

China's Urban Housing: The Review of Three Housing Typologies and Patterns

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Abstract

During central-planning economy system the state socialist economies provided an equal public housing to urban citizens. As a result, the urbanism landscape was typified by a mixture of land-uses but with a homogeneous neighbourhood (Danwei compounds).

Several scholars have noted that with the current housing reform (market oriented), the homogeneous system has been broken into many different residential housing, and as a consequence, the social divisions are more obvious. In fact, China's urban scenery is growing by various landscapes and is comprised of the specialisation of land-use with multi-nucleation, district specialisation, zoning planning and residential communities. The new spatial order has then created social problems such as the privatization of the urban space, labelling of social classes, residential segregation and gentrification phenomenon. While from the socio-spatial differentiation point of view, the residential differentiations cannot be denied, the fact is that, a homogenous phenomenon has emerged in the current transformation of urban landscape with new forms and patterns. This homogeneous model is produced, in part, through the processes of comprehensive urban renewal and the real property-led redevelopment. The model is characterized by the replacement of dilapidated dwellings with high-rise commercial apartment buildings at the expense of displacing most of the local residents.

In the context of China's urban housing transition, this paper explores how the recent trend of urban planning and urban renewal in Chinese cities has resulted in predominance of a homogeneous model of housing: replacement of dilapidated dwellings with high-rise commercial apartment buildings. Through the analysis of three housing patterns: 1) urban village; 2) affordable housing; and 3) gated community, this study examines their characteristics, differences and problems.

The results from the comparative analysis illustrate the Chinas' challenge in its current housing reform. In particular when China's ongoing housing transition is looking to move from one model housing system (one work unit- one market) to a dual track model named "Affordable & Commodity Housing Parallel System". This paper highlight the challenges of this model which aims to preserve the commodity nature of the urban housing, while provide affordable housing for low income families.

Key words: urban, housing, China, housing pattern

Introduction

In the current third stage of China's housing reform, Chinese cities are undergoing a dynamic process of urban restructuring, leading a tremendous impact on land appropriation for urban growth, redevelopment, and the reorganization of social groups over space. The third stage of the housing reform has developed the free market as the main channel for the provision of residential housing. Within this transition process, the residential pattern has completely changed the spatial quality of urban housing and urban living.

Research on housing patterns in China has focused on three main topics of 'housing reform policy' (Wang, 2011; Man et al., 2011), 'socio-spatial pattern of Chinese cities' (Liu et al., 2014; Song and Wu, 2010; He and Wu, 2006; Gaubatz, 1999; Madrazo 2012), and 'individual residential units and affordable housing' (Yang and Chen, 2014) including urban villages or Village in the city (ViCs). However, only few have so far comprehensively analysed different housing patterns of Chinese cities. Therefore, this study aims to evaluate the complexity of housing pattern and the homogeneous model that has been predominantly in large urban cities.

This paper has three specific objectives. First, this study provides an analysis of the structure of urban housing patterns in contemporary Chinese cities adding substance to an understanding of how the new urban development plan and housing policies are shaping the pattern of China's housing. Second, the study focuses on three different typologies of housing as examples to observe different challenges of spatial differentiation in Chinese cities. The final objective is shed light on the current's issue of urban housing transition and one of its major challenges.

Housing Reform and Three different housing patterns

Prior to 1978, urban housing was a part of the socialists' welfare system and the work unit (danwei) allocated housing free of charge to employees and their families. The housing reform in China began in 1980 had an initial goal to solve problems resulting from housing shortage and poor quality and overcrowding housing.

In the current third-stage of housing reform (1999-2006), the plan aims to realise housing commercialisation according to the principles of a socialist planned market economy. However, the government is facing other major issues, such as, inflated housing prices,

affordability, bubbles and shortages. One of the results of this urban renewal market oriented is a residential pattern very diverse, such as ViCs, Affordable Housing and Gated Communities. These three different residential/housing vary according their location, demographic characteristics and socio-spatial pattern.

