FROM **PERIL** TO **PROMISE**

Towards a Socially Resilient Urban Village, the Case of Dongguan

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Graduation Thesis

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Images are by the author unless stated otherwise.

Abstract

Rural migrants are being evicted from China's metropolis. Urban villages used to be a refuge for rural migrants fleeing excessive living expenses, where they might find reasonable housing, social connections, and even work opportunities. However, as these villages are now being redeveloped mainly to create land revenues for local municipalities, rural migrants are being evicted and left vulnerable. This can also create vulnerabilities for the cities themselves. Despite the amount of literature on urban village development and redevelopment (Hao et al., 2013; Kochan, 2015; Lai et al., 2021; Li et al., 2014; Zhou, 2014), there is little research on the social problems, particularly problems for rural migrants, brought by current mode of redevelopment, which occurs frequently nowadays. This study aims to answer the question of how urban villages can be redeveloped to create socially resilient communities by using multiple methods, in both social and spatial aspects. The study aims to address the issue of urban village redevelopment in China's metropolises and its impact on rural migrants by proposing an alternative art-driven redevelopment strategy. A comprehensive solution package that includes urban design, policy recommendations, and participation strategies that take into account the social resilience of migrants will be developed. To do this, the study will first use methods such as stakeholder analysis and engagement, as well as spatial analysis and urban design at a community scale, using the case of Zanhualing Village as an example. The ultimate goal is to create a strategic plan for numerous urban villages across the city of Dongguan to create a more resilient city overall.

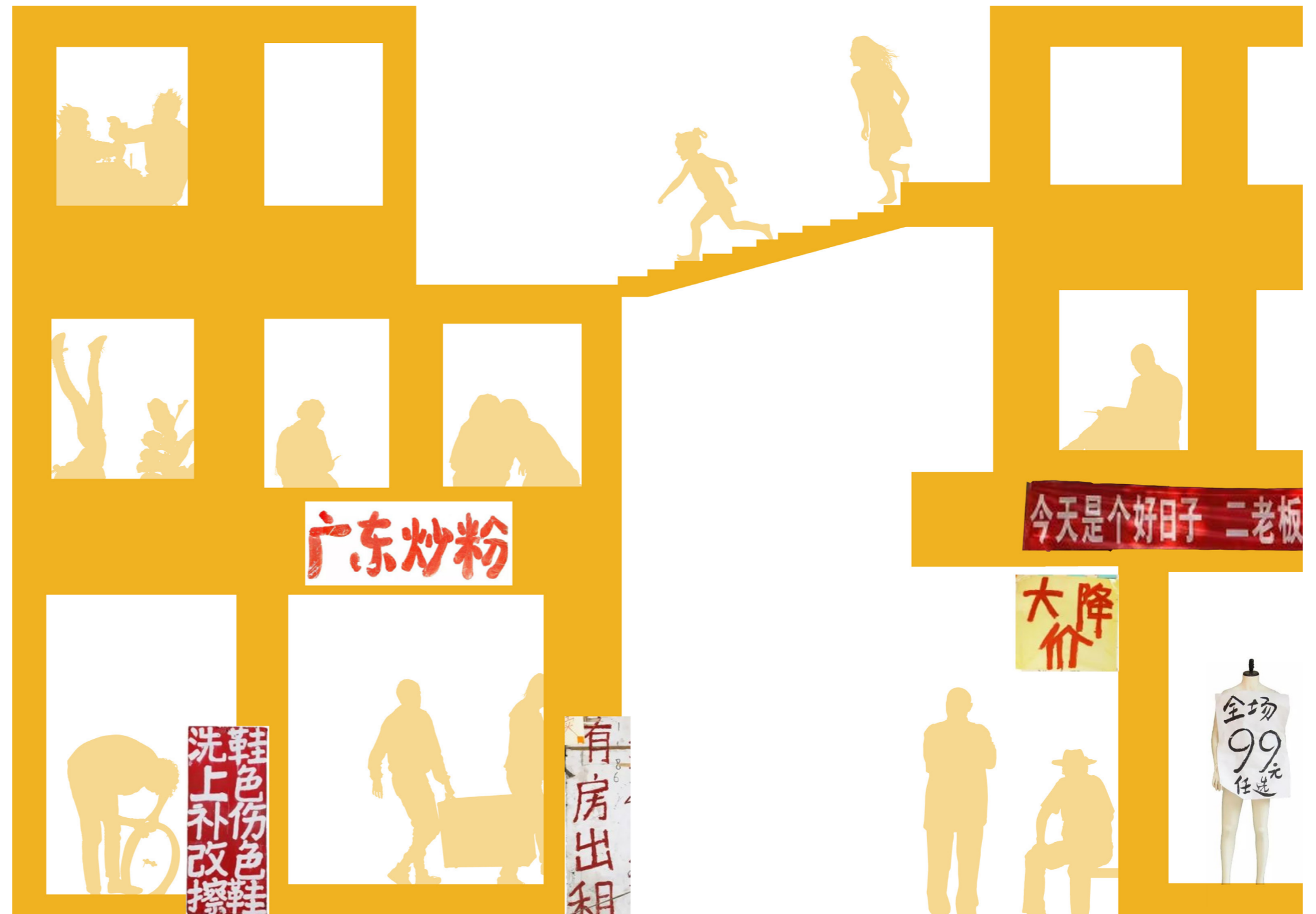Key Words: Urban Village / Urban Redevelopment/ Social Resilience/ Housing/ Dongguan, China

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Introduction 1

Glossary

Urban Village

Urban villages, or "*chengzhongcun*" in Chinese, are the villages encircled by rural areas due to the rapid urban sprawl in the past decades. One substantial difference between urban villages and other urban areas is the land ownership. Unlike other urban lands, land in urban villages are held collectively (Tang, 2015).

Villager

In this project, villagers are people who own land and their own houses in urban villages. They are landlords in their connection with renters, leasing their residence to tenants individually. Rent is a significant source of revenue for them. Some may dwell in the urban village, while others may not.

Village Collective

Village collective is an institution representing all villagers, in forms of village committee, shareholding cooperative, or shareholding company, the members are elected by villagers.

Tenant

Tenants in urban villagers are people who don't own property here, and rent rooms from villagers. Most of them come from rural areas and go to cities for more job opportunities, also called "migrant workers", drawn to urban villages by its affordable housing choices.

Hukou

Household registration system in mainland China, and its record officially designate a person as a permanent resident of a region and contains identifying information such as name, parents, spouse, and date of birth. It is tied to government-provided social welfare, which assigns benefits based on rural and urban residency status. For example, urban residents might get benefits ranging from a retirement pension to education and health care, but rural residents are often left to care for themselves (Wikipedia contributors, 2022).
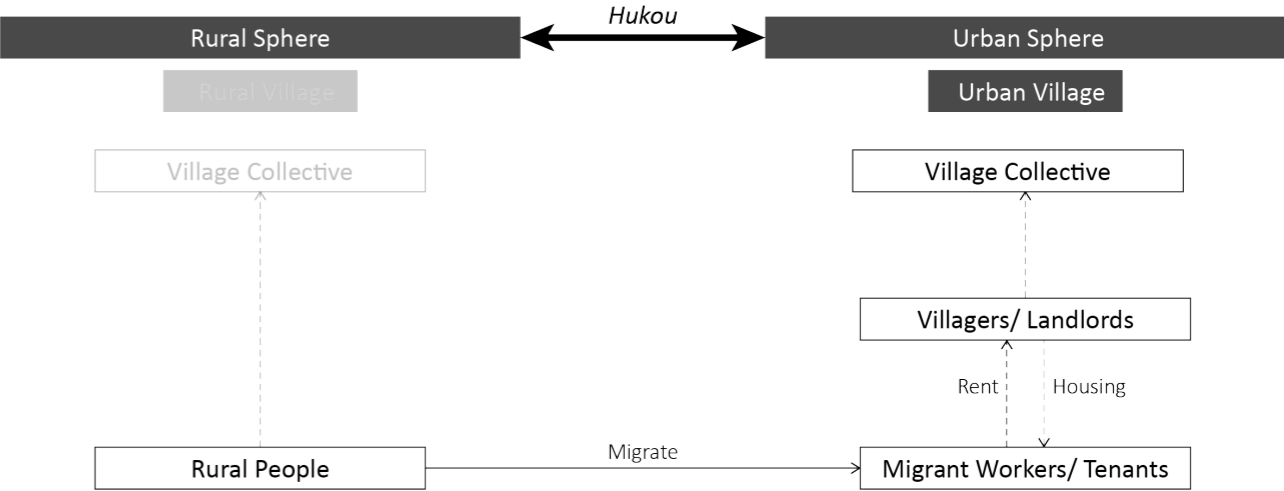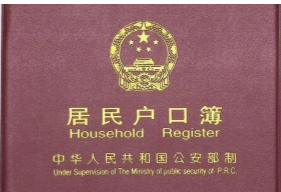
Migrant Worker

See *Tenant*.

Figure 1 Glossary diagram

Urban Village & Urban Housing Provision

Rural Village

Agricultural Fields
Urban Area
Household Plots

Marginal Urban Village

Urban Village

URBAN VILLAGE DEVELOPMENT

2010

2000

2015

2023

Land Finance

RURAL-URBAN MIGRATION POLICY

1984   1992

Prohibition of migration | Migration not banned | Migration encouraged

1998
Urban Housing Reform
From a welfare housing system to a market-based housing system

80%
70%
60%
50%
40%
30%
20%
10%
0%

35
30
25
20
15
10
5
0

BEIJING
SHANGHAI
CHINA

CHINA

1987   1990   1995

1978
Economc Reform
From a planned economy to a market economy

URBAN HOUSING PROVISION

Reliance on Land Finance
(Land transfer fee/ Local fiscal revenue)

Housing Affodability
(Price of a median home to the median annual household income Ratio)

RURAL-URBAN MIGRANTS

18 million   70.7 million

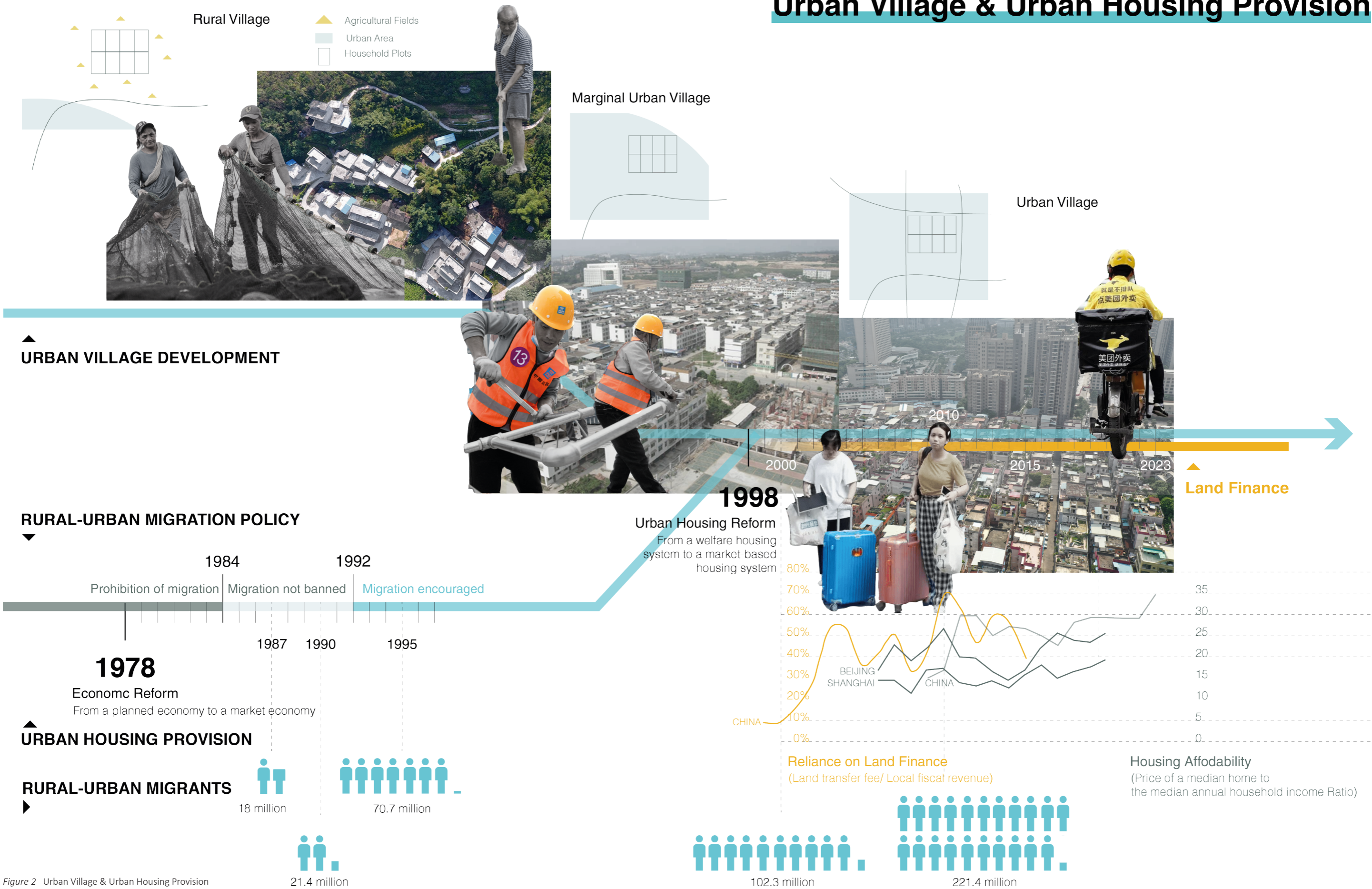21.4 million

102.3 million   221.4 million

Figure 2 Urban Village & Urban Housing Provision

Formation of Urban Village

Urban villages emerge as a consequence of rapid urban sprawl in Chinese cities. Initially, these villages were same as rural villages found elsewhere. However, due to the rapid urbanization, a rural village located outside the cities gradually becomes surrounded by expanding urban areas, eventually transforming into an urban village. This process can be illustrated through the following three stages.
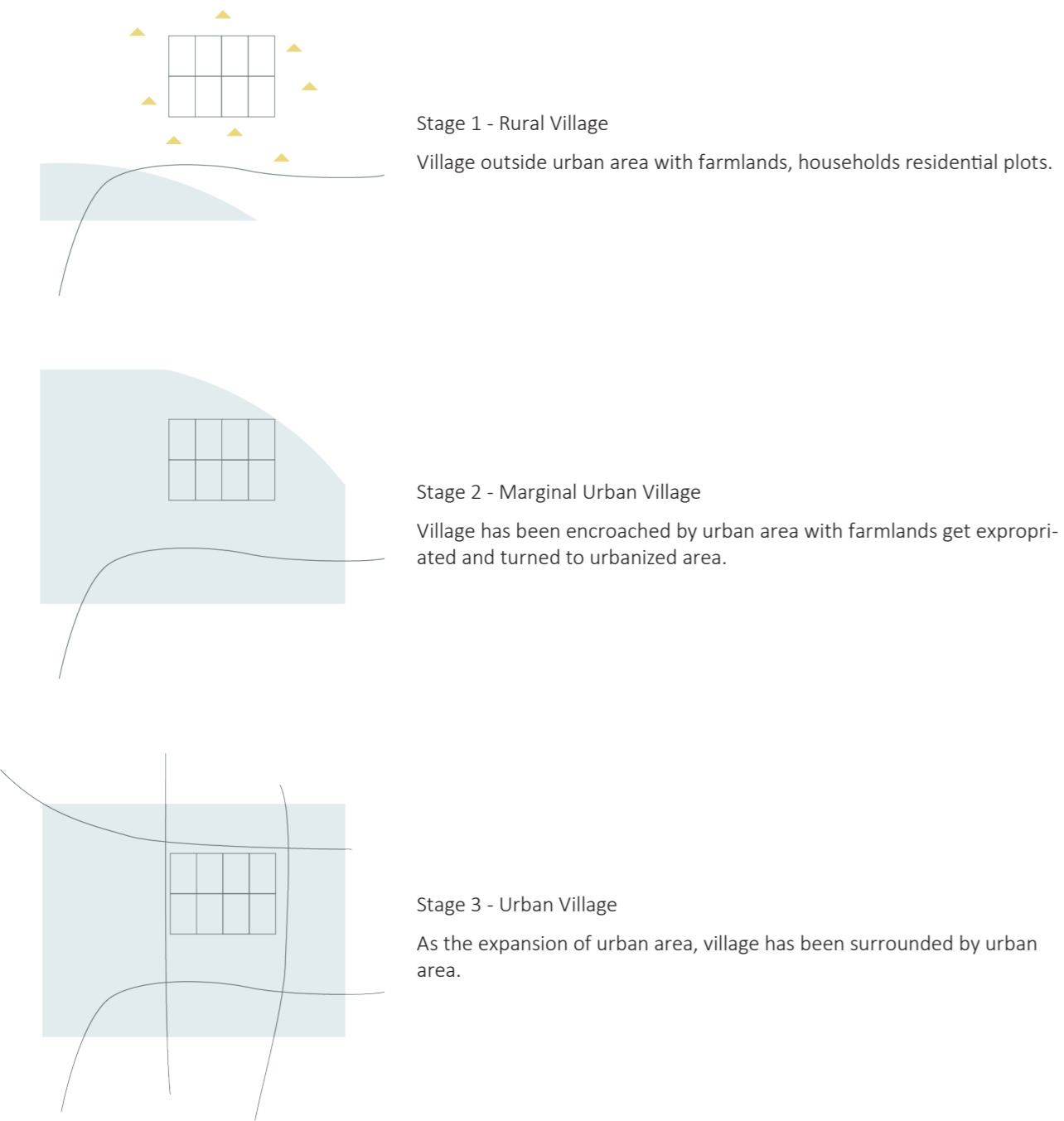
Stage 1 - Rural Village

Village outside urban area with farmlands, households residential plots.

Stage 2 - Marginal Urban Village

Village has been encroached by urban area with farmlands get expropriated and turned to urbanized area.

Stage 3 - Urban Village

As the expansion of urban area, village has been surrounded by urban area.

Figure 3 From Village to Urban Village

What Makes Urban Village Unique

While the spread of cities into countryside is a universal phenomenon in urbanizing countries, it is the coexistence of both rural and urban systems in these villages that makes them unique. They are quite urban in terms of economic activity, population, and building densities, with a large population engaged in secondary or tertiary economic activities and unfathomably high building densities. However, due of their distinct status under the urban-rural dual system in China, urban villages are avoided by official urban growth rather than being incorporated(Buckingham & Chan, 2018).

The urban-rural dual system was established in the 1950s and is governed by "Hukou", the household registration system in China; it separates residents into two distinct social, economic, and political sectors, which impacts their residency, property ownership, and access to social services(Buckingham & Chan, 2018).

	RURAL	URBAN VILLAGE	URBAN
Farmland	Owned by the collective	Farmland converted to urban land and becomes state-owned	-
Housing plot	*De facto* household ownership by villagers	De facto household ownership by villagers	State-owned
Hukou Status	Rural	Most rural, some my change to urban	Urban
...vision of social services and welfare	By collective	By collective	Government
...eans of livelihood of native villagers	Mainly farming	Many have become landlords rely on rentals collected from migrants	Working
Migrants	Very few	Village housing becomes predominantly low-cost domiciles for large numbers of migrants	Many

Figure 4 Comparison among rural, urban and urban village (Buckingham & Chan, 2018)

Urban Village as Informal Housing in China

As the rapid urbanization in China, a lot of people from rural areas were drawn to urban regions in search of job opportunities. However, the rural-urban migrants are ignored by the urban housing market and then driven to urban villages by the affordable housing options since they lack access to urban services, which is also governed by "Hukou" (Song et al., 2008).

Urban villages have made a lot of positive contributions during the process of rapid industrialization and urbanization, because **they enabled fast economic growth without the need for government expenditure on social welfare for the low-paid migrant workers** (Wang et al., 2010). Wu's research demonstrated that informality, such as the absence of documented tenancy contracts, smaller-than-average dwellings per person, etc., are commonplace in urban villages (Wu, 2016).

Figure 5 Living condition in urban village | Source: https://img.i-scmp.com/cdn-cgi/image/fit=contain,width=1098,format=auto/sites/default/files/styles/1200x800/public/d8/images/methode/2019/07/22/061ed0e2-aa01-11e9-862b-600d112f3b14_image_hires_180524.JPG?itok=5aApDdC4&v=1563789953

Urban Village Redevelopment

Urban village redevelopment can be achieved through three main methods.

The first method is led by the government, where the government uses funds from the government land reserve department to handle tasks such as planning projects, expropriating land, building new housing for displaced villagers, and providing compensation for demolished homes. Once the demolition of urban villages is finished, the government will then sell the land use rights publicly.

The second method is also led by the government but requires less input from the government and the participation of real estate developers. The government oversees and manages the urban village redevelopment projects through various public organizations such as those responsible for planning, land management, construction management, environmental control, financial control, and public security. The municipality publicly announces the plans and requirements for the project and offers special policies for bidding. The village collective, which represents the villagers, negotiates compensation with developers. The developer is responsible for funding the demolition, compensation, and resettlement.

The third way is commonly applied nowadays as the spread of neo-liberalism. It requires least input from the government. The government is only responsible for the administrative examination and approval. Other matters including demolition, compensation, resettlement or relocation, construction will be operated by the market. This method is flexible, allowing developers to operate alone, the village collective and developers to collaborate, or the village collective and villagers to manage the project themselves.

Government-led	The government uses funds from the government land reserve department to handle tasks such as planning projects, expropriating land, building new housing for displaced villagers, and providing compensation for demolished homes. Once the demolition of urban villages is finished, the government will then sell the land use rights publicly.
Government-led, developer participation	The government oversees and manages the urban village redevelopment projects through various public organizations such as those responsible for planning, land management, construction management, environmental control, financial control, and public security. The municipality publicly announces the plans and requirements for the project and offers special policies for bidding. The village collective, which represents the villagers, negotiates compensation with developers. The developer is responsible for funding the demolition, compensation, and resettlement.
Market-led, government supervision	The government is only responsible for the administrative examination and approval. Other matters including demolition, compensation, resettlement or relocation, construction will be operated by the market. This method is flexible, allowing developers to operate alone, the village collective and developers to collaborate, or the village collective and villagers to manage the project themselves.

Figure 6 Urban Village Redevelopment Methods

Urban Village Redevelopment: Drivers

Given the negative consequences of current mode of urban village redevelopment, identifying the drivers of urban village redevelopment, in order to propose an alternative redevelopment method is critical. According to a review of the literature on urban villages redevelopment, the redevelopment of urban villages in China is driven by a combination of factors, including the growing demand for high-quality housing from growing urban population, the opportunity for developers to increase land value through redevelopment, and the active involvement of government agencies (Jiang et al., 2022).

By examining these drivers and evaluating the outcomes of current redevelopment cases, it becomes clear that some drivers, such as demand for sustainable urbanization and accommodating more population, failed in the outcome. What's more, many drivers are closely tied to land finance in China's cities.
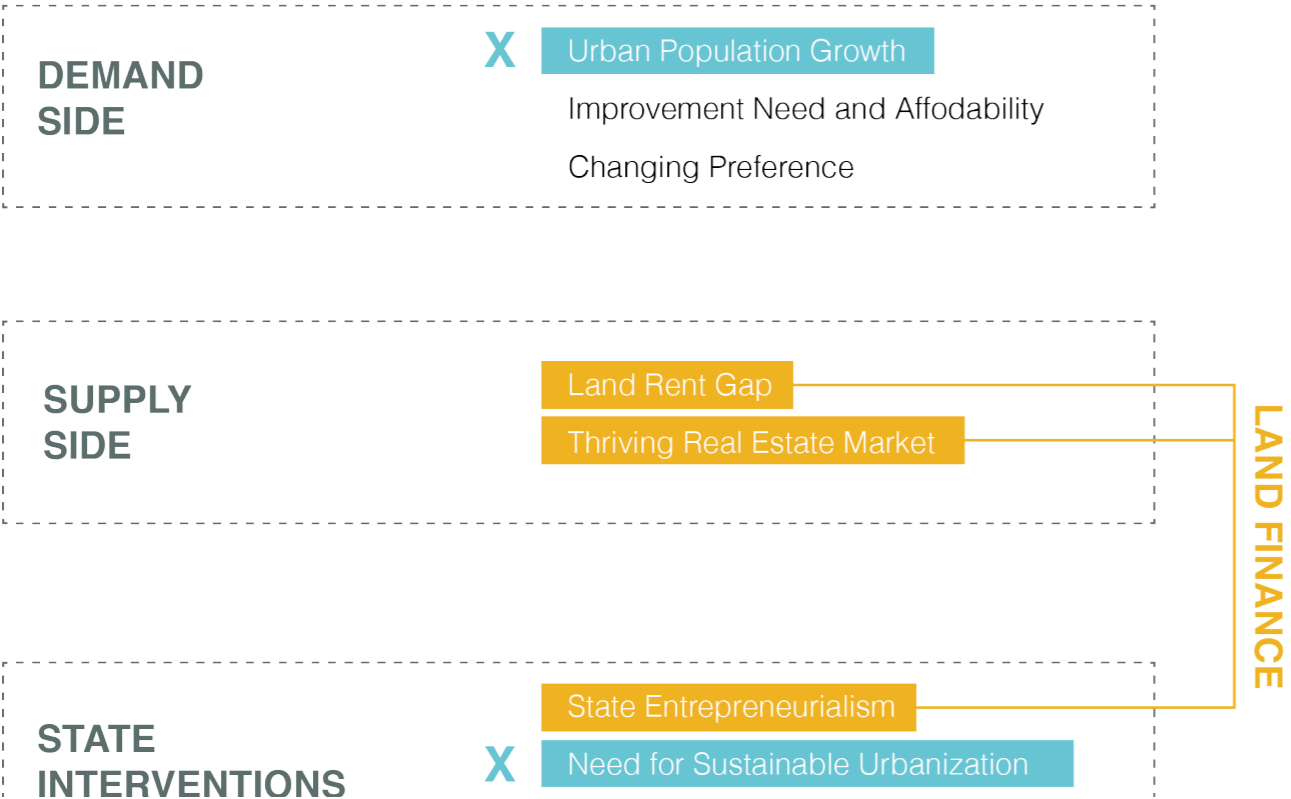

Figure 7 Drivers of urban village redevelopmentment (Jiang et al., 2022)

Land Finance

China's land finance system arose in the aftermath of the country's 1994 tax-sharing reform, which resulted in an inadequate decentralization system between the central and local governments. The new tax structure transfers a large portion of local government tax revenue to the central government while local expenditure remains constant, imposing a significant strain on local budget. As a result, local governments rely substantially on revenue from land-use rights transfers to support local expenditures and relieve financial strain. The urban villages, especially those in excellent location, have a great potential for local governments to generate revenue through land transfer and redevelopment. This has led to a situation where local governments are incentivized to push for urban redevelopment, even if it results in the displacement of residents and the destruction of existing communities.
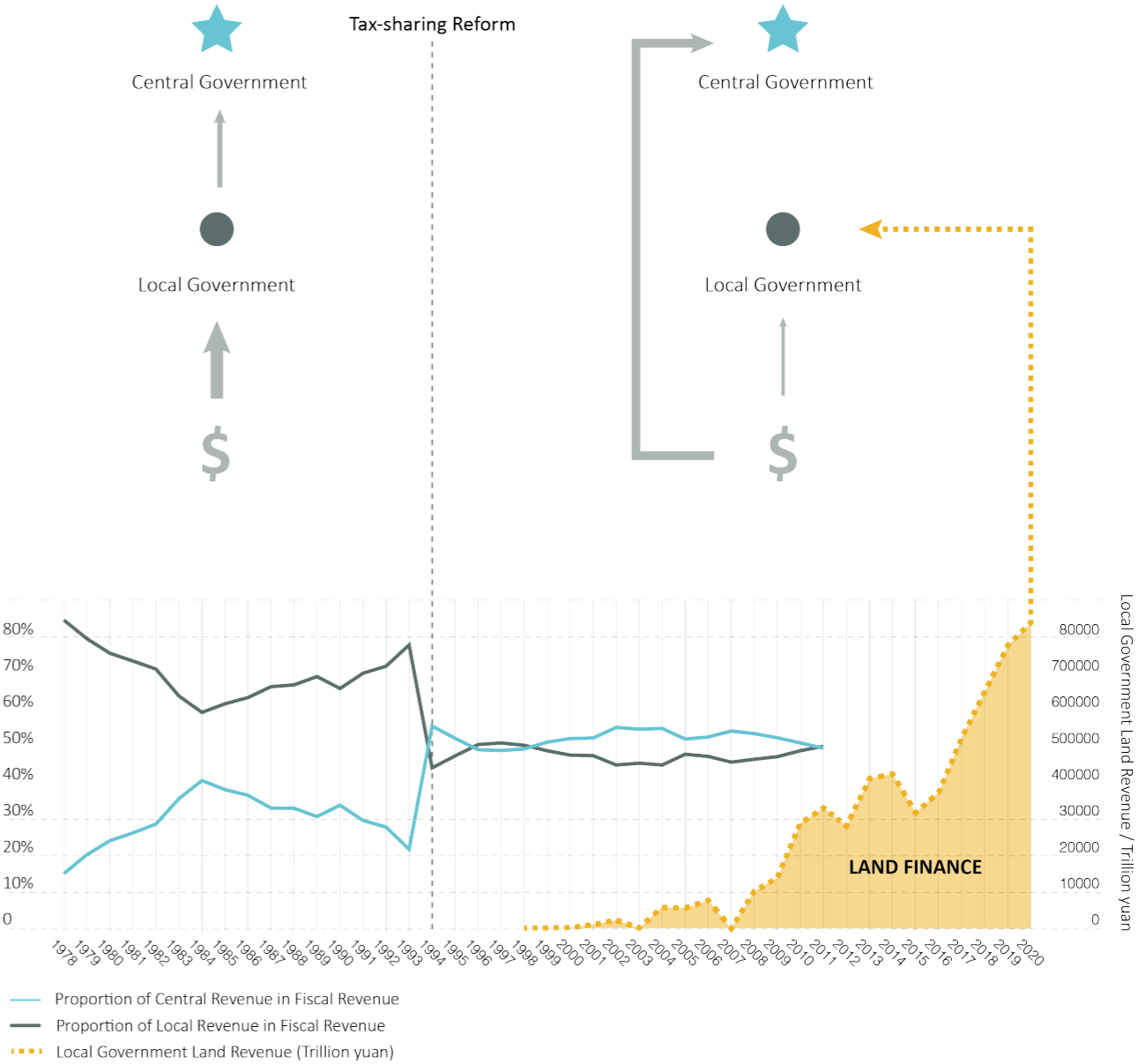

Figure 8 Timeline of central and local revenue change and land revenue | Source: https://picx.zhimg.com/80/8bc84d925075b3df4e62bbb556cedea9_720w.webp?source=1940ef5c; https://www.mdpi.com/land/land-11-01529/article_deploy/html/images/land-11-01529-g001-550.jpg

