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# Housing, Urban Renewal and Socio-Spatial Integration

A Study on Rehabilitating the Former Socialistic Public Housing Areas in Beijing

Xiaoxi Hui



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# Housing, Urban Renewal and Socio-Spatial Integration

**A Study on Rehabilitating the Former Socialistic Public Housing  
Areas in Beijing**

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To my grandparents



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# Preface

The initiative of this study derived from my concern of two critical urban issues in China today: housing and urban renewal. In the recent two decades, the Chinese urban housing stock underwent a significant, if not extreme, transformation. From 1949 to 1998, the urban housing stock in China largely depended on the public sector, and a large amount of public housing areas were developed under the socialistic public housing system in Beijing and other Chinese cities. Yet in 1998, a radical housing reform stopped this housing system. Thus, most of the public housing stock was privatized and the urban housing provision was conferred to the market. The radical housing privatization and marketization did not really resolve but intensified the housing problem. Along with the high-speed urbanization, the alienated, capitalized and speculative housing stock caused a series of social and spatial problems. The Chinese government therefore attempted to reestablish the social housing system in 2007. However, the unbalanced structure of the Chinese urban housing stock has not been considerably optimized and the housing problem is still one of the most critical challenges in China.

Based on the background of privatization, the former socialistic public housing areas in Beijing confront the ambiguity of their housing stock and the confusion of housing management. While they still accommodate the majority of urban residents and are identified by their good places, (social and programmatic) mixed communities, vibrant local life, and diversified housing types, they are facing the serious challenges of physical deterioration and social decline. Therefore, urban renewal was thought as an effective solution seeking to improve the living conditions in those neighborhoods.

Nevertheless, urban renewal in itself is also a controversial issue. In order to solve the housing problem, the large-scale urban renewal in Beijing started at the beginning of the 1990s. The radical housing reform further boosted urban renewal, often in the form of wholesale reconstruction and linked to real estate development. The market-driven urban reconstruction resulted in the resident displacement, community destruction, disappearance of historical images and, more threatening, socio-spatial segregation. It encountered the rising criticism from scholars and activists and resistance from the residents. As a result, many housing renewal projects, including the reconstruction projects of former public housing areas, had to be stopped or suspended in Beijing after 2004. Nowadays there is a dilemma for the urban renewal of Beijing's former public housing areas. On the one hand, its conventional approach became inadaptable in the existing transitional context of China, and thus led to the increasing conflict of interests between different actors (or groups) and the tension between individuality and collectivity; but on the other hand, if there will be social-oriented, adapted strategies, urban renewal would still be an effective means to improve the

quality of living and to solve the housing problem of the city. Therefore, my study addressed the general research question, “*What will be the adapted strategies used for the urban renewal of former socialistic public housing areas in Beijing to improve the local living conditions and to deal with the existing urban housing problem?*”

As a social-oriented, step-by-step approach to avoid wholesale reconstruction, *urban rehabilitation* might be an alternative approach for Beijing’s urban renewal. It is the hypothesis of my study. However, here comes the question if this approach, originally developed in the West, can adapt to the Chinese situation. In a transitional society undergoing continuous social diversification and differentiation as well as ethical collision, contemporary Chineseness could refer to *the hybridity of ethos*. Facing this super hybrid situation, the adaptability of the Western approach, which was developed in the context of *the hybrid ethos* (an ethos based on the common belief of individualism and consumerism), is questionable. Therefore, we need a pragmatic and inclusive theoretical thinking, as ontology and methodology, to guide and to frame the research. In my study, that is what I called the *thinking of spatial phenomenon*.

Thinking of spatial phenomenon starts with an idea of pragmatization and phenomenization of spatiality, which stems from both the Chinese tradition and the Western modernity. As an analytic tool, it includes different ethical viewpoints and is hence composed of three dimensions: the socio-economic dimension (a structuralistic point of view for the modern society), the community-placial dimension (a humanistic point of view for everyday life) and the aesthetic-technical dimension (a positivistic point of view for physical environments). As a philosophy of practice, it emphasizes the historicity and practicality of thinking and the unity of theory and practice. Moreover, considering the current Chinese situation in general, thinking of spatial phenomenon has its primary thesis of *socio-spatial integration*, which recalls the Chinese tradition of *approaching-to-the-good society* and is the *ethical task* of contemporary Chinese urban rehabilitation.

My research study is thus enframed by the methodology of thinking of spatial phenomenon. It is both problem-driven (the *problems* on housing and urban renewal for the former socialistic public housing areas in Beijing) and purpose-driven (the *purpose* of socio-spatial integration in the context of the hybridity of ethos in a transitional society). And the research followed a matrix composed of its historical and dimensional axes. The former axis represents the consideration from a historical review and the analysis of the status quo to the referable case studies and the development of new strategies, while the latter is demonstrated by the analyses in the socio-economic, community-placial and aesthetic-technical dimensions in each section.

This research framework is presented in my writing. In this book, Part II, following the introductory Part I, reviewed the historical evolution of Beijing’s socialistic public housing in the socio-economic, community-placial and aesthetic-technical

dimensions, respectively. Part III subsequently analyzed the current urban housing problem, the existing conditions of Beijing's former socialistic public housing areas and the dilemma of urban renewal. It concluded by raising the concrete *challenges* of an alternative approach for renewing those housing areas. These challenges comprise the balance of housing affordability and economic sustainability, the stabilization of mixed community and the alternative physical initiatives instead of the wholesale reconstruction.

In order to answer to these challenges, the study in Part IV focused on several successful and referable experiences of urban renewal in cities with a comparable context, i.e. Amsterdam, Rotterdam, Berlin, Vienna and Hong Kong. And Part V, based on two "pilot design research projects" on Sanlihe Neighborhood 1 in Beijing, developed a *proposal* for rehabilitating the former socialistic public housing areas in Beijing. This proposal is called an *integrated plural approach*. This approach is made up of six recommended strategies that are also sorted by three dimensions. There are *housing re-socialization* and *economic sustainability* in the socio-economic dimension, *housing differentiation* and *community participation* in the community-placial, as well as a *combination of housing renovation and reconstruction* and an *integral physical planning/design* in the aesthetic-technical dimensions. In conclusion, while those strategies gave answers to the existing practical challenges, the integrated plural approach in all proposed a new establishment of urban rehabilitation to adapt to the hybrid, diverse and plural Chinese situation and to fulfill the ethical task of socio-spatial integration.

However, in comparison with drawing concrete conclusions, this research study has more to do with inspiring reflection. On the one hand, my study on rehabilitating the former socialistic public housing areas in Beijing can only be concluded as a proposal, same as many other urban studies. The applicability of an integrated plural approach *must* be proved in practice. A proposal of urbanistic research has to be tested and modified within urban practice. On the other hand, this book cannot be seen as an end but as a beginning of new explorations in urban study, theoretically. The openness, inclusion and integration of thinking of spatial phenomenon might contribute to the establishment of new ontology and methodology for the study of not just Chinese but also universal urban issues in an era of globalization.



# Voorwoord

Het initiatief van deze studie is afgeleid van mijn bezorgdheid over twee kritieke stedelijke vraagstukken in China van vandaag: huisvesting en stedelijke vernieuwing. In de afgelopen twee decennia onderging de Chinese stedelijke woningvoorraad een significante, wellicht extreme, transformatie. Van 1949 tot 1998, was de stedelijke woningvoorraad in China grotendeels afhankelijk van de publieke sector, een groot aantal publieke huisvestingsgebieden zijn ontwikkeld onder het socialistische publieke huisvestingssysteem in Beijing en in andere Chinese steden. Een radicale huisvestingshervorming in 1998 stopte dit huisvestingssysteem. Op deze manier is het grootste gedeelte van de publieke woningbouwvoorraad geprivatiseerd en is de stedelijke huisvesting verschoven naar de markt. De radicale huisvestingsprivatisering en vermarkting heeft het huisvestingsprobleem niet opgelost maar verergerd. Samen met de snelle verstedelijking, veroorzaakte de vervreemde, gekapitaliseerde en speculatieve woningvoorraad een reeks van sociale en ruimtelijke problemen. De Chinese overheid probeerde daarom in 2007 het sociale huisvestingssysteem te herstellen. De ongebalanceerde opbouw van de Chinese stedelijke woningvoorraad is echter nog niet aanzienlijk geoptimaliseerd en het huisvestingsprobleem is nog steeds een van de kritieke uitdagingen in China.

Gebaseerd op de achtergrond van privatisering, confronteerde de voormalige socialistische publieke huisvestingsgebieden in Beijing de dubbelzinnigheid van hun woningvoorraad en de verwarring van huisvestingsmanagement. Terwijl ze nog steeds een groot gedeelte van de stedelijke bewoners huisvesten en geïdentificeerd worden door hun goede locaties (sociaal en programmatisch), gemengde gemeenschappen, hun levendige lokale leven en afwisselende woningbouwtypes, worden ze geconfronteerd met ernstige fysieke verslechtingen en sociale achteruitgang. Daarom werd stedelijke vernieuwing gedacht als een effectieve oplossing om de levensomstandigheden in die wijken te verbeteren.

Desalniettemin is stedelijke vernieuwing op zichzelf ook een controversiële kwestie. Om het huisvestingsprobleem op te lossen, zijn de grootschalige stedelijke vernieuwingen in Beijing begonnen aan het begin van de jaren '90. De radicale huisvestingshervorming bevorderde de stedelijke vernieuwing, vaak in de vorm van grootschalige reconstructie en ging gepaard met vastgoedontwikkeling. De marktgedreven stedelijke reconstructie resulteerde in bewonerverplaatsing, gemeenschap vernietiging, verdwijning van historische beelden en, nog dreigender, sociaal-ruimtelijke afscheiding. Het ondervond de stijgende kritiek van geleerden, activisten en weerstand van bewoners. Als gevolg hiervan werden veel huisvestingsvernieuwingsprojecten in Beijing, inclusief de reconstructie van projecten van voormalig publieke huisvestingsgebieden, na 2004 gestopt of

uitgesteld. Tegenwoordig is er een dilemma voor stedelijke vernieuwing van Beijing's voormalig publieke huisvestingsgebieden. Aan de ene hand is de conventionele aanpak onaanpasbaar geworden in de bestaande veranderende context van China, en leidde dus tot de stijging van conflicten van interesses tussen verschillende actoren (of groepen) en de spanning tussen individualiteit en collectiviteit; maar aan de andere hand, als er sociaal georiënteerde, aangepaste strategieën waren, zou stedelijke vernieuwing nog steeds een effectieve manier zijn om de kwaliteit van leven te verbeteren en om het huisvestingsprobleem van de stad op te lossen. Daarom beslaat mijn studie de generale onderzoeksvraag, 'Welke aangepaste strategieën zullen worden gebruikt voor de stedelijke vernieuwing van voormalig socialistische huisvestingsgebieden in Beijing om het lokale leven te verbeteren en om te gaan met het bestaande stedelijke huisvestingsprobleem?'

Stedelijke rehabilitatie kan een alternatieve benadering zijn voor Beijing's stedelijke vernieuwing als een sociaal georiënteerde stap voor stap aanpak om totale reconstructie te voorkomen. Echter komt hier de vraag of deze benadering, origineel ontwikkeld in het Westen, zich kan aanpassen aan de Chinese situatie. In een maatschappij in overgang onderhevig aan voortdurende sociale verandering en differentiatie alsook aan ethische botsingen, hedendaagse Chinese karakteristiek zou kunnen verwijzen naar de 'hybriditeit of ethos'. De aanpasbaarheid van de Westerse benadering is, geconfronteerd met deze super hybride situatie, welke ontwikkeld was in de context van de 'hybrid of ethos' (an ethos based on the common belief of individualism and consumerism), betwistbaar. Daarom hebben we een pragmatische en veelomvattende theoretische manier van denken nodig, zoals ontologie en methodologie, om het onderzoek te leiden en te omvatten. In mijn studie is dat wat ik 'thinking of spatial phenomenon' noem.

'Thinking of spatial phenomenon' begint met een idee van pragmatisme en 'phenomenalization of spatiality', welke beide afstammen van Chinese traditie en Westerse moderniteit. Als een analytisch middel omvat het verschillende ethische perspectieven en is daarom gecomponeerd uit drie dimensies: de sociaal-economische dimensie (een structuralistisch standpunt voor de moderne maatschappij), de maatschappij-ruimtelijke dimensie (een humanistisch standpunt voor het leven van alledag), en de esthetisch-technische dimensie (een positivistisch standpunt voor de fysieke omgeving). Als een filosofisch gebruik benadrukt het de historische en praktische denkwijze en de eenheid van theorie en praktijk. Bovendien, de huidige Chinese situatie in het algemeen overwegend, 'thinking of spatial phenomenon' heeft zijn primaire proefschrift van sociaal-ruimtelijke integratie, welke herinnert aan de Chinese traditie van 'approaching-to-the-good society' en is de ethische taak van de hedendaagse Chinese stedelijke rehabilitatie.