1) *Village in the City (ViCs)*

The shortage and absence of affordable housing for poor communities has led the emergence of village in the city (ViCs), known as Chinese slums. ViCs are then become one of the important features of Chinese cities' socio-spatial differentiation. There are nearly 867 urban villages in Beijing (Mangurian and Ray, 2010) and more than 200 in Guangzhou (Lin and De Meulder, 2012). Shenzhen's 318 urban villages accommodate half of the city's 14 million inhabitants (Zacharias and Tang, 2010). Given the complex institutional structure and the newly phenomena, different approaches are adopted depending on the assessment of costs and benefits, resources and political implications (actively supports, promotes, utilizes tolerates and overcomes) (Schoon & Altrock, 2014). China has launched some affordable housing programmes, including the 'Peaceful Living Project (PLP)' programme, the 'Economic and Comfortable Housing (ECH)' programme, the 'Cheap-Rent Housing (CRH)' program, the 'Price-Cap Housing (PCH)' program, the 'Public Rent Housing (PRH)' program, and the 'Social Housing' program (Zou, 2014). However, these programmes have failed to meet the target of housing demand and have excluded the major urban work force, i.e. the rural migrants. For instance, in terms of the housing management system, housing is still directly allocated to public officials and workers who are employed by large state owned companies (Zhao and Ge, 2014; Ya, 2011). This means that the dual structure system characterised by co-existence of redistributive practices as socialist legacy and emerging market mechanism, still plays a key role in residential location, housing tenure, and housing quality. In addition, all these social housing programmes are only accessible to local residents and few migrants as the main beneficiaries, since the criteria includes to have a steady job and holder local Hukou (Lin et al., 2014; Wu, 2004; Zhao, 2013; Yu and Cai, 2013).

All this characteristics such as location, demographic characteristics and socio-spatial patterns can be seen in the case of Xiushui Community. It is one of the two remaining old residential districts of the City of Ningbo, China (figure 1). With a total area of 5.73 hectares,

this traditional residential district includes around 2,700 housing units, a combination of both formal and informal buildings. The overall population of the area is estimated 7,000 people, with around 4,700 as non-permanent (i.e. rural migrants) or non-native residents. This housing area is a typical ageing community with at least 1,800 elderly. The whole area has about 2,000 registered residents, providing us the fact that this area includes many low-income rural workers. The whole area is comprised of houses, commercial streets, communal spaces and on-street markets. Such housing pattern is vanishing from China's urban landscapes as such communities are in long-term deprivation. Although very liveable and planned in a mixed-use setting with sufficient access to nearby areas, there are no inner green landscaping and facilities for the residents.



Figure 1 – Approximate setting of the Xiushui District, Central Ningbo, China (Source: from final year architecture students' work at the University of Nottingham Ningbo China, Autumn 2014)

The Floor Area Ratio (FAR) of this type of housing area is often very high, approximately between 3.0 to 5.0 (or even more in extreme cases). The spatial arrangement is organic with a combination of internal and external networks. There is lack of greenery within such housing areas and many informal spaces are introduced by the residents. The Surface Coverage (SC) is very high with narrow roads and paths between the units. The density is often very low, with most buildings ranging from 1 to 6 floors. In here, we can map traditional courtyard houses, vernacular town/village houses and buildings from both Ming and Qing dynasties. The two future development possibilities for such housing areas are either renovation (for preservation and commercialization) or redevelopment (for new

housing areas). Since Xiushui community includes many protected buildings, the former is expected.

ViCs are not a new phenomenon in China. In fact, they are result of the lack of public housing for poor communities and the Hukou system. Under the current renewal strategy, ViCs are expected to disappear and be transformed into residential compounds and commercial housing. However, the demand for cheap accommodation will still exist, and since the redevelopment projects are strongly related to the state developer projects, the major problem of providing housing for poor communities is still unresolved.

2) Affordable Housing

Started in 1988, the abolition of the work unit-based welfare oriented housing system was a milestone in China's urban housing reforms. This policy conveyed that subsidised workplace housing would no longer be provided by the Chinese government. One of the consequences of this tendency was the emergence of housing affordability as a serious challenge.

Affordable housing varies across region, populations, professions, and cities/municipalities. For example, new affordable housing projects in Beijing, a city with large amount of affordable housing, are clustered within three urban fringe districts (i.e. Changping, Fengtai and Chaoyang), which account for 81.51% of the total area of affordable housing (Chen et al., 2014). In Shenzhen, the pattern seems to follow the same trend. According to the Shenzhen City Housing Planning 2008-2012, within the planning period, the construction of affordable housing within the special zone was 23000 units, covering a building area of 1.2 million square meters. Consequently, the construction of affordable housing outside of the special zone was 124,000 units, covering an area building are of 6.2 million square meters (Fan Sun, 2009).



Figure 2 – Typical housing unit of BianZhouWei Area, Changsha, Hunan (Source: Ali Cheshmehzangi, 2011)

Figure 3 – The open spaces and facilities of BianZhouWei Area (Source: Ali Cheshmehzangi, 2011)

