

chapter six



The Paradox of Informality and Formality: China's Suburban Land Development and Planning

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As a developing country with a history of a centrally planned economy, China has seen a fundamental dualism between its urban and rural areas. This dualism is an essential feature of its society and governance. Within this dualism the city is seen as the more modern industrialized part, under the management of the state, while rural areas have a more self-sufficient and underdeveloped economy. Land in urban areas is state owned, and urban households can own their “properties” only on the top of state land. Land tenure in rural areas is officially under collective ownership, but, in reality, farmers possess individual house plots as de facto private land, while their farmland is in the hands of village cadres. This rural-urban division poses a difficulty in placing the “suburban” in the governance system. Suburban land is a complex territory in transition from rural to urban systems. In this peri-urban area farmers’ housing is, de facto, privately owned, and land tenure may comprise a mix of state-owned and collectively owned farmland.

Following the urban-rural dualism, suburban land development can have two different types: the more formal state-sanctioned land development and the more informal approach of farmers’ self-building. The sources of development finance are thus very different. For formal development, the process starts from the acquisition of farmland or sometimes village land. The local government often sets up a corporation, which is responsible for the land development. The development corporation is also known as the “local investment platform” (see discussion below) because it uses the land acquired as collateral when applying to banks to obtain finance in infrastructure investment. After the completion of

infrastructure development the land is then sold to developers through land auctions. The local government gets the revenue from land sales, while the development corporation receives the profit from the building of infrastructure. To some extent, the corporation is an investment arm of the local government. However, for the self-built informal development finance is usually taken from the farmers' private savings or borrowed through family and social networks. The village may also use a "shareholding company" to mobilize capital to manage or invest in village assets. In some cities in southern China, such as Dongguan, the village shareholding company takes responsibility for providing public services as well as social welfare, which creates a heavy financial burden for the rural collectives. Some rural villages were near the brink of bankruptcy after the global financial crisis in 2008 because the downturn affected export-oriented manufacturing, and rental incomes from factory buildings and the housing of migrant workers declined.

In the last several decades China has experienced rapid suburban development. There are different explanations for such rapid change, including industrial growth in the suburbs (Zhu 2004), the role of local "state entrepreneurialism" (Wu and Phelps 2011), the demand of the new middle class for more exclusive and private "gated communities" (Zhang 2010), and the inflow of migrants into the suburbs through rural to urban migration (Wang, Wang, and Wu 2009). Although many factors can be attributed to the process of suburbanization, populations moved to suburbs for practical reasons. First, the central areas of Chinese cities have a high density and are quite congested. For a long time living space per inhabitant has been small. To improve living quality and enlarge the space of living, development had to be dispersed into the suburbs because it is simply too difficult to find available space inside the central areas. Second, Chinese cities faced economic restructuring. The central areas have been transformed from industrial and residential uses to office and commercial uses. As a result of land-use changes, population densities decreased in the central areas. Former "urban villages," which were created in a peri-urban location and have now effectively become inner suburbs, face high redevelopment pressures. Some villages have been demolished and converted into office use (Wu, Zhang, and Webster 2013a). Land-use changes in central areas and inner suburbs and the extension of suburbs through the outward movement of populations have together become a driving force for suburban land development.

This chapter focuses on the suburban land question (see chapters 1, 11, and 13 in this volume), especially land tenure, land management, and urban planning processes. The main research questions are how this form of land governance plays a role in Chinese suburban growth and what urban form and spatial pattern emerge from such a land development process. In this study we emphasize the form of land governance in creating Chinese suburban spatial forms in addition to the “flexible regime of accumulation” that created a “FlexSpace” in suburban Switzerland (Lehrer 1994), or social cultural dynamics that transformed American “edge cities” (Knox 2008). In the Chinese context land is the focus of the politics of suburban development. We conclude by commenting on the paradox of informality and formality and how they coexist as the foundation for post-reform suburban development in China.