Problem Definition **2**

Problem Statement

Problems with Urban Village Redevelopment

Local governments regularly expropriate the land of urban villages and convert it to state-owned urban land. After formalization of the land, they will sell the land use right at auction to developers, and thus attracting market investment and generating revenue for local government. Despite the variety of redevelopment modes mentioned in the last section, most current urban village redevelopment projects take a "demolish-rebuild" approach physically, without giving adequate thought to the complicated mechanisms underlying urban villages' environmental features and performances (Pan & Du, 2021). The demolish-rebuild method offers a rapid means of formalizing the land in urban villages, and the government frequently acquiesces to developers to provide exceptionally high compensation to landowners in order to expedite the process. Finally, the local municipality, the property owners, and the real estate developers all reap the benefit from the expected land value increase after redevelopment. They consider the present mode as a win-win scenario while completely ignoring the migrants residing there and other citizens may be affected by the outcome. As a result, migrants and other citizens not only do not benefit from the market value increase of land but are forced to leave or pay the price for the gains of the other three actors. The redevelopment was originally taken in the name of improving the life quality of the community, but it ends up with exclusive higher-end housing projects, which expel the current migrants and intimidate the new arrivals in the city by its sky-high price.
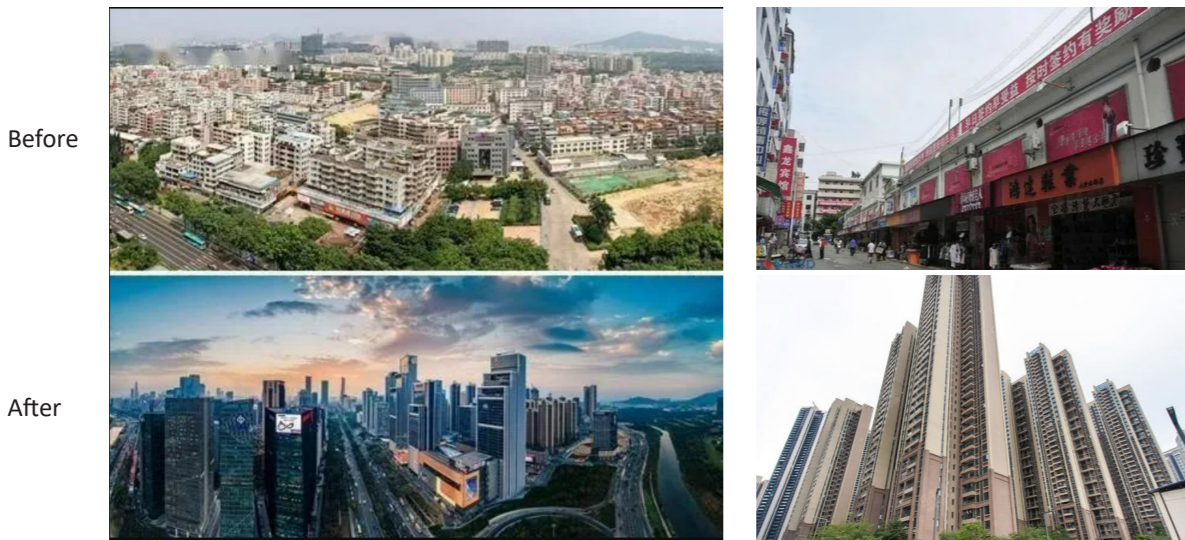

Before

After

Figure 10 Before and After the Dachong village transformation | Source: https://inews.gtimg.com/newsapp_bt/0/14213515127/1000; https://fang-community.leyoujia.com//pic/hsl/2018-06/05/b1ac5fc3-3e84-45d5-8aa4-ad5f7d2c1879.jpg?imageView2/1/w/720/h/405; https://inews.gtimg.com/newsapp_bt/0/14213515497/1000
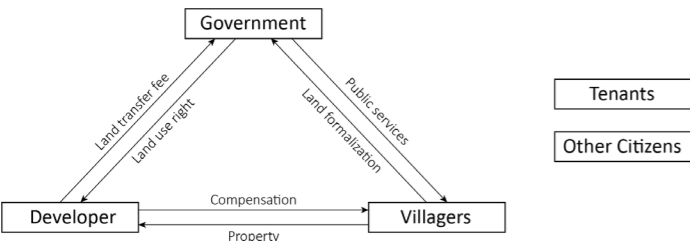

Figure 9 Current mechanism of urban village transformation

Vulnerability of Migrants

A lot of literature has been written about the development and redevelopment of urban villages (Hao et al., 2013; Kochan, 2015; Lai et al., 2021; Li et al., 2014; Zhou, 2014), but research on the social problems brought by current mode of redevelopment, which occurs frequently nowadays, is scarce.

In this research, I would like to focus on the challenges associated with the ongoing redevelopment of urban villages in China's cities. A number of intricately linked facts comprise the issues. I'd want to discuss them from two different perspectives:

The first one is the vulnerability of migrants in urban villages: In the context of China, rural-urban migrants are individuals who are not registered in the urban village through the Hukou system (Household Registration System). Consequently, they lack any influence in the decision-making process or a recognized identity within the urban village, both legally and psychologically. When a redevelopment take place, the migrants in urban villages are asked to leave in a short amount of time without neither consideration nor compensation. For example, in the case of Baishizhou, about 150000 tenants have to leave to make way for malls, hotels and high-end residential projects (Zhang, 2019).

China / People & Culture

Migrant workers forced out as one of Shenzhen's last 'urban villages' faces wrecking ball

- Some 150,000 residents of Baishizhou have to leave by the end of September to make way for malls, hotels and high-end residential projects

- They worry about finding affordable housing in the city, and their children's education

Figure 11 150000 residents got displaced due to redevelopment of Baishizhou | Source: https://www.scmp.com/news/china/society/article/3019506/migrant-workers-forced-out-one-shenzhens-last-urban-villages

Vulnerability of the City

The ongoing redevelopment of urban villages also brings vulnerability for China's cities. Unaffordable housing in China's cities has become a problem as a result of the massive investment in urban redevelopment to high-end residential projects. As depicted in the diagram below, housing affordability in major cities of China is a pressing concern. The affordability value is calculated by comparing the price of a median home to the median annual income ratio. For instance, in Beijing in 2022, this value exceeds 50, indicating that an individual would need to work for more than 50 years without spending a single penny in order to afford a home. Given the high cost of living in cities, a large portion of the population may never be able to attain homeownership during their lifetime. For people who are able to purchase an apartment, they may deplete generations' worth of savings for a down payment and carry significant debt for decades. If buying a home is impossible, what about renting a home? The rent for an apartment in Beijing is around half the average earnings of a government employee and much higher than the average wage of migrant workers. In conclusion, housing costs have grown to be a significant concern for the young generation.
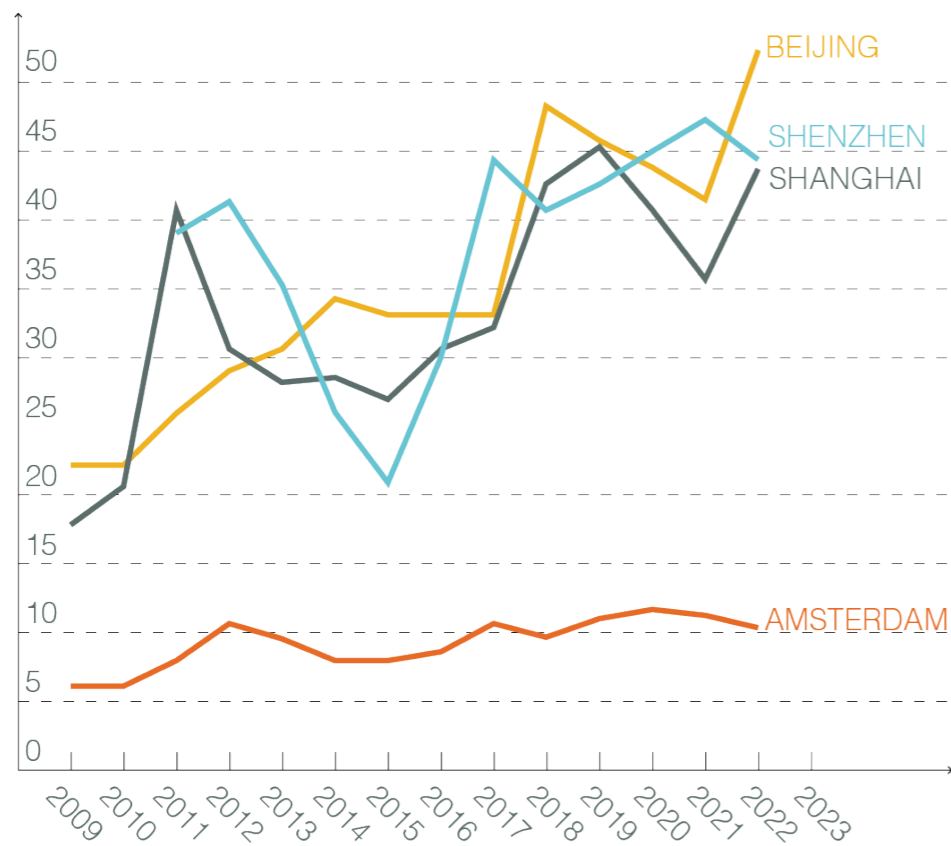
Housing Affodability
(Price of a median home to
the median annual household income Ratio)

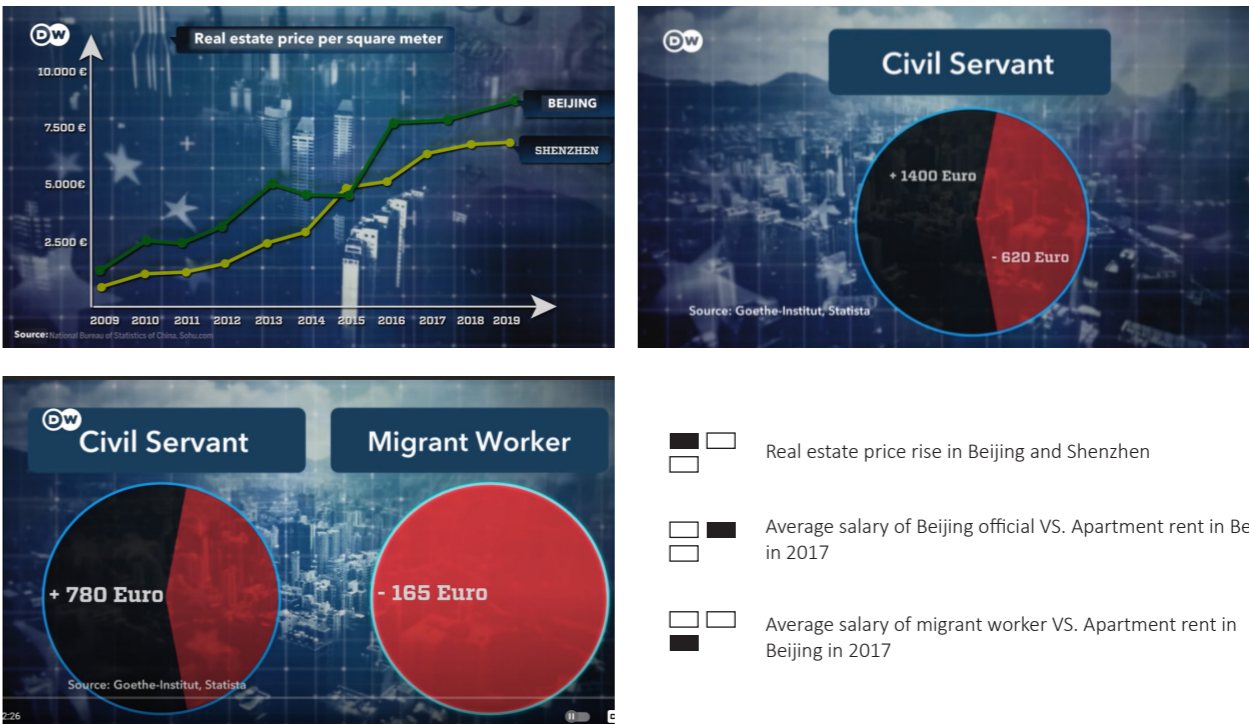Figure 12   Housing Affodability | Source: https://www.numbeo.com/property-investment/rankings_by_country.jsp?title=2023&displayColumn=0; https://corporate.nordea.com/api/research/image/160032

Figure 13   Unaffordable Rent | Source: https://www.youtube.com/watch?v=C6wY2b9amnA

I want to be a scientist!

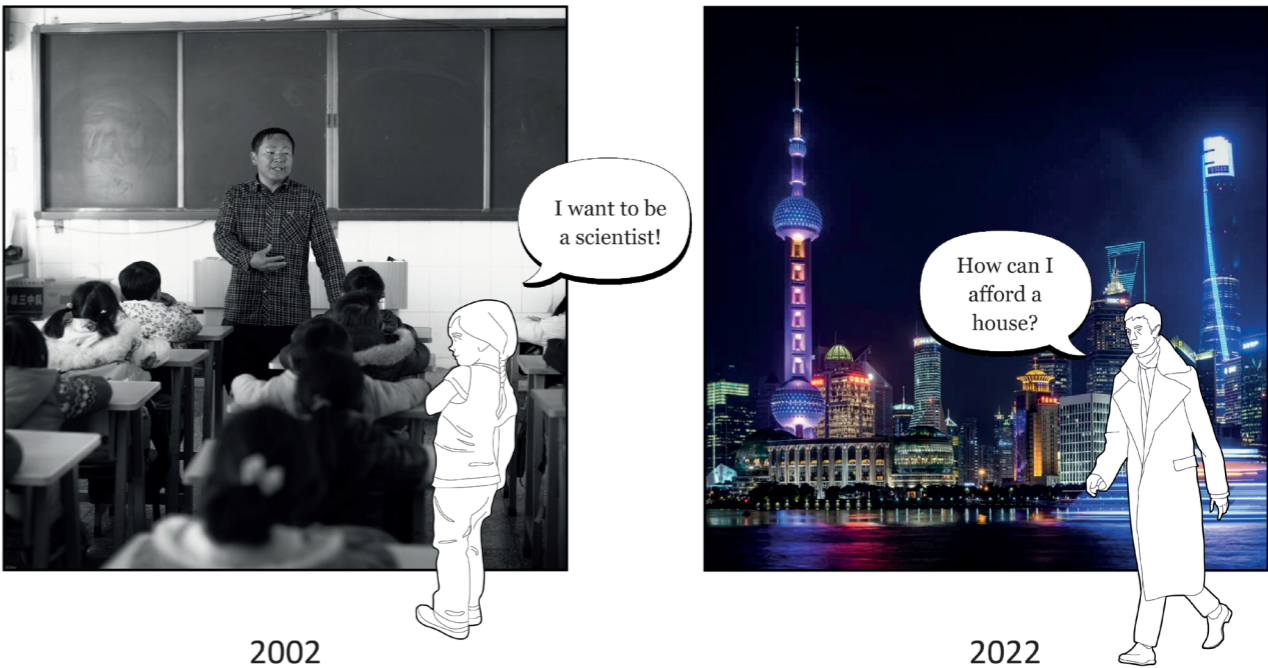How can I afford a house?

2002

2022

Figure 14   Change of the ambition of a rural youth

Skyscraper-dominant Cityscape as Institution

In these problems, the underlying institution is the skyscraper-dominant cityscapes in China, which justifies the demolish of other forms of settlements including urban villages and drives up the living costs drastically. From real estate advertisements to planning documents, the discourse pervades Chinese cities.

Fig.15 Imageries as institution

Problem Case: Redevelopment of Gangxia Village

Gangxia was the sole urban village in Shenzhen's Futian Central District until it was rebuilt in 2008, serving as an example of the current problematic urban village regeneration approach.

According to Wu, Gangxia served as an urban village for 900 villagers and 67000 renters. However, after its reconstruction into a high-end community integrating business, office, and residential, which brings a FAR increase from 3.2 to 6.25, the number of inhabitants there has dropped dramatically to 7000, and all previous renters have been brutally expelled (Wu, 2020).

	Before	After
FAR	3.2	6.25
Residents	68000	7000

Fig.16 Displacement in Gangxia
Source: http://www.urbanus.com.cn/projects/gangxia-village/
http://inews.gtimg.com/newsapp_bt/0/15246716952/641

Research Question

Main Question

How can the urban village be redeveloped into a socially resilient community and reposition its role in the city?

Sub-questions

1 Community Scale

RQ 1.1   What is social resilience in the context of urban village?

RQ 1.2   How can governance facilitate the social resilience in urban villages?

RQ 1.3   How can urban design facilitate the social resilience in urban villages?

2 City Scale

RQ 2.1   What will be the new roles of urban villages in city?

RQ 2.2   How does the planning of urban villages respond to their new roles?

Site of Study

MACRO: Dongguan in Greater Bay Area

Greater Bay Area (GBA), a megalopolis in South China with 71.2 million population (5% of China's total population), is made up of nine cities and two special administrative regions. It is the largest and most prosperous economic area in South China.
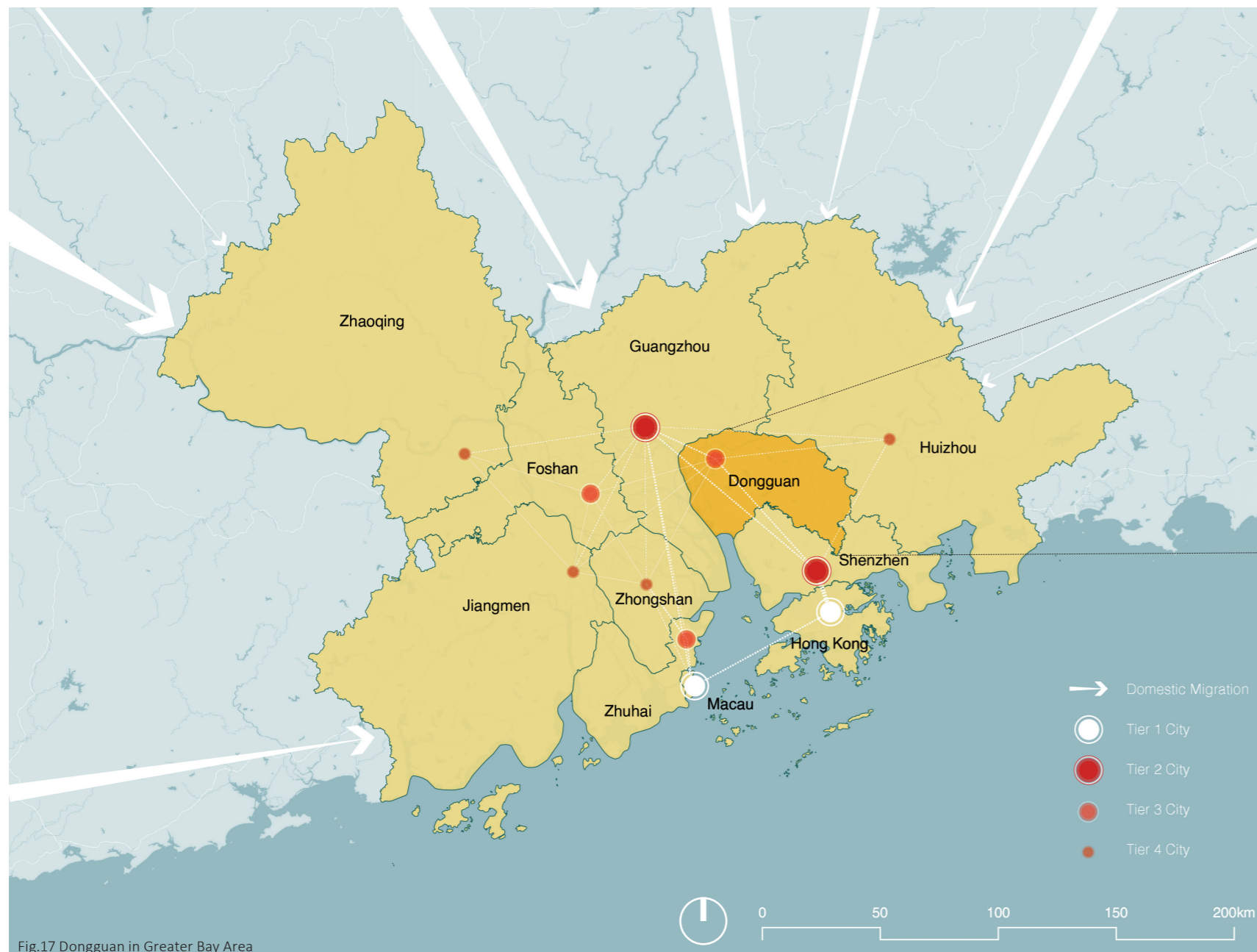
Amsterdam   *3.7 =

More than 800 square kilometers, or almost four times the size of Amsterdam, is taken up by urban villages in Dongguan.
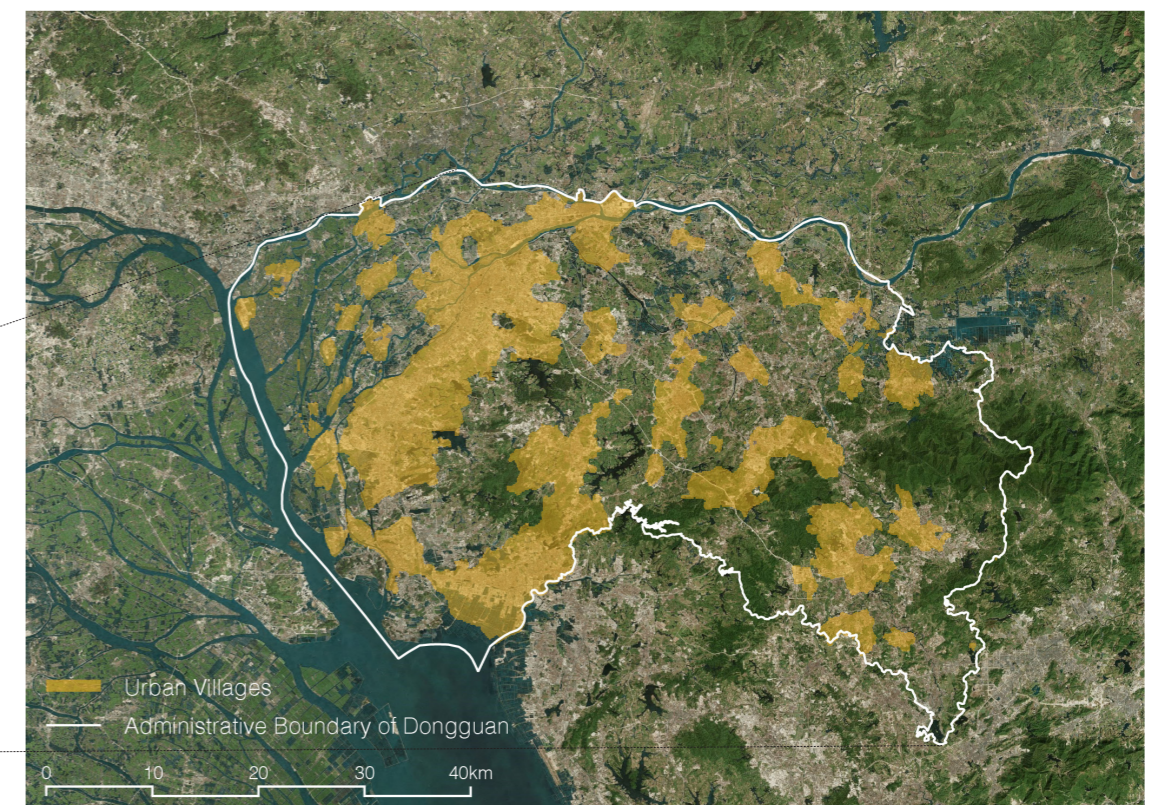

Fig.17 Dongguan in Greater Bay Area

Fig.18 Urban Villages in Dongguan
Source: http://5b0988e595225.cdn.sohucs.com/images/20190626/5263bd662adc4378a322bc0d07803220.jpeg

Dongguan is a tier-3 city in GBA, between Guangzhou and Shenzhen. As a consequence of increased industrialization, there are numerous urban villages with the same problem of not knowing where to go. It is imperative to set an exemplar showing an innovative method of urban village redevelopment.

MICRO: Zanhualing in Dongguan

Central Area
Water
Administrative Boundary
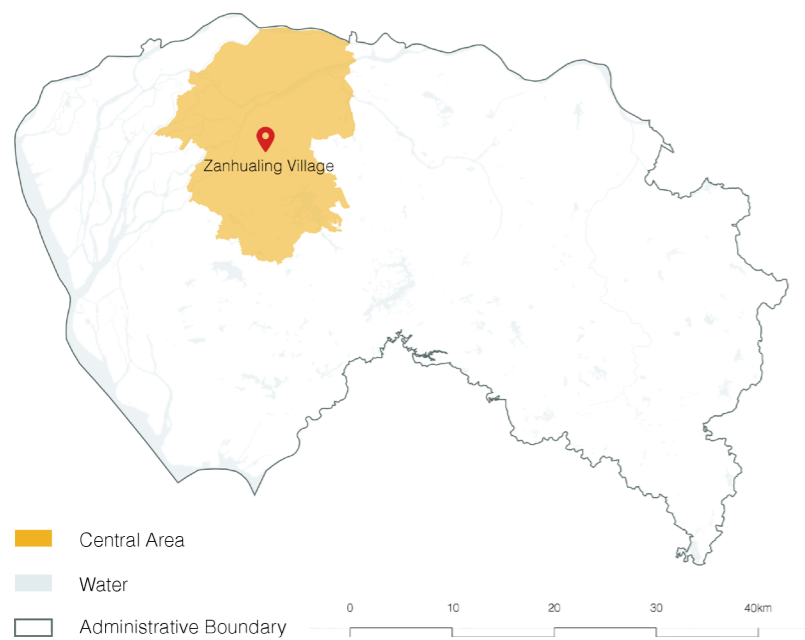
Zanhualing Village is located in the heart of Dongguan, close to the Municipal Government, the Dongguan Grand Road, and the local Planning Institute, and is surrounded by affluent gated communities. It, like other urban villages, serves as affordable housing for migrant workers, and negative social impacts will be brought up if it is not adequately regenerated.
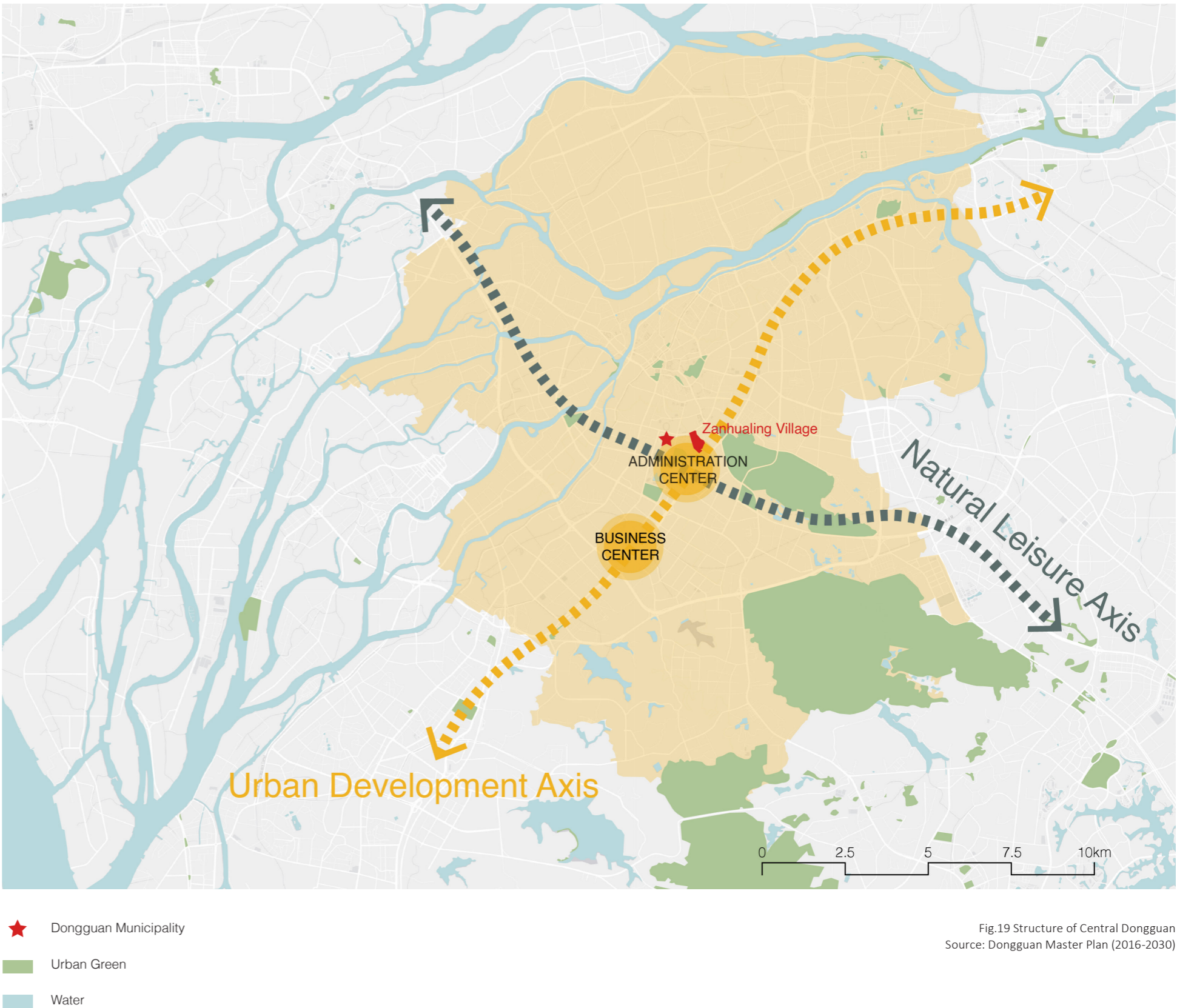

Zanhualing Village
ADMINISTRATION CENTER
BUSINESS CENTER
Natural Leisure Axis
Urban Development Axis

Dongguan Municipality
Urban Green
Water

Fig.19 Structure of Central Dongguan
Source: Dongguan Master Plan (2016-2030)

Urgency for New Redevelopment Method

Policy Review

2012	Notice on accelerating the transformation of "penghuqu*"	●	The term "urban village" made its first appearance in official documents.
2015	Opinions on the pilot work of rural land expropriation, the market entry of collective commercial construction land, and the reform of homestead system	●	Permitted collective land to enter the land market
2019	The fourth amendment to the Land Administration Law	●	Provided legal clarification on the expropriation of collective construction land.
2021	Notice on Preventing Large-scale Demolition and Large-scale Construction in Urban Renewal	●	Strictl limitation on mass demolition in urban renewal

* penghuqu: commonly translated to "shanty town", refers to neighborhoods characterized by dilapidated physical conditions. Urban villages are also classified as one of the types of penghuqu due to their poor living conditions and infrastructure.