Mijn onderzoek is dus omlijst door de methodologie van 'thinking of spatial phenomenon'. Het is beide probleem-gericht (de problemen van huisvesting en

stedelijke vernieuwing voor de voormalig socialistisch publieke huisvestingsgebieden in Beijing) en doel-gericht (het doel van sociaal-ruimtelijke integratie in de context van de 'hybriditeit of ethoses' in een maatschappij die in overgang is). En het onderzoek volgt een matrix gevormd door zijn historische en dimensionale assen. De voormalige as representeert de overweging van een historisch overzicht en de analyse van de status quo tot de refererende onderzoeken en de ontwikkeling van nieuwe strategieën, terwijl de laatstgenoemde is gedemonstreerd door de analyses van de sociaal-economische, maatschappij-ruimtelijke en esthetisch-technische dimensies in elke sectie.

Deze onderzoeksopzet is gepresenteerd in de tekst. In dit boek beoordeeld deel 2, opvolgend op het introducerende deel 1, de historische evolutie van Beijing's socialistische publieke huisvesting in respectievelijk de sociaal-economische, maatschappelijk-ruimtelijke en esthetisch-technische dimensies. Deel 3 analyseert vervolgens het huidige stedelijk huisvestingsprobleem, de huidige conditie van Beijing's voormalige socialistische publieke huisvestingsgebieden en het dilemma van stedelijke vernieuwing. Het concludeert door het voorstellen van concrete uitdagingen van een alternatieve benadering voor vernieuwing van die huisvestingsgebieden. Deze uitdagingen beslaan de balans van huisvestingsbetaalbaarheid en economische duurzaamheid, de stabilisatie van gemengde gemeenschappen en alternatieve fysieke initiatieven in plaats van totale reconstructie.

Om deze uitdagingen te kunnen beantwoorden, focust deze studie in deel 4 op enkele succesvolle en refererende ervaringen van stedelijke vernieuwing in steden met een vergelijkbare context, bijvoorbeeld Rotterdam, Amsterdam, Berlijn, Wenen en Hong Kong. En deel 5, gebaseerd op twee 'pilot design research projects' op Sanlihe Neighborhood 1 in Beijing, ontwikkelde een voorstel voor rehabilitatie van de voormalig socialistische publieke huisvestingsgebieden in Beijing. Dit voorstel heet 'integrated plural approach'. Deze benadering is opgebouwd uit zes voorgestelde strategieën die ook zijn gesorteerd op drie dimensies. Er zijn de huisvestingsresocialisatie en de economische duurzaamheid in de sociaal-economische dimensie, de huisvestingsdifferentiatie en de gemeenschapsdeelname in de maatschappij-ruimtelijke, alsook de combinatie van huisvestingsrenovatie en reconstructie en de integrale fysieke planning/design in de esthetisch-technische dimensies. In conclusie, terwijl die strategieën antwoord gaven op de bestaande praktische uitdagingen, stelde de 'integrated plural approach' een nieuwe vaststelling voor stedelijke rehabilitatie voor om aan te passen tot de hybride, diverse en meervoudige Chinese situatie en om de ethische taak van sociaal-ruimtelijke integratie te vervullen.

Deze onderzoeksstudie heeft echter in vergelijking met het maken van concrete conclusies, meer te doen met inspirerende reflectie. Aan de ene kant kan mijn studie op rehabilitatie van de huidige socialistische publieke huisvestingsgebieden in Beijing alleen worden geconcludeerd als een voorstel, net als vele andere stedelijke onderzoeken. De toepasbaarheid van een integrale meervoudige benadering moet

in de praktijk worden bewezen. Een voorstel van stedelijk onderzoek zal getest en aangepast moeten worden binnen de stedenbouw. Aan de andere kant kan dit boek theoretisch niet worden gezien als een einde maar als een begin van nieuwe verkenningen in stedelijk onderzoek. De openheid, omvatting en integratie van 'thinking of spatial phenomenon' kan misschien bijdragen aan de oprichting van nieuwe ontologieën en methodologieën voor het onderzoeken van niet alleen Chinese, maar ook universele stedelijke problemen in een tijdperk van globalizatie.

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PART 1 **Introduction**



# 1 Transition of Former Socialistic Public Housing Areas in Beijing and the Challenges of Its Urban Renewal – A General Introduction

It's Saturday morning, Mr. Chen, a retired engineer of a research institute, gets up early and walks for fifteen minutes to the "morning market" with his wife. As usual, his son and daughter-in-law, together with their 6-year-old grandson, will visit him and his wife in the evening. While there is a supermarket only five-minute away from their home, the old couple is still used to buying their groceries from the open market, which comes to life on a small street every morning. There they can buy vegetables, fruit and fish that are cheaper and fresher. In the market, they sometimes meet some of Chen's former colleagues and present neighbors, who also come to shop. On the way back from the market, Mr. Chen encounters one of his old friends and colleagues at the entrance of that neighborhood. This old man used to live in the same neighborhood but moved into a newly-developed market housing estate where his son, a successful businessman, bought a new house for him. He tells Chen that he came back to his old apartment to collect the rent, for it has been rented to a young couple who just moved to Beijing. While they are chatting, the construction site across the street starts their daily work: some early-built blocks in the adjacent neighborhood had been demolished and replaced by high-rise buildings, and some others are still under reconstruction. After saying goodbye to his friend, Chen and his wife return to their neighborhood, where the sidewalks are mostly occupied by the illegally parked cars and the old couple has to carefully walk in between the cars. When they enter their housing block, they exchange friendly greetings with their neighbors that are playing Chinese chess in the yard. But on their right hand, they see workers building a self-extended, illegal room of a ground-floor apartment. Eventually, they reach home after climbing up the stairway to the fourth floor. While Mrs. Chen starts to cook lunch, Mr. Chen prepares the bedroom for his grandson. This old couple live in a two-bedroom apartment of about 60 m<sup>2</sup> built almost twenty-five years ago. The child, who is still a registered resident of this neighborhood, will move in with his grandparents next week to attend school. There are few good primary schools in the suburban area where his parents now live. After lunch, Chen is attending a Chinese calligraphy course organized by the community, and his wife will continue to prepare for dinner...

This series of scenes does not belong to a fictitious scenario but is the real, everyday life of many former socialistic public housing areas in Beijing and other cities in China. From 1949, the socialistic public housing system began to be largely developed in the

country. In the following fifty years, the public-rented sector became the major sector of urban housing stock in mainland China. Only in Beijing, millions of square meters of socialistic public housing were built. But along with the market-oriented reform, the socialistic public housing system was finally terminated by a radical housing reform in 1998, and a majority of public-rented houses have been privatized. However, for example in Beijing, those former public housing areas still occupy a large percentage of the existing built-up city areas and more importantly, accommodate a great number of urban residents.

After more than a decade of the implementation of the housing reform, Chinese cities still face a serious housing problem. Without the adapted public interventions, the ideal of solving the housing problem by the privatization and marketization of houses has resulted in an unbalanced urban housing stock and a speculative housing market. During this process of housing capitalization, a large amount of properties have been concentrated in the hands of the richer classes and speculators. Yet there is a shortage of adequate and affordable housing for the lower-income groups, though the development of social housing has been reemphasized since 2007.

On the other hand, many of the former public housing areas, which were built twenty to fifty years ago, have been gradually wearing out. They are still identified by their relatively central locations, convenient local services and strong sense of community. In a marketized and capitalized housing stock, they are facing the threat of decline. Urban renewal may hence be an efficient solution for the housing problems, not only in those old neighborhoods but also in the city. Nevertheless, the current predominant approach of the urban renewal, with its market-oriented wholesale reconstruction, is not effective anymore. The unitary, top-down approach of the urban renewal based on the concept of housing privatization and monetization often intensifies social conflicts, and accelerates the spatial segregation. The renewal of former socialistic public housing areas has become a new urban problem.

Beijing, being a city with a huge amount of former public housing areas and with probably the most serious housing problem among all Chinese cities, is a classic case of studying this urban problem. This dissertation will therefore focus on the urban renewal of the former socialistic public housing areas in Beijing. This research study intends to contribute to the rehabilitation of those old neighborhoods and to look for an answer for the existing housing problem, not just in Beijing but also across China. As a general introduction, Chapter 1 will briefly discuss the background, general problem and hypothesis of the research.

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## § 1.1 Chinese Socialistic Public Housing and the Former Socialistic Public Housing Areas in Beijing

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As a traditionally centralized and hierarchical society where the collectivism was given priority, China has had a long history of public housing intervention. As early as in the period of the Chinese Empire, it was the government that built some publicly rented houses were in Beijing and in other Chinese cities. Nevertheless, the large-scale development of public housing in a really modern sense only began after the People's Republic was founded in 1949. It was then when the communists came into power and the Chinese cities faced a severe housing problem. At that time, the Soviet socio-political structure and socialistic planned economy was introduced into China. Moreover, the socialistic public housing system, i.e., the urban housing provision mainly represented by publicly owned and rented housing, was therefore established throughout Chinese cities. Besides the socialization of privately rented houses, a large number of new public housing was developed in Beijing and other cities. During the following fifty years, the public housing system accounted for the majority of China's urban housing stock until it was officially terminated in 1998. The maximum proportion of the public-rented sector used to amount to more than 80% of the urban housing stock in the 1980s<sup>1</sup>. In Beijing, approximately 140 million m<sup>2</sup> of public housing were developed within those fifty years, while most of them have been privatized since the radical housing reform in 1998. Those newly-developed (normally in between 1949 and 1998), formerly publicly rented housing areas, which can be named as the **former socialistic public housing areas**, are just the study object of this dissertation.

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1 Before the termination of socialistic the public housing system in 1998, the public-rented sector still accounted for more than 60% of China's urban housing stock.



Figure 1.1  
*Cityscape of a typical former socialistic public housing area in Beijing*

In general, the Chinese socialistic public housing system was characterized by two main features: the *danwei* welfare housing and the housing standardization. The allocation, development and management of socialistic public housing, as a basic welfare provision of urban residents, were responsibilities of the *单位 danwei* (work unit), which also played the role as the unit of social organization under the planned socialism. At the same time, in some cases the municipal governments also directly intervened. On the other hand, the standardization of public housing guaranteed not only the unified and ranked standards of housing allocations and designs, but also the standardized and industrialized building of public housing.

However, as a top-down intervention to the housing stock, the development of socialistic public housing was non-smooth, fluctuating and significantly relied on the changes of relevant policies and strategies, as well as on the generally socio-economic transformation. In Beijing, the evolution of public housing can be divided into five periods within its socio-economic context.

- 1949 to 1957. The first “golden age” of Chinese socialistic public housing was the period of Socialistic Transformation and the First 5-year Plan. During this period, the socialistic public housing system was introduced, and housing development was emphasized in Beijing and other industrial cities. Many higher-standard public housing areas were developed, but the inadaptability to the Soviet-style housing designs and developments also emerged.
- 1958 to 1970. This period spanned from the Great Leap Forward to the early years of the Cultural Revolution. The housing standards were lowered to adapt to the local Chinese reality. Along with a series of social, economic and political experiments to explore China’s own way of socialism, various attempts in public housing development were tested, and many of them were extreme and unsuccessful. But due to the predominance of ultra-left ideology, the housing development was not emphasized, for it was a “non-productive” sector. In this period, the de-urbanization policies were applied in order to control the growth of urban

population, and the investment in public housing and housing standards was reduced to the lowest since 1949.

- 1971 to 1978. The late years of the Cultural Revolution and its period of influence saw the quest of the country to reach social stability and economic growth. These circumstances restarted the process of urbanization and thus boosted the development of public housing, albeit the left-wing ideology was still predominant. The housing investment and housing standards began to increase. The creative development strategies, innovative planning concepts and adapted design criteria of public housing, as well as industrialized building systems, were introduced and promoted. In fact, it was during this period that the socialistic public housing system with Chinese features was finally established.
- 1979 to 1991. This was the second “golden age” for the socialistic public housing – the early period of China’s Reform and Opening-up. The public housing investments, as well as the housing standards continued to increase. The adapted interventions on public housing, such as its decentralization and commercialization were introduced. Concerning physical planning, design and construction of public housing, the balance between standardization and diversification was stressed. But in the meantime, the market-oriented housing reform began to be gradually promoted. Thus, after its peak, the percentage of public-rented sector in the urban housing stock started to decrease in the late 1980s.
- 1992 to 1998. In the last period of the Chinese socialistic public housing system, the period from the announcement of the transition to a socialistic market economy in 1992 to the termination of the public housing system in 1998, the development of public housing was emphasized less and less, with the promotion of housing owner-occupation. The proportion of public-rented sectors continued dropping, though its total amount was still growing at a slower pace.

The danwei-based public housing allocation and development was gradually inadaptable to the market economy. The difference of housing conditions between different danwei (work units) and different individuals was increasingly enlarged. Along with the enhancement of housing standards and the diversification of living environments, the further commercialized and profit-oriented public housing development resulted in a higher housing density, which influenced the housing comfort.

