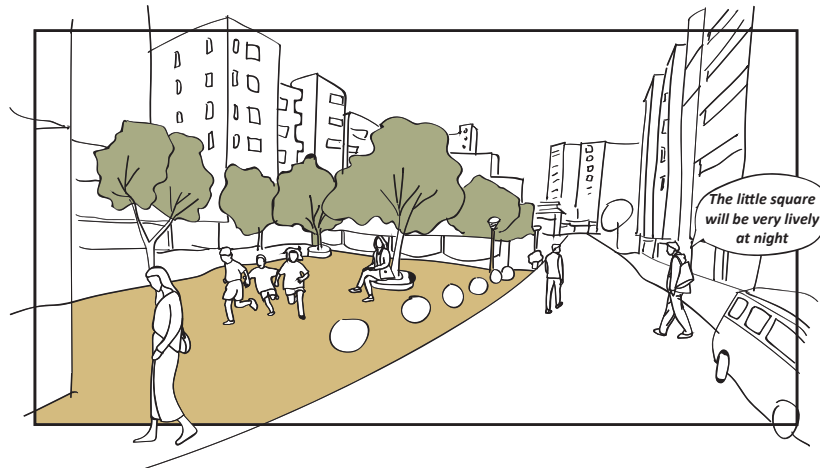
The public square located in the center of the village against a kindergarten, similar to the park, surrounded by a lot of residential buildings. Many functions are related to the central square, enable elders to chat during the day time, and people eating supper at night.

08
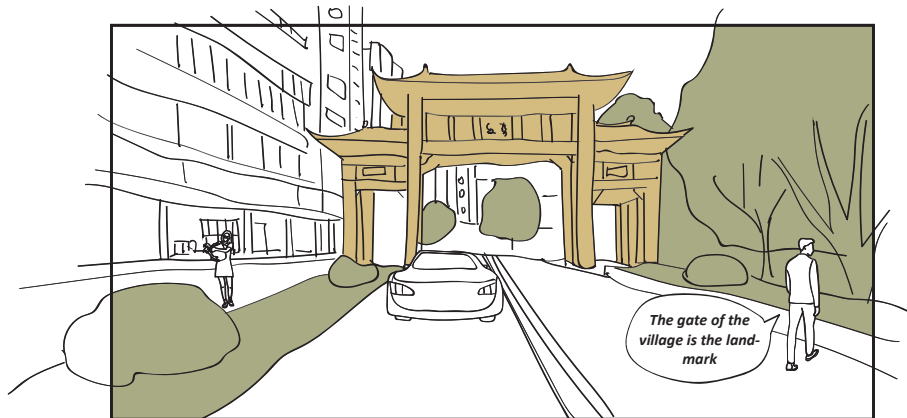
The main entrance of Wanxia village with a Chinese traditional gate form, people are able to see this gate by passing by the main road. This gate is a landmark of the site.

5.3.3 Color cognition map & materiality

The color cognition map and materiality show some identity of Wanxia village, base on the study of color and material profile of the city in Zurich, which by the Haus der Farbe, a skilled architecture design college devoted to color located in Zurich. Moreover, their research shows the measurements of studying city colors, as well as how to give advice and vision for the government to improve some urban public spaces by color. (Lino and Stefanie, 2014) For instance, to do a sophisticated presentation of colors in the city, they use photography, videos, descriptions, survey to collect materials. And for the color/material profile of Zurich, they did some color records of the façade and chose a main and a secondary color for a building, then fill up all the buildings with a specific color in the maps. So in the thesis, because of the time constraints, only some representative buildings were selected for marking in the collage map, with the picture of the façade and the primary color. The study aimed to find the tone of the overall color of the village and to get the first impression.

From the color palette of Wanxia village, the dominant color of the building façade is pink, steel gray, blue, red, and earth brown. It is worth mentioning that there are many old local brands with a long history in the village of Wan Xia, such as some restaurants and cooked food shops are frequented by the local people, their shop decoration is ordinary, only local know these shops, but during the mealtime, there will be many people gathering in the street. Meanwhile, from the materiality collection, the mosaic tiles is a material that can represent the traditional architectural form of Shenzhen.
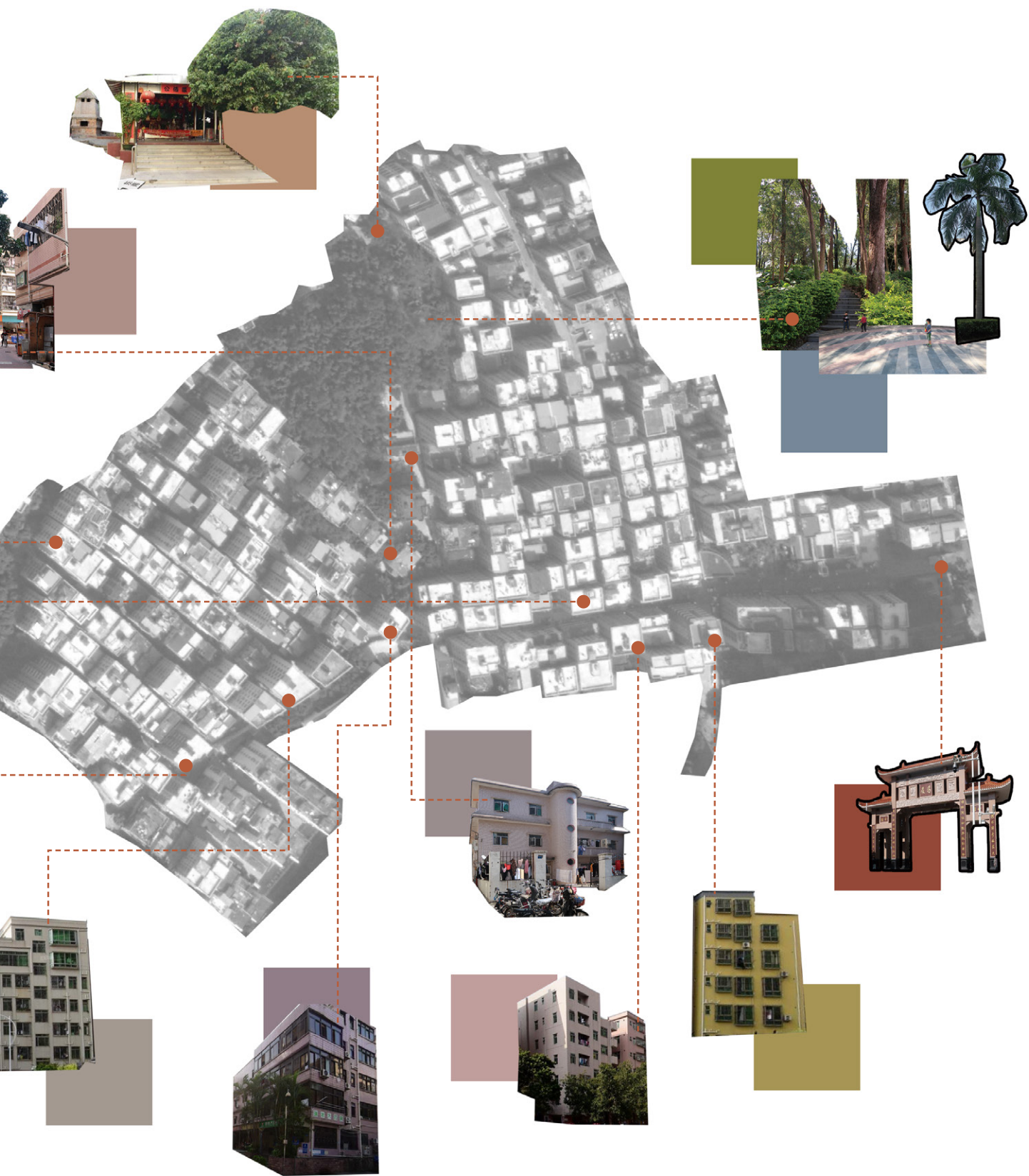
Ill. 51 Color & materiality of Wanxia village

