

中国都市更新政策における
解体から総合整備への変容プロセス

**The Transformation Process from Demolition to Comprehensive
Renovation in China's Urban Renewal Policy**

Chiba University

千葉大学

Xu Xizi

徐 夕子

Contents

Chapter 1: Background of This Study	6
1.1 Research background	7
1.2 Purpose of this study	7
1.3 Research structure and methods.....	7
1.4 Land system and land reform in China	11
1.5 Definition of keywords	16
Chapter 2: A Genealogy of Redevelopment Projects in China	18
2.1 A historical review of the development of urban villages in urbanization	19
2.2 Development of urban planning under urbanization process.....	25
2.3 Changing approach of redevelopment in China.....	28
Chapter 3: Applicability of redevelopment methods and residents' opinions: evidence from of Beijing	31
3.1 Village environment, building structure, building usage	32
3.2 Characteristics of residents (migrant workers and villagers).....	41
3.3 Attitudes to redevelopment model	47
3.4 Research Results	50
Chapter 4: A shift in urban renewal “Comprehensive Renovation” in Shenzhen	51
4.1 Realistic foundation of policy turning-massive housing stock and public rental housing market....	52
4.2 The transformation process from demolition to comprehensive renovation	57
4.3 Comprehensive Renovation of Shuiwei village and Yutian village	63
4.4 Research Results	70
Chapter 5: Discussion	72
5.1 Social sustainability under redevelopment: demographic, social and economic.....	73
5.2 Relationship between stakeholders: Villagers, residents, government, and developers in comprehensive renovation	79
5.3 General applicability of comprehensive renovation of China.....	83
Chapter 6: Conclusion	85
6.1 The impact of China's regional characteristics on redevelopment.....	86
6.2 Implications for future redevelopment.....	88
6.3 Limitations of this study	90

Appendixes	91
Contents of the interview (2020/08, 2021/04).....	91
Reference	95

Chapter 1: Background of This Study

1.1 Research background

The term "gentrification" has attracted widespread attention, including from researchers, and the philosophical discussion of the production of capital on urban geography that began in the 1960s has been endless. The expansion of urban capital is constantly transmitted to urban space, causing it to change in a regular way, and the term is used because it explains, to a certain extent, not only in terms of urban geography, but more essentially in terms of economic laws, what is happening now, not just in terms of redevelopment and urban renewal under redevelopment, but "the replacement and cleansing of higher capital ". It is critical of expressions such as urban redevelopment, urban renewal, or urban regeneration, although it is true that previous redevelopment and renewal was a positive description of an objective change in space in the pursuit of a 'better' environment, and that behind this change it cannot be ignored that the subsequent and sustained appreciation of land and property prices is the result of capital's pursuit of profit. However, the paradox is that the process of raising costs is not shared by those who 'use the space' at this time.

China has experienced industrial take-off and urbanization at a pace unprecedented in the world in the last 40 years. It has also experienced urbanization in the last 20 years, from the beginning of urbanization to general urban renewal. In recent years there has been a shift in the direction of urban renewal policy. Because the process of urbanization in China is relatively short compared to that of developed Western countries, the study of the interaction between space and policy in the process of urbanization is relatively more focused and can also as an important sample for understanding the urbanization process.

1.2 Purpose of this study

This research focused on the changing process of urban renewal in China. It may provide some experience for the world, especially for regions that experiencing gentrification. The purpose of this study mainly focuses on three points.

First, to clarify the relationship between "urban space" and "urban renewal policy". This paper combs the urbanization process from the literature of land system and urban planning policy and summarizes the characteristics of each stage. Then, using the data of the change of urban villages in Shenzhen, the most representative city in the process of Urbanization in China in recent decades, this paper makes an empirical study on this relationship. On this basis, to reveal the actual situation of the latest urban renewal method, details of shenzhen renewal case study as the latest empirical urban renewal method of urban renewal case study. Second, to verify the universality of this new update method. This paper investigates the architecture and village space of urban villages in Beijing and the attitudes of residents. Thirdly, on this basis, to clarify the reasons for the change from policy demolition to comprehensive renovation through urban renewal mode.

1.3 Research structure and methods

The main theoretical framework of this thesis is based on philosophy and the interweaving of economics, geography, and sociology, specifically involving the basic theories of political philosophy, human geography, political economy, regional economics, and other disciplines, as

well as detailed discussions on specific branches such as urban planning, land use, and urban spatial structure. The structure of the article is developed as follows:

Chapter 1 mainly introduces definition of keywords and introduction of the purpose of the study. And the land system of China and its development background. Further explain how land reform opened the way to rapid urbanization in China. Land elements are used to enter the process of marketization as the beginning of the original accumulation of industrial capital and urbanization. Furthermore, it introduces different paradigms and frameworks of urban space in the process of urbanization due to land system.

Chapter 2 take the changes in China's land system as the main line of development to reveal the split in the urban management system during the urbanization process caused by the dualistic land ownership system between urban and rural areas. It further analyzes the formation and development of urban villages between "nationalization" and "collectivization", which is rapidly and strongly dominated by "nationalization". Under urbanization, the village economic interests were formed by absorbing a large number of migrant workers. The formation mechanism of urban villages is complex and can be regarded as an intermediate product in the process of urbanization, which is the combination of urbanization rate and institutional incentives at a specific time. Furthermore, it expounds the formal region against the informal space: the development of urban renewal policies in the process of urbanization, which have different effects in different stages. Then, it expounds the gentrification process under the large-scale construction and redevelopment, and what social problems are generated in the process of the continuous demolition of urban village.

Chapter 3 against the backdrop of high land prices and the increasing difficulty of reconciling spatial rights, the government's latest policy direction is to break away from the shackles of ownership, to coexist with nationalization and collectivization, and to reserve the right to live in the city for the large number of migrant workers who have truly contributed to urbanization, a process of institutional compromise. Therefore, under the policy background of "comprehensive renovation" of Shenzhen urban renewal, the paper first analyzes the realistic basis of the policy shift -- many housing stock and public rental housing market, and then analyzes the reason of the policy shift -- the sustainability of economic, social, and demographic structure, and shows the comprehensive renovation of Shuiwei village and Yutian Village as an empirical case.

Chapter 4 focuses the perspective on Beijing, also facing urban renewal, whether the transformation of urban villages can provide public rental housing as the Comprehensive Renovation program introduced in Shenzhen, and the flexibility of the system cannot be separated from the consideration of the characteristics of the space itself. This chapter takes Beijing urban villages as the object of study, analyzes the village object village morphology and physical environment of the northern urban villages, as well as the economic business of the villages, and examines the geographical extension of the policy. At the same time, a questionnaire survey is conducted on the occupants of the villages, including the views of the villagers who are property owners and also the occupants of foreign immigrants on the village renovation, which is different from the previous stakeholder's game model in which only the rights of those who have ownership

are considered, and the value of the right to use urban space is introduced with the demand for balance and spatial justice for all classes in the city, in order to form an evaluation mechanism before the urban renewal that has not yet existed by induction.

Chapter 5 is the discussion. Based on the empirical study in chapter 3 and chapter 4, based on the policy shift from demolition to comprehensive renovation, further analyze macro reason of social sustainability of the city as a whole units under redevelopment including demographic, social and economic the different stages of urbanization from development-oriented to people-oriented, as well as the micro reason of the relationship between stakeholders of villagers, residents, government, and developers in comprehensive renovation, and the applicability of urban villages in Beijing under the change of renewal policy.

Chapter 6 as the final conclusion, reveals the results of this study are found in the changes of urban renewal policy in Shenzhen and specific and new projects, as well as the applicability of urban villages in Beijing under the changes of urban renewal policy, further summarizes the trends of urban renewal in institutional development with a historical review of the macro context and provides references and thinking paths for the effectiveness and sustainability of urban renewal in the future, as well as the spatial justice of spatial development rights based on the allocation of land resources.

The main research methods for this project were mainly research on land systems, urban planning literature and sources, beside the literature review on land systems and urban redevelopment policies, this study also conducted interviews with staff of the Shenzhen Planning and Natural Resources Bureau in December 2019 via the internet and in August 2020 via the visit. The interviews covered policy orientation, government subsidies, and the processes of urban village redevelopment supported by the government (shown in tables in the results section). On-site photography was conducted in November 2017 and in August 2020. The redevelopment method of the two cases investigated in this study are fundamentally different from the old redevelopment method. As a result of the questionnaires and interviews and recognized that there are limits to evaluating new renovation cases from the traditional redevelopment evaluation perspective, and that it is necessary to set up new multiple perspectives and analyze them comprehensively. In this interview, asked about the outline and effects of the urban renewal policy, which was changed to "comprehensive renovation" in 2016, as well as the Shenzhen Municipal Government's perception of Urban village. In addition, between November 2017 and September 2021, I conducted four times of the field survey. to confirm the status of the redevelopment of Urban villages in accordance with the "comprehensive renovation" policy, the actual state of operations, and the implementation status of infrastructure improvements.

The article construction and research logic further shown in the figure below as Figure 1.

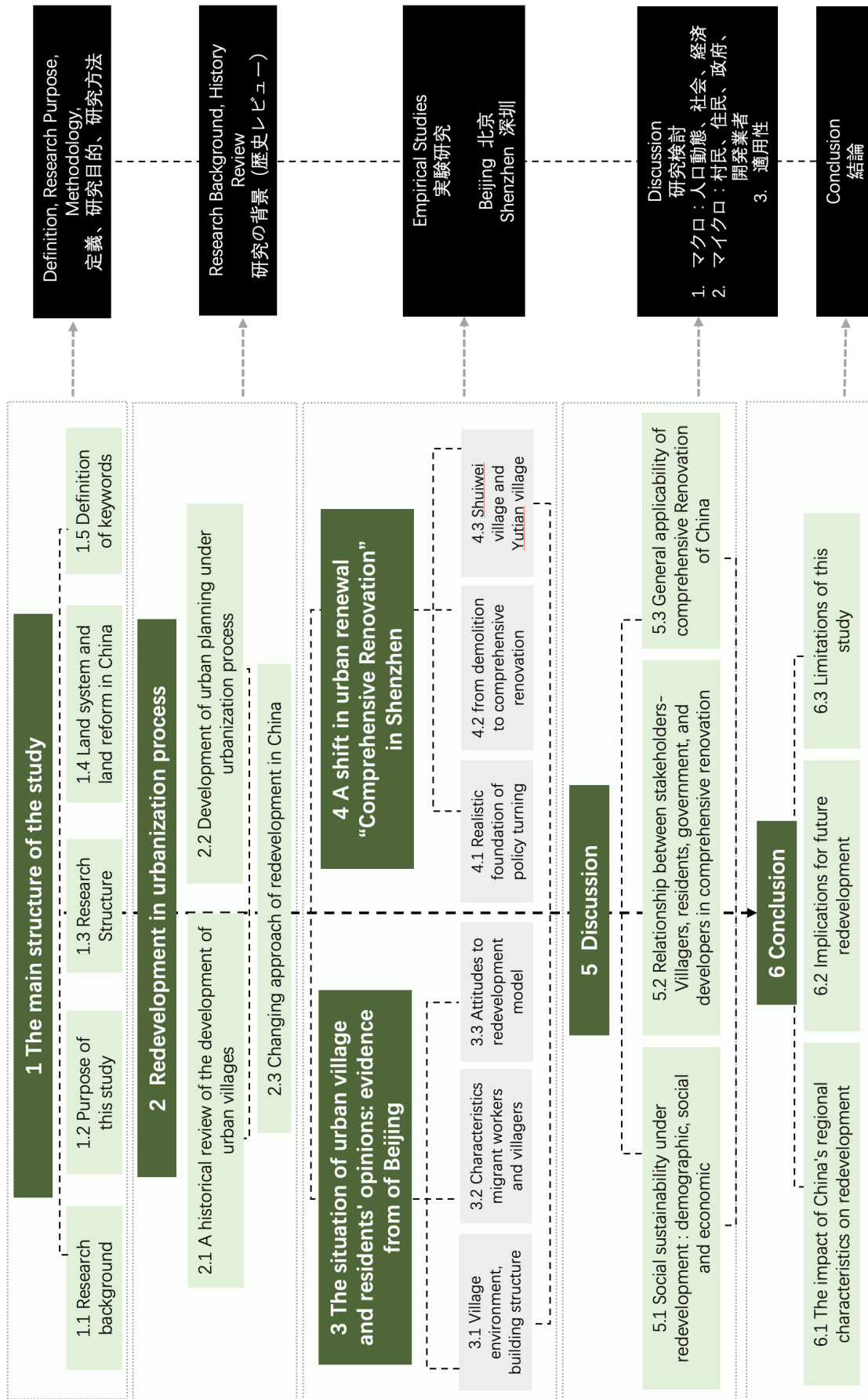


Figure 1. Article construction and research logic

1.4 Land system and land reform in China

China has an average rating in social mobility of equality, opportunity, and new economic imperative, according to The Global Social Mobility Report 2020(FORUM 2020). Furthermore, according to a recent State Council opinion document, institutional reform will improve land and labor elements, thus enabling China's further economic development(The CPC Central Committee and the State Council 2020). For decades, China's land system has achieved remarkable results by leading to the "productivist welfare" model of urbanization(Holliday 2000).

The Land Administration Law of the People's Republic of China (the "Land Law") established a distinct dual-track land system in 1982. The state monopoly of the land use rights market in 1988 heralded a new political economy gradually after the reform and opening up (Lin & Ho, 2005). The land has been commodified in cities and the countryside, although they both imply non-privatized marketization (Hsing, 2010). These market-oriented changes triggered massive urban sprawl and contributed to a surge in land prices. Moreover, it marked the beginning of the political pattern of capital accumulation and distribution centered on land (Hsing, 2010; Lin, 2002).

The change of China's land policy is the main clue of China's urbanization after land market. It is the next dynamic and active force of state organization to make essential changes in space. Therefore, it is necessary to clarify the historical context of China's land system changes before analyzing the development process of Urbanization and the process of urban renewal.

The main historical review of China's land system and reform has the following important stages.

(1) Rural land reform in the early years of the founding of the country (1949-1953)

In the early years of the founding of New China, the rural population was dominant among the total population of the country. Achieving a rational allocation of rural land resources was directly related to the legitimacy of the new regime's rule and people's support for the new regime, therefore, the Party and the state used land reform as an important measure to carry out social reforms at the beginning of the founding of the country. In carrying out land reform, the Party and the state successfully carried out changes in the land system through political mobilization in the form of state power as a guarantee. Although this land system change harmed the interests of landlords and some rich peasants, most peasants benefited from it, and peasants had land security and improved their lives. From the founding of New China to the first half of 1950, about 145 million people had completed or basically completed land reform, and about 264 million people in the newly liberated areas had not yet undergone land reform, and the feudal exploitation system still existed in the countryside. At the same time, as far as the national economic situation was concerned, the people's livelihood was withered and all industries were waiting to be revived at the early stage of the founding of the country, and land reform was also necessary to achieve a fundamental improvement in the financial and economic situation and to complete the task of national economic recovery. In June 1950, the Third Plenary Session of the Seventh Central Committee of the Communist Party of China (CPC) was held, and Mao Zedong reiterated the important task of land reform in his report "Struggle for the Fundamental Improvement of the Financial and Economic Condition of the

Country". Land Reform Law of the People's Republic of China", which provided the legal basis and policy guidance for the full-scale land reform in the newly liberated areas.

(2) The second change in the rural land system (1953-1978)

Private ownership of land by peasants was realized at the beginning of the founding of the country, putting an end to the long-cherished desire of peasants for their own land for thousands of years. However, private ownership of land in the early years of the new China, when production tools were simple and production technology was backward, would mean plunging China back into the traditional small-peasant economic farming model. The state solved this problem by adopting a cooperative approach to land ownership that was easily accepted by the peasants. The initial land cooperative movement solved both the conflict between private ownership of land and the overall construction plan of the country, and the problem of polarization caused by the free movement of land, so the agricultural cooperative movement was initially generally approved and supported by the grassroots of society. However, due to the ideology and the influence of the domestic and foreign environment at that time, the cooperative movement was artificially speeded up and eventually replaced by the high-level communes and people's communes with public ownership as the core, a form of production organization that far exceeded the level of productivity development and people's awareness at that time and curbed China's economic and social development. The second change in China's land system took nearly 25 years. From 1953, when mutual aid groups began to be established throughout the country, to 1978, when the people's commune system was thawed. The first stage was the formation of the collectivization of agriculture, during which agricultural development went from the formation of temporary mutual aid groups to the widespread establishment of permanent mutual aid groups, and finally to the establishment of advanced cooperatives with socialist characteristics. The second stage is the implementation and debugging stage of the collectivization of agriculture. During this period, the form of agricultural village organization gradually transitioned from the cooperative stage to the people's commune stage. If we divide it according to the change of land property relations, it can be divided into the stage of simple cooperation of laborers and means of production under private relations of peasant land and the stage of collective and unified operation of laborers under the condition of public ownership of means of production. The first stage mainly includes two forms of mutual aid groups and primary societies, which are simple labor collaboration among peasant households based on the principle of voluntariness, while the second stage includes senior societies and people's communes. The historical evolution of the land system in this period can be analyzed if based on the characteristics of cooperatives in different periods. On September 9, 1951, the First National Conference of the CPC Central Committee on Mutual Agricultural Cooperation adopted the "Resolution of the CPC Central Committee on Mutual Agricultural Production Cooperation (Draft)". In terms of the type of organization of peasant mutual aid cooperation at that time, there were three main forms as follows: First, temporary mutual aid groups. Temporary mutual aid group is in the busy season, some farmers with blood relations or local relations temporarily organized in the production of mutual help in the form of cooperative organizations. Temporary mutual aid group is small, there are three or five

households, there are also seven or eight households. In the labor of this organization to labor, livestock, or production tools as the center of mutual help, in the work also no formal system of work, the general implementation of the exchange of equal value. Temporary mutual aid form is more suitable for the original mutual aid habits of farmers, so the development of rapid, large number, for the new China to resume agricultural production played a great role. Second, the seasonal mutual aid group. Seasonal mutual aid group is developed based on the temporary mutual aid group, it takes the household as the participating unit, in the production of labor, livestock, farm equipment and other related production materials all as input mutual aid factors. In the mutual aid group has seasonal or annual production plan arrangements, labor and livestock are also assessed centimeters, on time settlement of public accounts, mutual aid form more fixed, but is still a kind of farming season mutual aid combined, agricultural leisure time scattered production organization. Third, the perennial mutual aid group. Perennial mutual aid group is a more advanced form of mutual aid organizations. The number of farmers generally about 10 households, relatively fixed and the size of the temporary mutual aid group is large. In mutual aid, generally take labor, animal power, agricultural tools, and other production materials of the overall mutual aid. Organizational management is more standardized, there are leading institutions and basic systems, including a simple production plan, some technical division of labor, etc.

(3) A new round of changes in the rural land system (1978-1992)

From the early 1950s to the end of the 1970s, China went through a 30-year period of industrial development by means of agricultural and rural accumulation. The state, through the distribution system of "unified purchase and sale" and the organizational system of "people's communes," directly obtained all the agricultural surplus except for the basic subsistence consumption of peasants, which greatly dampened the peasants' labor incentive and affected the development of agricultural production. After 1978, with the shift of the Party's focus, the family contract responsibility system reemerged and released a huge institutional effect, which promoted economic and social development. At the same time, the intrinsic linkage between the management system and the property rights system made it inevitable that a change in the property rights structure of land was triggered at the same time as the change in the family contract management system was realized, which made China's agricultural land system take the first step towards market-oriented changes. However, the remarkable achievements cannot conceal the flaws that were implicit in the original design of the system: the peasants' philosophy of redefining land property rights is still the old and simple concept of "equalization". This has left behind many problems that the system itself could not overcome and avoid, such as the increasing small-scale nature of rural operations (Liu 2010, Chen 2014).

In December 1978, under the leadership of Deng Xiaoping's ideological line of emancipation and seeking truth from facts, the Third Plenary Session of the Eleventh Central Committee of the Party set the rural areas as the breakthrough point of the national economic system reform. At the same time, at the Third Plenary Session of the Eleventh Central Committee of the Party, the CPC Central Committee reached a consensus that the development of agriculture "must first mobilize the

socialist enthusiasm of hundreds of millions of peasants in China." In December 1978, under the leadership of Deng Xiaoping's line of thought of emancipation and seeking truth from facts, the Third Plenary Session of the Eleventh Central Committee of the Party set the rural areas as the breakthrough point of the national economic system reform. The breakthrough of the reform. At the same time, at the Third Plenary Session of the Eleventh Central Committee of the Party, the CPC Central Committee reached a consensus that the development of agriculture "must first mobilize the socialist enthusiasm of hundreds of millions of peasants in China". The original impetus for the change in the land system was to solve the problem of feeding people, so the government still attached too much importance to the land's function of providing subsistence and employment in the system change. In the process of allocating rural land, the state mainly used equal distribution of land according to the number of people to ensure that everyone had land to cultivate. In the process of management, the state also strives to maintain a stable land management structure, and Article 10 of the 1982 Constitution clearly states that "no organization or individual may encroach upon, buy, sell, rent, or otherwise illegally transfer land."

(4) The deep change of rural land system (1992-2008)

In 1992, after Deng Xiaoping's speech inspecting the South and the 14th Party Congress, he clearly put forward the reform goal of establishing a socialist market economy system, which also made the reform of China's rural land system enter the "rational promotion stage". The main feature of the reform of the rural land system during this period is that the reform goal of establishing a market for rural land elements was clearly proposed, and the reform measures were introduced in a systematic and proactive manner. Especially from 2002 to the present, the Party and the State, standing at the new historical starting point of China's reform and modernization, have taken the creation of farmers' land property rights as the starting point of institutional design and the establishment of urban-rural economic and social integration as the goal of institutional design, and gradually improved the construction of rural land factor markets, pointing out the direction for the market-oriented changes of the rural land system in the new period. First, the increasing economic value of land requires the construction of factor markets. Land is an important resource for human beings and has important value for them. The value of land is mainly expressed in two aspects, one is social value, and the other is economic value. Land plays a social value in maintaining human survival, preserving social stability, and solving the food and clothing of the population. Secondly, the reality that the hidden market of land tends to be open and standardized requires the construction of factor market. Land market is a general term for the sum of the relationship between the supply and demand sides of land and the trading places arising from the process of land property rights flow. Again, the change of some rural land uses requires the construction of rural land factor markets. The transformation of agricultural land to non-agricultural land is an important link in the allocation of land resources. After the reform and opening up, with the rapid development of China's economy, people have put forward higher requirements for both scarce resources, agricultural land and non-agricultural land. Again, the change of some rural land uses requires the construction of a rural land factor market. The transformation of agricultural land to non-agricultural land is an important link

in the allocation of land resources. After the reform and opening up, with the rapid development of China's economy, people have put forward higher requirements for both scarce resources, agricultural land and non-agricultural land.

The acceleration of China's urbanization has promoted the construction of rural land factor markets. In the era of planned economy, China implemented the strategy of prioritizing the development of heavy industry, which is a typical capital-intensive industry with limited labor absorption. Under this system, rural areas, which account for more than 80% of the country's population, were basically excluded from the industrialization process, and the problem of surplus labor in rural areas was hidden. After the reform and opening up, with the improvement of agricultural production efficiency and the thawing of the institutional constraints of labor factor flow, the surplus of rural labor became more and more visible, and where to turn the hundreds of millions of surplus labors became the most serious realistic problem in China. urbanization, refers to the process of changing the rural population into urban population, or the process of concentrating the population in cities." (Liu 2010, Chen 2014, Gui 2017)

1.5 Definition of keywords

This study is about urban renewal in the process of Urbanization in China, which will involve China's unique system and special urban stage phenomenon, the following definitions need to be explained.

Dualistic land system: This was a constitutional amendment in 1982 that made the "public ownership" of land a principle based on Article 10 of the Chinese Constitution. Based on this constitutional amendment, the State Construction and Land Expropriation Ordinance was enacted in the same year, establishing the dual land system of "state land" and "collective land".

Collective land: Collective land is owned by a village, which is a community of farmers in an area, and the villagers (farmers) use the land together. The villagers (farmers) form a village economic organization based on the principle of common ownership of collective land and run the village.

Natural village: A populated area with a common agricultural culture and lifestyle. It is a community formed by geographical and blood relations and is based on agricultural production. Therefore, it is not necessarily the same as the administrative village, which is the legal administrative unit, but rather the unit of daily life and interaction of farmers.

Informal space (urban village): Originating from the collective land of "natural villages," which are communities connected by geographical and blood ties, these are dense spaces where the villagers of the collective land have voluntarily formed factories and rental housing apart from planned urban development by the government. In China, this informal space is called a "city village".

Household registration system: China's household registration system is the main form of household population control and is directly linked to the land system. It is concerned with the welfare rights of the people, including employment, education, housing, medical care, and social security. Since the household registration system in modern China is directly related to the ownership of real estate, the number of residents in a region does not match the number of people registered in the household register.

Main involved Laws of land:

Document No. 1 of the Central Government of the People's Republic of China in 1982 stipulated that "the land contracted by members of the community shall not be bought, sold, rented, transferred or abandoned; otherwise, the collective has the right to take it back; it shall be returned to the collective when the members are unable to operate it or switch to other businesses." The 1982 Constitution of the People's Republic of China stipulates that "no organization or individual may encroach on, buy, sell, rent or otherwise illegally transfer land."

Document No. 1 of the Central Government in 1984 states, "Encourage the gradual concentration of land to capable cultivators. If, during the contract period, a member of the community requests not to contract or to contract less land because he or she is unable to cultivate it or has switched to another business, he or she may hand over the land to the collective for unified arrangement, or, with the consent of the collective, the member may find his or her own object and

negotiate for subcontracting, but may not change the content of the contract to the collective without permission." The government began to loosen restrictions on land transfer.

The 1986 Land Management Law of the People's Republic of China stipulates that "no unit or individual may encroach on, buy, sell, rent or otherwise illegally transfer land" and that "when land is requisitioned for state construction, the requisitioned unit shall obey the needs of the state and shall not obstruct it. "This, on the one hand, clarifies the legal status of land transactions at the legal level and lays the legal foundation for the acquisition of farmers' right to trade agricultural land, and on the other hand, sets the authority to trade agricultural land for agricultural purposes.

The 1993 "Several Policy Measures on Current Agricultural and Rural Economic Development" states, "Under the premise of insisting on collective ownership of land and not changing land use, the right to use land is allowed to be transferred for compensation according to law with the consent of the issuer." The 1998 Land Management Law of the People's Republic of China elevated the right to trade in land for agricultural use to the height of law for protection, while conditionally opening up the right to trade in agricultural land for non-agricultural purposes. The PRC Land Administration Law provides that "the right to use land may be transferred in accordance with the law." "The right to use land collectively owned by farmers shall not be transferred, assigned or leased for non-agricultural construction; however, except for enterprises that comply with the overall land use plan and obtain land for construction in accordance with the law, where the right to use land is transferred in accordance with the law due to bankruptcy, mergers and other circumstances."

The 2002 Law of the People's Republic of China on Rural Land Contracting stipulates that "the main body of the transfer of the right to contract land management is the contracting party. The contracting party shall have the right to decide independently whether to transfer the right to contracted land management and the manner of transfer in accordance with the law." "The right to contracted land management acquired through family contracting may be transferred by subcontracting, rental, swap, transfer or other means in accordance with the law." "The subcontracting fee, rent, transfer fee, etc., for the transfer of the right to contract for land management shall be determined by mutual agreement between the parties. The proceeds of the transfer shall belong to the contractor, and no organization or individual shall retain or withhold them without authorization." The Law of the People's Republic of China on Property Rights provides that "the person who has the right to contract for land management shall have the right to transfer the right to contract for land management by way of subcontracting, swap, or transfer in accordance with the provisions of the Rural Land Contract Law. The period of transfer shall not exceed the remaining period of the contract period. Without the approval of the law, the contracted land may not be used for non-agricultural construction."

Chapter 2: A Genealogy of Redevelopment Projects in China

2.1 A historical review of the development of urban villages in urbanization

Urbanization encompasses at least sociological, demographic, economic, geographic, and urban planning implications, and is understood in different ways and with different emphases. Usually we understand it as "the historical process of transformation of human production and lifestyle from rural to urban, which is expressed in the transformation of rural to urban population and the continuous development and improvement of cities" or "the phenomenon and process of transformation of agricultural population and land into non-agricultural cities (Tan 2005).

The shift from an agricultural to an industrial society has been accompanied by a short-term concentration of population from rural to urban areas, a phenomenon known as "urbanization". The process of urbanization is manifested on a regional scale by the rapid concentration of the agricultural population in urban areas and the expansion of the urban land area, and on an intra-urban scale by the environmental degradation and secondary problems caused by the fact that the urban infrastructure and housing are not sufficient to meet the minimum requirements of the influx of citizens. It was the concentration of population in cities due to industrialization and the problems caused by this concentration that forced the search for a new technical and managerial tool to solve these problems. This was the origin of modern urban planning (Tan 2005).

The phenomenon of urbanization first arose in England and later spread with the spread of industrialization to the European and American continents and to some other regions of the world. The period of peak urbanization and the time it took to complete the cities varied from region to region. The level of urbanization in England reached 32% in 1801, over 50% in 1851, and 75% in 1900, and it took almost 120-30 years to complete the process of urbanization, starting from the Industrial Revolution at the end of the 18th century. The urbanization level of the United States was only 6% in 1800, exceeded 50% in 1920, and reached 75% in 1990, nearly two hundred years ago and after; look at our neighbor Japan, whose urbanization level was 9% in 1890, exceeded 50% in 1955 (56.1%), and reached 75% in 1975, the whole process was shorter than that of the United Kingdom and the United States. China's urbanization really took off after the founding of New China in 1949, with an urbanization level of about 13% in the early 1950s, exceeding 30% for the first time in 1998. From 1949 to 2021, China's urban population increased from 540 million to 1.39 billion people, and the urbanization rate increased from 10.64% to 63.89%.