The socialistic public housing development largely determined not only the physical but socio-spatial morphology of the city. The danwei-state system under the planned socialism, especially the danwei-based public housing system, resulted in the formation of *danwei communities* (单位社会 *Danwei Shehui*), which placially composed the basic units of public housing areas that facilitated the urban residents’ daily life. In addition, the local communities that were organized based on the sub-district offices and resident committees played the complementary role. As a result of the different approaches to public housing development and social organization, the

overlapping and separation between the danwei communities and local communities led to different types of socio-spatial morphologies of socialistic public housing areas like the 大院 *Dayuan* (Mega-yard), Residential Area and Public Housing Patch, which were categorized according to not only the physical morphologies but people's everyday life based on the communities. While the danwei system and danwei communities were largely dismantled in the transition from the planned economy to the market economy, the 社区 *shequ* (community) development that was promoted by the government reinforced the originally local communities as the new units of socio-spatial organization in the city. The remains of socio-spatial morphologies of the former public housing areas can still be physically experienced in people's everyday life.

As a result of the 50-year evolution, there were also much different physical planning, designs and technology of socialistic public housing, from the emulation of Soviet concepts to the development of Chinese own standards. In the physical planning, there was the evolution from the Soviet-style "Neighborhood" and "Residential Quarter" to the 3-level planning structure of Residential District-Quarter-Cluster, as well as the mixture of different spatial layouts or building types, including the peripheral courtyard blocks, linear-arrayed row-housing, multi-story towers, multi-story housing clusters, high-rise slabs and towers. Dependent upon the unified standards of housing designs, different housing types were also developed. They comprised the dwelling-unit apartments, which were the mainstream that were introduced from the Soviet Union. These designs were adequately adapted to local characteristics, thus fostering different housing plans for the multi-story towers, high-rise slabs and towers, and even some radical attempts of housing designs. The popular architectural styles were changed from the "big-roof" style that was influenced by the socialistic realism to the simplified, functionalist forms and further "redecorated" as a style with local architectural identities. Technically, the standardized and industrialized building progressed from the "standardization of blueprints" to the "standardization of components" and "standardization of systems". The structural systems of public housing covered from the early-developed, less industrialized brick-concrete structure to the industrial systems such as the block system, prefabricated concrete system and cast-in-situ concrete system, whilst the technical standards of housing facilities and equipment were continually improved. All these efforts led to the standardized but diversified residential environments of socialistic public housing areas in Beijing.

While the socialistic public housing system was officially terminated in 1998 and most of formerly public-rented apartments were privatized within a short time, a large amount of former socialistic public housing areas in Beijing still accommodate the majority of urban residents today. Currently, those old housing areas are often identified as the mixed neighborhoods in the good urban locations. But, insomuch as there is the ambiguity of existing housing stock in the former public housing areas, many of them are facing socio-spatial problems and threats.



Figure 1.2  
*Deterioration of an early-developed former public housing area*

Thanks to the large-scale development of socialistic public housing, the former public housing areas nowadays accommodate more than 60% of the urban residents in Beijing – ranging from low income to mid-high income groups. These areas are normally located in the good places in the city, with the adequate urban and local facilities/infrastructures. Derived from their original social and spatial structures, the former public housing areas are still identified by the mixture of different housing types, different programs and more importantly, different social groups. In terms of the strong sense of community and the vibrant local lifestyle, those mixed neighborhoods in Beijing have shaped the diversified but integrated local communities.

However, the radical housing reform also caused the ambiguous housing stock in the former socialistic public housing areas. While the housing stock in those areas is nominally a mix of owner-occupied, public-rented and private-rented sectors, the ambiguity of housing ownerships which have been over-privatized actually brings about the speculative housing market. In the meantime, the termination of the socialistic public housing system has led to the confusion in housing management and maintenance. The ambiguous but capitalized housing stock inevitably accelerates the deterioration of the housing conditions and living environments. Because of the originally lower design standards and deficiency of adapted maintenance, many public housing buildings have gotten worn-out and old. The popularity of the privatization of public space, such as the illegal structure and car parking, has largely damaged the living environments. The deteriorated living conditions indubitably conduces to the “downgrading” of the social structure in the former public housing areas, and thus brings on the realistic danger of the decline of neighborhoods and socio-spatial segregation.

Preceding the existing problems and threats for the former socialistic public housing areas, the renewal interventions is indeed necessary in order to improve the living conditions, as well as prevent the socio-spatial segregation. However, in a transitional

urban society with the capitalized and speculative housing stock, the present practice of urban renewal for former public housing areas in Beijing has encountered a series of problems and fallen into a dilemma.

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## § 1.2 Existing Housing Problem in Beijing and the Challenges for Urban Renewal

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In 1978, China initiated its “Reform and Opening-up”, a top-down driven, market-oriented transition. In particular, after the announcement of the transition from a planned economy to a “socialistic market economy” in 1992, the market-oriented reform speeded up. In the socio-economic transition, the conventionally socialistic public housing system was thought inadaptable, and some attempts for the “housing reform” – the reformation of the urban housing system – started in the 1980s. The early attempts to reform the public housing system by raising rent and selling some of the publicly-rented houses, in order to realise self-financing, were not successful. A further housing reform in 1994 began to change the direction towards the promotion of owner-occupation. Heavily influenced by neo-liberalistic thought, of which the free market was regarded as a panacea, the radical housing reform in 1998 eventually terminated the socialistic housing system. Most of the public housing was privatised, and the urban housing provisions were mostly committed to the market. As a result, the owner-occupied, market housing sector became the mainstream. According to the constitutional amendment in 2004 and the announcement of the Property Law in 2007, the legal status of the private housing property was confirmed.

Nevertheless, the market-oriented housing reform did not successfully solve the housing problem, though it largely promoted the real estate economy. On the contrary, the over-marketization of housing stock brought on a series of new urban problems, particularly in big cities like Beijing. Ethically, the housing was alienated as property, instead of the well-being of urban residents. The housing speculation became rather popular, and the housing stock was capitalized. The market housing prices soared to an unaffordable level within a few years. But at the same time, the development of social-oriented housing was not emphasized. For example in Beijing, the public-rented sector decreased to less than 20% in the urban housing stock. The balance of urban housing stock degraded extensively and resulted in a “structural” housing shortage: the rich own a huge number of houses whilst the poor still face the serious housing problem, especially the shortage of social housing. The privatization, marketization and capitalization of the urban housing stock not only accelerated the social polarization but also led to the spatial segregation. In addition, the unbalanced housing stock caused or intensified the economic (economic virtualization, real estate bubbles,

restraint of domestic consumption, etc.) and ecological problems (urban sprawl, traffic problems, energy consumption, etc.) that threaten the urban sustainability. The urban challenges related to the housing problems have become the social hot topics.



Figure 1.3  
"Slave of House" – A caricature on the contemporary urban housing problem in China  
(Source: Shanyecunren, 2009)

In order to solve the new housing problems, the Chinese government started to reemphasize public interventions to the housing stock in 2007, including the reestablishment of a social housing system and the regulation of the housing market. Not only owner-occupied but publicly rented social housing were reintroduced. The control of bank loans and mortgages was also strengthened. However, these plans were not smoothly implemented, and policy inconsistencies and reversals repeatedly occurred. As economic stimulus, for instance, the public interventions to the housing stock were released to cope with the global economic crisis that broke out in 2008. As a result, speculation was re-activated and the market housing prices doubled within two years. The public interventions had to be re-strengthened, but their effects still needed to be checked. The reliance on real estate economy, the increasing interest conflicts and the inefficient balance mechanism have become major challenges for further rebalancing an alienated urban housing stock.

Amongst the public interventions to the housing stock, urban renewal is regarded as an effective means. The renewal of old housing areas, including the renewal of former public housing areas, has been a part of the emphasis in the new social housing policies. In fact, the large-scale urban renewal was initiated in Beijing as a solution to the housing problem from the early 1990s. But at present, the current urban renewal approach has received the unprecedentedly criticism and challenges.

In Beijing, the urban renewal for the old housing areas can be traced back to the ambitious urban planning to reconstruct the old city in the 1950s. But under the

planned economic system, in which either urban development or housing construction highly depended on public investment, the large-scale urban renewal was never really implemented due to lack of funds. In the transition from the planned economy to the market economy, the large-scale urban renewal implementing demolition-reconstruction started at the beginning of the 1990s. The urban renewal was proposed as a means to solve urban housing problem and realize spatial planning of the city, through combining the real estate development. The renewal of the old public housing areas was also initiated at that time. The large-scale urban renewal in Beijing was later further boosted by the radical housing reform in 1998, especially as a result of the implementation of “Urban Renewal by Housing Reform”, which means the urban renewal by the housing privatization and monetized rehousing. However, many historical neighborhoods were demolished in the urban reconstruction, and the market-oriented rehousing resulted in a series of socio-spatial problems, such as the displacement of lower-income residents, gentrification and segregation. The large-scale urban renewal thus encountered increasing resistance as it was implemented. In a transitional but growingly diversified, stratified and polarized urban society, the urban renewal cannot successfully balance different individualized interests. This renewal largely relies upon the ally of top-down administrative power and for-profit investment. After the legalization of private property through the constitutional amendment and the promulgation of the Property Law, the deeply tie-up of the urban renewal with housing privatization and real estate investment led to the growing housing speculation, which indubitably caused the new financing problem of urban renewal. The social conflicts in urban renewal were intensified by the capitalization of housing stock, in which the social and public interests, as the original task of urban renewal, were missed or distorted. Since 2004, many of the urban reconstruction projects for the old housing areas in Beijing have been stopped or suspended. At the same time, although some new experiments of the urban renewal, such as the rehabilitation of historical hutong areas, the repair and beautification of former public housing buildings, the more socio-oriented rehousing strategy and the promotion of public participation were tested, a sufficient solution has not yet been discovered for the existing dilemma of urban renewal.

As an integral part of the large-scale urban renewal for the old housing areas in Beijing, the renewal projects of former public housing areas are not excluded from the existing dilemma. The present renewal strategies, including the housing privatization, market-oriented financing, top-down organization and wholesale demolition-reconstruction, together composed a unitary, top-down but market-oriented approach. This unitary approach evidently has become inadaptable in a diversified and stratified urban society. The existing dilemma in the urban renewal of former public housing areas, as represented by the difficulties in rehousing, economic balance, community stabilization, historical conservation and reduction of environmental impact, has its roots in the confrontation between the unitary renewal approach and the increasingly individualized and differentiated interests of different stakeholders. Along with the

housing privatization and marketization, the private interests in the urban renewal are capitalized and exaggerated, regardless in the form of profit-hungry real estate investment or private housing speculation. Preceding the serious conflicts between the capitalized, private interests, the public interests of urban renewal, such as economic sustainability, historical conservation, environmental benefits, and most importantly, people's housing rights and social integration, are ironically marginalized. As a result, the old and rundown former public housing areas, where the urban renewal had to be stopped or suspended, have been continually deteriorating. At the same time, a few reconstructed neighborhoods have tended to be gentrified.



Figure 1.4  
*A newly-built and gated neighborhood resulting from the reconstruction of a former public housing area*

With respect to the decline of neighborhoods in the former socialistic public housing areas, as well as a series of urban problems induced by the unbalanced housing stock, the existing dilemma of the urban renewal is a really critical challenge in Beijing. This challenge does not just include the degraded quality of living in those aged housing areas but also the inadaptable urban renewal strategies, which have brought on the problems such as community destruction, residential differentiation, social polarization and spatial segregation. As the public interests, the social objectives of urban renewal (trying to solve the housing problem in quantity and quality and improve the integrated and sustainable urban development) should be reemphasized. In order to overcome the existing dilemma, the current urban renewal approach has to be completely reexamined. Therefore, the general research question of this dissertation is clarified as follows: ***what will be the adapted strategies used for the urban renewal of former socialistic public housing areas in Beijing to improve the local living conditions and to deal with the existing urban housing problem?***

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### § 1.3 Can the Urban Rehabilitation of Former Public Housing Areas Be A Solution?

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In order to overcome the existing dilemma in the urban renewal of former socialistic public housing areas, urban rehabilitation can be used as an alternative approach instead of the currently prevailing approach of urban reconstruction. Different from the wholesale demolition and reconstruction, the urban rehabilitation implies a combination of housing renovation and reconstruction strategies and a concept of step-by-step neighborhood renewal. When used as a more flexible and differentiated approach (which has to be phase-by-phase, programmable and adaptable), it can help prevent the large-scale rehousing and may adapt to different housing demands. The rehabilitation can also effectively reduce the costs of urban renewal, preserve the historical cityscape and guarantee the efficient reuse of existing buildings. Technically, the successful cases in Beijing and many other cities have proven the feasibility of the building renovation combined with new construction.

More importantly, the social dimension is a focus on urban rehabilitation, which indicates neighborhood re-habilitating for the residents. Avoiding the displacement of lower-income residents, as well as the retention of local community, is often emphasized in urban rehabilitation. The local residents are also able to be involved in the decision-making through the bottom-up strategies such as public participation. In some European cities, urban rehabilitation is combined with the development of social housing, and also used as a strategy to cope with the problem of socio-spatial segregation. In Beijing, the strategies and problems of urban renewal are also closely related to the changes in urban housing policy. As the mixed and lively neighborhoods in the good places around the city, the former socialistic public housing areas will provide for the potentials to reintroduce the social housing and to promote the social integration in Beijing, through the social-oriented rehabilitation. Therefore, the urban rehabilitation indicates the possibility of improving the living conditions for the local residents on the one hand and solving the housing problem of the city on the other hand.