5.3.4 Legibility analysis
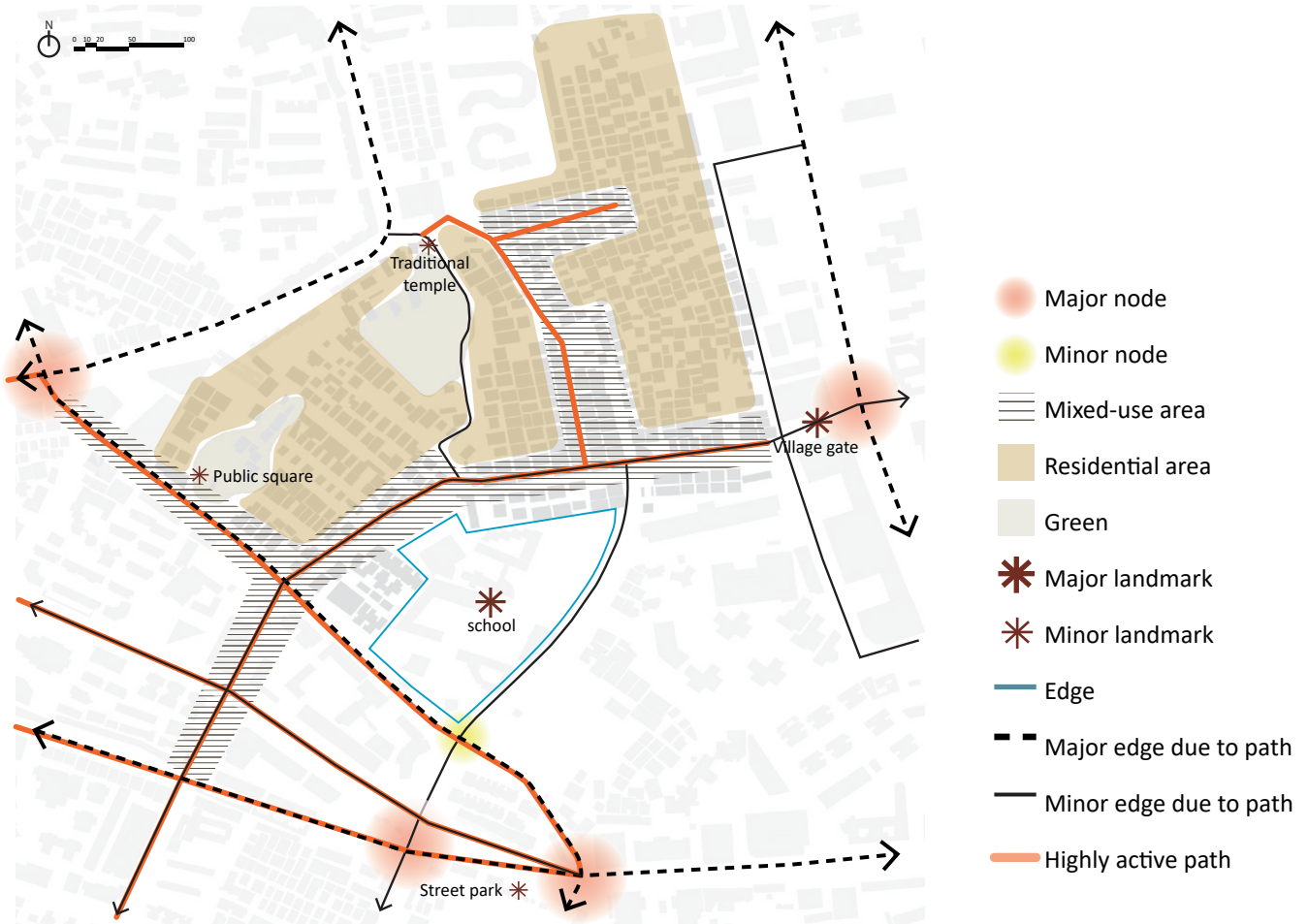
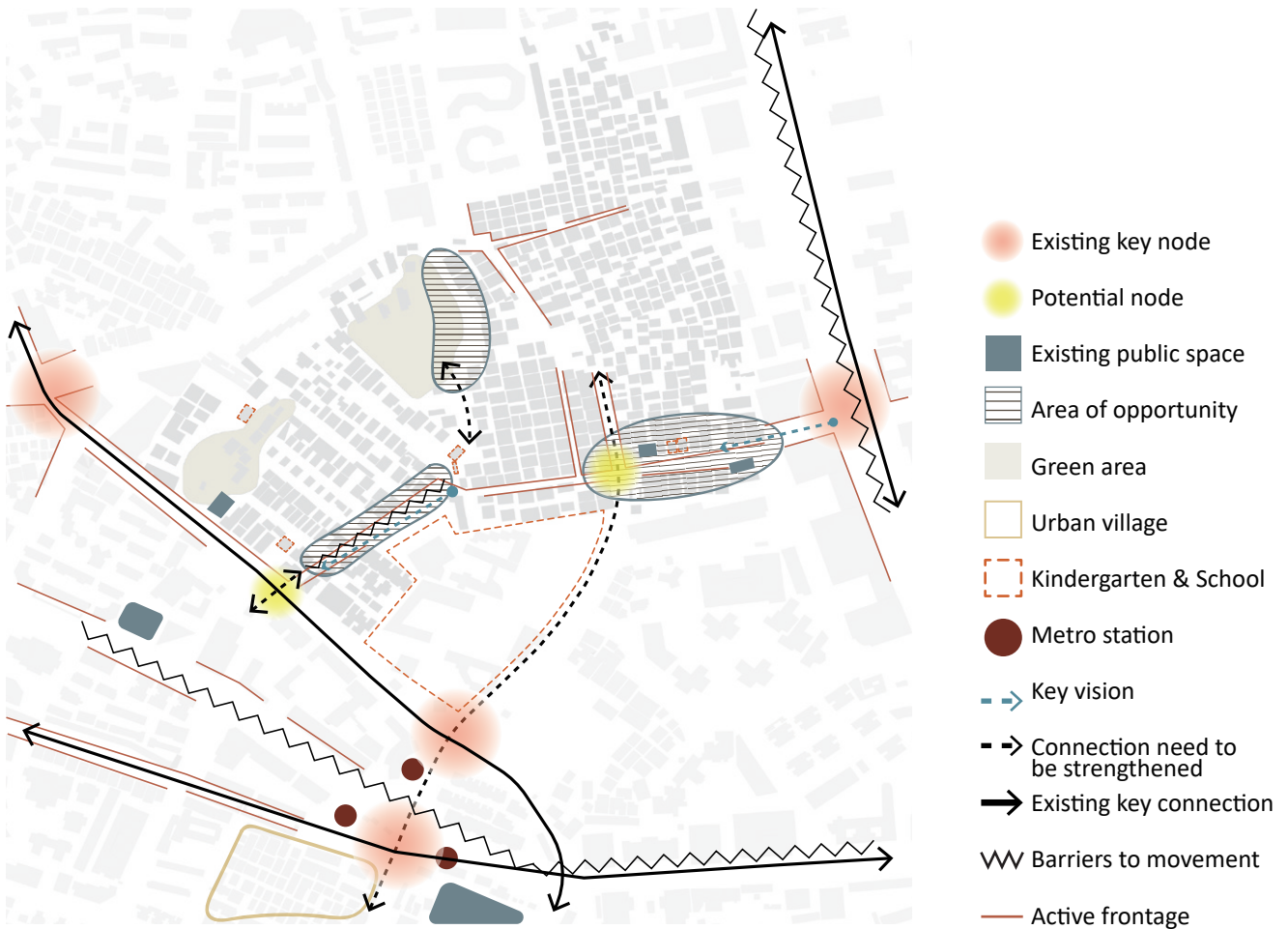*Ill. 53 Legibility analysis map of Wanxia village 1:8000*