One example of affordable housing is the BianZhouWei housing area of Changsha, Hunan (figure 2). Similar to China's housing developments of 1980's and 1990's, parts of this housing district included low-cost mass housing construction. Starting from 2008, some of these housing units no longer exist since the new development of high-rise housing has taken place in the area. However, the pre-2008 condition of BianZhouWei housing area is a remarkable example of low-income housing targeting the low-income and new emerging medium class population. At the current time, of all housing units provided between 1970's to late 1990's, five blocks of 8 storey buildings remain in this area (completed in 2000); the rest are now replaced by new housing development, which are no longer affordable. These remaining five blocks are home to approximately 800-1000 residents, majority of whom were previously categorised as low-income. Each block of housing includes 7 floors of two-sided residential units, with minimal services and some storage provision on the ground floor. Each block includes 56 mid-sized units, which are divided in four sections of 14 units. These houses mainly represent the housing development pattern and urban landscape of 1990s' with a singular land-use (i.e. residential) and minimal provision of adequate landscaping and facilities. The Floor Area Ratio (FAR) of this type of housing is often 1.0 or less, with parallel design pattern and lack of green spaces between the buildings (figure 3). The Surface Coverage (SC) is less than the ViCs pattern, but is between 6 to 8 floors. Since the government has provided such housing units for the low-income people, the houses were initially subsidised for residents in the region working in the industrial zones of the area.

Contrary to new affordable housing, many old buildings, as BianZhouWei shows, are also expected to be transformed into residential compounds and commercial housing.

3) Gated Community or Small Residential Development (SRD)

Residential housing renewal have led to emerge of new community, in which gated community (Xiaoqu- residential compounds) (Tomba, 2005; Wei and Zhu, 2009) has become the standard housing pattern of the newly-built residential areas in Chinese cities. In spite of the variations, Chinese xiaoqu could be old and new, large and small, or modified work-unit housing estates, but they share one common design feature of being 'gated'. The newer xiaoqu are mostly commodity-housing projects built after 1990's. From 2000 to 2007, China completed 18 billion square meters of housing area, an average annual completion of 2.25 billion square meters, creating tens of thousands of residential neighborhoods, from affordable housing to luxury villas quarters. Within this period, gated community among urban renewal and new communities accounted for about 80 per cent (Wei and Zhu, 2009) of the new housing projects. By 2000, Shanghai already had 83 percent of gates residential areas. In the same year, the amount of gated community in Guangdong Province reached about 54,000. In 2006, the City of Wuhan had approximately 2,000 gated communities. Until 2008, more than 50 per cent of the residential areas in Wuhan implemented gated community management. Between 1998 and 2007, 340 residential areas were built in Nanjing main urban zone and 199 of them were gated communities (Wei and Zhu, 2009). These data indicate that gated community has become the predominant residential pattern in China.



Figure 4 - High-rise units of Yi Jing Cui Yuan Housing area, Guangzhou, China (Source: Ali Cheshmehzangi, 2011)

Figure 5 – A typical communal open space and cluster of mid-rise housing blocks in Yi Jing Cui Yuan housing area (Source: Ali Cheshmehzangi, 2011)

A typical model of gated community would include several high-rise, mid-rise and possibly few low-rise residential units, a podium of retail or commercial units at one or two sides of the block, covering two or three floors of non-residential units.

In here, a typical example of gated community is Yi Jing Cui Yuan housing area, located in the City of Guangzhou (figure 4). Built in early 2000's, this model of housing includes a variety of residential units (4-8 units per floor) at various heights and densities, communal spaces, open play grounds and internal public spaces for the residents (figure 5). This housing area includes a mixed housing provision of high-rise and mid-rise apartments. Such housing area, having all its units occupied, would often house around 3,000 to 7,000 residents, depending on the block size and density. The provision of retail podiums and a more mixed-use development on the edges of such housing development, help to create a mixed living environment with adequate accessibility to nearby amenities. Yet, such housing often encourages car ownership. This type of gated community development demonstrates a typical contemporary housing development pattern and urban landscape with a mixed land-use (i.e. residential with some commercial and retail) and substantial provision of green spaces and landscaped open spaces and facilities. The Floor Area Ratio (FAR) of this type of housing often reaches 3.0 or even more, with a mixed combination of building and landscaping pattern. The surface coverage (SC) is low but heights of buildings can reach up to 34 floors. This housing model is also a remarkable example of housing transition from traditional 6 to 8 storey housing (or even typical town housing) to dense blocks of mid-rise and high-rise houses.

In analyzing spatial differentiation phenomenon in China, some authors (Min et al., 2008) argue that gated community is one the three representatives' gentrification of Chinese cities (Min et al, 2013) and traffic congestion (Ren, 2013). Certainly, we can argue that gated communities are gated and might bring some socio economic differentiation between the urban habitants, however "gated" has been linked to the Chinese culture (it formed occupation-and family/clan ties among the member of family and collectives) and actually has been the result of new style preferences in the current housing market of China.

