

# Open Villages within the Exclusive City: an Empirical Study on Urban Villages in Shenzhen, China

Pu Hao

Department of Urban and Regional Planning and Geoinformation Management, ITC  
Faculty of Geosciences, URU, Utrecht University, The Netherlands; hao@itc.nl

Richard Sliuzas

Department of Urban and Regional Planning and Geoinformation Management  
ITC, The Netherlands; sliuzas@itc.nl

Stan Geertman

Faculty of Geosciences, URU, Utrecht University, The Netherlands; s.geertman@geo.uu.nl

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## Abstract

Since the mid-1980s, rural-to-urban migration in China has been taking place at an unprecedented rate. Many rural villages have been encompassed into newly developed urban areas in the process of economic and industrial development. These so-called “urban villages” provide migrants with affordable housing and fundamental utilities. Since urban villages are constructed and maintained on the basis of self-help in the absence of formal regulations, they are often associated with squalor, overcrowding and social problems. Consequently, official policies are foremost heading at demolition and redevelopment of these areas, especially into large-scale modern living and service facilities.

This paper explores the role that urban villages play in the extremely fast growing metropolis of Shenzhen. Using data collected from field reconnaissance, interviews, and planning authorities, we analyse the development of urban villages with respect to their geographical, social and institutional position in the city system. We find that many urban villages are critical sub-markets of urban housing, providing a realistic and effective affordable housing solution for migrants. We suggest that the current policies focusing on redevelopment of urban villages would lead to immediate and significant housing stress in certain areas, which may in the long run, negatively impact the openness of the city.

## Introduction

In the past three decades, the process of market-led industrialisation and urbanisation in China has dramatically changed the spatial and social urban landscape (He et al. 2006, Liu & Wu 2006). As a large urban-rural income gap has developed since the mid-1980s (Zhao 1999), hundreds of millions of rural migrants have left their homes for the cities for job opportunities and better lives. Migration has created the largest labor flow unprecedented in the nation’s history and unparalleled elsewhere in the world (Ma 2004).

However, the government’s long standing policy aims to restrict rural to urban migration. In cities, rural migrants are usually rejected from the formal approval of urban residency, which is known as “*hukou*”. While circulating among jobs in different cities, rural migrants barely have a chance to obtain an urban *hukou* with its attached value. They are referred to as

“floating population” (Wang 2004, Mobrand 2006). Consequently they are overlooked and are excluded from state funded urban resources, such as housing, education, and medical care among others (Liang & Chen 2007, Song et al. 2008). Their needs for such services must therefore be satisfied through other means.

As a result of economic growth and migration, the spatial growth of cities is sustained. The government relies on transforming rural land into urban land to provide new space for urban development, and in the process exacerbates the dislocation of rural populations. By paying compensation to farmers, city governments acquire land from rural villages and prepare them for urban development. In this process, the government tends to requisition farmland rather than settlement areas to avoid costly relocation programs for the farmers. Consequently, the villages’ settlement areas remained while their surrounding environment changed. The villages became spatially encompassed or annexed by urban territory, forming so-called urban villages (Tian 2008, Zhang et al. 2003).

The indigenous villagers, who have exchanged their farmland with limited compensation, have to find other ways to make a living. The government usually entitles dispossessed farmers with urban *hukou* status and sometimes recruits some with jobs. Many of them, who are without proper education or skills, are rejected by urban sectors.

As former farmlands were developed into factories and other facilities, urban villages became favourable places for migrant workers by virtue of their affordability and accessibility to jobs. The huge demand for low-cost housing from migrants was facilitated by urban villages and led to their drastic growth. Economic interests drove the indigenous villagers to increase floor area by constructing new floors and enlarging houses. By doing so, the rental profits rose dramatically. The outward and upward expansion of houses, especially in those well located villages near industrial zones or commercial areas, became an inevitable trend.

Urban villages are not regulated by any form of centralised urban planning, consequently many of them are heavily populated, overdeveloped with extreme plot density and lacking open space and infrastructure (figure 1). Besides, the government regards many urban villages, especially those occupying scarce land in good locations, as an oppression of land value. As a result, many city governments such as Wuhan, Guangzhou and Shenzhen, initialised programs to clear many urban villages and redevelop the vacant sites with modern housing units.



Figure 1 Gangxia urban village in Futian district, Shenzhen (left) and Hengling urban village in Baoan district, Shenzhen (right)

This paper explores the role that urban villages play in the wider city system of Shenzhen, the youngest metropolis in China. By analysing the development of urban villages in the period 1999-2004, we aim to find the development characteristics of urban villages with respect to their geographical, social and institutional position in the city system. Thereafter we examine

the new redevelopment programs adopted by Shenzhen to find out their implications and potential risks.