The legibility analysis base on the theory of Kevin Lynch's five elements for the city image, according to the explanation of legibility, "the study look for physical qualities which relate to the attributes of identity and structure in the mental image." (Lynch, 1960) So the legibility analysis focuses on the site features, which will influence people's feelings and give impressions.

From the legibility map, one of the highlights is the edge formed by the major road of the city and the pedestrian & car shared road in the site, because these roads are driven by vehicles people are blocked. Still, on the other hand, those routes are acted as the active zone by the restaurants and shops on the base floor, and there is another edge shaped by the walls in high school.

Additionally, one apparent character is the primary function of residential in the Wanxia village, except some mixed-use functions along

the major street, the left area is covered by dense residential buildings. Meanwhile, there are two green parks in the site, as the major public space to the residents. There are two landmarks perceived by people; one is the gate faced to the major road in the east, another one is a temple close to the park.

5.3.5 Contextual appraisal

Ill. 54 Contextual appraisal of Wanxia village 1:8000

Legend:
- Existing key node
- Potential node
- Existing public space
- Area of opportunity
- Green area
- Urban village
- Kindergarten & School
- Metro station
- Key vision
- Connection need to be strengthened
- Existing key connection
- Barriers to movement
- Active frontage

The contextual appraisal, considered as the conclusion map for the site analysis, shows some significant characteristics of the site, represent the site problems and potential as well. These key details, drawn from each analysis, act as factors to be taken into account in the formation of concepts to achieve the progression of city image.

There three key areas with opportunities. The west one is because it is located in a high active pedestrian and has a unique topography with a slope, which can form a good visual connection from top to bottom; meanwhile, it could be designed as the car-free area since there aren't many cars passing through the road at present. The second one which located in the center of the village, could be regarded as a potential node with many social activities. The last one linked with the green part. From observation, it is the best place for children to play, and all cars could be removed give to pedestrians to improve

the accessibility, and created as a defined recreational area for the residents.

Besides, the site should enhance the connection with the old streets and to metro stations, to improve the legibility. All the cultural and indigenous elements in the site need to be preserved and regenerated them to be notable.

5.4 Site problem

According to the all analysis in different scales and perspectives from the content above, there are six major problems for the project site concluded to assistant the design framework in the next chapter:

01.Over occupied parking space

02.Pedestrian and car shared road

03.Lack of identity

04.Poor preservation of history and culture

05.Lack of social space

06.Poor condition of public facilities

According to the all analysis in different scales According to the limited vacancy area in the Wanxia Village, it results in the first major problem that over occupied parking space.

The second problem is caused by the chaotic village arrangement, roads inside of Wanxia Village have to be narrow and congested by the high density of buildings, however, the most serious danger for the road is the potential accident might be caused by the sharing road space for pedestrian, bikes, and vehicles.

The third problem for the Wanxia Village is the lack of identities both on the spaces' particular functions and visual impression. The regional identity of Wanxia Village not obvious, because of the stereotype of the urban village, part of citizens have a strong antipathy for urban villages. Thus, it is important and necessary to reconsider a more organized village layout.

The fourth problem is the poor preservation of regional history and culture, due to the rapid urbanization, numerous migrants move into the village, and meanwhile big percentage of local residents come out, therefore, the fierce population changing causes the damage for the local historical objects, and makes more difficult to maintain village culture and tradition as well.

The fifth problem is the lack of social space in Wanxia Village, due to high density of the buildings in Wanxia Village, the social space has restriction to arrange in the site, however, Wanxia Park is rarely using by residents, even it is located in the site.

The sixth problem is the poor condition of public facilities and green in the site, due to the government has management difficulty with financial support to innovate in a long time. This current situation leads the no investment in public facilities such as schools, clinics, or outdoor park for this area.

Along with the six existing problems in Wanxia Village, the design framework will be developed correspond to these problems in the following chapter.

5.5 Analysis conclusion

From all the analysis chapters, the article introduced Shenzhen and urban villages from three different scales and selected Wanxia village as the investigated site. It's clear that Shenzhen is such a young city with a short history, but it has great significance for entire China through previous studies. Meanwhile, as an avant-garde emerging city, it's ponderable to be studied and discussed, especially Shenzhen has the phenomenon of urban villages emerged due to rapid urban development, which never seen in the western countries. However, there are still a large number of developing countries and regions in the world. Thus it is necessary to study high-density and high-speed developing cities such as Shenzhen.