The Institution of Growth: The Suburban Growth Machine

Land tenure is perhaps the most important institution that affects the pattern of land development. The property rights perspective tries to explain why modern capitalism is developed on the basis of defined property rights that can be transacted (de Soto 2000). However, whether formalizing land titles can generate economic growth is debatable (Gilbert 2002, 2007), as in developing countries there are traditional rights that are not necessarily in a legally recognized form. There are extensive studies on the Chinese land system and its implication for urban and suburban development (e.g., Hsing 2010; Lin and Yi 2011; Wang, Wang, and Wu 2009; Wu 2009; Wu, Zhang, and Webster 2013a; Zhu 2004). The unique Chinese rural and urban land dualism gives the local state great power to acquire the rural collective land to finance suburban land development.

How the local/municipal government is financed may affect the behaviour of the government in dealing with suburban land development. The locally defined and territorially bounded interests in land, with sufficient power to extract the benefit from local development, may lead to an entrepreneurial and growth-machine type of governance, typical of the United States (Logan and Molotch 1987), while in the UK and Canada the fiscal system is more centralized, and local entrepreneurial governance may be driven by the incentive devised by the central government to allocate the budget on a competitive base.

The local government in general strives to keep local taxes low in order to attract investment while depending on the transfer of central/upper-level funds to cover government spending on public services (see chapters 1, 11, and 13 in this volume). China, however, is quite unique in its local government finance.

China operates a centralized system where the central government and local governments have separate tax systems (known as *feng shui zhi*). Established in 1994 to cope with the declining central tax income after economic devolution, the central government set up its own tax base, leaving the local government 25 per cent of value-added tax. But the local government receives business tax. Along with economic devolution, the central government managed to download social expenditure and public service expenditure to the local governments, creating a fiscal deficit for local governments. However, the local government is able to develop land to increase its revenue from land sales. Land development profits became the major driver for suburban land development. Because there is virtually no property tax (except some limited fees for infrastructure construction), the local government is less interested in serving existing residents and more interested in new land requisition and the transfer of its use from agricultural to commercial and residential uses. In addition, property development can generate business tax from service sectors. However, in order to maximize income from commercial and residential land sales the local government needs to expand local economic activities. The local government tries to provide the land for industrial development at a lower price so as to enlarge the economic base.

The institution of public finance provides a strong incentive for the local government to develop and sell rural land. Owing to the unique urban-rural land-tenure system that grants the local government much stronger power in acquiring the land from rural areas, suburban land development becomes the most effective way to generate land revenue. In other words, Chinese municipalities control the entire rights of development of rural land within their jurisdiction boundaries. The farmers own their land collectively, which means they cannot sell the land directly to the users but have to transfer ownership to the municipal government. The municipality has the power of compulsory purchase to obtain rural land for urban development. But in order to conduct land development in suburbs, which is usually very costly, there has to be a third component in place: development finance. Without state

support in development finance, large-scale suburban development is unlikely to occur based purely on commercial terms.

An institution innovation in development finance is the creation of state-backed “investment and capital mobilizing platforms” (*touzi rong-zi pingtai*), which are state-owned enterprises formed to borrow money from the bank. In order to secure loans the investment platforms have to possess some assets. In fact, the most effective investment platforms are land corporations, which own the land. Pioneered in the development of the new suburban district of Pudong in Shanghai, a model of “virtual capital circulation” was created. The land corporation had no capital to develop suburban land but, using the land as collateral, it managed to draw capital from the bank system. After land development, the profit was used to pay back the loan, and the land corporation managed to complete the circulation of capital. This meant that the government could start up development without initial capital. Because the land corporations are backed by the local government and based on the credit of that government, the liability of “commercial” suburban land development is thus transferred to the government. It is estimated that local government debt could amount to 20,000 billion Yuan (Katz 1994). The fluctuation of property markets could seriously jeopardize local government finance. Figure 6.1 shows the components of the Chinese suburban growth machine, which lays down the basic foundation of the suburban land question in China.