However, urban rehabilitation cannot be taken as a panacea. The successful rehabilitation projects have to be supported by the adapted strategies and may encounter many unpredictable challenges during the process. Without adapted strategies and measures, the urban rehabilitation will not solve the problems at hand, but cause the new ones. For instance, the inadaptable housing renovation is unable to reduce the costs of urban renewal, and without the intervention of the social-oriented housing policy, physical rehabilitation will result in resident displacement and gentrification. The feasible strategies of urban rehabilitation should be developed and tested via pragmatic research and experimentation. This dissertation therefore can be regarded as a pilot research project. Therefore, my research will discuss the hypothesis that ***urban rehabilitation can be an effective approach for the renewal of former public housing areas in Beijing.***

## 2 Thinking of Spatial Phenomena in Chinese Urban Rehabilitation – Theory and Methodology

In the previous chapter, our discussion ended with the hypothesis that the rehabilitation can be applied as a feasible approach for the urban renewal of former public housing areas in Beijing. Then a more theoretical question can be asked: what is urban rehabilitation? And further, does this new approach adapt to the existing urban situation in China? Urban rehabilitation, as an approach that emphasizes the social dimension of urban renewal, tending to benefit the community and avoiding the wholesale demolition, has been successfully practiced in many instances. Although it has been theoretically well-developed in Western countries, especially in the continental European countries, it is still doubtful that their urban rehabilitation strategies, methods or theories can be localized to match the Chinese issues and needs. These circumstances could be more complex and dynamic than those in Western countries. In practice, either the dilemma of urban renewal or existing housing problem has become a “common hot topic among the Chinese governors, professionals, academics, activists and general public. But in a transitional society such as China, which has been thrown into an ethically uncertain and complex condition at the time of globalization, many of conventional, specialized but exclusive methodologies have become one-sided for whatever research or practice. The growingly diversified and differentiated society faces the increasing conflict not only between different interests but also between thoughts. Therefore, a critical challenge emerges: what will be the appropriate research methodology, which is suitable for the contemporary Chinese context, to answer the research question or to test the hypothesis of the current study? In fact, the exploration of an appropriate methodology is not just a methodological but an epistemological and even an ontological question<sup>1</sup>, which is always closely related to developed or underdeveloped theories. Hence, this chapter will focus on the discussion of those theoretical and methodological issues. On the one hand, the existing theories about urban rehabilitation that were well developed in the West have to be reviewed; and on the other hand, as one of the most important sub-themes of

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Here and in the following text, I introduce three philosophical terms: ontology, epistemology and methodology. Ontology refers to the study of the nature of being, as well as the basic categories of being and their relations. Epistemology concerns with the nature and scope of knowledge (or knowing). Methodology deals with the principles of the formation of knowledge.

my research, the analysis will focus on how we should fundamentally and theoretically understand the current spatial situation of Chinese cities. This doubtlessly determines and is most obviously manifested in the present dilemma of the urban renewal of former public housing areas in Beijing. Moreover, it can accordingly link this spatial situation to the theoretical and methodological framework for the research of Chinese urban rehabilitation that is practically and theoretically still under development. In order to deal with the existing uncertainty and complexity, I will suggest a research framework by regarding our living world as *spatial phenomenon*, which can be considered as an emerging global but pragmatic philosophy and as the continuity of the Confucian tradition of “Chineseness”. The research thereby retrieves its original meaning: it is human practice. The theoretical and methodological discussion in this chapter can therefore be seen as the “pre-research” of my research practice.

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## § 2.1 What is Urban Rehabilitation?

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In order to precisely understand the meaning of urban rehabilitation, the primary challenge may settle in a linguistic problem: what the English denotation of urban renewal or urban rehabilitation is. In fact, these terms are widely accepted and used due to the predominance of the English language and, currently global influence of Anglo-American thinking. In the English-speaking world, especially in the United States, urban renewal in many cases was synonymous with wholesale demolition-reconstruction and hence earned a bad reputation. The so-called urban rehabilitation and urban regeneration was invented as alternatives, while the former often focuses on a physical dimension (step-by-step renewal, without wholesale reconstruction), and the latter emphasizes an economic dimension. However, in the non-English-speaking context, especially in those Continental European countries renowned for social-oriented public intervention, the initiatives related to urban renewal are given some different meanings. In Germany, for example, the wholesale reconstruction was rarely implemented and “*Stadterneuerung*”, which can be translated as urban renewal, is not a really negative term. Furthermore, “*Stadtsanierung*” (gentle urban renewal or urban rehabilitation), as softer intervention, has a more positive reputation. In Austria, “*Sanfte Erneuerung*” (soft renewal or gentle renewal) largely contributed to improve housing conditions and living environments. And in the Netherlands, “*Stadsvernieuwing*” (urban renewal) is never stigmatized. The active participation of residents prevent urban renewal from large-scale reconstruction and led to the step-by-step rehabilitation that was called “*Bouwen voor de Buurt*” (Building for the Neighborhood).

This linguistic challenge is even more evident between English and Chinese language. In China, the terms that officially announce urban renewal, such as “危旧房改造 weijiufang gaizao” (improvement of decrepit and old houses) or “旧城改造 jiucheng gaizao” (improvement of old city), are commonly used to indicate wholesale reconstruction. Those radical and sometimes tough actions made urban renewal gain a more popular name: “拆迁 chaiqian” (housing removal, which originally described the first step of wholesale reconstruction). But the so-called “城市更新 chengshi gengxin”, which literally translates “urban renewal” in English, seems more welcome by scholars and professionals, in order to give a name to much softer interventions such as step-by-step rehabilitation.

Therefore, the research on urban renewal, first of all, calls for a “universal” terminology, in particular when it refers to an international context. Doubtlessly, English language has established its worldwide communication power, both in practice and in theoretical research. Written in English, this book also has to adopt English terms. Nevertheless, the adoption of English terms does not mean the absolute copy of their meanings in the Anglo-American context. On the contrary, it must be inevitable to have a turn from semantics to pragmatics in the research. That actually means to redefine those terms to create a, both globally and locally, communicative language. The understanding of urban rehabilitation will thus be a process of redefinition, which in fact roots in exploration of the context of its origin, development and existence.

If we understand urban renewal as the publicly initiated, modern intervention to the already built-up city areas, then, understanding urban rehabilitation must stem from the evolution of urban renewal theories and practices in the West. In a modern sense, the idea of urban renewal can be traced back to the late 19th century, when industrialization also brought about a large amount of slums, and raised hygiene and health concerns as well as fear of social disorder in European and North American cities. The slum clearance and urban reconstruction thus became the main theme of urban renewal. Hausmann’s plan of reconstructing Paris was a clear example. For many modernistic urbanists and architects, from Ebenezer Howard to Le Corbusier, with many social and spatial concerns, the poor living conditions of the Western cities at that time precisely presented the shady side of capitalist societies and therefore had to be revolutionarily changed. Their theories and practices considerably backed up the actions of urban reconstruction in the 20th century, which had started in Britain and

the United States by the 1930s and soon spread over other industrialized countries<sup>2</sup>. After World War II, urban renewal largely took place or were planned to largely take place in most of Western cities, in the form of inner city reconstruction or large infrastructure development under the slogan of “postwar reconstruction”.

However, this kind of urban renewal by large-scale reconstruction, which usually led to the resident displacement and the destruction of historical urban context, soon encountered the resistance and criticism from local residents, activists and scholars particularly from the 1960s. As a result, there was a significant shift of urban renewal theories and strategies from reconstruction to rehabilitation in the 1970s in Western countries. This means that there was a transition from the wholesale demolition and new construction of deteriorated housing areas to the gentle, step-by-step renewal. This renewal focused more on housing renovation and on the retention of existing communities, through strong, social-oriented public interventions. Although this new approach was not largely implemented in the United States and the Eastern Asian countries, where urban development was still dominated by market forces, in Western Europe, especially in the social democratic countries such as Germany, the Netherlands, Austria and Scandinavian countries, many successful urban rehabilitation practices have been realized since the 1970s.

In the 1980s, urban regeneration, also originally from Britain, as a new, alternative term for urban renewal began to be popular in the English-speaking world. While urban renewal was sometimes considered as the forerunner of urban regeneration and one of the components of urban regeneration (Stouten, 2010, p.11) by those scholars who believed its Anglo-American definition, urban regeneration is actually a trend of urban renewal. This trend emphasized the economic dimension and paid more attention to the newly-emerging urban problems, such as social polarization and spatial segregation, in Western European and North American cities. This trend was also presented in the evolution of urban rehabilitation. The theories and strategies on public private partnership, housing differentiation and economic revitalization were developed. Nevertheless, the emphasis of the role of market and private sector, while the physical intervention of wholesale demolition had to a large extent been given up, once more came together with the threats including social exclusion and gentrification. In general, urban renewal has nowadays developed two different orientations in the

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In fact, urban renewal, housing improvement and slum clearance had become a trend in the Western countries before the War. In the book *Slum Clearance and Reconditioning of Insanitary Dwellings*, which was published by International Housing Association in Stuttgart in 1935, many urban renewal projects for housing that were implemented or planned in European, American and Australian cities were collected. Most of them adopted the approach of site reconstruction.

West: on the one hand, it is largely driven by the market and often results in the *overall* gentrification, while physically in the form of rehabilitation, in particular under those neo-liberalistic authorities; on the other hand, in those Western countries that still insist on social-oriented public intervention, social justice and integration has become a major challenge and task for urban rehabilitation.

In the following section, I will describe and analyze in more detail the characteristics of urban rehabilitation, with the background of the evolution of urban renewal theory, so as to theoretically show an overall picture of urban rehabilitation in the Western sense.

#### *Reconstruction, renovation and rehabilitation*

Aiming at improving the urban conditions of overcrowded, industrialized cities, urban renewal in Europe and North America, at the beginning, was related to slum clearance and wholesale reconstruction. Hausmann's reconstruction of Paris under the regime of Napoleon III is often regarded as the forerunner of large-scale urban reconstruction in a modern sense. For the purpose of improving the traffic, hygienic and environmental quality, Hausmann, who dreamed of a good administration, largely changed the cityscape of Paris, while his works also tied up with ideas such as suppressing public riots. But the conception of urban reconstruction in the 20th century derived from the social reformers, together with modernist architects and urbanists, who believed that cities can be meliorated according to a well ordered, modernized model in order to get rid of those urban illnesses. The American historian Christopher Klemek (2011, pp.7-12) pointed out two ideological origins of large-scale urban renewal: liberalism and modernism, the former of which was adopted as an American term corresponding roughly to socialism or social democratism in Western Europe and the latter indicated a European planning and design movement symbolized by the CIAM's functionalist principles and the International Style<sup>3</sup>. "... social reformers and modernist designers... were united by a faith in environmental determinism, the belief that social problems inhered in city form... The underlying unity of such programs was the Enlightenment and positivist assumption that previously thorny problems... were soluble by human reason, particularly when administratively concentrated" (ibid, p.243). This kind of thinking was evidently presented in the ambition of European modernist architects and urbanists to renew their cities. Le Corbusier's ideal plan of reconstructing the inner city of Paris was doubtlessly a very example: he never concealed his admiration to Hausmann and regarded the wholesale reconstruction as "surgery" for old cities. Although those ambitious plan were rarely realized in Continental Europe, in the Anglo-

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CIAM (Congrès Internationaux d'Architecture Modern) was founded in 1928 and disbanded in 1959. Involving most of prominent architects of the time, its objective was to spread the principles of Modern Movement focusing in all the main domains of architecture.

American world, urban reconstruction, usually under the title of “redevelopment”, had been put into practice since 1930s. The most notable case was the redevelopment of large sections of New York that was directed by Robert Moses and related to public works, slum clearance and housing. Other important contemporaries who believed that physical planning could lead to social reform included Patrick Abercrombie in London (who followed Howard’s Garden City model and proposed the relocation of population and industry to satellite towns) and Edmund Bacon in Philadelphia (whose downtown renewal plan was backed up by social reformers and actively responded by the architects such as Louis Kahn). In the post-World War II era, the urban reconstruction related to the new housing projects, urban infrastructure or development of central business districts began to be largely promoted in many Western European and North American countries.