The history of Shenzhen can be learned from Wanxia village, as well as the contradictions and struggles of this city. These urban villages dedicated to urban development but considered to be a scar for the city nowadays. However, they have meaning and characteristics above the economic value, which can arouse memories of the city to people who lives there. Therefore, analyzing the origin, development, and the current situation is also a process of giving urban villages a new definition and recapture its real value.

 The contextual study of Wanxia village can tell this is a living place with a variety of residents. But it still has common issues with most of the urban villages, such as the lack of urban public facilities, extremely high density, pedestrian safety, and so on. Meanwhile, some contextual analysis will present the division between the site and its surroundings from different perspectives. All of these studies are going to lead the design framework in the next chapter.
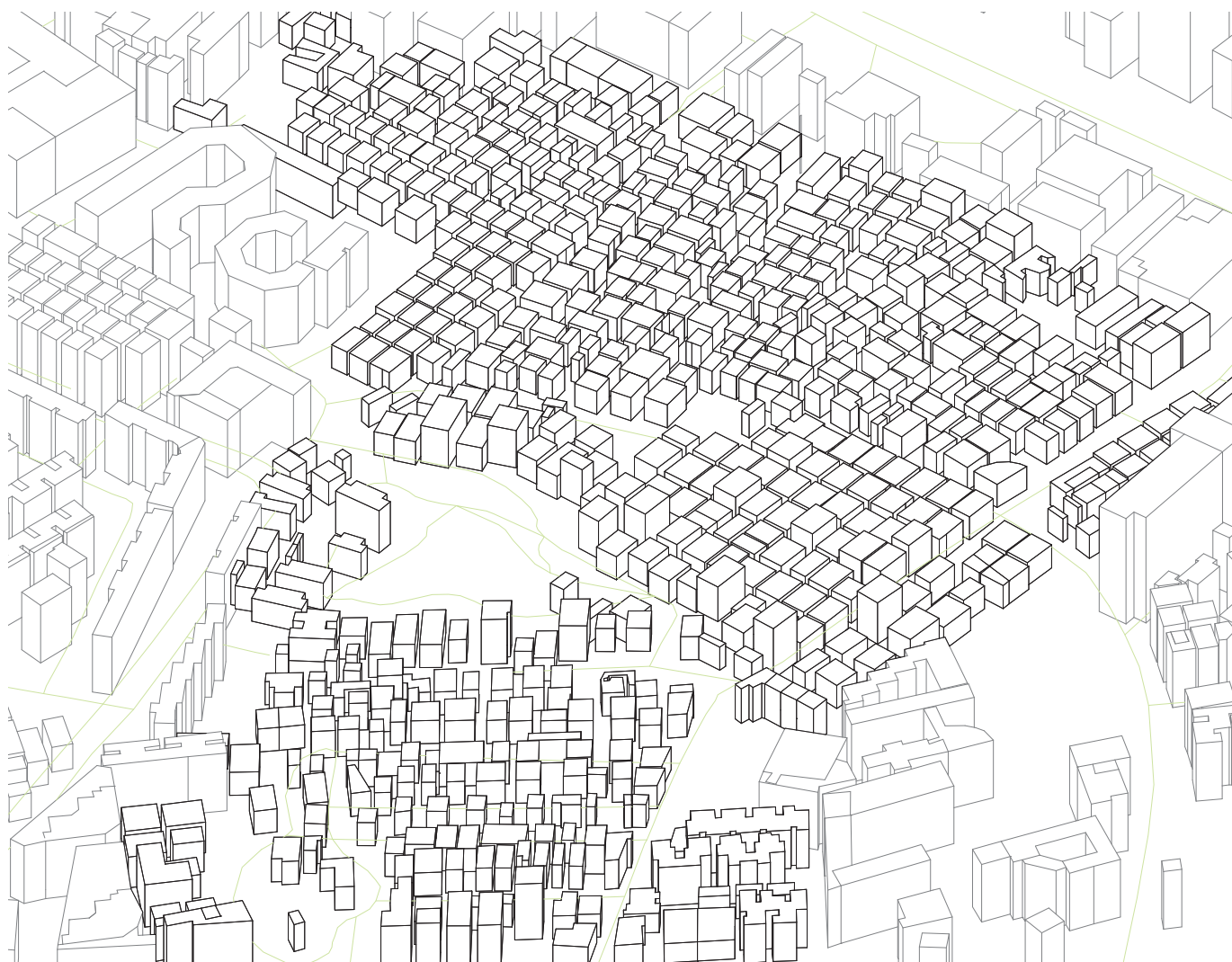
Chapter introduction

This chapter divided into three significant parts: design parameters, design framework, and design evaluation. From the chapters above, this master thesis already took research on urban villages from theoretical and particle perspectives, and select Wanxia as the study object. So in this chapter, there will be several solutions derived from the site analysis in order to improve the understanding of image and perception of the Wanxia village, meanwhile to solve some physical problems into the site. In the end, evaluate the design framework to explore the rationality and feasibility of design interventions.

The design parameter is based on the previous analysis of the site situation, considering the topic of color from urban design professional perspective, provide some possibilities to change site situation. In the second section, the design framework will show the concept, masterplan and the particular regeneration strategy of Wanxia village. Meanwhile, some focused areas will be selected to show design details with mappings and render to show how color as the design intervention to adapt in this site.

The last two sections of this chapter will show an evaluation of the design results, assess whether the design can improve the current situation of Wanxia Village, and propose potential problems that need to be solved in the future, take the view of urban development sustainably.

06

DESIGN FRAMEWORK

Ill. 55 Major road near Wanxia village

6.1 Design parameters

According to the previous chapter, there are six major problems in Wanxia village now:

01.Over occupied parking space

02.Pedestrian and car shared road

03.Lack of identity

04.Poor preservation of history and culture

05.Lack of social space

06.Poor condition of public facilities

Based on the sustainable urban development design perspective, this section have developed six design parameter aim to improve the physical condition of urban villages by referring to the theoretical conclusion summarized in the previous literature review and site problems from the site analysis, generating some ideas which update the site environment combined with color concept. Those parameters are:

01.   Improve building façade

Base on the understanding of the existing context in the analysis chapter, there are some buildings with traditional texture; meanwhile, some indigenous restaurants running in the village. This provides the opportunity to upgrade those façade with a more attractive appearance to show space identity and enhance the indigenous atmosphere.

02.   Create social spaces

The situation of the public environment in Wan Ha Village is confusing and poorly defined, so an essential part of improving the current environment is to create more different types public spaces and define specific spatial facilities for the social needs for people with different ages, take consideration of the existing social activities and integrate them into new shared spaces. Some sites are not limited to one function, can provide different needs for community residents according to the time difference, increase the flexibility of land use.