Processes of Suburban Development

Having identified the institutional set-up that forges the Chinese suburban growth machine in the previous section, in this section we will follow the theoretical framework proposed in Harris and Lehrer (chapter 1 in this volume) to examine the processes of suburban development. In particular, we examine three related issues: the degree of informality, the source of suburban residents, and the drivers of economic restructuring. First, informality, in the context of development, refers to informal development that does not conform to government regulation (Roy 2005, 2009). This form of irregular growth is widespread, not just as squatter development, but also as middle-class private housing areas where privatization and exception of government regulation allow for the contravention of formal regulations. In short, according to Roy (2005), informality is now a mode of metropolitan urbanization. It happens in different contexts, for example, as mafia

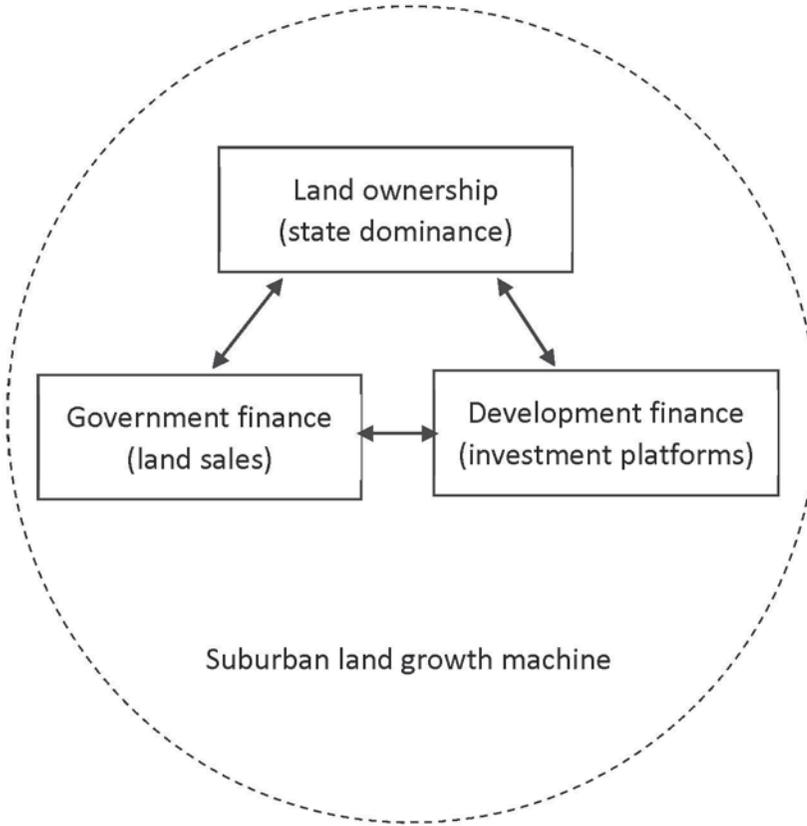


Figure 6.1 The Chinese suburban land-growth machine. Diagram: Fulong Wu

developers in India (Weinstein 2008) or pirate development and subdivision in Latin America (Doebele 1987; Gilbert 2007). In peri-urban areas Chinese urban villages exhibit four sources of informality: the dualistic and fragmented land ownership, lax land management and development control, informal service provision and management, and marginal and ambiguous status of village governance (Wu, Zhang, and Webster 2013a). The sources of informality are derived from the fact that rural land is largely outside the state's domain and hence has not been regulated in the same way as the state lands inside urban areas.

The process of suburbanization is a way to convert the rural land outside the state domain into a manageable state asset that is sold in the land market. Large-scale suburban land development in Chinese cities is highly regulated, follows a blueprint, and is often developed as a packaged mega project. Therefore, new suburban developments, especially industrial development through industrial parks and residential developments targeted at the middle class, take the form of formal development. On the other hand, the residual area that the formal land development could not cover (e.g., small land parcels, places near railway lines and under electric corridors), are left to informal development. Sometimes the pragmatic practice of land requisition contributes to the source of informal development. For example, to reduce the cost of monetary compensation local governments such as Guangzhou or Foshan allow some agricultural land to be developed into assets under village control. This collective ownership is subject to little formal development control and hence strengthens informality. The informal land development in Chinese suburbs is complementary to more formal, state-sanctioned land development.