Discussion: China's Urban Housing Typologies and Patterns

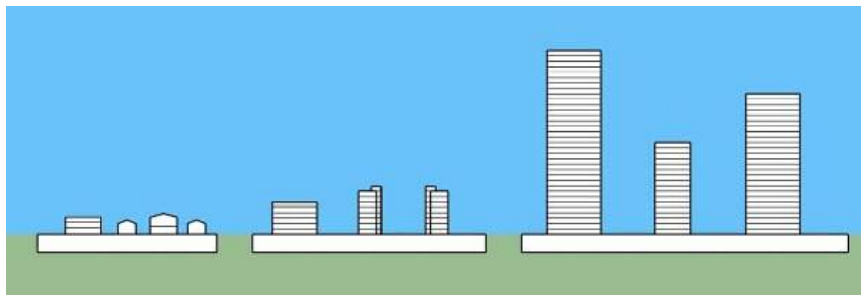


Figure 6 – A model of typical urban landscapes of the three studied urban housing typologies in China; left: low-rise and dense ViCs; middle: 6-8 storey blocks of affordable housing; and right: mid-rise and high-rise residential blocks of a gated community (Source: Authors' own).

Basic Characteristics of three types of residential

	ViCs	AH	GC
Space type	Residential -Old Traditional Neighbourhood	Residential -1990s Former Subsidized Housing	Residential Commodity Housing High-rise Apartments
Land Use	Mixed- Liveable	Single	Mixed
Location	Inner city historical District	Inner city Old building	Inner city District Gated Community
Openness	Open	Semi-Gated	Fully Gated
Project –Plan	Demolition	New- Old-Demolish	
Residents	Low Income resident, such as rural migrants	Low –Middle Income	Middle & High Class, privileged group
Quality & Conditions	Good Quality Bad Conditions	Bad Quality Bad Conditions	Good Quality Bad Condition *Dense
Case Study	Xiu Shui-	Bianzhou Wei	Yi Jing Cui Yuan

Table 1- Basic Characteristics of three types of residential

The growing demand of urban spatial restructuring has actually led a new socio-spatial mosaic with the predominance of homogeneous mode resulting in a similar district specialisation and zoning. Based on the context of several driving forces of housing changes in China, this paper identified the three housing categories to show the importance of this phenomenon in Chinese cities. This study explored the physical transformation of Chinese cities through the cases of ViCs, affordable housing and gated communities. While

distinctive in the socio-spatial patterns, demographics and location, their current spatial forms are being replaced by the renewal urban projects. This shows that homogeneous model (high rise buildings) has become the predominant housing pattern.

Although ViCs provide affordable accommodations for rural migrants and used to be more liveable in many Chinese cities, the majority of existing planning approaches of ViCs are based on a 'redevelopment' model; this means that it is often replaced by an extremely high-density residential and commercial complex. Most of the old Affordable housing units have also been redeveloped, and low-income residents have been dispersed and relocated to peripheral areas. China's gated communities are accepted more broadly by the local governments, developers, and consumers with characteristics of semi-enclosed structures, mixed land-use, economic homogeneity, social heterogeneity and strong management. At the same time, this housing typology represents a spatial privatisation and resident fragmentation with severe traffic problems. ViCs will be protected or demolished and transform into high-rise buildings? If the second option will take place, it means that the urbanisation goes against the traditional residential patterns? And since they are cannot afford commodity houses what will happen to this poor community?

New AF housings are taking the common high-rise building form and clutters patterns in the cities fringe, as the case of Beijing and Shenzhen show. By the contrary, old AF housing buildings which are located in the cities center, and still play an important role in the provision of housing to low-middle income families, are under the urban renewal trends of urbanisation in China. In fact, at present, AF housing is become actually very rare.

As the homogeneous model shows, gated communities seem to be the general trend in the urban landscape in China's cities, as a many other cities around the world, where gentrification has become the common urban landscape. However, the problem is how to keep different types of residences for different economic groups, and to avoid that gated communities become the only housing pattern. By doing so, Chinese cities will be more heterogeneous and will be able to integrate different socioeconomic groups, and the provision of public housing for each family can be guaranteed.

Although homogenous neighborhoods have disappeared during the 1990s, it has emerged in Chinese cities, but with different form and Challenge. This model has profound implications for the form and structure of China's cities.

First, it presents the contradictions and challenges of the government on housing inequality patterns in the urban housing reform.

Second, ViCs and AF are linked in terms of housing provision access. ViCs is a consequence of lack of public housing for rural migrants and low income families. Therefore, the predominance of this model has tremendous implications on the crucial issue of access to affordable housing.

Finally, the three studied urban housing patterns of Chinese cities reveal not only the complexity of urban inequalities in three different housing contexts. But it also has consequences on social integration. The predominance of a homogeneous model in Chinese cities indicates the difficult to integrate different socio-economic groups, since they affordable housing are being limited and ViCs are expected to be demolished. Cities' landscape must be heterogeneous in which different social groups can live together and create the construction of mixed communities, then enrich the cities' scenery.

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