03.   Define district center by color

The existing community has formed a potential center because of the distribution of traffic, pedestrian and landuse. However, the recognition of the center is not well reflected, so it needs to be clearly defined, which is aims to provide people with a social center within the Wanxia village, which is also a reference to the traditional village model. Many traditional villages have settlement centers and undertake important social functions, such as announcing important decisions or performing festival celebrations. Defining a village center can also play an active role in traffic organization, for instance, improving the legibility of the space, the center could be considered as the landmark, and becomes the guide in the village, enhancing spatial cognition in this area for all commuters.

04.   Reduce parking areas

As a result of the above research of policies and the development of villages in the city, congestion has become a severe problem in Wanxia Village, as for the public space, the gap between buildings or the space on the roadside is occupied by bicycles and cars. As a result, both visually and in practical use, dense parking bike affects the quality of urban space and accessibility of villages, and there is a need to reduce the area for parking to make public spaces more pedestrian-friendly.
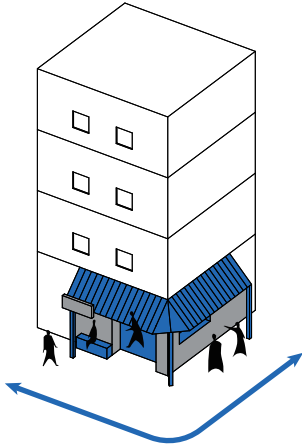
05.   Strength local characteristics

Wanxia village is a combination of activities and experiences, the most worthy of preservation is the cultural and historical attributes of the villages, such as the traditional gate and local temples, which mentioned in the analysis chapter. In addition to protection, the renewal also needs to extract the gate and the temple's traditional elements such as material or texture, shown with modern design techniques.

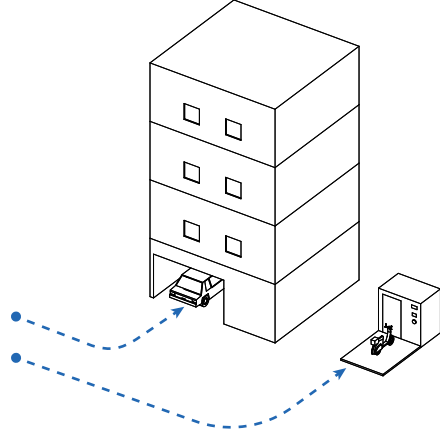06.   Enhance existing active streets

The existing active streets of Wanxia village maintain the vital connection with surrounding old streets, become the most dynamic and living area in Shenzhen. Consider the reuse of this character, WanXia Village can become an identical city village with a unique atmosphere. As the main traffic routes, also the busy street, people and cars are passed together, that causes a problem of safety. Moreover, Wanxia Village is a high-density residential area, and it is necessary to reduce the entry of cars and turn more roads into a walking, biker-friendly community.

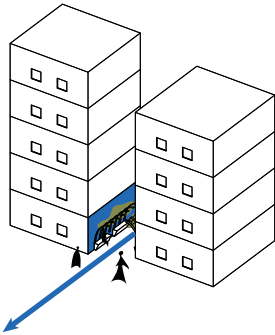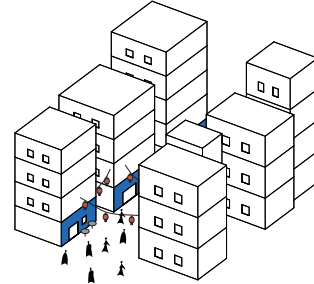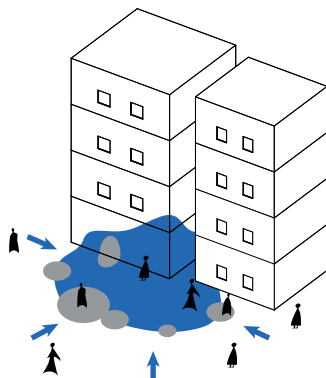**01**

Improve building façade

02

Create social spaces

03

Define district center by color

04

Reduce parking areas

05

Strength local characteristics

06
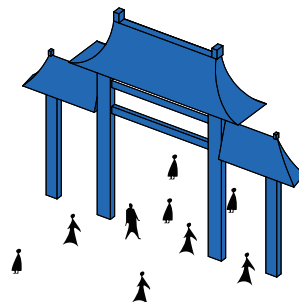
Enhance existing active streets

6.2 Design framework

6.2.1 Design concept

Path

Node

Landmark

Ill. 57 Design concept diagram
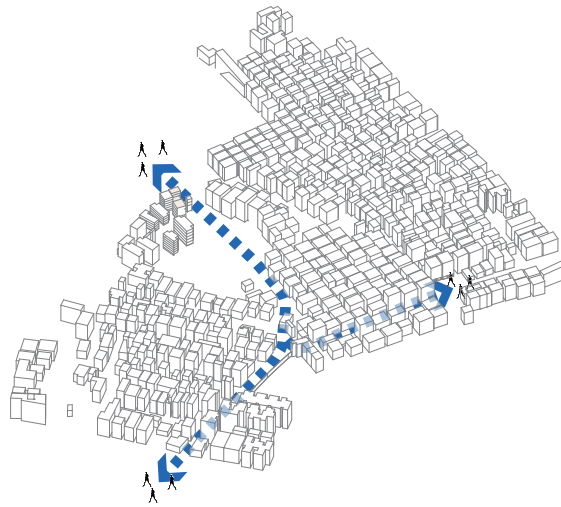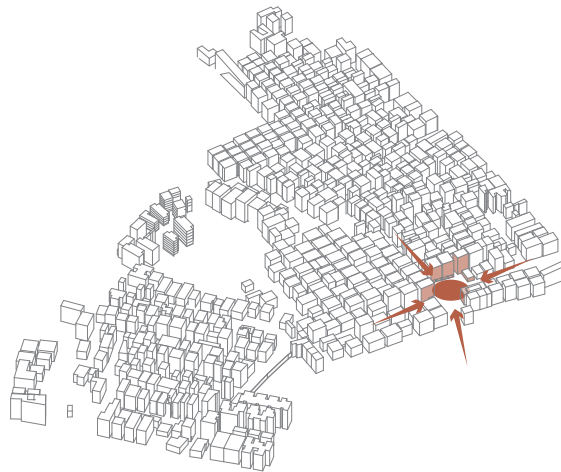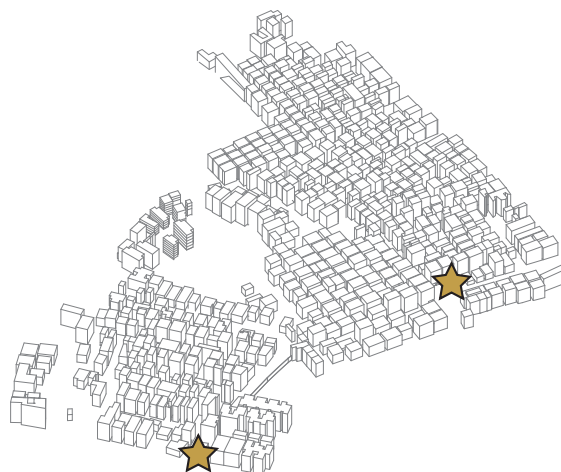
The design concept builds up based on the idea of image theory by Lynch, in which the image of the city formed with paths, edges, districts, nodes, and landmarks. (Lynch, 1962) So based on the proposal of design parameters, site legibility analysis and contextual appraisal in the previous chapter. The concept composed of three different design perspectives in the spatial context corresponding to the five elements of the city image and the Wanxia village could be cognized as a district with many residential.