Second, in terms of sources of suburban residents, Chinese suburbs see a mix of processes of urbanization and suburbanization. In addition to the outward movement of residents from central areas, the suburbs are also workplaces for rural migrants. The proportions of these two groups vary according to different locations and distance to the city. The development of gated estates and new towns also attracts people from smaller rural villages and towns in the suburb, as in Songjiang New Town in Shanghai (Shen and Wu 2013). In terms of the demand-side explanation, the suburb is not just a home for the upwardly mobile middle class to experience a dream of the good life, but also a workplace for rural migrants from the countryside to earn a living in the city. There are three main groups of suburban residents according to their origins: migrants from other places, residents relocated from the central city, and local natives living in either rural villages or small towns. While detailed data are not available to suggest their proportions, the relocated residents are dominant in housing near the metro station, while in the old town of Songjiang local natives are the main social group. For homebuyers, exclusive residential land use, green space, and high-quality amenities are important factors (Pow 2009; Wu 2010; Shen and Wu 2013). In addition to the quality of housing and living environment, investment in property is another motivation. Faced with a buoyant housing market and inflationary pressures since 2000, middle-class

households have found investment in property to be a major way to preserve their wealth. Because of different demands the suburbs see the contrast between villas and apartments and between white-collar suburb, migrant suburb, and suburban new town. For white-collar suburb, typically built to a higher standard and a lower-density style, residents such as local civil servants, who are in a more advantageous position in China, are driven by the quality-of-life choice. For migrant suburbs, the attraction is due to cheaper rent and access to their workplaces. For suburban new towns with high-rise apartment buildings, in addition to older residents relocated by infrastructure and urban redevelopment in central areas, younger professionals choose the location because of cheaper housing.

Third, suburban land development is also driven by economic restructuring and the relocation of industries from central to periphery locations. In addition to a demand-side explanation, the supply-side explanation helps in understanding the role of the local government in developing industrial parks and extracting land-development profits from suburban expansion. China's economic development has been driven by fast industrialization. The growth of manufacturing industries, especially under foreign investment for the production of global economies, has increased the demand for industrial space. Because the central area is too expensive and lacks large land parcels, the new economy is exclusively enlarged through development zones and new towns; for example, the suburban district of Jiading in Shanghai is built around automobile industries and the creation of an "international automobile town." The Songjiang district of Shanghai has attracted universities and electronic manufacturing industries. The development of suburban industries created job sub-centres and led to the decentralization of the economy. This development is partially supported by the government's policy of restructuring the economy of large cities in China, for example, for Shanghai to build itself into the international economic, financial, trading, and shipping centres (the so-called four centres of Shanghai, which strives to become a global city).

Patterns of Suburban Space

In terms of suburban development patterns, Chinese suburbs demonstrate three salient features: the spread of suburban high-rise buildings; a high degree of heterogeneity in terms of ownership (owner-occupied housing versus "private rentals" – farmers' housing rented to migrants)

and building forms (e.g., the villa vs. apartments); and significant industrial development. First, the suburban high-rise buildings are the usual form, and single-family housing is limited. In contrast to the standard single-family suburban sprawl in North America, the most common form of suburban development in China is the “new town.” These new towns are planned suburban residential areas, often combined with large-scale industrial development and development zones. The absence of single-family detached houses is perhaps because it is difficult to build exclusively car-dependent suburbs. China has recently seen rising car ownership, but increasing automobile mobility is synchronized with the development of suburbs rather than as a pre-condition for suburban development. The growth of suburbs in this context is almost inevitably dependent upon the support of the government to build efficient roads and public transit to the suburbs. Large-scale informal suburban development is rare. Suburban land developments are combined with large-scale urban projects supported by the government as part of the overall structural transformation of urban areas. For example, another common type is the building of “university towns,” a type of new town built for students and employees of universities relocated from the central areas. Because of the expansion of student recruitment in the 2000s Chinese universities required additional space. In the mid-2000s the land needed for universities was treated as “educational uses,” which could be released more easily and at a lower price. This gave the government an opportunity to attract universities into the suburbs. As a consequence, large suburban new towns built around a university campus have been developed. These university towns are wholly planned, usually with shared public space and facilities for several universities in addition to their own campuses. In Panyu District of Guangzhou, for instance, so-called Guangzhou University Town is a typical cluster of ten universities and 300,000 students with a total land area of 40 km².

