LAND POLITICS, URBAN POVERTY AND EXCLUSIONARY PLANNING IN AN INLAND CHINESE CITY

A thesis submitted
To Kent State University in partial Fulfillment of the requirements for the Degree of Master of Arts

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May, 2014
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ACKNOWLEDGMENTS

I wish especially to thank the KSU Map Library for their generosity and alacrity in procuring me satellite imagery for this study.

I thank Dr. Dave Kaplan, my advisor, for his guidance and willingness to push me along. I thank the Geography Department for always being welcoming. I also thank my partner for being understanding when I worked late on this project.
Chapter 1: An Introduction

This paper seeks to answer the question, “What spaces does low-income housing occupy in the contemporary Chinese city and what role does it play in the planning and development goals of China’s urban and national leaders?” The Chinese government recognizes the lack of affordable housing as a potential cause of social unrest that undermines the connection between national economic growth and improved material conditions among the populace, upon which connection the legitimacy of the contemporary communist state rests (Lee and Zhu, 2006; Naughton, 2011).

Urbanization and economic modernization are the primary development goals of the Chinese state (Ma & Wu, 2005). From 1980 to 2010, the urbanization rate in China increased from 19% to 50% (World Bank, 2013). Including natural population growth, this translates into an increase in the number of urban dwellers from 190 million to 679 million (World Bank, 2013). Much of this has been driven by the migration of rural Chinese to urban areas, which reached 260 million people by 2010 (Shan, 2011). Students of urban China estimate that between 20 and 50 million skyscrapers will need to be created in order to house this new urban majority (Woetzel et al., 2009).

Within this rapid urbanization, informal development has not played a significant role in the development of Chinese cities and China has avoided the creation of shantytowns on
the outskirts of its expanding cities. A legacy of the country’s Communist past, Chinese municipal authorities maintain tight control over land-use decisions within their jurisdictions. Chinese municipal governments can also appropriate land from surrounding rural areas and bring it under their planning authority. This contrasts with growing cities in other parts of the developing world, whose sprawling informal development, due to lack of municipal control over land use decisions, has sparked fearful hand-wringing among some social commentators (Davis, 2006).

Despite a lack of shantytowns and informal development, Chinese cities are not free of poverty. Many sites of poverty are neighborhoods built before 1978, the year when China embarked on economic reform. Since redevelopment of urban spaces has been pursued piecemeal, site-by-site, these sites of poverty are spread throughout the borders of the pre-1978 city. This paper examines the role these sites of pre-Communist housing play in city plans in contemporary China. In addition this paper will examine the initiatives pursued by urban governments to provide housing to the urban poor.

1.2: Working Theory and Approach

In order to answer the question stated initially, this paper examines how existing and planned sites of housing reflect the claims on urban space made by urban stakeholders. These stakeholders include the city’s inhabitants as well as the government. Different types of urban inhabitants and different levels of government may make different claims on urban space. In this paper, I divide urban inhabitants into those whose financial
circumstances require low-income housing and those whose financial circumstances allow for other housing options. For this paper, I consider the claims of government both at the municipal level and the national level.

This paper examines the development goals regarding affordable housing held by a municipal planning office in China as well as the planning controls used to achieve those goals. These development goals are intimately connected to conceptions of urban modernity currently ascendant among China’s leaders. The planning controls used by Chinese urban governments have emerged in the peculiar combination of socialist governance strategies and market-based resource allocation that comprise “socialism with Chinese characteristics”. These goals and controls will be further enumerated and explained in the following chapter.

While I shall primarily examine the top-down goals of government at the municipal and national levels regarding development of low-income housing, I shall also touch upon the bottom-up goals of urban inhabitants, expressed as market demand for housing. The demand for low-income or luxury housing is of course predicated on the financial means available to different segments of the urban population. The power exerted by demand for luxury housing and low-income form a dialectic to which both municipal and national levels of government must respond.

This paper also examines the location of sites of pre-Reform housing in order to approximate the current location of low-income housing. I compare these current

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1 This is the term Deng Xiaoping used to refer to the Chinese economic system in 1978.
locations with intended sites of low-income housing, as put forth by the municipal planning bureau, to provide fuel for speculation about changes to the location of low-income housing in the Chinese city in the near future.

1.3: Study Site

Different regions of China have followed different paths of development. In general, cities in coastal provinces are wealthier than cities in inland provinces. This is largely because cities in the coastal provinces are the China of “Made in China”: their economies are largely export-oriented. The cities of inland China, whose economies are not as export-oriented and therefore did not participate in the same bout of wealth generation in the 1980s and 1990s, developed during the 2000s as production centers for domestic consumption. Perhaps due to their great importance in the global economy, scholars of Chinese cities have studied the developing urban forms of cities in coastal provinces extensively. This paper instead examines low-income housing in an inland city.

This paper shall use the recent experience of Chongqing as a representative site of urban development in inland China. Chongqing is a politically important city on the upper Yangtze River that is also the only directly-run, municipality level city in inland China (Fig. 1). Although of unusually large political power, the city is still representative of the many cities in inland China that did not develop as quickly as cities in the coastal

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2 There are four directly-controlled, province level cities (直辖市) in China: Beijing, Tianjin, Shanghai, and Chongqing. These cities answer directly to the national government and therefore wield more political power than most cities in China.
provinces and which do not participate in the Chinese export economy. Chongqing is still important economically. Located at the confluence of the Yangtze and Jialing Rivers, Chongqing is an important inland river port and has long history as a manufacturing center. While Chongqing Municipality is unusual compared to the other directly-run municipalities, its level of material and human development are similar to other cities of inland China. At the same time, Chongqing has earned a reputation for its proactive provision of public goods, including housing (Yang, 2009). These two factors made Chongqing a compelling location to study as it differs greatly from the wealthier cities along the coast, which are well represented in the English-language literature.

Fig. 1: Location of Chongqing and other province-level cities in China
1.4: A Glimpse Ahead

Chapter 2 will be a review of the some of the previous research and literature that underlie and inform this paper. It contains a review of the literature surrounding urban economics, morphology and development in China and other (post-)socialist countries. I will engage with relevant theories of urban development and morphology generated in the Western context that maintain explanatory power in the Chinese context. The chapter opens with an exploration of the role of urbanization in state economic policy in China and other socialist countries, with the work-unit compound playing an important spatial role in the Chinese city. I then discuss the more specific question of land politics in for local governments in modern urban China. Following this will be a discussion of the housing provisioning systems of Maoist and Reform Era (1979-present) China. I shall finally take a step back from examining urban governance and regard the social and physical divisions that have grown increasing apparent in Chinese cities over the last several decades such as housing segregation by wealth, the deconstruction of work-units and the construction of exclusive housing for the wealthy with private amenities.

Chapter 3 will turn to the examination of the existing urbanscapes in Yuzhong District, the most central urban district in Chongqing Municipality. First, I shall use photographs of sites of wealth and poverty in Yuzhong District to probe the changes occurring in urban morphology due to redevelopment and urban land politics. I shall then examine some of the several plans that are used and presented by the city of Chongqing. First I shall discuss the goals vis-à-vis social housing in the master plan, a paper document that
orients the developmental goals of the city in broad terms, then I shall outline the displays of the Chongqing Planning Exhibit to see how the municipality presents its plans for the redevelopment of central districts and what these plans reveal about housing poverty and the provision of social housing.

Chapter 4 examines Yuzhong District using satellite images from 2002 and 2010 to discover changes in locations of pre-Communist housing. (Pre-Communist housing, as shown in Chapter 2 and seen up close in Chapter 3, are nearly uniformly low-income housing.) I will map all locations of pre-Communist housing by hand. I will distinguish three distinct forms of pre-Communist housing in Yuzhong District, 1) central city housing composed of the remnants of pre-Communist Chongqing, 2) housing perched on the hills at the river's edge, and 3) urban villages composed of the remnants of villages that were once outside of the city of Chongqing. These different forms of housing have been redeveloped at different rates between 2002 and 2010.

Chapter 5 uses the statistical yearbooks released every year by Chongqing Municipality to survey economic and social changes in Yuzhong during the 2000s. I will then broaden the survey to include the nine urban districts that comprise the Chongqing urban core (or, officially, the Metropolitan Developed Economic Circle). This chapter will contextualize the redevelopment of Yuzhong District within the social and economic development of the entire Chongqing urban core.
Chapter 6 is will summarize the primary findings of this paper and will seek to draw some provisionary conclusions about the interplay of development and housing goals held by government actors and urban residents.
Chapter 2: A Literature Review of Urbanization and Housing in China

2.1: Introduction

This chapter explores scholars' understanding of the forms of low-income housing that result from the mechanisms of power through which urban governments exercise power. Orderly urbanization is an important and explicit goal of Chinese government and party officials. This has led to a devolution of powers from the central government down to municipal governments so that the latter may pursue developmental goals more efficaciously. One of the primary powers of which an urban government may avail itself is to be ultimate arbitrator in land-use decisions. This chapter shall peruse scholars' attempts to understand urban land politics in China.

According to the literature, urban development in China is largely driven by urban power-brokers, such as government officials and land developers, with little room for grass-roots or citizen participation. This chapter will briefly overview scholars' examinations of the lives of the urban poor in China. This chapter will also examine the different housing opportunities that present themselves to the two categories of urban poor mentioned in the previous chapter, the endogenous urban poor and the rural-to-urban migrants.
2.2: Urbanization and the State in China

2.2.1: The Economic Context of Urbanization in China

In the late 1970s China began a program of tremendous economic and social change officially named “Reform and Open Up.”\(^3\) In this paper, I call the period of time preceding the implementation of this policy the Maoist Era and the period of time since the implementation of this policy the Reform Era. The political and economic liberalization of the 1980s seemingly did promise a transition away from authoritarianism. The 1980s were also a time of economic growth in China, remarkable compared to the economic stagnation of the 1970s.\(^4\) This inflection in the Chinese economic system coincided with the global shift toward privatization and away from socialized public goods that has been labeled neoliberalism (Harvey, 2005).

Urban areas in Reform Era China have become important receptors of trans-national capital through the use of the “spatial-temporal fix”, an important element of neoliberalism (Harvey, 2005). The “spatial-temporal fix” solves the problem of over-accumulation, which is, simply, when there is too much capital and too few investment opportunities for that capital. The “spatial-temporal fix” leads capitalists to seek to defer costs or to expand the reach of capital into untapped markets, whether by \textit{in situ}

\(^3\) 改革开放
\(^4\) All the more remarkable when compared to the economic difficulties faced by the Soviet Union and Warsaw Pact countries in the 1980s, especially as those countries had experienced relative prosperity in the 1970s.
marketization of previously non-market items or by geographic expansion into regions theretofore not part of the global capitalist system (Arrighi, 2004). This “fix” is one of the driving forces behind inter-urban competition for investment (Harvey, 1989). These international movements of capital, roving the world in search of investment opportunities, are particularly relevant in China, as that country has become a tremendous sink of world investment, having profound ramifications for urban governance (Dicken, 2011).

2.2.2: The Role of Urbanization for the State

Urbanization in China today is a government-driven developmental project that serves as a cornerstone in the plans of the CCP (Chinese Communist Party) and the central government for the modernization of China and its rise as a global power (Wu, 2009). The government and the Chinese Communist Party explicitly recognize urban areas to be “engines of growth,” useful to absorb excess labor and maintain social stability (Ma & Wu, 2005). This is an about-face from the anti-urban policies pursued in pre-reform China. Ma has noted that, from the early 1960s through the early 1970s Beijing pursued avowedly anti-urbanization policies, actually forcing many urbanites to move to the countryside (Ma, 2002). Indeed, Maoist China was relatively under-urbanized due to the emphasis by China’s leaders on industrial production to the detriment of residential and commercial development (Ma, 2002).
Top down, “state-biased” urban policy for the benefit of national (state and party) and international goals has a long pedigree and still plays an important role in contemporary China. In accordance with the observation by Szelenyi and others about other socialist countries, pre-reform China was relatively under-urbanized (Ma, 2002; Zhang & Zhao, 2003; Szelenyi, 1996). This is often attributed to the socialist vision of urban centers as sites of production instead of sites of consumption, which was particularly acute in the Chinese case due to that country's relative lack of industrialization at the beginning of the socialist period (Lin, 2004). Lin has declared that in China's case urbanization was only tolerated in as much as it supported goals of industrialization (Lin, 1998).

Cities served as “centers of production” and were supposed to be big enough to house the necessary amount of factory staff as well as maintain the schools for the intelligentsia and party leaders, but no more than this (Lin, 2004). In China, under-urbanization was also important as a means of preventing the burgeoning industrial nation from being overwhelmed by city-dwellers with higher consumption demands: peasants where easier to provide for (Lin, 1998). However, as Zhang and Zhao point out, the apparent anti-urban bias in Maoist planning was more accurately a side effect of the desire to minimize costs for the owners of urban land and urban productive industries: the state (Zhang & Zhao, 2003). Following Kornoi’s argument that the primary difference between capitalism and socialism is that the latter has replaced private ownership with public ownership, Zhang and Zhao argue that instead of being “rural-biased” or “urban-biased”, Maoist urbanization was defined by “state-biased” development in which urbanization
policies were not pursued *per se* but rather were determined by production needs of the state and command economy, for industrial and military equipment (Kornoi, 1988, cited in Zhang & Zhao, 2003).

2.2.3: Land Politics in Urban China

Urban land politics are of tremendous importance to the party and central government since, according to the 1982 constitution, all land belongs to the state. However, official practice since the late 1980s has been to lease urban land\(^5\) to persons, both human and corporate; seventy years for land used for residential purposes, fifty years for land used for commercial purposes, and forty years for land used for industrial purposes (Hsing, 2010). These leases can be sold on the market and inherited much like a deed, although they remain valid only for the seventy years from when it was first issued (Hsing, 2010). Therefore, private property in urban China means land which is officially leased from the government.

Since power in modern China flows through cities and urban growth is now a fundamental component of official plans for economic growth, it is perhaps not surprising that Chinese cities have seen the development of growth coalitions. The role of these latter groups were adroitly explained in a North American context in Molotch's

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\(^5\) Land not part of an urban area is considered the collective property of the village to which it belongs. This is one of the reasons urban villages have been able to form in certain cities (such as Xi'an and Shenzhen), as the villagers successfully preserved their right to (some of) the land of their village even as the area urbanized.
early and influential theory of the 'urban growth machine', which began as an account of the importance of local land developers (the “growth coalition”) in the political directions of cities (Molotch, 1976). Molotch also recognized the competition between cities in their pursuit of growth and, more pertinent for this paper, the development of an ideology of growth that was used to “sell” growth to the public. Molotch’s theory evolved over the years to incorporate the power of other urban coalitions that oppose “value-free development” or, in other words, the ideology of growth at any cost (Logan & Molotch, 1984). By the late 1980s, however, Molotch and Logan's theory had further evolved to incorporate the increasing importance of global capital flows and globalization on the success or failure of local development initiatives (or whether such initiatives were even pursued in the first place) (Molotch, 1993).