Path

As for the elements of paths and edges in the site, the existing functional path in the site already marked in the analysis part, all of them are car roads, some heavy traffic road marked as edge in the site. In the concept, two picked paths could be recreated into the car-free path in order to improve the accessibility of the Wanxia village; one is the path with active frontage, which creates the connection with surrounding old streets, another one is along with the green park. Except for car removal, there are more design intervention will bring into the site, which developed from the deisgn parameter, will be detailed in the following masterplan. Overall, one idea of the concept is the improvement of the path.

Node

There is no apparent node in the site, in the contextual appraisal that the major road intersection could create as the node of Wanxia village, there are many activities and communications happen there. Therefore, the other idea of the concept is creating a node for Wanxia village.

Landmark

The landmark ideas intervention to the site will bring with the new node and creating a new gate in the west of the site.

The concept shows fundamental spatial ideas of the masterplan, and the next section masterplan will demonstrate the practical implementations.

01

Catering square provides an outdoor dining space for restaurants in the walking street.

The small square clos... the green park offer a p... for children play...

06

New village gate as the landmark face to major road

0...

W... co... su...

Angle of visualization

N

1:2000

se to
lace
ying

There are two atmosphere
changed alleys in the site,
with the gradients texture
color on the surface.

3

alking street with slopes,
overed with new colored
urface

02 & 04

Center square as a node for
Wanxia village

07

pocket square equipped
with underground bike
parking

Ill. 58 The design framework masterplan 1:2000

Presentation

This presentation part mainly through the masterplan, essential zoom-in plans and three render illustrations marked with a number in the masterplan to show the final design results. The primary purpose of the design framework of Wanxia village is to improve the environmental quality, meanwhile, give the expression to historical and cultural identity. The design mainly reflected in these created interventions:

Public square

In the masterplan, multiple public squares offering different functions have been set up. The first square is the Wanxia Centre Square as the new node of the village. This new square is defined as the center of convergence by using the surface color and material, different restaurants and stores are surrounding the square, because here is the traffic intersection of Wanxia Village, it could as a guiding role on both pedestrians and traffic flows. The second square is marked 01 in the masterplan, it can be known from the analysis chapter that it is the road space, used by parking at present, many restaurants are distributed in here, and it connects the major walking street to the Wanxia Park. Thus, this space is designed with a small green park and an outdoor plaza. The third square (marked 05 in the illustration) is located in Wanxia Park, which is combined with greenery and designed as an outdoor playground for children. The fourth pocket square 07 is located at the main entrance to the east of the site. It has been transformed into a green space that combines the function of underground bicycle parking.

Building façade

Most of the constructions that have apparent changes in building façade are located on both sides of the major walking street, and some around Wanxia center square. The 08 marked in the masterplan, the design for atmosphere changed alley considered as visual and functional permeation of walking street, at the same time, these alleys correspond to the main road in the building façade and the ground material, using the gradients texture color to connect the major walking street.
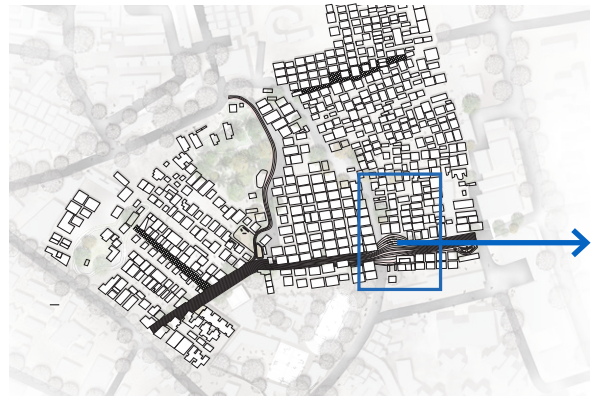
01.Catering square plan 1:500