Second, Chinese suburban space is strongly bifurcated by different building forms and ownerships. Different building forms are obvious, but even for the same style of building, there might be different ownership types. For example, some rural villages in Beijing built high-rise residential buildings that are indistinguishable in appearance from other commodity housing estates (Figure 6.2). The only difference between housing in the formal market and village-built housing is their different ownerships. Housing built by farmers or their collectives belongs to “partial property right housing” (*xiao chanquan fang*).



Figure 6.2 “Informal” village housing built for an unauthorized housing market in Beijing, China. Photo: Fulong Wu

The notion of “partial” refers to the fact that the land is still legally under the rural collectives and has not been converted into official urban deeds. The Chinese suburbs see a wide spectrum from formal to informal housing. The partial property right housing is built for sale. But the housing in “urban villages” – rural villages encroached on by urban expansion (Wu, Zhang, and Webster 2013b) – is built mainly as informal “private rentals” to receive rural migrants. This is a result of fast urbanization and an influx of migrant workers into cities. The housing of new migrants is not considered in the government housing provision system. Neither can rural migrants afford the “commodity housing” built formally through land sales. The housing built by farmers in “urban villages” fills the gap between public and commodity housing and suits the preference of migrant workers who wish to minimize their costs (Figure 6.3). The quality of village rental housing is generally lower than standard commodity housing, but it evolves as the demand for facilities increases. For example, many apartment buildings are now equipped with an internet connection.



Figure 6.3 An urban village (Zhu Village) in Guangzhou, China.
Photo: Fulong Wu

Given the normal standard of high density in Chinese cities, lower-density detached housing enclaves in the suburbs are exclusively for the rich. Some choose them as a lifestyle preference, but more use the house as second or holiday homes. In terms of the lifestyle preference, the new rich pursue these places in the context of a rising awareness of the aesthetic quality of the built environment (Pow 2009; Wu 2010; Shen and Wu 2012). To suit their preferences, real estate developers actively promote an imagined Western life as a marketing tactic. Some projects use Chinese traditional styles, but such structures are not common. Some even create a residence wholly engineered to replicate Western style. For example, Thames Town of Shanghai was developed using a model of an English market town (Shen and Wu 2012). The contrast is sharp between highly functional village housing and heavily decorated dwellings (often in Western styles) in gated communities.

Third, the Chinese suburbs see a significant proportion of industrial land uses. In fact, as discussed earlier, large-scale suburbanization in China has been supported by the government and led by industrial

development. Large-scale residential sprawl without accompanying industrial decentralization was absent in China. In a sense, contemporary suburban land development in China is similar to “post-suburbia” (Phelps and Wu 2011), which refers to the phase after residential suburbanization. Post-suburbia is characterized by the creation of a suburban economy and the retrofit of low-density residential suburbs. However, in North America the growth of a suburban economy is largely associated with post-industrial development. The concepts of edge city (Garreau 1991), FlexSpace (Lehrer 1994), and metroburbia (Knox 2008) are seen as the development of office space outside the downtown. In contrast, Chinese cities are still in the stage of industrialization, and suburban land development is heavily driven by the demand for manufacturing industries. As China is becoming the “workshop of the world,” its suburban space is a product of both globalization and local development. The result is that Chinese suburban land development is characterized by the emergence of industrial development zones. For production services there is still a strong centripetal tendency in the city of Guangzhou (Yi, Yang, and Yeh 2011). However, business parks may appear as a specific tactic of government-sponsored local development. For example, in the city of Kunshan near Shanghai, a business park (Huaqiao Business Park) has been deliberately created as an edge city of Shanghai to capture back-door office jobs, although like Tysons Corner outside Washington, DC, the edge city of Huaqiao is outside the jurisdiction of Shanghai (Wu and Phelps 2008). The slogan of Huaqiao Business Park is to develop a “business satellite town for globalizing Shanghai.” The economy is oriented towards the following four pillar industries: the regional headquarters of manufacturing industries, back-office and data processing of financial organizations, information technology outsourcing and business process outsourcing, and logistics and purchase centres. Other examples include the development of the Beijing Economic and Technological Zone in the new town of Yizhuang on the outskirts of Beijing, where an office park has been built as part of an overall development strategy, especially for small- and medium-size enterprises that demand cheaper space but within purpose-built buildings (Wu and Phelps 2011), and Zhangjiang High-tech Park in Shanghai Pudong with a cluster of biotech and integrated circuits R&D (Zhang and Wu 2012).