Urbanization has accelerated since the end of the last century in China. Over the past 40 years, the urbanization rate in China has increased from 20% to 60%. Like all semi-formal area transformations, the government is committed to creating livable urban spaces and a more pleasant environment through state-led urban land use planning. Capital investment in local areas, infrastructure improvements, and the introduction of business to promote economic development is commonplace. This process is occurring in almost all semi-formal areas in an urbanizing China as shown in Figure 1. The advantages of the flexibility of the hybrid tenure structure in semi-formal areas are considered to be an urban development strategy of gradual redistribution(Liu 2019). In this sense, the strategy of incorporating urban informality into cities is pragmatic.

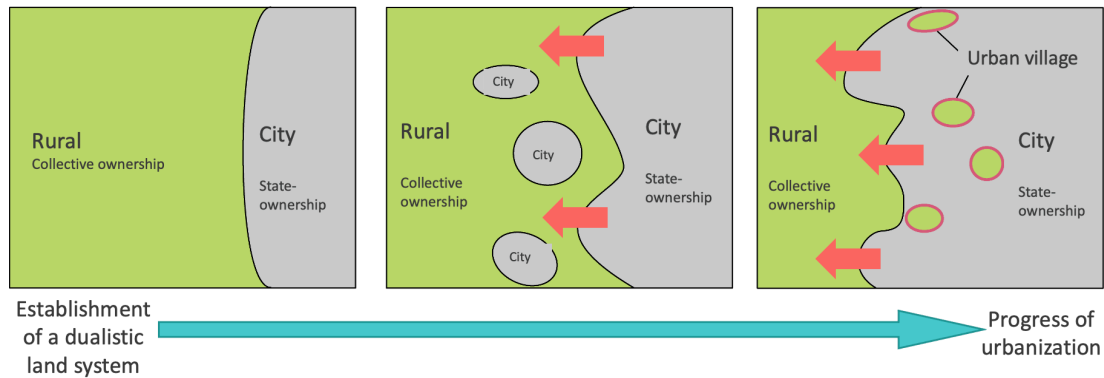


Figure 1. Urbanization under China's Dualistic Land System

However, semi-formal areas are also spontaneous settlements for migration, due to the lower housing costs and proximity to work and transportation (inside cities). In the process of urban renewal, these areas are demolished and replaced with high-rise buildings and luxury hotels (Wang, Lin, and Ning 2012). This is not just a geographical phenomenon but a change of rights and occupants (Liu et al. 2010) (Chan, Yao, and Zhao 2003) (Li et al. 2014). In city, low-income migrants are the most vulnerable to the entrepreneurialism and gentrifying of semi-formal areas and forced to the periphery (Liu 2019). The marginalization of migrants, changing urban demographics, increasing social exclusion, and social discord caused by the inequality between rich and poor, contribute to the system's long-term disparities making "semi-urbanization" a solid structural phenomenon (Wang n.d.).

The institutionalization of the dual model of co-existence of state and collective land has an important role to play in the urbanization process. The dual land system of urban and rural areas in China since the reform and opening up, which has been an important support for urban construction and has led to the rapid urbanization of socialist China with nationalized urban land (Holliday, 2000). In the 1980s, when land use rights were formally opened on the market track, and in the 1990s when the tax sharing system was reformed, urbanization of state-owned land gradually took off under local government-led planning in line with the country's improving economic environment (Chen & Shin, 2019; Lin & Ho, 2005; Hsing, 2010; Shin, 2009). Since then, the conversion of land in China to non-agricultural use has been perhaps the most widespread in its history. The process is the most concentrated in China's coastal provinces (Ho & Lin, 2004). The self-urbanization initiated by the original villagers is indeed an informal urbanization process in the city's geographical integration (Hsing, 2010). The content of land expropriation has been divided into two categories: agricultural land and inhabitant areas, different from the farmers forced upstairs (Li et al., 2016), urban villages formed under the circumstances that the homestead was not expropriated. Local governments expropriate farmland from village collectives and omit the villagers' homestead, resulting in the collective-owned homestead being surrounded by urban construction, through municipal planning and municipal facilities because of the collective ownership rather than state-owned (Crow, 2009). It has been formed as a composite of the land system, industrialization,

municipal power, and migration, as the exteriorization of spatial islands in urbanization (Liu & Lin, 2014; Liu et al., 2010).

In the early days, when land was first allowed to be traded on the market after the constitutional amendment of 1988 in the People's Republic of China (PRC), it was monopolized by the state (Lin, 2007) (G.C.S. Lin, Li, Yang, & Hu, 2015). The state owns a large amount of semi-suburban land, which is set aside for additional construction (Lichtenberg & Ding, 2009). The government expropriated agricultural land and left behind residential zones. Villages gradually became surrounded by new high-density construction, but villages are beyond urban planning regulations because village land still belongs to villagers collectively, rather than being state-owned. In many of China's biggest cities, millions of migrant workers are forced to live in relatively cheap rental housing such as urban villages. In the rapidly growing economy, industrial enterprises and the migrant workforce need to rent a large number of factory buildings and homes to meet their development and living needs. The strong demand in the property rental market and the potential economic benefits have become a strong incentive for former villagers and collectives to occupy collective land for the construction of factory buildings and residences. With no legal recognition from the government, the number of illegal buildings continues to grow. In fact, the rental housing built by former villagers and collectives provides a place for newly arrived workers and low-income earners to build their own living costs and to build up their skills through work and seek better development opportunities. The relatively low-rent illegal buildings have housed millions of migrant workers and low-income earners and have become "protected housing" built by the private sector on their own, the details of the relationship between urbanization process and the formation of urban villages are shown in Figure 2.

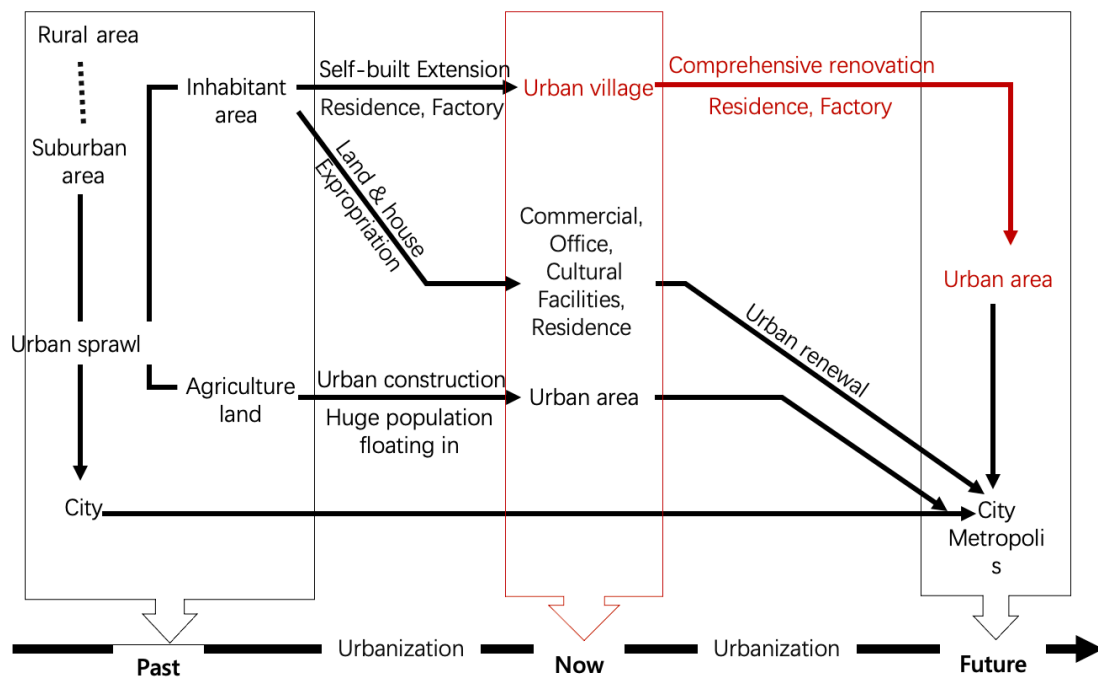


Figure 2. The formation process of the urban village

In the 1990s, the large-scale expropriation of agricultural land ended the livelihood based on agriculture. Most urban villages have set up their own village joint stock companies(Li et al. 2014). These homesteads are the peasants' last front on the land battlefield. They frantically built taller for rent, and the foreseeable land appreciation formed a very market-driven informal world in front of the battlefield in a new era of migration(Cindy Fan 1996). Urban villages are always regarded as being accessed by rural migrants(Keung Wong, Li, and Song 2007). They provide low-rent housing and low-cost living space for migrants and the basic unit of urban self-organization(Liu et al. 2010).

Top-down and bottom-up, planned and unplanned, are mutually constituted in all instances of settlement transition(Smith 2014). The unique intersection of particularity and uncertainty contributes to the birth of an informal world. Land acquisition and regulation pressure have triggered farmers' enthusiasm for land possession (Wang, Wang, and Wu 2009). Unauthorized building activities got out of control in many villages in the following years. Furthermore, urban expansion continued, resulting in urban villages(Hao, Sliuzas, and Geertman 2011)(Hao et al. 2013).

The basic background for this phenomenon is China's dual land system, in China, the dualistic system of land makes its urbanization process different from other non-public land states. Due to the passive formation mechanism of rapid urbanization, well known as semi-urbanization have long been regarded as a game played among the factors of land use, land ownership, and the social value of land due to China's unique dual urban-rural system.

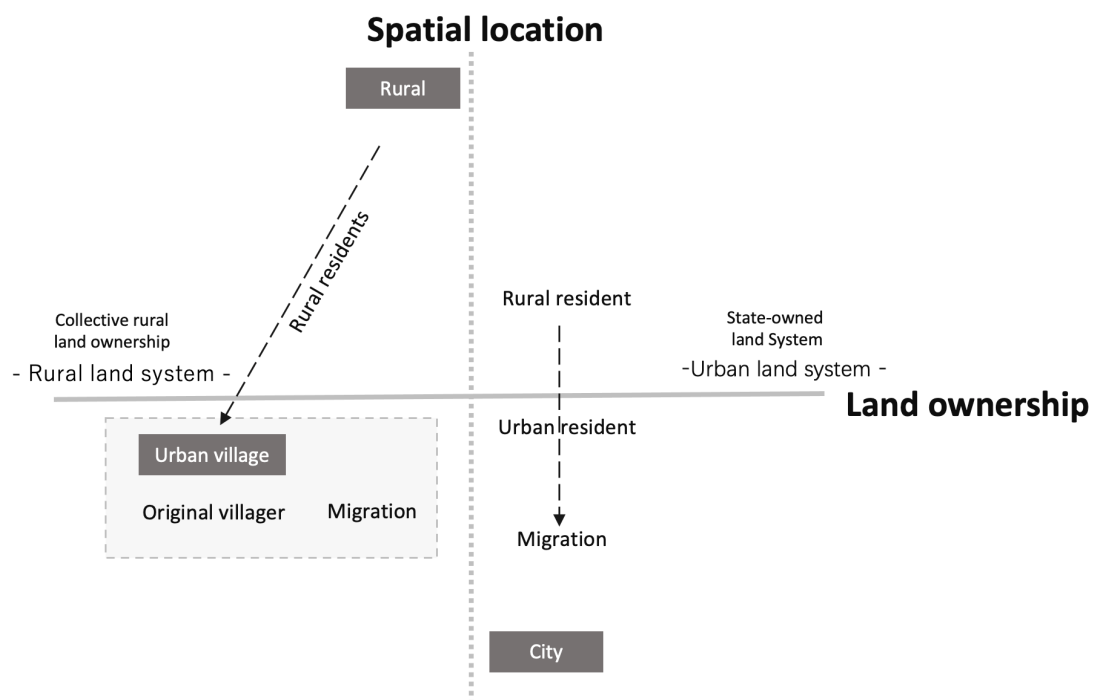


Figure 3. Quadrant relationship of urban village formation

A typical social product of urban villages has emerged, the "big city" is not a necessary condition for the existence of urban villages. Collective land ownership is directly related to the household registration system. As urban development intensified, more agricultural land was taken

away, and villagers lost their primary source of income. They expanded their original homes or built on new collectively owned land to rent homes and earn an income (Lai & Tang, 2016).

In an urban village, the features of the dual structure of urban and rural areas means that the land remains part of the original collective economy and in the hands of joint organizational management as shown in Figure 3. The single economic structure of “generating wealth by land” and renting collective property within a social structure formed by kinship ties are relatively stable (Hao et al., 2011; Liang, Yuan, Tan, & Li, 2018). Urban village land belongs to the villagers, the same as in the rural system (Lai et al. 2014), while urban land belongs to the state (Hao et al. 2011). In other words, people with urban household registration do not own land. This is the core of the dual urban-rural system (L.H. Li, Lin, Li, & Wu, 2014). If villagers give up their rural household registration, they no longer have collective land ownership. Classification and structure of rural-urban dual system in China is shown in Figure 4.

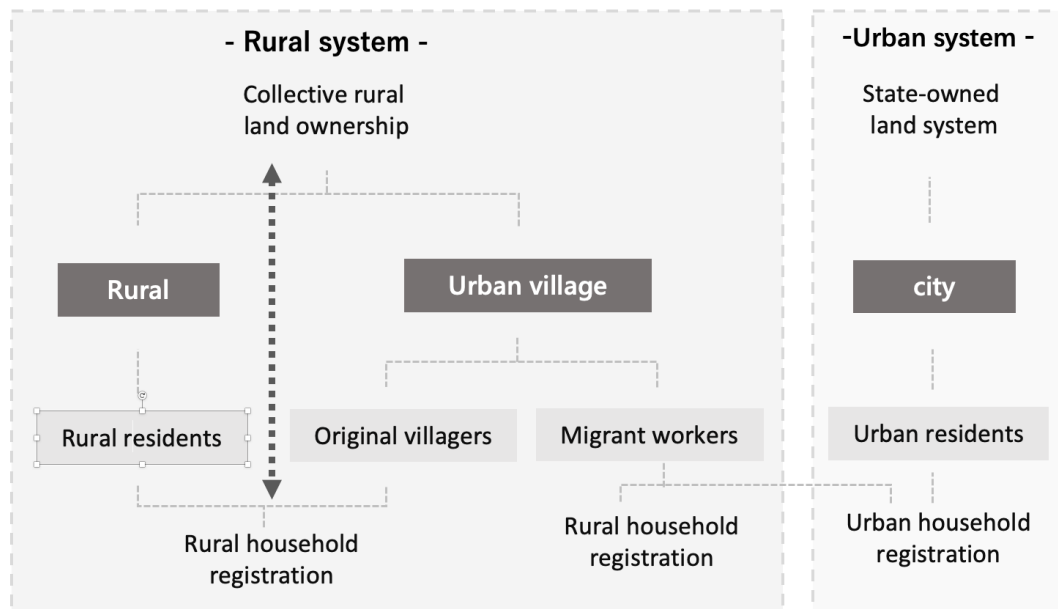


Figure 4. Classification and structure of Rural-urban Dual Society in China

The key to the hybrid tenure structure lies in the urban-rural dual system. After the rural collectively-owned land is converted into state-owned land through expropriation, it can enter the primary market for trading, in which the government controls the right of land conversion and market utilization (Lin and De Meulder 2012). Table 1 shows the differences among rural, urban villages and cities in the urban-rural dual system by comparing six aspects.

Table 1. Differences among rural, urban villages and city in the urban-rural dual system

	Rural	Urban village	City
Rural-urban dual system	Rural system	Rural system	Urban system
Land ownership	Collective Land ownership	Collective Land ownership	State-owned
Market transactions	Forbidden	Forbidden	Government approval
Spatial location	Rural area	city	city

Population mobility	Rural population	Rural migrant workers	Urban population
Household registration	Rural Household registration	Mix	Urban Household registration

Urban villages are also prevalent in small and medium-sized cities in China. Urban villages are part of the spatial change from rural to urban, a spatial change in China's geography that has led to full urbanization. The urban village, as a dualistic product of the land system, is national in scope. Both practice a dualistic land system of rural collective land and urban state-owned land. In recent years, the population of small cities in northeastern and western China has flowed out due to the geographic industrial renewal and the siphoning phenomenon of large cities, a phenomenon of urbanization first, followed by the polarization of large cities.

2.2 Development of urban planning under urbanization process

Corresponding to the formation and development of urban villages, local governments also actively use administrative urban planning to regulate the formation of urban space. It has a direct and profound impact on urbanization. The development-oriented national spirit emerged in the 1980s when the conveyance of land-use rights has officially opened up in the market track, and urbanization under the fulcrum of land ignited the ambitions of the local government following a tax-sharing reform(Chen and Shin 2019)(Lin and Ho 2005). The local government as the super landlord has been in charge of urbanization by planning, selling, developing, and regulating(Hsing 2010)(Shin 2009), In the later period, land, fiscal revenue and capital market encouraged each other to accelerate urbanization(Zhou 2014)(Lin 2014)(Lin 2007a)(Lin 2007b)(Lichtenberg and Ding 2009).

With the reform and opening up of the city in 1978, Shenzhen became a model city in terms of economy, and in 1980 special economic zones were established in four districts of the city. In 1980, four special economic zones were established in the city. With the opening of the land-use rights market in December 1987, foreign companies began to build more factories in Shenzhen, and the Shenzhen municipal government increased the sale of state-owned land-use rights year by year. As a result, the Shenzhen municipal government increased the amount of state-owned land use rights sold each year. Table 2 shows the urban renewal policy of Shenzhen city and the transformation of informal space in Shenzhen city in an organized manner. It can be discussed that the transformation of informal space in Shenzhen is strongly influenced by the urban renewal policy.

Table 2. Changes in Urban Renewal Policies and the Development of Informal Spaces

Stages (year)	Background of National Land Reform and Institutional Change	Review of Municipal Urban Planning Policies and Decisions	Transformation of an informal space
1978–2008			
1980	1. Shenzhen as the first mover of land reform after the defining property in the Land Administration Law of the People's Republic of China in 1982; triggered the state land market in 1988. 2. A land management system guided by urban planning was established in 1998; the land market was monopolized by the state. 3. Strictly protect 1.8 billion mu of arable land; strictly economize on land for urban and rural construction. 4. The Third Plenary Session of the 17 th CPC Central Committee proposed that "the existing land contract relationship should be kept stable and unchanged."	Shenzhen officially designated as a Special Economic Zone	As urbanization progresses, the migrant population from outside increases, and the villagers of the collective land rebuild their homes into mid-to high-rise rental housing. These buildings are densely built, and the surrounding area becomes increasingly urbanized, creating an "informal space". The number of informal spaces, such as Urban village, exploded, and by the 1990s there were 320 Urban Villages. At the end of the 1990s, the villagers established a joint-stock company to manage Urban village.
1987		Shenzhen auctioned off land use rights for 50 years, an embryonic form of the state-owned land market	
1989		Old town reconstruction began in Luohu District	
1992		Interim Provisions on Rural Urbanization in Shenzhen Special Economic Zone	
2004		All 260 square kilometers of land were converted into state-owned land. All the members of rural collective organizations have become citizens.	
2005		Master Plan for Renovation of Urban villages (Old Villages) in Shenzhen (2005–2010) The detailed rules for the implementation of the Interim Provisions for the Transformation of Urban villages	
2006		Shenzhen land reserve system	
2009–2015			
2009	1. Non-agricultural collective land marketization gradually formed as constructive collective land has the right with state-owned land in the market claimed	Shenzhen Urban Master Plan	With the increase in informal spaces and the depletion of land for urban development, the urban renewal project to "demolition and recontribution" Urban village was added.
		Shenzhen Urban Renewal Measures	
		Special Urban renewal planning	

2010	in the Third Plenary Session of the 18 th Communist Party of China Central Committee. 2. Proposed to establish a balanced distribution mechanism for land appreciation among the state, collectives, and farmers.	<u>Introduction of the Renewal Measures</u>	As a result of redevelopment based on the premise of "demolition and reconstruction," the building area in the informal space has decreased, remaining below 10 million meters.
2012		Housing Construction Planning Implementation Plan	
2013		<u>General Planning for Land Use in Shenzhen (2016–2020)</u>	
2014		Implementation Rules of the Renewal Measures	
2016 - 2020	1. Multi-channel solution of land marketization gradually formed began in Opinions on Accelerating the Cultivation and Development of the Housing Rental Market claimed in the General Office of the State Council No. 39 of 2016. 2. The No. 1 Central Document of 2018 proposed to explore the separation of ownership, qualification, and use rights of the homestead. 3. The newly revised Land Management Law in 2020 clearly defines the public interests of land expropriation. 4. The CPC Central Committee and the State Council in 2020 proposed to promote the marketization of land elements allocation and activate the use of stock land.		
2016		The 13th Five-Year Plan for Urban Renewal in Shenzhen Shenzhen Interim Measures on Strengthening and Improving Urban Renewal	Improve public services and living standards, the redevelopment policy of Urban village will be changed from "demolition" to "comprehensive renovation". In addition, the low-cost rental housing in Urban village will become public housing. The "comprehensive renovation" will create a unique space for each town.
2017		Shenzhen's Implementation Opinions on Accelerating the Cultivation and Development of the Housing Rental Market (Shenzhen Municipal Bureau of Planning and Natural Resources, 2017a) Interim measures to strengthen and improve the implementation of urban renewal (Shenzhen Municipal Bureau of Planning and Natural Resources, 2017b)	
2018		Multi-subject supply, multi-channel housing security system	
2019		Master Plan for Comprehensive Renovation of Urban villages in Shenzhen (Old Villages) (2019–2025) (Shenzhen Municipal Bureau of Planning and Natural Resources, 2019)	
2020		In the context of housing system reform, monitoring and statistical analysis of housing land supply (commodity housing, human resources, housing, and public rental housing) in Shenzhen in 2020–2021 (Shenzhen Municipal Bureau of Planning and Natural Resources, 2020)	

To facilitate urban expansion through the establishment of special economic zones, the Shenzhen municipal government introduced land management standards for collectively owned land in the 1980s, as shown in Table 3. The introduction of these management standards is believed to have curbed the uncontrolled development of collectively owned land and enabled the Shenzhen municipal government to efficiently nationalize land and rapidly expand the city. Furthermore, in 1992, through the "Unified Expropriation" (Tongzheng), the Shenzhen municipal government expropriated all collective land and converted it into state land, and all land in Shenzhen became state land. Furthermore, in 2004, the Shenzhen municipal government implemented the "unification and transformation" (Tongzhuan), and all farmers in Shenzhen changed their household registration from rural to urban. Thus, between 1992 and 2004, although the Shenzhen municipal government nationalized the land and changed the household registration, the informal space was still maintained by the villagers in the collectively owned land. Based on this, in 2005, the Shenzhen Municipal Government released the "Shenzhen City Urban Village Renovation Master Plan Outline (2005-2010)", which presented the urban renewal of informal spaces for the first time.

Table 3. Provisional Rules for Housing Construction by Rural Residents in Shenzhen Special Economic Zone Provisional Regulations on Land Use

Type of housing	Regulation content
Farmers' private homes	The number of floors shall be limited, in principle, to no more than three floors per block, and the average floor area per person shall be no more than 40 square meters.
Housing for households with three or fewer members	Building area shall not exceed 150 square meters.
Housing for households of three or more persons	The maximum floor area should not exceed 240 square meters.
Land for farmers' homes	As a comprehensive calculation standard, the projected basement area for a farmer to build a 200 square meter house per household is 80 square meters.

In the formal domain of the land battlefield, municipal authorities exert absolute leadership through urban planning. "Unified expropriation" (Tongzheng) in 1992 and "unified conversion" (Tongzhuan) in 2004, the local government had an extreme ambition to nationalize completely at the beginning of urban land marketization and the surge in non-agricultural conversion; at the same time, such ambitions have inspired resistance in the informal space. In the face of the massive informal spaces that have formed in the resistance, local governments seek to form mature markets with developers by "demolishing" informal settlements. Urban infrastructure is one of the most significant government achievements, whether it is the guiding industry or local land finance. As a result, urban renewal projects in Shenzhen have shown blowout growth and the "demolition–reconstruction" as a common urban development model. Correspondingly, land acquisition obstacles are becoming more demanding in treating informal settlements than greenfield development (Lai & Tang, 2016). In the process of land system change, state ownership and collective ownership are not equal and antagonistic, and collective ownership is secondary considering its legal status (Su et al., 2019). This absolute legal strength launched three "enclosure movements" for national interests (Wen, 2013). When the world was swept by neoliberalism, with the domestic state power restructuring, local governments competed like corporations over a "growth-first" approach to urban development (He & Wu, 2009; Lin et al., 2015). This pattern of forced property rights conversion has resulted in the historical development and institutional structure of a particular society, although it has supported China's urbanization process; however, ignoring other aspects of society could result in rising inequality (Ho, 2005).

2.3 Changing approach of redevelopment in China

In the urban sprawl scenario, the middle class that participated in the city's development may have flocked to the city, they are invisible promoters and could go nowhere after the battlefield turns into a luxury hotel. The working class is always in a vulnerable position when facing the changing law of spatial relations(Harvey 2016). This process is known as gentrification. Gentrification is a common, controversial topic in politics and urban planning that is occurring globally(Lees, Annunziata, and Rivas-Alonso 2018). When capital rises in the urban fabric of an older, existing neighborhood or semi-formal district, it modernizes the residential buildings, commercial and educational facilities, and other infrastructure, consequently increasing rents. Low-income groups are displaced either directly or indirectly, forced to migrate farther out into cheaper areas or displaced completely(Lees, Slater, and Wyly 2010). In particular, this has continued for decades, transforming into a widespread increase in inequality and social exclusion.

The process of redevelopment in China is not unique, as in other developed Western countries around the world, this type of demolition and redevelopment is very common. In French banlieues and American interior cities, similar concentrations of ethnic minorities have experienced gentrification of their neighborhoods(Andy Merrifield and Erik Swyngedouw n.d.). Without legal protection, the situation for marginalized groups becomes increasingly negative. Early scholars pointed out that the loss of control over urban informal housing and this sort of dissonance in urbanization was politically and economically hazardous(Swyngedouw 1968). However, commonly woven into the interstices of the urban fabric in the metropolises of the developing world and hidden within the conflict between government plans and housing needs, the contest of the land-tenure system and citizenship rights entitlement is clearly manifest.

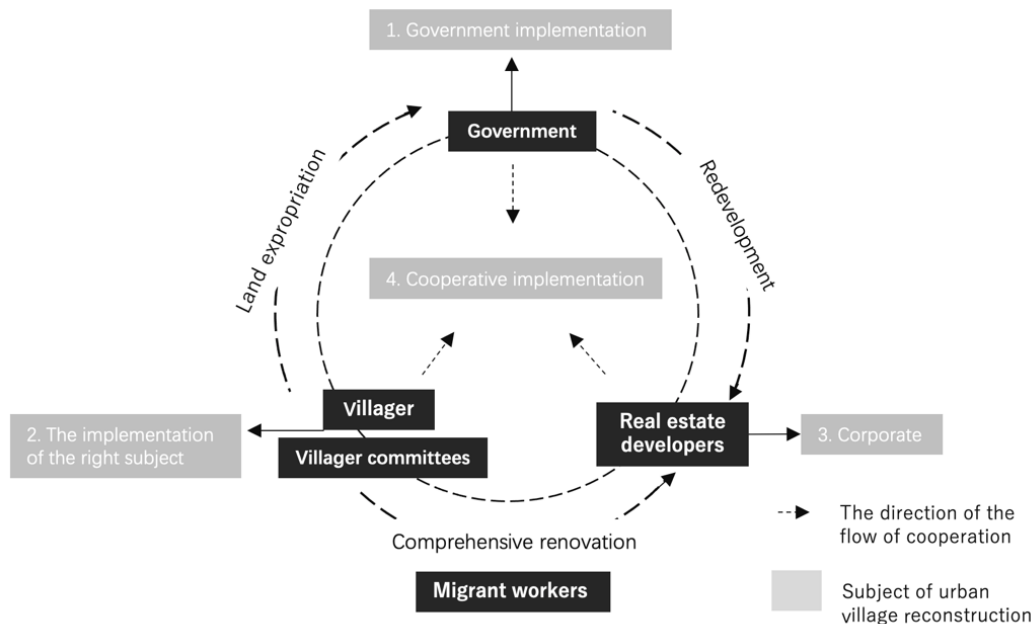


Figure 5. Four redevelopment models and the relationships of interest among stakeholders

Among the existing redevelopment patterns in China, there are no visible differences in the redevelopment models because during demolition/reconstruction, land acquisition takes place and developers are introduced based on the central government’s urban land policy. The redevelopment of urban villages in the north and south is consistent. There are four approaches in the development model: state-led, enterprise-led, owner-led, and cooperative, as outlined in Figure 5.

These four models are all grounded in the approach of changing land property rights: the ownership of land is transferred to the state, and the land is put into the local land reserve after a national site arrangement, or put into the market and handed over to developers for secondary development (Zhou, 2013; Hsing, 2010). Therefore, after the expropriation of state-owned land, villages on that land may be completely demolished upon conversion of ownership and may be converted to other non-residential land uses. Converting of land ownership is very complicated, involving multiple stakeholders (Jiang et al. 2020) (Lin and De Meulder 2012). However, the spotlight has never been focused on the real victims of the land battlefield. The former rural class of peasants is included as de facto landowners, while migrant tenants—the majority of the urban village population—are excluded from the redevelopment process (Lin Ye 2018)(Chan et al. 2003).

Redevelopment usually implies that the urban villages are transformed from the inside out, specifically based on the following: After land is acquired, the village structure is converted by changing villagers’ identity. Villages’ economic and social organization form under the dual urban-rural system, as presented in Figure 6. Although such a change in ownership is thorough, it is still unable to resolve the inherent contradictions of urban villages. Moreover, in the process of implementation, numerous disputes often arise over property rights and financial difficulties.