N
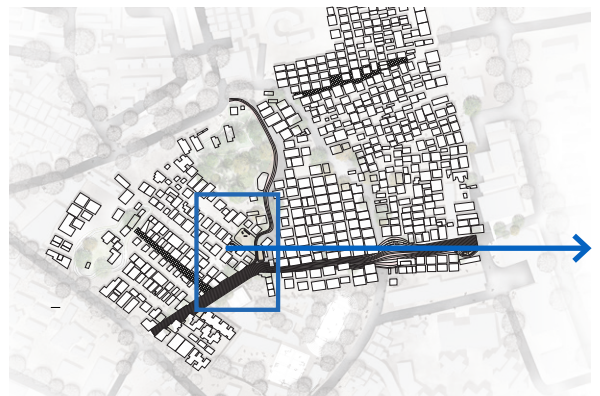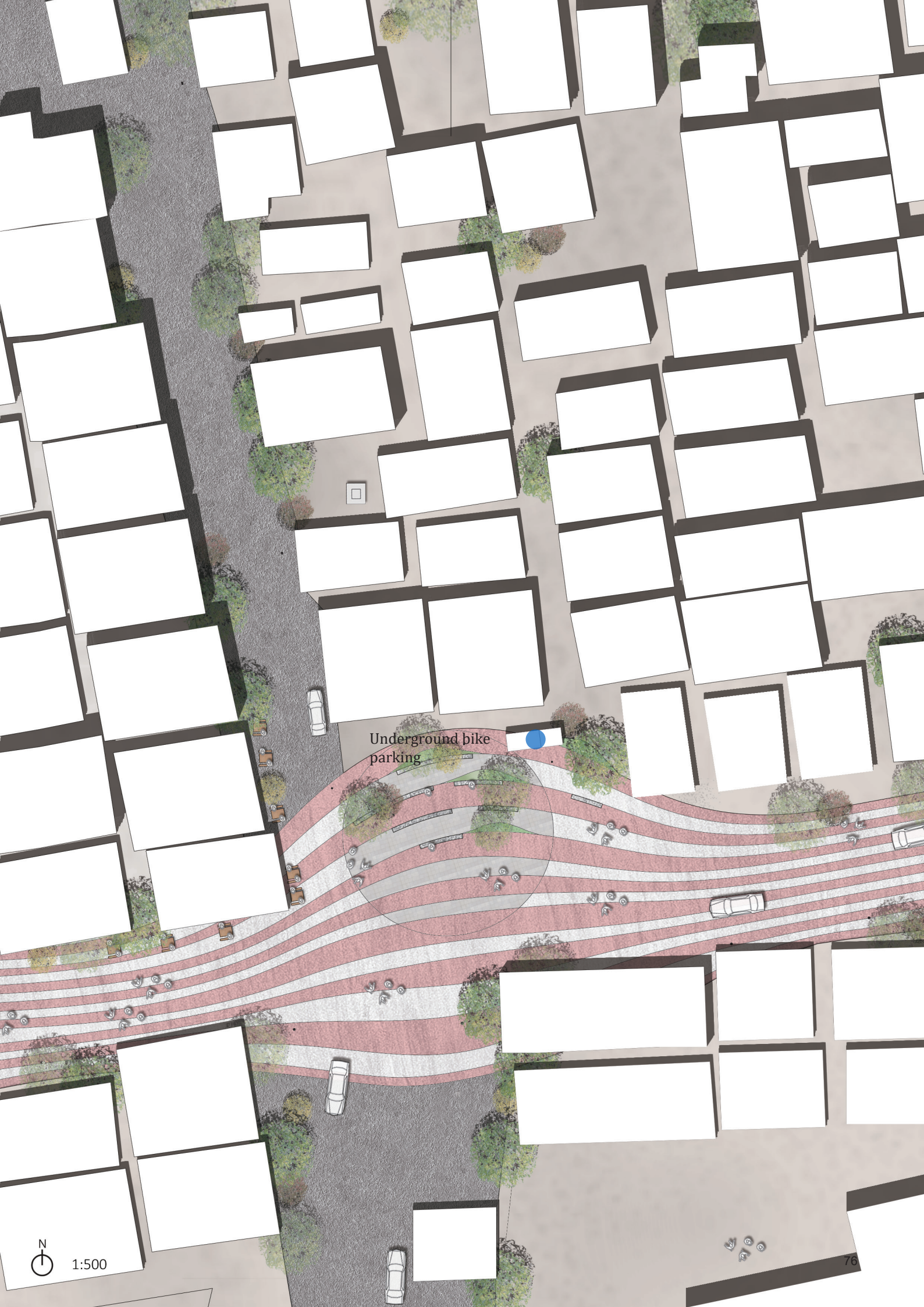
1:500

02.Central square plan 1:500

Walking street

The major walking street developed according to the concept, is the main road that starts from the west side of Wanxia Village, the existing active street and temple in the Wanxia park are connected by this walling street. A new gate with the extracted elements of the existing gate is set up on the west main entrance.

Parking space

The transformation of parking space (car and bike) is mainly focused on the gap space of residential buildings. Most of the bicycle parking is replaced by three underground bicycle parking facilities, which greatly release the ground space. These freed spaces would be redefined as the micro-social spaces to promote neighborhood communication. Meanwhile, urban public furniture will be equipped inside of social spaces. For the vehicle, the parking space will be loaded on the ground floor of residential buildings to avoid creating traffic on the roads.