Because manufacturing industries drive the development of suburban economies, for the development zones or industrial parks there is an issue of mismatch between jobs and housing. The suburban industrial parks see the concentration of jobs, but there is insufficient affordable

housing for industrial workers. Some have to commute from the central area and other suburban areas. More jobs than homes are available, leading to an increasing separation between workplaces and homes. As a result, city planners are asked to “balance job and housing” (*zhizhu pingheng*) or to “integrate industries into the city” (*chancheng ronghe*) – literally, to identify more land for residential uses.

Planning the Chinese Suburbs

What is the contribution of China’s planning system to its suburban land-development processes? Does the land-use planning system effectively manage and control the speed of urban expansion? Any answers must consider different scales of governance. At the national level there is no specific urban policy that affects the process of suburbanization. The most relevant policy is the protection of agricultural land by the central government. Concerning food security, the central government has set up a redline policy of 1.8 billion mu (equivalent to 108 million hectares) “basic agricultural land,” which forbids the conversion of the designated basic agricultural land into non-agricultural or urban uses. In addition, to control the speed of land development, the policy is implemented through land-development quotas, which are issued annually by the central government (Ministry of Land and Resources) to local governments. In theory, the policy might constrain the speed of urban expansion as the suburban land surrounding the central city is usually used intensively as agricultural land for vegetable production. But the policy has some flexibility. That is, the protection of agricultural land is enforced with the quantity, not the actual uses, of particular land parcels. In this sense the policy of designated basic agricultural land is implemented through “indicator management,” which is different from the practice of “land-use planning” in other countries. This policy then gives the local government a chance to manipulate land use by developing the most accessible and profitable land near the city and balancing the quota by various efforts such as converting some non-agricultural land in more remote areas to agricultural land. As a result, while the national policy may affect the overall speed of land development, it could not effectively regulate the expansion of urban land in suburban areas. The local government thus has some discretion on how suburban land is developed.

The most significant national policy that affects suburban land development is the tax-sharing system, as discussed earlier, which allows

the central government to collect the most taxes and decentralize some expenditure to the local government. The fiscal gap is then left to local governments to fill from their “entrepreneurial” engagement to sell state land to gain the revenue from land development. Land revenue becomes an important source of income for local governments (Tao et al. 2010). Therefore, local governments have strong incentives to promote suburban land development. At the local level the planning system plays an important role in encouraging rather than controlling urban expansion. From strategic urban plans to urban master plans the system holds an expansionist approach in suburban development. Strategic urban plans often propose some ambitious new development by setting up a development zone, creating a new growth corridor, or annexing rural counties into new urban districts so as to open the space of growth, while the urban master plan is used to prepare the land use of new towns and urban design creates a more specific image of new town. At the city-region level the urban system plans often encourage the development of vast rural areas between two nearby large cities. For example, Xi’an and Xianyang have proposed a new development zone called Xi-Xian New Area. Guangzhou and Fuoshan have formulated a strategy to link up through intercity integration (*tong cheng hua*). In the east of Zhengzhou a brand-new area has been developed called Zhengzhou East District. It was designed by the renowned Japanese architect Kisho Kurokawa, who master-planned a water landscape by creating an artificial lake surrounded by a ring of skyscrapers. In suburban Shanghai, Songjiang New Town is built with relocated university campuses forming a university-town. To add to its attractiveness, Songjiang New Town asked a British planning firm, Atkins, to create an English market town called Thames Town (Shen and Wu 2012). Land-use planning in the context of rapidly growing Chinese suburbs is used as a tool to promote suburban land development. Place marketing rather than development control is the major function of planning (Wu 2007). Place marketing includes, for example, the creation of an artificial and attractive place name. Planners are asked to borrow examples from new town development in Singapore or the UK to create a brand for otherwise unknown agricultural fields in the suburbs.