On the surface it may seem that this theory does not seem to apply in the Chinese case, since the state owns all urban land and state owned enterprises (SOEs) play a dominant role in urban land development in China (Han, 2000). However, Zhang applied Molotch and Logan's theory to Shanghai and determined that the theory is able to explain growth patterns in that city as long the status of the economic agents in the original theory is modified (Zhang, 2002). In the Chinese case, wholly private interests cannot by themselves exert much power in urban land development. However, growth-driving land development can greatly benefit civil servants monetarily as well as in their careers.

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6 This can also be seen as the local manifestation of Harvey’s spatial fix.
Thus agents of urban government play a critical role in development and land-use decisions for all land within their jurisdictions.

Urban land politics are part of a more fundamental political calculus at work in contemporary China: 1) the current Chinese government, run by the Chinese Communist Party, derives its legitimacy from economic growth (Naughton, 2011); 2) local leaders, and particularly executives, are considered for promotions based on the degree of development and economic growth which occurred in their jurisdiction under their tenure (Zhang, 2002; Wu et al., 2007). These two phenomena combine to create a very powerful ideology of growth that must be promoted both for the survival of the governing regime as well the personal fortunes of the local leaders-cum-civil servants. Some scholars have seen this as a form of neoliberalism since nominally public goods (such as urban land and housing) have come to resemble private goods since the profits from their use accrue to a small coterie of well-connected managers who work for local government or profit-making SOEs (He and Wu, 2009). Thus, these entrepreneurial members of government occupy much of the same function as private interests in North America.

2.3: Urban Housing in China

Housing provisioning systems form an integral part of government urbanization plans. Indeed, ensuring urban residents have access to affordable housing has been a professed goal of the party and central government since the socialist housing system began to be
dismantled. In the last decade and continuing through the present, party leaders have explicitly mentioned the lack of affordable housing as being a possible future cause of instability and thus the construction of millions of units of affordable housing throughout China have been goals included in the previous two five year plans (Wang & Murie, 2011). The fact that very few of the housing units promised by the central government have actually been constructed is intimately related to the market-driven land politics in which socialized housing provide little potential gain. At the same time, current trends in housing development seem to be leading to spatial differentiation by income.

2.3.1: Neighborhood Segregation and Urban Spatial Differentiation

Chinese cities in the reform era have been the site of a tremendous spatial differentiation by income, education and political connectedness (Wang & Murie, 2000). As in many components of China's urbanization, this spatial differentiation both resembles the development of patterns familiar in the West but also appears to be the evolution of a new type of distinctly Chinese spatially differentiated urbanism. An increasing body of literature has pin-pointed different causes for the on-going socio-spatial differentiation in Chinese cities, it has determined that: it is path dependent, showing the reproduction and exaggeration of socialist urban forms; it is the result of rapid and massive rural to urban migration; it is the result of deliberate government efforts to reconstruct parts of the city, often relocating current residents in housing developments farther from the city center; and it is the result of profit-seeking housing and land developers who seek to maximize
profits by building for the upper-middle and upper classes (Madrazo & van Kempen, 2012; Wu, 2007b; Liu et al., 2011). These different forces are made manifest in different physical neighborhood forms as sketched out below.

Liu and Wu identified three types of urban poverty neighborhoods: 1) Pre-1949 inner city areas that had become housing for the elderly and indigent as well as for work-units too poor to build their own housing, 2) Poorly constructed worker's villages usually built in the 1950s as work-unit housing and 3) Urban villages built since 1978 on the site of formerly extra-urban villages now incorporated into the city (Liu & Wu, 2006). The reasons these areas have become sites of poverty is intimately tied to how the Chinese government has pursued economic reform and a transition to a market economy (Liu and Wu, 2006; see also, Lee and Zhu, 2006). Before reforms began, and certainly during the 1980s, the quality of work-unit housing varied tremendously depending on the success of the work-unit. For many Chinese urban residents, housing has been shown to be path dependent: those who had access to better housing under the housing allocation system were able to maintain and solidify their advantages in the reformed system (Wu et al., 2009).

The Chinese city in the first decade of the reform era was characterized by a cellular structure due to the division of the city into work-units. The inequalities between and within these work-units played a great role in the spatial differentiation of the Chinese city, especially during the 1980s and 1990s. Each work-unit compound had tremendous internal heterogeneity in terms housing provision: those higher up the employee
hierarchy received better housing (Wu et al., 2009). At the same time, work-units did not all have the same resources and political importance. Those work-units with better access to resources than other work-units could provide better housing and services than other work-units. (Wu et al., 2009) As reform got underway and workers could opt to purchase their existing housing unit, the inequalities within and between work-units became crucial in two other ways: 1) wealthy work-units constructed new and better housing which their workers could purchase at a heavily discounted rate, 2) workers higher up the hierarchy received better salaries and compensation packages, which put them in a better position to purchase work-unit housing or even commercial housing (Wang et al., 2005).

Over the last several decades, Chinese cities have received hundreds of millions of rural migrants, leaving overpopulated rural areas in which there is not enough land to go around and little non-agricultural work exists. As these migrants lack the proper hukou [household registration] to be official citizens of the city, they are unable to participate in social housing schemes and are priced out of most formal commercial construction (Chan, 2009). Thus, run-down neighborhoods made up of former worker housing have seen an influx of migrant workers attracted by the cheap rents. These neighborhoods often receive few government services and are often under consideration for removal by the city government (Chen, 2012).

Chinese urban redevelopment has targeted inner-city areas whose development in the socialist command economy resulted in inefficient land use and are now prime areas for
real estate, offices and retail as Chinese cities develop central business districts (Qian, 2011). Zhang and Fang compared this type of redevelopment to urban renewal in the United States but concluded that the phenomenon in China is not as ill-fated as urban renewal, because the former is a more decentralized process that is responding to existing market demand (Zhang & Fang, 2004). The responsibility to provide housing for residents being relocated has been mandated from the central government in Beijing, but is often only followed in the breach. While the central government encourages city governments to relocate residents in the vicinity of their original residence, many cities provide them with cheap (although often quite spacious) flats in the urban periphery (Huang, 2005). In fact, these relocated residents often serve as urban pioneers in areas that are still largely rural but the city wishes to make urban. This means that the housing estates of relocated residents often do not yet have nearby public transportation connections and often suffer from a lack of commercial venues at a reasonable distance (Song, 2011). It is impossible to say that, in general, these relocated residences are sites of deprivation.

In the early 2000s, as urban land was required to be sold in a market instead of in price negotiations (see previous section), market values of land began to effectively determine who could live where. All things being equal (which they are not), low-income and many middle-income residents have become priced out of central areas as the proximity of these areas to political and economic power commands a high price. At the same time, deliberate spatial differentiation, in the form of place-making and place-branding, has
become an important marketing strategy (Pow & Kong, 2007). Although commercial housing is certainly constructed for different income levels (with the possible exception of the low-income level), developers have blatantly admitted that they give precedence to building housing for the wealthy, as there is more possible profit (Wu, 2007a). The dismantling of work-unit housing and the concomitant marketization of urban development completed in the early 2000s has led to greater intra-neighborhood spatial differentiation and sorting by income and less intra-neighborhood income differentiation (Xu, 2008).

2.3.2: Urban Poverty and Housing Poverty

Since 1978, several hundred million people holding rural hukou have moved to cities, particularly coastal cities. Scholars have explored how the hukou system ensures that rural migrants to the city do not have the same rights to the city as people with urban hukou and thus are more at risk of living in sub-standard housing (He et al., 2008, 2010b; Huang and Jiang, 2009; Wang, 2004; Liu et al., 2011). Known as the “floating population”, scholars have studied how rural migrants have tended to concentrate in specific neighborhoods that, for a variety of reasons, are amenable to migrants' inability, due to their hukou status, to participate in normal channels of housing procurement in urban areas.
The housing present in the contemporary Chinese city closely parallels the mechanisms of urban spatial differentiation outlined above. Older housing units, often existing in only a piecemeal fashion due to urban redevelopment, display the features of the Maoist city. These older housing units often serve as housing for urban migrants (Liu & Wu, 2006). Urban villages represent a distinct land-use, in which the buildings may be of recent construction but are usually inferior to other contemporary construction, especially those units occupied by migrants (He et al., 2010a). Urban redevelopment has led to changing patterns of housing in the city, but has also led to more people living in recently constructed housing units, usually larger and of higher quality than their previous units. Commercial housing construction has provided the opportunity to live in extraordinary luxury to those who can afford it, but has also delineated differences in housing consumption by income level (Huang, 2005; Hu & Kaplan, 2001).

2.3.3: Housing Provisioning Systems

Since 1949, China's housing system has gone through great changes, at once path-dependent and driven by political radicalism. As Wang has noted, in 1949, after so many years of war and a lack of effective governance, the Chinese urban housing stock was abysmally small (Wang, 1998). The Party thus began a massive construction campaign in order to house the new Communist Workers. Many of these housing complexes were extremely cramped and had minimal facilities, often with a single room for a family and one toilet for dozens of families (Lü, et al., 2001). The majority of the new housing built
during the Mao era was on the outskirts of the city because the Party did not want to tear down any of the pre-1949 housing since the housing shortage was so acute (Lu, 2006).

During the Maoist era, the spatial fabric of Chinese cities was very decisively rewoven as all the new housing complexes (and much pre-Communist housing) were incorporated into work-unit (danwei 单位) compounds. The compound centered around the place of work, whether a factory or offices, they included housing and cafeterias for employees and their families and often health clinics and schools for the children of employees (Gaubatz, 1995). As Dieter Hassenpflug has noted, the creation of the work-unit was an attempt to create (relatively) self-sufficient villages within the city in “a comprehensive spatial unity of dwelling and working” (Hassenpflug, 2010).

During the Cultural Revolution (1966-1976) Chinese cities saw almost no new construction and as China reached the end of the 1970s, the housing supply, along with the urban economy in general, were in crisis and disarray (Lü, et al., 2001, p107). Indeed, as scholars of China’s economic reforms recognize, the rapid expansion of urban construction projects were one of the motives to allow market signals into urban land markets (Wu, 2007a).

Scholars have found a clear division in the evolution of urban housing in the reform era (post-1978) between two time periods: 1978-1998 and 1998-present (Zhu, 2009; Wu et al., 2007). The first time period was characterized by the appearance of “amphibious institutions” of large private and semi-private land development enterprises closely
connected with local government (Ding, 1994). During this time, Chinese urban society was still largely predicated on socialist wage and employment structures and market-based financial and so credit services oriented toward household consumers were almost non-existent, thus extremely few Chinese households had the financial wherewithal to purchase housing on the market (Wang & Murie, 1999). In her seminal study of local government in the early 1990s, Oi determined that as many work-units became gradually exposed to the market, the leadership of the work-units underwent a managerial revolution, moving from ideology-conscious cadres to market-conscious managers (Oi, 1992). These self-found managers rewarded some of their employees with free or heavily subsidized housing, while also overbuilding housing so that any not allocated to employees could be sold on the newly formed urban housing market (Li & Huang, 2006).

The changes that have occurred in the system of housing provision have largely not been organic, but the result of government policies promulgated at the national level. The formation of private housing markets has been aided by two programs since the late 1980s: the Economical and Comfortable Housing (ECH) program and the Housing Provident Fund (HPF). The former has involved government subsidies of for-profit real estate firms to produce affordable housing; the latter has been a compulsory savings program in which employees contributions are matched by employers to a national fund that allows access to cheap housing loans whose size depends on ones contributions. While both of these programs have allowed many urban families to participate in the housing market, scholars have noted that the programs have also ignored the housing.
needs of a significant number of urban residents (Deng, et al., 2009; Duda et al., 2005). From a different perspective, Lee and Zhu have pointed out that the purpose of these programs to increase homeownership was to stimulate the economy, not provide for those in need of a home (Lee & Zhu, 2006).

Before the 1988 housing reforms, almost all Chinese holding urban hukou received housing from their work-units as part of their compensation package. As has been recognized, in the early reform era, the success of one's work-unit determined the quality of one's housing (Wang et al., 2005). After the labor law of 1994, work-units were not required to provide cradle-to-grave housing provision or benefits to newly hired workers, but were still required to maintain housing and benefits for workers hired before 1985, retired workers and laid-off workers hired before 1985 (Wang et al., 2005). Throughout the second half of the 1980s and the 1990s, as work-units adapted to increasing market exposure, successful work-units built large quantities of new housing-units for workers, while struggling work-units, sometimes with more retired workers than active, could barely maintain the housing they already provided (Wang et al., 2005).

Throughout the late 1990s many urban residents were able to purchase their apartment from their work-unit at a below market price. By the early-2000s in coastal regions, a majority of official urban residents (residents with an urban hukou) owned their own home, often by purchasing a house below market price through the ECH program or using a below-market- rate mortgage using the HCP (Chen, et al., 2010). Despite increasing tenure security for some urban residents, a large number of laid-off unskilled
workers and rural migrants are unable to participate in the urban housing market due to lack of funds, housing registration (hukou) status or both (He et al., 2010b). For this latter group of people the Chinese government has created the Cheap Rental Housing (CRH) program in which cheap rental units are to be constructed and provided at subsidized rates to those who cannot participate in market housing of any stripe. However, as Deng et al. note, program depends on the participation and funding of local governments who, as entrepreneurial agents see little reason in building housing for people who cannot afford to pay market prices (Deng et al., 2009). This has ensured that the CRH program has had very limited success producing housing for the millions of impoverished urbanites who lack adequate or secure housing.

The second period mentioned above (1998-present) began when the central government's desire to create a true urban housing market and the non-market housing construction and provisioning pursued by work-units came to a head during the Asian financial crisis in the last several years of the 20th century. Throughout 1998 and 1999, the Chinese government gradually banned the construction of housing by work-units and distribution to employees at below-market rates in order to force the development of a vibrant property market in order to avoid the crisis from seriously impacting China's continued economic development (Chen, et al., 2011). This spawned a massive construction boom as work-units hurried to build housing before the restrictions came into place (and the deadline was extended several times) (Wang et al., 2012). However, by the first years of the 21st century, 90% of new housing construction
was sold directly to households (Wang et al., 2012). From the end of the 1990s on, the central government also promulgated tax policies and the expansion of the mortgage industry to allow more Chinese urbanites to participate in the housing market (Ye & Wu, 2008).

Prices steadily increased until late 2007 when the credit crunch that preceded the following international financial crisis caused a sudden drop in housing prices in urban China. The Chinese government, as part of their highly publicized flurry of policies to prevent the worldwide economic downturn from impeding China's economic rise, retreated from any tightening of mortgage requirements and credit for urban land development (Wang et al., 2012). Indeed, after a single year of slightly falling housing prices in 2008, a new round of hyper speculation began in 2009 as Chinese residential and commercial development boomed under several rounds of interest rate drops and lowered bank reserve requirements.