Underground bike
parking

渔村路

COO

面点

面食

6.2.3 Technical precedent

Underground parking

The undergroun parking, Japan, Giken construction company

Urban furniture

Sunset Parklet, U.S, Interstice Architects

Gradients floor texture

Neue Meile Böblingen, Germany, Thomas Geuder

Colored façade

The Belt, U.S, Library Street Collective

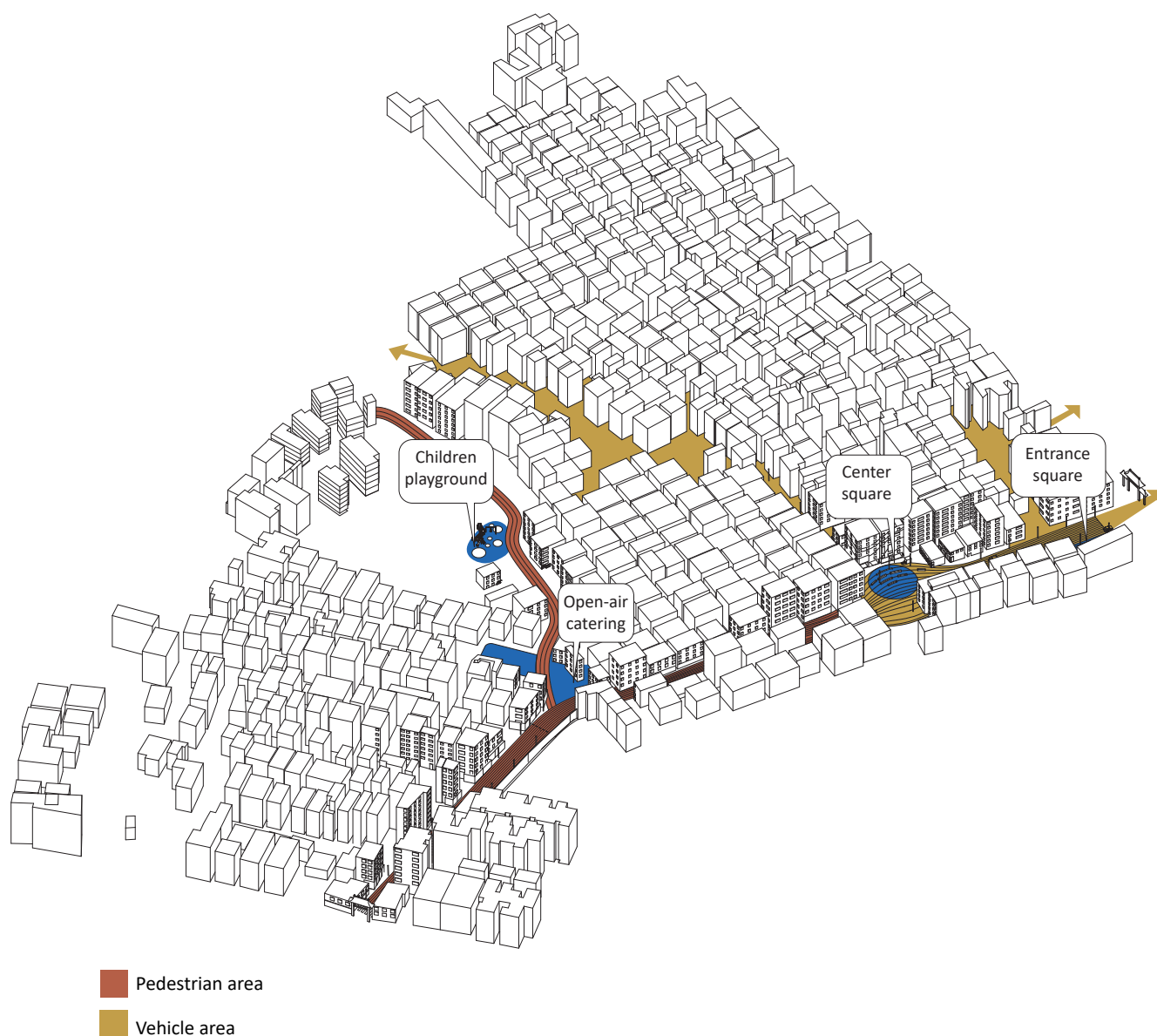### Children playground

Crescent Plaza, U.S, GroupGSA

Colored square

Laasby Sea Park, Denmark, Labland architects

Ill. 65-70 The technical precedent

6.3 Design evaluation

6.3.1 Accessibility & Social space

From the accessibility analysis illustration of the design framework, the half of the major active street designed as the pedestrian route, and create the link with Wanxia green park and the existing traditional temple, improve the safety of walking in densely residential areas and coordinate with the green resources of the site to create an experienced walking route. There are four defined square in the site to provide the communication opportunities and promote the neighbor connection. All the squares linked by the walking path to creating a pedestrian-friendly village.

Children playground

Center square

Entrance square

Open-air catering

■ Pedestrian area

■ Vehicle area

Ill. 71 The evaluation of accessibility & social space

6.3.2 Legibility

The legibility analysis presents the cognition improvement by the design intervention. The recreated restaurants and retail stores, along with the pedestrian path, enhance the existing indigenous elements of Wanxia village. Meanwhile, the implementation of existing color and texture, which concluded from site color cognition analysis in chapter 5, strengthens the visual connection of the defined walking route. On the other hand, it is also the embodiment of reinterpretation and inheritance of traditional elements.

The upgrade measure of the atmosphere changed alley similar to the façade in walking street, but use with gradual changed color and texture on the ground and building facades, and the public space will be equipped with some urban furniture in the alley, the two alleys showed in the illustration create different connection within the village, one link to the pocket square, another one link with the active street in the corner of the village.

Ill. 72 The evaluation of legibility

■ Recreated shops & restaurants

■ Strengthened building facade

■ Atmosphere changed alley

7.4 Reflection of the design framework

Based on the researches and studies of Shenzhen government policies on urban villages at former chapters, this design framework provided a new development possibility for urban villages, which is different from the demolition. It offered some feasible intervention from the perspectives of local culture protection and local identity improvement. In this chapter, the design parameters from the main problems summarized by the analysis chapter are proposed first. Then, the concept based on the spatial context is developed, the regeneration masterplan presented in the end.

From the chapter of literature review, it could know that the method of painting building facades and roads can improve the visual attraction, and many cities around the world utilize coloring method in certain urban parts, lot of them do have become local iconic projects and bring with a large number of tourists. However, even though there are numerous ways to transform by color, it is still challenging to find the best solution for Wanxia Villages.

 However, the whole design framework is considered not only the color implement but also practical requirements, for instance, the problem of lacking social space in Wanxia village. Therefore, there are several creating squares and public spaces in the masterplan, but what notable in this plan is that the color is carefully selected. It shows the integration of the local traditional building materials and as the tool to define different functions. Such as the new building facade and surface of walking street's material has chosen the existing Mosaic tiles, and the new gate is also used the same color as the traditional gate.

The durability of color is a problem, which is inseparable with the choice of materials. However, it has to be admitted that using color is an economical and effective method. Indeed, color intervention has additional potential. Take the example of the choice of the façade; there are different options, such as inviting artistes to paint graffiti on the façade.

The design framework also has much potential to be improved, for instance, the organization of building functions, since the primary function of existing village buildings is residential, the further development can consider the integration of multi-function, such as workshops or offices.

This master thesis trying to figure out the research questions in chapter 1: How color can be used as the one way of urban renewal based on the Chinese "urban village" phenomenon to enhance the city's cultural and historical identities, meanwhile foster the city image under the circumstances of uniformed urbanization?

Furthermore, the methodology of the thesis formed by the proposed objectives. The whole thesis study on the urban village phenomenon by the case of Wanxia village, which as the typical urban village in the Shenzhen city center. From research, analysis to design framework, the whole project shows the necessity and potential of color as a consideration factor in urban design. Still, there are many unanswered questions and flaws throughout all chapters which provide the potential for future research.

The literature review developed by two topics: the color for city image and urban village phenomenon. From this chapter investigation, it can be concluded that use of color can directly change people's perception of the city, some color interventions could be regarded as design measurements to update physical condition, at the same time the case study listed two successful urban renewal cases similar to the village in the city, but lacks more in-depth research on color theory, such as regional color selection, what are the factors influence designer's color option or is there are local restrictions on city color usage.

In the policy review, the chapter discusses the significant treatments on city villages in Shenzhen and pose the critical view of demolishment of city village by the government, meanwhile, make the conclusion and evaluation of the City Village Regeneration Masterplan (2019 - 2025). Furthermore, the research case of Wanxia village in this paper is also one of the transformation objects. A lot of potential directions to be explored in this chapter, such as the comparison of urban village regeneration plans in other cities in China, and a more comprehensive understanding of views on the means of urban village reconstruction from different angles such as household, migrants and the government.

The analysis part illustrated the situation of Wanxia village with three different scales of context. It could be concluded that Wanxia village is one of the few villages in Shenzhen which sited in the historical area of Nanshan district; thus, the cultural importance of Wanxia village need to be reconsidered. Wanxia village as a collection of indigenous elements with some historical elements such as the temple and the building texture. The spatial analysis of Wanxia village base on the theoretical knowledge of city image and trying to conduct cognition analysis by serial vision, color cognition and materiality. Because the paper encountered a particular quarantine period, resulting in geographical and timing obstacles, then site visit cancelation will bring with the short of data collection.

The design framework built with the concept of city image five elements and followed the design parameters which correspond to existing site problems. Coloring as the significant intervention combined with different land-use brings into Wanxia village. However, there is a vacancy of specific coloring technologies introduction, and there are many possibilities for improvement of the design framework, which concluded in the design reflection.

The whole thesis combines the theoretical knowledge, urban analysis and design methods acquired from the Aalborg University, and this thesis tries to explore the possibility of applying the urban design theory of western countries to the context of East Asia. There are bound to be many differences, which could be reflected in the urban scale, population and urban typologies. Furthermore, based on global urbanization, the implementation of western urban design theory to Asia cities can also become a direction of future research.

07

CONCLUSION

APPENDIX

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Illustration list

All graphical representations not listed on this page were made by the authour of this thesis:

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