The urgency for adopting a new approach to urban village redevelopment arises from three key factors: policy, economy, and society. From a policy perspective, the introduction of new regulations by the central government in 2021 has placed strict limitations on traditional mass demolition practices. In terms of the economy, the decline of the real estate market in China has rendered traditional urban village redevelopment unprofitable for developers. Furthermore, from a societal standpoint, the need for affordable housing has become increasingly critical, and traditional redevelopment methods often result in the demolition of numerous affordable housing units within urban villages.

POLICY

Notice on Preventing Large-scale Demolition and Large-scale Construction in Urban Renewal (Angust, 2021)

"Strictly limiting mass demolition in urban renewal"

ECONOMY

Redeveloping urban villages with traditional model is not profitable for developers giving the decline of real estate market

SOCIETY

Affordable housing is needed to support the industrial development

"150,000 affordable housing gaps before 2025 in Dongguan"
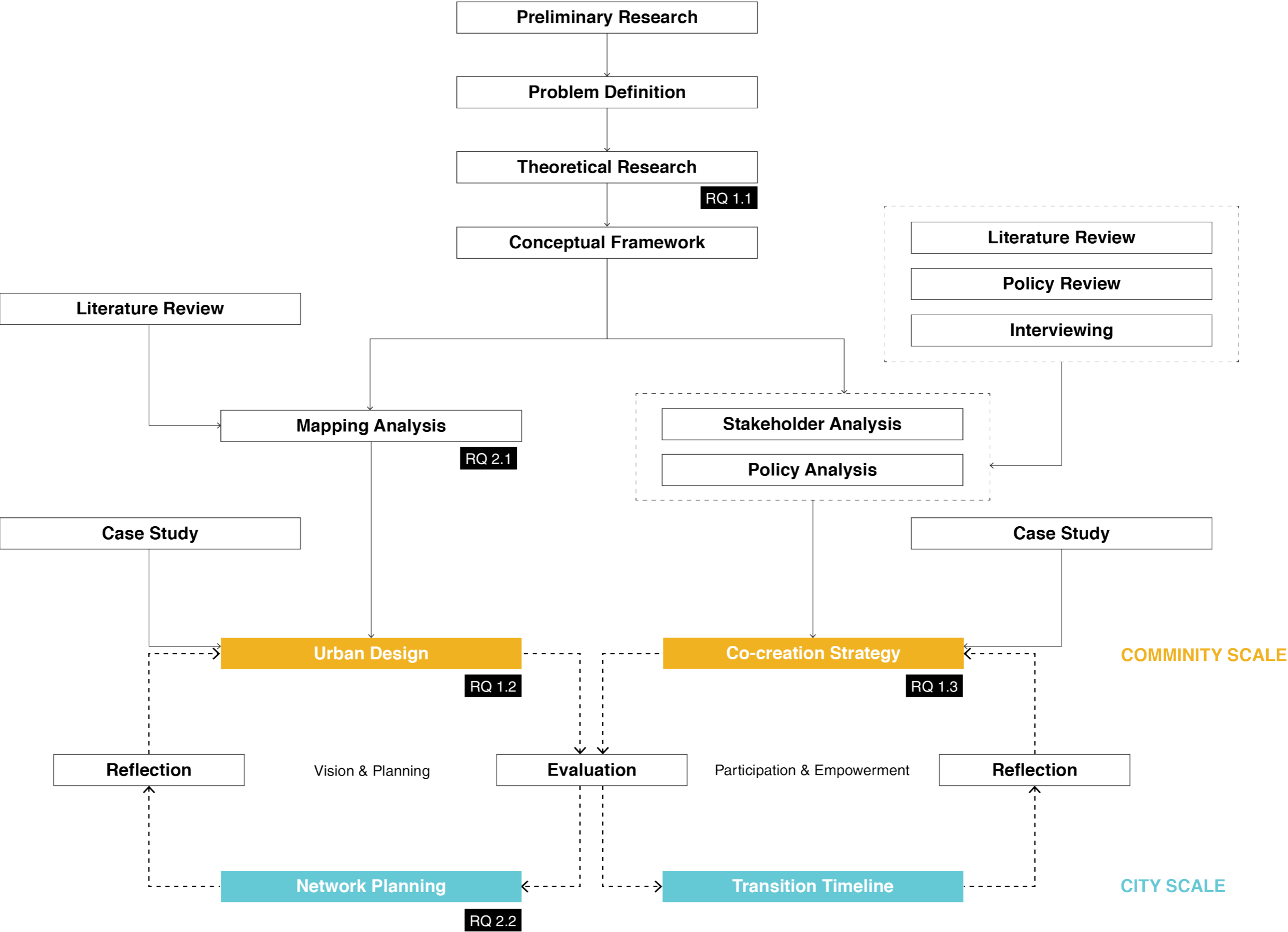
Methodology

Methodology

Preliminary Research

Problem Definition

P1

Theoretical Research
RQ 1.1

Conceptual Framework

Literature Review

Policy Review

Interviewing

Literature Review

P2

Mapping Analysis
RQ 2.1

Stakeholder Analysis

Policy Analysis

Case Study

Case Study

P3

Urban Design
RQ 1.2

Co-creation Strategy
RQ 1.3

COMMINITY SCALE

Reflection

Vision & Planning

Evaluation

Participation & Empowerment

Reflection

P4

P5

Network Planning
RQ 2.2

Transition Timeline

CITY SCALE

Methods

Literature Review	Literature Review		
Case Study	Case study		
Data Collection	Interviewing	Photography	Policy review
Data Analysis	Stakeholder analysis	Mapping analysis	Policy analysis
Design	Mechanism Design	Urban design	Strategic planning
Reflection	Evaluation	Reflection	

The methods utilized in this project can be categorized into six main areas: literature review, case study, data collection, data analysis, design, and reflection. These methods collectively address the research question proposed. For instance, when exploring the problem of "What is social resilience?", the primary method employed is literature review to define social resilience. However, for more complex issues such as "How can urban design facilitate social resilience in urban villages?", a more comprehensive approach is necessary. In this case, literature review, case study, data collection, data analysis, and design will all be utilized to provide an answer.

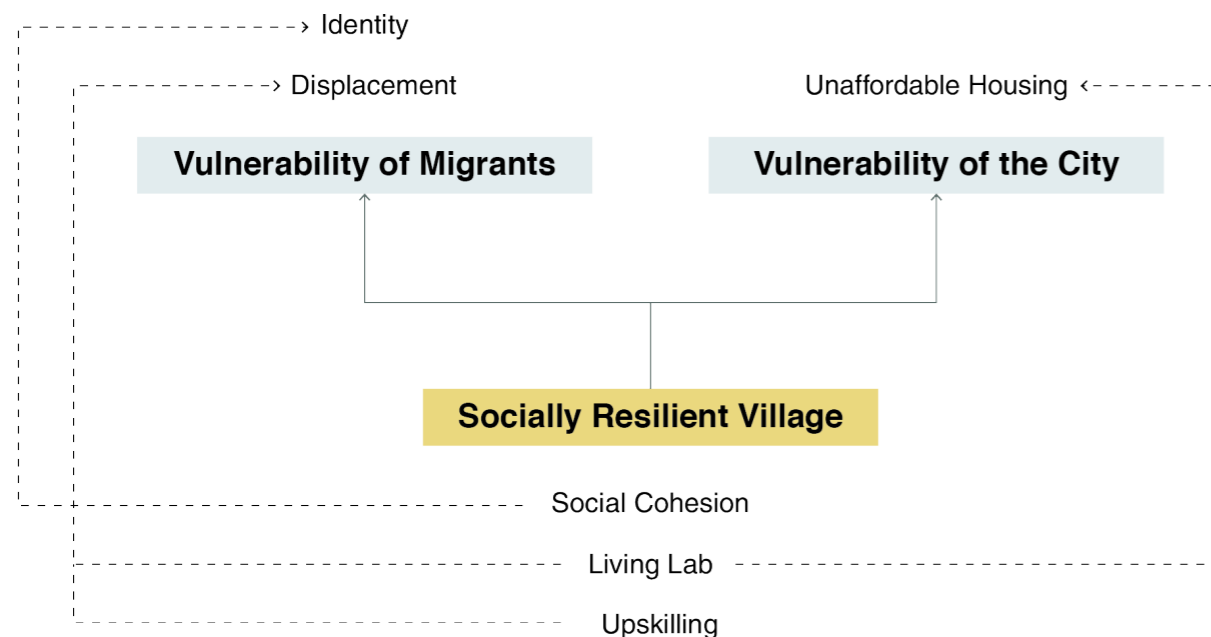| RESEARCH QUESTION		METHODS					PRODUCTS	
	Sub-question	Literature Review	Case Study	Data Collection	Data Analysis	Design	Research Outcome	Final Products
1 - Community Scale	1.1 What is social resilience in the context of urban village?	Social Resilience						Socail Resilience Indicators
	1.2 How can urban design facilitate the social resilience in urban villages?	Living Lab	Shuiwei Village	Interviewing Data Mining	Mapping (topography, traffic system, function, border, user portrait, daily path of different people)	Urban Design	1. Physical Barrier 2. Potential Map 3. Vulnerability Assessment	Urban Design
	1.3 How can governance facilitate the social resilience in urban villages?	Co-governance Social Cohesion	Coin Street Redevelopment	Data Mining Policy Review	Mapping (stakeholders, ownernship, housing) Stakeholder Analysis Policy Analysis	Participation & Empowerment	1. Governance Model 2. Stakeholder Analysis	Transition Timeline Gamification Policy Recommendation
2 - City Scale	2.1 What will be the new role of urban village in city?	Dongguan Master-plan		Interviewing Policy Review Data Mining	Mapping (regional analysis, master plan of Dongguan)			Planning Principles
	2.2 How does the planning of urban villages respond to their new roles?			Data Mining	Mapping (urban villages in Dongguan, urban land use map)	Strategic Planning	Application of principles	Strategic Planning

Theoretical Research

Figure 15 Theoretical Framework

Figure 16 Properties of social resilience (Maguire & Patrick, 2007)

Social Resilience in Urban Village

Before delving into the measures of social resilience in the setting of the urban village, it is critical to clarify "resilience for whom and against what?" In this project, I am primarily concerned with problems from the perspective of migrants, and I want to build a socially resilient village, so the social entity is the urban village and migrants, enabling them to deal with problems associated with urban village redevelopment.

As stated in problem definition section, the current problematic urban village redevelopment can be seen as a disaster for migrants, leaving them highly vulnerable and unable to withstand a single blow. This can be attributed to various factors. First and foremost, migrants don't have identity in the urban villages they live in, neither legally nor psychologically. They are not recognized as legal residents and therefore don't have a voice in the decision-making process. Additionally, they feel a lack of belonging to the urban villages, resulting in indifferences for the long-term development of the urban villages. Another contributing factor is the insufficient job skills possessed by most rural-urban migrants, leaving them financially vulnerable and unstable in the long run. Urban redevelopment often results in gentrification that displaces migrants, making employment another crucial factor that limits their resistance to urban village redevelopment. Thirdly, migrants reside in urban villages is because the cheap low-quality housing there, which are informal and not protected by any legal provisions. This creates the immediate risk of displacement. Last but not least, public spaces accessible to migrants are so limited in urban villages that migrants are unlikely to build social network in the urban village they reside in. Given the significant role of social networks in Chinese society, this severely restricts their long-term potential for growth. In summary, the combination of these factors highlights the adverse impact of urban village redevelopment on migrants, presenting substantial obstacles to their social and economic advancement.

Social Resilience

Broadly, social resilience refers to the ability of a social entity to recover from, or respond positively to adversity (Maguire & Patrick, 2007). According to Maguire and Patrick (Maguire & Patrick, 2007), social resilience has three properties comprising resistance, recovery, and creativity.

Resistance refers to the capacity of a social entity to withstand a disaster, which can be defined in terms of the level of interruption that can be tolerated without causing long-term disruption to the community. The ability of a social unit to recover after disruption is referred to as recovery. It may be defined as the time it takes for a system to recover to its pre-disaster state. The ability of a system to learn from a calamity is referred to as creativity. With this capability, an entity may fortify itself after a disruption and become more resilient. Generally, the indicators of social resilience include social relations and network structures, institutions and power relations, as well as knowledge and discourses (keck & Sakdapolrak, 2013).
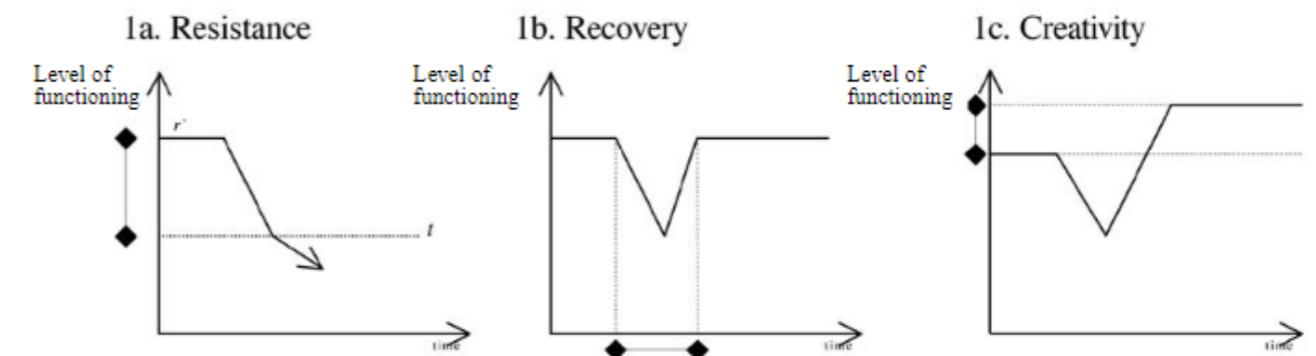
Housing   **Employment**   **Identity**   **Public Space**

Therefore, with the theory of social resilience and vulnerability in consideration, as well as the reality in urban villages, a set of social resilience indicators consisting of housing, employment, identity, and public space is established. Access to affordable housing is one of the most crucial assets for migrants in urban villages, as it is the entity that connects them to the community, making it an essential measure of social resilience. Employment, which may be a significant aspect of knowledge and discourse, is critical for migrants' resilience. Migrants with productive jobs can remain resilient in the face of potential redevelopment and avoid being evicted. Identity is also very important, both legally and psychologically, as it contributes to their power and social relationships. Last but not least, a social network is an intangible asset that may produce various values in the long term.

Vulnerability

Vulnerability is often used as synonym of poverty. However, vulnerability is more dynamic and measures the likelihood of future poverty, whereas poverty is a stable definition focusing on the current financial situation (Moser, 1998). Moser (1998) proposed a five-fold "asset vulnerability framework" including labor, human capital, productive assets, household relations, and social capital.

Within this project, vulnerability serves as the counterpart to social resilience, sharing the same metrics but on the negative side. Vulnerability manifests in four key aspects: housing, identity, public space, and employment, mirroring the dimensions of social resilience. This depiction underscores the current lamentable situation of urban villages in these four domains, highlighting the pressing need for innovation of current urban village redevelopment mode.

Living Lab

"Living Labs (LLs) are open innovation ecosystems in real-life environments using iterative feedback processes throughout a lifecycle approach of an innovation to create sustainable impact.

They focus on co-creation, rapid prototyping & testing and scaling-up innovations & businesses, providing (different types of) joint-value to the involved stakeholders."

--- The European Network of Living Labs (ENoLL)

Zanhualing Village will serve as a "Living Lab," functioning as a pilot project for an innovative method of urban village redevelopment. This approach aims to gather immediate feedback and test the effectiveness of the redevelopment method in a real-life setting. The insights gained from this pilot project will then be scaled up and transferred to all urban villages across the entire city.

The project will propose an innovative approach to redevelopment, encompassing both spatial and governance aspects. The active participation of all stakeholders is crucial to ensure the best possible outcomes. Beyond its immediate impact on Zanhualing Village, the feedback generated from the project will hold immense value for the entire city, and even for all declining communities that may face potential gentrification.

Upskilling

Upskilling refers to the process of acquiring additional skills or knowledge. In the context of urban villages, the lack of job skills is a significant factor contributing to the displacement of migrants once redevelopment takes place. Without adequate job skills, they struggle to secure fulfilling employment and reasonable income, making it challenging for them to sustain higher rent and living expenses following the redevelopment. In this scenario, upskilling becomes a crucial strategy to enhance their resilience in the face of urban redevelopment.

Upskilling can be integrated into the daily life of urban villages, rather than being confined to traditional classroom settings. By embedding upskilling opportunities within the fabric of these communities, individuals can acquire relevant skills and knowledge through practical and accessible means. This approach ensures that upskilling becomes a natural and inherent part of their routine, empowering them to adapt to changing circumstances and improve their social resilience.
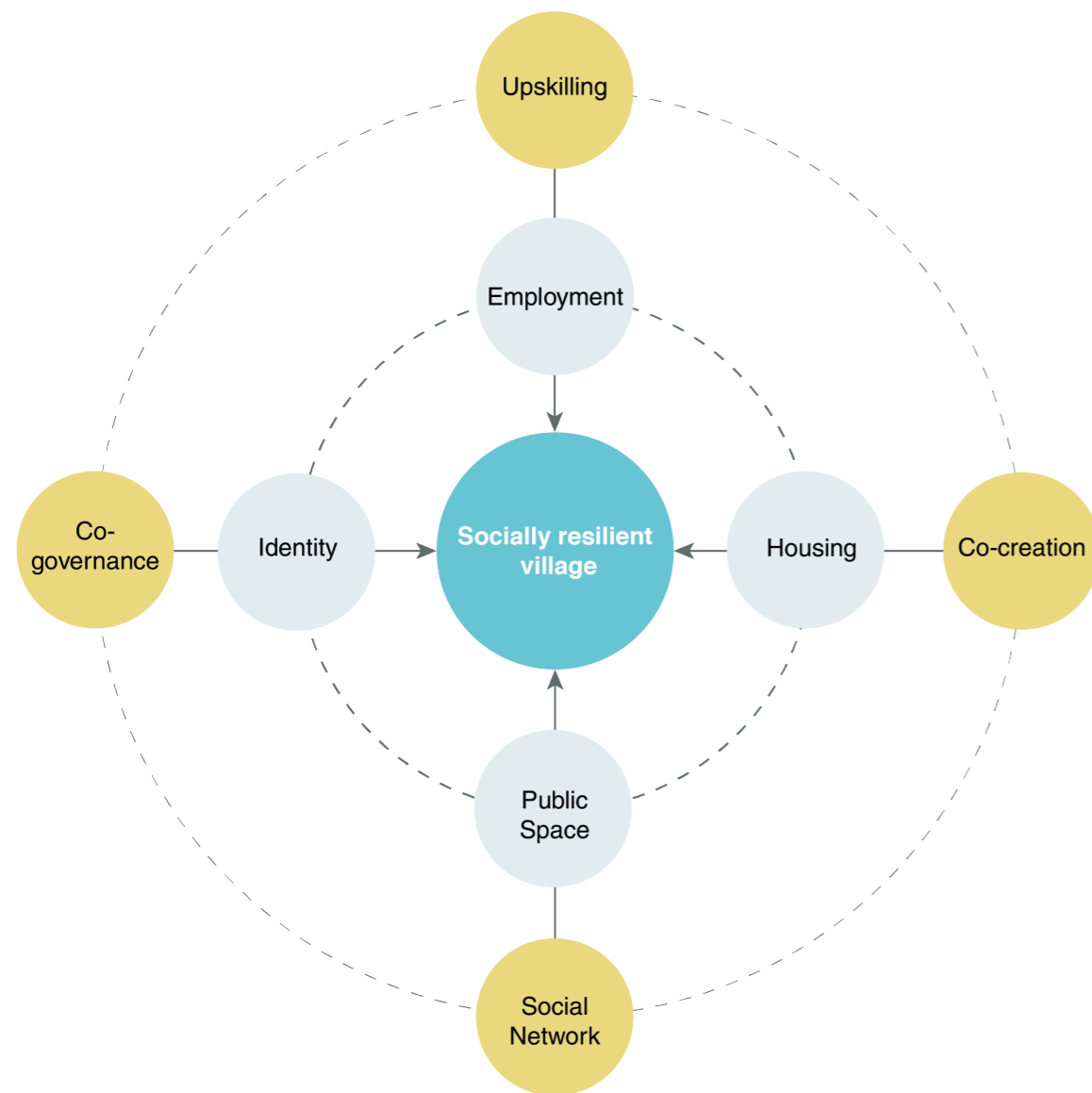
Conceptual Framework

Figure 17 Conceptual Framework

Based on theoretical research, a comprehensive set of indicators for social resilience in urban villages has been established, encompassing housing, employment, identity, and public space. To foster a socially resilient village, it is crucial to promote these four aspects. Strategies such as co-creation, upskilling, co-governance, and social networking will be employed to effectively advance these indicators and accomplish the study's objectives.

Research Aim

The primary objective of this project is to create a living lab for an innovative approach to urban village redevelopment that could improve the community's social resilience in terms of identity, housing, employment, and public space. Additionally, it is anticipated that the approach would spread to other urban villages and become part of Dongguan's strategic planning.

Some tasks must be completed in order to reach this objective.

- A social resilience framework in urban village will be built including aspects that may have an impact on inhabitants' long-term well-being and will be used to assess the existing situation and planning performance.

- A vision of Zanhualing Village emphasizing on the aspects of social resilience will be put forward.

- A transitioning process incorporating stakeholder participation and collaboration, funding method will be created to support the implementation vision.

- Principles of this project to other urban villages in order to form a strategic planning of city of Dongguan.

Scale of Analysis

Dongguan will be the research site on a city scale. The research begins with the challenges associated with urban village redevelopment and evaluates the city's vulnerability, then zooms in to a community scale and uses it as a pilot project. Finally, following certain urban village regeneration in both spatial and governance aspects, the project will return to a city scale, considering the transferability of the pilot project's experience and constructing a strategic planning for the city's urban villages.
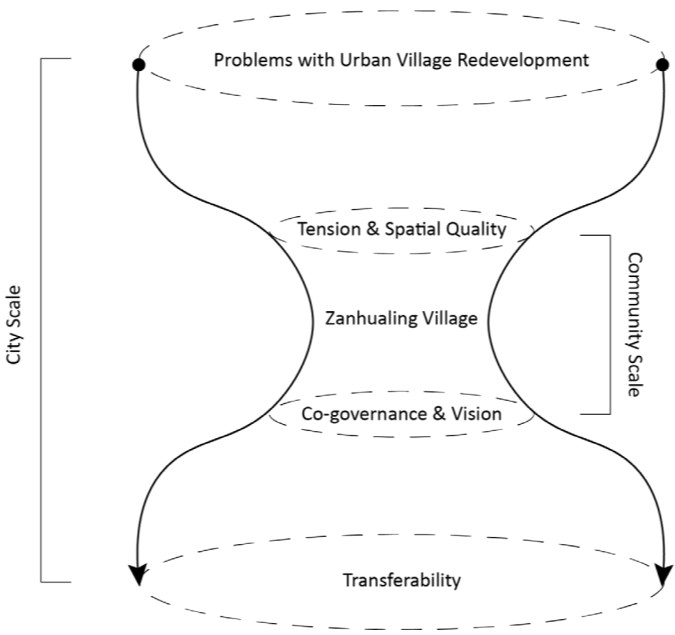
Figure 18 Scales of Research

On a community scale, Zanhualng, an urban village in the heart of Dongguan, will be the site. The project will zoom in on the village to focus on spatial quality issues and stakeholder tensions, and then offer a co-creation strategy and spatial vision for the village. Finally, following evaluation, the experience will be transmitted to other Dongguan urban villages, forming a network to serve the entire city.

Graduation Plan

Problem Definition	Methodology & Data Collection	Analysis	Proposal	Reflection

Problem Statement

Literature Review

Methodology

Data Collection

Data Mining

Interviewing

Policy Review

Data Analysis

Mapping

Stakeholder Analysis

Policy Analysis

Design

Urban Design

Participation & Empowerment

Strategic Planning

Reflection

Evaluation

Reflection

Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.

4 Analysis

Housing Landscape

Supply Side: Housing Type

Village housing in Dongguan has a floor area of 372 million square meters, which accounts for 60% of the total housing floor area, and a land area of 96.36 square kilometers, accounting for 74% of the total housing area(Dongguan Housing and Urban-Rural Development Bureau, 2022).

Demand Side: Residents Type

In Dongguan City, around 70% of the population lives in village housing, while 20% reside in commodity housing and 10% in industrial park dormitories and other residential properties. The overall quality of supporting facilities in farmers' houses is low, and the environmental conditions are bad(Dongguan Housing and Urban-Rural Development Bureau, 2022).

Housing Supply
617.0 millon m²

Residents
10.54 millon

Urban Village Housing
372.0 millon

60%

70%

Residents of Urban Village Housing
7.4 millon

Commodity Housing
184.0 millon

30%

20%

Residents of Commodity Housing
2.1 millon

10%

10%

Industrial Park Domitories
61.0 millon

Residents of Dormitories
1.1 millon
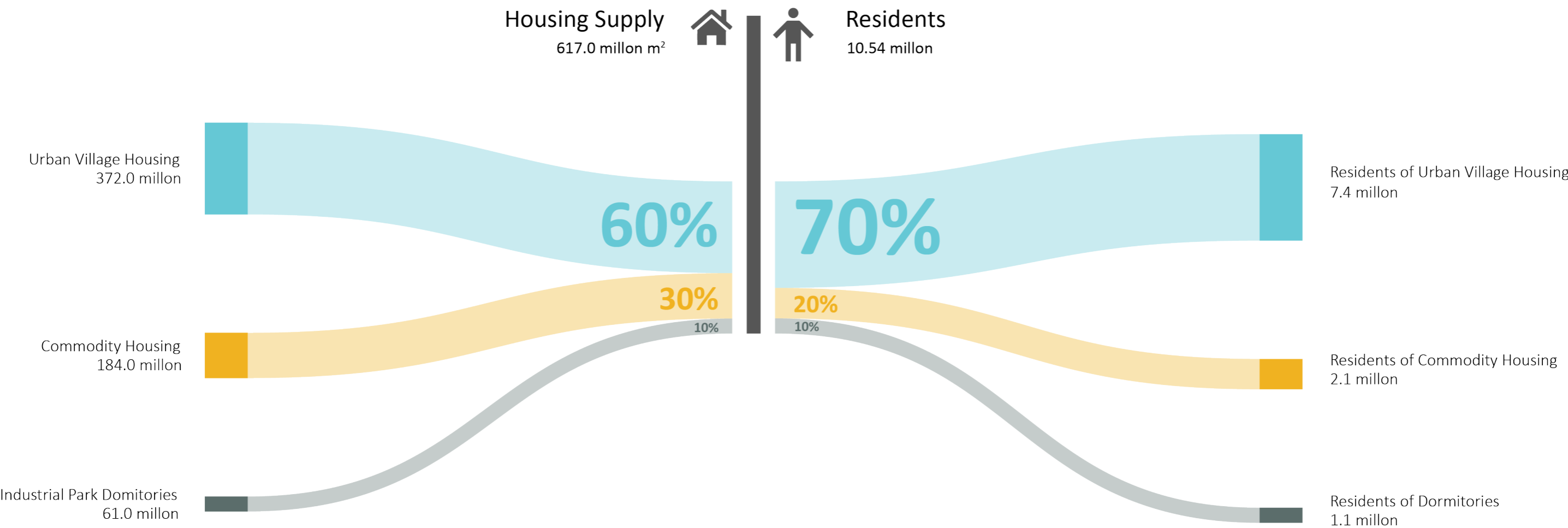
Figure 19 Housing Landscape of Dongguan

Lesson from Shenzhen

Demolition of Urban Villages in Shenzhen
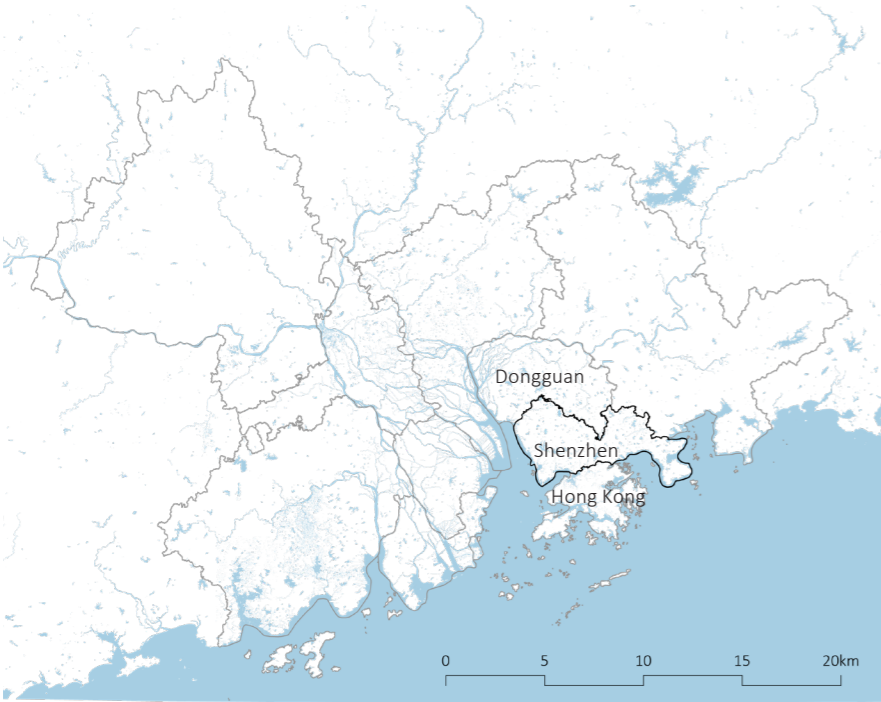
Figure 20 Shenzhen in GBA

Shenzhen is a city located in Guangdong Province, bordering Hong Kong to the south and Dongguan to the north. Since being designated as a special economic zone following the reform and opening-up policy, the city has undergone rapid development over the past forty years. Prior to 1980, Shenzhen was a small fishing town with a population of only 60,000. Today, its population has grown to 13 million, making it the third most populous city in China. Due to its historical background, Shenzhen had a significant number of urban villages. However, over the past two decades, half of these urban villages have been demolished under the banner of urban renewal. While city officials viewed this as a means to reduce crime and improve the city's image, developers were primarily attracted by the land value of these villages (Walsh, 2020). Nevertheless, this process of rough demolition and reconstruction has resulted in various issues.