As has become increasingly known to the central government and the leaders of the CCP, the potential for social unrest is exacerbated by the obvious inability of the existing market to provide adequate housing to all urban dwellers. Since 2010, and accelerating in 2011 and 2012, the central government has begun to pursue a much more pro-active policy of social housing provision (Wang et al., 2012). This has taken the form of the direct construction of millions of units of affordable economic housing in cities throughout China (Areddy & Davis, 2011).
2.3.4: Social Housing and Private Neighborhoods

In 1998, when the work-units were forbidden to supply housing directly to their employees, the central government envisioned the creation of a housing system partially modeled after Singapore’s (Zhu et al., 2009). In this system, three types of housing would be available to urban residents: government subsidized rental housing, economic affordable housing and commercial housing (Wang & Murie, 2011). The first type was envisioned to cover only about 15% of the population and would be for those who could demonstrate their abject poverty. It would be composed of both true social housing, built by the government usually in mixed-income housing developments also including the second type of housing, as well as the potential for rent subsidies for renters in the market (Wang & Murie, 2011). The second type of housing was expected to become the dominant form of housing for urban residents, with about 70% of residents envisioned to live in this type. The local governments were supposed to require developers to build economic affordable housing by requiring new developments to set aside a certain percentage of their units (usually 30%) to be “affordable housing”. Depending on the locality, these units might be required to have a floor space below a certain amount and/or sell for a below a certain price per square meter (Zenou, 2010). Also, many larger city governments constructed their own housing estates composed of economic affordable housing and subsidized rental housing (Yang, 2009). Finally, the wealthiest 15% of official urban dwellers were expected to live in commercial housing (much like
the very wealthiest Singaporeans are not eligible for that country's social housing scheme) (Zhu et al., 2009).

From the beginning, this tri-fold distinction of housing types was fraught with problems. The greatest of which was probably that it did not exist. By the early 2000s, some local governments were making over half of their municipal revenue through land sales and fees charged to developers (Wang et al., 2012). Developers in turn made much more money constructing non-affordable (luxury) housing (Wu, 2007a). Thus, central government targets of the number of affordable housing units to be constructed each year in the early 2000s did not pan out. The extraordinary and rapid increase in housing prices during the 2000s has led to more direct government intervention in the housing market (Zhu et al., 2009). Many cities were unable or unwilling to enforce restrictions on the urban land and housing market (Lin & Yi, 2011).

Running strangely parallel to the distinction of rural and urban hukou, the Chinese government maintains a strict distinction between rural land and urban land that is enshrined in the 1988 amendment to the Constitution. Rural land, which in eastern China is divided into villages, belongs to the village collective and has very strict rules on how the land can be developed, in order to protect farmland. Urban land can be developed much more easily, but only use rights can be traded on the market (Lin & Ho, 2005). In the framework of political ecology, Lin has outlined the evolution of growth-oriented, land-centered municipal governments that have voraciously absorbed peripheral village land, converting the rural collective land into municipal land and then capturing the rent
gap by leasing the land on the market (Lin, 2009). From the perspective of land use, if cities are “engines of growth” then rural land have been their primary fuel.

Although some successful migrants have been able to purchase urban housing (which usually brings an urban hukou with it), the urban land market is beyond the reach of most migrants. Some scholars have documented how in certain industries employers are a major provider of housing. The rate of migrants living in employer provided housing varies tremendously between industries as well as across Chinese provinces. Li and Duda studied employer-provided housing in Tianjin and Taiyuan and found that for the construction and manufacturing industries in Tianjin, the percentages of employees living in employer provided housing was 80% and 70%, respectively (Li & Duda, 2010). Over 90% of this housing in both cities was provided rent-free, primarily because, as Li and Duda also found out, many of the employers that provided housing operated in a central location which means that migrant employees would be unable to afford nearby dwellings and are ineligible for subsidized housing because of their hukou status. It is not clear how many migrants find housing with an employer in other Chinese cities. What is clear is that many migrants must find housing in the private rental market (Wang, 2000).

Taking into account the peculiar institutional constraints of urban development and rural-to-urban migration in China, Wu performed an interesting analysis of the spatial distribution of rural-to-urban migrants in Shanghai, finding that many of them lived in urban villages in the suburbs, some of which are still designated as agricultural and quite
large (Wu, 2008). This latter study seems to pioneer the research vector called for by Huang to investigate the development and distribution of low-income neighborhoods throughout the Chinese city (Huang, 2005).

2.3.5: Urban Forms

It is also worth noting that the forms of China’s urban housing system also display certain very common forms that are at once a reproduction of older urban forms in China as well as a reinterpretation of Western urban forms in light of China’s urban transition. One of the most noticeable of these forms is the walled and gated compound.

Whereas walled-off and gated neighborhoods are a relatively new phenomenon, often the target of much scholarly opprobrium in the West, the Chinese city has a much longer and less negative history of gated enclave urbanism. As scholars of urban China have long noted, the work-units of Maoist China, as self-contained bastions of the state, where nearly always walled and gated, providing a range of semi-public services (transitioning to semi-private in the reform era) to their residents/workers (Gaubatz, 1995; Whyte & Parish, 1984). This in turn followed even older forms of walled and gated enclave neighborhoods based off client-patron relationships and native-place and clan groupings that existed in the pre-modern Chinese city (Friedmann, 2005). Thus the proliferation of new housing developments that incorporate gates and walled compounds is not a simple importation of a western design feature. While the gate and urban enclave are certainly
used to establish exclusivity and are to be found associated with sites of extraordinary consumption (Giroir, 2006, 2007; Pow & Kong, 2007), they are also found in much more mundane neighborhoods as signs of community building in high density urban areas (Wu, 2005).

Walls and gates around housing estates are often mandated by government planning rules (Hassenpflug, 2010). This facilitates the construction of urban, neighborhood-level governance. At the same time, by defining neighborhoods by walled-in, commercially developed plots, the central government has been able to require and cajole developers into directly providing certain services, such as green-space or clinics, or constructing buildings for public services, such as schools to residents within the neighborhood (Miao, 2003). This may seem to resemble the Fortress America sketched out so fearfully by Davis or, earlier and more creatively, by Stephenson, but in reality these types of cellular semi-public/semi-private spaces have a historical precedent in the Chinese work-unit compound (Davis, 2006; Stephenson, 1988). In fact, in terms of the provision of non-private consumption goods, the creation of this relationship between city governments and property management corporations reproduces the relationship that existed between city governments and the work-unit.

The housing units being constructed in Chinese cities are now held to certain requirements by the urban government, which are almost always exceeded by developers looking to target wealthier buyers. In large coastal cities, many houses constructed are sold as second (or third or more) homes, often as investment properties (Huang, 2004b).
This again encouraged large units with many amenities. Although houses constructed according to the sundry social housing schemes mentioned above do have maximum floor-spaces (in order to keep the market price down), they are still much better equipped than pre-reform housing and even housing from the early Reform Era. While the inhabitants of the new social housing units may certainly be inconvenienced, especially immediately after their relocation, the flats that they receive are larger and often of much higher quality, with more amenities (e.g., washing machines, private toilets, a dedicated kitchen) than the older, pre-Communist or Maoist, flats that they vacated in the city center (Li & Huang, 2006).

Wu noted that the common use of the gate in the division of urban space was a ‘reemergence’, not a new, or even imported, urban design feature (Wu, 2005). Some of the social controls inherent in certain recently appearing urban forms are also not so recent. The street-level district⁷, so powerful in Maoist China as the tendril of totalitarianism, has morphed into the more technocratic residents committee that provides a way for local government to directly interact with urban residents (Bray, 2008). In newer housing estates, residents committees often resemble the homeowner committees so common in certain parts of the West. These latter are often a true neoliberal form of governance in which the private property management corporation is tasked by the local

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⁷ The street district was the smallest level of government in urban areas. The cadres at the street-district level were local inhabitants, often retired and with little or no formal education. They were tasked with knowing everyone in their district and ensuring that everyone was informed of rules and party dicta and was following said rules and dicta. They often intermeshed with the governance of the work-unit and thus had power over social provisioning and material and job incentives.
government to provide certain mandated or specified services to residents (such as schooling, access to transportation, green-space) and residents pay directly for these services as specified in agreements signed when the unit is bought (Pow & Kong, 2007). Such forms of governance are most completely seen in the housing estates of the wealthy. Limited forms of private provision of semi-public services are also seen in housing-estates for the middle and lower classes, most commonly in the form of private provision of building space for a public good, such as a school or clinic, which will in turn serve as a marketable feature to sell units (Shieh & Friedmann, 2008). This form of non-public provision of (semi-) public services is desirable to city governments looking to minimize financial commitments and so is likely to expand in the future as municipal governments face increasingly higher budget deficits (Tsui, 2011).

This type of local government in which residents are partial agents in decision-making is also an important part of the recent central government emphasis on ‘community building’ and the importance of all urbanites to be active parts of some officially recognized (and empowered) ‘community’ (shequ) (Xu, 2008). In poorer, not yet redeveloped areas of the city, this type of community building largely involves the same institutions that have existed since the 1950s, although more empowered and, increasingly, with professionally trained cadres (Gu & Shen, 2003).
2.4: Conclusion

One of the primary themes of the literature of the urban morphology in contemporary China is the spatial division and differentiation of urban spaces based on income. At the same time, this spatial differentiation by income is an outcome of political policies intent on shoring up economic growth so as to meet targets handed down from above as well as to improve the career opportunities of the party cadres in local government. Scholars of these income differentiated urban forms have shown that urban development is now oriented toward the provision of luxury housing with less provision of mid-level housing and little official, market-based provision of low-income housing. The national government has stepped in with requirements for both land developers and local governments to provide affordable and low-income housing, but so these programs have not met with much success. In large part, this is due to the lack of incentives for both land developers and local governments (who may be directly or indirectly invested in land development projects) as well as the lack of any enforcement mechanism on the part of the central government.

The next chapter will present a concrete example of urban China, including spaces of world-class wealth and sites of abject material poverty. The works of scholars surveyed in this chapter have been informed by contemporary events in cities from all over China, but predominantly from cities in coastal China. The next chapter will observe the urban development of Chongqing, a city in inland China, during the 2000s. As an important representative of inland China, examining the development experience of Chongqing will
broaden the scope of understanding of Chinese urbanity and forms of low-income urban housing.
Chapter 3: Case study of Chongqing planning

This chapter uses photographs that highlight the urban morphology of central Chongqing, official planning documents, and photographs of a planning exhibit to indicate current and possible future redevelopment projects of the central city as well as planned development low-income housing in the city. I will take a “stroll” through the central district to highlight examples of income differentiation in the urban landscape of central Chongqing. The photos presented as part of the stroll provide insight into the tortured land politics that are inherent in the current urban development regime in China. Within this politics may be seen the contradictory goals of different urban residents, stratified by wealth. Next, I shall examine planning documents from Chongqing to distill the official goals that government officials and party cadres have followed over the previous decade in the development of Yuzhong District and social housing throughout Chongqing. Finally, I shall examine the Chongqing Planning Exhibit in which the development goals of Chongqing's municipal government are apparent in, for example, the conscious attention given to urbanization, the political importance ascribed to urban development projects, and the locations of low-income housing.
3.1: Positioning Chongqing

Yuzhong District, a hilly sliver of land rising up between the confluence of the Yangtze and Jialing Rivers in Southwest China, is the historical center of Chongqing (Fig. 2).

After rapid industrialization in the early 20th Century, Chongqing remained an important industrial center after the Communists came to power in 1949. In the mid-20th century, Chongqing outgrew the Yuzhong Peninsula and spread north and south across the Jialing and Yangtze Rivers, respectively.
During the first twenty years of the reform era, until the late 1990s, Chongqing languished as an inland backwater unable to cash-in on the export-driven economic development seen on China's coasts. In an effort to recreate the institutional conditions for the entrepreneurial governance that had driven economic success in the Pearl and Yangtze River deltas, in 1997 the central government severed Chongqing from Sichuan province and made it the only directly controlled municipality in western China. This made it the political peer of Beijing, Shanghai and Tianjin. Similar to those cities, Chongqing answers directly to the central government, much like a province. At the time, officials compared the city's importance in the development of western China to that of Chicago in the development of North America (Miller, 2009). Chongqing was to be a transportation and economic hub that would serve as a gateway for all of west China. Unlike other directly controlled municipalities in China, Chongqing is the only one located inland and away from the coast. However, Chongqing is also the least prosperous of the four province-level municipalities because its distance from the ports on the coast has prevented it from experiencing the latter's export-driven growth.

3.2: Methodology

This chapter is divided into three sections: The first section contains an on-the-ground examination of the urban morphology of central Chongqing using photographs taken by the author. I followed Benjamin’s flâneur method in taking these photographs, which

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8 For how the reclassification of cities is used to stimulate development see Chan, 2010.
consists of strolling through an urban area without any specific destination in mind, observing the city and its inhabitants as an outsider (Benjamin, 1999[1935]). This method has already been used by Huang to study urban areas in East Asia, although she looked only at the hyper-modern metropoles of Hong Kong, Shanghai, and Tokyo (Huang, 2004a). In this paper, I pay special attention to examples of three phenomena visible in the photographs: 1) borders between sites of poverty and sites of wealth, 2) sites in the process of transition between poverty and wealth, and 3) sites of urban image building, that manifest government land-use goals. Sites containing one of these three phenomena can be interpreted as being a contested space and therefore indicative of the powers, top-down and bottom-up, seeking to define Chongqing’s urban-space.

The second section of this chapter is an examination of the official urban plans driving development in central Chongqing. I perform a textual analysis of the Chongqing Master Plan to determine the role intended by government officials for Yuzhong District in the development of Chongqing. I also search for indications of the role low-income/affordable housing plays in the plan in the creation of a modern Chongqing.

The third section comprises photographs taken at the Chongqing Planning Exhibit. The displays in the planning exhibit feature planning goals centered on large-scale development projects, unlike the policy goals in the Chongqing Master Plan. I will highlight and interpret some of these development projects as concrete examples of the intentions of urban leaders toward redevelopment of Yuzhong District. I will also use the detailed displays of the social housing system planned for Chongqing to provide
examples of specific social housing projects in order to apprehend its role in the plans of urban leaders for the creation of a modern Chongqing.

3.3: A Stroll through Yuzhong District

From October 19 through October 24, 2012 I stayed in Yuzhong District, Chongqing, near Chaotianmen Port. During this time I walked many of the streets in the eastern part of the district, taking photographs and notes. I use these photographs and notes to elucidate the borders between sites of wealth and sites of poverty as well as sites of urban image building in Yuzhong District. In line with the flâneur method, I use the narrative device of a stroll to present these sites of wealth, poverty and urban image building.