## Shenzhen and Its Urban Villages

Shenzhen is probably the fastest growing city in the world. From 1979 to 2009, its population rose from 0.31 million to 14 million. Meanwhile, its urban land expanded from 20 km<sup>2</sup> in 1983 to 729 km<sup>2</sup> in 2006. The Shenzhen Municipality now has an administrative area of 1969 km<sup>2</sup> with six districts. Four of them: Luohu, Futian, Yantian and Nanshan comprise the Shenzhen Special Economic Zone (SEZ) occupying 410 km<sup>2</sup>. The SEZ was established in 1980 as a test bed of market economy in socialist China for the first time. The other two districts: Baoan and Longgang were incorporated as districts into the Shenzhen Municipality in 1993. They are to the north of the SEZ with areas of 714 km<sup>2</sup>, 845 km<sup>2</sup> respectively (figure 2).



Figure 2 The administrative division of Shenzhen and the built-up area (Data source: Shenzhen Urban Planning Bureau)

The massive expansion of urban space sustained over three decades, Shenzhen has contributed to the creation of 320 urban villages (table 1). These urban villages cover 93.5 km<sup>2</sup>, equivalent to 13.3% of the built up land and 50.3% of the residential land. They were composed by approximately 350,000 houses, making a total floor area of 106 million m<sup>2</sup>. Most of the urban villages are located outside the SEZ. These cover 85.5 km<sup>2</sup> lands, counting more than 90% of the city's urban village land. Urban villages in the SEZ cover only 8 km<sup>2</sup>, however, these provide about 20% of the total floor space of urban villages in the city.

Urban villages are distributed over the city (figure 3) and are found both on the city outskirts and in the downtown segments. They are often surrounded by modern high rise buildings and facilities. In the SEZ, Urban villages are found near to the city centre, district centres and the two major checkpoints to Hong Kong. In the SEZ, where urban formal land use is dominant, urban villages are separated by urban spaces and relatively distant from one another. The appearance of such urban villages, especially their extremely high building density, significantly distinguishes them from the other part of the city. Outside the SEZ, urban village developments are particularly found in district centres, sub-district centres and near big transportation nodes, forming many clusters. Urban village houses are often distributed mixed with formal urban land use and their boundaries are more blurred in comparison to the villages in the SEZ.

Table 1 Statistics of urban villages in Shenzhen 2004 (Data source: Shenzhen Urban Planning Bureau)

districts	number of villages	land area (ha)	plot area (10 <sup>4</sup> m <sup>2</sup> )	floor area (10 <sup>4</sup> m <sup>2</sup> )	number of houses (10 <sup>4</sup> )	average Floor	building density (%)	floor area ratio
SEZ	91	800.11	424.50	2138.86	4.23	5.0	53%	2.67
Luohu	35	235.68	125.20	647.94	1.24	5.2	53%	2.75
Futian	15	195.62	107.45	669.14	0.90	6.2	55%	3.42
Nanshan	29	291.21	156.86	720.58	1.68	4.6	54%	2.47
Yantian	12	77.60	34.99	101.20	0.41	2.9	45%	1.30
Non-SEZ	229	8548.89	2847.08	8422.91	30.66	3.0	33%	0.99
Baoan	138	4428.01	1476.24	4311.35	16.54	2.9	33%	0.97
Longgang	91	4120.88	1370.84	4111.56	14.12	3.0	33%	1.00
Total	320	9349.00	3271.58	10561.77	34.89	3.2	35%	1.13