Loss of land use freedom;
Loss of stable rental income;
Increased cost of living

Villagers

Migrants

Displacement;
Increased commuting costs;
Unemployment of low skilled workers

City

Decline in urban land use efficiency;
Loss of labor and enterprises;
Increased the poor-rich gap;
Decline in city competitiveness

Figure 21 Lessons from Shenzhen

Lesson from Shenzhen

Comprehensive Improvement of Urban Villages

Shenzhen has recognized the significance of urban villages in offering affordable housing and has implemented a Masterplan for the Comprehensive Improvement of Urban Villages in the city. The plan designates severe urban villages as comprehensive improvement zones. Within these zones, traditional "demolish-rebuild" method is strictly restricted, while comprehensive improvement is encouraged.

"Encouraging comprehensive improvement within the designated zones. Providing guidance to each district to systematically promote the large-scale transformation of urban village housing within the designated comprehensive improvement zones, ensuring that eligible housing units are included in the housing security system."

"With the concept of organic renewal, and taking the comprehensive zoning as the key approach, the overall planning aims to coordinate the redevelopment of urban villages in a scientific, standardized, and orderly manner. Active promotion of comprehensive renovation in urban villages is emphasized, with a focus on eliminating safety hazards, improving living environment and supporting services, as well as preserving historical and cultural characteristics."

---Masterplan for Comprehensive Improvement of Urban Villages in Shenzhen

深圳市城中村（旧村）综合整治总体规划（2019−2025）
Masterplan for Comprehensive Improvement of Urban Villages in Shenzhen

Map of Comprehensive Improvement Area
城中村综合整治分区范围图

区域	分区规模（公顷）
福田	127
罗湖	135
南山	181
盐田	12
宝安	1610
龙岗	1487
龙华	859
坪山	409
光明	416
大鹏	266
总计	5502

图例 ▮ Comprehensive Improvement Urban Villages
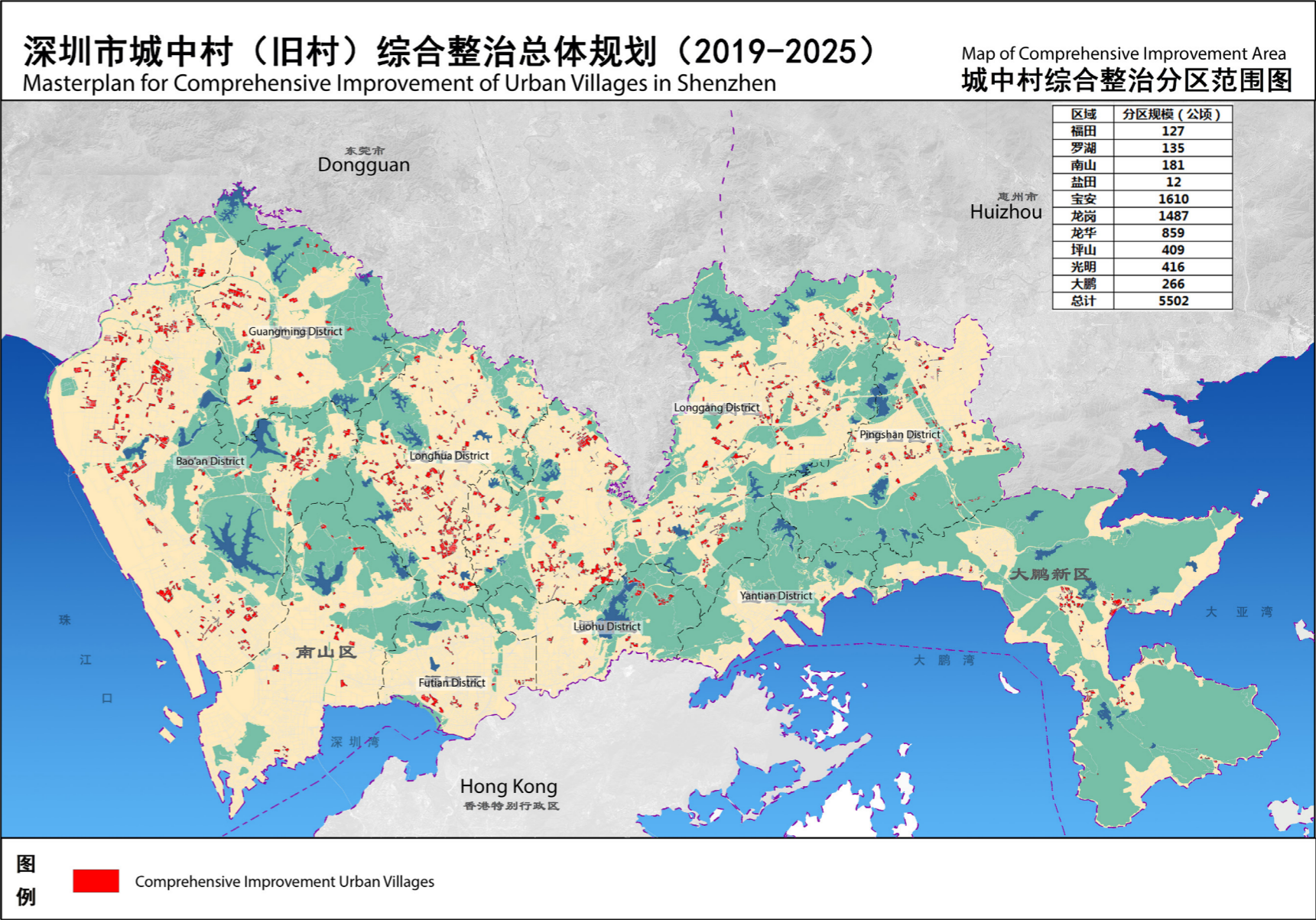
Figure 22 Master Plan for Comprehensive Improvement of Urban Villages in Shenzhen (2019-2025) | Souce: Shenzhen Planning and Natural Resources Bureau

MACRO: City of Dongguan

Urban Structure

Population: 10.54 million

Local population: 2.79 million

Dongguan, known for its thriving economy and abundant job opportunities brought by manufacturing industry, attracts a large number of migrants. However, this influx of population places significant strain on the housing supply in the city. To address the substantial demand for housing, Dongguan has planned to construct 500,000 units of urban housing during the 14th Five-Year Plan (2021-2025) period, aiming to achieve a balance between supply and demand. Notably, 30% of this housing, equivalent to 150,000 units, will be designated as affordable housing to cater to the diverse needs of residents (Dongguan Housing and Urban-Rural Development Bureau, 2022). However, the challenge lies in constructing 150,000 units of affordable housing by 2025, which poses a significant financial burden for the local government. In light of this, a potential solution is to utilize the numerous urban villages in Dongguan and transform them into affordable housing. This approach offers a win-win situation as it avoids extensive demolitions of urban villages and alleviates the pressure on local governments to construct affordable housing from scratch.

- ● City Center
- ● Secondary Center
- ■ Urban Built-up Area
- ▢ Administrative Boundary

0   10   20   30   40km

Figure 23 Urban Structure of Dongguan

Industrial Distribution

Manufacturing is the foundational pillar and core strength of Dongguan, driving its competitivity. By the end of 2021, Dongguan had established an advanced manufacturing system comprising 200,000 industrial enterprises, over 12,800 large-scale industrial enterprises, 7,374 national high-tech enterprises, 74 publicly listed companies, 24 companies with a market capitalization exceeding 10 billion RMB, and 3 companies with a market capitalization exceeding 100 billion RMB (People's Government of Guangdong Province, 2022).

As Dongguan transitions from being a manufacturing city to a city characterized by "Technological Innovation + Advanced Manufacturing," the importance of innovation becomes significant. Fostering innovation is an urgent demand for the city's future growth. In this context, urban villages located near industrial areas can play a significant role as incubation hubs for innovation. These villages can provide a conducive environment for nurturing innovative ideas, fostering collaboration, and facilitating the development of emerging industries that align with the city's vision.

Railway

Highway

Industrial Park

Industrial Built-up Area

Administrative Boundary

| 0 | 10 | 20 | 30 | 40km |

Figure 24 Industrial Distribution of Dongguan

Ecological Preservation

In Dongguan City, land development intensity has reached about 50%, approaching the bottleneck of construction land resources. To implement the "half landscape, half city" overall land and space planning, the city needs to innovate mechanisms and increase the supply of residential land through urban renewal and other methods while revitalizing stock housing(Dongguan Housing and Urban-Rural Development Bureau, 2022). For the urban villages near or in ecological preservation area, urban villages can be good buffer zones for ecological preservation. For urban villages located near or within ecological preservation areas, they can serve as valuable buffer zones for ecological conservation. Furthermore, these urban villages possess attractive natural resources and unique built environments, making them ideal for the development of the leisure industry. By utilizing these assets, Dongguan can work towards becoming a sustainable and livable city in the long run.

△ Mountain

Nature (Construction Restricted)

Nature (Construction Banned)

Water

Administrative Boundary

Figure 25 Ecological Preservation of Dongguan

old urban non-urban edge-expansion infilling outlying

(a) 1988-1993

(b) 1993-1997

(c) 1997-2001

(d) 2001-2006

0   12   24   km
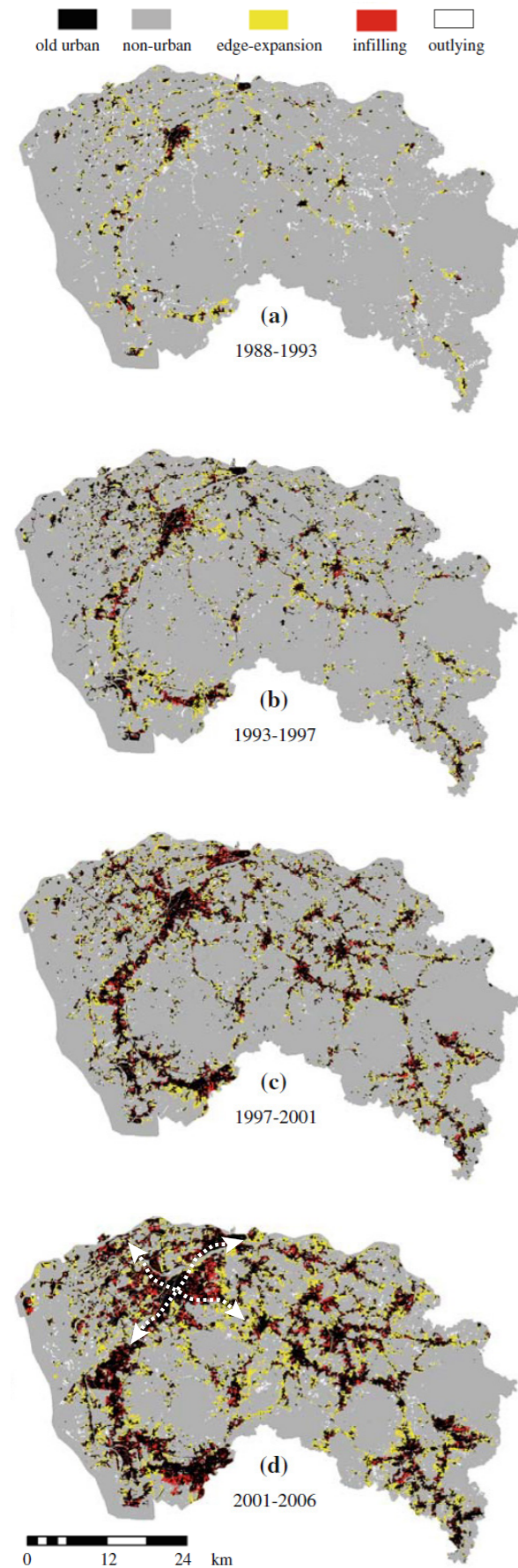
Figure 26 Historical Revolution of Dongguan

By examining the historical evolution of Dongguan city's urban morphology, a distinctive cross pattern in the central city emerges, formed by two axes. These axes have been explicitly emphasized in the official planning documents. The east-west axis serves as a leisure corridor, connecting natural resources and recreational spaces, while the north-south axis represents urban development. Understanding these two axes is crucial in comprehending the urban structure of Dongguan city.

Urban Village

City Center

Secondary Center

Nature (Construction Restricted)

Nature (Construction Banned)

Industrial Park

Highway

0   10   20   30   40km
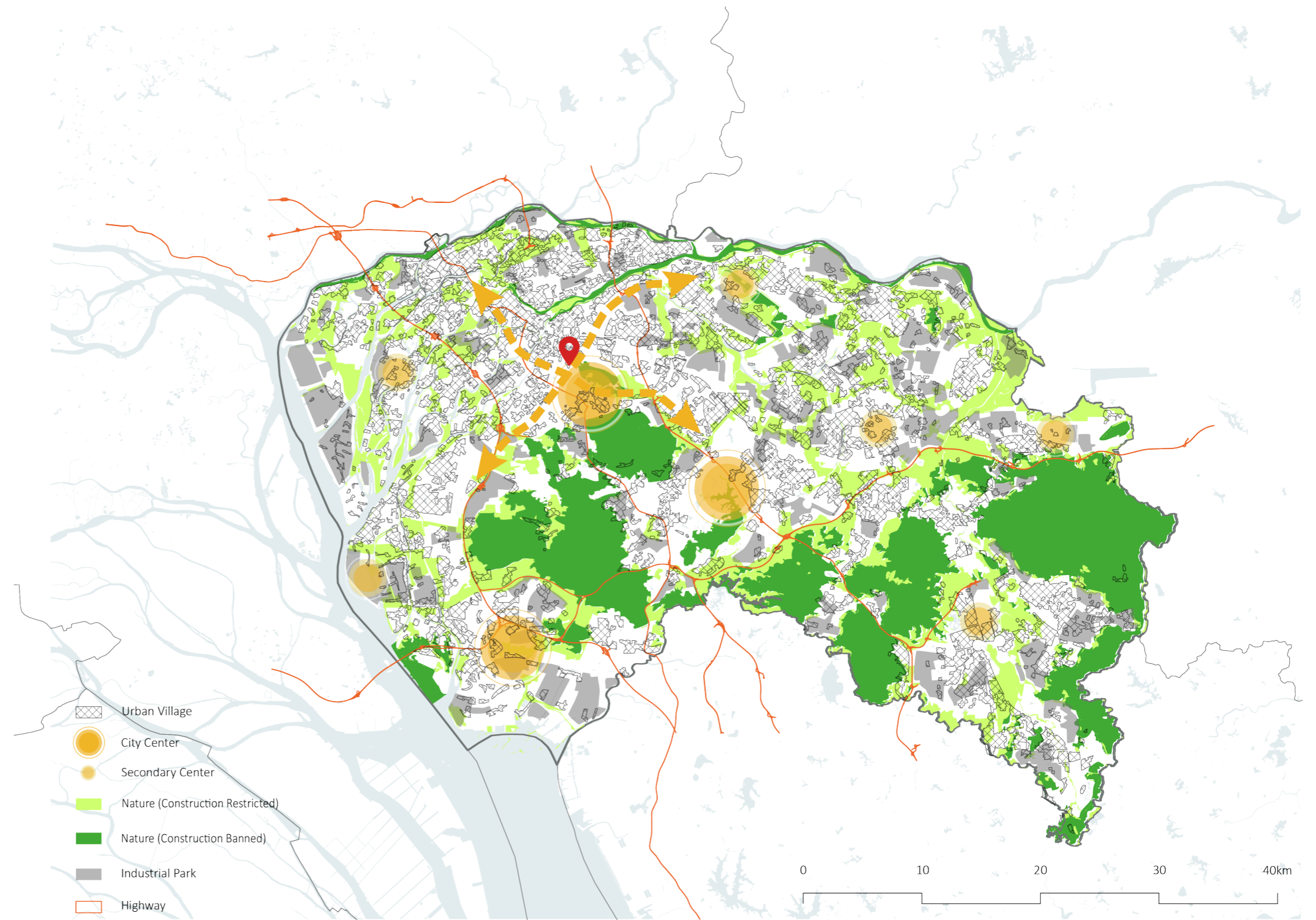
Figure 27 Axis of Dongguan

Central Dongguan

If we zoom into the central city, the significance of the two axes becomes evident from a spatial perspective. The north-south axis roughly align with the metro lines, and the east-west axis connects the western part of the city with abundant water networks and natural parks situated in the eastern part. At the intersection of these axes lies the pilot project, Zanhualing village, which holds great significance within the city.

Figure 28 Central Dongguan

MICRO: Zanhualing Village

Figure 29   Analysis of Zanhualing

On a micro scale, Zanhualing village is surrounded by several significant urban facilities, such as the municipal government and Huangqishan city square. However, the village only has entrances on the western side, while the eastern side remains closed off, hindering access to the main city road, metro station, and the city park.

Furthermore, upon mapping the area of interest, it becomes apparent that there is a lack of educational facilities in this particular area. The limited availability of educational institutions poses a challenge for residents in terms of accessing quality education within their immediate vicinity.

Vulnerability - Identity

A survey was conducted at Zanhualing Village to investigate the basic information pertaining to the social resilience of migrants, detailed information about the questionaires is in Appendix.

Location: Zanhualing Village

Timing: Daytime on a weekday

Participants: Migrants residing in Zanhualing Village

Sample Size: 25 respondents

Valid Responses: 24
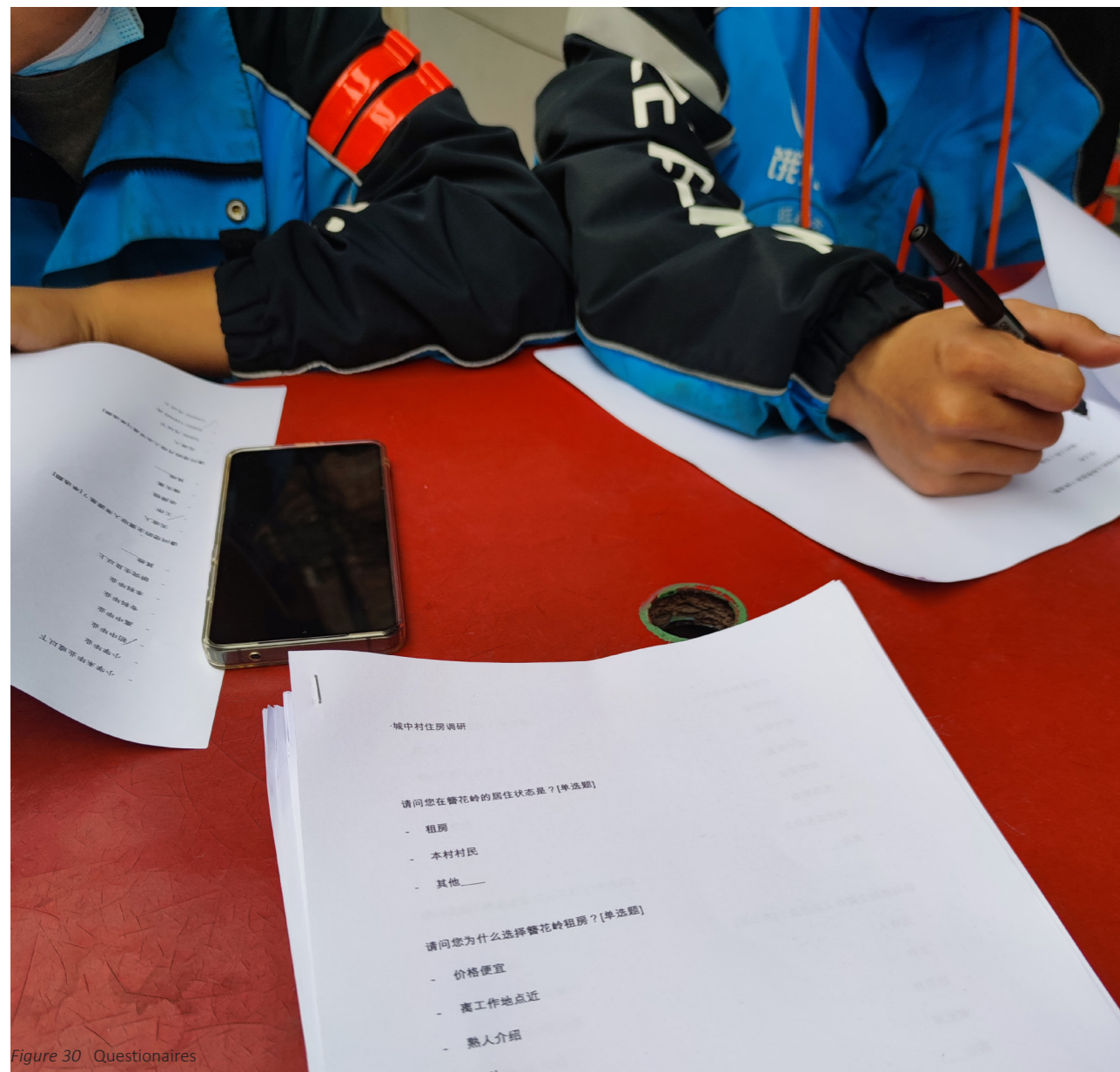
According to the survey, a majority of the individuals living in Zanhualing and identified as migrants are predominantly young and possess a decent level of education. They have deliberately chosen to reside in this area due to its central location and comparatively low rental costs. While they currently have access to affordable housing in urban villages, there is a notable absence of safety assurance in various aspects of their housing conditions. As the process of traditional redevelopment unfolds, these migrants are likely to face the unfortunate consequence of losing their affordable housing options.
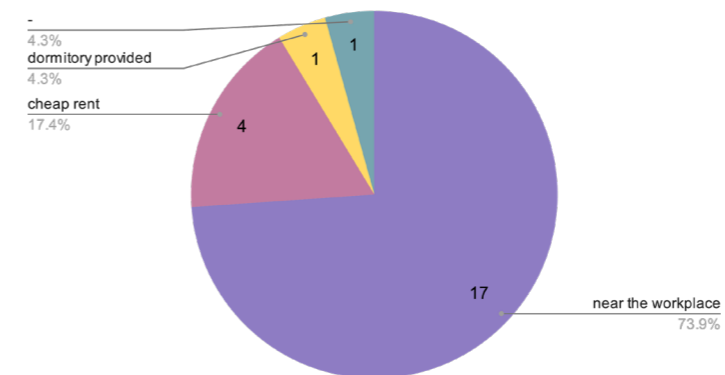
Reasons of Living Here

- 4.3%
dormitory provided 4.3%
cheap rent 17.4%
4
1
1
17
near the workplace 73.9%

Education Level

master 4.3%
high school 26.1%
junior high school 13.0%
1
6
3
7
6
college 30.4%
bachelor 26.1%

Age Group

46-60 4.3%
27-45 13.0%
<18 4.3%
3
1
1
18
18-26 78.3%

Vulnerability - Public Space

Public Space
Communal Space

Section A - Public Road

5400

Section B - Communal Road

3000

100m
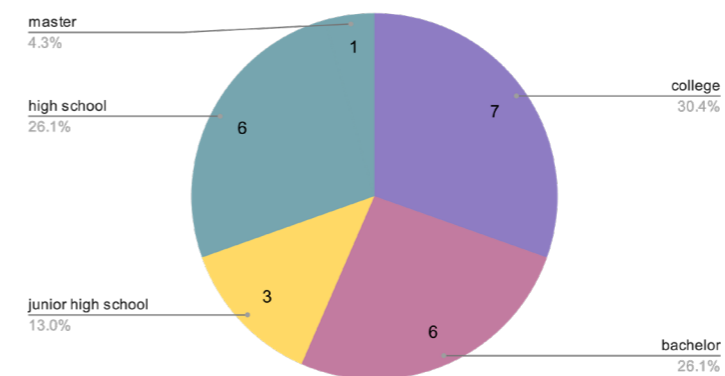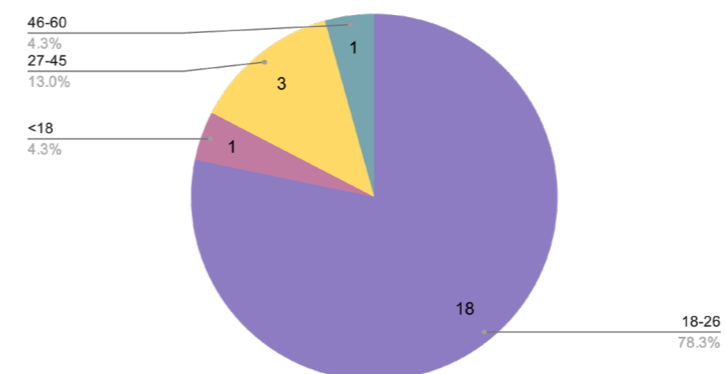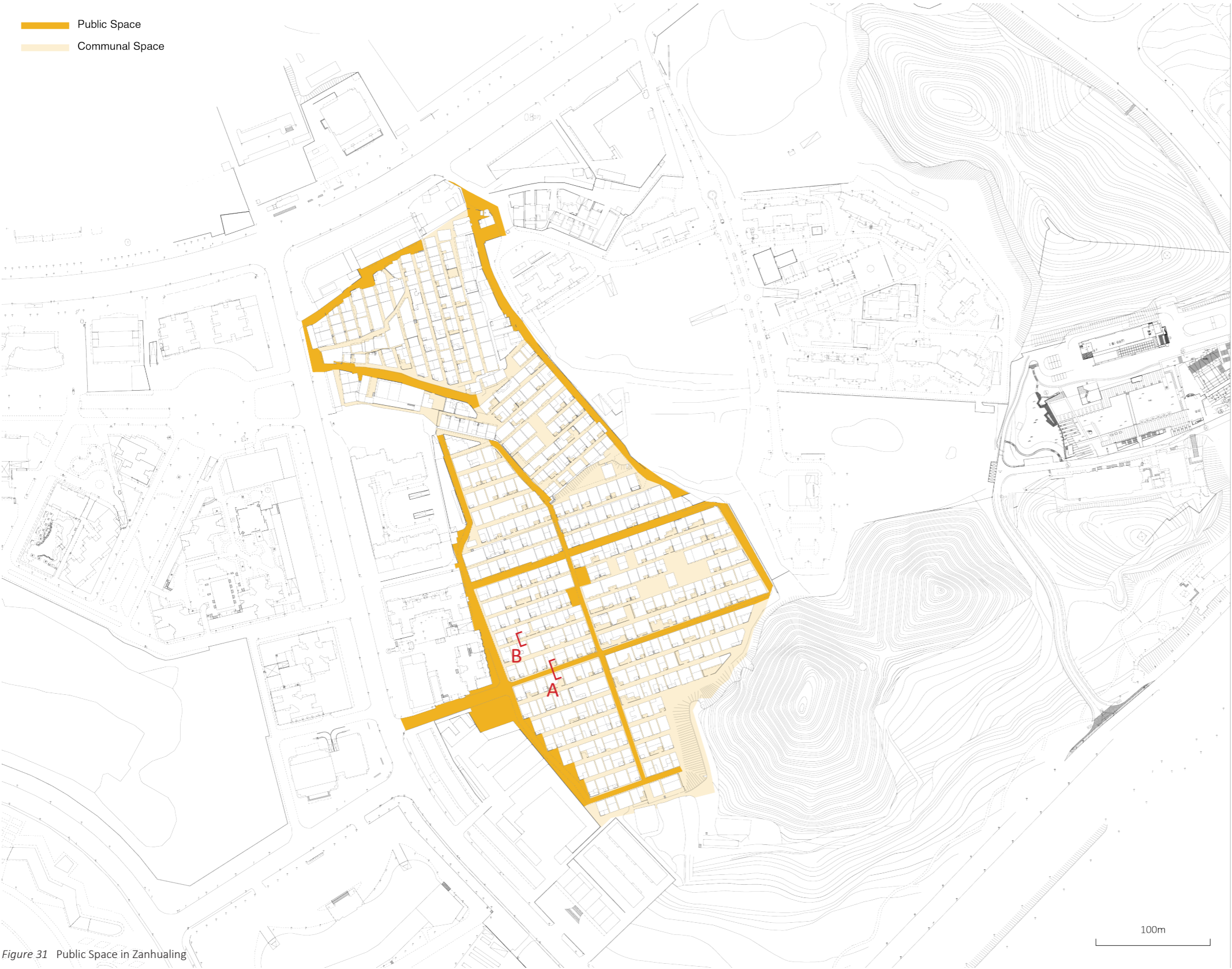
Figure 31   Public Space in Zanhualing
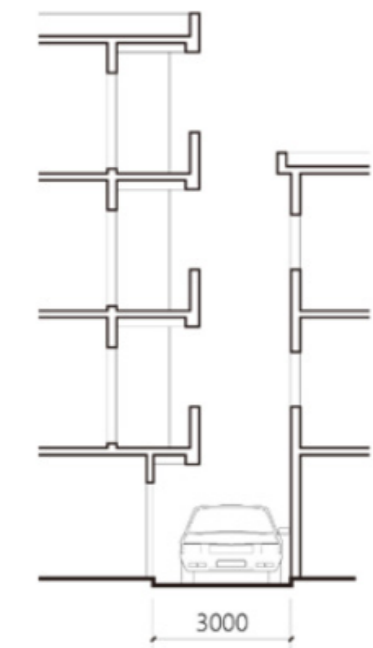
Vulnerability - Public Space

Activities in Public Spaces

Stacking Sundries

Living Space

Hanging Clothes

Stall

Outdoor Furniture

Parking

Figure 32 Public Space Use in Zanhualing

Currently, the public spaces in Zanhualing Village are characterized by poor quality. Many of these spaces are leftover areas or appropriation of other space. The majority of these spaces are repurposed to expand the limited indoor living areas for essential activities such as storing miscellaneous items, furniture, hanging clothes, and parking.

Most Visited Public Spaces
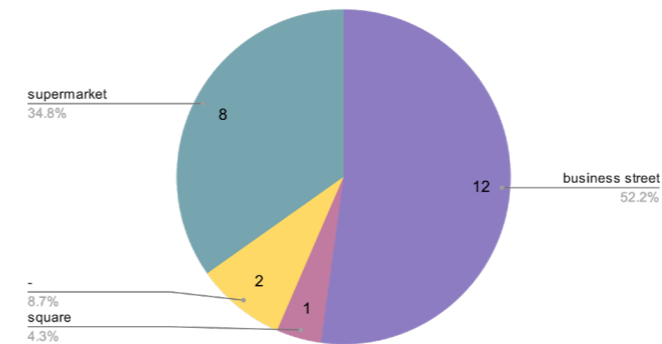
Based on respondent feedback, the business street and supermarket are the village's most visited places, while the main public space, the square, receives little mention. This indicates that the village's public spaces are underutilized.

Familarity with Neighborhoods
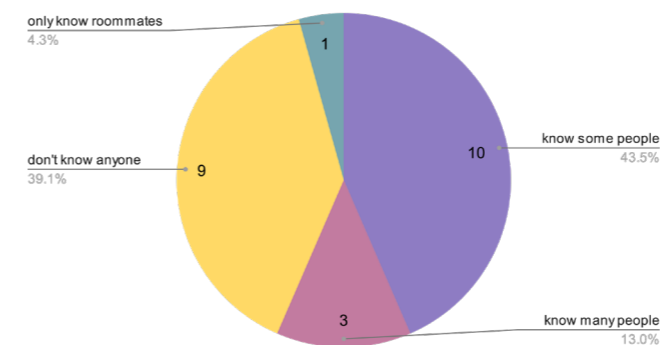
Out of those interviewed, 40% of people stated that they do not know anyone in the village they reside in, while 43% reported knowing some people. Only 3% of individuals mentioned knowing many people. This data suggests that the interaction among residents in the village is limited.