3.3.1: A synopsis of the walk:

(See Fig. 3) I began in the eastern part of the peninsula and descended down to the water, walked north towards Chaotianmen, then looped around to see the middle and northern parts of the peninsula. While in the central part of the peninsula, I examined the stark juxtaposition of wealth and poverty (both abject and relative) that characterizes Yuzhong District. I saw Revolutionary Square and the People's Assembly Hall, monuments to China's economic and political development, respectively. I then descended back down toward the southern side of the peninsula by way of Shibati, thereby passing through the largest concentration of pre-Communist housing and poverty housing in Yuzhong District.
3.3.2: The Walk:

Any urban redevelopment projects in Yuzhong District will have to grapple with the fact that a seeming majority of Chongqing's pre-Communist and a large number of pre-1990 structures are built at multiple levels, often with entrances at different levels. One can quite easily move from street to street by entering a building and taking the stairs to another street, seven stories up or down. Thus the buildings complement the natural topography of the peninsula as seen in Fig. 4 and Fig. 5, in which a cliff face is rendered passable by the indoor stairway of the building. As I walked down the stairs to Changbin

![A Stroll through Chongqing with Photographed Locations](image)

*Fig. 3: Yuzhong Peninsula with Path of Stroll and Photograph Locations*
Road, it is apparent that, as the city is rendered modern, as old neighborhoods are torn down and replaced, new developments in certain parts of the city will of necessity interact directly with a multi-level topography.

While office towers now dominate the skyline of Yuzhong District, the streets near the river port still present signs of the river commerce for which Chongqing was historically important. In Fig. 6 and Fig. 7 I am standing on Changbin Road, along the Yangtze River. This road and nearby Chaodong Road serve as outdoor warehouses for the river port at Chaotianmen. Trucks delivering and loading boxes are also present in abundance. The buildings along Changbin Road are residential mid-rises (less than 20 floors), with the first floor usually containing businesses. In the lower-income neighborhoods of

![Fig. 5: A fifth-floor entrance to a building](image)

![Fig. 4: Building at level of Changbin Road with entrances at multiple levels.](image)
Yuzhong district, most buildings serve as sites of living, business, and even small-scale manufacturing.

Turning left on Changbin Road, I approach Chaotianmen, the cape of the peninsula where the Yangtze and Jialing Rivers meet and the location of the river port. The ground here is more flat, which makes it a prime location for redevelopment into towers. Thus the vegetable market here is in the process of being torn down; Fig. 8 shows this site. The property is quite flat, ideal for a high-rise similar to that behind the old vegetable market. In fact, a quick visit to the permanent Chongqing Planning Exhibit, just across the street in Chaotianmen Square, reveals that a trio of towers is planned for the space above. (Fig. 9)

Those parts of Yuzhong District that have been able to maintain older, low-income housing stocks are those places whose hilliness complicates the construction of high-rise towers. However, hilliness does not provide complete protection. Areas resisting development are hilly, but not all hilly areas have successfully resisted development.

![Fig. 6: The Yangtze River from Changbin Road.](image)

![Fig. 7: Boxes awaiting shipment along Changbin Road.](image)
Fig. 8: The former vegetable market.

Fig. 9: The plan for the former vegetable market.

Fig. 10: Middle-class housing in north Yuzhong.
I leave Chaotianmen and head southwest along Jiabin Road. This is a wealthier and more purely residential part of Yuzhong than the southern and southeastern parts of the peninsula. This area is characterized by numerous residential high-rises built in the post-reform era (Fig. 10). As Fig. 11 shows, these buildings also exist on multiple levels. Thus, hilliness is not a perfect protection for older buildings. Yuzhong District has the highest population density of any district in Chongqing Municipality with 26,575 people/km². For this reason, urban forms that are not often present in other Chinese cities, such as construction on hillsides are quite common in Chongqing (Lü, et al., 2001). Neighborhoods in the eastern part of Yuzhong, the densest part of the district, also noticeably lack the division into gated compounds which are so noticeably apparent in many Chinese urban areas constructed after 1949 (Wu, 2005). According to Hassenpflug, the compound semi-public space is a re-creation of the courtyard for the extended, compound “family”
(Hassenpflug, 2010). The courtyard did not exist as a prototypical urban form in early Chongqing and was not imported during the Maoist or reform eras. Following Hassenpflug, the lack of closed urban residential neighborhoods should elevate the importance of public space. Perhaps this helps drive the large-scale projects of urban image building that portray Chongqing as a site of wealth and culture.

Before I head south into central Chongqing, a glance across the Jialing River reveals the newly constructed Chongqing Opera House (Fig. 12). With an appearance like a glass ocean liner about to slide off the land into the river and at a size several times larger than the Sydney Opera House, the Chongqing Grand Theatre is an unmistakable example of the urban image building that so concerns Chinese urban leaders and planners in contemporary China. At the city scale, the construction of a distinct urban image, an urbanity specific to Chongqing, is a method to educate and mold the new Chongqing urbanite (both of the new Chongqing and those new to the city).

Now, I walk through several winding streets before turning onto a perfectly straight pedestrian street with trees in planters in the middle. I am entering Revolutionary Square, formed by

Fig. 13: Revolutionary Square. The Monument to the revolution is the tower on the lower right.
two pedestrian streets (a recent change and an indication of the penetration of the ideas of New Urbanism) intersecting at right angles. In the middle of the intersection stands a seven-story tower. It is hard to believe that when this tower was renamed Monument of the Revolution in 1949, it was the tallest building in Chongqing. Now it is dwarfed by sleek glass towers surrounding it (Fig. 13). This is Chongqing's central business district.\textsuperscript{9}

When Deng Xiaoping launched China in a new direction in 1978, development was thenceforth to be economic and not political, as it had been under Mao. Economic development is certainly visible here: a quick glance around the square reveals a Starbucks, Tiffany's, Armani, Gucci, and a seven-story Xinhua Bookstore.

The economic impetus that have created the contemporary Revolutionary Square are indicative of the economic forces at work in the urban development of Yuzhong District as a whole. Under Mao, urban space was exclusionary according to political differences among the population, now space is made exclusionary by economic differentiation within the urban population. On the streets next to these exclusive stores are luxury apartment buildings. Proximity to power is an important attractive force for housing choice and, therefore, market-driven construction. Revolutionary Square is a site of consumption but, more importantly for an urban planner in Chongqing, a site for the spectacle of a successful China. In this latter sense, Revolutionary Square is an important location for urban image-building, meant to project the modernity and wealth of the city.

\textsuperscript{9} According to recent urban plans, this will be one CBD among several in Chongqing. It certainly, however, will continue to hold a valuable cultural and locational cachet that the other CBDs currently under construction will not have.
With its ultramodern redevelopment, it is also an extraordinary counterpoint to the next and final destination on this stroll: Shibati.

Tucked away between lower middle class high-rises on the south side of Yuzhong's peninsula is the soon-to-disappear neighborhood of Shibati (Fig. 14). Shibati (十八梯) means eighteen steps, but there are quite a few more than that as I descend from the steel and fresh concrete of modern, model Chongqing into the wood and stone of the recently "anachronized" Shibati. The dense wooden houses that once covered most of Yuzhong are laid out largely according to historical happenstance and housed hundreds of thousands of people in the relatively cramped peninsula. In these houses lived the dockworkers and porters who carried the river's merchandise through the streets and stairways of Chongqing. They still live there. But there is not enough housing to hold all the dockworkers and porters needed in the supercharged Chinese economy of today.

Although these houses may be quickly disappearing, the neighborhood is far from a ghost-town (Fig. 15). The streets are as busy, if not more so, than streets in more modern
housing areas. They serve more as a public space than streets in other parts of town, since the living space of residents in Shibati is quite small. The gulf between private and public space is a small fissure: the living room in which a family is eating lunch is also where they stamp leather that is laid neatly on tables for sale.

As a public writ of impending modernization stands the character 拆, condemned, on many of the buildings in Shibati (Fig. 16). Indeed, most of the buildings in the neighborhood have this authoritative character written in red. Formerly, the ability to write in red ink was reserved for members of the imperial household. In contemporary China, the urban planning office exercises this ability.

Shibati is the largest non-redeveloped neighborhood in Yuzhong District and thus serves as an important source of cheap housing for the day-laborers who work in the port and nearby warehouses.
However, its central location, within walking distance of the offices of government banks and multinationals, ultimately condemns it to redevelopment. The hilly topography that protected Shibati, and that has allowed it to survive the first three decades of the reform era, will not be enough for it to survive the need for developable land in a China that serves as a haven to worldwide capital. The centrally located urban land on which Shibati stands is a valuable fuel for the urban growth machine. Local businesses and government leaders, as members of a growth coalition, stand to gain tremendously by converting Shibati to a more lucrative, or higher, use. The economic benefits generated in such a conversion could also generate political capital for cadres within the party's growth-driven meritocracy.

However, it is important to keep in mind that these buildings are not comfortable; the inhabitants could certainly live better material lives in the newer apartment towers that protrude through the fog all over Chongqing. Whether the inhabitants of Shibati are satisfied with the replacement residences provided by the government is a question outside the purview of this paper. The government will negotiate with each household and aim to relocate the household's members in a way satisfactory to both sides.\(^\text{10}\) However, as the master plan and the displays at the planning exhibit will demonstrate, the flats offered to the inhabitants in compensation will not be within Yuzhong District.

\(^{10}\) Although cf. Johnson, 2013 for an example of this negotiating process failing to provide adequate replacement housing.
3.3: The plans behind the city

3.2.1: What the master plan says

Since the Urban Planning Act of 1989, all Chinese cities are required to maintain two plans: a Master Plan and a Detailed Plan (Wang, 2003). The master plan is a small document (less than 100 pages) that outlines the grand vision, or main line, that is supposed to guide the city's development for the period covered. These plans are intended to have a term of at least a decade and, in the case of Chongqing, ran from 1996 to 2020. Unusually, Chongqing's master plan was revised in 2007 because so many of the goals had been achieved early and, presumably, because the incoming administration of Bo Xilai wished to reorient the city's development. This section and the next will describe some of the contents of the master plan as it relates to the development of Yuzhong District and affordable housing within Chongqing.

Detailed plans are written for shorter terms and contain micro-regulations for urban infrastructure and future development. These oft-revised documents will contain both citywide ordinances on land-use (what would be considered zoning in the Western sense) as well as outlines of specific development projects that are intended to mesh with and further the goals of the master plan. Several of the projects contained in the detailed plan will be discussed in the following section.

One of the most overarching policies enunciated by the master plans is the division of the central city into 16 central clusters (zhongxin zutuan) and eight function zones
(Chongqingshi Guihua Ju, 2010). These clusters do not conform to municipal district boundaries but rather are delineated to better deliver government services. The function zones are outside of the central clusters and recognize once non-urban areas that are meant to become tourism or research and educational zones. The primary purpose for these divisions is to establish an urban order across the large, only partially urbanized area that makes up Chongqing's central city. Accordingly, since it is entirely urban and not faced with large, undeveloped spaces, the entirety of Yuzhong District composes its own central cluster.

Within the clusters is the designation of multiple CBDs. As mentioned, Yuzhong District contains Chongqing's most important CBD, centered around Revolutionary Square (seen in the previous section, Fig. 13). What distinguishes Yuzhong District's CBD from other CBDs in Chongqing is that Yuzhong is also the location of the most visible municipal and party central offices of Chongqing Municipality, such as the Great Hall of the People (Fig. 17). Due to Yuzhong District's small size, some of the large area development projects proposed for other parts of Chongqing are not possible. Instead, the master plans express the intention of developing Yuzhong District as not only the financial heart of Chongqing, but also the cultural and research center of Chongqing (Chongqingshi Guihua Ju, 1996).
With these goals driving development in Chongqing since 1996, it is perhaps no wonder that the amount of affordable housing in central Chongqing has declined precipitously.

In Yuzhong District, much of this affordable housing was contained in the dense wooden buildings that used to cover the peninsula. In order to provide room for the multitude of urban functions planned for the Yuzhong Peninsula, most of these older neighborhoods have been torn down, leaving dearth of affordable housing in Yuzhong District.

The master plan recognizes the problems of supply affecting affordable (read: non-luxury) housing. However it proposes a somewhat contradictory approach to resolving the issue of supply since it both declares the intention to build affordable, small-area housing as well as the desire to increase the per-capita housing area:

Recognizing the different income classes in society, we shall build a complete housing provisioning system that satisfies different levels of housing needs, strongly promotes the construction of affordable housing, increases the supply of medium- and small-area commercial housing at a low price-point (including economic affordable housing), and furthers the healthy development of the real estate industry. By 2020, per capita constructed housing area will reach 35 square meters at a comfortable middle-class [xiaokang] standard. The rate of complete units [including kitchen and bath] will reach 100% (Chongqingshi Guihua Ju, 2010 [translation by author]).

Prior to the mid-1990s, most urban land-use was not determined by market signals but by institutional need. Now land use is determined through the negotiation of for-profit enterprises with municipal government. In other words, a black box of market signals and political fiat determines the use to which any given parcel of land in an urban area will be given over. According to the above development goals for Yuzhong District and for housing in Chongqing, it is perhaps not surprising that Yuzhong District is not
planned to be a site of low-income housing. The rent-gap accruing to land currently occupied by dilapidated housing in Yuzhong District has grown quite high and, so, the municipal government wished to capture it:

[We shall] improve the urban functions of the inner-city, renovate the old city [following the theory of] organic decentralization, adjust and optimize the city's structure and focus on perfecting the construction of Chongqing's central business district in the Yuzhong Peninsula and along the river on both sides. The basis of the improvement of old urban areas will be the near term expansion of urban areas within the inner ring[-road] to the north… [We shall] pro-actively lead healthy and orderly areal development, strongly promote the construction of the northern new district, bring forward the construction of essential infrastructure for the extensive [new] east and west zones, [and] actively foster the urban sub-centers of Xiyong [in the west] and Chayuan [in the east] (Chongqingshi Guihua Ju, 2010 [translation by author]).

The plan discusses changes to Yuzhong in allusive terms, mentioning the upgrading of urban functions and construction of a central business district, but it also alludes to Eliel Saarinen's theory of organic decentralization as an indication of what to expect. A Finnish-American architect known in the West almost entirely for his building designs. Saarinen's urban theories are largely forgotten in the West but alive-and-well in China and, as seen above, still actively applied in urban planning. Saarinen's theory encouraged the removal of heavy industry from central areas in order to make room for office space and amenities to attract office workers (Saarinen, 1943). As the redevelopment of the vegetable market and the clothing distribution areas show, noted above, municipal leaders consider these functions to be inappropriate for Chongqing's central business district. Following Saarinen, municipal leaders plan to replace these congregations of small enterprises with pencil towers filled with offices and
penthouses becoming of the Chicago on the Yangtze, the Inland Hong Kong (Yuzhongqu Zhengfu, 2008).