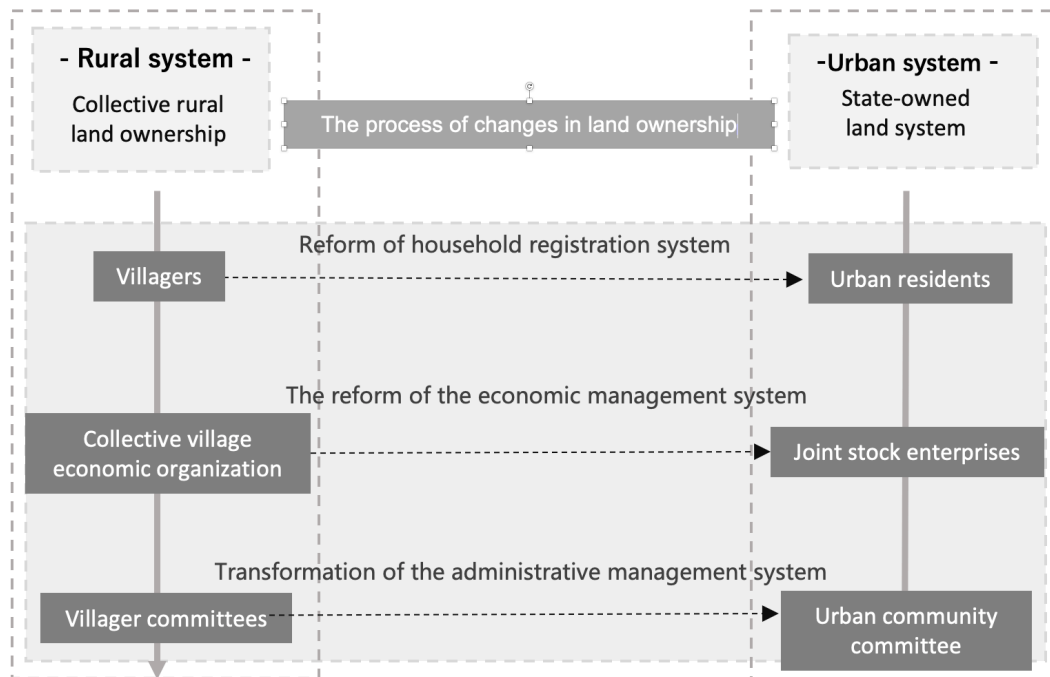


Figure 6. The fundamental change of the village system in the city under redevelopment

It is also formally because of China's dualistic land system between urban and rural areas that the process of redevelopment in China has a more complex relationship with the conversion of

property rights. Rural land is considered to have poor sanitation, infrastructure, and a lack of management. However, because the rent in urban villages is lower than in common urban residential zones, it is beneficial to integrate rural land into the rental market. Many scholars argue that without an accompanying program that includes rural migrants in the urban housing market, policies that focus on demolishing urban villages could be misguided (Yan Song et al. 2017). “The top-down approaches are mainly based on a ‘demolition-redevelopment’ model and dominated by commercial and political interests that in many cases cannot work” (Lin and De Meulder 2012). The internal spatial pattern of “village space” is outside the realm of urban planning (Song and Zenou 2012) and the land is annexed to become part of the urban district. Farmers still collectively own the land instead of the government, but the farmers lose their original status in life due to the lack of cultivated land (Jiang, Deng, and Seto 2013). To transform the urban village into the urban community, demolition/reconstruction would not be workable, because it would fail to integrate local villagers into urban society (Li et al. 2016). Meanwhile, solving the housing problem for rural migrants is another critical issue (Liu, He, Wu, & Webster, 2010).

The current era has produced new forms of inclusion and exclusion. The positions of individuals in a rigid institutional hierarchy of non-migrant urban natives, permanent migrants, and temporary migrants are potentially defined by institutional affiliations and status (Fan 2002) (McGee et al. 2007). Removing the social and institutional barriers for migrant integration into the city is likely the most effective way to enhance residential satisfaction and neighborhood quality, not only in the labor market segmentation but also in the access to housing and education (Keung Wong et al. 2007). Some scholars have argued at the beginning of this century that housing problems in Chinese cities cannot be evaluated simply by economic indices such as price and national income. A better response to social and economic issues is required, as well as an urban renewal that takes into account the housing of temporary migrant workers (Chan et al. 2003).

Chapter 3: Applicability of redevelopment methods and residents' opinions: evidence from of Beijing

3.1 Village environment, building structure, building usage

The way architecture is structured is largely determined by the local geography and climate. Just as the southern wetland architecture followed the dry fence-long house, the inevitable path of northern dryland architecture was the crypt-enclosure. There are still ample evidence that northern and southern dwellings have different village and architectural structures. They are mostly 1-2 story low buildings with obvious enclosed courtyards, which is fundamentally different from the southern buildings. In contrast, the buildings in southern villages are mostly in the pattern of long houses on the street, and the height of the story can generally be increased to 7-8 stories in the villagers' spontaneous construction.

The hutongs and courtyards of the 800-year-old capital of Beijing are the only surviving residential buildings of the imperial capital in China. In order to preserve the old capital's appearance and maintain its traditional features, more than 20 hutongs have been designated as historical and cultural reserves in the urban areas of Beijing, such as Nanluoguxiang and Xi Si Bei a to 8 have been designated as courtyard bungalow reserves, and Beijing's hutongs are still a symbol of the history of old Beijingers' lives today. Today occupying a major part of the city center and home to a third of the city's population, the residents of the hutongs still retain much of their old way of life.

However, with the expansion of urban construction land, peri-urban villages have rapidly become involved in the land area designated for urban construction, and the increase in the number of urban villages is consistent with the expansion of the scope of urban growth.

By 2018, there were approximately 237 villages in Beijing's urban zone, spread across four districts in the city's eastern and western parts: 113 in Haidian District, 120 in Chaoyang District, 121 in Fengtai District, and 18 in Shijingshan District, as presented in Table 1 (Wangcao, 2018). The total area covers 1,092 hectares, with a construction zone of 2.735 million square meters. As early as 2002, the cost of revamping Beijing's urban villages was estimated to be more than 40 billion yuan; 58 of the villages received more than 100 million yuan in funding (Liu and Wong 2018).

Table 1. Changes in the numbers of villages in Beijing from 2002–2018

District	The number in... 2002	Number of demolitions							Remain... 2002 villages	Completion rate of demolitions
		The number of transformed urban villages								
		2002-2008	2009-2012	2013-2015	2016	2017	2018	2002-2018		
Haidian	266	42	58	30	12	3	8	153	113	57.5%
Shijingshan	48	5	15	4	0	3	3	30	18	62.5%
Fengtai	330	28	66	61	4	32	18	209	121	63.3%
Chaoyang	384	90	81	34	22	20	17	264	120	68.8%
Changping	251	4	28	3	2	1	3	41	210	16.3%
Shunyi	379	14	20	3	0	0	0	37	342	9.8%
Daxing	435	15	54	21	6	2	4	102	333	23.4%
Tongzhou	376	11	38	26	11	0	3	89	287	23.7%

Fangshan	295	6	26	7	9	14	10	72	223	24.4%
Mentougou	36	0	20	6	0	4	0	30	6	83.3%
East&West	26	14	2	2	2	1	1	22	4	84.6%
Others	614	2	22	1	6	8	1	40	574	6.5%
Total	3440	231	430	198	74	88	68	108	2351	31.7%
Central urban area	676	146	141	66	36	24	26	439	237	64.9%

We surveyed an urban village called Yuanmingyuan Dongli Village (YD Village), located in the northwest part of Beijing and at the northeast corner of the Old Summer Palace in Haidian District, to the west of Zhongguancun North Street. There are more than ten urban villages within 10 kilometers of this village, which is 3.3 kilometers away from the nearby Zhongguancun Commercial Center, and 2.9 kilometers away from Wudaokou Commercial Center (as outlined in Figure 1).

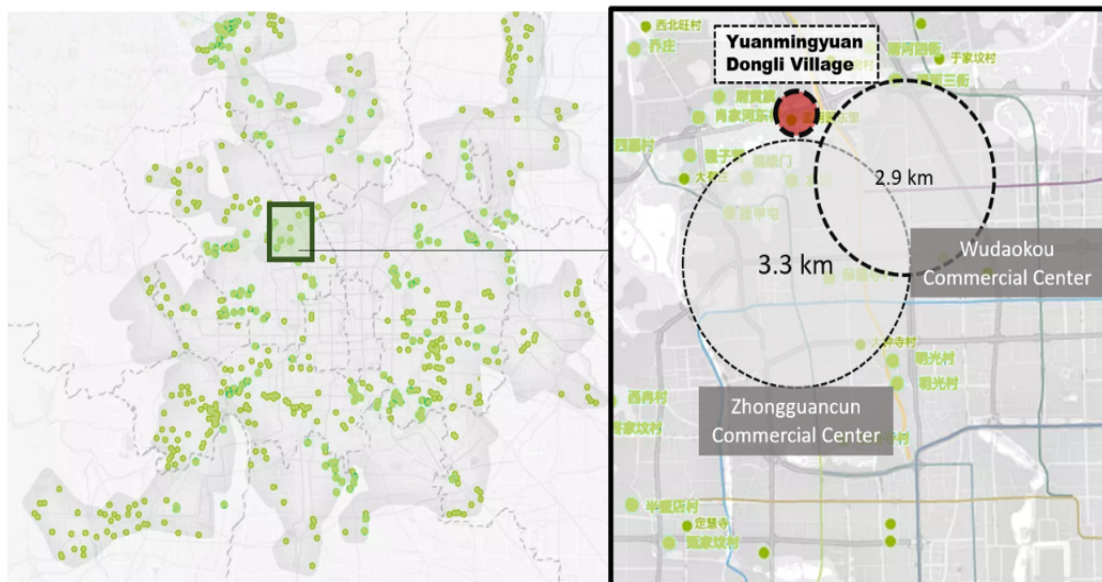


Figure 1. Distribution map of urban villages in Beijing and the investigation site

Yuanmingyuan Dongli Village is located inside of the fifth ring road of the Beijing Haidian district, at the northeast corner of the Old Summer Palace. It was chosen as the study site because it is a typical urban village in Beijing in terms of the numbers of registered and current residents, geographical location, and village environment, as described below.

The total area of the village is about 1.25 square kilometers. The Fifth Ring Road lies north, the south bank of the east gate of the old summer Palace sewage ditch lies south, to the west is the southeastern portion of the Xiaojiaqiao Bridge, and Zhongguancun North Street is east of the village. It is 3.3 km away from the nearest Zhongguancun Commercial Center and 2.9 km away from the Wudaokou Commercial Center, as shown in Figure 2. The Yuanmingyuan Dongli Village officially belongs to the Yuanmingyuan Dongli Community (the same level as the administrative village) established in August 1999. Zhongguancun North Street divides the community into two parts; the east is urban construction land, the west is Yuanmingyuan Dongli Village. The village is named for

close to the world cultural heritage of the old Summer Palace Park (Yuanmingyuan). The total number of registered residents in the village is 107 households, with a population of 153. The number of migrant workers in the community was 13,210.

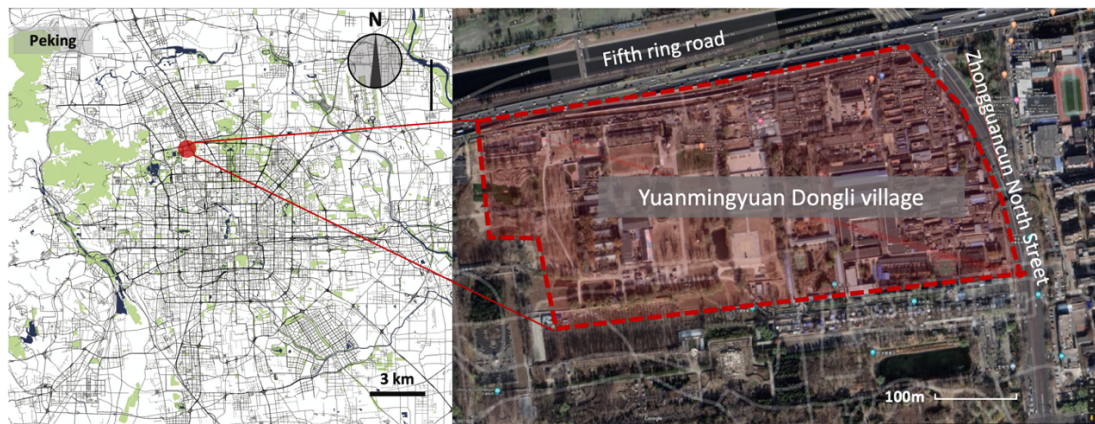


Figure 2. Investigation Yuanmingyuan Dongli Village site in Beijing

Reference source : This map features the content provided by Google Maps

Our investigation began with measuring and modeling the site, which contains the living environment of the village and people's living conditions.

We chose to examine this village because it is nearby two commercial centers in northwest Beijing. Further, it still has a high number of village buildings, as well as the typical low-rise, tube-shaped apartments in the north built by villagers in the process of rapid urbanization. Although there is some new construction, the structure, density, and height of the original buildings have been retained. This situation is typical and provides critical research value for whether it is suitable to implement preservation and renovation in the north in order to carry out the comprehensive renovation of village buildings.



Figure 3. The spatial condition of buildings and roads of Yuanmingyuan Dongli Village

Compared with the formation and development of urban villages introduced earlier, and the interesting relationships among stakeholders in the process of redevelopment, we did not detect many differences between urban villages in the country's north and south. Therefore, we focused

on the material composition of YD Village, including the spatial environment, living conditions, sanitary conditions, building density, and infrastructure. The physical environment of the village suggests that all buildings are limited to basic residential functions. Most of the buildings in this typical village do not meet the urban planning and building regulations. The streets consist of narrow roads with poor lighting, particularly inadequate on the first floor. YD Village suffers from a lack of sanitation and waste disposal and a basic sewage system. There is very little green space. Some apartments share communal toilets rather than inside the room, as shown in the photo in Figure 3.



Figure 4. Daily life and village catering of Yuanmingyuan Dongli Village

Figure 4 shows the daily living conditions inside the village. For example, along the main road leading to the city, farmers set up small stalls daily to sell fruits and vegetables. Some apartments along the street are converted into simple, fast-food shops by the villagers themselves, and villagers play chess on the road beside the flats.



Figure 5. The sectional view of the A-A position in YD Village

To display these differences more clearly, based on our on-the-spot examination of YD Village, we sketched a virtual 3D model for further analysis of the site. To depict the most common spatial relationships of the village buildings, we chose to indicate the A-A position of the village, as shown in the Figure 5, specifically the village buildings of 1–2 stories, which reflect the typical architecture of rural villages in northern China. Please refer to the sectional view below. The village’s total area is 28.6 hectares. The construction zone is 25,845 square meters. The overall height of the village buildings (which ranges from 3.5 to 7 meters) is no more than two stories. The proportion of most first floors is 56%, while that of most second floor is 44%, and the overall green zone is 5.5 hectares, accounting for 19.2% of the village’s total area.

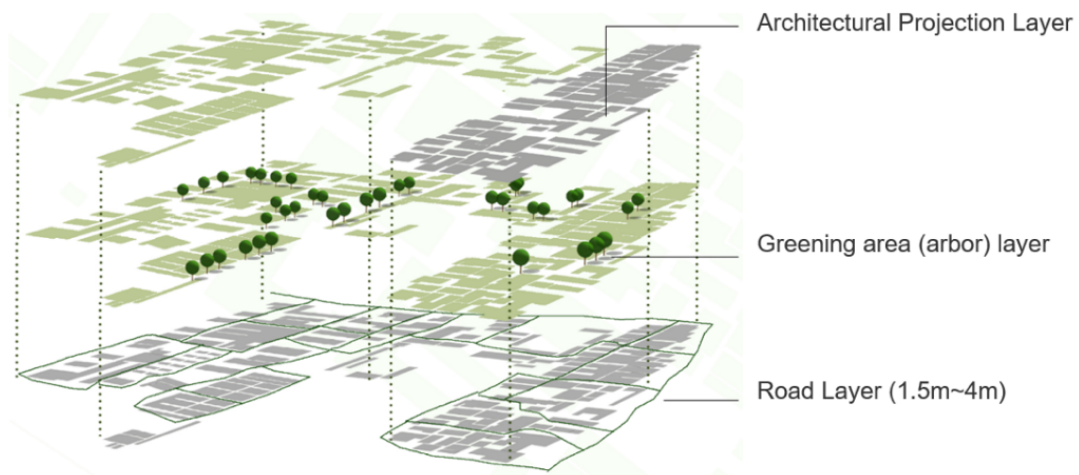


Figure 6. The horizontal decomposition of YD Village’s layers

We simulated the village’s spatial projection and calculated the proportions of the three layers of buildings, the landscape, and the road, as portrayed in Figure 6 are contain 76.4% ,11.5%, and 12.1% respectively. Trees and shrubs accounted for 19.2%, shrubs for 49% and herbs for 31.8% of all landscape greening. There are only a few old public toilets. The internal part of the traffic road is approximately 2–4 meters wide, and the walking road is 1–1.5 meters wide. Figure 7 shows photos of residential areas, vegetation and roads.



Figure 7. Photos of YD village: residential Spaces, vegetation, roads

According to the experience of long-term redevelopment in urban villages, the calculations of development intensity and economic benefits are as follows (Xu, 2012):

$$E=(D+Q)*(L+1)$$

$$E=(R*C-B)*J$$

$$E=(D+Q)*(L+1)$$

We determined the strength of the reconstruction of urban villages based on economic feasibility. This can be verified by the strength prediction of future earnings. We deduced the relationship between the volume ratio and economic returns as follows:

$$R=(E/J+B)/C$$

$$R=(E+BJ)/CJ$$

$$R=[(D+Q)*L+1)+BJ]/CJ$$

According to the factors involved in the formula, which ultimately affect the cost of redevelopment, total economic income is impacted by the building volume ratio, the total land area/price, the unit area price, construction and security costs, detection fees, project management fees, financial expenses, and income advance taxes. Then, we compared the cost influencing factors at each stage of the redevelopment model and the comprehensive renovation model as shown in Table 2, to determine the crucial factors affecting cost.

Table 2. Variables that affect the costs and benefits of redeveloping urban villages

Relevant factors	Variable description
E	Economic benefits after reconstruction.
R	Building volume ratio.
L	Profit margins, which are generally controlled at about 15% based on the specific development of the real estate market.
D	The total land price.
Q	Refers to other costs besides land prices, including construction and security costs, construction fees, civil air defense construction fees, detection fees, unforeseen fees, project management fees, financial expenses, advertising sales fees, business taxes, income tax advance collection, etc.
B	The compensation area for relocation.
J	The unit area price.
C	The total land area of the reconstruction project.

As outlined in Table 3, at each stage of redevelopment and comprehensive renovation, the building volume ratio is a crucial factor, and the spatial density and building volume ratio are the most substantial weights for the final cost. Moreover, in the redevelopment process, the original building volume only has an impact on the cost of demolition. In contrast, at the comprehensive

renovation stage, the original building volume affects the final rental cost. Hence, the original building volume has a more significant impact on the cost of comprehensive renovation.

Table 3. Classification of the cost-effect indicators of the two village transformation methods

Analysis of influencing factors	The value of redevelopment	The value of renovation
Location, building age, spatial infrastructure, building condition, building volume, usage rate	Building and land expropriation costs	Rental cost
	Total village land	-
	Building	-
Building volume, story height, structure, interior decorations	Reconstruction costs	Reconstruction costs
	Demolition costs	-
	Construction costs	Renovation costs
Building volume, construction period, allocation situation, detection fees, financial expenses	Management fees	Management fees
	Security costs	Security costs
	Reconstruction process management	Reconstruction process management
Number of unit houses	-	Operating costs
Location, building condition, building volume, interior decorations, spatial infrastructure	Housing sales revenue	Rent

Compared with the building volume ratio of 4.5 (or more in the south), the urban villages represented by Beijing are more common below 2. To understand the reasons for this gap, in addition to our previous analysis of the spatial distribution and architectural form of urban villages, evaluating the characteristics of the volume and type of buildings in urban villages is also essential. Thus, we further classified and analyzed the buildings in the villages separately. Based on the survey, we revealed the building usage of the three main functions of the building zone shown in Figure 8. There are factories, residential, and business areas. The residents and tenants living in the village mainly pass down these two roads (Zhong Guancun Road and the side of the Fifth Ring Road), so the commercial buildings are mostly distributed on their sides.

Table 4. Variables that affect the development costs and benefits of urban villages

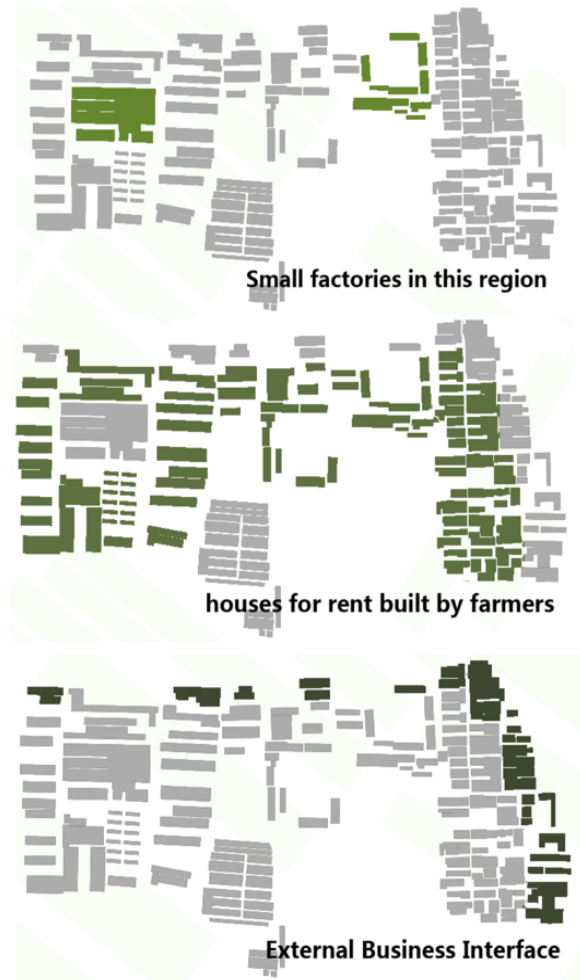


Figure 8. Partial portrayal of spatial distribution

Research content	Quantity	Rate	
Total village area	28.6 ha.	-	
Construction area	25,845	0.249	
Building height	1-2 stories	1 story	0.56
		2 stories	0.44
Green zone	5.5 ha.	0.192	
Villagers (households)	34 households	-	

We also recorded the distribution of specific formats and the number of building types, as well as the ownership of buildings, as displayed in Table 5. The main building function is still for residents to live and rent. Nevertheless, besides the original houses, villagers have also built new,

tube-shaped apartments for rent beside the original homes (which account for 19.7% of the total), mainly comprising two-story buildings.

Table 5. Distribution and property rights of shops and the commercial forms in urban villages

Construction format	Construction area (m ²)	Number	Rate	Ownership
Villagers' homes for self-use	13,797	132	0.534	IP
Self-built rental buildings	5,079	8	0.197	Co/ IP
Restaurants	864	12	0.033	IP
Supermarkets	176	2	0.007	IP
Convenience stores	261	4	0.010	IP
Canteens	40	1	0.002	Co
Pharmacies	43	1	0.002	IP
Barber shops	30	1	0.001	IP
Laundromats	30	1	0.001	IP
Printing shops	15	1	0.001	IP
Breakfast shops	33	2	0.001	IP
School/training institutions	4600	5	0.178	IP
Enterprises	235	4	0.009	Co
Factories	462	2	0.018	Co/ IP
Greening maintenance	180	2	0.007	Co

(IP=individual property rights; Co=cooperative property rights)

Villagers' rental income of fixed assets (houses and factories) is also based on the commercial format of villages. The commercial forms of villages are presented in Table 5 (e.g., convenience stores, supermarkets, barbershops, etc.), which are also very similar to villages in the south. We classified business spaces into two kinds of property rights. There are also a small number of enterprises, such as telecommunications businesses and private schools. Among them, buildings with cooperative property rights are factories with large areas built on collective land. There are obvious differences in the distribution of buildings with different functions, but the building plot ratio did not fluctuate significantly. The proportion of residential rentals was the highest, accounting for 72.1%. Thus, in terms of rent, there is a certain possibility of renovation. However, the benefits vary among different building functions, which is also the potential cost of renovation.

3.2 Characteristics of residents (migrant workers and villagers)

The investigation began with the selection of the urban village, delineated below. Then, the measurement and modeling of the urban village were done based on aerial photographs and maps. However, this large-scale data was not enough to reveal the specific living environments and characteristics of the village residents. Questionnaires were distributed randomly in villages, 15 questionnaires per week, and 150 questionnaires were distributed and filled out in 10 weeks. 150 questionnaires were distributed, 120 were returned, and 104 are valid. The entire investigation lasted six months from October 2011 to April 2012. From 2011 to 2013, three times, private interviews with village residents were also conducted.

The questionnaire was composed of 70 questions and addressed the five following aspects, including the demographics of villagers and tenants. Characteristics of them, such as occupation, income, education level, family, and so on. An infrastructure assessment, such as sanitation, firefighting, security, green space, and so on. Village building features like location, floor, size, age, rent, furniture in the apartment, separated toilets, and so on. Satisfaction with village life, such as shopping, traffic facilities, educational environment, activities, entertainment, property rights, and so on. (thirty-six aspects). Preference if faced with the choice of demolition or non-demolition methods.

And the questionnaires were processed and extracted in the following way. The characteristics of village residents and the village physical space were found. The correlation between them was studied. The data of evaluation and expectation of the village life was refined by dimension reduction.

Characteristics of village residents and physical space revealed by questionnaire. The population of those registered as Beijing households in comparison with migrant workers is different, as shown in Table 6. Migrant workers account for a large majority, at 81.7%.

Table 6. The frequency and proportion of migrant workers in Yuanmingyuan Dongli Village

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	migrant workers	85	81.7	81.7	81.7
	Beijing household registration	19	18.3	18.3	100.0
	Total	104	100.0	100.0	

In the survey, tenants' living spaces' characteristics have certain commonalities, namely a separate bedroom in a suit or a separate living space similar to the apartment. Since the interviewee may not be able to estimate his/her living area accurately, respondents chose from the four ranges we divided by the on-site estimation in our three interviews; 21.2% were less than 15 m², 47.1% were between 15 m² and 25 m², 26.0% were between 25 m² and 35 m², and 5.8% were bigger than 35 m², as shown in Table 7 below.

Table 7. The area and proportion of village residence

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<15㎡	22	21.2	21.2	21.2
	15~25㎡	49	47.1	47.1	68.3
	25~35㎡	27	26.0	26.0	94.2
	>35㎡	6	5.8	5.8	100.0
	Total	104	100.0	100.0	

According to the interviews, most migrant workers choose to live in urban villages because of the inexpensive rent. As shown in Table 8, the survey results showed that the minimum cost for rent is 700 yuan per month, and the maximum is 1600 yuan. The average cost is 1217 yuan, while the average cost of rent for a similarly sized apartment in the surrounding residential areas is about 1630 yuan(Anon n.d.).

Table 8. the distribution of rents in the village

	N	Minimum	Maximum	Mean	Std. Deviation
Rent	104	700	1600	1217.31	227.136
Valid N (listwise)	104				

The correlations between the village residents and aspects of their physical space as Table 9 reveals the characteristics of the villagers by the pairwise correlation between the six aspects of the features. There are significant correlations (at 0.01 level) between the education level and the income and rent. There are significant correlations (at 0.01 level) between working age and income. There are significant correlations (at 0.05 level) between living alone and rent.

Table 9. The Spearman correlations of the village resident's characteristics

		Education level	Migrant workers	Working age	Work income	Live alone	Rent
Spearman's rho	Education level	1.000	.000	-.210*	.624**	.078	.538**
	Correlation Coefficient						
	Sig. (2-tailed)	.	.996	.033	.000	.429	.000
	N	104	104	104	104	104	104
Migrant workers	Correlation Coefficient	.000	1.000	.068	.169	.025	-.008
	Sig. (2-tailed)	.996	.	.492	.086	.802	.940
	N	104	104	104	104	104	104
Working age	Correlation Coefficient	-.210*	.068	1.000	.137	-.073	.099
	Sig. (2-tailed)	.033	.492	.	.167	.461	.318
	N	104	104	104	104	104	104
Work income	Correlation Coefficient	.624**	.169	.137	1.000	.085	.577**
	Sig. (2-tailed)	.000	.086	.167	.	.389	.000

	N	104	104	104	104	104	104
Live alone	Correlation Coefficient	.078	.025	-.073	.085	1.000	.215*
	Sig. (2-tailed)	.429	.802	.461	.389	.	.028
	N	104	104	104	104	104	104
Rent	Correlation Coefficient	.538**	-.008	.099	.577**	.215*	1.000
	Sig. (2-tailed)	.000	.940	.318	.000	.028	.
	N	104	104	104	104	104	104

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

The correlations between the villagers and their rentals can be seen in Table 10 below. It is worth noting the significant correlations (at 0.01 level) between rent cost and independent toilets, the age of buildings, whether furnished or unfurnished and the apartment's size. Also, there are significant correlations between the age of buildings with toilet inside the room, the size of the apartment, rent (at 0.01 level), and whether furnished or not (at 0.05 level). It was noticed in our survey that newer buildings tend to have bathrooms, a tendency at being furnished, are more adapted to tenants who require higher quality, and at the same time have higher rents. There also is a significant correlation between being near restaurants and facing outside streets (at 0.05 level). The results showed that the apartments facing the street are closer to restaurants, and thus have more access to catering facilities. However, this has little effect on rents.

Table 10. The Kendall correlation between migrant workers and agricultural-related activities

			Migrant workers	Ever related to agriculture
Kendall's tau_b	Migrant workers	Correlation Coefficient	1.000	.940**
		Sig. (2-tailed)	.	.000
		N	104	104
Ever related to agriculture	to agriculture	Correlation Coefficient	.940**	1.000
		Sig. (2-tailed)	.000	.
		N	104	104

** . Correlation is significant at the 0.01 level (2-tailed).

Migrant workers have some unique demographics, including basics such as income and education. Under the household registration system, village residents include the local population and migrant workers. 81.7% of the migrant workers do not have a local household registration. This survey also found a significant correlation between migrant workers ever having done agricultural activities, as shown in Table 11. It can be inferred to some extent from the results that due to urbanization and rural populations rolling into cities, they may come from agricultural families.