Estimated Stay Length
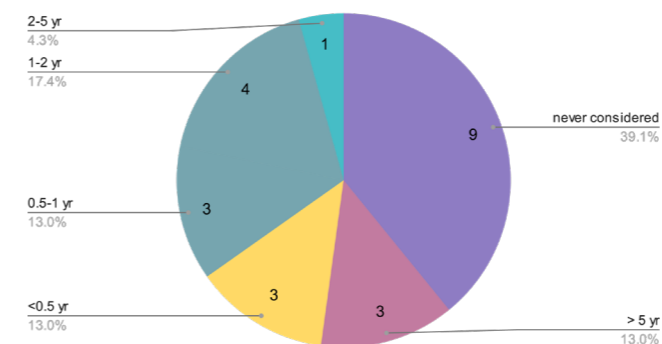
Excluding those who had never considered their stay length, only 13% of respondents expressed their intention to stay in the village for more than 5 years. This aligns with the typical characteristic of migrants in urban villages, who tend to exhibit high mobility.
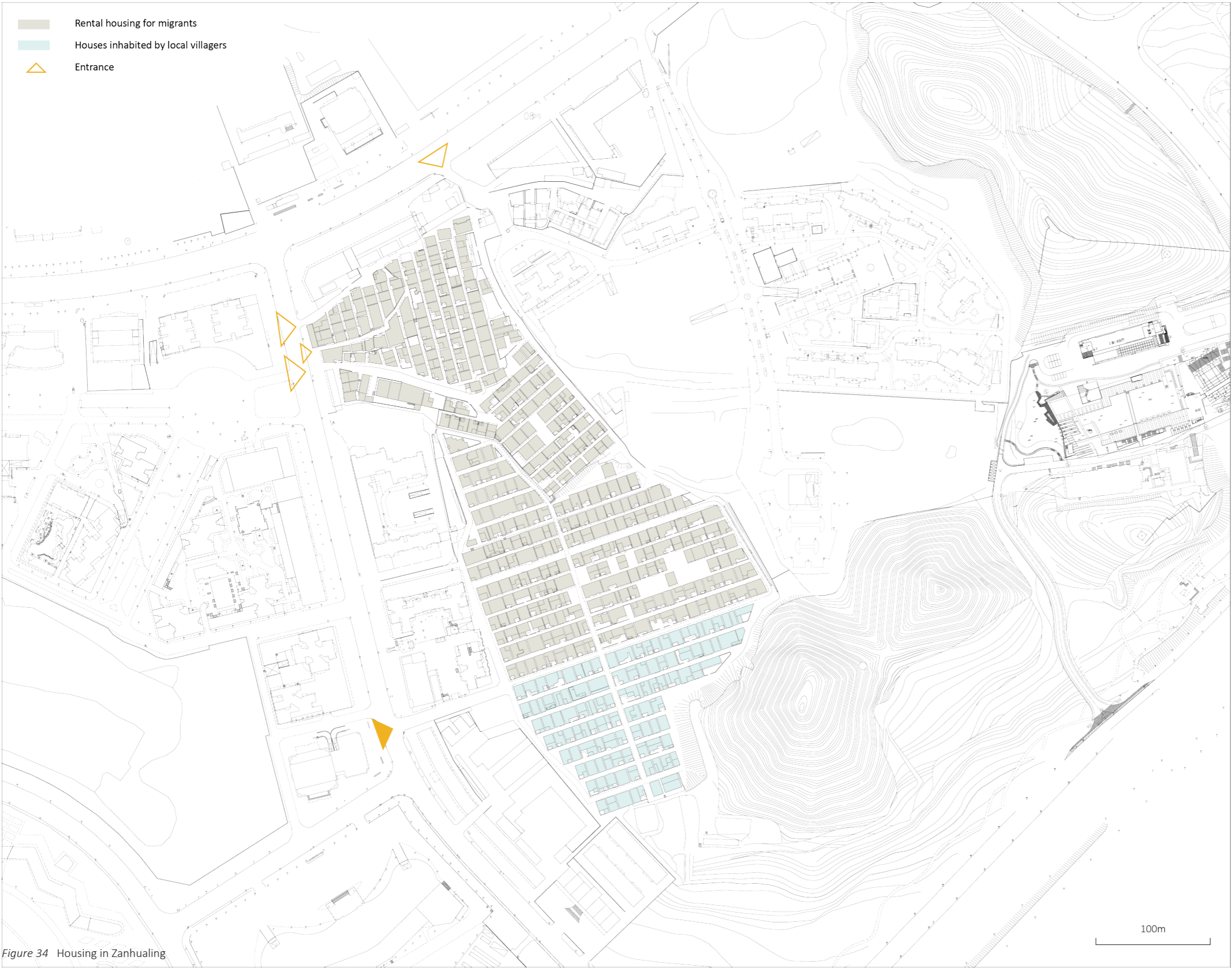
Barrier Map

Legend:
- Primary Road
- Revetment
- Wall
- Entrance

Intermediate

Highest

Intermediate

Lowest

B

A

C

Figure 33 Barriers in Zanhualing

100m

A - Entrance Guard

B - Wall

C - Revetment

Vulnerability - Housing

Rental housing for migrants

Houses inhabited by local villagers

Entrance

Figure 34 Housing in Zanhualing

100m

There is a clear dividing line betweenthe areas where local villagers reside and the rental housing designated for migrants. The streets where local residents gather exhibit a tidy appearance, and these areas are situated adjacent to the mountains, providing better landscape resources. On the other hand, the rental housing for migrants is denser in terms of construction. Additionally, the provided pictures highlight significant differences in housing quality between the two areas.

Rental housing for migrants

Housing of villagers

Housing Overview

Figure 35 Houisng in Zanhualing

Total site area: 77300 m2

Number of buildings: 475

Building footprint area: 46644 m2

Total floor area: 233220 m2 (estimated)

Floor Area Ratio (FAR): 2.56

Building density: 57.7%

Living Condition

Based on the interview, the majority of rental housing for migrants in Zanhualing Village are adequately equipped with independent toilets and kitchens, although living rooms are less commonly provided. Additionally, the monthly rent for these housing units interviewed are all below 1000 Chinese yuan (approximately 130 Euros), which is considered a fair price for most migrants.

shared
4.3%

1

22

independent
95.7%

Living Facility - Toilet

shared
4.3%

1

9

independent
39.1%

no living room
56.5%

13

Living Facility - Living Room

no kitchen
13.0%

3

20

independent
87.0%

Living Facility - Kitchen
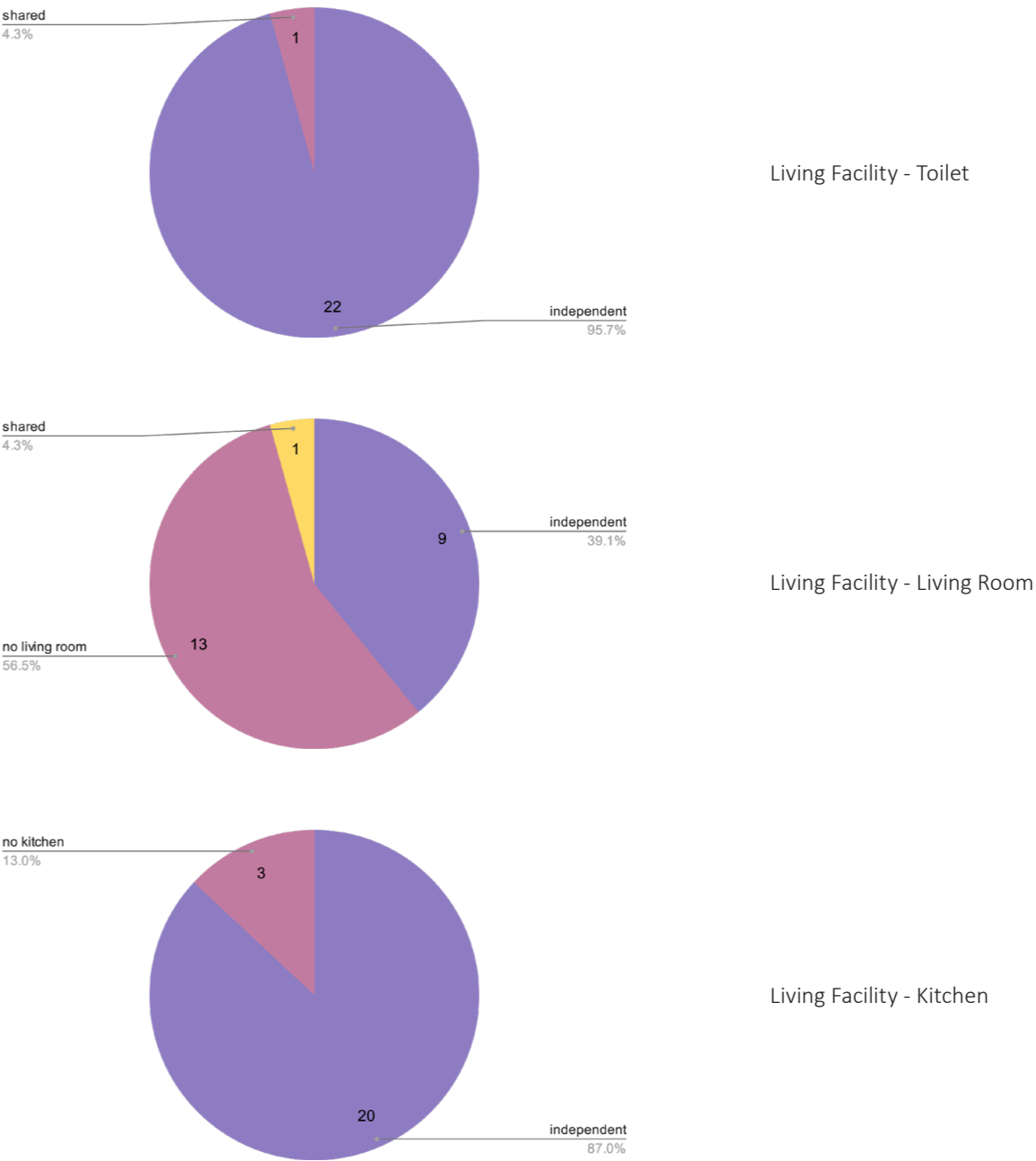
Vulnerability - Employment

A significant proportion of the survey respondents in Zanhualing are employed in full-time positions, but their income levels remain relatively low.

Primary Road

Business

Entrance

Figure 36 Business in Zanhualing

100m

Commuting Mode

- 4.3%

public transport
30.4%   7

walking
43.5%   10

driving
8.7%   2

cycling
13.0%   3

1

Income Level

- 4.3%
>10000
8.7%   2

<5000
43.5%   10

5000-10000
43.5%   10

1

Commuting Time

- 4.3%

<10 min
30.4%   7

10-30 min
65.2%   15

1

Distance from Workplace

- 4.3%
within the village
13.0%   3

3-10 kilometer
13.0%   3

<3 kilometer
69.6%   16

1

Job Type

- 4.3%
self employment
8.7%   2

full-time
87.0%   20

1
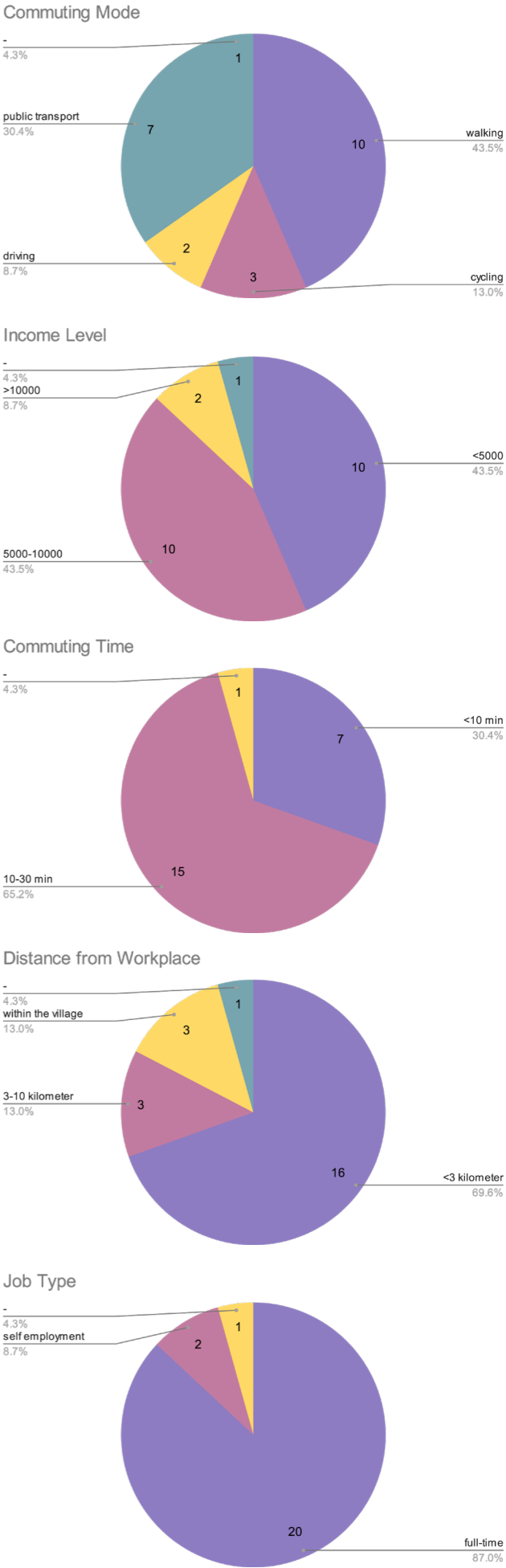
Governance of Urban Village

Before delving into the redevelopment of urban villages, it is crucial to understand their distinct governance structure, which significantly influences the implementation of any redevelopment proposal. In urban China, there exists a robust top-down governance hierarchy model, typically adhering to a "country-province-city-district-neighborhood" framework. However, due to the presence of an urban-rural dual system within urban villages, the urban governance does not fully apply to the urban villages. Instead, an additional bottom-up governance by the village collective exists. This dual governance system requires careful consideration when planning and executing redevelopment.

Urban Village   Other Urban Area

/// Coverage of urban development

▨ Coverage of urban service

The Village Collective is represented by a village committee that is elected by the villagers, and its members consist exclusively of local villagers. The nature of this committee make it solely focus on the interests of villagers and tends to ignore migrants.

Figure 38 Village Collective

Administrative Level

Top-down

People's Republic of China
Population: 1.412 billion

Guangdong Province
Population: 126.568 million

Dongguan City
Population: 10.467 million

Nancheng District
Population: 0.418 million

Bottom-up

Zanhualing Village
Population: over 10000, 529 local

Stakeholders

Central Government

Provincial Government

Municipal Government

District Government

Village Collective

Figure 37 Governance in Zanhualing Village

Spatial Claim

Property Boundary

The property boundary marks the collective land owned by the urban vilallge

Houses occupied by tenants

These houses are rent and lived by tenants

Stakeholders:

- tenants

Houses occupied by owners

These houses are lived by their owners

Stakeholders:

- property owners

Leased Property

The property leased out by the village collective to private sectors.

Stakeholders:

- village collective

- local companies

Unqualified Apartments

The village collective sold the property to small developers, who then built flats and sold them to homebuyers at below-market prices because it is forbidden to build commercial housing on collective land.

Stakeholders:

- small developers

- homebuyers of unqualified housing
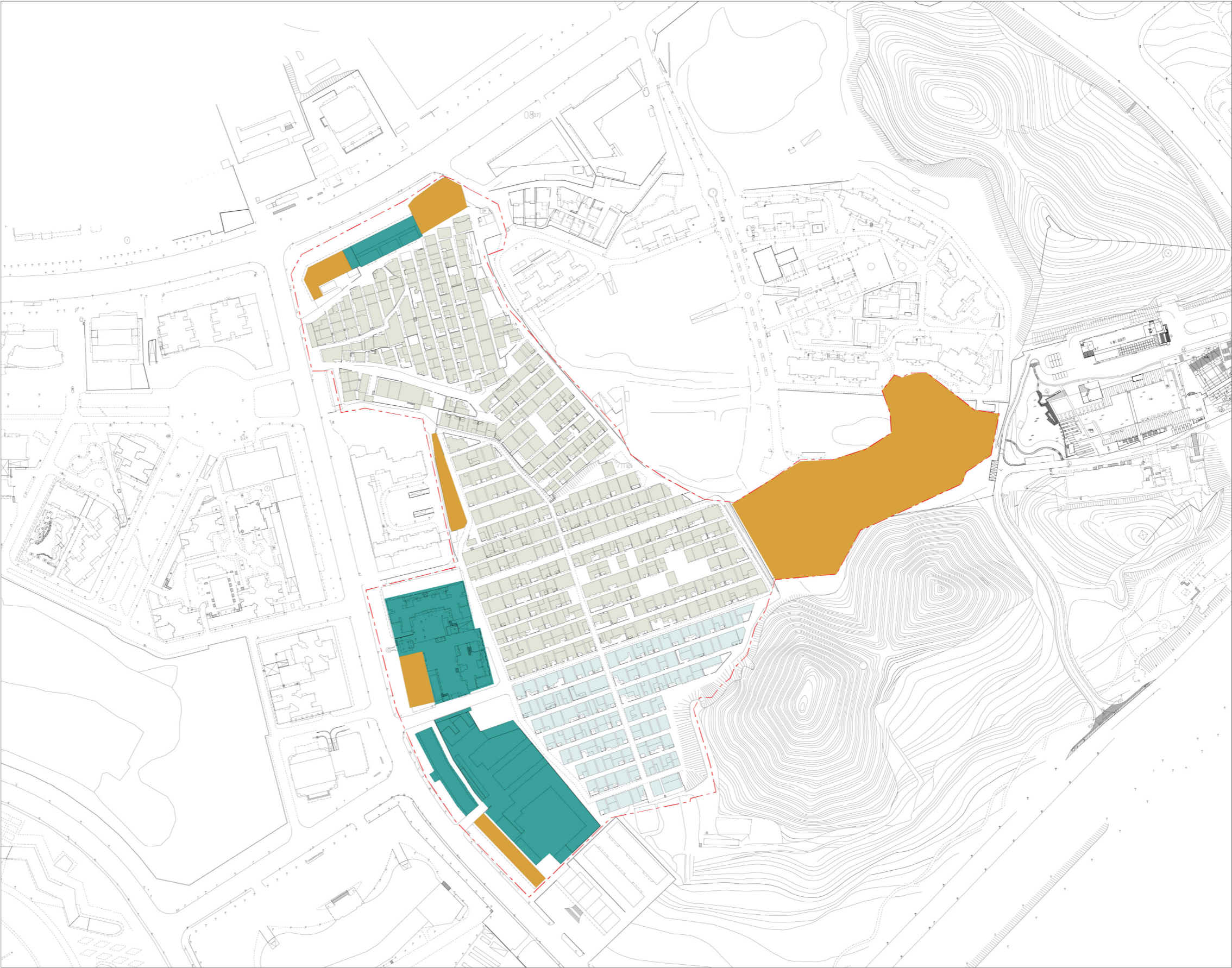
Figure 39 Spatial Claim of Zanhualing

Opportunity

Leased Property
Potential Connection
Public Space
Communal Space
Public Green

Municipality Square

Metro Station

100m

Figure 40 Opportunities for Zanhualing

Based on the aforementioned analyses, an opportunity map has been formulated. Towards the west, there are central squares and other urban leisure spaces, while towards the east, there are hills, natural areas, and a metro station situated along the main city road. The village has a significant opportunity if the connection can be built, which can provide access to various leisure spaces and public transport nodes. Additionally, the village has existing public and communal spaces; however, these areas are currently underused and of low quality. Furthermore, the potential for utilizing leased-out properties also presents an opportunity for further development.

Redevelopment Proposal

MICRO: Zanhualing Village

Concept
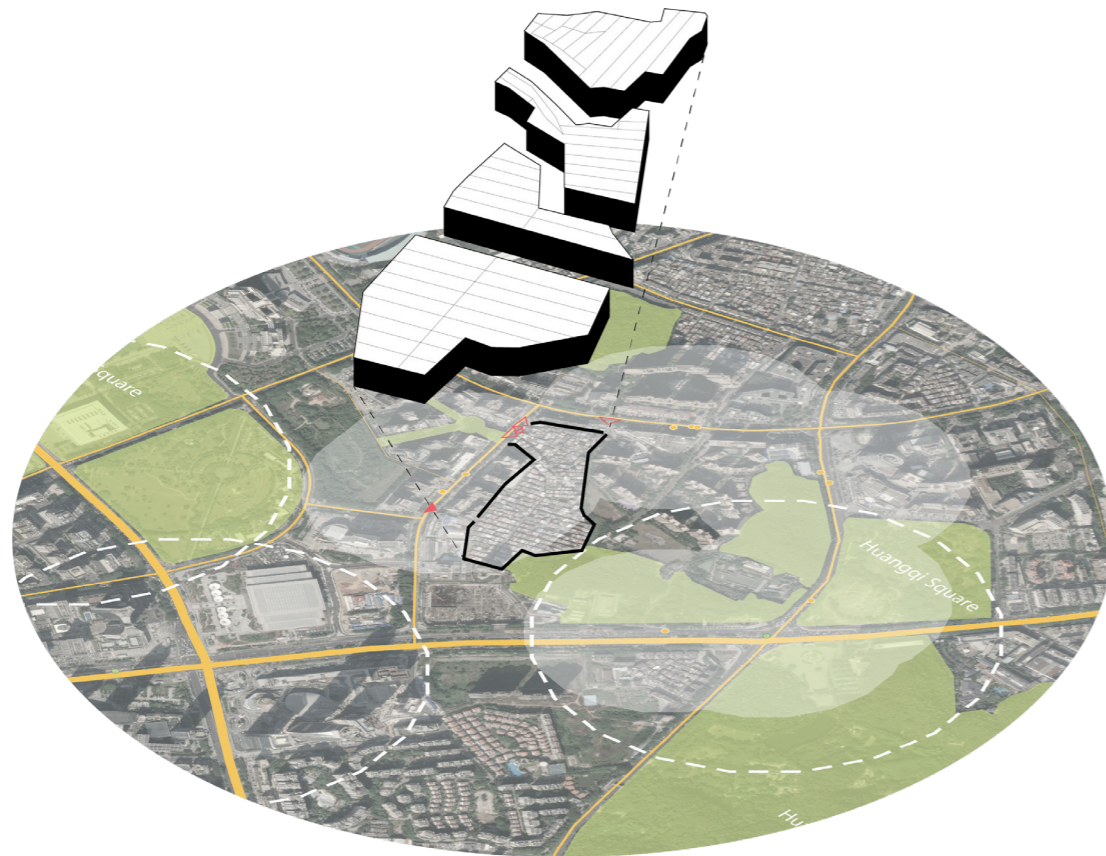
Figure 41 Isolated and Fragmented Island

The main issue with Zanhualing Village is its isolation and fragmentation, as highlighted in the analysis section. The village is cut off from the surrounding urban context due to tangible boundaries such as walls and revetments, as well as intangible barriers like social and economic disparities between the village residents and those in other areas. Moreover, the village itself is internally fragmented due to varying elevation levels and inadequate connectivity, which hinders residents' access to services and facilities beyond their immediate vicinity. These factors contribute to a profound sense of disconnection and exclusion among the village inhabitants, rendering it challenging to foster community cohesion and social integration.

1 - The demand for connectivity is blocked
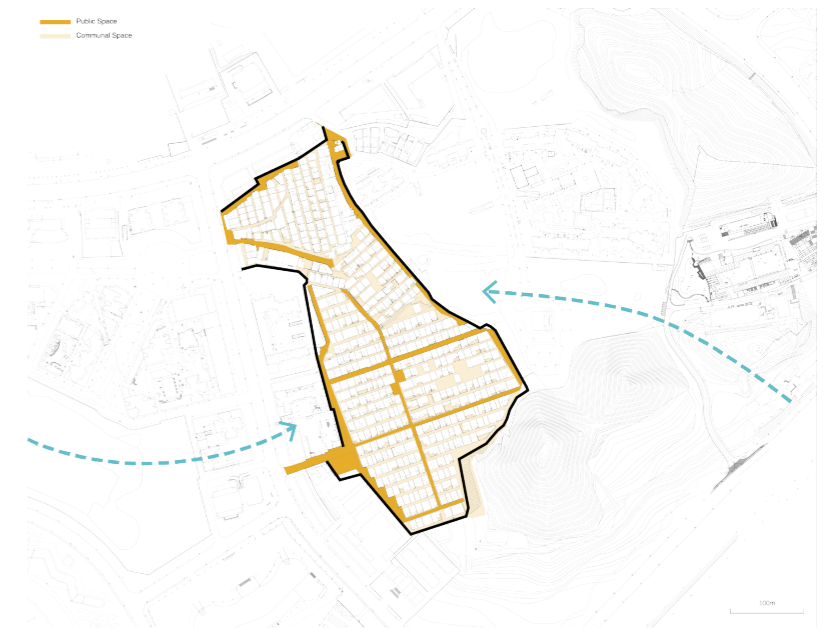
2 - The public routes stitch it together with the city
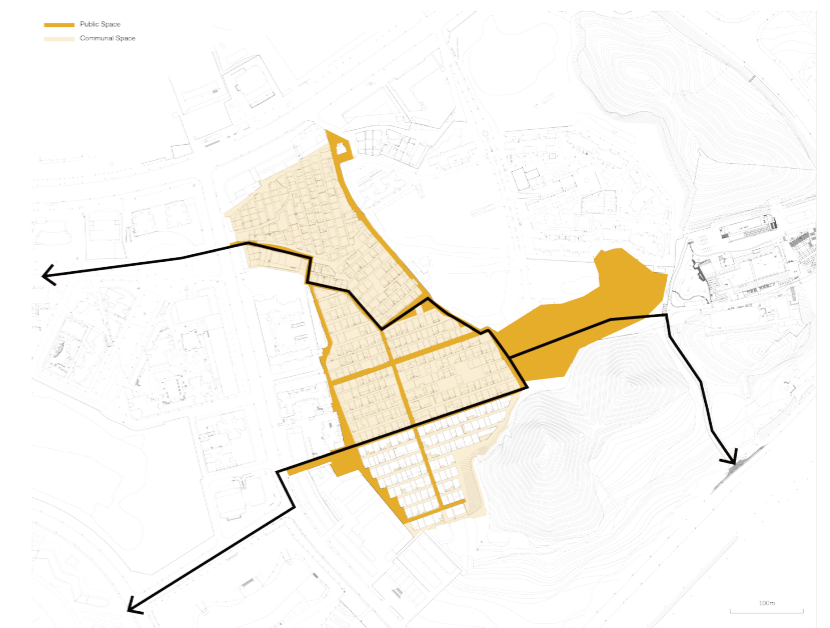
3 - Communal spaces grow gradually and connect the village as a whole
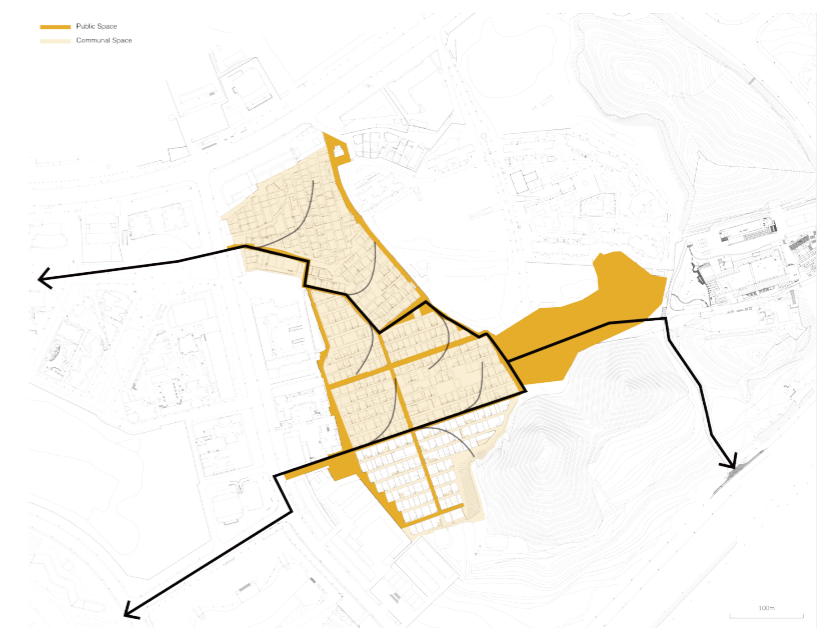
Figure 42 Concept

Art as Trigger

Art

Artist Studio
PRIVATE

Workshop
COMMUNAL

Open Gallery
PUBLIC
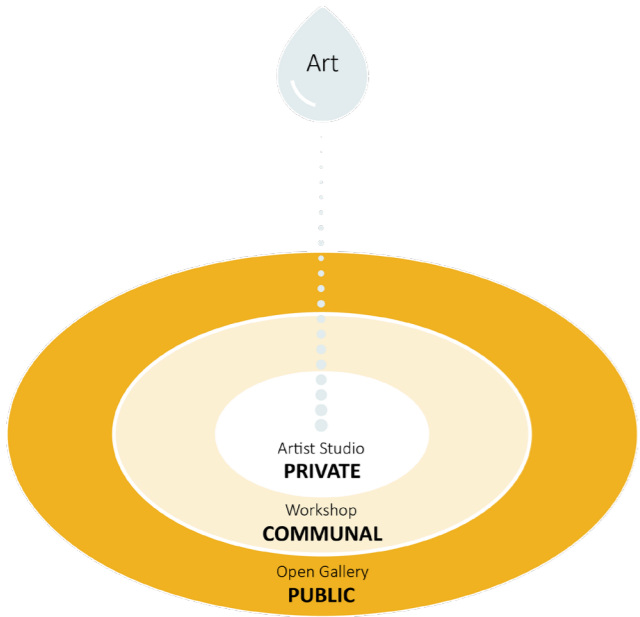
The "Art as Trigger" strategy aims to use art as a catalyst for the redevelopment of the urban village. By introducing art to the community, the strategy seeks to create a ripple effect of positive change throughout the village. The goal is to empower the community to take an active role in shaping its own future, by promoting a bottom-up approach that focuses on art as the key element. Through the establishment of artist studios, workshops, and other co-creation activities, the strategy seeks to attract artists to the village, while also providing residents with training and employment opportunities. By becoming an open gallery that showcases the distinctive cultural character and creativity of the community, the village will be able to attract visitors and stimulate local economic growth. Ultimately, the "Art as Trigger" strategy seeks to create a vibrant and inclusive urban village that celebrates diversity, fosters creativity, and supports the well-being of all residents.