3.3.2: A spectacle of planning

3.3.2.1: Redevelopment Projects

The displays that make up the Chongqing Planning Exhibit provide insight into the specific development projects intended for Yuzhong District and the rest of Chongqing, as well as how these projects fit into the larger developmental goals of the district and the city. In this short section, I will explore what the Chongqing Planning Exhibit says about Yuzhong District’s future by examining three different components of the planning exhibit: the presentation of the Chongqing master plan, the presentation of the large-scale redevelopment projects underway and planned for Yuzhong District, and the presentation of the social housing program.

Chongqing is very reflexive about its planning initiatives, belying the importance of urban planning for local leaders. The planning exhibit contains a large mock-up of the Chongqing metropolitan area. The mock-up (Fig. 18) is

Fig. 18: Mini-Chongqing at the Planning Exhibit.
updated over time as new projects are approved and, at any one time, shows the city as it is, as it will be, as it could be and as it probably will not be, depending on what is torn down and what is built.

Overlooking the mock city on the second floor are atria that contain small exhibits about particular urban (re)development projects, or snapshots of the city in different historical periods, or the application of specific policies across the entire city. The aim of the exhibit as a whole is to present the master plan of the city of Chongqing. It is not difficult to also deduce from the glowing presentations of how particular projects contribute to the master plan that the exhibit is meant also to “sell” Chongqing to visitors and tourists. Tours are given on demand, and visitors are given a dry description of the planned projects that will change the landscape of Chongqing (Fig. 19). The Planning Exhibit works hard to leave the visitor with the feeling that Chongqing is an up-and-coming city and that it is developing scientifically and inclusively in a way that is somehow different from other places in China.

Fig. 19: Tours at the Chongqing Planning Exhibit.
In addition to the model of the entire city of Chongqing, atria and wings of the exhibit include smaller models of specific development projects underway throughout Chongqing. Of these small models, several are of projects in Yuzhong District. Fig. 20 shows plans for the redevelopment of People’s Square, called here the May First Road complex. This project is largely completed and appears in Fig. 13 in Section 3.3. Next is Guotai Art Plaza, which is still a work in progress, and that is also in central Yuzhong (Fig. 21). It will include a large park that can serve as a staging place for dancing, exercise and public art displays. The development will also contain a 35,000 m² art museum as well as a 64,000 m² shopping center underneath the park. This is a good example of the use of underground space for commercial projects that is quite common in urban China. Finally, Fig. 22 features the display at the planning exhibit about the completed Jiaochangkou redevelopment project. Jiaochangkou is a major transportation hub, both for surface transportation in central Yuzhong as well as a station on the metro in which one can
switch between several lines. In its new form, Jiaochangkou now also borders on the northern side of Shibati. The picture looking down upon Shibati in section 3.3 (Fig. 14) was taken from the southern edge of Jiaochangkou.

3.3.2.2: Social Housing

Social housing in Chongqing more resembles the public housing of Europe than of the United States. In fact, Chinese planners have explicitly cited American experiences with public housing as a model to avoid (Zhang & Fang, 2004).

Perhaps a more direct role model for Chongqing (and Chinese urban areas in general) has been Singapore, in which a majority of residents live in some form of publicly subsidized housing. This all goes to say that the “lifestyle” presented in these social housing estates is supposed to be middle-class. Fig. 23 and Fig. 24 provide an idea of what these newly housed middle-classes can expect. A floor plan for a building that includes studio, one-, two- and three-bedroom apartments, all units include a kitchen and a small balcony. The architect’s drawing includes little planters on tile floors and people in couches, obviously socializing.
The planning exhibit also includes a presentation of Chongqing’s plans for the construction of large social housing estates. Residents of social housing projects only include those truly on the bottom economically: those who have no home or live in unsafe or extremely cramped conditions. Also included are those who may not be in dire need of housing but who live in cramped conditions and cannot raise the necessary funds to buy on the market. The requirements for receiving a social housing unit are extremely stringent and require documentary proof of housing need and financial destitution, and also often require a waiting period in which the district governments put up public posters of all residents seeking social housing. These posters allow for public comment on the degree of housing need and financial destitution of residents seeking social housing.
This allows the government to remove from consideration those who have unreported income.

The locations of the social housing estates show clearly the government’s desire to maintain central Chongqing as an elite space (Fig. 25). Not one social housing estate is located in Yuzhong District. In fact, none are located within the first ring-road. Some of the planned estates are in fact near or beyond the second ring-road, which means they will be built on converted farmland. In other words, the city will only ensure affordable housing in the outskirts of town. These can then perhaps serve as colonies of the city as it expands north and south along the two sets of mountains that divide Chongqing into three north-south strips (seen in Fig. 25 as the green stripes that pass vertically through the city).

**3.4: Conclusion**

The spatial differentiation by income mentioned in the literature is clearly visible in central Chongqing. Images from the stroll in Section 3.2 showed areas of wealth and

**Fig. 25: Map of planned social housing projects.**
areas of poverty in central Chongqing. However, all contemporary development in central Chongqing is luxury development. Thus, the only reason low-income housing still exists next to the luxury stores and office towers of central Chongqing is simply that the municipal government has not finished resettling the residents and tearing down the buildings.

This differentiation of urban forms by income that was apparent in the photographs of central Chongqing is matched by an intended functional division and differentiation of urban Chongqing as described in the master plan. As seen in the Chongqing Planning Exhibit, central Chongqing will be the primary central business district. It will contain the highest order functions for all of Chongqing and will not be a site of low-income housing since the municipal government desires development of a higher order
Chapter 4: What the Satellite Saw: The Extraction and Classification of Urban Forms in Yuzhong

4.1: Introduction

This chapter will use the extraction and classification of sites of pre-Communist housing in Yuzhong District to examine how locations of low-income housing have changed during the first decade of the millennium. The previous chapter examined central Chongqing as it currently is, as well as how it is planned to be, this chapter examines central Chongqing from two points of time in the recent past to determine how locations of low-income housing have changed during the first decade of the millennium. In previous chapters I investigated the policies and official goals behind the changes occurring in Chongqing (and in urban China in general). This chapter turns to the actual physical neighborhood forms and spatial arrangements in which political decisions of land-use manifest themselves in the central district of Chongqing Municipality.

4.2: Methodology

In this chapter, I use characteristics of pre-Communist housing outlined in the literature and observed by myself to identify and map these locations with satellite imagery in Yuzhong District. The satellite imagery I acquired includes the entirety of Yuzhong District. One image was taken June 26, 2002 and the second image was taken December
8, 2010 (Fig. 26 and Fig. 27). For each year, I create a polygon shapefile in ArcGIS of all locations of pre-Communist housing. Using landscape cues (e.g., proximity to farm-fields, location topology), I classify the polygons of each shapefile into distinct categories which can then be compared between years.

The 2002 and 2010 satellite images are both very high-resolution and include four spectral bands (blue, green, red and near-infrared) as well as a panchromatic band, which measures the combined light reflected in all of the above spectra. The 2002 image was taken by the IKONOS satellite. Its spectral bands have a ground resolution of 4m, while

![Image: Yuzhong District 2002 - IKONOS](image)

**Fig. 26:** IKONOS satellite image of study site.
its panchromatic band has a ground resolution of 1m. The date of the image was the earliest available image in the decade that did not include excessive cloud cover. The 2010 image was taken by the GeoEye-1 satellite. Its spectral bands have a ground resolution of 2m while its panchromatic band has a ground resolution of 0.5m. Both images were projected using the Universal Transverse Mercator (UTM) projection, zone 48, with the WGS84 datum.

Pre-Communist housing forms the vast majority of the low-income housing present Yuzhong District. Compared with other types of low-income housing, pre-Communist

Fig. 27: GeoEye-1 satellite image of study site.
housing is also relatively easy to recognize via satellite imagery, making it much easier to map reliably. Based on on-site observations and photographs taken in Yuzhong District, three characteristics stand out as indicators of this type of housing: 1) structures made of wood, 2) structures of irregular shape, and 3) high density with narrow paths between structures. This corresponds with the characteristics of low-income housing used in other remote sensing studies to identify slums in satellite images (Sliuzas and Kuffer, 2008; cited in Netzband et al., 2009).

In both the 2002 and 2010 images, wooden structures appear quite dark. This is partially because the vast majority of wooden structures in China are old and disused, therefore unpainted, uncleaned, and dark. This contrasts with the glass, concrete and metal structures constructed in the Reform Era.

Unlike in Maoist China and Reform China, residential structures built in pre-Communist China tend to be more irregular in shape, as they were generally built for, and often by, single families and often include multiple additions. This contrasts with the residential dormitories of Maoist China, identical structures built in uniform rows, and the large scale residential towers of the Reform Era. As mentioned in Chapter 1, more than any other type of housing in contemporary urban China, pre-Communist housing most closely resembles informal housing present in urban areas in other developing countries.

Finally, one of the most useful characteristics to distinguish pre-Communist housing is its high density. Density is often used to identify low-income neighborhoods by remote sensing practitioners (Kohli et al., 2012). In the case of Chongqing, the lack of flat
building sites as resulted in hillside neighborhoods in which structures are partially stacked one on-top of the other – thus creating the appearance from above of no space between structures. In urban areas especially, where Maoist era planners constructed most new structures on the outskirts, expressly for the reason that it was there that they could build spacious work-unit campuses. This campus-like structure, with identical buildings placed in regular grids characterizes the urban districts constructed during the Maoist era. In the reform era building density began to reflect market signals and thus many residential buildings in the past several decades have been constructed on landscaped campuses with buildings laid out in curving patterns, the so called “swinging lines and dancing dots” of Hassenplug (Hassenplug, 2010).

In summary, I determine the presence of pre-Communist structures using multiple characteristics. The area has to appear dark in all color bands and the panchromatic band. The area has to consist of small and irregularly shaped structures densely spaced with only narrow paths in between. Structures in the area have to be aligned irregularly. These above characteristics all indicate the informal nature of pre-Communist neighborhoods. I shall be conservative in my classification and only classify those areas which meet all of these above characteristics. This will lead to areas classified as pre-Communist in close proximity to areas that did not meet all the required characteristics to be classified as pre-Communist, yet which still appear to be of the same era. If an area is small and completely surrounded by areas classified as pre-Communist, then I shall reclassify the area as pre-Communist. If the area is not surrounded by pre-Communist structures, but merely contiguous, then it shall remain unclassified. I shall not include
large roads in areas classified as pre-Communist, even if both sides of the road are so classified. Certain large pre-Communist neighborhoods will therefore be transected by roads and split into two or more sections.

I used the edit tool in ArcGIS 10.1 to create a polygon shapefile of the boundaries of pre-Communist housing. I only included locations that met all three above characteristics of pre-Communist housing. Thus I did not include buildings such as Maoist-era worker dormitories that, even though they appear dark in the satellite image, they are regularly shaped and are not dense.

Finally, I further classify pre-Communist housing in Yuzhong District based on position in the urban landscape. In other words, I classify the objects of the shapefile depending on the object's physical context. This is rooted in the literature of contemporary urban housing in China. For example, I look for evidence of urban villages in those parts of Yuzhong District that were not historically part of the city of Chongqing.

4.3: Results

While mapping site of pre-Communist housing in Yuzhong District, I faced two main difficulties: 1) the resolution of the 2002 IKONOS image did not always allow me to identify the borders between individual buildings with complete certainty, and 2) in both the 2002 and 2010 images, the hilly topography of and the large number of tall buildings in Yuzhong District created many dark shadows that prevented the easy classification of
Fig. 28: Hand-mapped locations of pre-Communist housing, 2002.

an area. Also, in less developed parts of Yuzhong District, the abundance of trees occluded areas of potential pre-Communist housing.

To overcome these obstacles, I used a simple set of decision rules to maintain consistency of classification in the expert classification. To address the first problem, I viewed all parts of my study-site at multiple scales (1:2,000 and 1:5,000). The lack of building boundaries at the lower resolution resolved into a distinctive texture at the higher resolution that was roughly similar within all areas of pre-Communist housing. To address the second problem, I classified an area with caution, only classifying it as pre-Communist housing if I could clearly see the buildings. The only exception to this rule
Fig. 29: **Hand-mapped locations of pre-Communist housing, 2010.**

was if the area in question was small and was completely surrounded by areas identified as pre-Communist. I followed a similar decision rule in areas occluded by tree canopies. Additionally, I compared the boundaries extracted from the 2010 image to those from the 2002 image and ensured that any area classified as pre-Communist in the 2010 image (with its higher resolution) was also classified as pre-Communist in the 2002 image. This allowed me to make use of the superior resolution of the 2010 image to better interpret the 2002 image in those areas which had not seen tremendous change in the intervening eight years. This method was only a partial solution as many of the areas of pre-Communist housing found in 2002 had been demolished by 2010.
Although I was not able to perform a ground-truthing of my study-site after these classifications (and my study's timeframe ended several years ago), I was able to use on-the-ground knowledge of current locations of pre-Communist housing in Chongqing that I obtained while on location to train my eye to match the textural and spectral characteristics of areas in the satellite images to those areas I knew to be pre-Communist housing. The results of this classification in are shown Fig. 28 and Fig. 29.

4.3.1: Locations and Types of Low-Income Housing

In order to understand how the development and planning goals of Chongqing's leaders and urban residents unfolded during the first decade of this century it is useful to recognize three distinct locations for pre-Communist housing in Yuzhong District in 2002: 1) central city housing that had managed to spare redevelopment, 2) housing perched on the hills at the river’s edge, and 3) housing composed of the remains of villages once outside of Chongqing (Fig. 30). Each of these three types of housing had different origins, survived until 2002 for different reasons, and fared differently between 2002 and 2010.

It is important to note that the above housing types managed to last until the first decade of this century both because of the policy in Maoist China of not destroying existing housing stock, as mentioned in previous chapters, and also because, in reformist China, they existed in less desirable locations. The protection afforded these areas has diminished over time, however, as the demand for central urban land has increased and
the legal and financial mechanisms for development have expanded. In 1997, when Chongqing Municipality was placed at the provincial level, the urban villages lost whatever legal rights they held to their land to the Municipal Government, thus making their redevelopment by the latter all the more easy. As central Chongqing has become the headquarters for numerous multi-national corporations for their operations in Western China, the difficulty of negotiating resettlement and the inconvenience of building on complex terrain have become less significant barriers compared to the potential profits of development.

**Fig. 30:** Types of pre-Communist structures present in 2002.
The first location of pre-Communist housing in Yuzhong District, the central city housing, served as the dominant form of housing in Chongqing at the beginning of the Communist Era. Along with the small number of public buildings and larger number of factories and shipping facilities, this type of housing was Chongqing, from a physical perspective. When the Communists captured Chongqing from the Nationalists, they did not tear down and rebuild central urban areas, instead they built at the urban fringe. Thus the locations of pre-Communist housing in central Chongqing in 2002 are the representative remnants of a much larger housing stock that once covered the Yuzhong Peninsula.