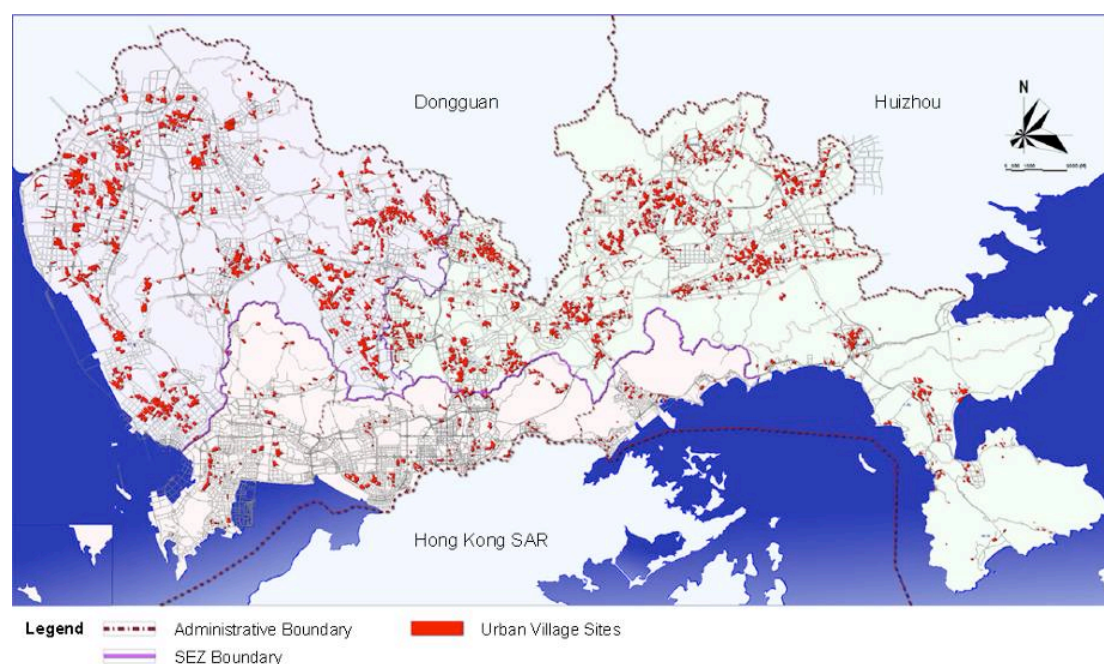


Figure 3 The distribution of urban villages in Shenzhen (Data source: Shenzhen Urban Planning Bureau)

The average floor area ratio and construction density of urban villages in Shenzhen was 1.13 and 35% respectively. Both are higher than the numbers of the whole built-up area. The construction intensities between the SEZ and the non-SEZ areas are significantly different. With houses in general above 6 floors, the average floor area ratio of urban villages in the SEZ is 2.7 and the average floor space of a single house is 506 m<sup>2</sup>. However, with much lower houses, the floor area ratio of urban villages outside the SEZ is only 1.0. And the average floor space is 275 m<sup>2</sup> (UPDIS 2005).

The residents of urban villages in Shenzhen are composed by permanent residents with a local *hukou* and the floating population without local *hukou*. House renting is the main income source of the indigenous villagers, investigations in Futian district find that a family income is generally composed by four parts: profit sharing from the collectively owned business 30%, house renting 60%, wage 4%, family business 6%. The profit from renting collectively owned



industrial and commercial space is the main source of revenue of collectively owned business. Therefore urban village properties are the main source of income for the indigenous villagers.

## Dynamic and Diverse Housing Market

As a migrant city, the floating population of Shenzhen outweighs its permanent population. This is one of the most significant characteristics of Shenzhen. From 1979 to 2008, the annual growth rate of the floating population was 33.5%, much higher than the growth rate of the population with local *hukou*, which was 7.1%. Consequently, the proportion of the floating population in Shenzhen has been constantly increasing (figure 4).

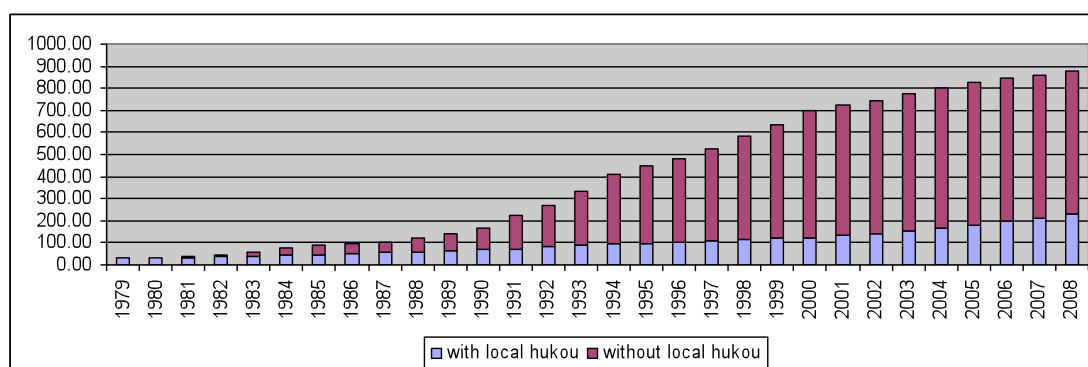


Figure 4 Population Growth of Shenzhen 1979 – 2008, unit: 10 thousand people (Data source: Statistic Bureau of Shenzhen)

In 2008, within the total population of 8.77 million, the floating population is 6.49 million, accounting 74%. However, it is believed that the statistics left out a large number of migrants who had not been recorded. The government estimates that the total population already exceeded 14 million in 2007. If this is the case, the floating population would comprise as much as 84% of the total population. This group of people is unevenly distributed in the city. Outside the SEZ, where labour-intensive industries are mostly accommodated, the rate of floating population is higher than the rate in the SEZ.