Table 11. The Spearman correlations of the characteristics of village rental apartments

			Rent	Independent toilet	Facing the street	Age of buildings	With furniture	Near factory	Near Restaurant	Floor
Spearman's rho	Rent	Correlation	1.000	.682**	-.111	-.652**	.532**	-.012	-.048	.189
		Coefficient								
		Sig. (2-tailed)	.	.000	.263	.000	.000	.907	.627	.055
	N		104	104	104	104	104	104	104	104
	Independent toilet	Correlation	.682**	1.000	-.051	-.627**	.504**	-.080	-.025	.139
		Coefficient								
		Sig. (2-tailed)	.000	.	.604	.000	.000	.418	.800	.159
	N		104	104	104	104	104	104	104	104
	Facing the street	Correlation	-.111	-.051	1.000	.014	-.031	.149	.242*	.015
		Coefficient								
		Sig. (2-tailed)	.263	.604	.	.886	.755	.131	.013	.877
	N		104	104	104	104	104	104	104	104
	Age of buildings	Correlation	-.652**	-.627**	.014	1.000	-.179	-.009	.032	-.177
		Coefficient								
		Sig. (2-tailed)	.000	.000	.886	.	.070	.931	.749	.072
	N		104	104	104	104	104	104	104	104
	With furniture	Correlation	.532**	.504**	-.031	-.179	1.000	-.019	-.156	.049
		Coefficient								
		Sig. (2-tailed)	.000	.000	.755	.070	.	.848	.115	.622
	N		104	104	104	104	104	104	104	104
	Near factory	Correlation	-.012	-.080	.149	-.009	-.019	1.000	.029	-.076
Coefficient										
Sig. (2-tailed)		.907	.418	.131	.931	.848	.	.770	.446	
N		104	104	104	104	104	104	104	104	
Near Restaurant	Correlation	-.048	-.025	.242*	.032	-.156	.029	1.000	-.009	
	Coefficient									
	Sig. (2-tailed)	.627	.800	.013	.749	.115	.770	.	.928	
N		104	104	104	104	104	104	104	104	
Floor	Correlation	.189	.139	.015	-.177	.049	-.076	-.009	1.000	
	Coefficient									
	Sig. (2-tailed)	.055	.159	.877	.072	.622	.446	.928	.	
N		104	104	104	104	104	104	104	104	

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The Canonical correlations analysis as shown in Table 12, analyzes the correlation between the two groups of factors, including the residents' characteristics and the spatial characteristics of the apartments they live in. There is a significant correlation between the two groups of data, and the respective linear relationship formula can be expressed as:

$$Set 1 = -0.61WA - 0.978WI$$

$$Set 2 = -0.414AR - 0.1050BA - 0.737WF + 0.094NF - 0.042NR + 0.075FL$$

Table 12. The Canonical correlations of residents characteristics and the spatial characteristics of the houses

Canonical Correlations Settings

	Values
Set 1 Variables	WA (working age) WI (working income)
Set 2 Variables	AR (rent) BA(age of building) WF(with furniture) NF(near factory) NR(near restaurant) FL(floor)
Centered Dataset	None
Scoring Syntax	None
Correlations Used for Scoring	2

Canonical Correlations

	Correlation	Eigenvalue	Wilks Statistic	F	Num D.F	Denom D.F.	Sig.
1	.900	4.281	.180	21.734	12.000	192.000	.000
2	.225	.053	.949	1.033	5.000	97.000	.403

H0 for Wilks test is that the correlations in the current and following rows are zero

Set 1 Standardized Canonical Correlation

Coefficients

Variable	1	2
WA	-.061	-1.058
WI	-.978	.409

Set 2 Standardized Canonical Correlation

Coefficients

Variable	1	2
AR	-.414	1.174
BA	-.105	.567
WF	-.737	-.702
NF	.094	.230
NR	-.042	.508
FL	.075	.263

Village resident's concerns and their evaluation of village life is investigated by the questionnaire contained 36 related indicators referred to in the Community Infrastructure Configuration Requirements formulated by the Management and Policy Research Institute of the

Chinese Academy of Sciences(Institute of Management and Policy 2013) and studies of residential satisfaction in urban villages(Li and Wu 2013)(Tan et al. 2019)(Ren and Folmer 2017).

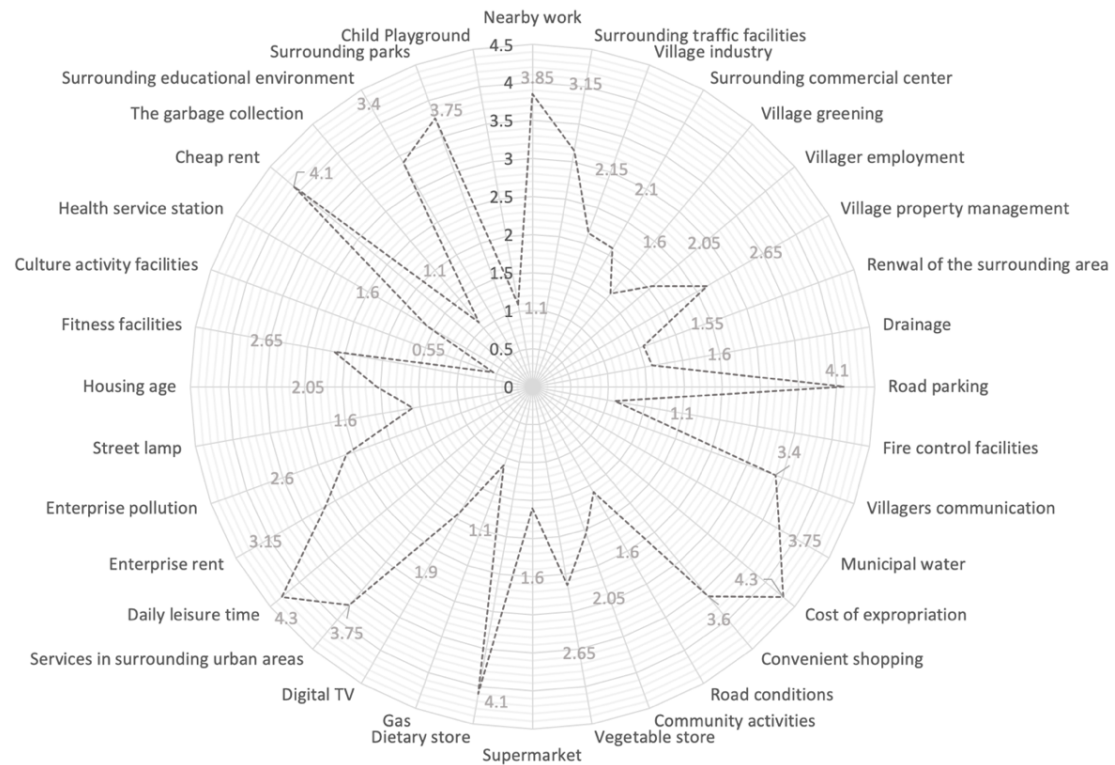


Figure 9. The 36 aspects of residents' concerns and their evaluation of village life

The thirty-six aspects of evaluation and expectation of the village life in the questionnaire are shown in Figure 9. In the questionnaire, the scores of residential satisfactions were on a Likert Scale from 0 to 5 and ranging from "very dissatisfied" at 0 to "very satisfied" at 5. The residential satisfaction index scope is 0–5, the higher score signifies a higher satisfaction level, and the resultant mean values are represented in the radar chart showing the degree of all aspects. The data has been weighted by the number of scores for the repeatability of the respondents' choices.

3.3 Attitudes to redevelopment model

In 70 questions (N=104), thirty-six aspects were hierarchically cluster analyzed based on the variables. The analysis process ranged from variables var01 to var36. It was done by measurement using Squared Euclidean distance and then applying a standardization with the Z scores shown in Figure 10. As shown in Figure 11, the results of the thirty-six variables in the dendrogram were first divided into two groups (S and M), using Average Linkage Between Groups, from the 20th to 25th intervals. On the vertical line of interval 20, the two groups hold seven categories between them. One divides into three groups, the other divides into four groups. The similarities between variables in these groups were further analyzed, and the result of analyzing the dendrogram was synthesized into the framework shown in Figure 10. It can be used as an evaluation index for the urban village before the transformation. The framework enables "Sustainable urban development" and "City Management Level" to be effective points of evaluation for the goal of unified urban development. The direct causal relationship between the urban villages and urban development has rarely been addressed by the classification of variables in previous studies.

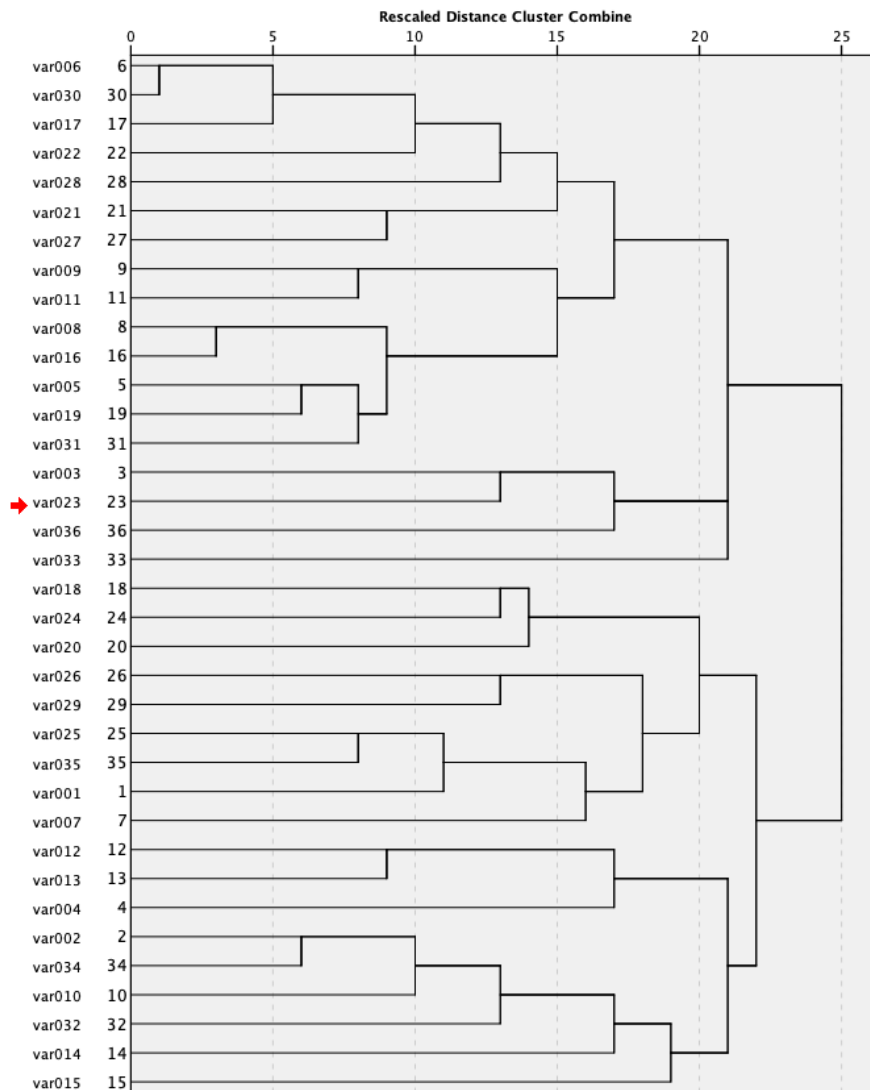


Figure 10. Thirty-six aspects(variables) hierarchically cluster analysis

In the transformation of the urban village, urban sustainability can be summarized into two aspects, "Village Microeconomy" and "Regional Culture Protection". "Village Microeconomy S1" made up of "Adaptation ownership conversion S11" and "The integration of external capital S12", "Regional Culture Protection S2" made up of "Continuation of village organization S21," and "Environment and Infrastructure Improvement S22". Also, according to the results of the classification of variables, these four groups are made up of eighteen variables which S1 contains nine variables, S11 contains three variables, and S12 contains six variables, S2 contains nine variables, S21 contains three variables, and S22 contains six variables.

"City Management Level M" made up of three groups, balancing "Cost of Expropriation Saving (Government) M1 ", "Life Sustainability (Villagers) M2 ", and "Protection of Low Rent (Migrant Workers) M3". According to the dendrogram results of the 36-variable hierarchical cluster analysis, these three groups are made up of eighteen variables from which M1 contains one variable, M2 contains fourteen variables, and M3 contains three variables.

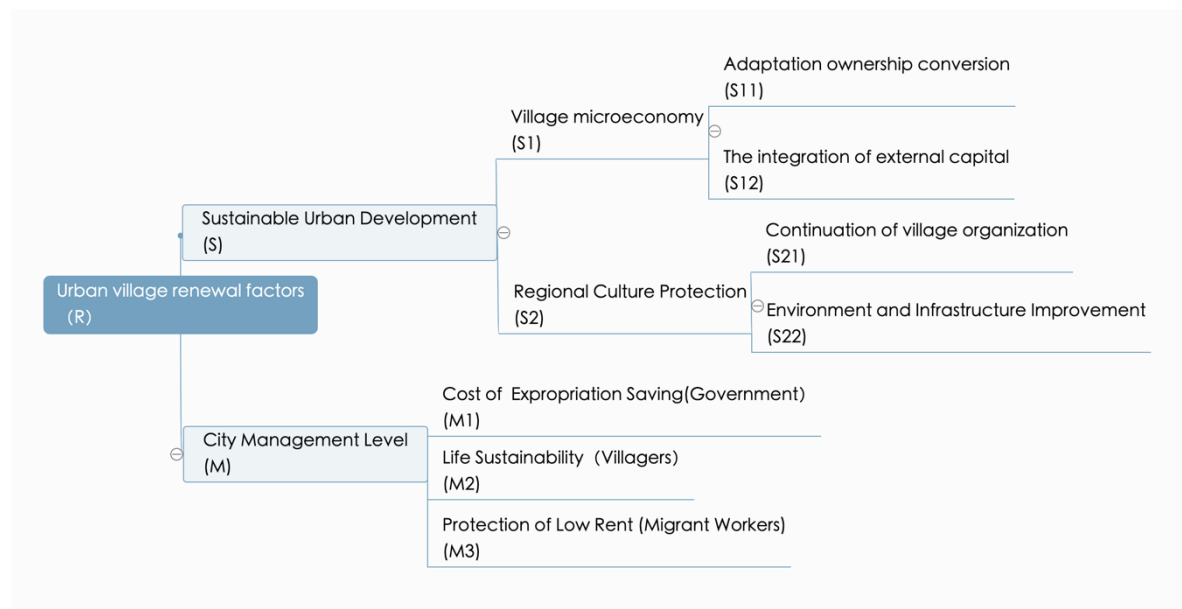


Figure 11. Dendrogram framework of Hierarchical cluster analysis of 36 variables

To reveal the relationship between residents' evaluation of urban villages and their tendency to transform the village, all individual variables were classified according to their choices. That means the weighted mean value of thirty-six variables is calculated by dimensionality reduction; the results will be revealed by seven groups. Each category is calculated within the group, and the concentrated category is the average value of each group. The weighted number of variables in a group is based on the results of previous classifications of the hierarchical cluster. The weighted mean value of Sustainable Urban Development (S) and City Management Level (M) is calculated, and the formulas as follows :

$$S = \frac{\sum_{i=1}^n \omega_i x_i}{\sum_{i=1}^n \omega_i} = \frac{\omega_1 S1_1 + \omega_2 S1_2 + \dots + \omega_9 S1_9}{\omega_1 + \omega_2 + \dots + \omega_9} + \frac{\omega_1 S2_1 + \omega_2 S2_2 + \dots + \omega_9 S2_9}{\omega_1 + \omega_2 + \dots + \omega_9}$$

Further, the calculation method of S1 and S2 are as follows,

$$S1 = \frac{\sum_{i=1}^n \omega_i x_i}{\sum_{i=1}^n \omega_i} = \frac{\omega_1 S11_1 + \omega_2 S11_2 + \omega_3 S11_3}{\omega_1 + \omega_2 + \omega_3} + \frac{\omega_1 S12_1 + \omega_2 S12_2 + \dots + \omega_6 S12_6}{\omega_1 + \omega_2 + \dots + \omega_6}$$

$$S2 = \frac{\sum_{i=1}^n \omega_i x_i}{\sum_{i=1}^n \omega_i} = \frac{\omega_1 S21_1 + \omega_2 S21_2 + \omega_3 S21_3}{\omega_1 + \omega_2 + \omega_3} + \frac{\omega_1 S22_1 + \omega_2 S22_2 + \dots + \omega_6 S22_6}{\omega_1 + \omega_2 + \dots + \omega_6}$$

$$M = \frac{\sum_{i=1}^n \omega_i x_i}{\sum_{i=1}^n \omega_i} = M1 + \frac{\omega_1 M2_1 + \omega_2 M2_2 + \dots + \omega_{14} M2_{14}}{\omega_1 + \omega_2 + \dots + \omega_{14}} + \frac{\omega_1 M3_1 + \omega_2 M3_2 + \omega_3 M3_3}{\omega_1 + \omega_2 + \omega_3}$$

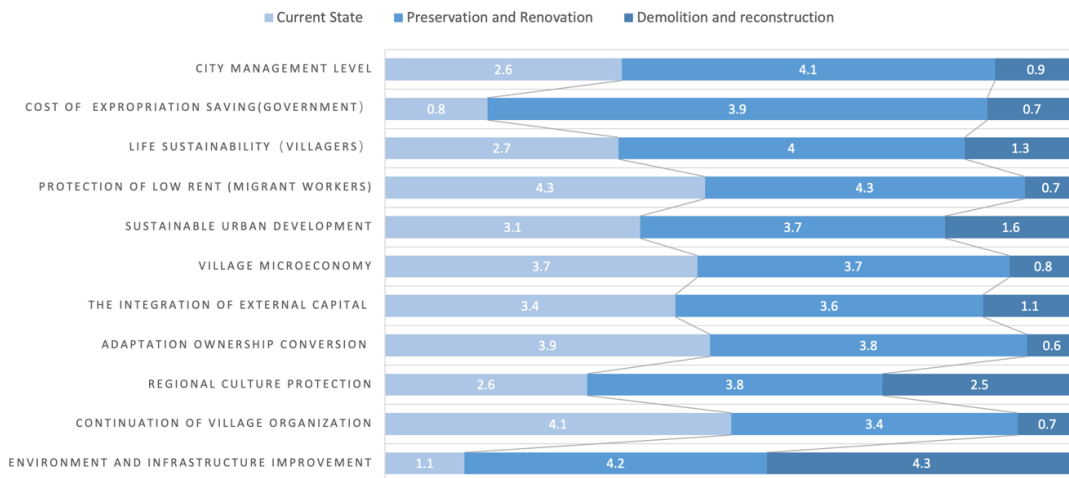


Figure 12. Village resident's expectations and concerns about the renewal of the urban village

As shown in Figure 12, all eleven categories in the dendrogram framework are represented, demonstrating the hierarchical causal relationship. As two urban villages transformation directions proposed in the questionnaire, the result has been carried out in three states include the evaluation results of the current state. There is "current situation", "demolition and reconstruction," and the "preservation and renovation". The result has been optimized and converted into percentages.

3.4 Research Results

As a result of the adaptability of urban villages in China in the renewal mode of comprehensive renovation, unlike architectural forms in southern China the original village buildings which are 7–8 stories tall. The typical urban village in Beijing shows the form of quadrangular houses two stories tall or less in the north is relatively low in terms of building volume ratio. In addition, the spatial form is related to the commercial form of the urban village and also influences the income consisting of the villagers' collective share and rental income, which is derived from fixed assets (e.g. houses, factory buildings). In turn, spatial and commercial form affects the cost of the mode of transformation (demolition/redevelopment or integrated transformation). Therefore, we believe that regional differences in physical space should not be ignored in policy decisions and that different criteria should be considered and applied under different local policies.

The reconstruction of urban villages is a game between the government, village collective (owners) and developers under the land system. However, as for the characteristics of the residents and the physical space they live in, the survey results show that the actual residents are migrant workers and low-income young groups. They are not owners, but the actual residents are the majority, accounting for 81.7% in our survey. The reconstruction and renewal of urban villages lacks the participation of these real residents, who have no right to vote or even participate in negotiations. Secondly, the survey also found that there was a significant correlation between the residents and the physical environment of the village, and the floating population as an independent variable affected the village environment.

As for the evaluation result of the residents' rural life, the SPSS adopted 36 aspects and 7 groups for hierarchical analysis, indicating that they hope to stay in urban villages, rather than endure demolition and reconstruction. Our findings suggest that preserving urban villages rather than demolishing them may be a more sustainable way of dealing with migrant residents and support the goals of modern urban planning.

Chapter 4: A shift in urban renewal “Comprehensive Renovation” in Shenzhen

4.1 Realistic foundation of policy turning-massive housing stock and public rental housing market

As China's economy has grown, so have its cities. Where small rural villages were scattered throughout the first half of the 1980s, skyscrapers now abound. Among the rapidly developing cities in China, Shenzhen in the south is a representative city that has developed rapidly from a traditional rural area to a modern international city. Shenzhen is considered as China's IT innovation base for high-tech enterprises, and is also known as "China's Silicon Valley". In 1979, Shenzhen had a population of only 31, but in 2019, it had a population of 1,344, ranking third in the world in terms of imports and exports of 2.8 yuan (about 46 yen), surpassing Hong Kong in terms of gross domestic product of 2.4 yuan (about 40 yen) and per capita income of 18 3,100 yuan (about 300 yen) and the first in China. In addition, in terms of population density, Beijing has the highest population density in China with 1,300 people per square kilometer, Shanghai with 800 people per square kilometer and Shenzhen with 6,700 people per square kilometer. That puts Shenzhen at just 1,997 square kilometers, about an eighth of Beijing's 16,410 square kilometers and a third of Shanghai's 6,340 square kilometers. In order to promote Shenzhen's urbanization in such a limited space, the coordination between China's inherent land system and urban policy is indispensable.

Before the reform and opening up in 1978, Shenzhen was a collection of "natural villages". In Shenzhen, located at the southernmost tip of the Pearl River Delta region as shown in Figure 1.

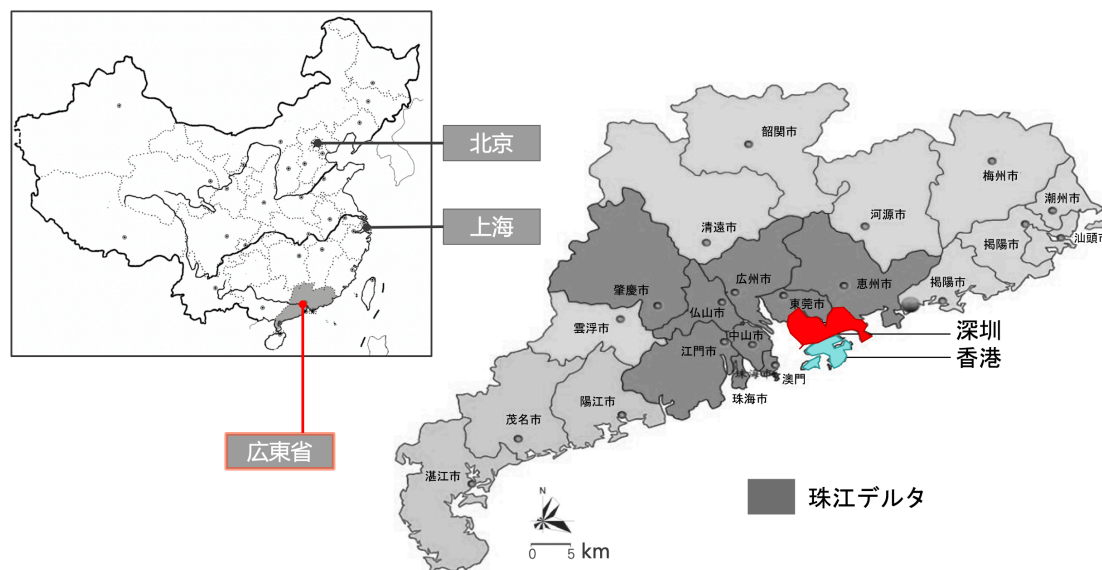


Figure 1. Master plan of Shenzhen urban villages

(Shenzhen Municipal Bureau of Planning and Natural Resources, 2019)

The rural area of Shenzhen has been maintained as a traditional village in southern China. Almost "street" building facilities are not seen. During the Ming dynasty, the area was named xin 'an, and it was renamed Bao 'an when it became the Republic of China in 1949. In the 1960s, many villages were divided into various production teams, which were organized into villages in the early days of reform and opening-up in 1978." Be considered to be. In the 1960s, Shenzhen was just a rural village, and more than 95 percent of its residents were farmers working in agriculture. Such peasant communities exist today. In 2019, Shenzhen had 336 administrative villages and 1,044

natural villages completely independent of administrative villages based on geography and blood ties.

In post-war China, international exchanges and trade were restricted, and only Hong Kong allowed foreign trade. As a result, Shenzhen, which borders Hong Kong, has become an important hub for trade with China. In 1978, as the policy of opening up to the outside world, "reform and opening-up" was launched nationwide in China. Based on its role as a trade stronghold, Shenzhen established the special economic Zone, and there are now nine administrative districts and one new district: Futian, Luohu, Nanshan, Yantian, Bao'an, Longgang, Longhua, Pingshan, Guangming, Dapeng, the main economic activities are concentrated in Nanshan, Futian and Luohu as shown Figure 2. Two years later in May 1980. As a result, Shenzhen is the first city in China to achieve positive exchanges with overseas countries. The establishment of such special economic zones has exerted a great influence on the urbanization process of Shenzhen.

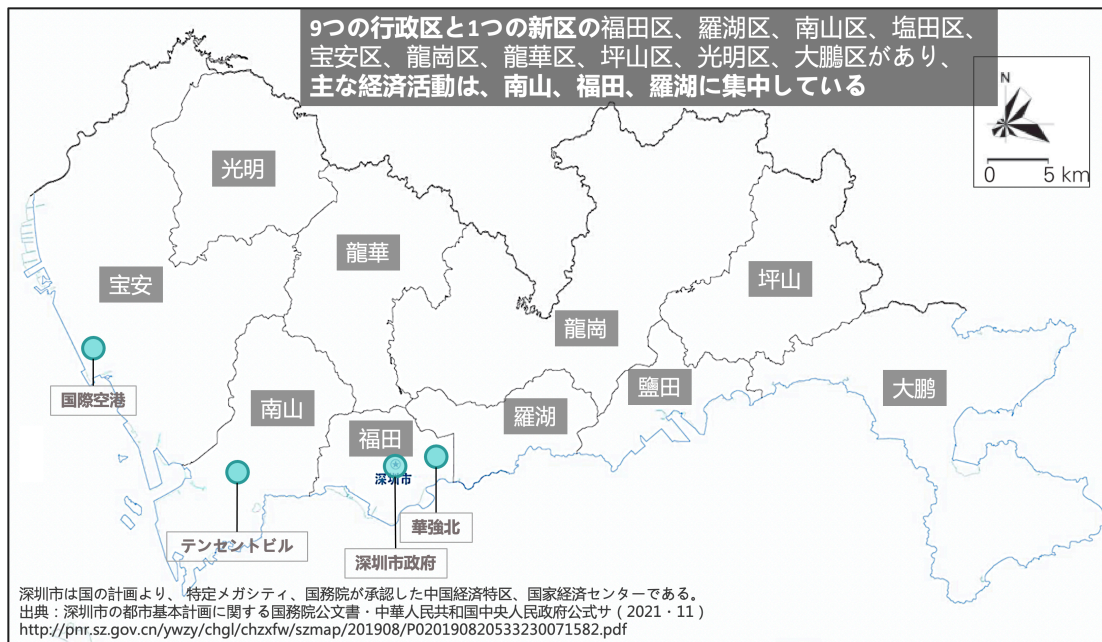
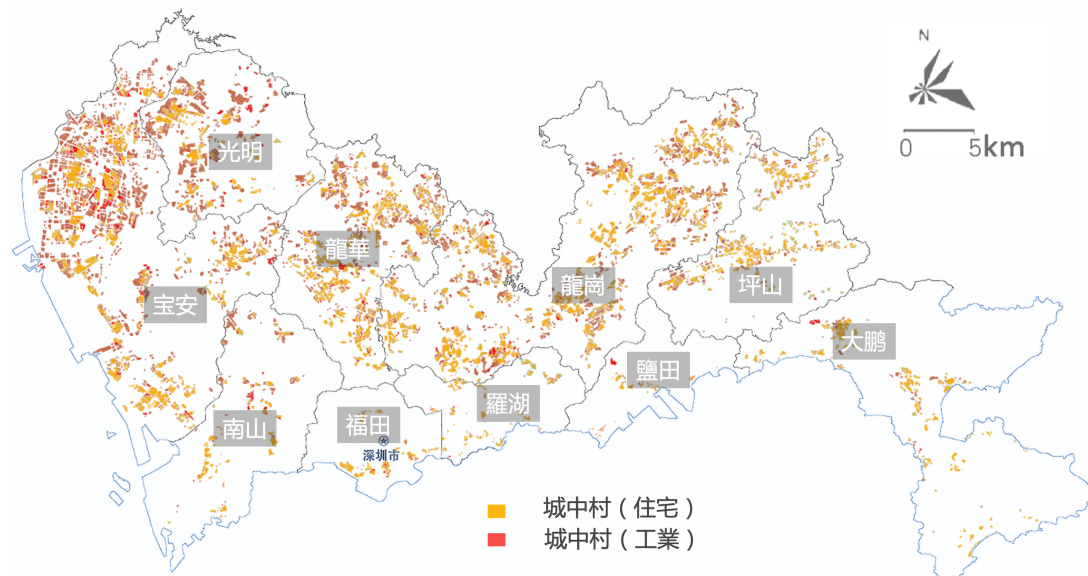


Figure 2. Master plan of Shenzhen urban villages
(Shenzhen Municipal Bureau of Planning and Natural Resources, 2019)

Capital deepening was triggered by the crisis in 2008, making the cyclic deviation from the economic fundamentals (Chen, Long, and Qin 2020) (Wang 2013), which have inhaled a massive capital bubble into urban construction and are difficult to deconstruct. The cycle was unsustainable because the high land price increased the urban core's redevelopment cost after exhausting land resources. Shenzhen, the first typical city that was squeezed out of the cycle, showed the highest urban land use efficiency value among major cities (Jiao et al. 2020). High housing prices and a shortage of public housing become the inner obstacles, and excessive housing prices may alter the consumption structure and widen the wealth inequality between the renters and owners in the long run (Hui, Dong, and Jia 2018). Moreover, it has a significant impact on entrepreneurship in a city (Li and Wu 2014). Especially Shenzhen is a famous migrant city: The average age of the

population is 32.5 years, and 8.2 million migrants account for 65.6% of the total population, which may imply the city is only suitable for short-term jobs and entrepreneurship. Only 34% of the people in Shenzhen own homes, and 12.31 million live in urban villages; in fact, 4.5 of a total of 7.4 million rental housing units are in urban villages(Shenzhen Statistics Bureau 2018) as shown in Figure 3.