Several larger neighborhoods of pre-Communist housing still remained in the southern and eastern parts of the peninsula, but a number of smaller sections of pre-Communist housing are spread widely throughout the rest of the peninsula. These are remnants of neighborhoods: neighborhoods that were redeveloped, but not entirely, leaving a small non-redeveloped section, lying low between the glass and steel of Reform Era structures. Their dispersion indicates that this type of housing once covered a larger portion of the peninsula.

The second location of pre-Communist housing in Yuzhong District, housing perched along the river’s edge, is seen only along the Yangtze River where it curves south, diverging from the Jialing River and thus forming an end to the Yuzhong Peninsula. This type of housing, located on this type of terrain: small semi-detached wooden structures on the hilly land on the water's edge, is also a representative form of housing in Chongqing.
and in other parts of the upper Yangtze. This housing was spared during the communist era not just due to their policy of preserving existing housing, but also because it rests on hilly, cliff-like terrain that largely prohibits the construction of rows of buildings in compounds that were so common in the Maoist era.

The third location of pre-Communist housing in Yuzhong District, housing formed from the remnants of farming villages once located outside of Chongqing but, by 2002, being surrounded by apartments and factories as Chongqing expanded. This is an example of the urban village, or “village within the city” (城中村), that has been so well documented.

![Urban Villages and Farm Fields, 2002](image)

**Fig. 31:** Farm fields still present near urban villages in 2002.
by students of Chinese urban forms. However, unlike the urban villages usually mentioned in the literature, located in Shenzhen and other cities in southern China, the villagers from these now urban villages hold urban *hukou* and therefore did not possess the same right to compensation as their counterparts in Shenzhen (c.f. Hsing, 2010).

It is interesting to note that in 2002 these villages still have agricultural fields surrounding them. (Fig. 31) This type of housing is perhaps the most representative of Chongqing Municipality considering that throughout most of the 2000s, the majority of the inhabitants of Chongqing Municipality lived in rural areas and that agriculture served as the main source of income in many locales. These rural areas in the most central urban area of Chongqing in 2002 thus represent the largely rural character of Chongqing Municipality compared to the other province-level municipalities.

I will now examine how each of these types of pre-Communist housing fared during the first decade of the new century (Fig. 32).
The first type of pre-Communist housing recognized in 2002, the central city housing, has seen its area shrink substantially, but some conglomerations still exist largely intact. Indeed I propose that, arising out of the exigencies of contemporary Chinese urban politics and finance, two opposing forces are at work in the conversion of these areas of pre-Communist central urban housing into modern urban forms as relates to the size of the conglomeration of pre-Communist housing. The first force at work leads to the creation of micro-clusters of pre-Communist housing. As larger neighborhoods are redeveloped, often certain fringes are left, thus creating the micro-clusters. This is apparent in both the 2002 and 2010 satellite images by the presence of numerous small areas of pre-Communist housing spread throughout the Yuzhong Peninsula, even in areas...
that otherwise have been completely redeveloped. This tendency leads to the proliferation of micro-clusters of housing poverty. The second force at work is a result of the complex web of processes that must be followed when a neighborhood is to be redeveloped and its inhabitants moved elsewhere. In this situation the property developers (usually a work-unit-cum-property development company), with the aid of the city government, must negotiate with the current residents to leave. As mentioned in the stroll through the Shibati neighborhood in Chapter 3, the residents may apply pressure on the property developers to receive better compensation. This thus means that the redevelopment of urban areas with large existing populations can be extremely complex, as each resident must be negotiated with separately. I contend that this aids in the preservation of conglomerations of housing that are both large and densely populated.

The second type of pre-Communist housing recognized in 2002, perched on the hills overlooking the river, has fared well in the first decade of the millennium. All of the areas of pre-Communist housing noticed on the river’s edge in 2002 are still present in 2010. The complex topography of the area and perhaps its inappropriateness for the construction of large buildings has protected this pre-Communist neighborhood. These would indeed be desirable houses for the working class as their proximity to the central city and the rail and water shipping depots would ensure easy access to employment. Engaging in simple speculation, this could be a location for future gentrification. Whether or not the buildings themselves are preserved, if the terrain precludes the construction of large buildings, it would be an excellent location for single-family homes for the wealthy.
The third type of pre-Communist housing, the urban villages, is almost entirely gone. The remnants of the village in the far west of Yuzhong District have been completely removed. The village remnants in the central part of non-peninsular Yuzhong District has been reduced to a fraction of its original size, with only a small agglomeration of pre-Communist housing left in the northern portion of its original extent. By 2010 many of the former village areas have either been converted into mid- and high-rise housing estates or are bare ground awaiting construction (Fig. 33). This change is perhaps not surprising considering the relatively simple topography of some of these areas and their proximity to the city center, made all the more convenient by the construction of better

Fig. 33: Urban village in 2002 and same location in 2010.
transportation infrastructure.

As seen in the Shibati neighborhood, the writing is literally on the wall for the pre-Communist central city neighborhoods in Chongqing. Starting with the fringes and the less populated neighborhoods, they have been redeveloped and replaced with mid- and high-rises; next, the larger, densely populated neighborhoods, such as Shibati, will be replaced. They survived the 2000s more wholly intact than the urban villages, but their prime location has no place in the plans for a modern Chongqing, meant to be the Chicago on the Yangtze, the Hong Kong of inland China.

4.5: Conclusion

Pre-Communist housing was found to exist in three locations: 1) remnants of inner-city housing, 2) housing along the river's edge, 3) housing in urban villages. Between the two dates, the majority of urban villages were redeveloped, with large-scale transportation being an important part of the replacement development. The first and second types of pre-Communist housing fared somewhat better, with almost all of the housing along the river's edge surviving. Inner-city housing saw partial redevelopment and its central location led to ultra-high-density replacement development, primarily the office and apartment towers that define the current Chongqing skyline. This is the effect of a top-down land-politics that values large-scale development that targets a relatively up-scale clientele. The change seen in Figure 4.8 also conforms to the master plan's implied adherence to the theories of Eliel Saarinen since the latter's primary urban theory called
for the replacement of lower order development with higher in central places. As mentioned, those areas that present topological difficulties are partially protected from redevelopment as the new market-driven developmental system must consider directly costs of development more than its socialist predecessors.

This chapter has presented a synoptic and diachronic view of urban change in central Chongqing. From 2002 to 2010, there is evidence of Chongqing pursuing a reorientation of its land-use toward higher uses. From the point of view government actors, urbanization is a developmental project and the higher land-uses Chongqing pursued improve the status of Chongqing as a modern, developed metropolis. From the point of view of wealthy urban inhabitants, the urban land-politics of the redevelopment of Yuzhong District has supported their interests and as pre-Communist housing has yielded and is still yielding to luxury housing and offices. From the point of view of low-income urban inhabitants, Yuzhong District is quickly becoming a place to expensive to live. Low-income spaces now exist only as enclaves in a wealthy Chongqing.

The previous chapter examined Chongqing and Yuzhong District using documents and photographs. This chapter has used satellite imagery. The next chapter shall use statistical data of the districts that make up the urban core to portray the processes of social and economic centralization and decentralization that underlie the redevelopment of Yuzhong District.
Chapter 5: The Presentation of Yuzhong District in Statistics: Measuring and Spinning

5.1: Introduction

This chapter examines the developmental project of urbanization in the Chongqing urban core using editions of the Chongqing Statistical Yearbook from 2003 to 2010. I will position Yuzhong District within the rest of the Chongqing urban core so that the socio-economic properties specific to central Chongqing become more apparent. The developmental goals of the municipality and the housing goals of the inhabitants of central Chongqing can thereby be contextualized in the larger developmental trends of the Chongqing urban core.

This chapter charts changes in the socio-economic centrality of Yuzhong District within Chongqing as well as changing economic landscape of the Chongqing urban area. By contextualizing the social and economic development of Yuzhong District within the development of the rest of urban Chongqing, this chapter will allow for a more complete interpretation of the conclusions reached in previous chapters.

5.2: Methodology

Every year each province and municipality in China releases a statistical yearbook. Most of the data contained within them are aggregated at the municipal level, therefore
encompassing all of Chongqing municipality, including rural counties and urban areas not part of the urban core of Chongqing. However, each yearbook also includes a section that provides certain statistics at the district and county level. I shall use this section of the yearbook to examine changes in the economic status of Yuzhong District over time as well as see how Yuzhong District fits into the overall socio-economic geography of Chongqing Municipality. I will include data from 2003 to 2010. I was unable to locate 2002 data.

When using official statistics on urban China, it is important not to interpret them as an unequivocal portrayal of reality. Indeed, while carefully trained statisticians collect, aggregate and calculate the myriad of regularly gathered numbers and indices with which reform China's economic and social development is measured, the statistics that get reported officially also have an unavoidable political dimension to them.

A better way to imagine the data contained in these yearbooks would be as explanations for the changes occurring in Chongqing (and throughout China) as the country experiences rapid urbanization. They serve as an extraordinarily powerful form of propaganda, especially since higher education in China is far more widespread than in the past. The data contained in the yearbooks are thus an ideal propaganda tool for the statistically literate college graduates, whose problems and futures planners in China are worried about.
5.3: Measuring demographic trends in Chongqing

When regarding Chinese urban areas, it is important to be conscious of the different boundaries of the city in use as well as different ways to measure the urban population. As Holz points out, the official statistics for urban areas, following the existing system of political boundaries often includes large rural hinterlands that are directly controlled by the city (Holz, 2002). Regarding actual urban areas, not only are their land areas often inflated but, since rural areas in China often have high population densities by Western standards, reported populations are also often inflated (sometimes substantially).

Working in the other direction, official urban populations can often understate the number of residents because they include only those residents who have official urban residency permits. To these may be desultorily added those migrants who registered themselves or migrant population estimates which may be more or less accurate depending on the will and competence of local officials (Holz, 2002; Ma, 2005; Chan, 2007; Chan & Zhao, 2002; Shen, 2007).

In the case of Chongqing, the populations and areas derived from different measurements of the city can vary immensely. When Chongqing was separated from Sichuan province, it was given a large hinterland of 82,401 km², about the same size as South Carolina. The entirety of this relatively large territory is officially the city of Chongqing and is therefore directly controlled by the municipal government, headquartered in Yuzhong district. The population of Chongqing is sometimes given as around 30 million, making it the largest city in the world, but this is extremely misleading since that figure is for all of Chongqing
municipality. A more acceptable figure would be for the Metropolitan Developed Economic Circle (roughly similar to the American metropolitan area), in which case Chongqing's population was 6,228,500 in 2010 (National Bureau of Statistics of China [NBSC], 2011). The Metropolitan Developed Economic Circle will also be called the “urban core” here.

Chongqing is an unusual demographic case for a city in China. When it was declared a directly controlled municipality, it was thrust into the same league as the political and financial juggernauts of Beijing and Shanghai. This designation gives the urban administration great leeway to create laws and pursue public planning projects. However, Chongqing does not at all resemble the other directly controlled municipalities. In many ways, Chongqing more resembles a province than a municipality. Chongqing's land area is larger than two provinces and the majority of its population lives in agricultural regions. In 2007, ten years after becoming a provincial level municipality, Chongqing's official urbanization rate stood at 48.3% (NBSC, 2008). Even this figure is misleading, as the vast majority of Chongqing's land area is non-urban. In eastern counties within the municipal limits, the urbanization rate barely reached 30% in 2007 (NBSC, 2008).

Another important aspect of Chongqing's unusual population structure, compared to the other provincial municipalities, is that the municipality is a net exporter of migrants. While the urban areas of Chongqing are net importers of migrants, the rural areas of the

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11 Hainan and Ningxia
12 For similar situations in other cities in China see Sit, 2005.
municipality are exporting rural-to-urban migrants to other parts of China. This is a tremendous difference between Chongqing and the other province level municipalities, as Beijing and Shanghai are among China's most important destinations for rural-to-urban migration. Chongqing's official net population loss due to out-migration as of 2010 was over 4 million people.\(^{13}\) (NBSC, 2011) This certainly contributed to the absolute population decline between 2000 and 2010. While the registered population increased by over 2 million, the resident (actual) population decreased by almost 1 million. (NBSC, 2001, 2011) The other province level municipalities registered large population increases over the same period.

At the same time, the average yearly income in Chongqing was (and remains) a fraction of the incomes of the other provincial level municipalities. Since the majority of Chongqing residents are rural, the average income is lower (Chan & Wang, 2008). This contrasts with Beijing, Tianjin and Shanghai which have far lower proportions of their population living in rural areas. The average income of Chongqing residents living in urban areas is far higher than those living in rural areas, especially rural areas in the eastern counties (NSBC, 2012).

### 5.4: Yuzhong over Time

In the previous chapter I examined Yuzhong District in 2002 and 2010, in this chapter I

\(^{13}\) This is calculated by subtracting the resident population from the total population holding Chongqing household registrations (hukou).
examine demographic and economic characteristics of the district each year from 2003 to 2010. This chapter presents evidence for an expansionary policy of urban development predicated on deficit spending (Chart 4). Per capita income and the value of consumer goods sold in Yuzhong District also increased markedly over the period (Chart 2 and Chart 3). From the beginning to the end of the same time period, the population of Chongqing actually fell, with the resident population falling quite significantly between 2009 and 2010 (Chart 1). Also, considering that the value of consumer goods sold increased even in those years that the total percentage of the economy derived from the tertiary economy (service industries) remained unchanged or decreased, it seems apparent that retail and consumption-oriented enterprises comprise an increasing proportion of the tertiary economy in Yuzhong District, as opposed to offices. This provides some insight into what is replacing the low-income, pre-Communist housing that disappeared in between 2002 and 2010 in the previous chapter. It would seem that stores and other sites of consumption are the primary replacement development for low-income, pre-Communist housing.

Two figures are given for population in Chart 1. The 'registered population' is the population that holds *hukou* for Yuzhong District, whether they reside in the district or not. This population remained largely unchanged until the last two years of the study period. The 'resident population' is the actual population of Yuzhong District, regardless of residency permit. Not surprisingly this figure is greater than the more restrictive 'registered population'. This is concessionary compared to practices before the 1980s when urban migrants not recognized as a distinct societal group. However, the number of
people living in Yuzhong District without the proper hukou is greater than the difference between the 'resident population' and the 'registered population'. Chongqing Municipality has been a net population loser in most years of the reform period as its residents leave for better work opportunities in eastern China. Many holders of Yuzhong hukou have been among this exodus. At the same time, Yuzhong District has been an attractive destination for immigration within Chongqing Municipality. Net population loss has occurred in rural areas of the municipality, while the population of the urban core of Chongqing grew tremendously over the first decade of the millennium (NBSC, 2011).