Strategic Location
Public Route
Public Space
Communal Space

Figure 43 Art triggering spaces
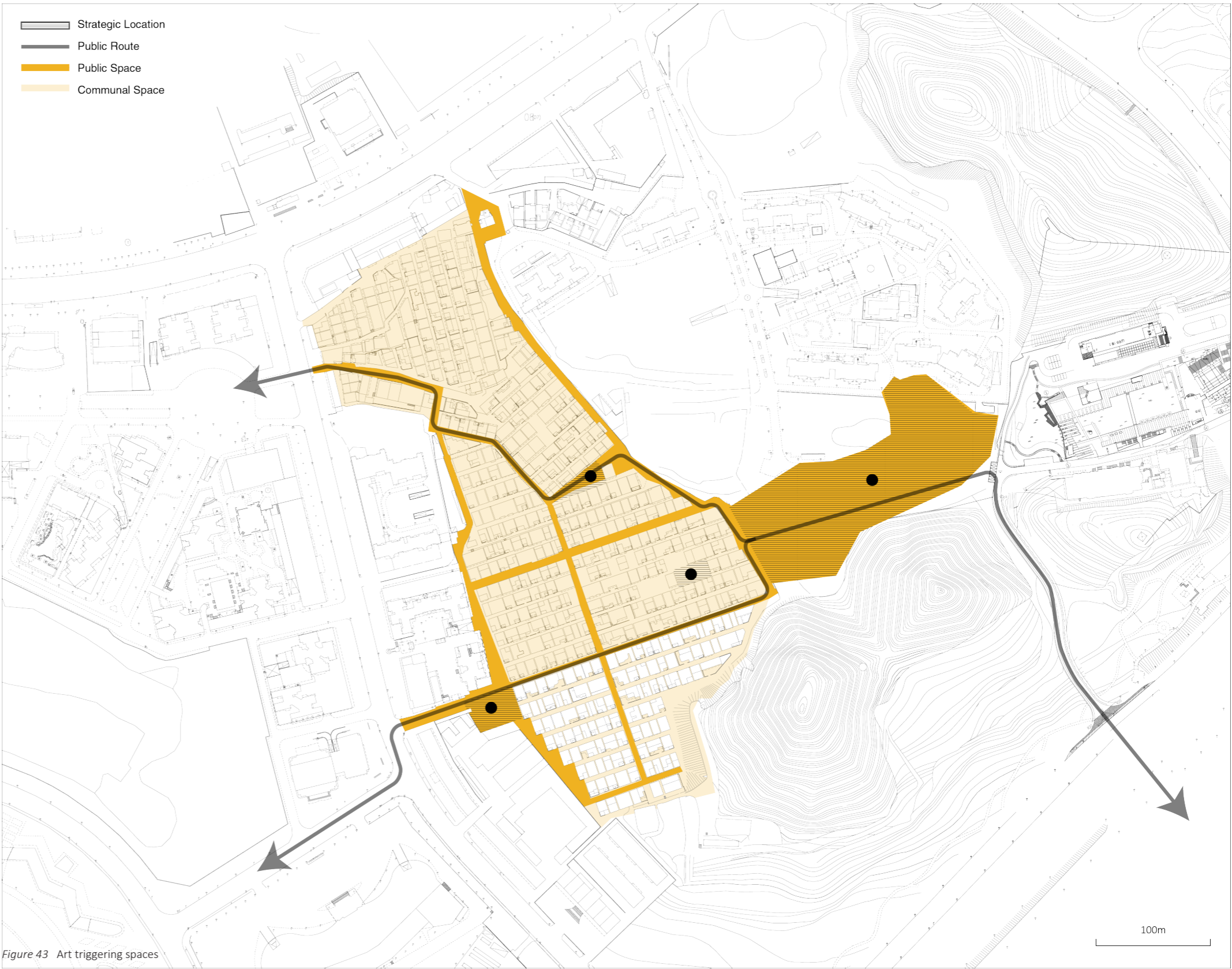
Case Study: Nantou Old Town Redevelopment

Figure 44 Nantou Old Town | Source: URBANUS

Nantou Old Town, located in the central area of Shenzhen, holds a significant historical heritage dating back more than 1,700 years to the Jin Dynasty. Over the course of the past century, the old town has experienced a gradual decline, while the surrounding villages have expanded in contrast. This intricate dynamic between the old town, the encompassing villages, and the broader urban fabric has created a captivating and complex pattern.

The cases of Nantou Old Town and Zanhualing share close similarities in terms of spatial forms and building densities. Moreover, both neighborhoods are experiencing decline and are confronted with the pressures of gentrification. Therefore, the revitalization model applied in Nantou Ancient City holds significant reference value for the transformation of Zanhualing, representing an ideal outcome that can be aspired to in the redevelopment efforts of Zanhualing.

Nantou Old Town

Figure 45 Nantou Old Town | Source: URBANUS

Zanhualing Village

Figure 46 Zanhualing Village

Cultural Events As Trigger

聚：创意工厂与集市广场-A123
Agglomeration: Creative Lab and Market Square

合：报德广场
Conclusion: Baode Square

转：十字街广场
Transition: Cross Road Square

承：书院广场
Elucidation: Ancient Academy Square

起：南门公园
Introduction: Southern Gate Park

隐：城中绿洲
Seclusion: Urban Oasis
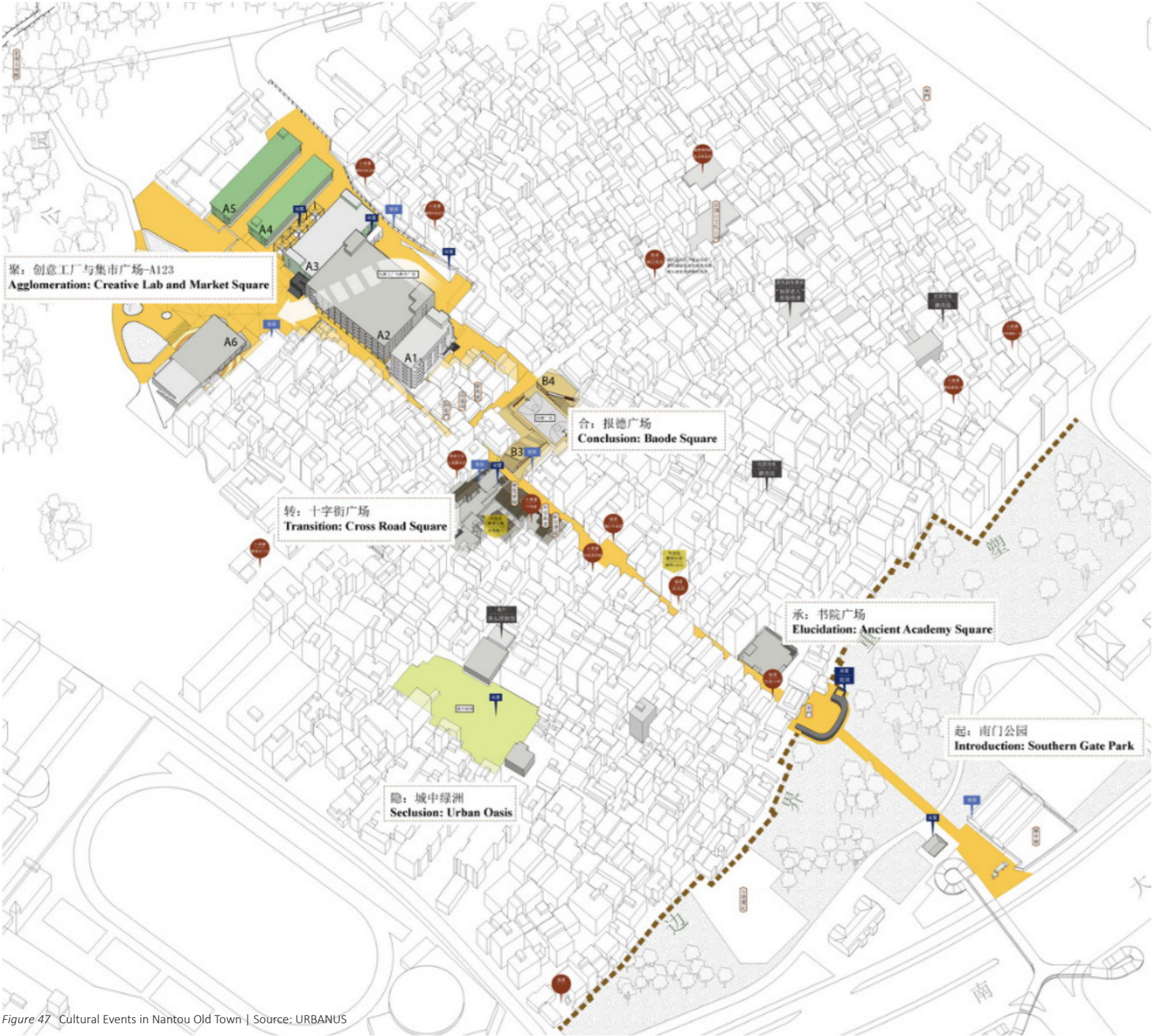
Figure 47 Cultural Events in Nantou Old Town | Source: URBANUS

To revitalize the ancient city, Urbanus, an architectural firm based in Shenzhen, proposed a transformative model centered around cultural events, specifically the Bi-City Biennale of Urbanism/Architecture (UABB). As curators, they took the opportunity to introduce this biennale and strategically selected Nantou Old Town as the main exhibition site. The theme of the 2017 Shenzhen/Hong Kong Bi-City Biennale is "Cities, Grow In Difference". Through meticulous research, they crafted a narrative that seamlessly aligns with the spatial transformation and exhibition placement objectives. Their aim was to rejuvenate the limited public open spaces within Nantou, which had become increasingly scarce. The 2017 UABB served as a tangible urban intervention, interwoven with the overall plan for regenerating the ancient city, resulting in a tailored and ingenious integration.

This approach employed by Urbanus sought to breathe new life into Nantou Old Town, utilizing the Biennale as a catalyst for urban renewal and cultural engagement. By combining historical context, spatial considerations, and artistic presentations, the project aimed to revitalize public spaces while preserving the essence and charm of the ancient city.

Strategic Locations

Legend:
- Strategic Location
- Public Route
- Public Space
- Communal Space

A - Living Square

B - Rooftop Nexus

C - Co-creation Garden

D - Inclusive Learning Hub

100m

Figure 48 Strategic Locations

Living Square

Concept

The Living Square is designed as a welcoming and multi-functional square at the entrance of the urban village, surrounded by catering services. The primary goal of the location is to create a vibrant gathering place for the community, while also serving as a display area for the village to other citizens. To achieve this goal, the location has been designed with flexibility and multi-functionality in mind. The square is outfitted with urban furniture and shelters, and features movable installations that can provide shelter and be used for a variety of community activities and events. These installations are designed to be easily movable and reconfigurable, allowing for the space to be adapted to meet the needs of the community.

In addition to its role as a gathering place, the Living Square is also intended to serve as a showcase for the urban village. Through the use of design elements and signage, the location will help to promote the village's unique character, making it a point of interest for citizens.
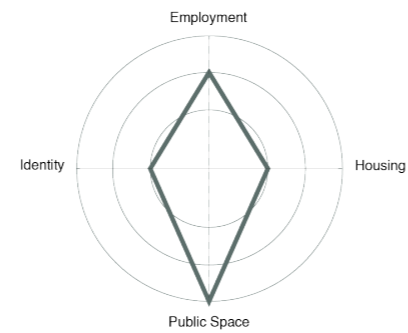
Model

Welcoming Atmosphere
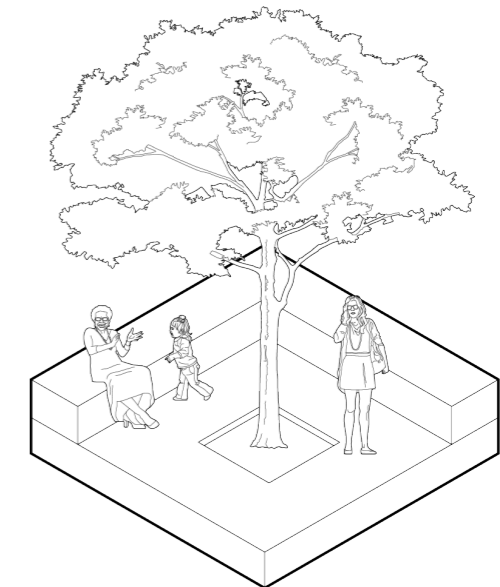
Flexible Functionality
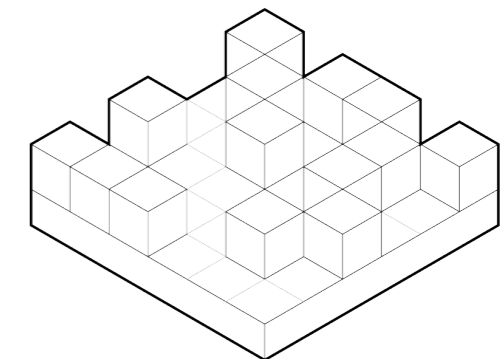
Sheltering Structures

MAIN ENTRANCE

0 5 10   20m
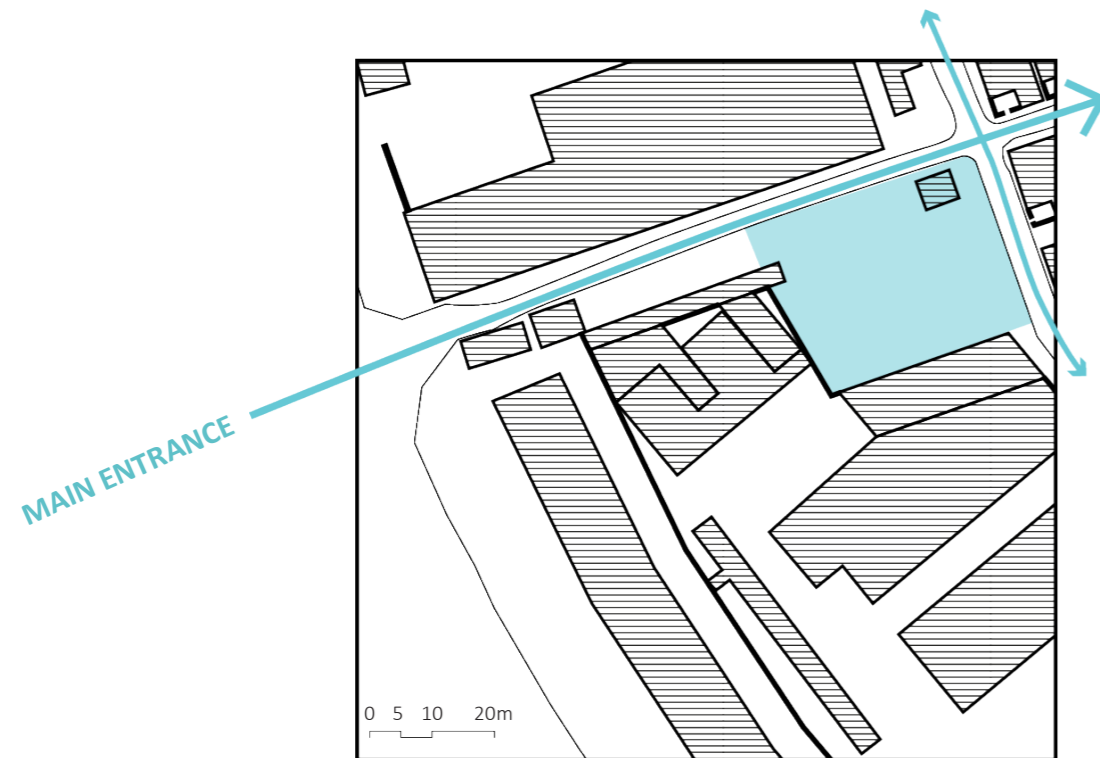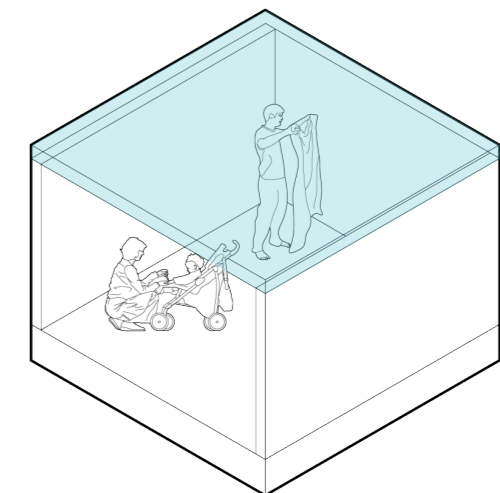
Figure 49 Spatial Analysi of the Square

The structure can serve as shelters for various activities from local extreme weather
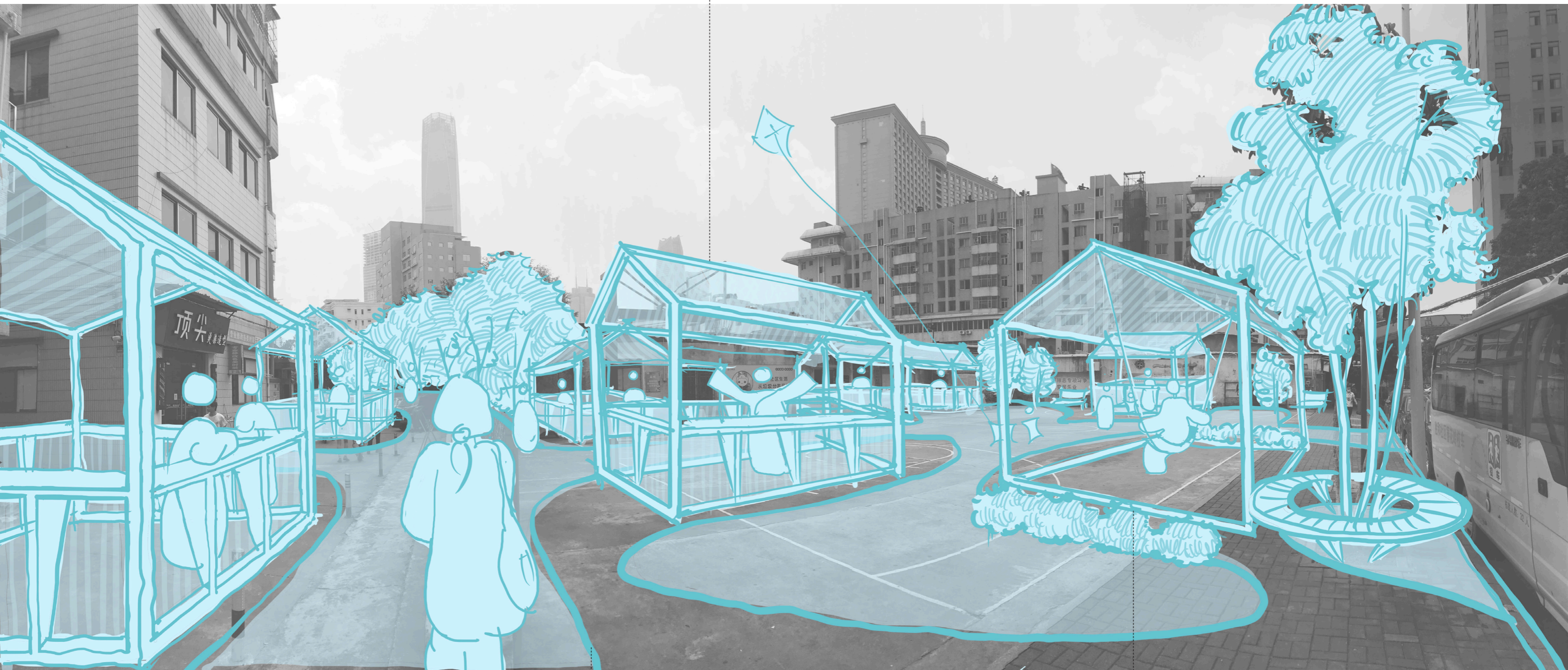
The path are linked with the public route to create a welcoming atmosphere

The structure can be moved and used flexibly to accomodate different programs

Rooftop Nexus

Concept

This location will feature a vertical transport node that connects the ground floor and rooftop spaces, creating a network of accessible and interconnected communal spaces. This system will provide shelter and access to communal spaces on the rooftops, which will supplement the limited living spaces of the migrants in the urban village. By utilizing underutilized rooftop spaces and creating accessible communal areas, it will promote a more livable and vibrant urban environment. The artist studios, inserted within the transport system, will provide an opportunity for artists to create and contribute to the community's cultural richness.

Model

Vertical Mobility
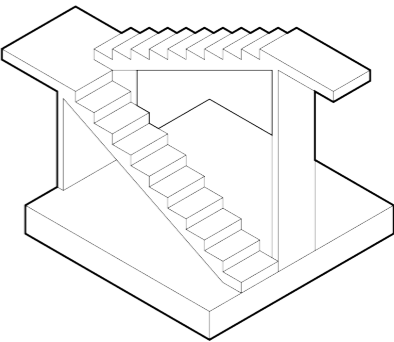
Artistic Studio

Urban Furniture

0   5   10   20m

Figure 50 Spatial Analysi of the Location
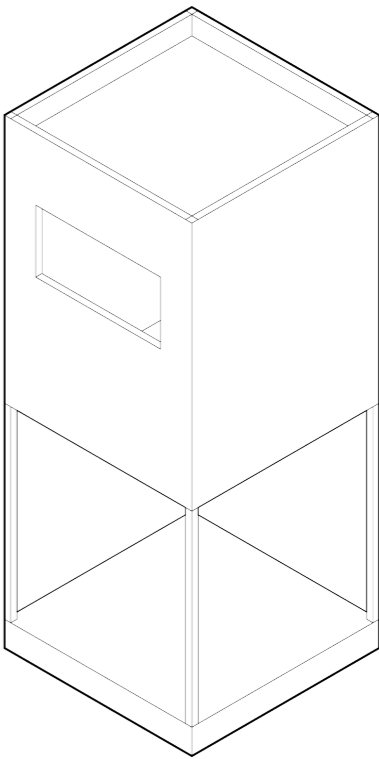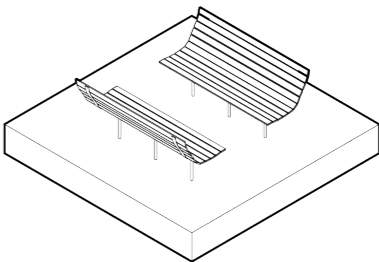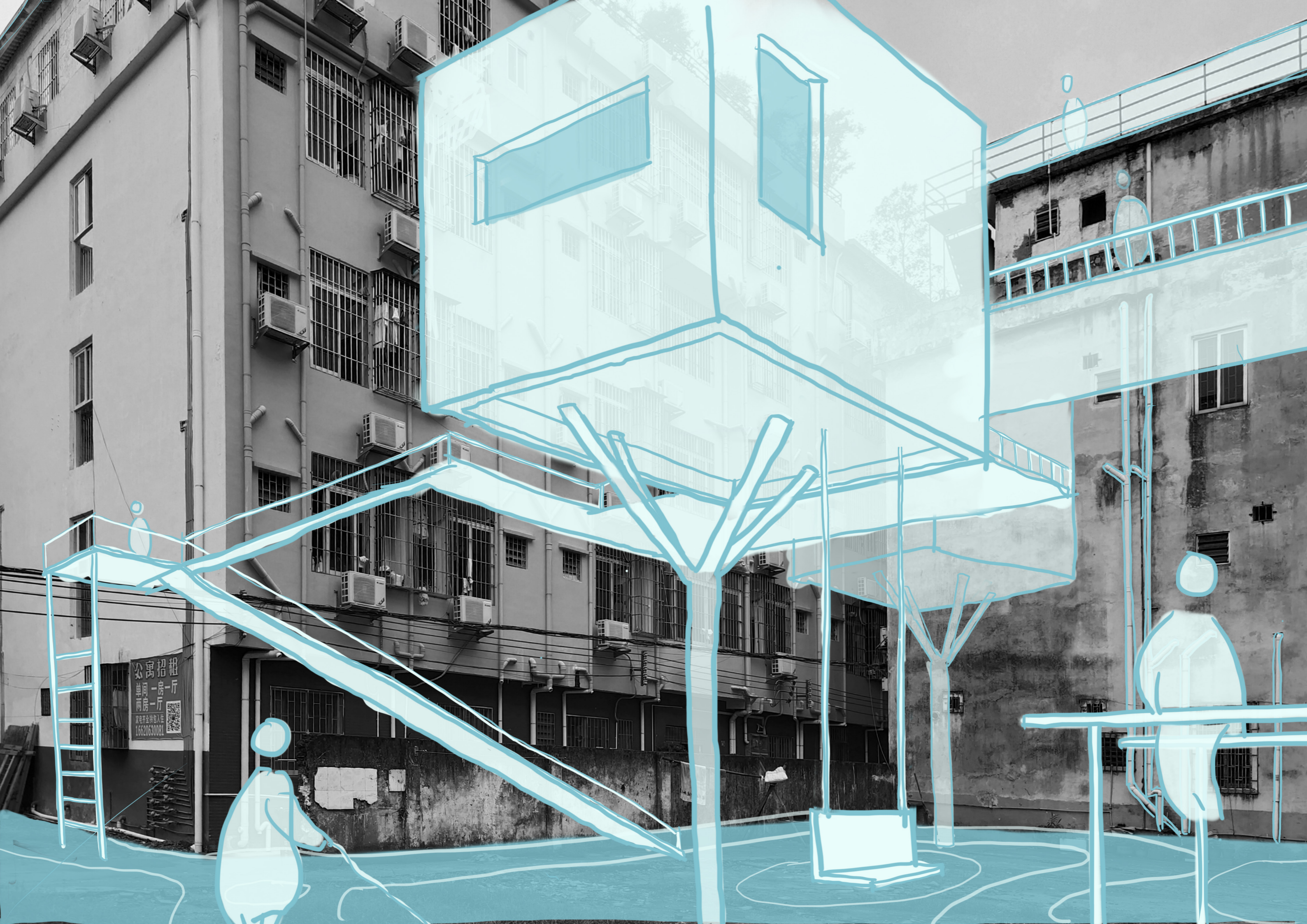
Co-Creation Garden

Concept

The Co-Creation Garden will a versatile space enabling people to explore their identity and build bonds with their community. This garden will serve as a place for co-governance of the village, where people can participate in the decision-making process and have a say in the future of their community. Members of the village, both migrants and locals, will be involved in the creation and maintenance of the garden, promoting a sense of ownership and pride in the community. By adopting and caring for plants that represent the unique cultural and environmental aspects of the community, the garden will provide a way to express identity and promote diversity. The garden will be designed to accommodate a range of activities, including gardening, relaxation, meditation, and community events, providing opportunities for residents to come together and build social connections. Overall, the co-creation garden will serve as a space for promoting a sense of community ownership, identity, and co-governance.
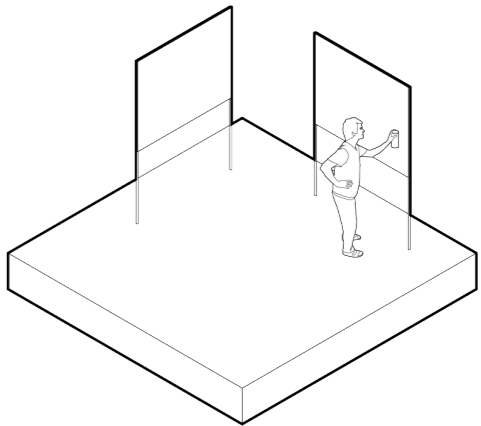
Model

Co-gardening
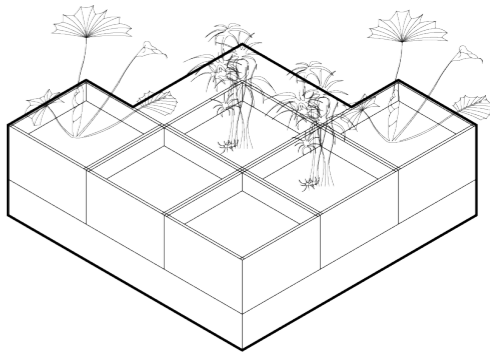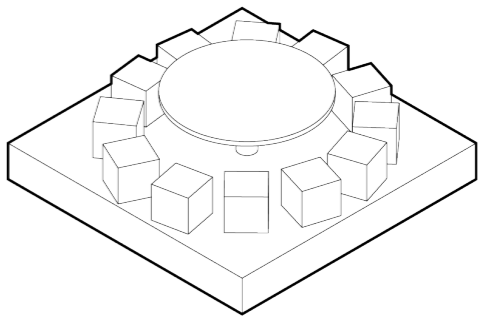

Information Disclosure

Public Participation

Figure 51 Spatial Analysi of the Location
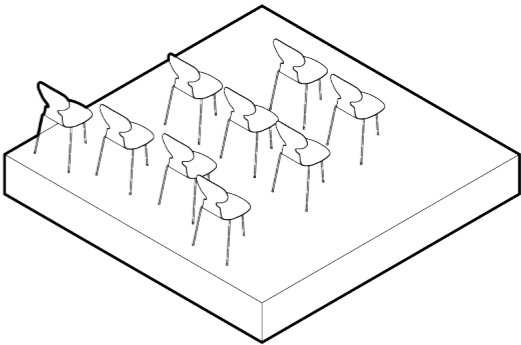
Inclusive Learning Hub

Concept

The Inclusive Learning Hub will serve a dual purpose as a high school for teenagers in the wider area and a training center for migrants in the urban village who lack job opportunities and skills. By providing vocational training and community services, this location will bridge social divides and create opportunities for people from different backgrounds, both migrant and local, vulnerable and invulnerable, to meet and learn from each other. The location's design will incorporate both top-down and bottom-up approaches, functioning as a formal traditional campus and an informal learning hub that offers workshops and incubation programs to support migrants throughout the entire upskilling process. In addition, social research sessions for high school students will further strengthen social cohesion and community engagement.
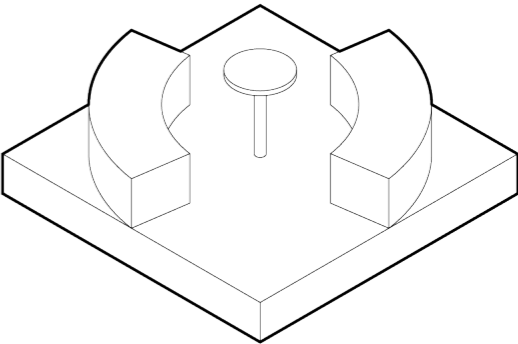
Model