出典：「深圳城中村綜合整備マスタープラン（2019～2025）」より著者作成

Figure 3. Master plan of Shenzhen urban villages
(Shenzhen Municipal Bureau of Planning and Natural Resources, 2019)

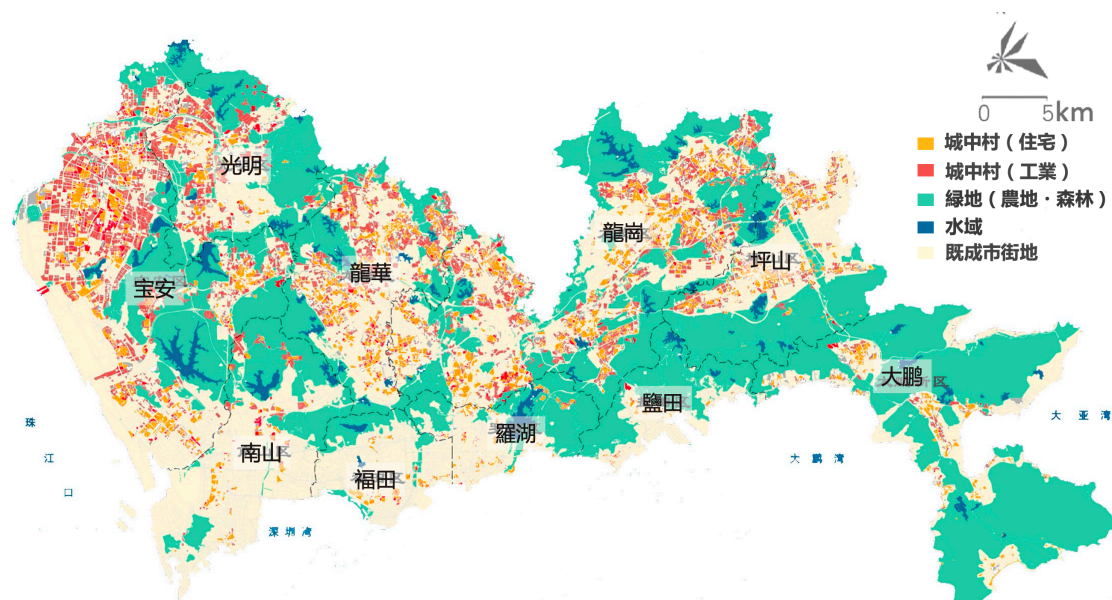
It's unsustainable that the redevelopment costs of the urban core increased with high land prices after the existing land resources of the urban periphery were exhausted(Chen and Shin 2019; Davidson 2009; Li and Wu 2014; Naoyuki and Helble 2016). The government is also increasingly unable not to respond to public housing for migrant and young workers. (Yan Song, Zenou, and Chengri Ding 2017).

Without an accompanying program or complementary affordable housing that includes rural migrants in the urban housing market, policies that focus on demolishing urban villages could be misguided(Yan Song et al. 2017)(Tian 2008)(Liu et al. 2010). It's unsustainable that the redevelopment costs of the urban core increased with high land prices after the existing land resources of the urban periphery were exhausted(Chen and Shin 2019; Davidson 2009; Li and Wu 2014; Naoyuki and Helble 2016). Urban renewal as a direct response to the change of land system in the process of urbanization through formal and informal spatial gaming. Although several municipalities in eastern China, including Shenzhen, Xiamen, and Changzhou, began to experiment with small-scale rental public housing programs in 2007, private rental housing still dominates the rental market. Public subsidized rental housing mainly targeted new migrants, new college graduates, and needy urban families (Fang, 2009; Yang, 2014). Rental public housing in Shenzhen's urban housing stock is still marginal but has grown rapidly since the regulations on the allocation

and construction of affordable housing for urban renewal projects have been issued in 2016 (Shenzhen Municipal Planning and Land Commission, 2016).

Shenzhen's urban renewal has had to rely on institutional means to regulate under such scale of urban villages, The local government has a new direction, and the change of Shenzhen's urban village redevelopment model is an important turnaround as a landmark in urban renewal in Shenzhen. For the first time, proposed the comprehensive renovation as renewal pattern, instead of demolishing way. It requires that urban renewal within a certain range no longer carried out by demolition, and renovation has become the basic way for urban renewal. Urban village renovated into rental public housing, after signing long-term lease with the villagers. Different from the first version 15 years ago, the comprehensive renovation master plan proposes four important things, such as people-centered, village-protection, improving living environment, and controlling major demolitions.

The overall planning of urban villages in Shenzhen was made in detail by the Planning Institute under the Government Bureau of land and resources. The overall implementation area and the distribution of plots have been first released in the Master Plan of comprehensive renovation of Shenzhen Urban village (Old Village) (2019–2025) in 2019 (Shenzhen Municipal Bureau of Planning and Natural Resources, 2019) as shown in Figure 4. The specific reconstruction projects are carried out in batches and stages. The specific projects that can be implemented, including project address, area, starting time, implementation method, reconstruction construction party, etc., are published regularly according to the project on the official website.



出典：「深圳城中村総合整備マスタープラン（2019～2025）」より著者作成

Figure 4. Land use in Shenzhen comprehensive renovation Master plan (Old Village) (2019–2025) (Shenzhen Municipal Bureau of Planning and Natural Resources, 2019)

The main renewal mode has changed from demolition-reconstruction to comprehensive renovation (Zonghezhenzhi). Under official support, the state-owned enterprise, Shenye Group,

jointly launched the "Youth Housing Plan" with the Shenzhen Housing and Construction Bureau in 2016. Vanke (n.d.) launched the "Ten Thousand Village Plan" for the renovation of nearly 100 urban villages in 2017 and had already implemented 46 by early 2019. The mode of public housing for young talents by the "enterprise investment–government procurement–special industry support" project, take full use of urban village renewal projects and help graduates solve housing problems in the early stage of employment (1–3 years). Governments are more likely to allocate public housing as a subsidy to specific target groups, such as local civil servants or those who wish to attract and retain highly educated and skilled workers (Wang & Murie, 2011).

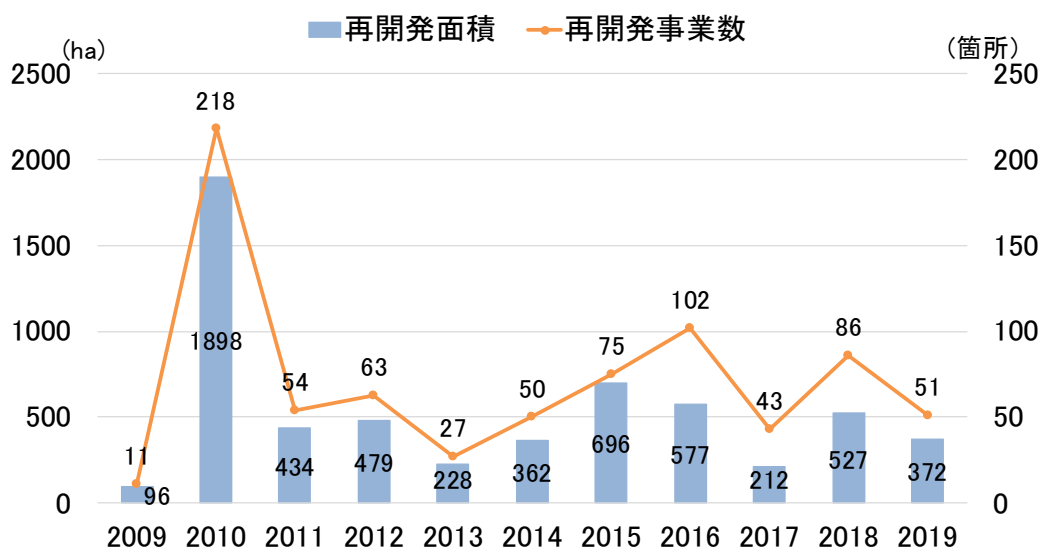
Moreover, in Shenzhen Urban Renewal 13th 5-year Plan clarified that during the period 2016–2020, a total of 230,000 rental public housing units have been in demand. Of 400,000 public housing units to be built, funding for 190,000 (47.5%) is to be raised through multiple channels. Furthermore, 210,000 (52.5%) were newly constructed. A total of 172.4 billion yuan was budgeted for public housing, 158.8 billion yuan for construction, and 13.6 billion yuan in monetary subsidies (including the monetary subsidy for talent), of which 61.4% came from municipal finance and 38.6% from social capital. Municipal and district finance shall allocate no less than 10% of the net proceeds of the land transfer annually for housing security (Housing and Construction Bureau of Shenzhen Municipality, 2016). In 2019, 91,400 units had been completed, of which 19,100 units were rental housing for 25 public projects. The plan is to build a total of 81,000 public housing units in 2020 (Housing and Construction Bureau of Shenzhen Municipality, 2020).

The government aware of the huge stock of housing in urban villages, which provides a cheap, spontaneous rental market. It is only because rental housing in China is still immature, or even nascent, because before the housing reform in 2000, all non-agricultural people (i.e., workers in cities) were provided with free or very inexpensive housing by their companies and some unions. It was only after the official withdrawal from the housing market reform at the end of 1997 and the official launch of commercial housing nationwide in 2000 that urban residents began to have people who could not afford to buy homes on their own salaries, so it was only 20 years before the real market demand emerged for the majority of people who needed to start a family and buy a home separate from the previous generation, and therefore its divergence was in 2010. The divergence only started around 2010, so there is relatively less demand for rental housing. As urbanization deepened, a huge number of the next generation began to flock to the city to create a strong demand for rental housing. The government is also determined to turn such "informal space" into "formal space," to incorporate it into the urban planning system, and to provide public rental housing with better environment and better facilities. Therefore, urban renewal as a direct response to the change of land system in the process of urbanization through formal and informal spatial gaming. The change of Shenzhen's urban village redevelopment model is an important turnaround.

4.2 The transformation process from demolition to comprehensive renovation

Although the municipal authority had struggled to nationalize territorial jurisdiction by expropriating land from the farmers during urbanization, vast urban villages have become an ultimate "land battlefield." The self-organization model of accumulation and large-scale land developers operating in national land markets began quietly in 1982. Farmers in Shenzhen have a keen sense of the market. They are less willing to give up and compromise under high land appreciation. Thus, there is still a dual pattern of co-existence between the state-owned and collective land. Since the mid-1980s, the conversion of land to non-agricultural use in China has been arguably the most widespread in its history. The process is the most intense in China's coastal provinces (Ho and Lin 2004).

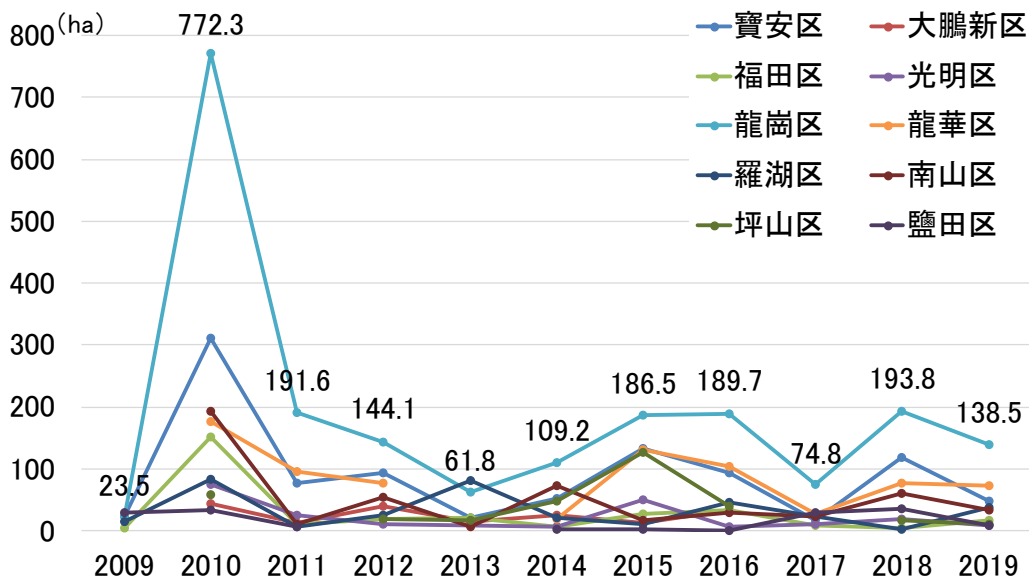
Therefore, in 2009, the Shenzhen Municipal Government formulated the Shenzhen City Planning Master Plan, the first systematic formation of urban planning. In this master plan, the redevelopment of Urban village was included in the plan, and the informal space including Urban village was proposed to be redeveloped on the premise of "demolition" (slum clearance). This redevelopment project was not directly carried out by the government as it was in the 1980s and 2000s but was premised on the form of a "demolition-reconstruction" redevelopment project carried out by developers on informal spaces in response to the trend toward the marketization of land use rights. As shown in Figure 5, the area of urban redevelopment projects in 2010 was 1,898 hectares, and the total area of redevelopment projects conducted in Shenzhen over the 10-year period from 2009 to 2019 was 5,881 hectares, or 3% of the city area, for a total of 780 projects.



< 出典： 深圳市都市再生・土地整備局 (2021) 「深圳市都市更新再開発事業計画」 関する会報 >

Figure 5: Number of Redevelopment Projects and Site Area in Shenzhen (2009-2019)

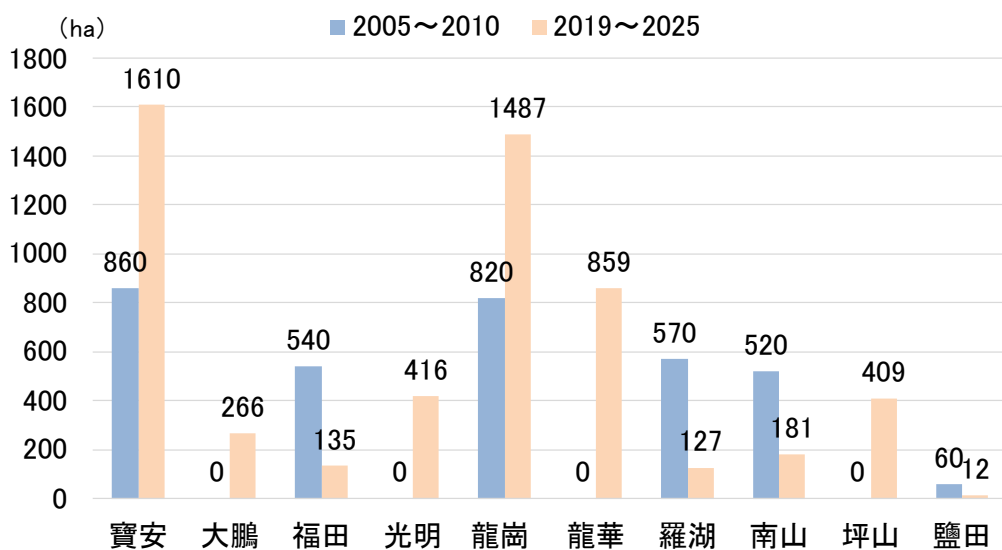
A total of 780 projects were completed. Figure 6 shows the redevelopment area in 11 districts of Shenzhen. The areas of concentrated redevelopment were about 2,085 hectares in Longgang District and 986 hectares in Baoan District, both of which border the central area of Shenzhen.



<深圳政府文書，深圳都市改革局，深圳計画・自然資源局の公文書を整理より著者作成>

Figure 6: Redevelopment project area in each district in Shenzhen (2009-2019)

Therefore, in 2016, the Shenzhen Municipal Government announced the "Shenzhen Urban Renewal 13th Five-Year Plan", which clarifies the improvement of public services and living standards through urban renewal. Based on the "Preservation of Diversity in Urban Renewal" proposed by the General Office of the State Council No. 39 in the same year, the plan shifted the policy of urban renewal from "demolition and reconstruction" to "comprehensive renovation", which is thought to have improved the living environment in Urban village, the main residential area of Shenzhen. The "comprehensive renovation" is an urban renewal method that does not demolish the buildings in the village but allows developers to renovate the buildings through a long-term lease agreement with the owners of the buildings in the village, obtain subsidies from the government, and maintain the existing buildings as public housing.



<出典：深圳市計画天然資源局(2019)「深圳城中村総合整備マスタープラン(2019~2025)」>

Figure 7. Area of "comprehensive renovation" by district in each period (2019-2025 is planned)

In 2019, the Shenzhen Municipal Government formulated the "Shenzhen City Town and Village Comprehensive renovation Master Plan (2019-2025)" and decided to promote 99 km² of the town and village as the "Comprehensive renovation" area. Especially in Futian District, Luohu District and Nanshan District, the proportion of "comprehensive renovation" area accounts for more than 75% of the total redevelopment project area. As shown in Figure 7, according to the area of "comprehensive renovation" among the redevelopment projects by district, Longhua, Ping Shan, Guangming and Dapeng districts in the outer rim of Shenzhen have introduced "comprehensive renovation" after this master plan; Longgang and Baoan districts, which had introduced "comprehensive renovation" by 2010, have increased their area by more than 1.5 times.

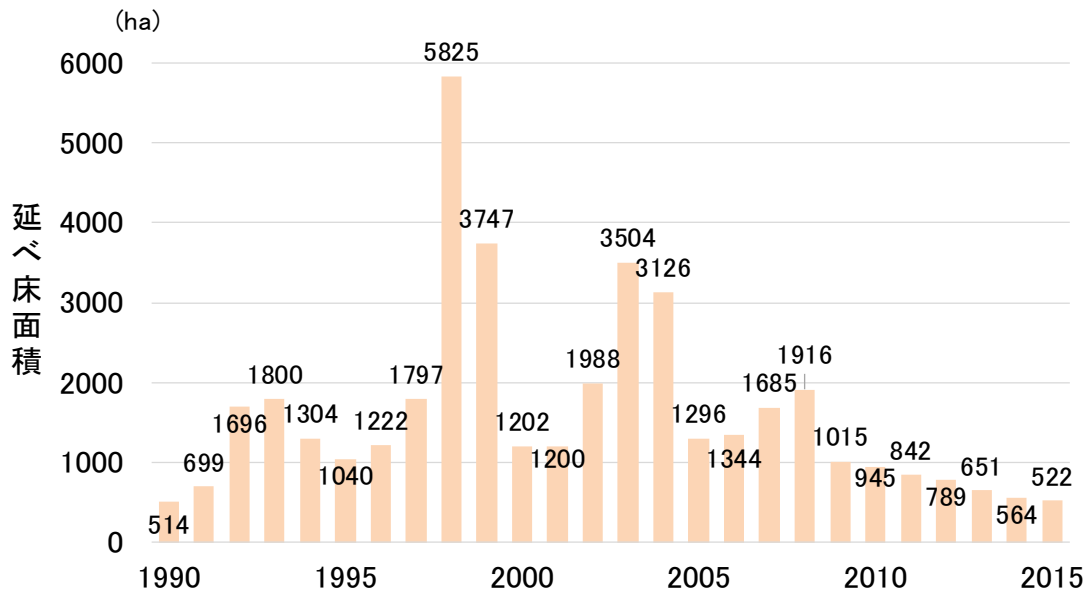
In Longgang and Baoan districts, where "comprehensive renovation" was introduced by 2010, the area has increased by more than 1.5 times. On the other hand, Shenzhen's urban districts of Nanshan District, Futian District, Luohu District, and Yantian District will see a decrease in their area from 2019 to 2025 compared to 2005 to 2010. This may be due to the high demand for real estate in the central city district and the demolition of the city's central village, which will lead to the supply of urban space, so that the redevelopment project of "demolition" was prioritized by 2018.

Based on the land system and urban renewal policies to date, the changes in policies toward the city villages that are characteristic of Shenzhen's urban space are as shown in Table 1: Phase I (1978-2008): the period of mixed urban space with high-density cities and city villages following the reform and opening-up in 1978; Phase II (2009-2015): a period of accelerated urban renewal based on the Shenzhen Urban Planning Master Plan announced in 2009, and Phase III (2016-present): a period of policy shift from "demolition" to "comprehensive renovation" in the redevelopment project policy presented in the Shenzhen Urban Renewal 13th Five-Year Plan in 2016. It can be divided into three phases. In the following, I will show the transformation of informal space in each of these three phases in detail.

i. Nationalization and the period of dualistic urban space formation (1978-2008)

According to Hao, P. (2011), the "nationalization" of land and the "marketization" of land use rights by the Shenzhen government stimulated the villagers' awareness of the value of collective land. According to Wang, YP et al. (2009) and Cindy, Fan C. (2011), "farmers broke the government's land management rules and rebuilt their two-story homes into seven- to eight-story rental housing. Urban village with a high building-to-land ratio, narrow spaces between buildings, and a high concentration of inexpensive and inferior rental housing, such as "kissing buildings" and "handshake buildings" with no sunlight. Since the 1980s, as urban sprawl has swallowed up rural areas into urban areas, the number of city villages has continued to increase, and by the 1990s there were 320 city villages in Shenzhen.

In the 1990s, when foreign companies came to the village to build factories, some villagers-built factories and rented them out to the companies. In the 1990s, when foreign companies came to the village to build factories, some villagers-built factories and rented them out to the companies. The village attracted investment and the economy developed," he said.



<出典: 深圳市計画土地資源委員会(2015)「歴史的な無許可建築物の調査と処分に関する報告書」>

Figure 8. Unauthorized building in informal space

As mentioned above, the period after the 1980s was a period of short-lived and massive formation of illegal "informal spaces", which are not included in the city planning area and are densely populated with factory construction sites and rental housing on former collective land. As shown in Figure 8, between 1990 and 1999, the total informal construction area in Shenzhen reached 218 million square meters, with the largest annual construction area of 58.28 million square meters in 1998. According to Li, LH et al. (2014), "the end of the 1990s marked the end of the old natural villages and agricultural-based spaces in Shenzhen. They point out that.



<出典: MdEditor「深圳老照片」>

Figure 9: A view of informal spaces in the Luohu district of Shenzhen in the 1980s

In the first period, land nationalized by the government through expropriation of farmland supported early urbanization, while urban space mixed with informal space derived from collectivized land, as shown in Figure 9, was formed.

ii. Period of accelerated urbanization and urban renewal (2009-2015)

In the second phase, the nationalization of collective land through expropriation of agricultural land ended with the "unified expropriation", and with the "Shenzhen City Master Plan" in 2009, Urban village was redeveloped on the premise of "demolition". As shown in Figure 8, the area of informal buildings constructed in the five years from 2009 to the end of 2014 was less than 10 million square meters, indicating a slowdown in the growth of Urban village compared to the 1990s. On the other hand, as the industrial structure shifted from manufacturing to technology and financial industries, a higher density of urban land supply was required. However, the informal construction that took place in Phase I was enormous. In 2015, the built-up area in Urban village was 200 million square meters, accounting for one-third of the total built-up area in Shenzhen, and the resident population was about 7.38 million, or 56% of Shenzhen's total population.

Shenzhen has developed rapidly from a rural area into a city and has not undergone the long and gradual process of urban development seen in other large cities in China. As a result, land prices have soared and rents and office prices have risen due to the rapid change in urban space, as the old rural informal spaces are suddenly converted into luxury housing and office buildings. Furthermore, residents who had been living in Urban village in search of inexpensive housing found it difficult to continue to live there due to the sharp rise in rent.

iii. A period of policy transition from "demolition" to "comprehensive renovation" (2016-present)

In the third phase, the Shenzhen municipal government announced the 13th Five-Year Plan for the Development of Housing Security in Shenzhen in 2016 in line with the national policy, which marked a major policy shift from redevelopment based on demolition to comprehensive renovation aimed at improving public services and living standards. In order to achieve long-term economic development in Shenzhen, which has a high population mobility, it is thought that this policy shift was aimed at encouraging the residents of Urban village, which is outside the urban planning area, to settle there by improving the quality of life of the residents through the improvement of urban space.

According to the Comprehensive renovation Master Plan (2019-2025) of Shenzhen City Urban village formulated by Shenzhen Municipal Government in 2019, as shown in Figure 10, the total area of Urban village in 2019 is about 321 km², accounting for 15% of the city area, with 158 km² mainly used for industrial purposes and 112 km² for residential purposes. As shown in Figure 10, the total area of Urban village in 2019 is about 321 km², which occupies 15% of the city area.

Furthermore, the objectives of this master plan clearly mention "people-centered approach," "preservation of urban villages (informal spaces)," "improvement of living environment and support services," and "control of large-scale demolition. In the "comprehensive renovation" of Urban village, the existing residential buildings have been renovated, and the streets surrounding the

buildings have been repaved and open spaces have been created. In some of the districts, artists have designed spaces and created rooftop greenery, creating the charm of each district.

In this way, the "comprehensive renovation" was an attempt to preserve Urban village and the low-cost rental housing located there, which had become the support of Shenzhen City. This is a redevelopment method that realizes the "construction of urban space with characteristics that are not uniform," as stated in the master plan.

4.3 Comprehensive Renovation of Shuiwei village and Yutan village

Two cases that implemented renovation earliest were investigated. As shown in Figure 7 of the visualization of housing rent in Shenzhen. The Yutan and Shuiwei village, they are both located in Futian, the core area of Shenzhen with the highest housing price. one led by the Shenzhen government, which is turned into talent apartments, for whom are new to Shenzhen and qualified in science or technology. And the other was implemented by Chinese real estate tycoon Vanke, as rental public housing, the two cases are the most representative among more than one hundred projects so far.

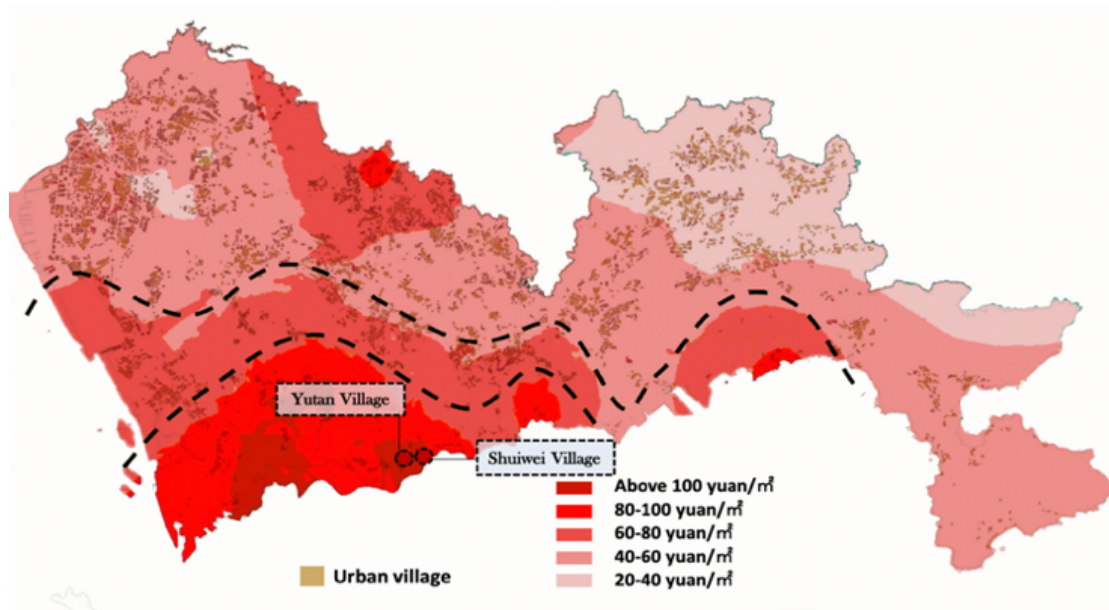


Figure 7. Plan of urban villages in the different rent range area

Based on the Master Plan of comprehensive renovation of Shenzhen Urban village (Old Village) (2019–2025) (Shenzhen Municipal Bureau of Planning and Natural Resources, 2019)

Shuiwei Village was first planned in the Fourth Batch Urban Renewal Unit Plan of Shenzhen in 2014. In 2018, a cooperation agreement on transforming the first large urban village into rental public housing in Shenzhen was reached by The Futian District Housing Bureau, state-owned Shenye Group, and Shuiwei Co., Ltd.



Figure 8. Left: The renewal block in Shuiwei Village (Futian District Urban Renewal Bureau, 2018) Right: Aerial view of Shuiwei Village before and after renovation (DOFFICE, 2017)

In Shuiwei Village, a total of 504 rental public housing units of 15,472 m^2 in 29 of 35 original village buildings were renovated. There are 18 different flat areas, ranging from 16.5 m^2 to 32.5 m^2 , with corresponding furniture and appliances. The first and second floors of the buildings are intended for commercial use, and the rest is intended for residential use. The fifth floor of the public space includes a reading room, tea-room, multi-function hall, community kitchen, community restaurant, gym, laundry, and roof gardens, as illustrated in Figure 8~Figure 10. The promotion of fire protection, municipal supporting facilities, and elevators is in line with urban planning regulations and retains the village's original spatial scale. Shuiwei Village leases to the Shenye Group at an average price of 73 yuan/ m^2 . The rent increases by 6% every two years, and the Futian district government rented at a price of 150 yuan/ m^2 after renovation.

Working capital for public housing is only able to maintain a balance to annual expenses because the developer's annual operating investment allocation is essentially the same as the profit for the year. And the main sources of funding are rental income and government subsidies.