Figure 2.1  
*Le Corbusier's sketch in 1925 for reconstructing the center of Paris*  
(Source: *Le Corbusier*, 1987, p.280)

However, this “golden age” of urban reconstruction did not really last long. The urban reconstruction that was proposed to benefit cities and their residents did not result in the announced, or expected, consequence, especially from the individuals’ point of view. The large-scale, wholesale reconstruction often led to the displacement of residents and the destruction of traditional urban texture, as well as urban sprawl, and had hence caused rising resistance and criticism since the late 1950s, from the United States at the beginning, but soon spreading over the whole Western world in the 1960s. It was not just local communities but many postwar intellectuals, from Lewis Mumford to Denise Scott Brown, who got involved in this critical movement. The most renowned one for the public, amongst those figures, may be Jane Jacobs, who highly criticized the wholesale reconstruction and argued for the vitality of local life and the right of local community. In Western Europe, while there were only a few projects implemented, urban reconstruction was also widely criticized. In West Germany, the psychologist Alexander Mitscherlich published his *Die Unwirtlichkeit unserer Städte (The Inhospitability of the Modern City)* in the 1960s and criticized the modernist planning, which lacked a sense of place. And in the same period, the thoughts of the sociologists

Hans Paul Bahrtd and Jürgen Habermas on the public sphere and traditional city space became influential among the urbanists. In France, the modernist model of urbanism was also attacked by the Neo-Marxist thinkers, such as Jean Baudrillard and Henri Lefebvre, who paid more attention to everyday life and social space. This trend also presented in the evolution of architectural theory. Team X<sup>4</sup>, for instance, had argued for the humanistic revision of modernist architecture and urbanism since the 1950s. By criticizing modernism and functionalism, Robert Venturi published *Complexity and Contradiction in Architecture* in 1966. Aldo Rossi, meanwhile, significantly proposed “the architecture of the city” by refusing functionalistic planning and by rediscovering the value of traditional urban morphology. There was, both in theory and in practice, a confrontation between the proponents – liberal public officials, academics and planning professionals – and the opponents – urban residents, New Left activists and neoconservative intellectuals – of urban renewal (Klemek, 2011, pp.3-4). This confrontation eventually conducted toward a remarkable shift of urban renewal policy in Western Europe and North America in the 1970s. Physically, instead of the wholesale reconstruction, the renovation of existing buildings (if they were possible to be renovated) within the existing urban fabric, while sometimes the partial demolition or new construction was still inevitable, became the alternative strategy, in parallel with the concept of overall improving the living conditions of old neighborhoods when the local residents were staying. This new approach of gentler, step-by-step renewal was called urban *rehabilitation*, an originally French term not just for building renovation but for the neighborhood-based improvement of living conditions.

Nevertheless, the shift from reconstruction to rehabilitation, while as a consensus in its physical sense, guided urban renewal to different directions in the Anglo-American world as well as in the conservative and in the social democratic Europe. In the United States and Britain, albeit there were many attempts to implement the social-oriented urban rehabilitation that could truly benefit the residents, those attempts were soon submerged by the market-oriented *regeneration* and *gentrification*, which can ethically attribute to their anti-statistic tradition and the raise of neo-liberalism, in particular from the 1980s. Actually, Edmund Bacon’s Society Hill project in Philadelphia, which was implemented in the 1950s and 1960s, can already be seen as a forerunner

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Team X (or Team 10) is a group of architects within CIAM who challenged its doctrinaire approach to urbanism. It was active from the 1950s to the early 1980s. Its core members included the Dutch architects Jacob B. Bakema and Aldo van Eyck, British architects Alison and Peter Smithson, Greek architect Georges Canlidis, American architect Shadrach Woods, and Italian architect Giancarlo De Carlo.

of planned neighborhood preservation and gentrification<sup>5</sup>. The thoughts of Jane Jacobs herself, even as a critic of Bacon's works, prefigured a not just liberalistic but conservatistic trend. Marshal Berman (1988, pp.312-329) criticized that her ideals included the memories of 19th-century modernity and over-praised traditional family and neighborhood, which were highly appreciated by the neoconservative theorists. The legacies of neighborhood organizations and New Left urbanists' anti-modernist radicalism, ironically, endured primarily in the more conservative gentrification movements that followed. Leftists may have helped to topple liberal urban renewal programs, but it was conservatives – in politics and the market – who often benefited (Klemek, 2011, pp.246-247). Thus, the attempt to find a middle way between total planning and complete surrender to the "creative destruction" of the market, especially the real estate industry, was abandoned (ibid, p.15). On the other side of the Atlantic, the market-oriented rehabilitation led to a similar result. Paris's urban renewal by inserting large public projects in the problematic districts and Barcelona's redesign of public space for urban regeneration inevitably resulted in the raise of property price, the eviction of vulnerable groups and the gentrification in the urban renewal areas. Yet in those Continental European cities with much stronger public interventions, more balanced and successful approaches of urban rehabilitation were developed. In West Berlin, the pilot projects in the Charlottenburg-Klausenerplatz urban renewal area opened a new way of preservation, renovation and participation in the 1970s, and this approach of urban rehabilitation was later largely applied in the renewal of Kreuzberg district, as the "gentle urban renewal" division of IBA (Internationale Bauausstellung – International Building Exhibition) in the 1980s. The principles of urban rehabilitation finally presented in Berlin's new city plan after the German reunification, emphasized the maintenance of traditional urban blocks and refused functionalistic planning, in the 1990s. In the Netherlands, the urban rehabilitation called "Bouwen voor de Buurt", with housing socialization and community empowerment, was initiated in Rotterdam in the mid-1970s but soon spread over Amsterdam and other Dutch cities. In Vienna, the "soft" or "gentle" urban renewal, by retaining the existing buildings and residents, officially started in the mid-1980s. At least in those cases, the socialist reformers' ideal was continued, yet in the milder forms. Urban rehabilitation, while is also confronting the challenges of growing market forces and gentrification, has practically and theoretically been accepted as a sustainable approach to urban renewal in Europe.

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5 Bacon's Society Hill project partially shifted from the bird's-eye perspective to renewal on a house-to-house scale and sought to attract wealthy families back to the city core. It was economically successful but socially unfavorable: this preservation project dislocated as many families as if the entire neighborhood had been razed (Klemek, 2011, pp.92-94).



Figure 2.2  
*Status quo of gentle urban renewal division of IBA 1984 in Berlin*

### *Housing and urban rehabilitation*

Urban renewal has been tied up with housing issues from the very beginning. In fact, urban renewal was introduced as a public intervention to improve the housing conditions of industrialized cities. In his classic book *The Condition of Working Class in England* in 1844, Friedrich Engels described the poor, overcrowded living condition of Manchester's worker districts, which was seen as this representative case of the Western cities in the period of industrialization. This chaotic situation, as a result of social inequality and speculative housing market, could even be seen in many European and American cities after the World War II. The sanitary problems and public riots caused by the unfavorable housing conditions directly pushed forward the birth of modern urban planning, as well as urban renewal. Since the mid-19th century, legislations on public sanitation, housing and town planning had been passed in Britain and France; and these laws could be applied to the clearance of residential quarters and enabled, for example, Haussmann's radical transformation of Paris (Benevolo, 1971, pp.85-104). In the Netherlands, the first Housing Act in the world (enacted in 1901), besides giving legal status of social housing, clarified the obligations of house owners in housing maintenance and empowered the governments to demolish the dilapidated houses. The slum clearance in the United States was often linked to public housing developments. And in Germany, the post-WWII Urban Renewal Act laid out the compulsory purchase of properties from the speculative owners in the specified "urban renewal areas". Housing conditions remained the main preoccupation of American and European civic reformers into the 20th century (Klemek, 2011, p.9).

But there came a question if urban renewal – whether in the form of wholesale reconstruction or not – could really contribute to solving the housing problem. Without the support from the adapted, social-oriented housing policy, urban renewal would

actually exacerbate the housing problem. Jürgen Rosemann (1982) pointed out a created housing shortage in the Federal Republic of Germany, as a result of urban renewal. Helga Fassbinder and Egbert Kalle (1982) drew a similar conclusion after their comparative study of the urban renewal in Belgium, West Germany, Britain, the Netherlands and Sweden, which neglected the social concern and resulted in the reduction of affordable housing stock. John Logan and Harvey Molotch (2007, p.114) also criticized the disruption of American urban housing stock, especially the housing stock of poor neighborhoods, by the postwar urban renewal programs in the United States. In the sense of housing, therefore, the transition to urban rehabilitation means to simultaneously guarantee housing decency and affordability and to avoid the displacement of residents in urban renewal.

This purpose has been realized in many cases through combining urban rehabilitation with socially sustainable housing policy, particularly in those European countries with the tradition of public intervention to housing stock. In Germany and the Netherlands, the gentle, step-by-step urban renewal was linked to housing socialization in the 1970s and 1980s so as to ensure the decent and affordable housing for the low-income residents. And in Austria, the housing renovation programs since the 1980s, under the intensive interventions to not only publicly rented but also privately rented housing market, largely protected the housing right of tenants. Furthermore, in order to cope with the problems of social polarization and spatial segregation, as the byproducts of globalization after the 1970s, the theory of housing differentiation, of which the housing stock is not regarded for “average persons” but for different minorities with their specified housing demands, was well developed and widely applied in the European urban rehabilitation from the late 1980s. In fact, the idea of mixed living of different social classes has a long tradition in Europe. In the 1960s, the urbanists Johann Friedrich Geist and Dieter Huhn had recognized and praised the mixture of different income groups in Berlin’s traditional housing districts, as a theoretical background of the turn from reconstruction to rehabilitation. The concept of housing differentiation actually aroused this tradition. In the latest cases from Amsterdam to Berlin, not just different dwelling types but different ownership categories (the social-rented, private-rented or owner-occupied housing) were mixed through the projects of renewing or rehabilitating whatever the inner-city neighborhoods or social housing districts, so that the mixed communities were recreated and social integration was promoted. Even in France, where the inadaptable housing and urban renewal policy resulted in the serious problem of social segregation and riot, the strategy of housing differentiation and mixed living was emphasized in the recent decade and applied in the urban rehabilitation.

#### *Urban rehabilitation and socio-economic revitalization*

In the 1970s, the core issues of urban rehabilitation in the West focused on physically improving the housing conditions of existing residents of old neighborhoods and preserving the traditional urban texture. However, it was also the worldwide socio-

economic transformation from the 1970s that significantly impacted the topics of urban renewal or rehabilitation. Along with the economic globalization and ICT revolution, the socio-spatial structure of the Western cities was profoundly changed. The “free” market was globally re-empowered, with the decreasing power of nation-states. In parallel with the move of manufacturing industries to the Third World, there was increasing agglomeration of capital and human/material resources in the important global metropolises. In the Western cities, when the financial and informational industries engendered the new upper classes, the low-grade services were usually offered by the ethnic minorities and immigrants. The globalization, while induced worldwide urbanization on an unprecedented scale, continually produces its *winners* and *losers*. Spatially, the social polarization and residential differentiation resulted in the emergence of “problematic” neighborhoods and socio-spatial segregation in many Western European and North American cities, which often presented not only as social confrontation but also as racial problem. All those trends that were theoretically recorded and analyzed by the social scientists, such as David Harvey, Manuel Castells, Ulrich Beck, Saskia Sassen and François Ascher, brought new challenges for urban renewal.

Therefore, apart from the physical improvement and conservation, the socio-economic revitalization is an indispensable aspect on urban rehabilitation. The development of local economy and job opportunities had actually been a sub-theme of some early attempts. In Berlin’s Charlottenburg-Klausenerplatz project, the local businesses had been involved in the plan of renovation. In Madrid, the largest Europe-wide urban renewal project in the early 1980s, which was planned by the architect Carlos Ferran, provided not only houses but the space for the residents to start up their businesses. From the late 1980s, the emphasis of urban rehabilitation turned to the social and economic renewal or revitalization, sometimes under the title of *regeneration*. The relevant strategies comprised both physical and non-physical measures. The physical means included the renovation or new construction for small enterprises, improvement of communal facilities and infrastructure, redesign of public space and even the insertion of large public projects in the problematic districts, besides the subsidized housing renovation or reconstruction. On the other hand, the non-physical programs were indispensable: the employment, language or professional education (training), community services, funding for housing improvement or start-up, etc. Those efforts of social and economic renewal aimed to improve the economic capacity and social status of local residents, especially the low-income minorities, so as to regenerate the deteriorated neighborhoods. In addition, the shrinking of governmental interventions made the financing of urban renewal rely more on market forces and private sector. The strategies such as public private partnership (PPP) were often adopted for urban rehabilitation.

Nonetheless, the socio-economic renewal might also cause new problems if there were not adapted public interventions. In a lot of Western cases, the urban regeneration

depending on market forces, whether physically as reconstruction or rehabilitation, resulted in the overall gentrification of old neighborhoods, which means, again, the displacement of residents, especially the poor. Physical improvement and economic renewal programs pushed up the property prices and rents, which often accompanied the evictions of low-income residents and disappearance of truly local businesses, even without the demolition. Neil Smith described gentrification as a dirty word that emerged in the 1980s but was deliberately reframed as a component of inevitable urban progress. He hence criticized urban regeneration, which for him is just the official renaming of gentrification in Europe, as the process that orchestrates a vilification of people's communities and lives, consistent with the intense social and economic individualism of the neoliberal era (Smith, 2008, p.17). Logan and Molotch (2007, p.115) considered gentrification as a gradual process of the "reinvansion" of affluent outsiders and the direct threat to poor neighborhoods, in their study of the urban situation in the United States. The market-based logic of regeneration and gentrification de facto urged social exclusion and spatial segregation.

Gentrification has thereby become the most critical challenge for urban rehabilitation today, even though the wholesale reconstruction has mostly been abandoned in Western Europe and North America. Social integration, accordingly, becomes one of the major tasks of urban rehabilitation in many Western European cities. The question is if there is a middle way between the social and the market, between the public and the private, in the socio-economic revitalization. While the long-term consequence still has to be testified, there were some comparatively successful attempts to search for a balance. Housing differentiation or differentiated housing strategy, as aforementioned, was adopted in order to avoid the mass displacement and to promote the mixture of the poor and middle income groups in the urban renewal areas. The quality of public space was emphasized to improve the communication between different social classes or ethnic groups. More local programs were implemented to improve the economic capacity of the poor and to let the immigrants get involved in Western societies whilst retain their own cultural identities. And, perhaps more importantly, the local communities had to be invited to participate in the process of urban rehabilitation.