Education for All
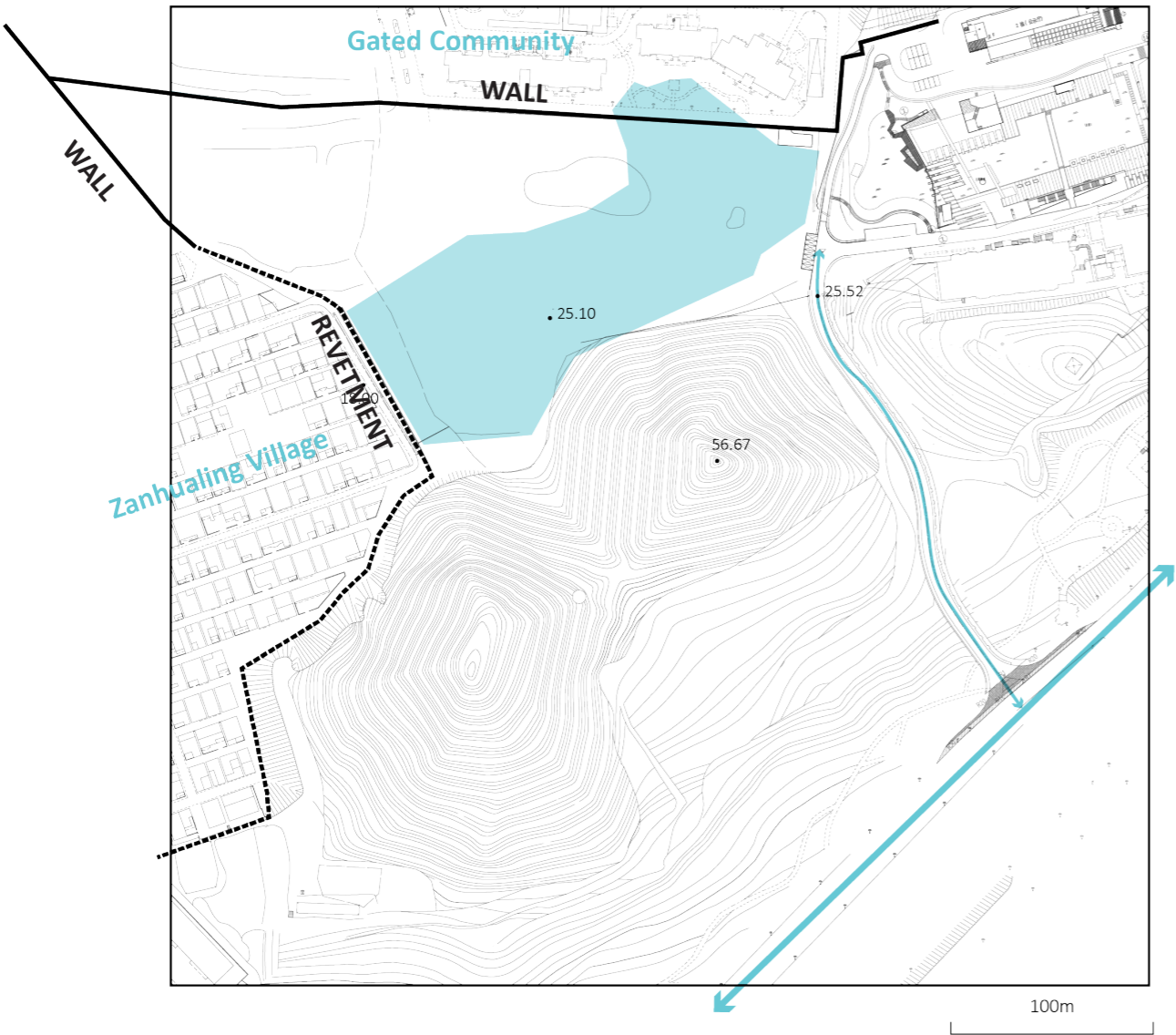

Nurturing Innovation

Building Bridges

Figure 52 Spatial Analysi of the Location
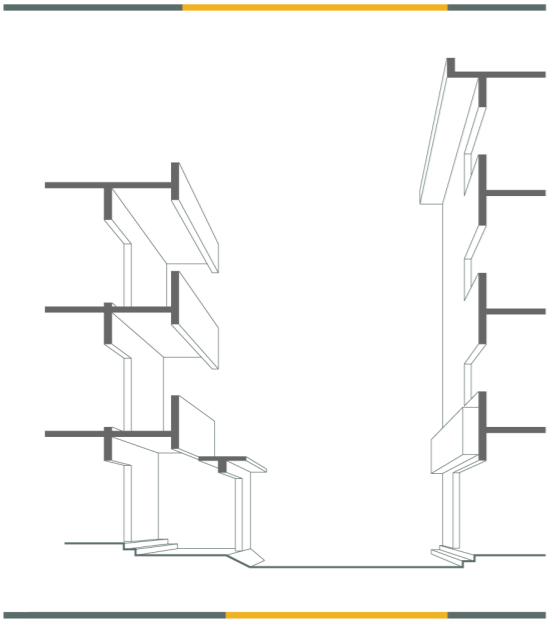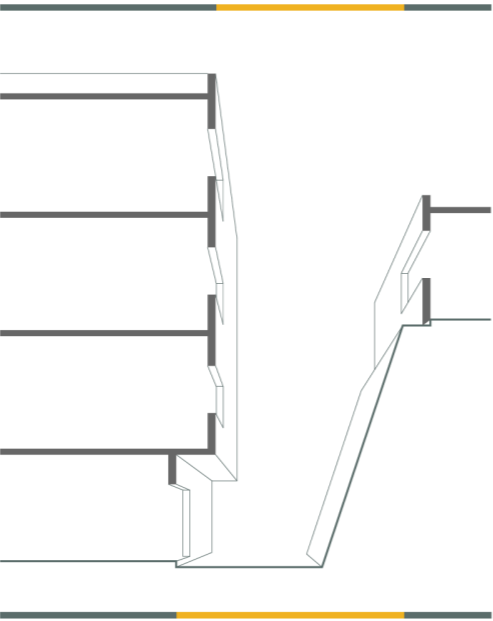
The image on this page contains the following legible text labels:
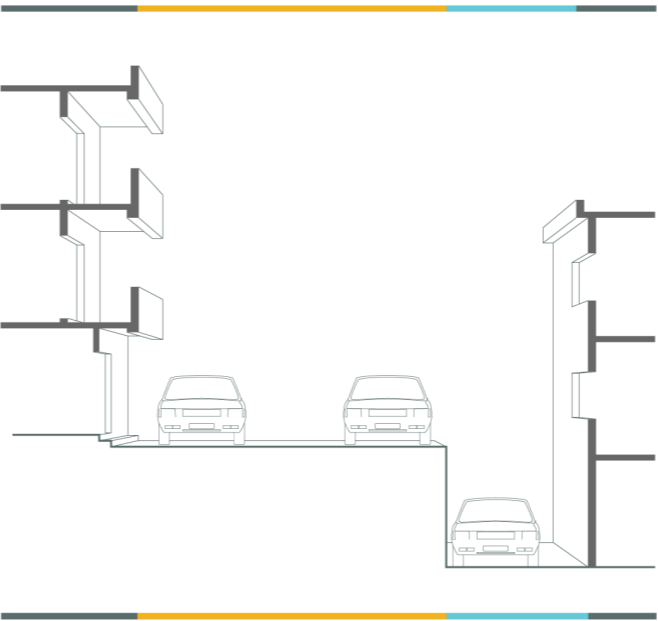
BAR

HOMEMADE

ICE CREAM
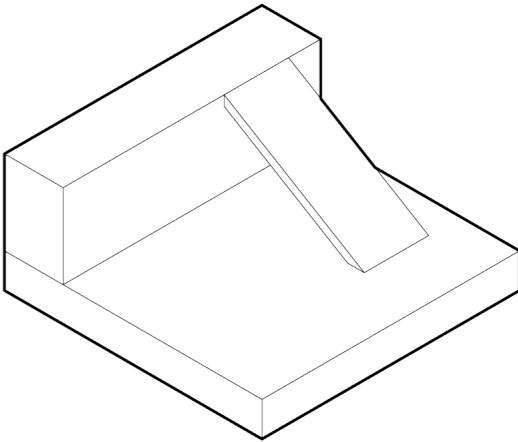
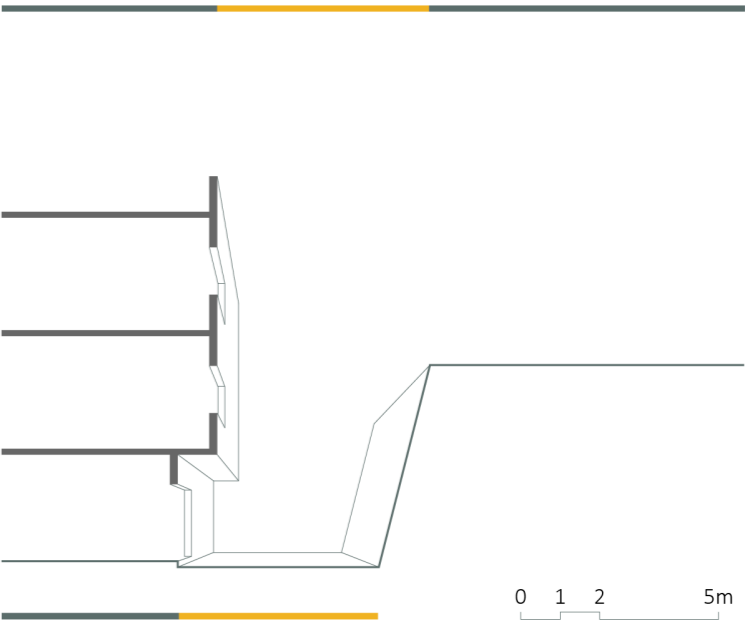# Public Route

Private
Communal
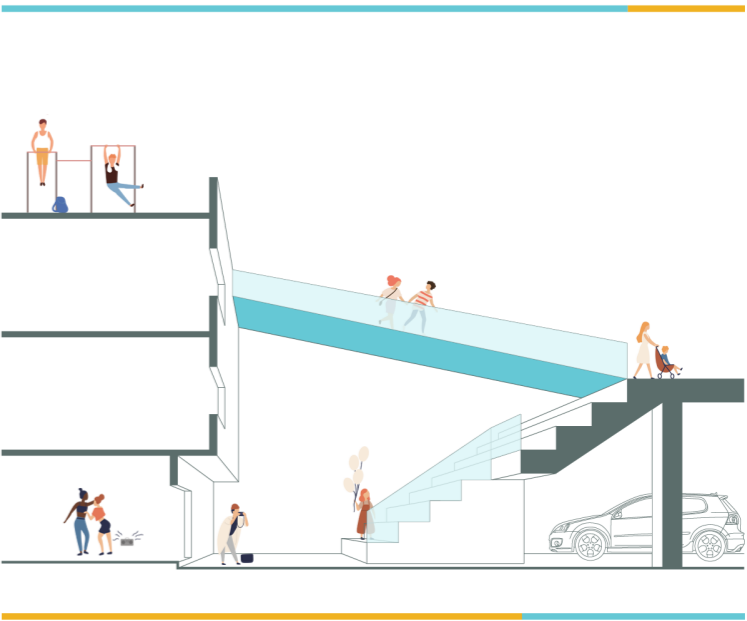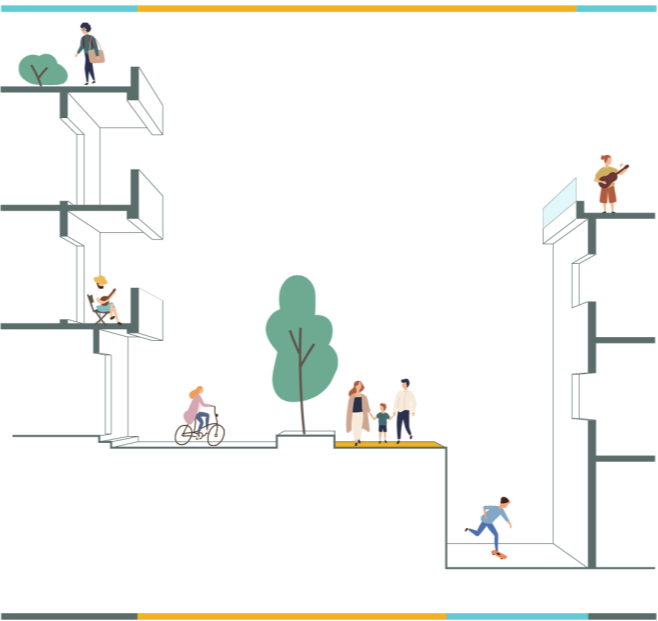Public

Section A

Section B

Section C

Section D

Figure 53 Section Design of the Public Route

MACRO: City of Dongguan

Planning Principles

Affordable Housing

Urban villages in urban areas are characterized by low-cost rental housing. Based on the analysis, affordable housing is an urgent need in Dongguan, so the strategy for urban villages in urban areas would be to create an affordable housing plan that addresses the needs of low-income residents.

Industrial Synergy

Manufacturing is a pillar in Dongguan's economy. For urban villages situated near these industrial areas, a strategic approach is transforming them into incubation hubs. This can be achieved by providing incentives to entrepreneurs to establish small businesses in these urban villages, establishing shared workspaces to foster collaboration among small businesses, and actively supporting the development of local cooperatives. By adopting such measures, Dongguan can harness the potential of these urban villages and promote innovation and entrepreneurship

Ecological Preservation

The construction intensity in Dongguan is high, so that it's important to preserve the endangering ecological area. To promote the ecological preservation function of urban villages, the strategy would be to identify the ecological assets in the urban villages and protect them from construction. This could include creating green spaces and parks, establishing urban farming programs, and promoting sustainable practices among residents.

Affordable Housing Network

As depicted on the map, the urban villages located within the urban built-up area will be transformed to affordable housing communities. These urban villages will be connected through the public transport system, forming a strong network of affordable housing. Given the housing challenges that the younger generation in China faces, it is no surprise that Dongguan's robust affordable housing network will attract more young people, giving the city a competitive advantage.

Urban Villages (Affordable Housing)

Metro Station

City Center

Secondary Center

Urban Built-up Area

Administrative Boundary

0   10   20   30   40km

Figure 54 Affordable Housing Network

Industrial Synergy Network
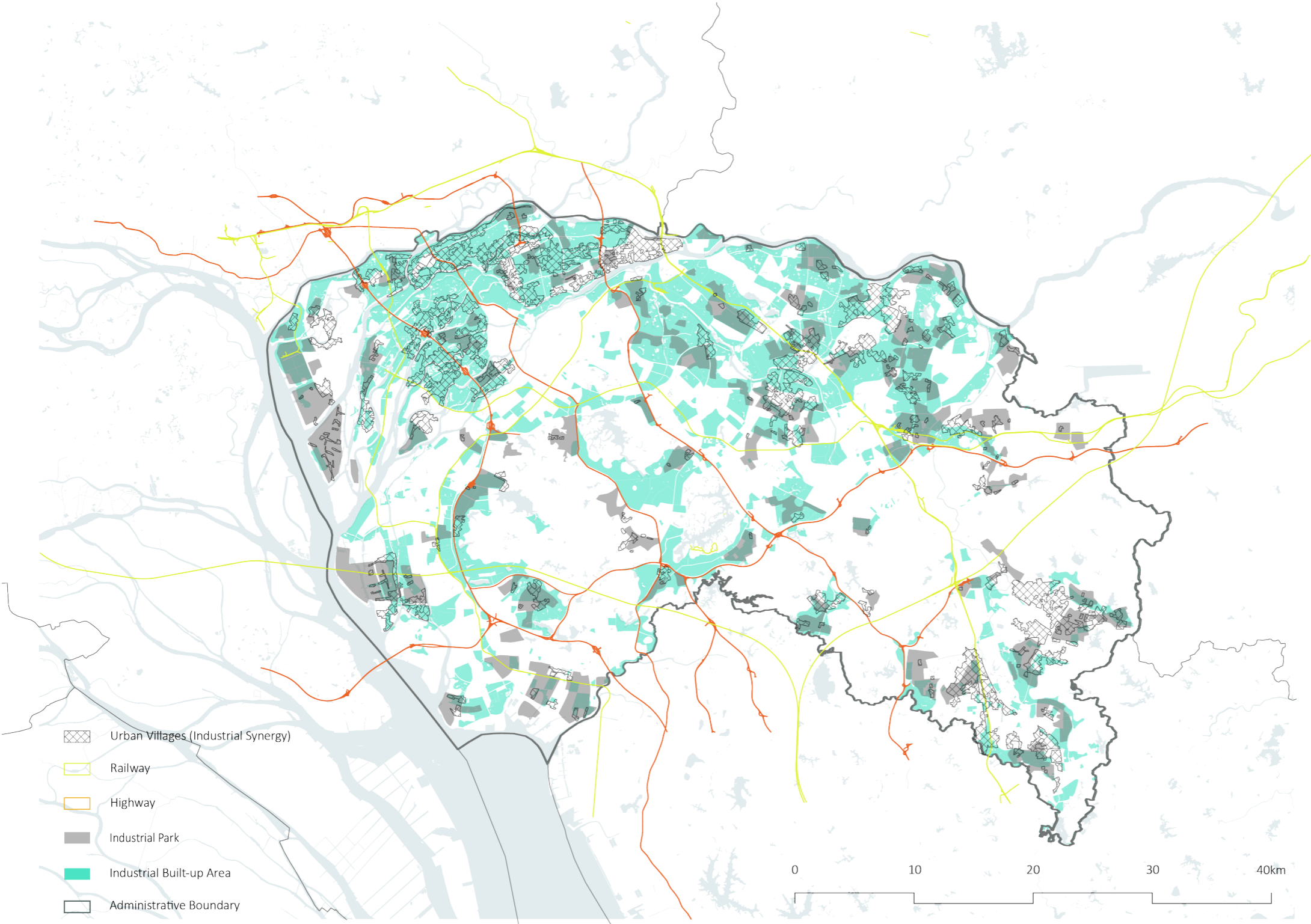
The urban villages adjascent to industrial areas will be transformed to incubation hubs. These hubs, in combination with Dongguan's robust manufacturing capacity, will synergize and lay a solid foundation for the long-term development of the local industry. This strategic approach enables the convergence of resources, expertise, and innovation within these urban villages, fostering a conducive environment for industrial growth and advancement.

Urban Villages (Industrial Synergy)

Railway

Highway

Industrial Park

Industrial Built-up Area

Administrative Boundary

| 0 | 10 | 20 | 30 | 40km |

Figure 55 Industrial Synergy Network

Ecological Preservation Network
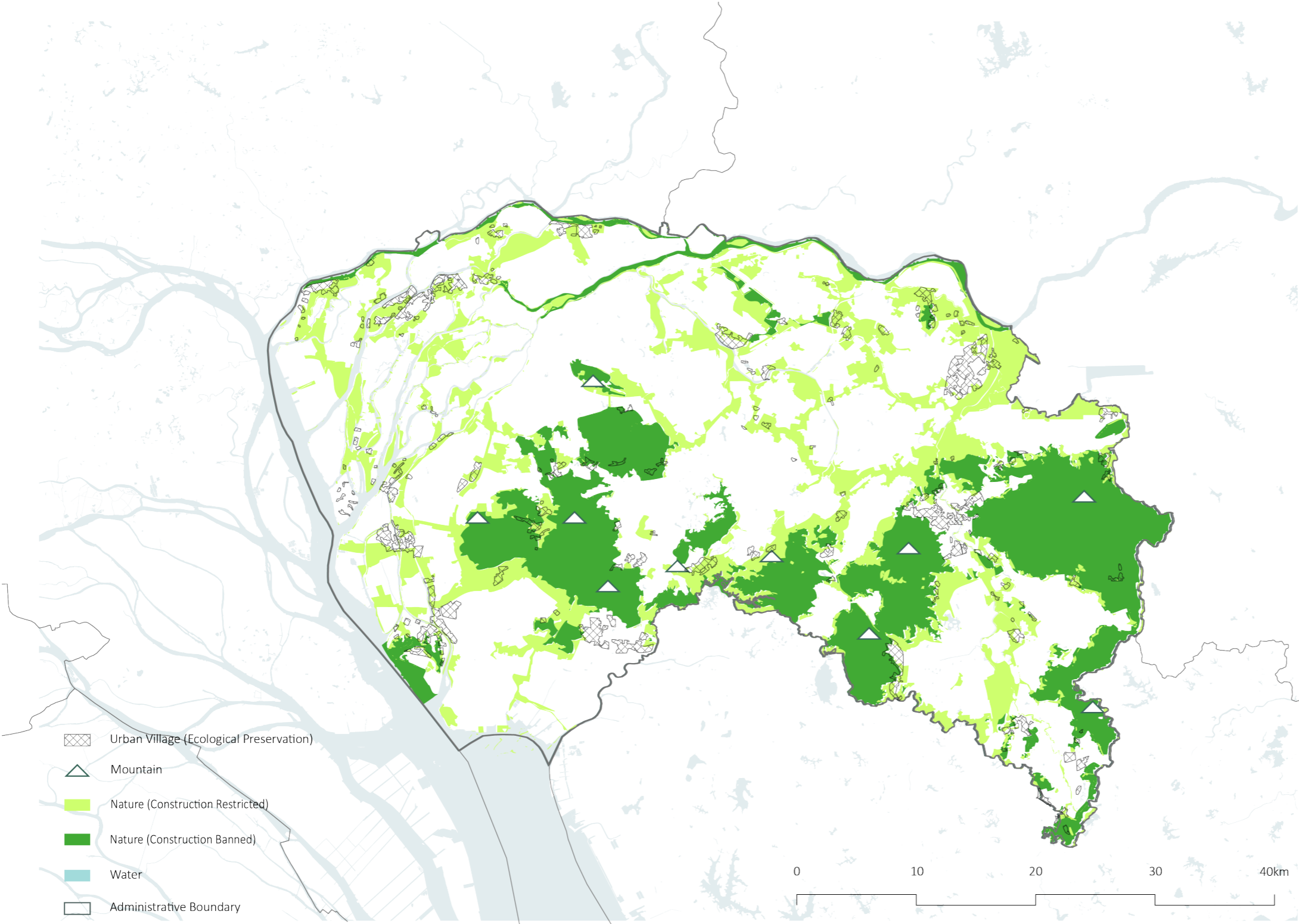
Urban villages located near or within ecological preservation areas will be transformed into buffer zones, serving as a transition between the intensive built-up areas and the ecological regions. With their distinct and captivating built environments, along with their abundant natural resources, these urban villages have the potential to foster sustainable leisure industry, which can make Dongguan a more livable city that harmoniously integrates urban living with nature.

Urban Village (Ecological Preservation)

Mountain

Nature (Construction Restricted)

Nature (Construction Banned)

Water

Administrative Boundary

0   10   20   30   40km

Figure 56 Ecological Preservation Network

Governance

Stakeholder Participation

In the current situation, lack of motivation is the most difficult problem. Only academic advocates have production power, whereas the majority of stakeholders are on the fence. With the establishment of Transitional Management Organization (TMO), most stakeholders will be supporters in the future, and the real estate developer will be driven out of the game.

Current Situation
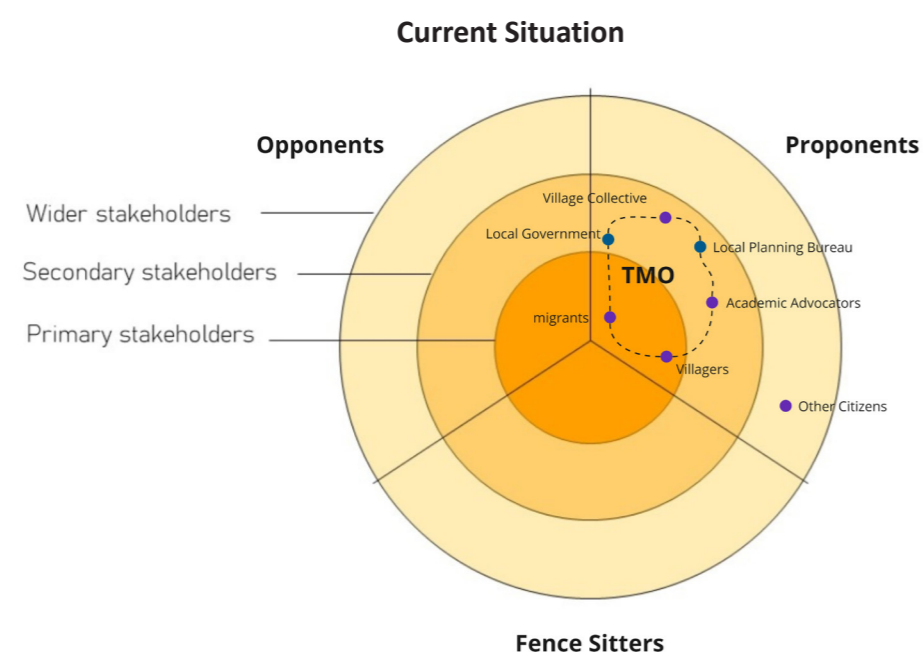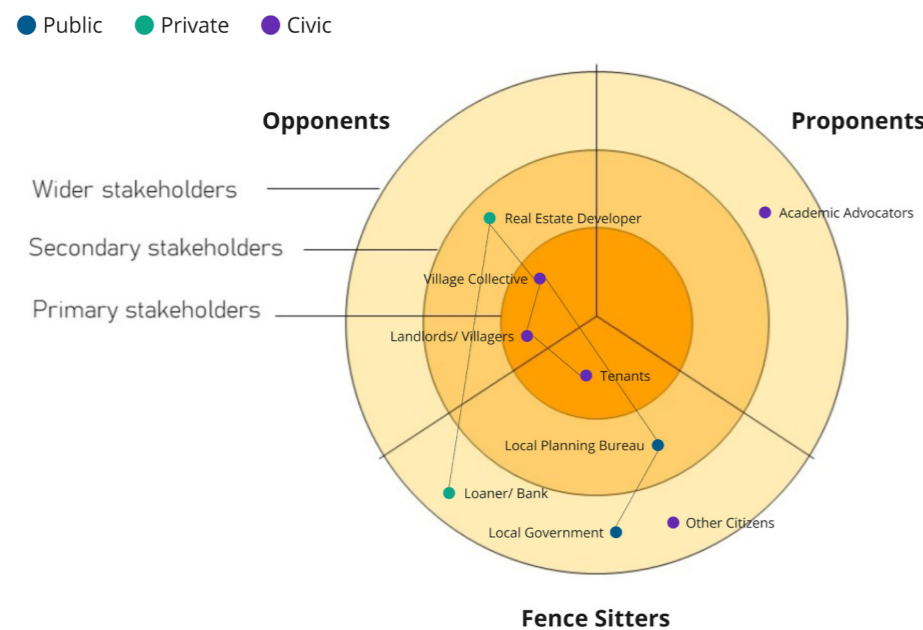
Future Scenario

As shown in the Power-Interest Matrix, the villagers and village collective, real estate developers have both high interest and power in the urban village redevelopment decision-making procedure, and the local planning bureau and local government will be engaged to announce regulations limiting their power and interest. However, because they lack identity in the urban village, the migrants have minimal interest and power. Empowering, and gamification are some of the strategies I want to use to increase migrants' interest and influence. Academic advocates will be involved in this project as part of TMO to gain greater power and influence.

Regulation and **Empowering** will be achieved by new policies, which will be explained in the policy advice part.

Incentives will be achieved by establishment of a Real Estate Trust, attracting both citizens and investors to contribute and earn interest through their investments.

Gamification will be employed as a captivating and interactive approach to engage them in the decision-making process.

Engaging key stakeholders such as the local planning bureau, local government, and academic advocates will be facilitated by incorporating them into a Transitional Management Organization (TMO).
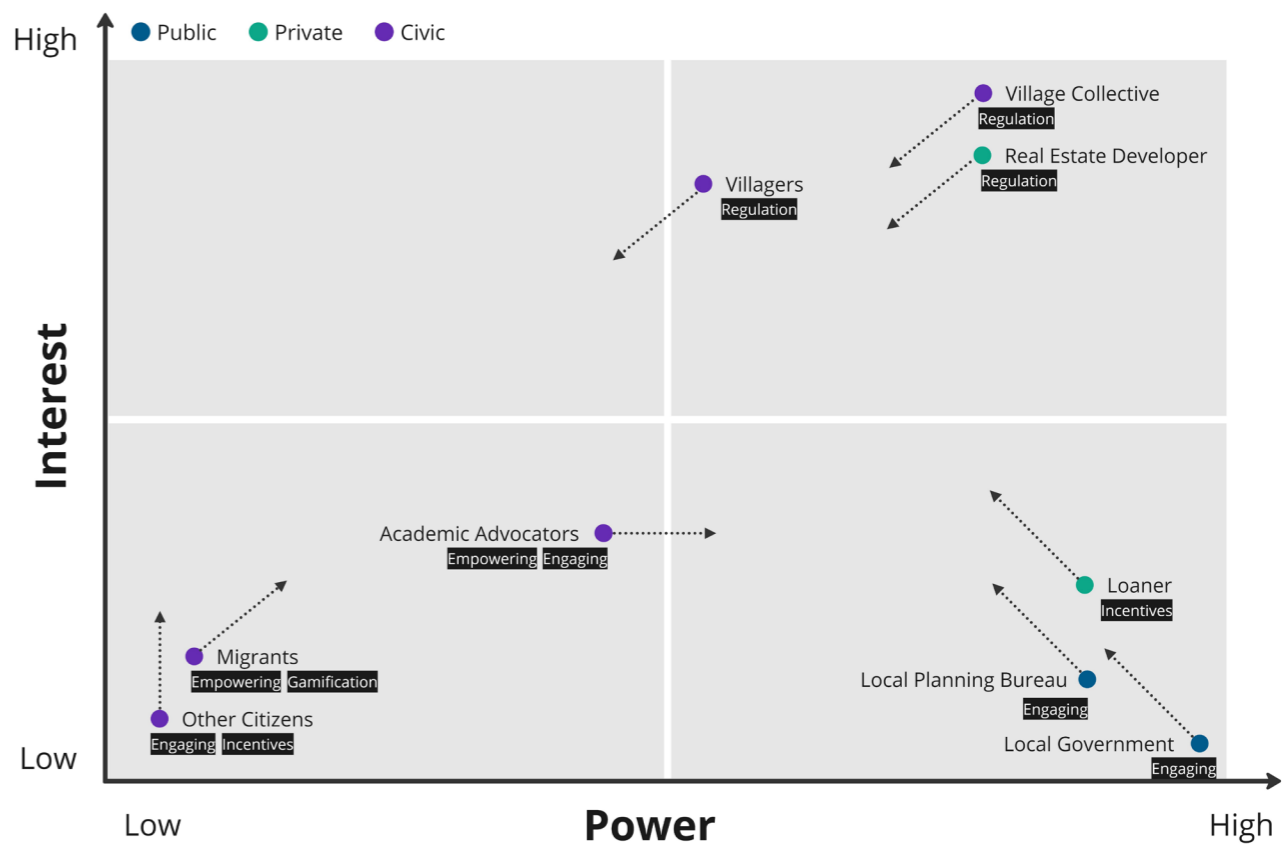

Figure 57 Stakeholders and Participation Strategies

Gamification

Gamification will be employed as a strategy to engage migrants in urban villages. A card game will be developed, aiming to simulate the stakeholder co-creation process. Initially, character cards will be distributed to each player randomly. These character cards represent different stakeholders, each with their unique strengths and needs, reflecting their identities. Additionally, resilience tool cards will be provided to address the specific needs of each character. Moreover, there will be general tool cards that offer strategies for enhancing the urban space. The player who acquires the specific resilience tools its character needs first, as well as enough general tool cards will win the game.