Figure 9. Yutian Village (Private initiative) common facilities inside the house after renovation DOFFICE. (2017). (<https://www.gooood.cn/lm-youth-community-china-by-doffice.htm>).



Figure 10. Yutian Village (Private initiative) common facilities outside the house after renovation DOFFICE. (2017). Shuiwei ningmen grencaigongyu (in Chinese). (<https://www.gooood.cn/lm-youth-community-china-by-doffice.htm>).

Yutian Village is in a prosperous area in the Futian district. Villagers selected the Vanke Company out of seven candidate enterprises to renovate Yutian Village, as illustrated in Figure 11. Forty out of the 114 original village buildings participated in the renovation. Vanke has already signed a 33,000 m² area in the contract. Four different flat areas, from 13 m² to 58 m², were all market oriented. Yutian Village leases to Vanke at an average price of 75–85 yuan/m². The unit rent

ranges from 1,200 yuan to 5,098 yuan, approximately 100 yuan/m² (Vanke, n.d.). Construction costs of at least 3,000 yuan/mean rent of 100 yuan/failure to offset without government subsidies.



Figure 11. Left: Yutian Village before renovation (Shenzhen Special Zone Newspaper in 2018) Right: After renovation (taken in 2020 by author)

In both projects, not only have the buildings themselves been renovated, but also the surrounding public spaces, including the plazas, pavements, green spaces and lighting systems, have been improved and beautified, as shown in the author's own photographs from Figure 12 to Figure 14.



they both done good in disaster prevention, green roofs and the use of resources from old buildings. Shuiwei village is better in surrounding parks and squares.

Interviews with managers of urban villages under integrated politics on public space and the environment, implemented in 2020, as revealed “although the purpose of the "comprehensive renovation" is to provide low-cost rental housing, but what kind of efforts have been made in terms of the environment?”

The manager's response was as the following: “the project with a focus on making sure that existing public spaces are fully utilized. Activity areas were also created to meet the characteristics of the population and the needs of different age groups. Regarding the residential environment public facilities, we aimed to increase the greenery in the parks, plazas, public spaces, and rooftops around the building, for example, atriums, rooftop farms and roof laundries, to make the building more ecological and environmentally friendly and to reduce energy consumption. We also set up public sports areas and rest facilities for basketball and table tennis. The management of the ground parking lot will be standardized and networked, including safety monitoring. As for the construction foundation facilities, we separated rainwater and sewage and installed two drainage systems, one for rainwater and one for sewage, in buildings and villages. In addition, a waste classification system will be installed.”

The quantifiable results of the survey and interviews were further collated. The results of the survey are presented in the following three tables (Tables 2-4), a comparative list of 22 aspects of the two "government-led" and "private-enterprise-led" (state-owned and private) redevelopment projects, including details of the project’s renovation and land(building) conversion, project operation mode and government subsidies. Further, the additional results (interview results) that could not be presented in a table, including the similarities and differences in property rights operation process, government subsidies, infrastructure and building protection (municipal standards), and rental market potential were summarized in words behind.

Table 2. Specific project information for the two projects

Project Content	Shuiwei Village	Yutian Village
Administrative division	Futian District	Futian District
Village area	8000 m ²	33,000 m ²
Number of renovation building	35	114
Number building of renovation	29	40
The total area of architecture	15,472 m ²	33,000 m ²
Completed number apartment of renovation	504	Continuing construction
Area of apartment	16.5 m ² ~ 32.5 m ²	13 m ² ~ 58 m ² (Vanke n.d.)
Rent paid to the village committee	73 yuan/m ²	75–85 yuan/ m ² (1200–5098
Project duration	2 years	1 year

Table 3. Comparison of the new communal facilities of the two projects

Communal Facilities	Shuiwei Village	Yutian Village

Reading room	○	×
Tea room	○	×
Multi-function hall	○	○
Community kitchen and restaurant	○	○
Patio courtyard	○	○
Gym	○	○
Laundry space	○	○
Roof gardens and farms	○	○
Fire protection	○	○
Municipal supporting facilities	○	○
Elevator	○	○

Table 4. Comparison of the operation mode of the two projects

Operation content	Shuiwei Village	Yutian Village
Project executor	State-owned enterprise	Private enterprise
Contract with village economy	Rental contract	Rental contract
Contract time	8 years	10 years
Rent growth	6% biennially	10% triennially
Tenant	Special talent	Market orient
Rent	150 yuan/m ²	100 yuan/m ²
Mode of operation	Government-led	Enterprise undertaking
Source of capital	State-owned capital	Social capital
Government subsidies	Full financial coverage tenant	Construction costs
Project implementation process	Comprehensive renovation (Subcontracting) Unified rent operation	Comprehensive renovation Unified rent operation Property management

4.4 Research Results

Firstly, as this paper sorts out the urbanization process from the literature of land system and urban planning policy, and summarizes the characteristics of each stage, this paper believes that the relationship between "urban space" and "urban renewal policy" has three main stages. Their characteristic is, in the first term, government-driven urban development through the land use right market led to rapid city formation. In the first period, the government-led urban development through the land-use right market led to rapid urban formation. However, the Shenzhen government implemented the state-owned land in the whole area, which led to the dualistic urban space of coexistence between high-density urban space and informal space with the flow of collective land. In the second period, the demand for land increased with urbanization, and the redevelopment of informal spaces became an important issue to create new land for development. By the enactment of the national government of Shenzhen City in the whole country, the dual city space of coexistence with the informal space that flows in the dense urban space and collective land occurred. In the second period, the demand for land increased with urbanization, and redevelopment of informal space became an important problem for the creation of new development sites. There was also a shift from government-led urban development to 'demolition and reconstruction' urban renewal by developers. In the third period, the redevelopment of the urban village was changed from "demolition" to "comprehensive renovation" to preserve low-cost rental housing to improve public service and living standards in the castle village outside the city planning area. The castle town where about 67% of the population lives is tackling the creation of the characteristic space for each town by "comprehensive renovation".

As a result of field visits to two representative renovation projects in Shenzhen, unlike rural land circulation such as subcontract, rent, transfer, exchange, and become a shareholder, in these two cases, the land is nominally state-owned and operated by the village economic organization. The de facto ownership of the villagers was retained without being expropriated and converted to state ownership. Government withdraws from the land transaction process. Instead of a separate rental contract with the landlord (villager), the renter is rented by the company operating the project (rental platformisation). The lease of the village building is signed between the developer and the village collective, which is not joined as a shareholder, and the developer promises to increase the rent to the village collective by 6-10% biennially or triennially. The two cases receive subsidies from the government in different ways. The private enterprise receives subsidies during the renovation phase, while state-owned enterprises obtain financial allocation for subcontracting and a talent subsidy. Tenant rent is consistent or slightly below the surrounding residential rents under the local government's support and funding to a varying degree. Government-led project has three operating parts, while private enterprise project has four including late commercial operations, whether government-led or private-enterprise-led village, they all received government subsidy but in different processes for renovated into rental public housing. The renovated urban village buildings have been improved with various facilities and living environment inside, and the urban infrastructure around the buildings has also been optimized. The operation of the project includes

renovation, property management, unified leasing, and commercial operation, essentially transforming what was originally a "village management" urban village into a "municipal system management".

Chapter 5: Discussion

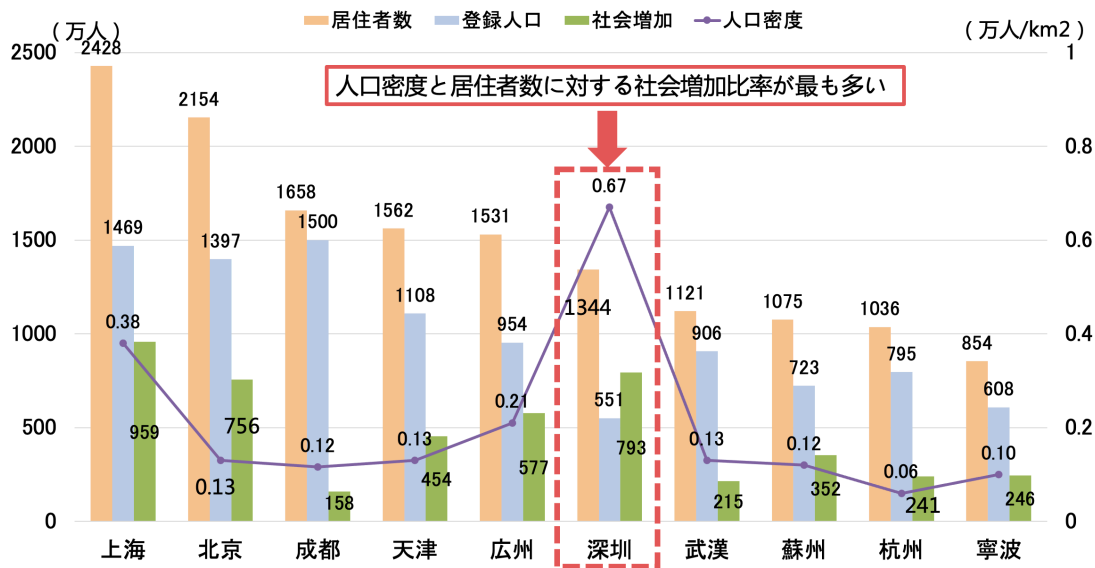
5.1 Social sustainability under redevelopment: demographic, social and economic

The large-scale migration of population to large cities is the objective law of economic and social development. The surge of population in large cities has become a common phenomenon all over the world. With the continuous aggregation of the population of large cities, the problems of urban resource consumption and environmental pollution are becoming more and more serious. In addition, large cities have many deficiencies in coping with population growth, which makes the contradiction between urban development and urban population growth increasingly prominent. Therefore, urban sustainable development is limited by many factors such as economy, society, resources, and environment.

The quantitative difference between the moderate population and the actual population can not only reflect the pressure of urban population and measure the quality of production and life of urban residents, but also reflect the capacity of various urban resources and facilities to accommodate the population. An appropriate population can more accurately find the surplus and deficiency in the current urban development, and promote the balanced development of economy, environment, society, various resources, and infrastructure in the process of continuously promoting China's urbanization.

Many scholars have demonstrated the correlation between population agglomeration and economic development. Yan Dongsheng discussed the evolution of population and economic structure in the Yangtze River Delta and believed that their spatial distribution showed a stable core edge state. Wang Shengjin and others discussed the spatial consistency of China's population and economic agglomeration. Chang Ruixiang and others believe that economic agglomeration is closely related to the spatial pattern of regional development. The essence of the evolution of the spatial pattern of regional development is the change of the degree of economic agglomeration (Yan Dongsheng 2017, Wang Shengjin 2017, Chang Ruixiang 2019).

Population economic elasticity presents the development trend of "first rising and then falling - stable development". The economic growth of the whole region is relatively coordinated with population growth, but there is a certain degree of regional differentiation; The economic growth rate of each city is basically faster than the population growth rate. The overall fluctuation trend of population economic elasticity is closely related to the economic cycle. Conversely, the obstacle of population migration, the state of economic development and the degree of social civilization between regions, cause the difference between income level and population attraction, and population flow will promote and support economic growth. There should be a virtuous circle between them, and finally achieve balance in the sense of per capita. Due to the existence of inter-regional policy and institutional barriers, although all cities have introduced measures to promote population mobility, the population system (talent attraction policy, settlement policy, labor market level, particularity of Hong Kong and Macao, etc.) still forms certain obstacles to population migration. As shown in Figure 1, China's population movements by city in 2019 are shown. Shenzhen is the city with the highest ratio of relative population density to increase.

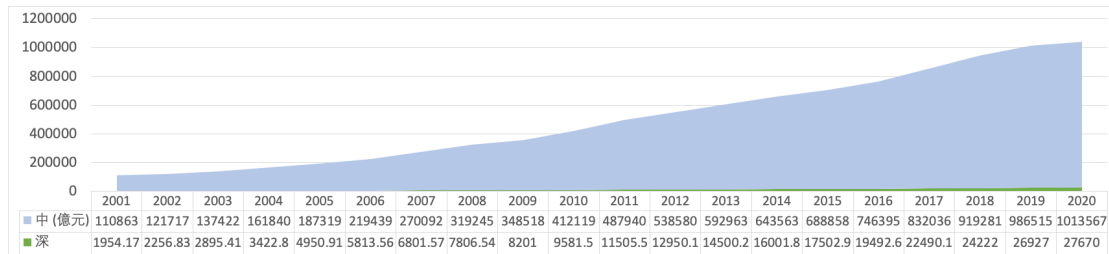


出典：深圳統計局(2018)「深圳統計年鑑 2018」、中国国家统计局(2019)「地方統計広報」

Figure 1. Population of major cities in China (2019)

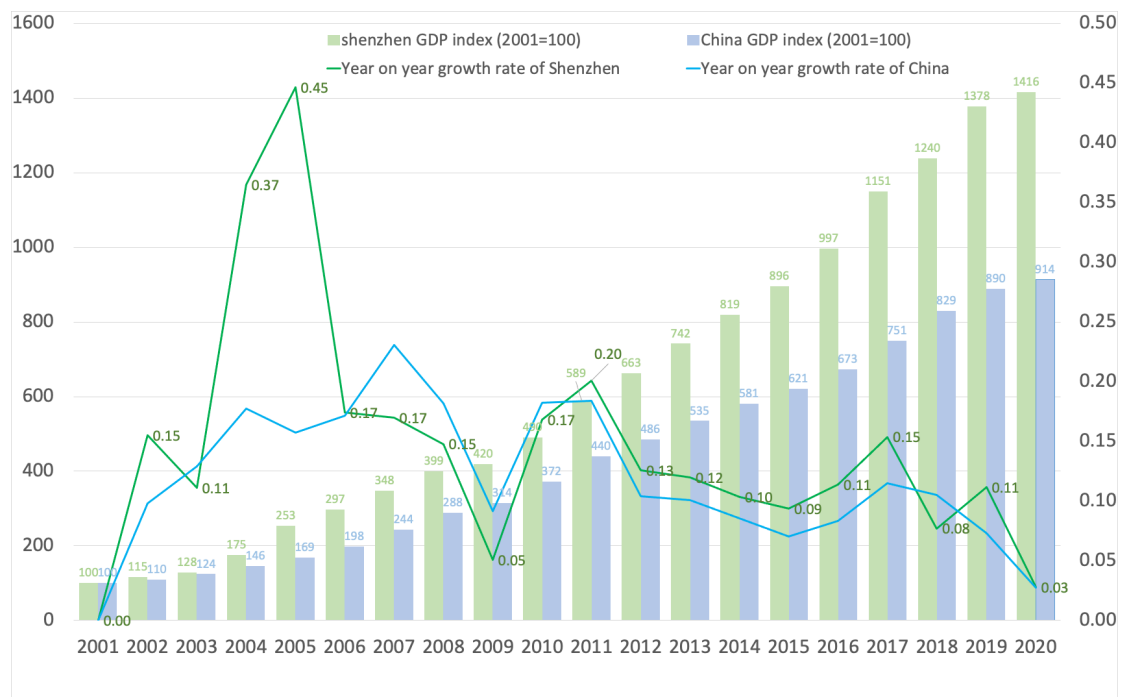
Take Shenzhen as an example, As the fastest growing city in China in the last 30 years, Shenzhen boasts a total GDP of 2,692,709 billion yuan, ranking among the top three on the mainland, following Shanghai's GDP of 3.8 trillion yuan and Beijing's 3.5 trillion yuan, according to the 2019 GDP data. Shenzhen's GDP growth rate over these 30 years is very impressive, with an average annual GDP growth rate of over 15% from 1990 to 1999, and an average annual GDP growth rate of over 13% from 2000 to 2009, maintaining an average annual GDP growth rate of over 8% from 2011 to 2019. In summary, the 30-year data shows that Shenzhen's economic growth has entered a period of steady growth from the original period of rapid growth. Shenzhen's economic situation with its good talent protection policy has always been a factor in its population attraction. In 2020, Shenzhen achieved public budget revenue of 978.9 billion yuan, an increase of 3.9% over the previous year, including 285.7 billion yuan of local public budget revenue, an increase of 2.2%, at the best level of large cities, and the quality and efficiency of economic development continued to maintain a leading level in the country. In 2020, Shenzhen vigorously promoted the construction of digital government. Last year, Shenzhen's commercial entities grew by 9.4%, 41 new domestic and foreign listed enterprises were added, nearly RMB 8.7 billion of foreign investment was utilized, and 186,000 talents were introduced. By continuously optimizing the business environment, Shenzhen's development vitality and attractiveness have been further enhanced. In 2020, the total value of Shenzhen's imports and exports reached RMB 3.05 trillion, an increase of 2.4% over the previous year, of which the scale of exports ranked first in the country's foreign trade cities for the 28th consecutive year. And according to the unified accounting results of the gross regional product, the city's gross regional product in Shenzhen in 2020 is 27670.24 yuan, an increase of 3.1% year-on-year. Among them, the added value of the primary industry is 2.579 billion yuan, down 3.1%; the added value of the secondary industry is 1,045.401 billion yuan, up 1.9%; the added value of the tertiary industry is 1,719.044 billion yuan, up 3.9%. The ratio of the added value of primary,

secondary, and tertiary industries was 0.1:37.8:62.1. GDP of China for the last 20 years (2001-2020) as shown in Figure 2, GDP of Shenzhen vs. GDP index of China (2001=100) vs. GDP index of Shenzhen (2001=100) and year on year growth rate as shown in Figure 3.



Drawn by the author, Data source: China National Bureau of Statistics (<https://data.stats.gov.cn/>)

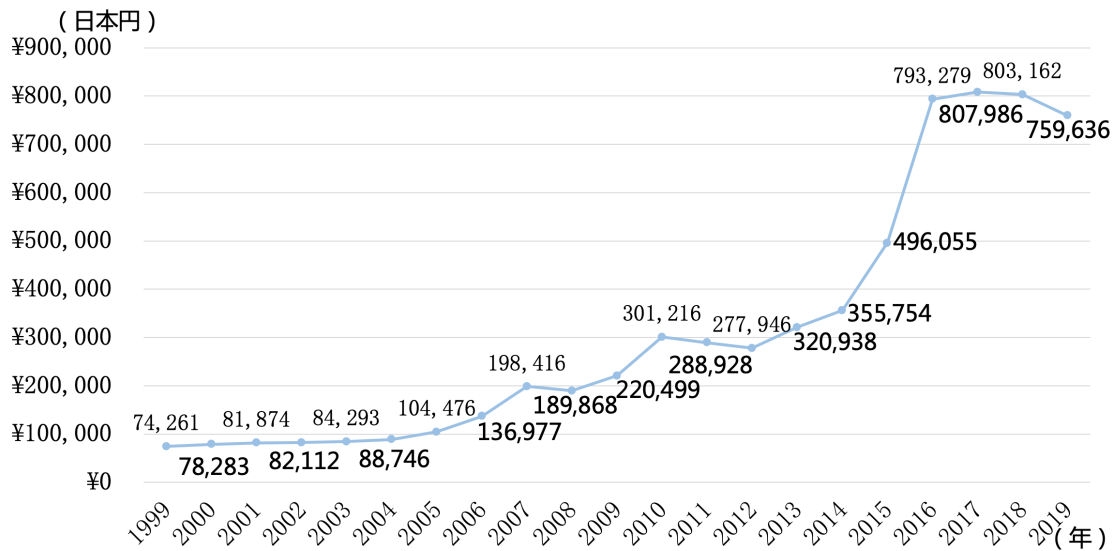
Figure 2. China's GDP and Shenzhen's GDP (Absolute value 2001-2020)



Drawn by the author, Data source: China National Bureau of Statistics (<https://data.stats.gov.cn/>)

Figure 3. China's GDP index (2001=100) and Shenzhen's GDP index (2001=100) (2001-2020)

The influx of population has driven the tension and scarcity of housing, and property is the most basic anchor of money. Under the influence of global capital fluctuations, house prices in China's coastal cities, where foreign trade is the main export, have been affected to a large extent. Particularly after the financial crisis of 2008, and after 2010, house prices are beginning correlated with financial markets. Shenzhen's house prices have doubled tenfold in the 20 years from 1999 to 2019, especially after 2015, it almost doubled as shown in Figure 4.



出典：深圳市住宅建設局「深圳市財産新報『今世紀における深圳の住宅価格の歴史的变化（2000年～2020年）（前編）』 ※1元=14.8404円で換算

Figure 4. Shenzhen house price trends for 20 years

Comparing the economic growth rates of China and Shenzhen in Figure 3, what can be seen is that another aspect of the real estate take-off is the lack of economic growth. The growth of the economy and the take-off of real estate are highly compatible, but since 2010 there has been an increasingly clear divergence, with the financial markets contributing to the real estate "boom", which has negatively affected the healthy development of the industry and the growth of the economy. Shenzhen is more typical of the housing prices in China over the past 20 years. Its house price trend profoundly expresses the correlation between land finance and real estate in China's urbanization process. The financial accelerator is a kind of "market expectation" divorced from the real residential use value.

In China, housing is not only an important investment channel, but also a prerequisite for investment. The sustained high return on housing investment and the intensification of competition in the marriage market make house purchase a priority for young people and their parents, which will crowd out entrepreneurial activities. High house prices generally hinder the entrepreneurial activities of urban adults. For homeowners, although the appreciation of housing value has a positive wealth effect, the ratio of mortgage to income has a negative effect(Li and Wu 2014).

And for non-owners, the higher the ratio of house price to income, the lower the possibility of entrepreneurship. The study highlighted the negative impact of soaring house prices on entrepreneurship in developing countries. (China Economic Research Center, National Development College, Peking University; China Academy of public finance and public policy, China Central University of Finance, and economics). The high housing prices pose more of a natural barrier to migrant workers settling in the city than the institutional factors (Zhou 2014). Every land battlefield for a small urban space is at the cost of a great social balance. Promoting progress in the context of greater social equity should be taken seriously.

However, for Shenzhen, it is the highest ratio of house price to household income in the world as shown in Figure 5. It has the highest house price-to-income ratio in the world (nearly 20 times),

compared to Hong Kong and Beijing (17), Shanghai (13), Sydney (10), London (8), Singapore and Tokyo (5), and Chicago (4)(Naoyuki and Helble 2016).

Thus, the late urbanization of China's big cities, represented by Shenzhen, had to face the problem of rising land prices in big cities, weakening the sustainability of industry; housing problems for young people; shortage of land in urban areas especially for those cities that already in the end of expropriation of agricultural land. The sharing of land appreciation is the core of urban village renewal(Zhou 2014)(Liu 2018). Hui, E et al. (2018) pointed out that this situation of young migrant workers being the center of the population "is a strong disincentive in long-term industrial development due to the high mobility of the urban population". But the question is, how to address social development and social balance in the face of high housing prices and public housing shortage? Represented by Shenzhen, the trial policy shift began with its solution to mitigate land ownership conflicts and soaring house prices by directly converting the housing stock into public rental housing.

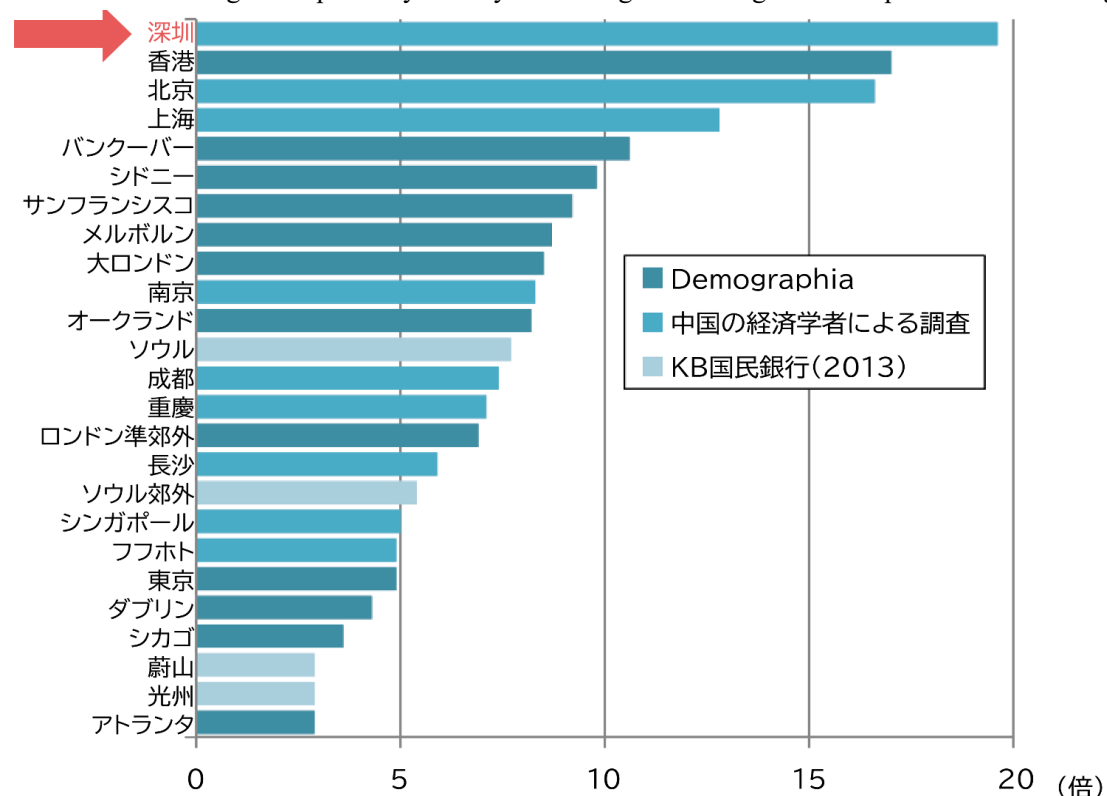


Figure 5. House price to income ratios in the world's major cities

However, the existing institutional and policy structure creates incentives for both insufficient and excessive farmland conversion, resulting in significant inefficiencies affecting land use (Lichtenberg & Ding 2008; Liu, 2018b). The loss of farmland in the rapacious coastal cities has again been tacitly tolerated on the broader balance and occupation game. Even today's bottom line of 1.8 billion mu is hanging by a thread, with little room for sustainable land development in the future. Moreover, the land's ecological value, including climate and hydrology, cannot be measured simply by the tall buildings that cover it. Under development-oriented inertia, land embeds the predicament of finance, China's coastal metropolis faces the sustainable predicament of land

bottlenecks and conflict in social imbalance. Land reform should ensure that urbanization returns to the rational track of more intensive, more efficient, and higher quality. Just as 70 years ago, when the People's Republic of China was founded, land reform finally turned the crisis into a real demand and returned to real value (Wen, 2019). The orientation of land reform experience tells us that addressing the actual needs of people broadly reduces inequalities (Lipton, 2009).

As Marx pointed out in 1867, “The country that is more developed industrially only shows to the less developed, the image of its own future” (Glyn, 2007). Although achieving economic growth through exports and foreign investments is neither safe nor sustainable in the new global environment (Lin, 2018). China's urban development has been a direct result of global capital accumulation, national political strategy, and national restructuring (Su et al., 2019). Global market forces have helped to reassert the dominance of coastal cities in China's urban development (Lin, 2002). At the same time, the land revenue in municipal budget revenue was first prominent in coastal cities, spreading eventually to inland cities (Liu, 2018b; Liu & Lin, 2014). Treating land as the cost lever of rapid industrialization, urbanization, and economic growth was still replicating.

As a sample center that brings together issues of China's urbanization process, the transformation of urban villages often tends to overlook migrant workers. And the over-expansion of the real estate market economy in cities based on the erosion of farmland does not solve the housing problems of large numbers of low-income migrant workers. Land reform cannot be used merely as a substitute for an uncertain and imperfect market, but it's about providing people with more opportunities for the capacity balance of the city. In particular, we also have uneven development pattern over national wide-range(Wei 2016). As we try to find answers from land, there are four aspects to balance as Fred Bosselman said: order, reform, responsibility, and opportunity(Davidson 2009). History taught us that efficiency is sacrificed when holding back on social spending. Governments should be the architects of the system, not the players. There is still a big gap between our public housing ratio and that in developed countries. It is very difficult to rely solely on enterprises or the government to initiate public housing. The top-level system design needs to consider multiple channels of whom will benefit most from land appreciation, such as loans and grants from private and public nonprofit lenders, as well as equity stakes in sponsors, investors, buyers of ownership entities (co-operatives, condominiums, or single-family homes), and proceeds from the sale of ownership units. Further, social funding sources, including banks, insurance funds, and corporate bonds. Land resources (right of use and ownership), organizations, construction funds, and multiple channels are a way to promote a higher level of fairness.

5.2 Relationship between stakeholders: Villagers, residents, government, and developers in comprehensive renovation

In addition to the analysis of macro social, economic and demographic structures in the previous chapter. The mechanism of urban village formation under China's land reform and institutional change, rapid urbanisation was achieved following the decentralisation of the land market and local finance. Across the country, villagers have been consistent in the way they have gained land value by building more buildings. A similar underlying cause of urban village redevelopment is the expropriation and conversion of land to state land, which is then redeveloped by developers. Thus, when there is a fundamental shift in the way urban regeneration takes place, land tenure relationships change along with it. So, at a micro level, land ownership relations are fundamentally changed among the four stakeholders - the government, developers, villagers and tenants.

Based on the results of survey of urban villages renovation projects and interviews in Shenzhen Planning and Natural Resources Bureau, we structure specific land contract types (expropriation or lease), changes in stakeholder roles, government subsidies, operating models, renovated housing environments, rent and other aspects as core change of the urban village of renewal mode as follows.