A large proportion of migrants are accommodated in urban villages. From a survey that was taken by Shenzhen Bureau of Public Security in 2005, the floating population who lived in urban villages was about 4.8 million, more than 13 times the number of indigenous villagers. Moreover, the number of low-income population increases closely linked to the construction of rental living space in urban villages. From 1999 to 2004, the total floor area provided by urban villages increased from 54 million m<sup>2</sup> to 106 million m<sup>2</sup>, by 97% (figure 5). The number of urban village houses increased from about 240 thousand to 349 thousand. The land coverage of urban villages expanded from 73 km<sup>2</sup> to 93 km<sup>2</sup>.

In the late 1990s, urban villages in the SEZ were already over developed with densely distributed houses, remained no much space for more buildings. In some villages, redevelopment took place at frontage areas, which results in a decrease of land occupation in some urban villages. Consequently from 1999 to 2004 in the SEZ, urban village land increased by only 19 ha, from 781 ha to 800 ha. In the mean time, land is more abundant outside the SEZ. While urban developments are taking over rural land, villagers are competing to occupy more land by constructing new houses. Land coverage by urban villages in the non-SEZ districts increased from 6480 ha to 8549 ha. The number of urban village houses increased from 204,870 to 306,594, by 50%. And the total floor space increased by 41 million m<sup>2</sup>, which is 95% of the number in 1999.

The growth of urban village land has mainly happened outside the SEZ. The increase in the quantity and the size of houses contributed to an increasing provision of cheap rooms in the housing market. However, in the SEZ, where expansion of urban villages is no longer possible, urban villages had claimed increasing rooms by adding up floors and extending plot

areas. Consequently, urban villages in the SEZ were becoming taller and denser. In the SEZ, the number of urban village houses increased from 35,290 to 42,300, by 20%. The total floor area doubled, from 10.4 million m<sup>2</sup> to 21.4 million m<sup>2</sup>.

Figure 5 The developments of urban villages in Shenzhen 1999-2004 (Data source: Shenzhen Urban Planning Bureau)

In different districts, urban villages are at varying development stages just like the urban areas these are situated in. It determines to some extent their social characteristics. For instance, there are less and smaller urban village settlements in the SEZ. However, much more tenants are accommodated in each urban village or settlement. The average ratio of landlords and tenants is ranging from 1:20 to 1:40 in the four districts of the SEZ. Outside the SEZ, lower living density of each urban village lead to a lower ratio of landlords and tenants. The average ratio of urban villages in the non-SEZ districts is about 1:10. Although on average those landlords of urban villages possess similar area of floor space, landlords in the SEZ usually gain more revenue than their counterparts outside the SEZ as demands and prices are higher in the urban centre.

In all the six districts, urban villages are serving as the lower-end product in the housing market. However, each district is distinguished from others by its location and function. Thus the social structures of urban village residents vary in different districts (table 2). In Futian and Nanshan, where most office buildings are located, a big proportion of tenants are white-collar employees. In Luohu and Yantian, where commercial and tourism sectors are prominent respectively, employees in service sectors comprise more than half of the tenants. In Baoan and Longgang, the majority of tenants in urban villages are working in industrial and service sectors. Besides, as Baoan accommodates a large amount of small business, there is a big proportion of tenants are business owners. Similar to what was found in the formal housing market; urban villages also perform as a diverse housing market.

Table 2 Population structure of urban village residents; unit: 10 thousand people (Data source: Shenzhen Urban Planning Bureau)

district	total residents	ratio landlord:tenants	landlord	tenants				
				total	White-collar	Business owner	Worker in industrial/service sectors	others
Futian	59.1	1:30	1.9	57.2	26.8	5.7	17.2	7.4
Luohu	76.7	1:40	1.87	74.8	19.5	7.5	38.1	9.7
Nanshan	53.4	1:20	2.6	50.9	24.3	5.1	14.9	6.6
Yantian	15.3	1:30	0.5	14.8	2.4	1.5	9.0	1.9
Baoan	182.7	1:11	15.8	166.9	4.9	66.8	73.6	21.7
Longgang	124.1	1:8	13.3	110.8	3.2	10.0	83.2	14.4