CHARACTER

Young graduate
Strength: Workshop
Needs: H & P

Migrant worker
Strength: Community Potlucks
Needs: H & E

Villager
Strength: housing
Needs: P & E

RESILIENCE TOOL

Housing/ H

Balcony

Road Crossings

Rooftop Gardens

Public Space/ P

Open Air Cinema

Community Potlucks

Community Playground

Employment/ E

Workshop

Commercial Street

Market

TOOL

Urban Furnitures

Bike Lane

Public Art

Flea Market

Tree

Public Toilet

Kindergarten

Sports Facility

Mother's room

Park

Slope

Public Transport

Figure 58 Gamification Engaging Residents

Policy Advice

Identity

Zanhualing shall function as a pilot community, wherein a residents management system, incorporating a housing management system, shall be established. It is hereby mandated that all residents within Zanhualing shall enjoy equal rights, regardless of their Hukou (Household Registration System) registration or property ownership status.

Housing

The land of Zanhualing is designated exclusively for residential purposes, and any form of development should not result in a decrease in the quantity of social housing within its boundaries.

Public Space

Residents of Zanhualing are required to make monthly payments of a management fee for the purpose of facilitating the operation and maintenance of the village. However, it is hereby stipulated that residents have the option to participate as volunteers, thereby receiving remission of the fee. By choosing to become volunteers, residents will actively engage in the execution and organization of public and communal activities within the community, contributing their time and effort towards the overall functioning and development of the village.

Employment

The Artists' Studio will be open to recruit young artists who wish to settle in and utilize the studio space at no cost. In exchange, participating artists are expected to conduct weekly workshops for the benefit of Zanhualing residents. Residents of Zanhualing are eligible to attend these training workshops free of charge, while non-residents will be required to pay a registration fee.
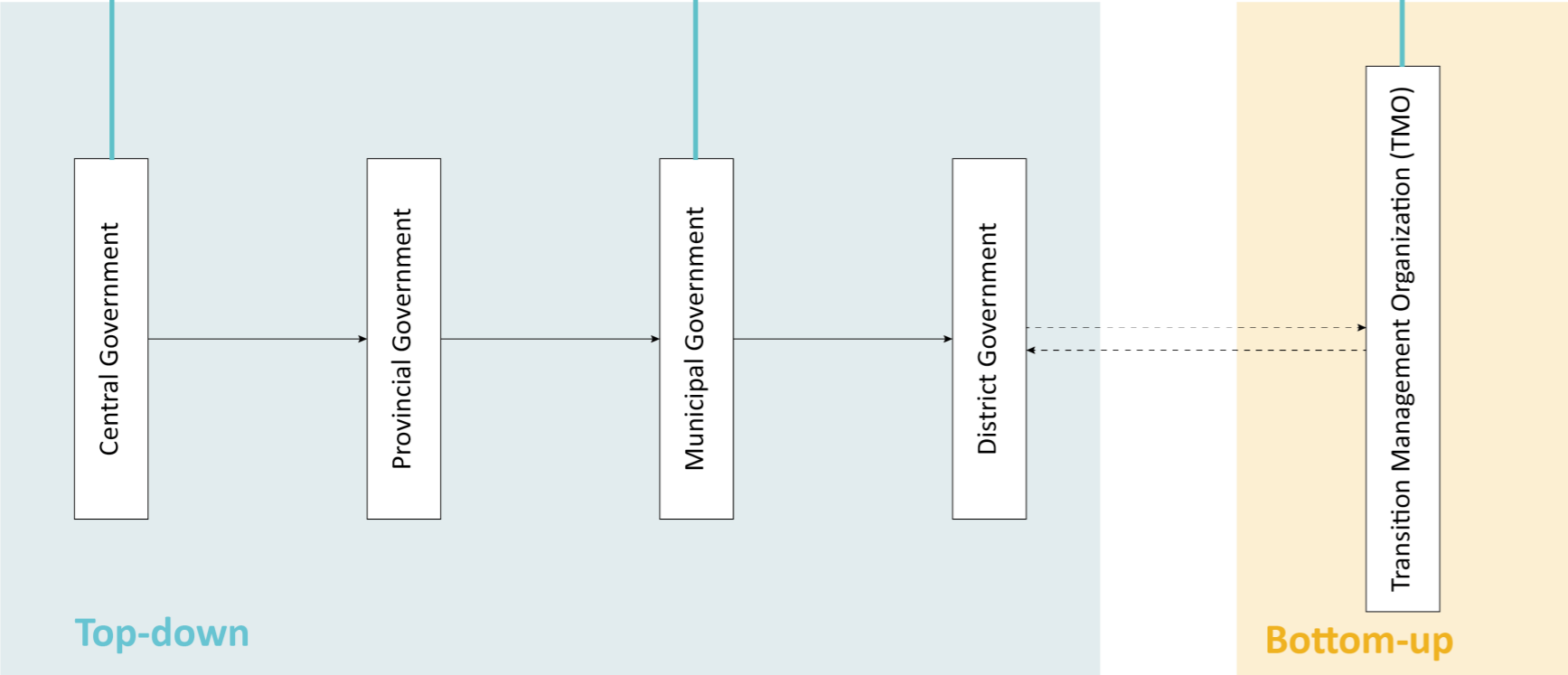
Central Government → Provincial Government → Municipal Government → District Government ⇠⇢ Transition Management Organization (TMO)

Top-down

Bottom-up

Figure 59 Policy Advices

Transition Timeline

Central Government

Municipal Government

Migrants — Villagers — Social Workers

Other Citizens

Village Collective ← **PROPERTY** / **RENT** → **Transition Management Organization** ← **FUND** → Real Estate Investment Trusts (REITs)

Invest

Academic Advocators — Municipal Government

2023

2024

Short-term

2027

Long-term

2030

Policy driving down the market value of the land and ensuring the identity of migrants ("Identity" and "Houisng" Policy)

1 - Establish TMO;

2- Set a Real Estate Investment Trust to absorb funds;

3 - Rent the property from village collective;

4 - Engage migrants by gamification to improve their awareness and get opinions from them.

1 - Start the redevelopment construction;

2 - Create more revenues (parking, advertisement, etc.);

3 - Publish the "Public Space" and "Employment" policy;

4 - Recruit young artists settling in;

5 - Start training program;

6 - Pay the trust incomes to investors with rental income and other revenues
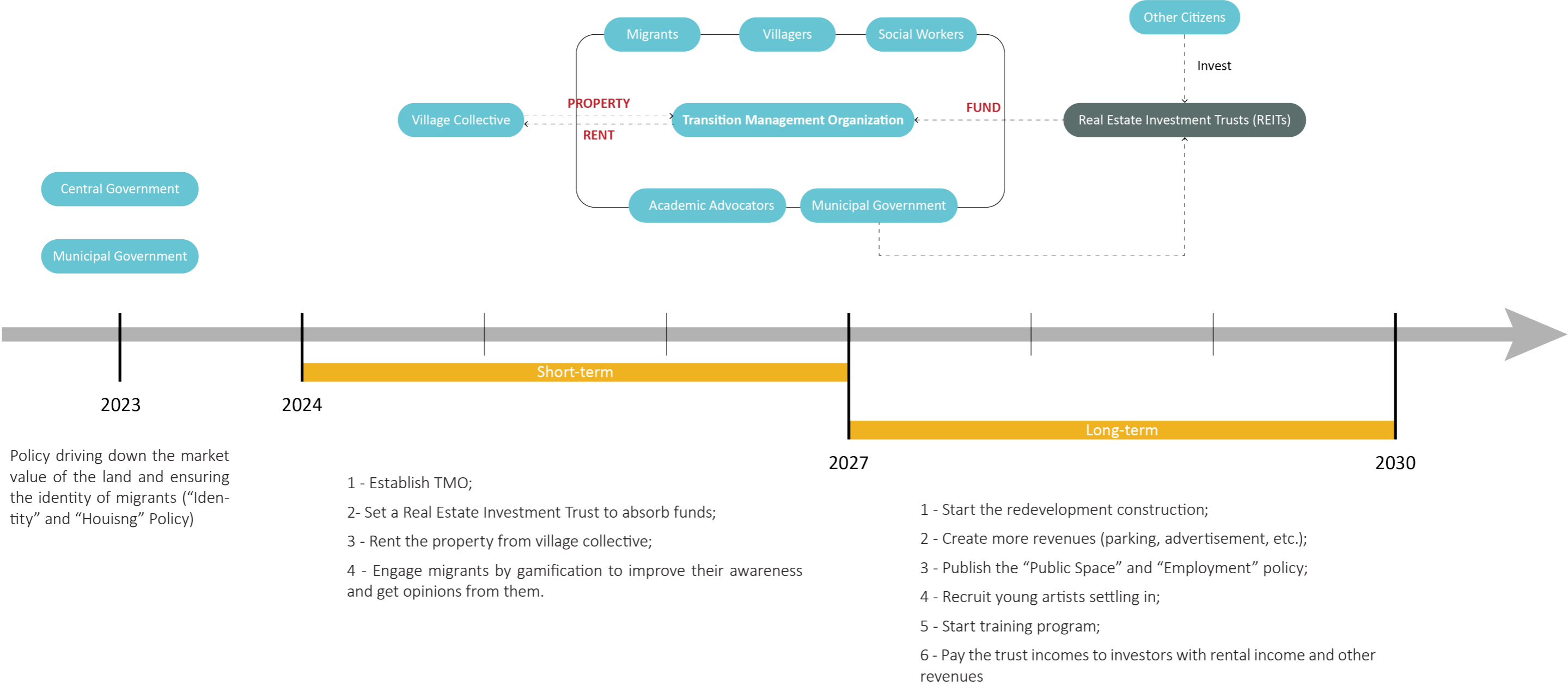
Figure 60 Transition Timelline

Social Resilience

After the redevelopment proposal in Zanhualing Village, a comprehensive assessment of social resilience was conducted before and after the project. The social resilience indicators were carefully chosen to reflect the specific conditions of urban villages.

In terms of identity, two key indicators were selected: legal identity and a sense of belonging within the community. These indicators highlight the importance of legal recognition and the emotional connection individuals have with the urban village they live in.

Housing aspect focused on two critical aspects: affordability and the accessability of amenities. Affordability has always been a significant factor in the housing of urban villages and the reason why urban villages are important. Additionally, the availability of amenities play a crucial role in enhancing the overall living quality.

On the employment aspect, the ease of commuting and the capacity of migrants to secure fruitful jobs has been considered. Commuting convenience is a crucial factor that migrants consider when deciding on their place of residence. Moreover, upskilling strategies have been implemented in this project to enhance the employment prospects and capabilities of migrants, enabling them to access more fulfilling job opportunities, so it has also been chosen as an indicator.

Lastly, public space resilience assessed the quality of public spaces and the provision of various privacy levels. The quality of public spaces greatly influences the overall livability of urban villages, while the availability of different privacy levels ensures that residents have suitable spaces for various activities and interactions.

Overall, the majority of resilience indicators showed improvement after the redevelopment project, with a slight decline observed in housing affordability. However, the increased capacity of migrants to secure fulfilling employment renders them able to afford the housing costs.
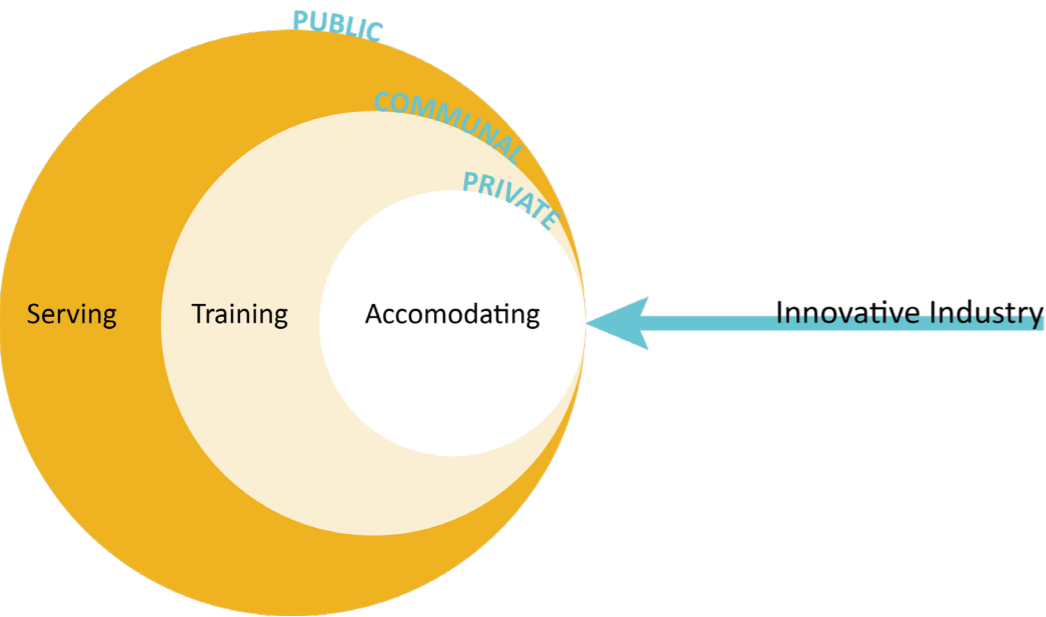
Category	Indicator	BEFORE	AFTER
Identity	Legal Identity	○○○○○	●●●●○
	Sense of Belonging in the Community	○○○○○	●●●●●
Housing	Affordability	●●●●●	●●●●○
	Ammenity	●●○○○	●●●●●
Employment	Capability for fulfilling jobs	●●○○○	●●●●○
	Ease of Commuting	●●●○○	●●●●●
Public Spce	High-quality Public Space	●○○○○	●●●●●
	Multi-level Privacy	●○○○○	●●●●●

Figure 61 Social Resilience Assessment

Conclusion & Reflection

6

Conclusion

Serving Training Accomodating ← Innovative Industry

PUBLIC
COMMUNAL
PRIVATE

Based on the pilot project, a revitalization model has been proposed to address the decline of communities. This model involves introducing an innovative industry and creating spaces that accommodate various programs related to different levels of the industry, catering to different groups of people.

At the communal level, these spaces will provide training programs designed to enhance the skills of the residents. This initiative aims to empower the local community by equipping them with new skills and knowledge.

At the public level, the introduction of the new industry will not only benefit the local residents but also serve the wider public, creating value for the entire community. This approach ensures that the industry will enhance the social resilience of the community in four facets, employment, entity, public space, housing.
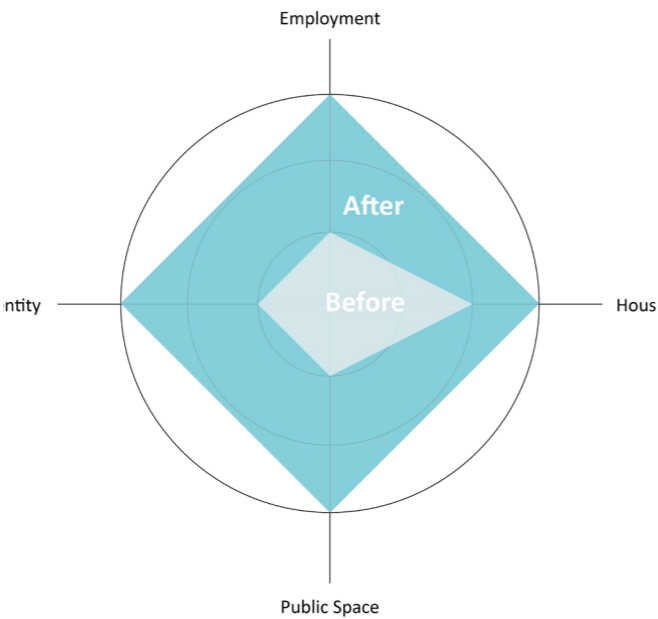
Figure 62 Revitalization Model

Advices on Innovative Industries

Affordable Housing

Community nursing can be a potential industry for urban villages of affordable housing network.

Visiting Nursing Elderly Care ← Community Nursing
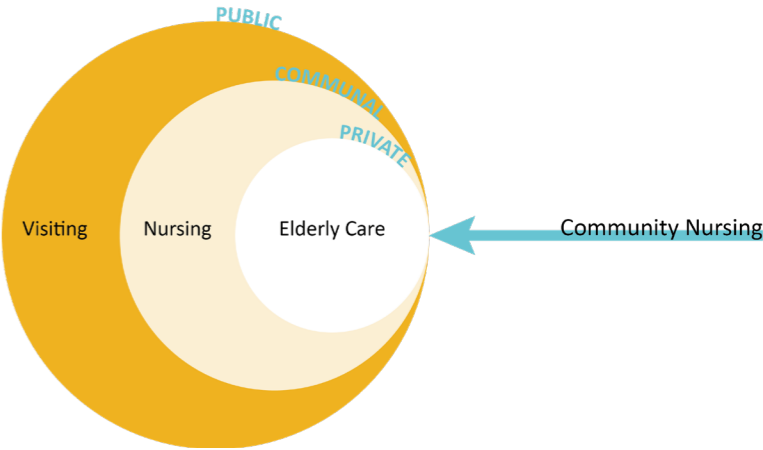
Industrial Synergy

Industial incubation can be a potential industry for urban villages of industrial synergy network.

Internship Workshop Incubation Space ← Industrial Incubation
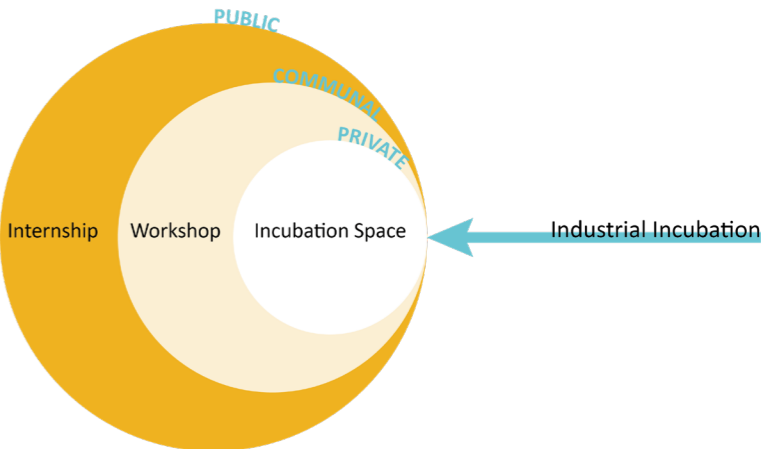
Ecological Preservation

Agricultural leisure can be a potential industry for urban villages of ecological preservation network.

Sightseeing Landscaping Operation ← Agricultural Leisure
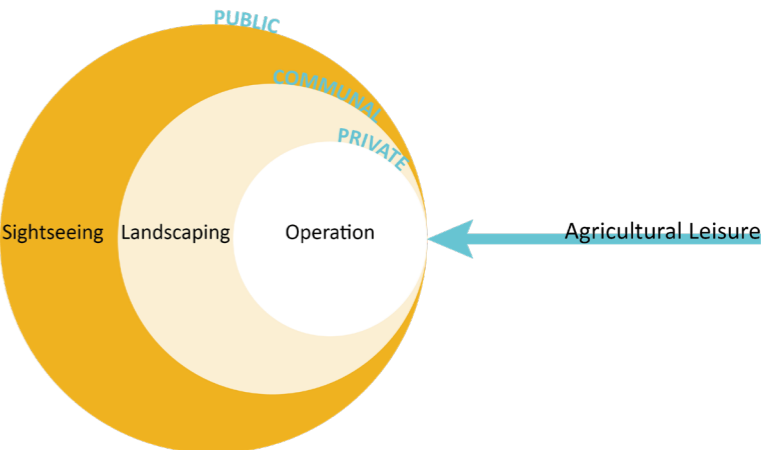
Reflection

This research topic on urban villages and migrants has deep connection with my personal experience. Growing up in rural China, I witnessed the societal impact of rural-urban migration firsthand. I have heard numerous stories surrounding these separated families, uprooted young parents, left-behind children and elderly. I have also witnessed the recurring cycle, in which those left-behind children, upon growing up, become uprooted young parents themselves, struggling in cities and leaving their own children with their parents who have returned to rural areas, as they are deemed too old to work. In some exceptional cases, including mine, we were fortunate to receive a relatively proper education and achieve high scores on the College Entrance Exam ("Gaokao"), which allowed us to attend prestigious universities and access seemingly promising urban life. However, even with these opportunities, newcomers of cities like me still face challenges.

Professional Relevance

Urbanism has provided me with the knowledge and opportunity to approach this social issue from various perspectives, moving beyond mere emotional understanding. The uneven urban-rural development is so knotty that make it impossible to be solved at once, so I have chosen to focus my research on the life of migrants in urban villages, a slice from this complex narrative, with the goal of exploring an innovative approach of urban village redevelopment to enhance social resilience of these migrants.

These issues surrounding current mode of urban village redevelopment, including displacement of migrants and unafford-

able housing, are closely connected to the profession of Urbanism. I understand Urbanism as the intersection of people, society, and the built environment. Urban villages, a unique urban phenomenon in China's cities, embody this intersection by significantly impacting the lives of people, society, and the city itself. When considering the people aspect, urban villages are often perceived as informal and affordable housing options that attract specific groups of individuals. As self-constructed settlements driven by profit, urban villages have developed a distinct fabric that sets them apart from other urban areas, characterized by dense blocks that have grown organically. Examining the built environment, these urban villages are easily identifiable on a map. However, presently, urban villages are often seen as obstacles to urban development and are subject to abrupt removal. In this project, I tried to make use of the intimate and intriguing spaces, upskill and engage the residents, and foster a strong social network in the community.

The problem also aligns with the theme of the studio Planning Complex Cities, because it is not limited as a spatial problem. Instead, it consists of both institutional and spatial facets, which needs to be solved with comprehensive methods.

This project is an attempt to explore a redevelopment method to promote the social resilience of urban villages and the city. In the long run, the proposal will promote the awareness of the positive impact of urban villages and serve as an example for a more resilient and sustainable approach to future redevelopment. Throughout the project, my methodology mainly goes into two lines, one is spatial aspect and the other is about governance. For each

aspect, there are two scales, community scale and city scale. I think the combination of spatial design and governance is a good way to solve the complex problems surrounding the urban village redevelopment because it is tied with many stakeholders' interests. The two scales also give me opportunity to try a pilot project on a community scale and then transfer the experience to wider areas.

In the case of Zanhualing village, I introduced art as an innovative industry, creating spaces of different privacy levels (public, communal, and private) to accommodate various activities around the art industry, thereby sparkling the entire urban village. Through the pilot project, I discovered that this design method can be applied to all communities facing the threat of gentrification. The experience gained can be generalized as the insertion of an innovative industry into a declining community, followed by the creation of spaces at different levels to facilitate different activities. At the public level, business activities related to the new industry, such as markets, incubation spaces, and tourism, can be established to generate employment opportunities and foster the community identity. At the communal level, training spaces can be provided to enhance the residents' skills in the new industry, upskilling them for new job opportunities and strengthening social networks. The introduction of the innovative industry not only ensures the preservation of residents' housing but also brings new activities, job opportunities, and financial resources for its residents.

Societal Relevance

The problems surrounding the redevelopment of urban villages and the challenges faced by migrants are immense, and they are deeply rooted in China's population management policy. The rural population faces discrimination within the Hukou system, which denies them access to adequate urban services. It makes them vulnerable in the long run, their opportunities for proper education are limited by the great disparity of educational resources between rural and urban. As they migrate to cities for work, they often find themselves in jobs where the effort they put in does not correspond to their income, making it difficult for them to afford proper housing. This mechanism forms a vicious circle, strengthening the vulnerability of migrants.

Urban villages represent a significant manifestation of these social problems. They serve as gathering places that provide shelter for these vulnerable migrants. However, urban villages are also arenas for competing interests among different stakeholders. Unfortunately, migrants, being the weakest among these stakeholders, often bear the brunt of sacrifices.

Through the introduction of an innovative method for urban village redevelopment, the aim is to transform these areas into hubs that accommodate and empower migrants. By creating communities with improved living conditions and greater opportunities within the city, migrants and future generations will have more choices to lead fulfilling lives. Moreover, on a broader scale, this project has the potential to narrow the expanding social gap in China.

During the implementation process, sev-

eral ethical considerations may arise. First and foremost is ensuring housing safety. The process of redevelopment is likely to bring about gentrification, so the social resilience tools encompass upskilling to ensure migrants have fruitful jobs to afford the housing. To achieve this goal, many measures need to be taken, such as job skills certification, job searching assistance, etc.

Another consideration is about social justice. In my project, I proposed the utilization of Real Estate Trusts to mobilize funds for the early stages of redevelopment. However, this introduces new stakeholders, such as investors and financial institutions, who may hold significant power in decision-making processes. It is imperative to establish limits on their authority and clearly define the responsibilities of the Trusts to solely absorb financial resources for redevelopment purposes. Moreover, it is essential to curb excessive speculation and prevent any undue influence from these stakeholders to ensure equitable outcomes.

Limitations and Obstacle

However, there are certain limitations to the methods I employed. In the spatial analysis part, I relied heavily on mapping to study the spaces within the urban village. This approach was predominantly top-down and lacked user awareness, so I attempted to solve this problem by incorporating depictions of the activities and behaviors of different users within the urban village. On the institutional aspect, I proposed various co-creation strategies as potential solutions. However, these strategies remained primarily theoretical and were not implemented or tested on

the ground. Unfortunately, due to my inability to physically return to China, I was unable to experiment with these strategies in practice. This limitation prevented me from fully validating the effectiveness of the proposed participatory approaches and assessing their real-world feasibility.

During the research phase of this project, the lockdown and quarantine measures were extremely strict in China, preventing me from conducting field trips. This was a crucial factor in my decision to choose Zanhualing in Dongguan as the pilot project, as it was a location I had previously visited. However, conducting surveys with migrants residing in Zanhualing still posed significant obstacles for me. Initially, I did not have direct access to them, so I attempted online methods. I utilized various popular social media platforms that migrants might use, including Weibo (the Chinese version of Twitter), TikTok (a popular video platform), Xiaohongshu (the Chinese version of Instagram), and Xianyu (a second-hand trading platform), to search for posts related to Zanhualing Village and contacted the users who had published them. While I found a lot of relevant content, none of the users accepted my invitation for a paid online interview. Upon reflecting on my interview method, I identified the following reasons: Due to the prevalence of online fraud, people were understandably cautious about strangers on social media. Additionally, many migrants were unfamiliar with academic research or interviews, which may have led them to perceive me as a potential swindler. Realizing this, I reached out to my friends who were studying in Guangzhou, a city near Dongguan, and asked them to add me to the WeChat group of their university. I posted a message seeking assistance in the group and eventually found

a bachelor's student who helped me conduct on-site interviews.

One potential dilemma that may arise in applying this method in practice is the potential risk for larger-scale rural-urban disparity. As I mentioned earlier, migrants often lack a sense of identity and attachment to the urban villages they reside in. Therefore, to engage them, the government should introduce policies that recognize their legitimate residential rights and ensure their legal identity within their communities, as I have recommended. However, this approach deviates from China's household registration system, which could potentially widen the urban-rural disparities on a larger scale.

Future Work

Rural-urban migrants in China often maintain strong connections to their hometowns and are likely to return after their working age, a dynamic that differs from migrants in Western contexts. It is important to note that my project focuses solely on their lives in cities and represents only a part of the larger picture. The recurrent migration between rural and urban areas requires further investigation and dedicated research efforts.

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Appendix

Questionaires

1. What is your current residential status in Zanhualing Village? [Single-choice]

- Renting

- Village resident

- Other____

2. Why did you choose to rent in Zanhualing Village? [Single-choice]

- Affordable price

- Close proximity to work

- Recommended by someone I know

- Other____

3. What is your age range? [Single-choice]

- Under 18 years old

- 18-26 years old

- 27-45 years old

- 46-60 years old

- 60 years old and above

4. What is your educational level? [Single-choice]

- Less than primary school or below

- Primary school graduate

- Junior high school graduate

- High school graduate

- College graduate

- Bachelor's degree graduate

- Master's degree or above

- Other____

5. What is your primary source of income? [Single-choice]

- No income

- Employment

- Rental income

- Self-employment/business

- Other____

6.What is your monthly income level? [Single-choice]

- No income

- Below 5000 RMB

- 5000-10000 RMB

- Above 10000 RMB

7. What is your employment type? [Single-choice]

- No job

- Temporary work (daily wage)

- Full-time employment

- Self-employed/business owner

- Other____

8. How far is your workplace from Zanhualing? [Single-choice]

- No job

- Within Zanhualing Village

- Within 3 kilometers of Zanhualing

- 3-10 kilometers from Zanhualing

- More than 10 kilometers from Zanhualing

9. How much time does it take for your one-way commute to work? [Single-choice]

- No job

- Less than 10 minutes

- 10-30 minutes

- 30-60 minutes

- More than 60 minutes

10. Besides your place of residence, which places do you usually visit within Zanhualing Village? [Multiple-choice]

- Village square

- Fruit and vegetable stores

- Village supermarket

- Commercial street

- Other____

11. How do you usually commute to work? [Multiple-choice]

- No job

- Walking

- Driving

- Taking a taxi

- Riding a bicycle

- Public bus

- Subway

- Other____

12. What aspects of facilities in Zanhualing Village do you think need improvement? [Multiple-choice]

- Education

- Entertainment

- Medical services

- Other____

13. How satisfied are you with the housing environment in Zanhualing Village? [Single-choice]

- Very dissatisfied

- Somewhat dissatisfied

- Average

- Somewhat satisfied

- Very satisfied

14. What is your housing situation in Zanhualing Village? [Multiple-choice]

- Have a separate kitchen

- Share a kitchen

- Have a separate bathroom

- Share a bathroom

- Have a separate living room

- Share a living room

- No living room

15. How long do you expect to live in Zanhualing Village? [Single-choice]

- Haven't thought about it

- Less than six months

- Six months

- Six months to one year

- 1-2 years

- 2-5 years

- More than 5 years

- Forever

16. What is the monthly rent you pay in Zanhualing Village? [Single-choice]

- I'm not renting

- Below 1000 RMB

- 1000-2000 RMB

- 2000-3000 RMB

- 3000-5000 RMB

- Above 5000 RMB

17. Whom do you know in Zanhualing Village? [Multiple-choice]

- I don't know anyone

- I know my roommates

- I know some people nearby

- I know many people in the village