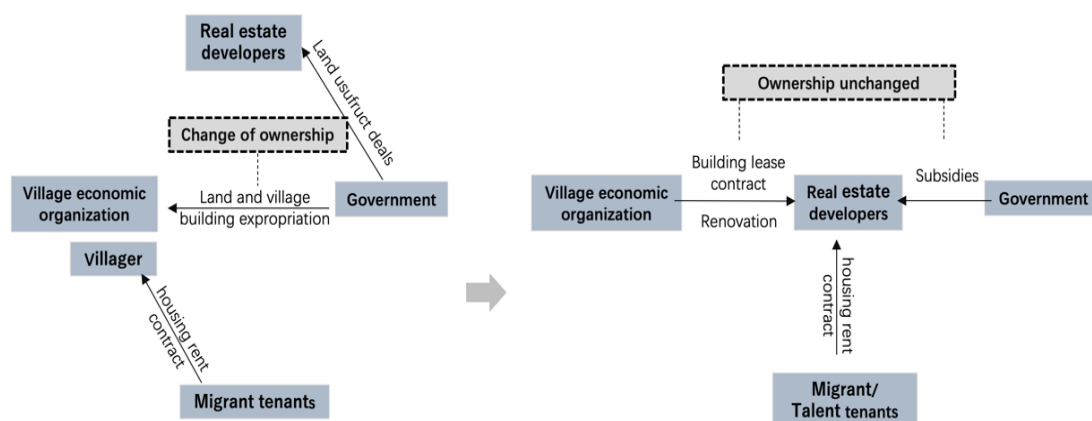


Figure 6. Change of right stakeholders from the expropriation to the renovation mode

As illustrated in Figure 6, the left represents the renewal mode of demolition and reconstruction in the past, after synthesizing the methods and contents of the analysis of the main contradictions in previous studies (Hin and Xin 2011; Hui, Bao, and Zhang 2013; Lin and Ho 2005; Lin and De Meulder 2012; Lipton 2009; Tian 2008; Wang et al. 2015; Wang and Murie 2011; Zhou 2014) and based on the results of the survey, we chose to further discuss the following four major aspects including the mode of transfer of property rights of land and buildings, the form of land contracts, the changes in the relationship between various stakeholders, and the environmental changes in the quality of village buildings and supporting facilities.

Firstly, the type of land contract has changed. In the past, urban regeneration (renewal of urban villages), based on a dualistic land system, when collective land (collectively owned by the village) was transformed into urban land (owned by the state), collective land of village and village buildings

property had to be expropriated and converted. While in new renovation mode, land appreciation monopolies changed. Government is not involved in the land transaction, which means that instead of expropriation, it becomes a long-term lease contract for the village building, which protects the building from demolition in terms of property rights. Second, based on property rights, the relationships of previous multi-stakeholder among the government, real estate developers, villagers, and tenants have changed. The government avoided negotiations on property rights, avoiding inconsistencies in land law that ultimately led to land conflicts. Developers make long-term lease contracts with village collectives. Tenants also have changed from signing contracts with villagers' landlords to signing contracts with operators of rental public housing. Stakeholder relationships in the renovation of direct transactions between landowners and developers are more efficient than the monopolized transfer of land through the government. Third, in this relationship, government subsidies are playing an important role of the implementation of the project. Although in different phase, whether government-led or private enterprise all received government subsidy support for rental public housing, offsetting the construction costs of the renovation is playing a positive factor in maintaining the project's rents lower than the average house price in the surrounding residential areas. Fourthly, the operating model of the two projects is mainly government-led to support the needs of the regional talent (non-market-based), while the private developer-led project is mainly pitched to the public (market-oriented). The results of the renovation process are similar in terms of environmental and building quality improvements, and both have improved the urban infrastructure of the surrounding areas. In this new renovation mode, the benefits are reflected by the various stakeholders. the government lowers the cost of land acquisition; The villagers and the village collective have obtained the flexible channel of land income; the government saved the expropriation cost and developers no longer need to pay high costs to buy land, all those are reducing the value-added of land due to the land transaction process and ultimately reduces the cost of urban living; not only reducing housing costs, but also improving the quality of life of the society, especially for the long-term living in the urban villages of low-income non-resident tenants.

The very heart point is, from land expropriation to long-term leasing. Unchanged of land ownership directly reduce the urban renewal costs. and villagers, government, tenants, developers each are benefit from the new pattern as the 30 indicators, as shown in Table 1.

Urban village renovation renewal pattern brings three main aspects. Firstly, they provide evidence that the flexibility of convert land property relations, as a shift to a long-term lease contract of the village buildings between the developer and the village collective. Secondly, whether state-led or private-enterprise-led, the implementation of the projects has greatly improved the quality of the architectural and residential environment in the urban villages. Thirdly, the government's subsidized support for rental public housing in urban village renovation projects indicates that the latest urban renewal policy under the land regime shows an effort to resolve urban housing conflicts in the face of high housing prices.

Table 1. Evaluation of the " demolition-reconstruction " mode and the " comprehensive renovation " mode

Evaluation Items	Criteria and Elements	Specific indicators and evaluation details	Demolition-reconstruction mode	Comprehensive renovation mode
Landscape and infrastructure improvement	Improvement of surrounding landscape and public infrastructure	Roads, lighting Parks, greenery, plazas, rest facilities Convenient facilities open space elevator	Green spaces and public spaces that meet national planning standards and supporting facilities within the newly planned area.	Increase greenery and public space as much as possible while retaining the original village and buildings.
	Basic Equipment	fire prevention equipment Ventilation, drainage, and gas pipes Network	New buildings will be constructed to meet national planning and building standards and to improve urban infrastructure.	Building modifications and associated building infrastructure additions
living environment Livability and comfort of	personal space	indoor outside the room	Existence of land use change may result in the new building being a non-residential commercial structure	Maintenance and continuation of residential functions and improvement of demand environment on a large scale
	public facilities	indoor outside the room		
Urban sustainability	Preservation of local culture	Village and community continuity, village old building form	Disappearing rather than dismantling.	Protection and continuity
	Industry Vitality and Diversity	Industrial land lease expenses Inexpensive labor	Industrial burden increases more than land cost increases	Maintain land cost
	Management cost	Scope of application of city planning system regulations	Plan for new land use.	Maintain land use as a residential area
	Construction Cost	Expropriation negotiation costs for land and construction Utilization of old architectural resources	complete dismantling	Partial demolition for expansion of public space; village architectural style and old buildings mostly preserved
	villager	Survival of village organizations Village Microeconomics Ownership conversion	Lump-sum compensation from land expropriation	Become a long-term indirect beneficiary of land value from long-term lease agreements
Stakeholder change	lessor	Low rent protection (migrant workers) livelihood security Living environment and convenience	Disappearing old buildings in villages, driven out by soaring prices of luxury housing	Continuation of residence at the same rent as before with government subsidies.
	Government	Ownership conversion Urban management level Integration of private capital	Eminent domain practitioners and redevelopment planners	Supporters of public rental housing in renovation projects
	Developer	secondary development Housing operator	Urban secondary developers	Changed to a public rental housing operator.

As an important stock of housing, urban villages also play an active role in the urbanization process. The transformation of urban villages' renewal mode, especially the approach to property rights, is extremely critical to urban renewal, as urban villages themselves are a special product of the land system in China's urbanization process. Previous urban redevelopment mode as typical phenomenon of gentrification, has boosted to high housing prices around redevelopment. The essence of the model change from "redevelopment" to "renovation" is lower transaction costs for the government, developers, and the public. It can be said that the change in the renewal model has positive implications for all stakeholders, especially for migrant workers, as the "comprehensive renovation" mode remains the village buildings for rental public housing. The operation model of public rental housing ensures the housing of low-income groups represented by migrant workers, while meeting the improvement of the urban environment. Jumping out of the land battlefield and leaving opportunities for low-income accommodation, urban renewal changed the perspective of "development-oriented" to "redistribution of spatial resources" help for eliminating long-term residential differentiation. Shenzhen as an important sample and pioneer in the new phase of China's urbanization and bring some practical experience for other cities that in the continuously high housing prices in China, or other countries that are rapidly urbanizing.

The top design should coordinate public interest and land appreciation by institutional incentives for multi-channel supply. It is necessary to address the shortage of public housing and improve the urban living conditions to shake up chronically high house prices, relieving the government from corporatization features.

The isolated islands in the urban core are rejected by urban planning because of land ownership, stuck in the principle that urban taxpayers' money cannot be spent on the land that is not state-owned. Thus, a clear definition of the "common good" may be a truce in the previous land battlefield. The most critical contradiction in urban renewal is the land appreciation allocation, not only just a path problem of top-down or bottom-up approaches.

The landowner receives the land ownership income from the land appreciation income, or the government and society earn the land appreciation income resulting from urban development and public facility investment. Unlike in the West, it has been written into the constitution that gains from land appreciation belong to China's state. Therefore, it leads to the path of the current public-private, which is different from the Western private-public, finally reaching the equilibrium state. If they are establishing a reasonable legal protection mechanism for a new round of public investment in society that could trigger the sharing of economic development and balanced distribution, any of the flow direction, Western property tax systems, or Chinese compensation is feasible.

5.3 General applicability of comprehensive renovation of China

We investigated the physical environment, building volume, and commercial form of a typical urban village in Beijing. The form of quadrangular houses below two stories in the north is relatively low in terms of building volume ratio. From the angle of rentals based on the commercial form, the implementation of comprehensive renovation is possible in northern villages. However, the built form of the village is also related to the commercial form of the urban village, which also affects the composition of the collective dividend and rental income generated by the fixed assets (houses, plants). Further, these factors jointly affect costs for developers and villagers' income. When a mismatch between rent and cost occurs, the comprehensive renovation model may encounter resistance from developers and villagers.

The kind of transformation that should be made has been a hot topic in academic debates over the past several decades, especially in terms of property rights and institutional change; it is crucial for the next stage of urbanization in China's land system reform. Institutional changes and policies play a decisive role in transforming urban villages, and it is essential to consider the scope of policy application, especially regional differences. This study provides some references for future policy adjustment thinking based on the transformation of the Shenzhen policy pilot project. In addition, we argue that urban village renewal should pay more attention to regional differences, especially in terms of physical space.

The transformation of urban villages requires a process for a solution balancing urban justice, industry, and the fair treatment of the migrant population from rural areas. Addressing it encompasses multiple issues, including the following: living environment issues, such as poor infrastructure, lack of sanitation and green spaces; socio-mechanical issues, wherein under the dual urban-rural structure, villagers own the land but do not have the same rights as citizens; social issues where migrant workers, who lack affordable urban housing, crowd into urban villages and then villagers survive by the rent of village houses; and management issues that demonstrate that with continuous construction and land expansion, more urban villages are being built beyond planning and regulations.

The conclusion from the results can be summarized as follows respectively. First, the living environment of villages does not meet the requirements of urban planning regulations. This includes proper: roads, lighting, drainage systems, infrastructure, green spaces, solid waste management, lighting, sanitation, public activity spaces, etc. Secondly, although migrant workers are not property owners, their percentage demand for rental housing clearly affects the spatial patterns and ever-changing village situation. The result of this indicates that they should have representation during the decision-making for urban village transformation. Thirdly, through the three-correlation analysis of the survey results, the link between the residents' housing state and their characteristics was revealed. The difference in characteristics of migrant workers is related to the difference in housing conditions they choose. For example, the agriculturally related characteristics of migrant workers may inspire the transformation of physical space. Finally, it is generally believed that the sustainable development of villages has been more expected and associated with the following

aspects of "Land and building ownership conversion", "Village microeconomy", "Continuation of village organization", "Regional culture protection", "Protection of low rent (migrant workers)", "Life sustainability (villagers)". In these aspects, "demolition and reconstruction" is significantly lower than the "current state" and "preservation and renovation" pattern; it shows their desire to remain in the urban village rather than for demolition and reconstruction to ensue.

The transformation of urban villages is a transitional stage in urban renewal. It is a long and arduous task, always related to the life of the migrant population while holding the current and future city image in the urbanization process. From the previous results and analysis, migrant workers are still absent from the transformative decision-making process because they are non-property owners. Their opinions may change the decision-making of the transformation pattern. It is reasonable to believe that the mainstream way of urban village transformation by demolishing them is not desirable for the migrant and actual residents based on surveys. Acknowledging their participation rights may change the final decision. Considering the migrant workers and trying to provide a better environment for them is a good start for benign urban development. An evaluation system is needed before planning the transformation of urban villages.

Our conclusions suggest, for urban village renewal and redevelopment, wherein as opposed to the current inclusion of only three stakeholders, a quadripartite stakeholder's relationship including the migrant worker representation should be constructed. A corresponding evaluation system involving multiple parties (including tenants) is required before the implementation of the village renewal. It is proposed that migrant workers conduct agricultural activities in exchange for rent relief due to the significant level of correlation in this study between migrant workers and agricultural activities. Its renewal process can be a government-led, multi-party sharing model involving property owners and residents. Join more participants such as social welfare organizations and private capital to lead to a healthier community. By simplifying land acquisition by the government, the cost and negotiation time are reduced, which provides the possibility for preserving and improving the physical space of villages.

Chapter 6: Conclusion

6.1 The impact of China's regional characteristics on redevelopment

As the main conclusion of the whole study, this chapter will discuss the main conclusions of this study corresponding to the research purpose.

Furthermore, the government's policy changes in three stages according to the situation of urban development. The first stage is to lead urban development, the second stage is to control private developers, and the third stage is to promote social welfare. This is analyzed from the spatial changes in the city center village. In Shenzhen, these three stages of change were evident in a short period of 40 years. As the latest empirical urban renewal method of urban renewal case study, this paper believes that the conclusion of the investigation of Shenzhen renewal case is that the relationship is fundamentally changed in comprehensive renovation.

As the conclusion of the evaluation of policy transformation, it can be seen from the above table that the general appreciation of surrounding land price and real estate caused by urban renewal will affect the basic cost of the industry. This is an important aspect of industrial upgrading. First, in terms of social system, it is conducive to urban development. Increasing the legal protection of the resettlement of low-income workers with spatial diversity is the key to urban renewal. Second, urban renewal is not only about improving the living environment, but also about carefully considering factors that may change the value of land.

This part of the research was based on the physical form and architectural structure of Beijing's urban village, and the applicability of urban redevelopment practices was examined by applying the cost calculation formulas of "demolition" and "comprehensive renovation". The data from Beijing can also contribute as a data set for the second phase of urban renewal in China. Since no redevelopment has occurred in this village, the physical form and structure of the buildings have not basically changed. We decided that the data can be used again to determine how to update the city. Because of the different architectural forms (village forms) in the north and south of China, the estimation of building renovation cost is closely related to the proportion of building types (factory, residential, commercial, etc.) and the building structure, floor height, and floor area ratio in the urban village of Beijing. Therefore, we conclude that the cost of "demolition" is not higher for the building forms in the north of China than the "demolition" of the medium and high-rise buildings in the south, the proportion of factories is also higher, and the method of revenue and distribution for the villagers is different, which makes it unsuitable for the new "general maintenance". The general applicability of the renewal method needs to be examined, including the local building pattern.

Finally, the study believes that the main reason for changing the policy shift of urban renewal lies in the sustainability of urban development as a whole organism. In particular, the cost faced by various industries is too high, which leads to the problem of insufficient economic power; Secondly, the actual gap of a large number of immigrants living in cities is still very huge, mainly young labor force, which is also the most important factor supporting urban development; Third, in China, as a balance and constraint to the rising house prices in big cities, the rental industry and real estate tax

have not developed mature. Therefore, it is urgent for the government to cultivate the public rental market.

6.2 Implications for future redevelopment

In a short period of 40 years, as a representative of China's urbanization, Shenzhen has developed rapidly from a traditional rural village to an international innovative city. This development has been supported by the existence of an informal space called Urban village. Initially, the government wanted to slum-clear them and promote urbanization, but then it realized that the large number of mobile residents living there supported the development of the city and changed its urban development policy to an approach of comprehensive renovation that would improve the quality of life of the residents so that they could settle there. Rather than destroying and renewing the city's villages as in the case of slum clearance, the policy of improving the quality of informal spaces and allowing them to coexist with high-rise redevelopment spaces has increased diversity in the city and is one of the sources of vitality in Shenzhen. This study shows that preserving the coexistence of different Spaces and values is an important inspiration for reducing the cost of urban renewal, as well as an important standard for the sustainability of urban development.

Secondly, the implications of the research on institutional design are that the advent of the next phase of urbanization makes it impossible to avoid answering the questions that have surrounded land reform over the last century, or to get closer to the essence of them. The reform of the land system for the purpose of national development has had a positive effect on whether it can truly reduce the rural-urban gap, correct social injustice, and give landless farmers a fairer chance of surviving in the cities (El-Ghonemy 2006), rather than being pillaged by market real estate debt for the sustainability of future generations, because land appreciation is exclusive on the time axis.

Thirdly, it is also very important to respect the laws of economic development and to understand the structure of urban development. Depending on the development of the city, there are three stages of change in government policy. The first stage is to guide urban development, the second is to control private developers and the third is to promote social welfare. This is analysed in terms of spatial changes in urban villages. Although Shenzhen is used as the main city of study, as the second largest economy in the world, China's urbanisation following these three stages of change is evident in a short period of 40 years. The relationship between government and market, and the role of social development cannot be separated from the laws of economics, and only by following such laws can the value of policy be maximised.

Fourthly, the insights from the direction and details of the policy are also very important. This is because it is also impossible to achieve without a detailed understanding of the ownership of the project, the distribution of stakeholders, and the government support and subsidies for the project. The first two renovation projects in Shenzhen, representing the "government initiative" and the "private real estate company initiative" respectively, have been subsidized by the government as public rental housing with the support of new policies. We will analyze the impact of the "integrated renovation" policy on the real space of these two urban village cases in comparing the form of land deed (expropriation or lease), the changing role of stakeholders, government subsidies, operating model, renovated housing environment, and leasing, and the results show the benefits of the new redevelopment model for the village. The results show that both government and private renovations

improved the living environment and greenery, and that there was generally no difference between the two.

Moreover, if we understand the enlightenment brought by institutional change in China's urban regeneration from the perspective of historical institutionalism, we need to consider the incremental theory of institutional change, which is paralleled by the distribution of power and constant strife. It has a certain stage of stability and path dependence. The system produces change not only in moments of crisis, but also in a continuous continuum. The acceleration of resource inequity under the skew and polarisation caused by the free market, as China was able to restructure based on the main line of land reform, enabling a balance to be struck between limited resource space and a broader and more equitable distribution of benefits.

6.3 Limitations of this study

This research method and data also have some limitations because the renovated projects have only been in open for about two years, and some difficulties in operation and maintenance may not have been exposed yet. Secondly, due to the COVID-19, part of the residential area was not accessible to nonresident (only access to open space) and questionnaires could not be distributed, so the questionnaire for the renovated tenants could not be implemented. The interviews were conducted with the managers and staff of the Shenzhen Urban Planning Administration, I listed the detailed evaluation factors and conducted a comprehensive evaluation according to the index content. Further investigation can be carried out in future follow-up investigation. However, it provides a way for sustainable urban development mindful of the renewal of urban villages with the minimum social cost. It will be possible to track more of its operations in the future, as well as the general advantages it provides for social housing.

Appendixes

Contents of the interview (2020/08, 2021/04)

(Collation of several interviews, the part that cannot be quantified):

1) What has changed in community safety after the comprehensive renovation?

To achieve full functionality as a video access control operation and maintenance management platform. To ensure that the information collection rate of rental housing personnel meets the standard, the coverage rate of residence registration declaration reaches 97%, the penetration rate of building manager system reaches more than 90%, and the completion rate of creating livable rental housing is more than 75%.

2) Can high density buildings in villages ensure fire safety?

Fire hydrants are installed in accordance with the local government's fire hydrant construction standards on roads where fire trucks can pass, and external indoor fire hydrants are installed every 50 meters on roads where fire trucks cannot pass.

Ensure water supply for firefighting. Ensure that the water supply pressure can reach the highest firefighting needs of the buildings in the protected area, if this is not possible, a high-water tower or reservoir with a storage capacity of at least 300 square meters should be constructed.

Install at least one micro-fire station. Set up external phone lines, equip firefighting bikes, and basic firefighting equipment such as fire extinguishers, water cannons, water belts, and personal protective equipment. Increasing the safety factor by looping fire lanes, adding micro fire lanes, and adding outdoor fire hydrants and fire pump rooms. Opening access to the building, removing the original fire and security windows, and connecting the rooftop terrace to provide a place for residents to engage in activities and communication, as well as provide a variety of evacuation route options. To promote fire prevention and education, develop an annual working system, plan or program for fire safety publicity and education in "Urban village" and establish a training and education system for people living in Urban village.

3) What are the specific changes in the urban infrastructure for electricity and gas?

The current electricity supply is metered in households, and the electricity supply equipment in front of the meters in households is uniformly managed by the Electricity Supply Bureau, standardize the electricity pipelines, realize the construction of cable trenches, and deal with

1Nm Strengthen the safety management of power consumption, strictly control the number of heavy load and full load power distribution and control the proportion of heavy load power distribution to less than 1%. Achieve 100% penetration rate of smart meters in distribution stations, 100% penetration rate of low-voltage collection copies, and at least 75% penetration rate of fiber optic communication in public distribution rooms.

In all Urban village eligible for plumbing gas retrofitting, the plumbing gas penetration rate will be 100% and all residential gas cookers and gas water heaters will be retrofitted with natural gas appliances.

Communities in Urban village that use bottled gas will be required to set up at least one bottled gas supply station or delivery service department in a reasonable and regulated manner.

Implementation of gas market supervision and investigation of hidden dangers, no natural gas in pipes to households using bottled gas.

4) What are the specifics of comprehensive environmental improvement?

Formation of specialized teams or commissioning of specialized units to implement sanitation work services Formulation of work plans for waste segregation, clarification of who is responsible for waste segregation work, training, and guidance to those responsible All facilities for segregating domestic waste are provided in accordance with regulations and sanitation meets national standards.

Management of flat parking lots is standardized, parking lots are monitored and networked with the help of technology to improve parking measures.

Increase public sports areas, such as basketball and table tennis, and seating for public leisure. Make full use of existing public spaces and create special activity areas according to the characteristics of the population and to meet the needs of different age groups.

Make flexible use of public spaces and increase green areas on rooftops and in plazas around the building. Make the building more ecological and environmentally friendly to reduce energy consumption. In Urban village, where conditions allow for the separation of rainwater and sewage, buildings and villages have two drainage systems: rainwater and sewage. In Urban village where rainwater and sewage are not separated, sewage from each building and each household is collected in pipes and an integrated sewage treatment facility is built.

5) What are the improvements in daily shopping?

The planned businesses form a street life with their own characteristics, showcasing several special service packages, retail stores, branded restaurants, and educational packages. The convenience and safety of the residents is our priority.

6) How is the comprehensive upgrading of Urban village different from the upgrading of Urban village that has been done in Shenzhen in the past?

Until now, the comprehensive management of the Urban village in Shenzhen has been government-led, effectively enhancing the basic safety and security of the Urban village and improving the environmental quality of the Urban village. However, due to the limited means of renewal, this is a very deep-rooted problem in Urban village. It is difficult to solve the lack of open space, inadequate management and facilities for public support services and village communities.

To this end, this measure implements General Secretary Xi Jinping's important directive to make more use of improved micro-renovation approaches, considers the actual needs of Shenzhen's Urban village, and is linked to the previously announced Shenzhen Urban village (Old Village) Comprehensive Renovation Master Plan (2019-2025) ("Urban village (hereinafter referred to as the "Master Plan") is linked to it.

Apart from the improved approach of renovation, there are three other situations where small-scale restructuring may be considered. First, basic comprehensive urban village management; second, urban village added a small number of auxiliary public facilities. Community-level public support facilities, small commercial service facilities, and public spaces could be added by modifying the functions of current buildings; third, Urban village could undergo partial demolition and construction to eliminate major safety hazards and improve public facilities and infrastructure.

7) What are the characteristics of the implementation conditions and operation mode of the Comprehensive Renovation of Urban village with partial demolition and construction?

The main purpose of the Comprehensive Renovation project of Urban village is to improve the function of Urban village, improve the living environment, and enhance the quality of life of the residents, with a strong public interest orientation and no profit involved as the main objectives.

The government's leadership is reflected in two main aspects. First, each district should organize the preparation of planning and drafting of such projects, sort out the current problems in the Urban village, rationally define the scope of demolition and construction of the area, and determine the plot ratio of land for development and construction. Secondly, with regard to the renewal compensation and resettlement of Urban village under the category of comprehensive renovation, the formulation of guiding standards to reasonably guide the expectation of relocation compensation should be considered.

Furthermore, it encourages multiple stakeholders, including market players, to jointly participate in the comprehensive renovation of Urban village. This measure proposes a combination of measures to encourage the participation of multiple parties in the comprehensive renovation of Urban village by allowing partial demolition and construction and reducing the proportion of legal sites. These measures can be directly organized and implemented by the district government or by inviting market players to participate publicly. The specific means of implementation will be approved by the district government after the comprehensive rectification unit plan has been approved, and reasonable choices will be made according to the actual situation of the project.

8) Other than improving the quality of life of the residents in the Urban village, what are the positive implications of the integrated development of the Urban village?

The integrated Urban village development will provide a new path for the urban renewal of Urban village within the integrated development zoning area defined in the Urban village Master Plan.

In addition, by combining the integrated development of Urban village with urban housing security operations, directing Urban village's housing stock into large-scale rental projects, and integrating them into a policy-based housing security system for comprehensive management, the cost-of-living space can be stabilized, and the supply of subsidized urban housing can be increased, thus creating a win-win situation can be realized for all parties involved.

9) in what ways does the government support renovation through policy?

The specifics vary from policy to policy. Subsidies are available for urban human resource housing and public housing construction.

10) Has the ownership of the land been transferred? Or do you sign a contract with the individual villagers or the developer?

The land will remain under collective ownership of the village. The leadership of the village committee will exert its power to unify the villagers in private housing into a village collective, and then, depending on the item, there may be a lease agreement between the village economic entity (village community) and the management company (private ownership), or the village economic entity (village community) may have a contract with the district government (government initiative).

11) Whether the profitability of the developer is optimistic for the future?

The government achieves social value: the image of the village area in the city is enhanced, the living conditions of the talented people are improved, and Comprehensive Renovations are attempted rather than demolition and reconstruction. The enterprise will achieve economic value: it will earn a reasonable profit and strengthen the relationship between the government and the enterprise. Projects are managed as corporate investment and operation plus government subsidies. Currently, the project is still basically in the red. The government subsidy is essential because the enterprise earns a reasonable profit and is in the red for a certain period during the operation.

The specific formula is $A = B + C$

Allocate inputs to items on a yearly basis + initial renovation inputs + reasonable profit = A, rental income = B, government subsidy = C.

Reference

- Andy Merrifield and Erik Swyngedouw. n.d. *The Urbanization of Injustice*.
- Anon. n.d. "5i5j.Com."
- Chan, Roger C. K., Y. M. Yao, and Simon X. B. Zhao. 2003. "Self-Help Housing Strategy for Temporary Population in Guangzhou, China." *Habitat International* 27(1):19–35.
- Chen, Kunqiu, Hualou Long, and Chenrong Qin. 2020. "The Impacts of Capital Deepening on Urban Housing Prices: Empirical Evidence from 285 Prefecture-Level or above Cities in China." *Habitat International* 99(March):102173.
- Chen, Yi-Ling and Hyun Bang Shin. 2019. *Centering Housing Questions in Asian Cities*.
- Cindy Fan, C. 1996. "Economic Opportunities and Internal Migration: A Case Study of Guangdong Province, China." *Professional Geographer* 48(1):28–45.
- Crow, G. 2009. "Urban Village." *International Encyclopedia of Human Geography* 101–5.
- Davidson, Nestor M. 2009. *Affordable Housing and Public–Private Partnerships: Law, Property and Society*.
- El-Ghonemy, M. Ria. 2006. *The Political Economy of Rural Poverty: The Case for Land Reform*.
- Fan, C. Cindy. 2002. "The Elite, the Natives, and the Outsiders: Migration and Labor Market Segmentation in Urban China." *Annals of the Association of American Geographers* 92(1):103–24.
- FORUM, WORLD ECONOMIC. 2020. *The Global Social Mobility Report 2020 Equality , Opportunity and a New Economic Imperative*.
- Glyn, Andrew. 2007. "Capitalism Unleashed: Finance, Globalization, and Welfare." *Capitalism Unleashed: Finance, Globalization, and Welfare* 1–272.
- Hao, Pu, Stan Geertman, Pieter Hooimeijer, and Richard Sliuzas. 2013. "Spatial Analyses of the Urban Village Development Process in Shenzhen, China." *International Journal of Urban and Regional Research* 37(6):2177–97.
- Hao, Pu, Richard Sliuzas, and Stan Geertman. 2011. "The Development and Redevelopment of Urban Villages in Shenzhen." *Habitat International* 35(2):214–24.
- Harvey, David. 2016. *The Ways of the World*. Oxford: Oxford University Press.
- Hin, Li Ling and Li Xin. 2011. "Redevelopment of Urban Villages in Shenzhen, China - An Analysis of Power Relations and Urban Coalitions." *Habitat International* 35(3):426–34.
- Ho, Samuel P. S. and George C. S. Lin. 2004. "Converting Land to Nonagricultural Use in China's Coastal Provinces: Evidence from Jiangsu." *Modern China* 30(1):81–112.
- Holliday, Ian. 2000. "Productivist Welfare Capitalism: Social Policy in East Asia." *Political Studies* 48(4):706–23.
- Hsing, You-tien. 2010. *The Great Urban Transformation: Politics of Land and Property in China*. Oxford University Press.
- Hui, Eddie C. M., Zhaoyingzi Dong, and Sheng Hua Jia. 2018. "How Do Housing Price and Sentiment Affect Consumption Distribution in China?" *Habitat International* 77(July 2017):99–109.
- Hui, Eddie Chi Man, Hai Jun Bao, and Xiao Ling Zhang. 2013. "The Policy and Praxis of Compensation for Land Expropriations in China: An Appraisal from the Perspective of Social Exclusion." *Land Use Policy* 32:309–16.
- Institute of Management and Policy, Chinese Academy of Sciences. 2013. *Community Infrastructure Configuration Requirements*. 20132677-T-649.
- James, Mahoney and Kathleen Thelen. 2010. *Explaining Institutional Change: Ambiguity, Agency, and Power*. Cambridge University Press.