In this sense, although suburban land development in China uses the market approach (e.g., the involvement of land developers), the process of development is not entirely informal but rather initiated by local planning policies. It is interesting to note that this approach is not a

“deregulated” neoliberal approach, because planning still plays a rather active role in suburban land development, similar to the overall development approach in China. In many aspects the status of planning has been strengthened rather than reduced. But the role of protecting agricultural land and rural communities is rather weak, because the planning system in China is always state led and top down. Since economic devolution local governments have begun to dominate the process of land-use planning and turn it into a device of place promotion (Wu 2007). The weakness in development control is due to the marginal position of neighbourhoods or farmers’ villages in this process of land development. In other words, residents are not able to influence the planning system to resist land development imposed by municipalities. Confronted with the rapid pace of development and incapable of directing the future course of development, local farmers themselves try to develop the land in various informal ways – for example, self-building the land into private rentals or leasing the land to small developers – when opportunities arise to benefit from development. This has resulted in a patchy pattern of development and a juxtaposition of contrasting landscapes of gated communities and the urban villages lived in by rural migrants.

As discussed earlier, China’s urban and rural areas are subject to different land-use managements, although the Urban-Rural Planning Act of 2008 tried to extend urban land planning to rural areas. In general, traditional rural land management is laxer, and the monitoring of development and enforcement of development control is understandably less effective. The weak position of rural land management and the power of farmers in rural areas make it easier to develop land in rural areas rather than in urban brownfields. Master-planned new towns implemented by the local governments are a favourable approach to land development. Very often these new towns are proposed as a compact form of development, similar to “new urbanism” in the United States (Katz 1994). The density of Chinese suburbs is generally higher than that of their counterparts in the West. It is not unusual that new development can comprise residential buildings of up to thirty floors (Figure 6.4). The suburban land development of homogeneous single-family houses is rare or constitutes only a small proportion of larger developments. For example, in Shanghai’s Songjiang New Town, with a population of 800,000, only a small area of 1 km² of Thames Town has a low-density form of detached houses or so-called villas.



Figure 6.4 Suburban housing in Jiading District of Shanghai, China. Behind the villa-style housing are the “ordinary” suburban high-rises widely seen in Chinese suburbs. Photo: Fulong Wu

Different Perspectives on the Paradox of Suburban Land Development

Suburban land development in China can be seen from three perspectives: suburbanization as the development and conversion of the way of life, suburbanization as an outlet for capital investment, and suburbanization as a process of economic and technological development. This section will discuss these perspectives and how applicable they are to the Chinese context.

First, suburbanization can be seen as the development of a distinctive way of life between the city and countryside. The concept of “Garden City” deploys the combination of urban and rural as an advantage of smaller communities in the peripheral urban areas. The classic concentric urban model features the differentiation of lifestyles along with the

changing distance to the city centre. Urban land economics explains this variation by noting the different preferences for land value and transport (commuting) costs. While the inner urban area is becoming urban, the peri-urban area, juxtaposed with rural and urban uses, is becoming suburban in the United States (Hanlon 2010). At the same time, the suburban life is accompanied by lower-density, single-family housing and gendered division of labour and, to a greater extent, separation of family life and workplaces (Beauregard 2006). Is this lifestyle explanation applicable to Chinese cities? The Chinese suburb attracts a diverse population: rural migrants to the cities, local residents originally living nearby in the rural area or small towns, and residents relocated from the central city (Shen and Wu 2013). While some inner-urban residents are relocated by government redevelopment programs and hence are not driven by lifestyle choice, the upwardly mobile middle class has become more conscious of the suburban living environment – especially the quality of the built environment in lower-density villa areas. In gated communities security and landscaping quality are attractive features (Zhang 2010; Pow 2009; Wu 2010). Those residents who want to move to the suburbs pay more attention to the quality of living environment and housing conditions. However, richer residents may not physically relocate to the suburbs but just “consume” the suburban lifestyle on weekends and holidays, as many houses are bought as second or third properties. In contrast, the move to the suburbs of rural migrants is almost always determined by jobs: the development of industries in Chinese suburbs offers a source of low-paid, labour-intensive employment. Migrants live in rental apartments rather than owning homes, a situation that is different from Americans living in “ethnoburbs,” where ethnic groups become homeowners (Price 2012).