#### *Urban rehabilitation with community participation*

From the beginning, community participation was always an important, inevitable theme of urban rehabilitation in Western Europe and North America. To Jane Jacobs and her New Left allies, urban renewal's greatest offense was not that it threatened to destroy vibrant communities, but that it was fundamentally tyrannical in its concentration of power and undemocratic in its application (Klemek, 2011, p.244). In theory, one of the most remarkable works was probably Sherry Arnstein's "A Ladder of Citizen Participation" which was first published in 1969. Based on the study of the U.S. urban programs such as urban renewal, she typologically summarized eight "rungs" of participation, from the bottom to the top, in three categories – nonparticipation (manipulation and therapy), tokenism (informing, consultation and placation) and

citizen power (partnership, delegated power and citizen control), and argued for the redistribution of power for including the have-not citizens. During the same period, Paul Davidoff, an American lawyer and city planner, also proposed the concept of advocacy planning, which encouraged professionals to advocate on behalf of the poor and powerless groups. In Germany, Bahrdr advocated the democratic and social planning, which was responded by the urban planners such as Rudolf Hillebrecht. On the more philosophical level, Habermas's theories of the public sphere and of communicative action have significantly influenced the contemporary Western urban planning, including urban renewal, since the late 1960s. Planning was reinterpreted as a process of negotiation between planners and those affected. In the United States and Britain, community participation and advocacy planning in practice also began in the 1960s, along with the grassroots movement. The early experiments included, for example, the housing plan proposed by the neighborhood organization of the West Village, New York City, which Jane Jacobs was actively involved in, Denise Scott Brown's advocacy planning on South Street, Philadelphia, and the bottom-up planning, advocated by Brian Anson, in the Covent Garden neighborhood, London. Here, I prefer to use the term "community participation", rather than "public participation" or "citizen participation", because it can precisely represent the ideology of New Left urbanists: people should, not individually but collectively, decide the fate of their communities by themselves.

Unfortunately, this grassroots movement did not last long in the Anglo-American world. In fact, even Arnstein (2007, p.244) identified the arguments against community control in her article in 1969 – separatism, balkanization of public services, more cost and less efficiency, minority hustlers, incompatibility with merit system and professionalism, and symbolic politics. The ideal models of community-controlled planning were not really established but overthrown by the tide of neo-liberalism, which destroyed the planning system itself and set up the predominant role of the market. In the United States, neither Jacobs's bottom-up housing proposal or Scott Brown's advocacy planning were never truly realized. In Britain, just after London's successful episode of New Left urbanism in Covent Garden, grassroots planning was completely marginalized (Klemek, 2011, p.247). On the contrary, the so-called public private partnership, as a mode not only of financing but of participatory planning, gives more power to the market than to the communities. However, while it came later, community participation achieved greater success and left abundant legacies in the Continental European countries that insisted on the social-oriented intervention. For instance, the tenant and squatter movements in Germany and the Netherlands, with the involvement of progressive professionals, pushed ahead the shift to rehabilitation and the democratization of planning and decision-making, among which the most distinguished case was probably the community participation in the Dutch "Building for the Neighborhood" from the 1970s to the 1990s. In parallel with the housing socialization and step-by-step renewal, a partnership was built up between the resident organizations in Dutch cities, which means the action groups

of tenants (without the speculative property owners), and the municipalities, and the former acquired the majority of seats in the decision-making for rehabilitating their neighborhoods.

But along with the transition of socio-demographic structure emerges the question, “what do *residents* mean?” In many Western cities, immigrants or ethnic minorities have become the majorities in some neighborhoods that used to be (or were planned to be) the white working-class communities. Should those newcomers be counted as an integral part of local communities and thus be involved in the process of decision-making? The recent theories and practices on community participation, especially in Europe, have taken into consideration the involvement not only of different income groups, but also of different racial groups. In some cases, the ethnic minorities were even empowered to manage their own communities.

Today, community participation, at least theoretically, has become a consensus for the issue of urban renewal. Although in some cases it might be manipulated by “tokenism”, individualism or neo-liberalism, the community participation in different forms, such as survey, information center, neighborhood design workshop and participatory planning, is an indispensable process of the urban rehabilitation in many Western countries.

In conclusion, we are able to clarify the definition of urban rehabilitation. Although it may be questionable if there should be a universal definition in practice, the basic term, pragmatically and contextually, has to be unified and communicative, at least in a research study. In a narrow sense, urban rehabilitation *physically* indicates the area-based, gentle and step-by-step urban renewal (without wholesale demolition) to improve the quality of living. This term is also often used as antagonist to urban reconstruction. But in different contexts, this kind of gently physical intervention can have different meanings, as well as results. It might be market-oriented and be criticized as gentrification, but could also be social-oriented and truly contribute to the solution of urban problems. The latter is no doubt the original purpose of urban rehabilitation (and urban renewal). Here, the review of urban rehabilitation in the West actually facilitated this redefinition. In a broad sense, urban rehabilitation should be endowed with a *social* but *multiple* meaning. It is normally linked to social housing policy, community participation and socio-economic revitalization, in addition to its physical dimension. However, besides this redefinition there still remains the question, as I mentioned at the beginning of this chapter, whether urban rehabilitation in the Western sense can be adapted to the existing urban situation in China. In other words, will it be a kind of urban rehabilitation “with Chinese characteristics”? That is not only about the hypothesis that will be tested in the research on the urban renewal of former public housing areas in Beijing but, first of all, related to the theoretical framework and methodology of this research. Therefore, after the clarification of the Western meaning of urban rehabilitation, an important and unavoidable sub-theme of my theoretical

study must be to understand what the contemporary Chineseness is. In order to answer this question, the analysis should not just focus on the nowadays socio-economic situation of China that is still in a dramatic transition, but has to more deeply touch the existing Chinese thinking, which means the ethical situation of China in an era of Western globalization. It is this sub-theme on Chineseness that will be discussed in the following section.

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## § 2.2 Contemporary Chineseness – The Hybridity of Ethoses in a Transitional Society

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### § 2.2.1 Chinese Society in Transition

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During the past thirty years, China has been experiencing a significantly social transition. Driven by the market-oriented reform that was initiated in 1978 and accelerated after 1992, the structural transition from the planned economy to the “Socialistic Market Economy” took place in this traditionally centralized society. This reform or transition is still undergoing. Parallel to the high-speed economic growth and urbanization, it also brings about unprecedented challenges and uncertainties for China and its cities.

China’s reform and market-oriented transition resulted in the economic boom and largely speeded up the process of modernization and industrialization. It is a process of economic decentralization and privatization. The top-down driven marketization activated the economic productivity of each individual. The mono-structure of national economy that was predominated by the public sector has been changed, and the private economy keeps growing up. By catching up the recent wave of economic globalization, China established its prosperous export-oriented, manufacturing sector and has thus become the world factory. From the 1990s, the development of non-manufacturing sector, especially the financial industry and real estate economy, also nominally boosted the rapid economic growth. As a result, the growth rate of China’s gross domestic product (GDP) was almost about 10% per year during the recent thirty years. Till 2010, China’s GDP has reached CNY 40.12 trillion (about USD 6.27 trillion) (figure 2-3). China, thus, becomes the second largest economy and one of the major economic engines of the world.

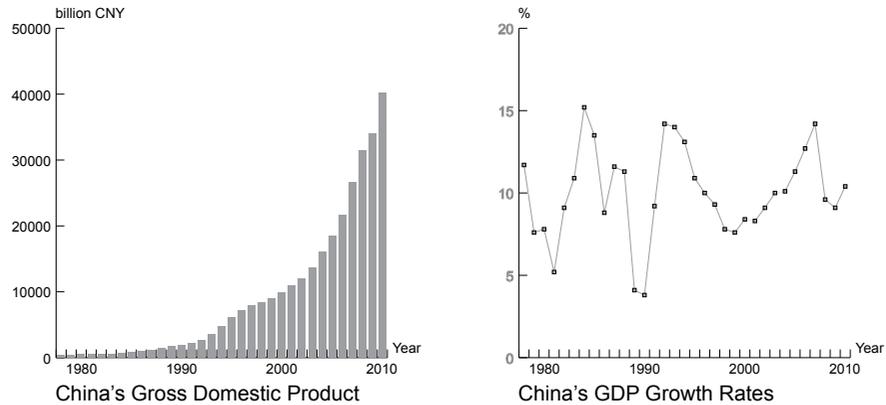


Figure 2.3  
 China's GDP growth (1978-2010)  
 (Source: National Bureau of Statistics of China, 2011; charts by author)

The continual economic growth indubitably improved people's overall living standards. For instance, according to the official statistics, the population in poverty in China's rural areas decreased from 250 million in 1978 to 26.88 million in 2010<sup>6</sup>. The per capita annual disposable income of urban residents grew from CNY 343.4 in 1978 to CNY 19,109 in 2010. During the same period, the Engel's Coefficient of urban households decreased from 57.5% to 35.7% in the urban areas and from 67.7% to 41.1% in the rural areas. In Beijing, the GDP per capita has reached CNY 75,943 (USD 11,218) in 2010.

At the same time, the economic development and industrialization significantly boosted the urbanization. Millions of people moved from the countryside to the city, and many formerly rural areas were urbanized. In 2011, Chinese people who were living in cities and towns, for the first time in Chinese history, became more than those living in the countryside: the urban population of China amounted to 690.79 million by the end of 2011, which accounted for 51.27% of the total population (figure 2-4). The total number of cities increased from 193 (1978) to 657 (2010). The population of 125 Chinese cities have reached or exceeded 1 million. Some hyper-scale urban agglomerations (e.g. Yangtze River Delta, Pearl River Delta and Beijing-Tianjin-Hebei

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6 In 2010, the poverty line in China is per capita income CNY 1,274 /year. This standard is actually lower than the internationally prevailing standard. According to the definition of poverty by the World Bank (USD 1.25 /day per capita), there are still about 150 million Chinese people in poverty.

Region) have been formed. In some mega-cities such as Beijing and Shanghai, the population almost reaches or even exceeds 20 million. Together with the expansion of urban scales, the images of cities are increasingly generic, as the symbols of economic success. The market-oriented reform and following economic growth largely changes the spatial pattern of China.

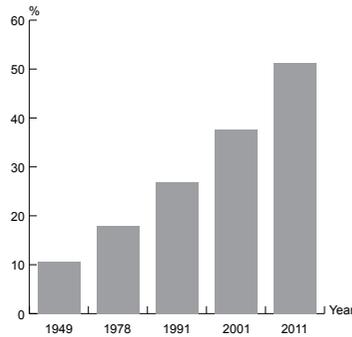


Figure 2.4  
*Proportion of urban population in China*  
(Source: National Bureau of Statistics of China, 2011; chart by author)

On the other hand, the transition is not only in the economic but also in the social sector. The centralized, top-down social structure under the planned economy has largely been changed through the marketization and globalization. The danwei system was gradually dismantled. Even in Beijing, where the public economy was conventionally predominant, the active non-public sector has provided more job opportunities<sup>7</sup> (figure 2-5). At least at the local level, the Chinese society tends to be decentralized, individualized and diversified. Deviated from the Chinese tradition of emphasizing the collectiveness, the individuals are increasingly willing to express themselves in their social lives. The rising individuality is challenging the priority of the collectivity. But still different from the Western “civil society”, which derived from the tradition of merchant city and individual rights, this social transition is more or

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In comparison with the traditionally public sector of national economy, which means the merely state-owned and collective-owned economies, the “non-public” sector here indicates the economies of private ownership, individual ownership, foreign investment and joint ownership (which may also comprise the public stakeholders).

less presented as what John Friedmann (2005) termed as the “expanding spheres of personal autonomy”, in the Chinese society.

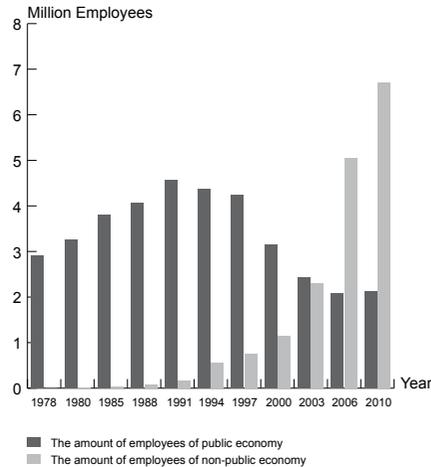


Figure 2.5  
*Change of employments of the public sector and non-public sector in Beijing (1978-2010)*  
(Source: Beijing Municipal Bureau of Statistics, 2011; chart by author)

From the structural point of view, the social transition also means the stratification and polarization. The market-oriented reform results in the redistribution of wealth as well as power. The equalitarianism under the planned socialism was abandoned in order to promote the efficiency, but the Chinese society significantly became stratified in a short time. When the wealth is continually concentrated in the hands of those winners of the marketization, many people become losers. The gaps between urban and rural areas, between different regions and between different income groups have been enlarged. Along with the stratification comes the process of social polarization, while the members of the middle class are seemingly still growing. The sociologist Lu Xueyi

(2002) defined ten social strata and five classes in the contemporary Chinese society<sup>8</sup>. Li Qiang (2010) further proposed the reversed “T”-shaped social structure of China and thus indicated the serious problem of social polarization<sup>9</sup>. According to the official statistics, the income of the richest group has become about ten times the poorest group in Chinese cities (figure 2-6). The polarization occurs not just between the city and the countryside but also, increasingly within the cities. In the latest report from the Chinese Academy of Social Sciences (CASS) (2011), the urban population in poverty was estimated to be more than 50 million. The social stratification and polarization inevitably lead to the differentiated interests and social conflicts. More critically, under the slogan of economic growth, the combination between the capital and political power increasingly damages the social justice and intensifies the social polarization. Thanks to the marketization and globalization, the raising individualism is also easily manipulated by the capital. Although the issues on injustice in distribution and social polarization have repeatedly been raised and argued by the experts and public, as well as emphasized by the government and the Communist Party<sup>10</sup>, the efforts for rebalance face great difficulties and challenges. Marketization ironically did not weaken but strengthened the hierarchies of the Chinese society. To a certain extent, China seems to be on the historical track of each of its dynasties – the transformation from the less wealthy but even to the rich but uneven society.