- Jiang, Li, Xiangzheng Deng, and Karen C. Seto. 2013. "The Impact of Urban Expansion on Agricultural Land Use Intensity in China." *Land Use Policy* 35:33–39.
- Jiang, Yanpeng, Nalini Mohabir, Renfeng Ma, Lichao Wu, and Mingxing Chen. 2020. "Whose Village? Stakeholder Interests in the Urban Renewal of Hubei Old Village in Shenzhen." *Land Use Policy* 91(March 2019):104411.
- Jiao, Limin, Zhibang Xu, Gang Xu, Rui Zhao, Jiafeng Liu, and Weilin Wang. 2020. "Assessment of Urban Land Use Efficiency in China: A Perspective of Scaling Law." *Habitat International* 99(129):102172.
- Keung Wong, Daniel Fu, Chang Ying Li, and He Xue Song. 2007. "Rural Migrant Workers in Urban China: Living a Marginalised Life." *International Journal of Social Welfare* 16(1):32–40.
- Lai, Yani, Yi Peng, Bin Li, and Yanliu Lin. 2014. "Industrial Land Development in Urban Villages in China: A Property Rights Perspective." *Habitat International* 41:185–94.
- Lai, Yani and Bosin Tang. 2016. "Institutional Barriers to Redevelopment of Urban Villages in China: A Transaction Cost Perspective." *Land Use Policy* 58:482–90.
- Lees, Loretta, Sandra Annunziata, and Clara Rivas-Alonso. 2018. "Resisting Planetary Gentrification: The Value of Survivability in the Fight to Stay Put." *Annals of the American Association of Geographers* 108(2):346–55.
- Lees, Loretta, Tom Slater, and Elvin Wyly. 2010. "The Gentrification Reader." (February):54840.
- Li, Jie, Fang Wang, Shuake Wuzhati, and Bufan Wen. 2016. "Urban or Village Residents? A Case Study of the Spontaneous Space Transformation of the Forced Upstairs Farmers' Community in Beijing." *Habitat International* 56:136–46.
- Li, Ling Hin, Jie Lin, Xin Li, and Fan Wu. 2014. "Redevelopment of Urban Village in China - A Step towards an Effective Urban Policy? A Case Study of Liede Village in Guangzhou." *Habitat International* 43:299–308.
- Li, Lixing and Xiaoyu Wu. 2014. "Housing Price and Entrepreneurship in China." *Journal of Comparative Economics* 42(2):436–49.
- Li, Zhigang and Fulong Wu. 2013. "Residential Satisfaction in China's Informal Settlements: A Case Study of Beijing, Shanghai, and Guangzhou." *Urban Geography* 34(7):923–49.
- Liang, Xiaowei, Qifeng Yuan, Xiaohong Tan, and Zhigang Li. 2018. "Territorialization of Urban Villages in China: The Case of Guangzhou." *Habitat International* 78(January):41–50.
- Lichtenberg, Erik and Chengri Ding. 2008. "Assessing Farmland Protection Policy in China." *Land Use Policy* 25(1):59–68.
- Lichtenberg, Erik and Chengri Ding. 2009. "Local Officials as Land Developers: Urban Spatial Expansion in China." *Journal of Urban Economics* 66(1):57–64.
- Lin, George C. S. 2002. "The Growth and Structural Change of Chinese Cities: A Contextual and Geographic Analysis." *Cities* 19(5):299–316.
- Lin, George C. S. 2007a. "Chinese Urbanism in Question: State, Society, and the Reproduction of Urban Spaces." *Urban Geography* 28(1):7–29.
- Lin, George C. S. 2007b. "Reproducing Spaces of Chinese Urbanisation: New City-Based and Land-Centred Urban Transformation." *Urban Studies* 44(9):1827–55.
- Lin, George C. S. 2014. "China's Landed Urbanization: Neoliberalizing Politics, Land Commodification, and Municipal Finance in the Growth of Metropolises." *Environment and Planning A* 46(8):1814–35.
- Lin, George C. S. and Samuel P. S. Ho. 2005. "The State, Land System, and Land Development Processes in Contemporary China." *Annals of the Association of American Geographers* 95(2):411–36.

- Lin, George C. S., Xun Li, Fiona F. Yang, and Fox Z. Y. Hu. 2015. "Strategizing Urbanism in the Era of Neoliberalization: State Power Reshuffling, Land Development and Municipal Finance in Urbanizing China." *Urban Studies* 52(11):1962–82.
- Lin, Yanliu and Bruno De Meulder. 2012. "A Conceptual Framework for the Strategic Urban Project Approach for the Sustainable Redevelopment of 'Villages in the City' in Guangzhou." *Habitat International* 36(3):380–87.
- Lin Ye. 2018. *Urbanization and Urban Governance in China: Issues, Challenges, and Development*.
- Lipton, Michael. 2009. *Land Reform in Developing Countries: Property Rights and Property Wrongs*. Routledge
Priorities in Development Economics.
- Liu, Ran. 2019. "Hybrid Tenure Structure, Stratified Rights to the City: An Examination of Migrants' Tenure Choice in Beijing." *Habitat International* 85(105):41–52.
- Liu, Ran and Tai Chee Wong. 2018. "Urban Village Redevelopment in Beijing: The State-Dominated Formalization of Informal Housing." *Cities* 72(February 2017):160–72.
- Liu, Shouying. 2018. "Dual-Track Urbanization Under the Dual Land Ownership System (Chinese)." *Journal of Urban Planning*.
- Liu, Tao and George C. S. Lin. 2014. "New Geography of Land Commodification in Chinese Cities: Uneven Landscape of Urban Land Development under Market Reforms and Globalization." *Applied Geography* 51:118–30.
- Liu, Yuting, Shenjing He, Fulong Wu, and Chris Webster. 2010. "Urban Villages under China's Rapid Urbanization: Unregulated Assets and Transitional Neighbourhoods." *Habitat International* 34(2):135–44.
- McGee, T. G., George C. S. Lin, Andrew M. Marton, Mark Y. L. Wang, and Jiaping Wu. 2007. *China's Urban Space: Development under Market Socialism*. University of British Columbia Press.
- Naoyuki, Yoshino and Matthias Helble. 2016. *The Housing Challenge in Emerging Asia: Options and Solutions*. Tokyo: Asian Development Bank Institute.
- Neal, Larry and Jeffrey G. Williamson. 2012. *The Cambridge History of Capitalism Volume 2: The Spread of Capitalism: From 1848 to the Present*.
- Ren, Honghao and Henk Folmer. 2017. "Determinants of Residential Satisfaction in Urban China: A Multi-Group Structural Equation Analysis." *Urban Studies* 54(6):1407–25.
- Shenzhen Statistics Bureau. 2018. *Shenzhen Statistical Yearbook 2018*.
- Shin, Hyun Bang. 2009. "Residential Redevelopment and the Entrepreneurial Local State: The Implications of Beijing's Shifting Emphasis on Urban Redevelopment Policies." *Urban Studies* 46(13):2815–39.
- Smith, Nick R. 2014. "Beyond Top-down/Bottom-up: Village Transformation on China's Urban Edge." *Cities* 41:209–20.
- Song, Yan and Yves Zenou. 2012. "Urban Villages and Housing Values in China." *Regional Science and Urban Economics* 42(3):495–505.
- Su, Mo, Renzhong Guo, and Wuyang Hong. 2019. "Land Use Policy Institutional Transition and Implementation Path for Cultivated Land Protection in Highly Urbanized Regions: A Case Study of Shenzhen, China." 81(August 2017):493–501.
- Swyngedouw, Andy Merrifield and Erik. 1968. "Housing Priorities, Settlement Patterns, and Urban Development in Modernizing Countries." *Journal of the American Planning Association* 34(6):354–63.
- Tan, Yongzhong, Ju He, Haoying Han, and Weiwen Zhang. 2019. "Evaluating Residents' Satisfaction with Market-Oriented Urban Village Transformation: A Case Study of Yangji Village in Guangzhou, China." *Cities* 95(January):102394.

- The CPC Central Committee and the State Council. 2020. "Opinions of the State Council on Building a More Perfect System and Mechanism for Market-Based Allocation of Factors." *The Xinhua News Agency*. Retrieved (http://www.gov.cn/zhengce/2020-04/09/content_5500622.htm).
- Thelen, Kathleen and Hall Peter A. 1992. *Structuring Politics*. Cambridge: Cambridge University Press.
- Tian, Li. 2008. "The Chengzhongcun Land Market in China: Boon or Bane? - A Perspective on Property Rights." *International Journal of Urban and Regional Research* 32(2):282–304.
- Wang, Chun-guang. n.d. "Research on 'Semi-Urbanization' of Rural Floating Population." *Institute of Sociology, Chinese Academy of Social Sciences*.
- Wang, M. F., X. L. Lin, and Y. M. Ning. 2012. "Migrant Populations, Temporary Residence, and Urban Village Renovation: A Survey of Migrant Settlements in Shanghai." *City Planning Review* 36(7):73–80.
- Wang, Xin Rui, Eddie Chi Man Hui, Charles Choguill, and Sheng Hua Jia. 2015. "The New Urbanization Policy in China: Which Way Forward?" *Habitat International* 47:279–84.
- Wang, Ya Ping and Alan Murie. 2011. "The New Affordable and Social Housing Provision System in China: Implications for Comparative Housing Studies." *International Journal of Housing Policy* 11(3):237–54.
- Wang, Ya Ping, Yanglin Wang, and Jiansheng Wu. 2009. "Urbanization and Informal Development in China: Urban Villages in Shenzhen." *International Journal of Urban and Regional Research* 33(4):957–73.
- Wang, Yuan. 2013. "Strategic Transformation of Managing a City for Local Government—Empirical Evidence Based on City Panel Data." *Economist*.
- Wiley, John. 2006. *Developing Affordable Housing: A Practical Guide for Nonprofit Organizations*.
- Xu, Chenggang. 2011. "The Fundamental Institutions of China's Reforms and Development." *Journal of Economic Literature* 49(4):1076–1151.
- Yan Song, Yves Zenou, and Chengri Ding. 2017. "Let's Not Throw the Baby Out with the Bath Water: The Role of Urban Villages in Housing Rural Migrants in China." *Urban Studies* 45(2):313–30.
- Zhou, Zhihua. 2014. "Towards Collaborative Approach? Investigating the Regeneration of Urban Village in Guangzhou, China." *Habitat International* 44:297–305.
- 刘守英. 2018. 土地制度与中国发展. 中国人民大学出版社.
- 周其仁. 2013. 城鄉中国. 中信出版社.
- 周飞舟. 2014. 当代中国的中央与地方关系. 中国社会科学出版社.
- 温铁军. 2019. "土地改革与中国主权货币的建立." *China Review of Political Economy*.
- 魏后凯. 2016. 区域经济理论与政策. Beijing: 中国社会科学出版社.
- Andy Merrifield and Erik Swyngedouw. n.d. *The Urbanization of Injustice*.
- Anon. n.d. "5i5j.Com."
- Chan, Roger C. K., Y. M. Yao, and Simon X. B. Zhao. 2003. "Self-Help Housing Strategy for Temporary Population in Guangzhou, China." *Habitat International* 27(1):19–35.
- Chen, Kunqiu, Hualou Long, and Chenrong Qin. 2020. "The Impacts of Capital Deepening on Urban Housing Prices: Empirical Evidence from 285 Prefecture-Level or above Cities in China." *Habitat International* 99(March):102173.
- Chen, Yi-Ling and Hyun Bang Shin. 2019. *Centering Housing Questions in Asian Cities*.
- Cindy Fan, C. 1996. "Economic Opportunities and Internal Migration: A Case Study of Guangdong Province, China." *Professional Geographer* 48(1):28–45.
- Crow, G. 2009. "Urban Village." *International Encyclopedia of Human Geography* 101–5.
- Davidson, Nestor M. 2009. *Affordable Housing and Public-Private Partnerships: Law, Property and Society*.
- El-Ghonemy, M. Ria. 2006. *The Political Economy of Rural Poverty: The Case for Land Reform*.

- Fan, C. Cindy. 2002. "The Elite, the Natives, and the Outsiders: Migration and Labor Market Segmentation in Urban China." *Annals of the Association of American Geographers* 92(1):103–24.
- FORUM, WORLD ECONOMIC. 2020. *The Global Social Mobility Report 2020 Equality, Opportunity and a New Economic Imperative*.
- Glyn, Andrew. 2007. "Capitalism Unleashed: Finance, Globalization, and Welfare." *Capitalism Unleashed: Finance, Globalization, and Welfare* 1–272.
- Hao, Pu, Stan Geertman, Pieter Hooimeijer, and Richard Sliuzas. 2013. "Spatial Analyses of the Urban Village Development Process in Shenzhen, China." *International Journal of Urban and Regional Research* 37(6):2177–97.
- Hao, Pu, Richard Sliuzas, and Stan Geertman. 2011. "The Development and Redevelopment of Urban Villages in Shenzhen." *Habitat International* 35(2):214–24.
- Harvey, David. 2016. *The Ways of the World*. Oxford: Oxford University Press.
- Hin, Li Ling and Li Xin. 2011. "Redevelopment of Urban Villages in Shenzhen, China - An Analysis of Power Relations and Urban Coalitions." *Habitat International* 35(3):426–34.
- Ho, Samuel P. S. and George C. S. Lin. 2004. "Converting Land to Nonagricultural Use in China's Coastal Provinces: Evidence from Jiangsu." *Modern China* 30(1):81–112.
- Holliday, Ian. 2000. "Productivist Welfare Capitalism: Social Policy in East Asia." *Political Studies* 48(4):706–23.
- Hsing, You-tien. 2010. *The Great Urban Transformation: Politics of Land and Property in China*. Oxford University Press.
- Hui, Eddie C. M., Zhaoyingzi Dong, and Sheng Hua Jia. 2018. "How Do Housing Price and Sentiment Affect Consumption Distribution in China?" *Habitat International* 77(July 2017):99–109.
- Hui, Eddie Chi Man, Hai Jun Bao, and Xiao Ling Zhang. 2013. "The Policy and Praxis of Compensation for Land Expropriations in China: An Appraisal from the Perspective of Social Exclusion." *Land Use Policy* 32:309–16.
- Institute of Management and Policy, Chinese Academy of Sciences. 2013. *Community Infrastructure Configuration Requirements*. 20132677-T-649.
- James, Mahoney and Kathleen Thelen. 2010. *Explaining Institutional Change: Ambiguity, Agency, and Power*. Cambridge University Press.
- Jiang, Li, Xiangzheng Deng, and Karen C. Seto. 2013. "The Impact of Urban Expansion on Agricultural Land Use Intensity in China." *Land Use Policy* 35:33–39.
- Jiang, Yanpeng, Nalini Mohabir, Renfeng Ma, Lichao Wu, and Mingxing Chen. 2020. "Whose Village? Stakeholder Interests in the Urban Renewal of Hubei Old Village in Shenzhen." *Land Use Policy* 91(March 2019):104411.
- Jiao, Limin, Zhibang Xu, Gang Xu, Rui Zhao, Jiafeng Liu, and Weilin Wang. 2020. "Assessment of Urban Land Use Efficiency in China: A Perspective of Scaling Law." *Habitat International* 99(129):102172.
- Keung Wong, Daniel Fu, Chang Ying Li, and He Xue Song. 2007. "Rural Migrant Workers in Urban China: Living a Marginalised Life." *International Journal of Social Welfare* 16(1):32–40.
- Lai, Yani, Yi Peng, Bin Li, and Yanliu Lin. 2014. "Industrial Land Development in Urban Villages in China: A Property Rights Perspective." *Habitat International* 41:185–94.
- Lai, Yani and Bosin Tang. 2016. "Institutional Barriers to Redevelopment of Urban Villages in China: A Transaction Cost Perspective." *Land Use Policy* 58:482–90.
- Lees, Loretta, Sandra Annunziata, and Clara Rivas-Alonso. 2018. "Resisting Planetary Gentrification: The Value of Survivability in the Fight to Stay Put." *Annals of the American Association of Geographers* 108(2):346–55.

- Lees, Loretta, Tom Slater, and Elvin Wyly. 2010. "The Gentrification Reader." (February):54840.
- Li, Jie, Fang Wang, Shuake Wuzhati, and Bufan Wen. 2016. "Urban or Village Residents? A Case Study of the Spontaneous Space Transformation of the Forced Upstairs Farmers' Community in Beijing." *Habitat International* 56:136–46.
- Li, Ling Hin, Jie Lin, Xin Li, and Fan Wu. 2014. "Redevelopment of Urban Village in China - A Step towards an Effective Urban Policy? A Case Study of Liede Village in Guangzhou." *Habitat International* 43:299–308.
- Li, Lixing and Xiaoyu Wu. 2014. "Housing Price and Entrepreneurship in China." *Journal of Comparative Economics* 42(2):436–49.
- Li, Zhigang and Fulong Wu. 2013. "Residential Satisfaction in China's Informal Settlements: A Case Study of Beijing, Shanghai, and Guangzhou." *Urban Geography* 34(7):923–49.
- Liang, Xiaowei, Qifeng Yuan, Xiaohong Tan, and Zhigang Li. 2018. "Territorialization of Urban Villages in China: The Case of Guangzhou." *Habitat International* 78(January):41–50.
- Lichtenberg, Erik and Chengri Ding. 2008. "Assessing Farmland Protection Policy in China." *Land Use Policy* 25(1):59–68.
- Lichtenberg, Erik and Chengri Ding. 2009. "Local Officials as Land Developers: Urban Spatial Expansion in China." *Journal of Urban Economics* 66(1):57–64.
- Lin, George C. S. 2002. "The Growth and Structural Change of Chinese Cities: A Contextual and Geographic Analysis." *Cities* 19(5):299–316.
- Lin, George C. S. 2007a. "Chinese Urbanism in Question: State, Society, and the Reproduction of Urban Spaces." *Urban Geography* 28(1):7–29.
- Lin, George C. S. 2007b. "Reproducing Spaces of Chinese Urbanisation: New City-Based and Land-Centred Urban Transformation." *Urban Studies* 44(9):1827–55.
- Lin, George C. S. 2014. "China's Landed Urbanization: Neoliberalizing Politics, Land Commodification, and Municipal Finance in the Growth of Metropolises." *Environment and Planning A* 46(8):1814–35.
- Lin, George C. S. and Samuel P. S. Ho. 2005. "The State, Land System, and Land Development Processes in Contemporary China." *Annals of the Association of American Geographers* 95(2):411–36.
- Lin, George C. S., Xun Li, Fiona F. Yang, and Fox Z. Y. Hu. 2015. "Strategizing Urbanism in the Era of Neoliberalization: State Power Reshuffling, Land Development and Municipal Finance in Urbanizing China." *Urban Studies* 52(11):1962–82.
- Lin, Yanliu and Bruno De Meulder. 2012. "A Conceptual Framework for the Strategic Urban Project Approach for the Sustainable Redevelopment of 'Villages in the City' in Guangzhou." *Habitat International* 36(3):380–87.
- Lin Ye. 2018. *Urbanization and Urban Governance in China: Issues, Challenges, and Development*.
- Lipton, Michael. 2009. *Land Reform in Developing Countries: Property Rights and Property Wrongs*. Routledge
Priorities in Development Economics.
- Liu, Ran. 2019. "Hybrid Tenure Structure, Stratified Rights to the City: An Examination of Migrants' Tenure Choice in Beijing." *Habitat International* 85(105):41–52.
- Liu, Ran and Tai Chee Wong. 2018. "Urban Village Redevelopment in Beijing: The State-Dominated Formalization of Informal Housing." *Cities* 72(February 2017):160–72.
- Liu, Shouying. 2018. "Dual-Track Urbanization Under the Dual Land Ownership System (Chinese)." *Journal of Urban Planning*.
- Liu, Tao and George C. S. Lin. 2014. "New Geography of Land Commodification in Chinese Cities: Uneven Landscape of Urban Land Development under Market Reforms and Globalization." *Applied Geography* 51:118–30.

- Liu, Yuting, Shenjing He, Fulong Wu, and Chris Webster. 2010. "Urban Villages under China's Rapid Urbanization: Unregulated Assets and Transitional Neighbourhoods." *Habitat International* 34(2):135–44.
- McGee, T. G., George C. S. Lin, Andrew M. Marton, Mark Y. L. Wang, and Jiaping Wu. 2007. *China's Urban Space: Development under Market Socialism*. University of British Columbia Press.
- Naoyuki, Yoshino and Matthias Helble. 2016. *The Housing Challenge in Emerging Asia: Options and Solutions*. Tokyo: Asian Development Bank Institute.
- Neal, Larry and Jeffrey G. Williamson. 2012. *The Cambridge History of Capitalism Volume 2: The Spread of Capitalism: From 1848 to the Present*.
- Ren, Honghao and Henk Folmer. 2017. "Determinants of Residential Satisfaction in Urban China: A Multi-Group Structural Equation Analysis." *Urban Studies* 54(6):1407–25.
- Shenzhen Statistics Bureau. 2018. *Shenzhen Statistical Yearbook 2018*.
- Shin, Hyun Bang. 2009. "Residential Redevelopment and the Entrepreneurial Local State: The Implications of Beijing's Shifting Emphasis on Urban Redevelopment Policies." *Urban Studies* 46(13):2815–39.
- Smith, Nick R. 2014. "Beyond Top-down/Bottom-up: Village Transformation on China's Urban Edge." *Cities* 41:209–20.
- Song, Yan and Yves Zenou. 2012. "Urban Villages and Housing Values in China." *Regional Science and Urban Economics* 42(3):495–505.
- Su, Mo, Renzhong Guo, and Wuyang Hong. 2019. "Land Use Policy Institutional Transition and Implementation Path for Cultivated Land Protection in Highly Urbanized Regions : A Case Study of Shenzhen , China." 81(August 2017):493–501.
- Swyngedouw, Andy Merrifield and Erik. 1968. "Housing Priorities, Settlement Patterns, and Urban Development in Modernizing Countries." *Journal of the American Planning Association* 34(6):354–63.
- Tan, Yongzhong, Ju He, Haoying Han, and Weiwen Zhang. 2019. "Evaluating Residents' Satisfaction with Market-Oriented Urban Village Transformation: A Case Study of Yangji Village in Guangzhou, China." *Cities* 95(January):102394.
- The CPC Central Committee and the State Council. 2020. "Opinions of the State Council on Building a More Perfect System and Mechanism for Market-Based Allocation of Factors." *The Xinhua News Agency*. Retrieved (http://www.gov.cn/zhengce/2020-04/09/content_5500622.htm).
- Thelen, Kathleen and Hall Peter A. 1992. *Structuring Politics*. Cambridge: Cambridge University Press.
- Tian, Li. 2008. "The Chengzhongcun Land Market in China: Boon or Bane? - A Perspective on Property Rights." *International Journal of Urban and Regional Research* 32(2):282–304.
- Wang, Chun-guang. n.d. "Research on 'Semi-Urbanization' of Rural Floating Population." *Institute of Sociology, Chinese Academy of Social Sciences*.
- Wang, M. F., X. L. Lin, and Y. M. Ning. 2012. "Migrant Populations, Temporary Residence, and Urban Village Renovation: A Survey of Migrant Settlements in Shanghai." *City Planning Review* 36(7):73–80.
- Wang, Xin Rui, Eddie Chi Man Hui, Charles Choguill, and Sheng Hua Jia. 2015. "The New Urbanization Policy in China: Which Way Forward?" *Habitat International* 47:279–84.
- Wang, Ya Ping and Alan Murie. 2011. "The New Affordable and Social Housing Provision System in China: Implications for Comparative Housing Studies." *International Journal of Housing Policy* 11(3):237–54.
- Wang, Ya Ping, Yanglin Wang, and Jiansheng Wu. 2009. "Urbanization and Informal Development in China: Urban Villages in Shenzhen." *International Journal of Urban and Regional Research* 33(4):957–73.
- Wang, Yuan. 2013. "Strategic Transformation of Managing a City for Local Government—Empirical Evidence Based on City Panel Data." *Economist*.
- Wiley, John. 2006. *Developing Affordable Housing: A Practical Guide for Nonprofit Organizations*.

- Xu, Chenggang. 2011. "The Fundamental Institutions of China's Reforms and Development." *Journal of Economic Literature* 49(4):1076–1151.
- Yan Song, Yves Zenou, and Chengri Ding. 2017. "Let's Not Throw the Baby Out with the Bath Water: The Role of Urban Villages in Housing Rural Migrants in China." *Urban Studies* 45(2):313–30.
- Zhou, Zhihua. 2014. "Towards Collaborative Approach? Investigating the Regeneration of Urban Village in Guangzhou, China." *Habitat International* 44:297–305.
- 刘守英. 2018. 土地制度与中国发展. 中国人民大学出版社.
- 周其仁. 2013. 城鄉中国. 中信出版社.
- 周飞舟. 2014. 当代中国的中央与地方关系. 中国社会科学出版社.
- 温铁军. 2019. "土地改革与中国主权货币的建立." *China Review of Political Economy*.
- 魏后凯. 2016. 区域经济理论与政策. Beijing: 中国社会科学出版社.
- 1) 日本国外務省, 中華人民共和国の基礎データ, 外務省
<<https://www.mofa.go.jp/mofaj/area/china/data.html>>, 2021.3.31更新, 2021.4.7参照
 - 2) 陳文・谷志軍(2019), 「不思議の街: 深圳の都市ガバナンスの40年」, pp.313
 - 3) 深圳市統計局(2018), 「深圳統計年鑑2018」
 - 4) 中国国家统计局(2019), 「地方統計広報」
 - 5) 第五届全国人民代表大会, 「1982年12月4日全国人民代表大会公告公布施行」, 中国人民代表大会ホームページ <http://www.npc.gov.cn/wxzl/wxzl/2000-12/06/content_4421.htm>, 2021.4.10参照
 - 6) 宋敏(2001), 「中国の土地収用制度の農地保護機能に関する考察」, 農業経済研究73(3), pp.105-118
 - 7) 深圳市計画天然資源局(2019), 「深圳市城中村総合整備マスタープラン (2019~2025)」, 深圳市ホームページ <<https://pnr.sz.gov.cn/xxgk/ghjh/201903/P020190327592879930684.pdf>>, 2021.4.12参照
 - 8) Hao P・Geertman S・Hooimeijer P・Sliuzas R (2013), 「Spatial analyses of the urban village development process in shenzhen, china」, *Int J Urban Reg Res* 37(6), pp.2177–2197
 - 9) Wang YP・Wang Y・Wu J (2009), 「Urbanization and informal development in China: Urban villages in shenzhen」, *Int J Urban Reg Res* 33(4), pp.957–973
 - 10) 孫立・城所哲夫(2012), 「中国都市部における「城中村」住環境整備事業の効果に関する研究」, 日本建築学会計画系論文集77(682), pp.2819–2824
 - 11) Highchartsホームページ <<https://www.highcharts.com.cn/mapdata>> における地図データより著者作成
 - 12) 深圳市都市計画局のGISデータより著者作成
 - 13) Holliday I (2000), 「Productivist welfare capitalism: Social policy in East Asia」, *Polit Stud* 48(4), pp.706–723
 - 14) 温鉄軍(2019), 「新中国における土地改革と主権通貨の設立建国初期の「脱依存」体制下での反危機的経験の研究」, *政治経済学評論*10(4)
 - 15) 蒋省三・刘守英・李青(2007), 「土地制度改革与国民経済成長」, *管理世界*, pp.1–9
 - 16) 周藤利一 (2013), 「中国の不動産に関する法制度と市場」, (一財) 不動産適正取引推進機構ホームページ <https://www.retio.or.jp/research/pdf/overseas_study_11.pdf>, 2013.4.1更新, 2021.4.26参照
 - 17) Hsing Y (2010), 「The Great Urban Transformation: Politics of Land and Property in China」, pp.272
 - 18) Shin HB(2009), 「Residential redevelopment and the entrepreneurial local state: The implications of Beijing's shifting emphasis on urban redevelopment policies」, *Urban Stud* 46(13), pp.2815–2839
 - 19) 刘守英(2018), 「土地制度与中国发展」, pp.432
 - 20) 周其仁(2013), 「城鄉中国」, pp.558
 - 21) 王媛(2011), 「中国集体土地制度变迁与新一轮土地制度改革」, *江蘇社會科學*2(3), pp.377–389
 - 22) 深圳市都市計画・土地資源委員会(2016), 「深圳市都市更新第13次5ヵ年計画

- 23) 深圳市住宅・建設局(2016)、「深圳市住宅保障發展第13次5ヵ年計画」
- 24) 深圳市政府(1982)、「深圳市經濟特区の農村住民による住宅建設のための土地利用に関する暫定規則」
- 25) 深圳市都市再生・土地整備局(2021)、「深圳市都市更新再開事業計画」に関する会報」, 深圳市ホームページ 〈http://www.sz.gov.cn/szcsqgtdz/gkmlpt/content/7/7019/post_7019483.html〉, 2020.1.3更新, 2021.4.10参照
- 26) Fan Y・Yang Z・Yavas A (2018), 「Understanding Real Estate Price Dynamics: The Case of Housing Prices in Five Major Cities of China」, *J Hous Econ*
- 27) Naoyuki Y・Helble M (2016), 「The Housing Challenge in Emerging Asia: Options and Solutions」, pp.262–302
- 28) Hui ECM・Dong Z・Jia SH, 「How do housing price and sentiment affect consumption distribution in China」, *Habitat Int.* 77, pp.99–109.
- 29) Hao P・Sliuzas R・Geertman S (2011), 「The development and redevelopment of urban villages in Shenzhen」, *Habitat Int.* 35(2), pp.214–24
- 30) Cindy Fan C (1996), 「Economic opportunities and internal migration: A case study of guangdong province, China」, *Prof Geogr* 48(1), pp.28–45
- 31) 深圳市計画土地資源委員会(2015)、「歴史的な無許可建築物の調査と処分に関する報告書」
- 32) 刘征(2015)、「深圳の土地収用（譲渡）制度の変遷」
- 33) Li LH・Lin J・Li X・Wu F (2014), 「Redevelopment of urban village in China - A step towards an effective urban policy? A case study of Liede village in Guangzhou」, *Habitat Int.* 43, pp.299–308
- 34) MdEditor, 「深圳老照片」, MdEditor ホームページ 〈<https://www.mdeditor.tw/dl/02MRh>〉, 2021.3.21更新, 2021.4.28閲覧
- 35) 社科院語言研究所(2005)、「現代漢語詞典第5版」