The population for 2010 showed a decrease over previous years, for both registered and resident populations. Informed by evidence presented in the previous two chapters, it seems likely that the district could continue to see population decline as the cost of housing increases in line with plans to recreate the district as an elite central place.

**Fig. 34: Population in Yuzhong District from 2003 through 2010.**
Turning to the figures of the GDP and the GDP per capita (Chart 2) a different trend presents itself. These figures are expressed in constant 2010 Yuan. Aside from 2006, every year shows an increase over the previous year. For GDP, again there is an inflection point in 2009, as GDP increases drastically over the previous year. GDP per capita\textsuperscript{14} is highly influenced by the population and since the population fell significantly in 2010, the GDP per capita increased markedly. I have adjusted the original figures for inflation which, as they were released each year, were not adjusted for inflation.\textsuperscript{15} The reported figures show a much more constant rate of growth, although the tremendous increase at in 2009 and 2010 is still present. Interestingly, breaking down the GDP by sector, it is seen that the vast bulk of it is generated in the tertiary economy, reportedly increasing from just over 80% in 2003 to almost 95% in 2010. This reduction in the

\textbf{Fig. 35: GDP of Yuzhong District from 2003 through 2010.}

\textsuperscript{14} Interestingly calculated using the resident population as the denominator instead of the registered population, further showing an implicit recognition that \textit{hukou} population does not serve as an accurate measurement.

\textsuperscript{15} Inflation figures from Inflation.eu (http://www.inflation.eu/inflation-rates/china/historic-inflation/cpi-inflation-china.aspx).
importance of industry in a central urban district is in line with the ideas of Saarinen cited above in the Chongqing Master Plan. One causal factor for the reduction of industry's role in the economy of Yuzhong District is that many of the largest land developers in urban China are former industrial work-units that discovered that it was far more profitable to sell and/or develop their work-unit’s property than to continue operation as an industrial enterprise.

Fig. 36: Ratio of Tertiary Economy and Value of Consumer Goods Sold from 2003 through 2010.

Obviously an increasing GDP and GDP per capita are an integral part of government plans for the future of Yuzhong District. However, an even more integral part of municipal and national plans for Chongqing as a central place is indicated in the uninterrupted rise in the value of consumer good sales between 2003 and 2010 (Chart 3).

As a commercial center whose economy is now almost entirely tertiary, sales of consumer goods is an important indicator of economic vitality.

Perhaps as the strongest evidence of the importance of Yuzhong District in plans for economic centralization is presented in Chart 4, showing the district's revenue and
expenditures during the study period. Except for a single year, both revenue and expenditures increased every year. Notice that even as the population stayed roughly steady and then declined (Chart 1 above), the amount of revenue and expenditures increased rapidly. Also notice that while the amount of expenditures put Yuzhong District is in the red each year (although, see below) that the ratio of expenditures to revenue was trailing downward through much of the period. It is important to keep in mind that even though the ratio is not increasing, the yuan amount borrowed has increased markedly over the period in question, a disconcerting trend not unique to Chongqing. (Tsui, 2011)

**Fig. 37:** *Revenue and expenditures in Yuzhong District 2003 through 2010.*

In the graphs above of the percent change in revenue and expenditures over the previous year during the study period, two dates stand out as inflection points: 2005 and 2008/2009. 2005 saw the beginning of Wang Yang's tenure as leader of Chongqing Municipality. He has been recognized for his economic acumen that furthered Chongqing’s march into economic and political importance. 2008/2009 saw a double thrust for the development of Yuzhong District and Chongqing Municipality by Bo Xilai,
the then Chongqing Party Secretary, and Hu Jintao's government. Their motives differed as Bo wished to strengthen his personal fiefdom and thereby increase his political capital (which process is explained in Chapter 2), whereas the central government was attempting to stanch the effect of the international financial crisis that had led to millions of migrants returning to inland China, including Chongqing, after losing their jobs in the export-oriented factories of the Chinese coastal provinces.

**Fig. 38:** The districts that comprise the Chongqing urban core
5.5: Yuzhong in Its Place

In this section, I shall examine the socio-economic centrality and functional differentiation between the districts that make up the Chongqing urban core. Fig. 34 shows the districts that comprise the Chongqing urban core.

Tables 1 through 5 show different variables extracted from the Chongqing statistical yearbooks for the nine districts that make up the Chongqing urban core from 2003, 2007, and 2010. These districts, called the Metropolitan Advanced Economic Sphere in 2003 and the Metropolitan Developed Economic Circle in 2010\textsuperscript{16}, match more closely the American concept of the metropolitan area. Table 1 shows the population density (people/km\textsuperscript{2}) and percentage of the population whose household registration (hukou) is urban. The Chongqing urban core initially included three districts the majority of whose inhabitants were (officially) rural and in only three districts were more than 75\% of the inhabitants urban. In 2003 only Yuzhong District was completely urban. By 2010, officially rural inhabitants were the majority in only one district and in only three districts were less than 75\% of the inhabitants urban.

These variables provide little evidence to evaluate the cultural centrality of Yuzhong District as seen in the sites of public consumption noted in Chapter 3. Instead these statistics show the relative centrality of Yuzhong District as expressed by retail sales and personal wealth. At the same time, this graph shows evidence for a countervailing trend toward greater economic uniformity across the districts that is driven, at least partially, by

\textsuperscript{16} These are the provided translations; the Chinese name remained the same: 都市发达经济圈.
### Table 1: Population density and % of population with urban hukou

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</thead>
<tbody>
<tr>
<td>Yuzhong</td>
<td>28734.71</td>
<td>29983.13</td>
<td>26575.28</td>
<td>99.57%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Dadukou</td>
<td>2466.93</td>
<td>2617.48</td>
<td>2922.33</td>
<td>70.97%</td>
<td>76.96%</td>
<td>83.83%</td>
</tr>
<tr>
<td>Jiangbei</td>
<td>2824.93</td>
<td>3044.11</td>
<td>3335.14</td>
<td>80.38%</td>
<td>85.62%</td>
<td>90.06%</td>
</tr>
<tr>
<td>Shapingba</td>
<td>2094.70</td>
<td>2249.49</td>
<td>2525.25</td>
<td>69.75%</td>
<td>75.71%</td>
<td>80.22%</td>
</tr>
<tr>
<td>Jiulongpo</td>
<td>2078.26</td>
<td>2241.42</td>
<td>2481.46</td>
<td>66.36%</td>
<td>72.74%</td>
<td>75.97%</td>
</tr>
<tr>
<td>Nan'an</td>
<td>2420.38</td>
<td>2609.43</td>
<td>2866.42</td>
<td>75.01%</td>
<td>80.70%</td>
<td>85.47%</td>
</tr>
<tr>
<td>Beibei</td>
<td>865.83</td>
<td>927.28</td>
<td>901.19</td>
<td>44.02%</td>
<td>46.83%</td>
<td>50.77%</td>
</tr>
<tr>
<td>Yubei</td>
<td>544.75</td>
<td>639.86</td>
<td>926.56</td>
<td>30.79%</td>
<td>44.33%</td>
<td>52.12%</td>
</tr>
<tr>
<td>Ba'nan</td>
<td>434.48</td>
<td>476.79</td>
<td>502.85</td>
<td>28.63%</td>
<td>32.16%</td>
<td>40.71%</td>
</tr>
</tbody>
</table>

### Table 2: Expenditures over revenue

<table>
<thead>
<tr>
<th>District</th>
<th>2003</th>
<th>2007</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yuzhong</td>
<td>1.28</td>
<td>1.55</td>
<td>1.37</td>
</tr>
<tr>
<td>Dadukou</td>
<td>1.45</td>
<td>1.62</td>
<td>2.00</td>
</tr>
<tr>
<td>Jiangbei</td>
<td>1.70</td>
<td>1.59</td>
<td>1.37</td>
</tr>
<tr>
<td>Shapingba</td>
<td>1.65</td>
<td>1.55</td>
<td>1.29</td>
</tr>
<tr>
<td>Jiulongpo</td>
<td>1.80</td>
<td>1.55</td>
<td>1.33</td>
</tr>
<tr>
<td>Nan'an</td>
<td>2.51</td>
<td>2.42</td>
<td>1.58</td>
</tr>
<tr>
<td>Beibei</td>
<td>2.24</td>
<td>1.92</td>
<td>1.88</td>
</tr>
<tr>
<td>Yubei</td>
<td>1.82</td>
<td>1.94</td>
<td>1.55</td>
</tr>
<tr>
<td>Ba'nan</td>
<td>2.39</td>
<td>2.26</td>
<td>2.05</td>
</tr>
</tbody>
</table>
voracious deficit spending. The dates chosen provide a snapshot of Chongqing during three different administrations. The graph of expenditures as a percentage of revenue (Table 2) shows that most counties aside from Yuzhong District have had far higher levels of external financial support than Yuzhong District. Much of this is debt-funded, some may be provided by subsidy from the municipal and/or national governments (Naughton, 2011). Either source of funding, however, indicates the importance of material development in those districts to the national and municipal governments. It is important to also note that in 2010 China was still in the midst of a massive economic stimulus which was intended to counteract the effect of the world financial crisis of that had gripped the world the previous two years. In this environment it is not surprising that all of the urban districts are running significant deficits. Although it is widely believed that local governments in China are in tremendous debt, the amount of local government debt accumulated under the tenure of Bo Xilai was unusually high (Orlik & Wei, 2012).

**Table 3: District GDP as % of GDP of Chongqing’s urban core**

<table>
<thead>
<tr>
<th>District</th>
<th>2003</th>
<th>2007</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yuzhong</td>
<td>17.98%</td>
<td>15.42%</td>
<td>15.38%</td>
</tr>
<tr>
<td>Dadukou</td>
<td>5.93%</td>
<td>5.18%</td>
<td>4.93%</td>
</tr>
<tr>
<td>Jiangbei</td>
<td>10.10%</td>
<td>9.92%</td>
<td>10.88%</td>
</tr>
<tr>
<td>Shapingba</td>
<td>13.72%</td>
<td>12.67%</td>
<td>11.66%</td>
</tr>
<tr>
<td>Jiulongpo</td>
<td>18.24%</td>
<td>20.67%</td>
<td>16.39%</td>
</tr>
<tr>
<td>Nan’an</td>
<td>9.52%</td>
<td>8.65%</td>
<td>9.77%</td>
</tr>
<tr>
<td>Beibei</td>
<td>8.29%</td>
<td>6.08%</td>
<td>6.46%</td>
</tr>
<tr>
<td>Yubei</td>
<td>7.94%</td>
<td>13.54%</td>
<td>15.95%</td>
</tr>
<tr>
<td>Ba’nan</td>
<td>8.27%</td>
<td>7.87%</td>
<td>8.58%</td>
</tr>
</tbody>
</table>

Table 3 shows the percentage of the GDP for the entire Chongqing urban core that each district’s GDP accounts for. According to this statistic, the most economically important
districts in 2003 (Yuzhong and Jiulongpo) have lost ground. More interestingly, although several districts increased their share of the total GDP of the urban core, Yubei District’s share of the GDP increased far more than any other district. The southern part of Yubei District indeed saw tremendous urbanization and, therefore, wealth creation during the 2000s. Whereas Yuzhong District had the second largest share of the GDP of the urban core in 2003, by 2010 it had fallen to third place. Examining GDP alone, Yuzhong’s importance in the urban core has diminished during the 2000s.

This change is also seen in Fig. 35, which provides a snapshot view of the change in the proportion of the GDP of the Chongqing urban core than each district contributes. While Yubei is the obvious winner, according to share of GDP contributed, the more striking difference is the geographic division between districts whose relative standing increased and districts whose relative standing decreased. The western districts of the urban core all decreased their share of the region’s GDP whereas all districts in the east saw an increase. In this sense there is a loss of centrality as contribution of total GDP from all districts in the urban core partially equalizes. A similar pattern is apparent in the geographic distribution of the change in a district’s contribution to the value of consumer goods sold in the urban core, as seen below.
The change in the percentage of the value of sales of consumer goods that each district accounts for in the total value of consumer goods for the districts of the urban core also shows a similar tendency toward economic decentralization. (Table 4) At the same time, Yuzhong District still has the highest value of sales of consumer goods of any district in the urban core.
**Table 4:** Value of district’s sales of consumer goods as % of value of sales of consumer goods of Chongqing’s urban core

<table>
<thead>
<tr>
<th>District</th>
<th>2003</th>
<th>2007</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yuzhong</td>
<td>30.72%</td>
<td>23.92%</td>
<td>20.44%</td>
</tr>
<tr>
<td>Dadukou</td>
<td>1.99%</td>
<td>1.73%</td>
<td>1.56%</td>
</tr>
<tr>
<td>Jiangbei</td>
<td>10.26%</td>
<td>12.04%</td>
<td>13.71%</td>
</tr>
<tr>
<td>Shapingba</td>
<td>12.66%</td>
<td>14.24%</td>
<td>11.89%</td>
</tr>
<tr>
<td>Jiulongpo</td>
<td>18.77%</td>
<td>17.01%</td>
<td>15.20%</td>
</tr>
<tr>
<td>Nan’an</td>
<td>12.10%</td>
<td>11.36%</td>
<td>12.26%</td>
</tr>
<tr>
<td>Beibei</td>
<td>4.62%</td>
<td>5.05%</td>
<td>4.91%</td>
</tr>
<tr>
<td>Yubei</td>
<td>4.77%</td>
<td>9.62%</td>
<td>13.65%</td>
</tr>
<tr>
<td>Ba’nan</td>
<td>4.10%</td>
<td>5.04%</td>
<td>6.37%</td>
</tr>
</tbody>
</table>

Fig. 36 provides a snapshot of the changes in the proportion of the total value of consumer goods sold in the urban core of Chongqing represented by each district from 2003 to 2010. As is apparent, the northeastern districts of the urban core have experienced the greatest relative growth in the value of consumer goods sold.