Second, the suburban development could be perceived as an important “spatial fix” of capitalist development from the radical political-economic point of view. Linked to the seminal idea of capital switch and the circuits of capital (Harvey 1985), suburbanization is read as an important outlet for capital to cope with over-accumulation and the dilemma of socio-spatial development. The suburban land development in the United States has been supported by federal urban and economic policies to boost post-war housing consumption. This reading has not been adequately explored in the Chinese context, but it is sufficient to suggest that the development of suburbs plays an important role in facilitating the transformation of Chinese cities. As a consequence of

buoyant housing markets Chinese cities are increasingly driven by investment in land development. The building of commodity housing and intensified suburban land development are associated with the strategy of the state to cope with the Asian financial crisis of 1997 and the global financial crisis in 2008. The two crises have forced the state to adopt more aggressive investment approaches to boost domestic consumption to compensate for the decline in exports. Suburban land and housing have been seen as an important investment outlet for sustaining capital circuits.

Third, suburbanization can be interpreted as the process of economic decentralization from the central location to edge cities (Garreau 1991), together with the technological changes that make suburban locations a possible place for innovation and business (Fishman 1987) and with the outward movement of populations. This view seems to fit Chinese suburban economic development, as the establishment of economic and technological zones in the suburbs has greatly transformed the landscape of Chinese cities. China's suburban expansion is largely driven by foreign direct investment in factories and export-oriented industries. The improvement of road infrastructure and intercity railways makes it possible to choose exurban locations for new industries. Recent emphasis on "indigenous innovation," the shift towards higher ecological-quality business parks, and the development of "eco-cities" have further facilitated the outward movement of economic activities. For example, Shanghai's Zhangjiang high-tech park is located in the new development area of Pudong, away from the more mature areas in the downtown (Zhang and Wu 2012). Further, the park has now been scaled up to become a nationally designed cluster of high-tech developments comprising one central zone and eighteen other parks across municipalities, which has stimulated Shanghai's suburban economies. Through suburbanization a polycentric urban structure has emerged in Chinese cities (Feng, Wang, and Zhou 2009). The relocation of universities from central areas to the outskirts and the development of new campuses in the suburbs have also been an important driving force in post-industrial suburban economic changes. The growth of industrial and services economies in the suburbs show that China's new round of suburbanization has a much more complex pattern than homogeneous residential dispersal. Terms such as FlexSpace (Lehrer 1994), metroburbia (Knox 2008), and post-suburbia (Phelps and Wu 2011) attempt to describe these new patterns of suburbanization in

association with a metropolitan-wide spatial reconfiguration of work and residence.

Conclusion

Chinese suburban land development is largely state sanctioned. The state owns the monopolistic right in the acquisition of rural land and releases the land to the market. Other forms of informal suburban land development, for example, spontaneous conversion of farmers' land into private rentals in "urban villages," are not officially recognized. In the state-endorsed land market there are multiple forms of suburban development, including industrial parks, university towns, shopping malls, and large gated estates. The newly built estates under the name "commodity housing" attract residents from central areas. Some of them are relocated by urban redevelopment in the central area for commercial and office uses. Others are attracted by lower house prices in the suburbs. A few have even bought suburban houses for the quality of the environment. However, most villa owners use them as second or third homes, as investments, or for holidays. In contrast, in peri-urban areas urban village housing accommodates rural migrant workers in factory dormitories. In this sense Chinese suburban development is a result of both suburbanization and urbanization, where industries are developed and the working class is formed in addition to the relocated middle class.

The development of suburban land is a process of formalization of land tenure, although there are various forms of informality in Chinese peri-urban and rural areas (Wu, Zhang, and Webster 2013a). The urban rural dichotomy is a division between the state and non-state systems. The urban belongs to the industrialized state system, while the rural is a largely self-sufficient and self-dependent non-state system. The extension of the formal state system into the rural areas creates a juxtaposition of different forms of land tenure. The contrast between urban villages and commodity housing estates includes not only the differences in landscapes of irregularity and enclosure, but also their different forms of land tenure. While Harris and Lehrer argue that "suburbs constitute one of the main places in which market capitalism is penetrating and expanding" (chapter 1 in this volume, **[page number at proof]**), the Chinese suburban land question indicates that the route of becoming (sub)urban is controlled by the state. Chinese suburbs will continue to reveal the complexity of land questions.

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