## Policy and Risks

Although in Shenzhen urban villages demonstrate vitality, the government is determined to redevelop many of them. In 2005, the municipal government released a special plan: Comprehensive Planning Guidelines for Urban Village Redevelopment 2005-2010. This plan gives four reasons to redevelop urban villages. First as land scarcity is becoming prominent, the land covered by urban villages should be considered as potential land stock via redevelopment. Second, illegal constructions, chaotic land use and social problems such as crime result in urban villages the most prominent, complicated and concentrated locations of urban problems. Third, urban villages are perceived to suppress the land value of their surrounding parcels and therefore they limit the progress of the city's improvement on urban structure and efficiency. Fourth, urban villages are to some extent outside the formal urban administration. Their house rental business jeopardises the environment of equal competition. And their land and housing market threatens the municipal control and profits from the land and property market.

The redevelopment plan declared that 8.9 km<sup>2</sup> of urban village land, which are covered by houses of 11.5 million m<sup>2</sup> floor area, will be cleared during 2005-2010, to give space for at least 25.9 million m<sup>2</sup> floor area of new buildings (table 3). When urban villages are replaced by commercial housing units, the living density of these areas will significantly decline. Better off residents will replace the former low-income tenants. In the SEZ, as commercial and business functions are promoted, a large proportion of redeveloped space is designated to commercial use and offices (see table 3). Consequently, housing stress in the SEZ will more significantly increase, especially for those white-collar employees and workers in industrial and service sectors. As they choose to live in the SEZ is mainly because of the proximity to their job locations such as office buildings, restaurants and shops, the redevelopments of their urban villages would force them to move away from their job locations and therefore increase their commuting time and cost.

Table 3 Urban village redevelopment scale 2005-2010; unit: 10,000 m<sup>2</sup>. no.1 refers to land area; no.2-6 refer to floor space (Source: Shenzhen Municipal Government)

	Luohu	Futian	Nanshan	Yantian	Baoan	Longgang	Total
1.land area to be redeveloped	30	40	80	30	410	300	890
2.construction to be demolished	80	130	200	40	400	300	1150
3.construction to be rebuilt	145	190	365	110	1030	750	2590
4.residence	100	125	310	90	920	670	2215
type 5.office	15	35	20	5	10	5	90
6.commercial	30	30	35	15	100	75	285

To prioritise urban villages for redevelopment, the plan set up certain emphasised zones such as ecological zones, commercial and industrial centres, and areas that near to existing and future metro lines. Thereafter, urban villages that ought to be redeveloped are selected and redevelopment proposals and site plans are prepared. While emphasising on the improvement of built-up environment, infrastructures and the livelihood of indigenous villagers, there is no consideration for the tenants. The majority of those urban villages' residents would then be excluded from their former neighbourhoods. Consequently a gentrification process is likely to happen in those areas. For the low-income migrants, increased expenditure on housing and cost as well as time for commuting would lead to tougher living circumstances or possibly even exclusion from the city.

## Conclusion

Undeniably, urban villages have contributed to the provision of low-cost housing for the rural-to-urban migrants, thus alleviating the problems of housing affordability, which most governments in the developing world cannot tackle (Zhang et al. 2003). They enhance the inclusiveness of the city at least in two aspects. First, for migrants, urban villages facilitate their livelihood in cities. Not only providing affordable and accessible housing, urban villages provide rooms close to jobs, public transport and other urban facilities. Second, for indigenous villagers, these who lost their farmlands basically, urban villages enable them to rely on their properties as investment to sustain or even increase their income in the city.

The demand for low-cost housing is supplied by urban villages. In the period 1999-2004, urban villages developed at an astonishing speed in accordance to the rising population. The development speed, scale and style in different urban villages vary. Such differences reveal that the spatial and institutional constraints in different urban areas will impact on the development pattern of urban villages. On the other hand, development status and functional structure of each district lead to certain social structure of their urban villages' residents.

In Shenzhen, urban villages are serving as an affordable and accessible housing market. They evolve over time catering to changing housing demands in different locations. As a result, the current policy which intends to redevelop many urban villages is likely to significantly disrupt the balance in the housing market. Also, without considering the diversity of the market of urban villages in terms of housing provision, the redevelopment programs targeting on pre-selected urban villages would influence on specific groups of people, including many of the city's most vulnerable, in specific locations. There are risks to implement such programs in both social and economic aspects. The potential housing stress of the low income is likely to exclude many of them in certain areas. As a result, the clearance-redevelopment model may, in the long run, negatively impact the openness of Shenzhen.



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