Conversely, the southwestern districts of the urban core, including Yuzhong District have seen the greatest relative decline in the value of consumer goods sold. Combined with the above map of the relative changes in district GDP as a proportion of the GDP of the urban core, a pattern emerges of decentralization as GDP and sales of consumer goods equalizes between districts and more specifically, of the increasing importance of the eastern districts of the Chongqing urban core, particularly Jiangbei and Yubei districts, with a seeming relative decline in the economic importance of Yuzhong District, as well as the industrial powerhouses of Jiulongpo and Dadukou districts.
Shifting Centrality: Change in District's Proportion of the Value of Consumer Goods Sold in the Urban Core, 2003 to 2010

Fig. 40: Change in proportion of value of consumer goods sold, 2003 to 2010
Table 5: % of each district’s GDP derived from the primary, secondary, and tertiary economies in 2003, 2007, and 2010

<table>
<thead>
<tr>
<th>District</th>
<th>2003 % of GDP from Primary Economy</th>
<th>2003 % of GDP from Secondary Economy</th>
<th>2003 % of GDP from Tertiary Economy</th>
<th>2007 % of GDP from Primary Economy</th>
<th>2007 % of GDP from Secondary Economy</th>
<th>2007 % of GDP from Tertiary Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yuzhong</td>
<td>0.02%</td>
<td>19.59%</td>
<td>80.39%</td>
<td>0.00%</td>
<td>9.08%</td>
<td>90.92%</td>
</tr>
<tr>
<td>Dadukou</td>
<td>2.69%</td>
<td>76.96%</td>
<td>20.34%</td>
<td>2.03%</td>
<td>78.65%</td>
<td>19.32%</td>
</tr>
<tr>
<td>Jiangbei</td>
<td>1.46%</td>
<td>68.69%</td>
<td>29.85%</td>
<td>1.35%</td>
<td>46.65%</td>
<td>51.99%</td>
</tr>
<tr>
<td>Shapingba</td>
<td>3.57%</td>
<td>56.66%</td>
<td>39.77%</td>
<td>1.78%</td>
<td>52.09%</td>
<td>46.13%</td>
</tr>
<tr>
<td>Jiulongpo</td>
<td>4.12%</td>
<td>59.34%</td>
<td>36.54%</td>
<td>1.65%</td>
<td>50.54%</td>
<td>47.81%</td>
</tr>
<tr>
<td>Nan'an</td>
<td>3.54%</td>
<td>65.79%</td>
<td>30.68%</td>
<td>2.17%</td>
<td>60.02%</td>
<td>37.81%</td>
</tr>
<tr>
<td>Beibei</td>
<td>6.33%</td>
<td>52.67%</td>
<td>41.00%</td>
<td>6.84%</td>
<td>57.37%</td>
<td>35.79%</td>
</tr>
<tr>
<td>Yubei</td>
<td>14.76%</td>
<td>52.68%</td>
<td>32.56%</td>
<td>6.10%</td>
<td>61.21%</td>
<td>32.69%</td>
</tr>
<tr>
<td>Ba'n'an</td>
<td>22.96%</td>
<td>50.40%</td>
<td>26.64%</td>
<td>14.94%</td>
<td>55.63%</td>
<td>29.43%</td>
</tr>
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<table>
<thead>
<tr>
<th>District</th>
<th>2010 % of GDP from Primary Economy</th>
<th>2010 % of GDP from Secondary Economy</th>
<th>2010 % of GDP from Tertiary Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yuzhong</td>
<td>0.00%</td>
<td>5.18%</td>
<td>94.82%</td>
</tr>
<tr>
<td>Dadukou</td>
<td>0.81%</td>
<td>68.82%</td>
<td>30.38%</td>
</tr>
<tr>
<td>Jiangbei</td>
<td>0.68%</td>
<td>39.59%</td>
<td>59.72%</td>
</tr>
<tr>
<td>Shapingba</td>
<td>1.14%</td>
<td>51.34%</td>
<td>47.53%</td>
</tr>
<tr>
<td>Jiulongpo</td>
<td>1.21%</td>
<td>49.60%</td>
<td>49.18%</td>
</tr>
<tr>
<td>Nan'an</td>
<td>1.04%</td>
<td>61.72%</td>
<td>37.24%</td>
</tr>
<tr>
<td>Beibei</td>
<td>4.08%</td>
<td>63.29%</td>
<td>32.63%</td>
</tr>
<tr>
<td>Yubei</td>
<td>3.23%</td>
<td>59.01%</td>
<td>37.76%</td>
</tr>
<tr>
<td>Ba'n'an</td>
<td>8.91%</td>
<td>52.02%</td>
<td>39.07%</td>
</tr>
</tbody>
</table>
Table 5 shows how districts in Chongqing have experienced functional differentiation.

As a general trend, the proportion of the GDP of each district derived from the primary and secondary economies decreased during the period in question. Not surprisingly, even by 2003 the primary economy was almost non-existent in Yuzhong District and officially non-existent in 2007 and 2010. Although maintaining a certain importance in Ba’nan District throughout the period, the largest and most rural district in the urban core, the primary economy has largely shrunk into irrelevance in these core districts of Chongqing as the city has expanded rapidly. The secondary economy has seen a somewhat more complicated trajectory. From 2003 to 2010, the general trend among the districts of the urban core has been toward a reduction in the proportion of the GDP derived from the secondary economy, although several districts saw increases in the proportion of their economy derived from the secondary economy.

During the period the proportion of the GDP derived from the tertiary economy rose in most districts, seemingly indicating that Chongqing is becoming post-industrial. However, by 2010 only in Yuzhong and Jiangbei districts was the tertiary economy the largest contributor to the GDP. In all other districts, manufacturing (the secondary economy) stood as the greatest contributor to the district economy. While Yuzhong and Jiangbei districts do seem to be more advanced economically than the other districts, Yuzhong District derives almost 95% of its GDP from the tertiary economy, compared to a little less than 60% for Jiangbei District. In other words, in terms of advancement up the economic value-chain, Yuzhong District stands head and torso above the other
districts of the Chongqing urban core. By this measurement, as a services and financial center, Yuzhong District has remains the preeminent center of Chongqing.

5.6: Conclusion

This chapter has used data from the Chongqing Statistical Yearbook to illustrate the importance of Yuzhong District in Chongqing Municipality as an economic center as well as its increasing importance as a site of consumption. At the same time, the population of Yuzhong District decreased during the first decade of the millennium. This correlates with the reduction of low-income housing in the district seen in Chapter 4 and seems to indicate a reduction in the low-income population of Yuzhong District.

The density and extraordinary centrality of Yuzhong District have precluded all but the most lucrative and/or politically important development, which has led to increasing demand for development in neighboring districts. While other districts in the urban core are growing at a faster pace than Yuzhong District, the latter is still the preeminent commercial center of Chongqing.

The internal dynamism exhibited by Yuzhong District seen in this chapter provides some explanatory power for urban redevelopment surveyed in the previous two chapters. The grandiose sites of public consumption, such as the Great Hall of the People; the hyper-expensive sites of consumer consumption, such as Revolutionary Square; the farming villages turning into parkways; and the inner-city housing in the process of being redeveloped into skyscrapers, all indicate a demand for the central land of Yuzhong
District. This importance reflects governmental developmental goals and is manifested in the spatial exclusion out of Yuzhong District for low-income urban inhabitants.
Chapter 6: Conclusion

This paper has pursued an understanding of low-income urban housing in inland China by examining the developmental goals of urban government and urban residents and the results of those goals on the ground. This paper has used photographs, planning documents, satellite imagery and official yearbook statistics as source documents to understand the redevelopment of Yuzhong District in central Chongqing Municipality.

Underlying the rapid urban redevelopment occurring in Yuzhong District and throughout the Chongqing urban core are multiple stakeholders with differing abilities to influence the development process. I propose a conceptual model consisting of four goals held by different groups in modern Chinese society and which drive the changes in urban forms explored in this thesis.

In the market socialist economy, top-down and bottom-up socio-economic goals coexist uneasily as economic inequality has increased in the past several decades. Chart 5 shows two primary government goals regarding urban areas, considered here to be top-down: 1) the desire to create a cityscape worthy of modern China's image as rising global power, 2) the desire to prevent social unrest in urban areas by avoiding the creation of a permanent urban underclass. This work has presented evidence for two bottom-up socio-economic goals that belong to China’s urban inhabitants also shown in Chart 5: 1) the desire of wealthy Chinese urbanites for redevelopment of the central city to suit their
consumption desires as well as aid in their social reproduction (through research institutions, financial institutions, elite schools, etc.), 2) the desire of less wealthy and low-income urbanites for affordable housing and proximity to employment.

In other words, both wealthy and less wealthy urban inhabitants seek to ensure the means to their social reproduction.

The first of top-down is intimately entangled with the first bottom-up goal as the consumption desires of wealthy urban residents have been shown to drive most urban development for both residential and commercial spaces. These goals are all the more entangled since almost all government leaders are also members of the wealthy urban elite and can thus sway urban policy toward the desires of their economic peers.

**Fig. 41:** The goals of urban government and urban residents
The second bottom-up goal most closely aligns with the question pursued in this thesis. This paper has presented evidence of the increasing scarcity of low-income housing in central Chongqing. As the condemnation of entire low-income neighborhoods located in central locations, such as Shibati, testifies, the goal of social reproduction for non-wealthy urbanites in central urban locations seems unlikely to be fulfilled. The second top-down goal is largely a reaction to the discontent and fear felt by this group of urbanites. Much as land reform was one of the primary goals of the Communist party when it initially came to power in the late 1940s, the party recognizes the political danger of excluding portions of the population from access to land. While they have announced numerous plans to alleviate housing poverty among low-income groups, most plans involve the construction of housing far from the original sites of housing of low-income urbanites. As seen in Figure 6.1, the inability of large swaths of the urban population in China to participate in housing markets is also driven by the voracious appetite of the wealthy for multiple housing spaces, thus further driving up housing prices.

Unpacking the top-down development goals expressed in the Chongqing Master Plan and the Chongqing Planning Exhibit, urbanization is a state-driven developmental project. The Chongqing Planning Exhibit provided a strong indication of the desire of Chongqing's urban leaders to project economic modernity and power. The tours given to the businessmen and -women who visit the planning exhibit sell Chongqing as a site of production and consumption.
This sale of Chongqing is played out in the complex urban land politics that drive the development of specific sites for specific purposes. The photographs I took in eastern Yuzhong district and the satellite imagery provide evidence of the ways city leaders and land developers have repurposed land from dense, low-income housing to various forms of luxury development, from towers-in-the-park high-rises, to closely-spaced central city office towers, to large scale parkways. At the same time, the above mentioned examination of the urban plans of Chongqing indicated the intended division of Chongqing into different functional zones, in which Yuzhong District is intended to serve as a governmental and financial center. In other words, central Chongqing, acting as a political and economic center-of-centers, will command the highest developmental premiums.

This paper has presented evidence of the increasing social exclusion of low-income people from central Chongqing. This has been corroborated by the intention made explicit in the planning exhibit to disperse low-income (affordable) housing throughout the outskirts of Chongqing. In other words, although certainly still present, low-income housing has increasingly been excluded from central Chongqing.

This paper uses a variety of methods in order to arrive at a more nuanced and complete image of low-income housing in central Chongqing. I use the flâneur method with photographs I took on location; I perform a textual analysis of the Chongqing Master Plan; I examine the displays and practices of the Chongqing Planning Exhibit; I map the extent of pre-Communist housing in Yuzhong District in 2002 and 2010 using satellite
imagery; and I use economic statistics from the Chongqing Yearbook for 2003-2010 to highlight change in the economic position of Yuzhong District within Chongqing’s urban core. While these varied methods allow for a broader picture of low-income housing in central Chongqing, the constraints of the thesis project do not allow for as complete an application of any one method as would be possible if fewer methods, or even one method, were used.

The flâneur method uses my own photographs to recreate a stroll I took in Yuzhong District in October, 2012. It therefore provides the most up-to-date information used in this project. The stroll presented in this paper also affords an intimate view of the urban landscape on the ground, free of both the self-serving interpretation of official documents as well as the detail-obliterating distance of satellite imagery. At the same time, it focuses on only a small portion of Yuzhong District and therefore says nothing about the urban landscape of much of central Chongqing. For example, the urban villages visible in the satellite images are not present in the stroll.

My examination of the Chongqing Master Plan and the displays at the Chongqing Planning Exhibit fits together to form a single discourse analysis of the planning goals presented by Chongqing Municipality regarding the functional role of central Chongqing and the construction of low-income housing within the municipality. As the scope of these documents is not limited to Yuzhong District, this method has the advantage of integrating this paper’s exploration of the development of the central district of Chongqing with some of the characteristics of development in the other districts of the
Chongqing urban core. This method is limited, however, by the fact that official documents such as these present what the municipal government wishes, and not necessarily a realizable set of planning goals.

The extraction of pre-Communist structures from satellite images taken in 2002 and 2010 provides a useful overview of the actually existing state of low-income housing in the entirety of Yuzhong District during the 2010s. The distinctive characteristics of pre-Communist housing made mapping them by hand feasible. Pre-Communist housing serves as a proxy for low-income housing in general as nearly all pre-Communist housing in Chongqing is low-income housing. Since the images were captured by two different satellites with different resolutions, my ability to distinguish sites of pre-Communist housing is inferior in the 2002 image. However, following the decision rules outlined in section 4.2 allows for the generation of shapefiles of locations of pre-Communist housing.

Finally, I use socio-economic statistics reported in Chongqing’s Statistical Yearbook from 2003 through 2010 for each district in the municipality to elucidate the demographic and economic changes occurring over time in Yuzhong District as well as the other districts of the urban core. These statistics suffer from the same limitation as the planning documents and exhibit as they are only truthful so far as they do not contradict the goals of the leaders of Chongqing Municipality. Even so, the story they told seems largely to confirm the previous methods. The powerful trends of economic expansion and the development of a consumer economy are plainly seen in the stroll, the
planning documents and exhibit displays, the satellite images and, quite explicitly, in the
data from the statistical yearbooks. Similar to the discourse analysis of planning
documents, the analysis of the statistical yearbook data contextualizes the development of
central Chongqing within the development of the Chongqing urban core.

In conclusion, the image of low-income urban housing in inland China that has formed
throughout this thesis is one of: 1) the replacement of pre-Communist structures with
modern, market driven development; 2) the dispersal throughout the metro area of sites
of low-income housing, and 3) the refunctioning of urban spaces along an economic
system that favors the development of spaces of consumption and luxury housing and
ignores the housing needs of the working class.

The third point above is a result of the nationwide socio-economic change in China since
1978 toward a market economy that has not been matched by political reform. Instead, a
coterie of politico-economic oligarchs and their attendants have formed who make up the
most lucrative and powerful block of the Chinese housing market. This means that
development enterprises pursue luxury housing development far more often than
affordable housing development that, while socially desirable, is less profitable. This is
exacerbated by the need for urban governments to be financially self-supporting and
much revenue for municipal governments comes from fees assessed land developers.

Low-income housing is thus evacuated from the central city into the urban outskirts
where land is cheaper and the opportunity cost of not building luxury housing is far
lower. In an interesting parallel, this contemporary construction of housing for working-
class, urban China on the outskirts of the city is similar to the practice in Maoist China of building work-unit compounds for the modern socialist worker on the outskirts of the city since the opportunity cost of replacing housing in central urban districts was simply too high. The housing too costly to replace in the 1950s is the same housing that is now being torn down on a large scale (such as Shibati) to make way for offices and apartments for the modern, post-socialist worker.

Thus, the balancing act by the municipal government between luxury housing development and low-income housing development contains political ramifications that extend far beyond changes in urban morphology. China is now an urban country and continued development is the primary goal of government at all levels. The ability of urban leaders to meet the housing needs and desires of all members of urban China will be crucial in ensuring social stability and economic sustainability.
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