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- 8 Lu Xueyi’s ten social strata comprised the governors of the state and society, managers of public enterprises, private entrepreneurs, professionals, administrative staffs, individual businessmen, employees of commercial and service industries, workers of manufacturing industries, farmers and the jobless. According to their social statuses, those ten strata can be divided into five socio-economic classes: upper class, mid-high class, mid-mid class, mid-low class and under class.
- 9 Li Qiang adopted the “International Socioeconomic Index of Occupational Status” (ISEI) to figure out his reversed “T”-shaped model, which actually revealed the concentration of wealth in a few upper classes and the populous lower classes in the existing Chinese society. For him, this reversed “T”-shaped structure is even not a new but a traditional problem of Chinese society (which was attempted to be changed by Mao through the “class struggle”) and thus results in a socially “structural tension” (2010, pp.170-190).
- 10 In the 17th National Congress of the Communist Party of China (CPC) that was held in 2007, the social justice and economic efficiency were proposed to be rebalanced, after the 30-year emphasis of the efficiency in the economic growth.

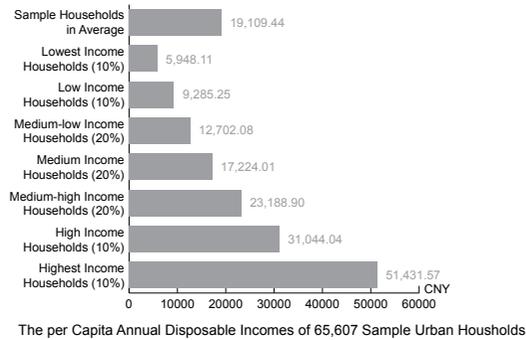


Figure 2.6  
 Per capita annual disposable incomes of different urban households in China (2010)  
 (Source: National Bureau of Statistics of China, 2011; chart by author)

Those trends of social transition, in the forms of individualization, diversification, stratification and polarization, are also spatially presented. While the generic images of *modern city*, as the icons of wealth and capital, are continually copied from the coastal areas to the hinterlands, the spatial qualities of living and landscapes of the rich urbanized areas and poor countryside become more dissimilar. The spatial morphology of the city is also being changed. The homogeneity of urban space that was based on the danwei communities has deconstructed, along with the urban sprawl. The not only walled but gated communities become popular. The urban fragmentation and residential differentiation bring on the raising threat of spatial segregation. The cognition and use of space are growingly differentiated between social groups. It is the process of spatial stratification and polarization of Chinese cities.

Nevertheless, I would like to argue that the existing socio-economic transition of Chinese society, as well as its spatial presentation, is not an independent process. The sociologist Deng Zhenglai (2008, pp.4-5) suggested that the study of contemporary China must be based on the standpoint of *China in the world structure*, and argued for the analysis not just of "China" in the existing "world structure" but also of the existing "world structure" itself. In my research, this means that it should be taken into account within its regional (spatial) and historical (temporal) context: the latest process of so-called globalization on the one hand and the ethical transition from a traditional society to a modern society in China.

## § 2.2.2 Chineseness in Modernization – The Hybridity of Ethoses

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In fact, the so-called globalization is not something new in the human history. Many different powerful civilizations used to realize the unification, either physical or spiritual, within the boundaries that they could and did touch at their times – their own “globes”<sup>11</sup>. But for the first time really reaching a global-wide level, the latest wave of globalization spreads and almost touches every corner of the earth; and different from those “ancient globalizations”, which often relied on the military or religious conquests, it is a process of the global diffusion of modernity or, in a Marxist term, capitalism through the market (while the political and military means are never abandoned). As the fate of modern capitalism, the mobility of the capital from the national to the international level is nothing new but can be traced back to the 19th century. In *Manifesto of the Communist Party*, Karl Marx and Friedrich Engels had pointed out that “National differences and antagonism between peoples are daily more and more vanishing, owing to the development of the bourgeoisie, to freedom of commerce, to the world-market, to uniformity in the mode of production and in the conditions of life corresponding thereto” (Marx, Engels and Tucker, 1978, p.488). In his theory about the Imperialism in the late 19th and early 20th century, Vladimir Lenin also analyzed the globally centralized capital (monopolization) and its worldwide expansion, in the form of colonialism. It was from the 1970s that, along with the informational revolution and expansion of world market, the modern version of globalization is unprecedentedly accelerated and thus much more clearly recognized. The globalization can, economically and spatially, be understood as a worldwide redistribution of the capital, labor forces and industries. According to Saskia Sassen (2001), there is a process of the internationally dispersal of manufacturing industries and the low-end services (towards the Third World countries or peripheries of major cities) and the centralization of the capital in a few global cities in the developed countries.

The globalization has also socio-spatially changed our world. Our contemporary global society, as the living space at the time of whatever “Postmodernity” (Harvey, 1990) or “Reflexive Modernity” (Beck, 1992; Beck, Giddens and Lash, 1994), is identified by two characteristics – individualization and polarization. Both of them can be regarded as the commensals of the expansion of global market or global capital. “It is further argued that the social cement has grown porous through the secular trend of individualization, that society has been losing its collective self-consciousness and

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11 Those “ancient” or “prehistoric” globalizations can widely be found in the history of ancient Egypt, ancient India, ancient China, ancient Greece, the Roman Empire, the Christian Middle Ages or the Islamic Arabic world, where the “world” was respectively unified by a civilization, whether in the form of religion or secular power.

therefore its capacity for political action... economic globalization merely completes what has been driven forward intellectually by postmodernism and politically by individualization..." (Beck, 2000, p.8). The polarization is inevitably parallel to the individualization. At the global level, globalization has caused the weakening and entrepreneurialization of the "medium scale" – the nation-states, the internationally growing competition between urban agglomerations, the fading of traditional working class and its collectiveness in the developed countries (along with the outflow of manufacturing industries and inflow of immigrant workers in those countries), the popularity of poverty in the marginalized areas (on both international and national scales), and, without the collective resistances, the centralization of the power in the global capital, often spatially in the form of global cities. At the local level, globalization has resulted in the rise of the dual city, which means the contradictory dynamics of growth and decline and their socio-spatially polarizing and exclusionary effects, in an informational age (Castells, 1989). Globalization can actually be regarded as the global-capitalization.

The globalization is not just a socio-economic but cultural or, more precisely, ethical process. Here, I would like to adopt Karsten Harries' understanding of the word "ethical": it has more to do with the Greek *êthos* than with what we usually mean by "ethics" (Harries, 1997, p.xii). The latest globalization and the ideologies that go along with it, such as neo-liberalism, individualism and consumerism, highly rooted in the Western culture. Modernity, as a prevailing ethos, can be considered as the byproduct of Western civilization, based on its tradition of merchant city and civil society. Marx Weber linked the evolution of capitalism to the popularity of Protestant ethic, which built the direct connection between individuals and God and freed the production of private wealth, in Europe. Along with globalization, Western values – such as individual rights, market economy and elective democracy – widely spread all over the world as the "universal values". But as Manuel Castells (2009, p.28) pointed out, value is, in fact, an expression of power: whoever holds power (often different from whoever is in the government) decides what is valuable. The fading of the working class and "bourgeoisification" in the Western countries during the process of globalization, fundamentally shocked the material foundation of the traditional collectivism, and resulted in the predominant power of the values of capitalism and individualism in the contemporary Western world. Even the existing popularity of ecological concerns presents the continuity of this global power. Environmental issues would not result in the end of capitalism and of modernity but could give them a new lease of life (Ascher, 2007). In the West, by which individualism, liberalism and consumerism are highly and increasingly valued, the contemporary world is a "risk society" (Beck, 1992), and

is consequently predominated by what I would like to name as *the hybrid ethos*<sup>12</sup>. For Edward Soja (1996, pp.86-96), the spreading postmodernity actively makes differences by the working of power, by radical subjectivities and by the disordering of difference. Along with globalization, postmodernity did not change but intensified the predominance of the modernity, and thus completed the progress from an ethos of hybridity to an ethos of superhybridity. The globalization of this hybrid ethos, as the so-called universal values, presents the global communication power of the West-born capitalism. It is a process of the centralization of decentralization, the unification of diversification and the singularization of pluralization. Therefore, globalization is the Westernization.

The recent transition of Chinese society has to be taken into account in this process of social, economic and ethical globalization. China's Reform and Opening-up just catches up the latest globalization. As a huge, important but developing player, China gains its special position in the hierarchy of globalized network. While China largely benefits from the economic globalization by the establishment of export-oriented manufacturing sector, the self-sustained, relatively complete industrial system had been set up, even before the reform. This industrial system is capitalized (also globalized) in the market-oriented reform, albeit the communism is still proposed as the long-term goal. Along with the rise of Chinese economy, the capital –or knowledge–intensive sector, including financial, ICT and real estate industries, is developed in China. The Chinese metropolises such as Beijing and Shanghai are striving to be the new global cities. Therefore, China can be seen as one of the most representative cases of globalization: there are the centralized capital, modern manufacturing and low value-added provision of labor forces and materials within the boundary of one country, simultaneously. But as one of the emerging markets that situates in a "medium" position in the globalized network, the individualization and polarization, as well as the following social conflicts, also evidently embodies in China. The private interests and individual rights start to be overwhelmingly argued, and the capital is growing to manipulate the political power. The richest and poorest groups are directly confronted with each other. The increasingly generic city images, enlarging regional differentiation and spatial segregation in the city are just the spatial presentation of the socio-economic transition under the effect of globalization. This transition is undoubtedly also ethic. However, in order to understand the more fundamental, ethical transition, the more historical point of view must be introduced.

The transition of Chinese society during the recent thirty years, namely from the planned economy to the market economy, is just an integral part of a historical but ethical transition from traditional China to modern China, which started about 170 years ago and is still undergoing. In his hermeneutic analysis on the changes of China's juristic system, Yin Yijun (2003, p.4) defined three radically social transitions in the Chinese history: the first one occurred more than 3000 years ago, which completed the transformation from a religious society to a secular society; the second one was in around 2000 years ago, which resulted in the predominant position of Confucianism in Chinese society; and the last one, as aforementioned, "started from the last several decades of the Qing Dynasty, and continued till now, have never finished". Literally since the Opium War (1840-1842), China, which was intoxicated its own superiority, for the first time had to confront the unprecedented challenges from Western modernity. The characteristic of the present transition is that the Chinese society must simultaneously face the pressure of modernization (Westernization), which is currently presented as the globalization, and the internal triggers of social change.

Therefore, a series of social experiments were attempted in China during the recent 170 years. From the Chinese-style Christian utopia (the Taiping Rebellion), technical modernization (the Westernization Movement), reformed monarchy (the Reform Movement) and foundation of Chinese republic (the republican revolution in 1911) to the introduction of the spirit of democracy and science (the New Culture Movement), nationalist authoritarianism (the Chiang Kai-shek's authority), Chinese version of communist ideal (Maoism) and, most recently, market-orient reform, all those attempts were basically the combination of the eagerness of modernization and the recall of China's proud tradition. Most of them can be regarded as the forced reflections for the unprecedentedly ethical crisis that China has to face at the time of modernization. The transition that is pushed forward by those efforts is indubitably not only social, economic or political but also ethical.

As a process of continual destructuring and restructuring, the radical transition means the collision of different ethos. None of the social transitions, even though they were described as radical, is the absolute historical break. They are radical because of the transformations of predominant ethos, going from one ethos to the other, as a result of external or internal motivations. In this process, some consensuses are replaced, some change their presentation, and others are inherited. In the meantime, the old and new elements interacted to formulate the new ethos. The ethical destructuring and restructuring are always mixed in one historical process. The modernization can thus be understood as an ethical transition from the tradition to the modernity, which indeed derived from the Western world.

However, in comparison with the Western modernization, the present transition of the Chinese society is a much more complicated process. It is a collision not only between modernity and tradition but also between the Western and the Chinese

worlds. Geoffrey Parker (2004), while still based on the West-centered thinking, emphasized the role of the city-state, as a production of commerce, market, freedom and democracy, in the Western culture, and distinguished this tradition from the geopolitical mode of empire that is exemplified by China. The modernity, which is constructed corresponding to the popularity of individualism and capitalism, actually roots in the Western tradition of the merchant city and the civil society, as well as the monotheism of Christianity, and completed its materialized and secularized transition through the course called "modernization". It is ethically linked to the belief of *the priority of individuality over collectivity*. And it has established its *eternal* earthly power of ephemerality and contingency, while in many cases it is also presented as the eagerness for solidity and collectivism, such as socialism/communism, in order to overcome its uncertainty and individuality. But the traditional ethos of the Chinese society, according to Qian Mu (1996, pp.348-355), one of the leading modern Chinese historians who tried to combine the Chinese and Western methodologies in his study on Chinese history, derived from the belief of "the trinity of divinity, people and emperor" and was secularized as an idea of "earthly, unified kingdom" mainly thanks to the humanistic but hierarchical reinterpretation of Confucianism. This ethos was academically identified by its "unity" (centrality), "equality" (non-aristocracy) and "secularity" (non-religion) (ibid. pp.118-119). Different from the Western tradition and its modern interpretation, the ethics of traditional Chineseness stemmed from *the priority of collectivity over individuality*. Obligations and collectivity always came first, and rights and individuality second, in one's everyday life which is permeated by the Confucian ethos and determined by the patriarchal family. In comparison with the Western culture, the political structure in China was evidently premature. According to Joseph Needham and Ray Huang (2011, p.2), the Chinese tradition was more propitious to the development of socialism than capitalism due to many factors: the simple and consistent national culture, the unity resulted from the use of the Chinese language, the rule of morality instead of the rule of law, lack of middle class, and continual restraint of commerce. The top-down and hierarchically Chinese version of Leviathan had completed its own ethical "globalization" and become predominant in its own territory, through the unification process that for Arnold Toynbee (2000) is a representative case of world civilizations. In fact, before the Western invasion, China was a political and ethical *world* rather than a nation-state<sup>13</sup>. The traditional China composed its "purebred" Chineseness.

The meeting of the Western modernity and the Chinese tradition inevitably results in the ethical collision that takes diverse forms: colonization, Westernization,

modernization or, more recently, globalization. Since the moment of recognizing the loss of superiority in front of the West-originated modernity, the modern China has been thrown away into an endlessly ethical crisis and transition, which is still in process today. Even at Mao's time, which is thought as the most isolated period of modern Chinese history, there was still the continual collision between the communist utopia (with a Chinese interpretation) and the Chinese tradition, presented by the movements including the Great Leap Forward and the Cultural Revolution. The market-oriented reform significantly intensifies and demonstrates this transitional situation. For instance, the marketization and the timely corresponding globalization inevitably bring on the raising arguments for individualism and liberalism; the socialist ideology is still nominally held by the authority (while it has been reinterpreted) but truly supported by the leftists; and the Chinese tradition, presenting as the top-down, hierarchical social structure or authority of family, is still largely running in the everyday life of Chinese people. In a social and ethical sense, the transitional society is accompanied by *the tension between individuality and collectivity* and the following *dialectics*: there is the unprecedented challenge from individuality to the priority of collectivity, but the rising conflicts between individuals (often in the form of someone or some groups' violation of the rights of others) call on new forms of collectivity. Historically, the contemporary China is comparable to its last period of radical transition about 2,000 years ago<sup>14</sup>, in which different thoughts such as Confucianism, Mohism, Taoism and Legalism were developed as the remedies for the ethical crisis. Along with the social transition, the Chinese society nowadays is experiencing the diversification, confrontation and restructuring of ethos. In comparison with the hybrid ethos in the Western world, it is a plurality of the plurality, uncertainty of uncertainty and hybridity of the hybridity. Hence, I would like to term this situation as *the hybridity of ethoses*. That presents in the continuous collision between the ethoses or values of the old and the new, the East and the West, tradition and modernity, individuality and collectivity, transiency and solidity..., as the most expressive statement of the Chineseness in modernization (or globalization).

This not just socially and economically but ethically transitional situation no doubt determines the current spatial issues in Chinese cities. There is, for example, the juxtaposition of different styles of architectures, which have what Karsten Harries (1997) called the "ethical functions", but fragmented urban forms in the city

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The period of this transition can be defined from 春秋 Chunqiu (Spring and Autumn period, 722-482 B.C.) and 战国 Zhanguo (Warring States period, 453-211 B.C.), when the country was politically and ethically decentralized, to the military and political reunification of 秦始皇 Qin Shihuang (259-210 B.C.) – the first emperor of China – and the ethical reunification of 汉武帝 Han Wudi (B.C. 156-87) – the greatest emperor of 西汉 Western Han Dynasty (206 B.C. – A.D. 9).

(figure 2-7). Our spatial being is, in fact, ethical. Indeed, the existing dilemma of urban renewal is also an ethical-spatial question. The unbalanced housing stock, the inadaptability of urban renewal policy to the housing stock and the increasing diversity and uncertainty of interest conflicts between different actors can all be seen as the presentations of the hybridity of ethos. Thereby, at the time of the hybridity of ethos, an integrated but pragmatic theoretical framework has to be developed in order to back up the comprehensive answers to unprecedentedly confused urban questions.



Figure 2.7  
*Ordinary Beijing – the juxtaposition of different architectures and the fragmented urban forms*

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## § 2.3 Thinking of Spatial Phenomenon – A Theoretical Framework for the Research on Chinese Urban Rehabilitation

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Considering the aforementioned Chinese urban situation, the urban rehabilitation in contemporary China must doubtlessly adapt to this Chinese hybridity, which is obviously more, if not much more, hybrid than its Western counterpart. In fact, the existing challenge for the urban renewal of former public housing areas is a very precise presentation of this hybridity. The challenge derives not just from the conflict between different interests or interest groups but also, more fundamentally, from the collision between different ethos. The hybridity of ethos in a transitional society therefore has to be regarded as a precondition for the research of Chinese urban rehabilitation.

The research based on this precondition indubitably needs a new starting point of thinking.

On the other hand, urban rehabilitation is not a new concept in China. The debate between reconstruction and conservation had started since the early 1950s. The theory about urban rehabilitation was introduced and developed from the late 1980s, with the implementation of some tentative projects. Nevertheless, either the theory or the practice of urban rehabilitation in China is hitherto still under development, and hence lack of its own methodology that would be popularly accepted in a transitional society. This kind of theoretical chaos and uncertainty can also be seen as the presentation of the hybridity of ethos, yet meanwhile invoked the adaptable and pragmatic ontology or epistemology, as well as methodology. In order to explore a new way of thinking for my research, the study may start from the review of the theoretical evolution of the Chinese urban renewal or rehabilitation.

### § 2.3.1 Theoretical Evolution of Urban Rehabilitation in China

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Together with modern urban planning and governance, the urban renewal in a modern sense, while was not systematically clarified, had been introduced into China in the period of the late Qing Dynasty and the Republic of China (1912-1949). Spatial planning and the legislations of urban governance usually intended the modernization of existing cities. Pro-modernization governors and west-educated experts promoted these reforms in cities such as Beijing, Nanjing, Shanghai and Guangzhou. In 1915, the Land Expropriation Act was announced. In Beijing, Zhu Qiqian, a pioneer of Chinese urban modernization and the Minister of Interior at the moment, proposed and supervised some urban renewal projects related to the improvement of urban infrastructure and living environments in the early period of the Republic<sup>15</sup>. During the period of the Japanese occupation (1937-1945), the first modern master plan of Beijing came into being. Apart from the proposal to build the new city center to the west of the old city (mainly for Japanese immigrants) and the industrial zone to the east, the master plan retained the old city with the new zoning. Due to the war, this plan was not well implemented. After World War II, in 1947, a new scheme of spatial planning was proposed based on the Japanese plan, but never put into practice.

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In general, the history of the Republic of China can be divided into two periods: the Beiyang military regime (1912-1928), when Beijing was still the national capital, and the regime of Chiang Kai-shak's Nationalist Party (Kuomintang) (1928-1949), of which the capital was officially moved to Nanjing.

It was also since this period that the introduction of the Western concept of planning had stimulated the theoretical debate on urban renewal. A representative case in Beijing was Zhang Wu's urban reconstruction proposal in 1928: he strongly argued the destruction of city walls, clearance of slums, improvement of infrastructure and application of the Western zoning plan, but neglected the overall preservation of historical urban texture (Wang Yanan, 2008, p.118). The criticism also focused on the plans that paid less attention to the renewal of the old city. In the 1948 review, the master plan for Beijing made by the Japanese was criticized as a plan that would result in "the prosperity of the new center controlled by Japanese and the death of Beijing's old city" (ibid., p.174). Nevertheless, there were also many scholars and professionals who argued for the conservation of its historical cityscape. For instance, Bai Dunyong raised his proposal of protecting and reusing Beijing's city walls as an urban park in 1928 (ibid., pp.86-87). In general, these practical and theoretical explorations, while most of them were not realized, actually previewed the urban development and theoretical disputes that were linked to the urban renewal after 1949. However, those attempts also recorded and reflected the collision and integration between the modern Western and traditional Chinese thinking, in a still preindustrial society. They advocated for the modernization of Chinese cities according to the Western model, however, preserving at the same time the Chinese urban tradition.

In China, the large-scale urban renewal was officially proposed only after the People's Republic was founded in 1949, along with the new communist authority's ambition of rapid industrialization. The plan to reconstruct Beijing's old city in the 1950s was the most representative example<sup>16</sup>. But before the reconstruction plan was eventually brought out, there was a theoretical debate between reconstruction and conservation in the early 1950s. The focuses of the debate were the location of new city center and the necessity of demolishing the city walls. Liang Sicheng, the founder of the Architecture School of Tsinghua University, and Chen Zhanxiang, an urban planner of Beijing's urban planning authority and student of Abercrombie, argued for the overall preservation of Beijing's old city (including its urban fabric and city walls) and the establishment of its new administrative center west to the old city. Their proposal encountered the opposition from some of their Chinese colleagues and the urban planning advisors from the Soviet Union<sup>17</sup>, who stood for the opinion of developing a new industrialized city based on the existing center and of reconstructing the old city

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16 For details, please see Chapter 8.

17 In the Sino-Soviet "honeymoon" period in the 1950s, many Soviet advisors, including the advisors of urban planning and design, were sent to China in order to support China's industrialization and urbanization.

(except the historical monuments) according to the modern concept of urban design<sup>18</sup>. Liang and Chen's planning was criticized as counter-progressive and underestimating the use value of the old city. The concept of urban reconstruction was backed up by the government and confirmed by the urban master plan in 1958. The city walls and gates were mostly demolished till the end of 1960s, but, as I mentioned in Chapter 1, the reconstruction plan was never realized due to the difficulty of financing. This plan was later criticized for destroying the historical cityscape and accelerating the deterioration of the hutong areas. To be honest, the criticisms to Liang, Chen and their pro-reconstruction opponents both contained some misunderstanding, so that they were often biased, if not unfair. Unlike the criticism to their proposal, Liang and Chen did not refuse any renewal or modernization interventions in the historical city, which would inevitably result in the decay of Beijing's old city. On the contrary, their thinking had actually previewed the concept of urban rehabilitation. On the other side, those who supported urban reconstruction, different from the pro-growth decision-makers and experts several decades later, dreamed of efficiently transforming Beijing into a modern city by reusing its existing center. In fact, both Liang and Chen and their opponents were simultaneously the social reformers who positively believed that physical interventions would contribute to social progress and the nationalists who fought for Chinese rejuvenation and modernization. While the former argued for gradual change, the latter held a more revolutionary attitude.

The debate about renewal and conservation reemerged in the late 1970s, after the relaxation of the political and academic atmospheres. In Beijing, the ambition of overall reconstructing the old city had been proven unrealistic, and the uncontrolled demolition and new construction in the 1960s and 1970s largely destroyed the cityscape. Along with China's "Reform and Opening-up", the Western theories and practices on urban rehabilitation were introduced. Rethinking the urban renewal policy caused the theoretical evolution from the 1980s, in which a milestone was Wu Liangyong's theory of "organic renewal". As Liang's assistant and successor in Tsinghua University, Wu's organic renewal is a theory of urban rehabilitation, which was developed and tested through his design practice in the Ju'er Hutong pilot project and other research projects on Beijing hutong areas. Apart from the physical rehabilitation and historical conservation, the organic renewal theory referred to the non-physical aspects including new housing policy (housing cooperative), financing strategy and community participation as well (Wu Liangyong, 1999).

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Different from the International Style that was popular in the Western world, the modern city form that was introduced into China at that time was the Stalinist urban design, which emphasized axis, symmetry and national style.

Nevertheless, urban renewal in China presented a “divided” situation since the early 1990s. On the one hand, by combining urban renewal with real estate development, the large-scale urban reconstruction was initiated within the market-oriented reform. The following housing privatization further boosted the upsurge of reconstruction. Urban reconstruction became an engine of economic growth but unavoidably resulted in the demolition of old neighborhoods and displacement of residents. On the other hand, there were the increasing criticisms to large-scale reconstruction and the extensive studies of rehabilitation and conservation in academia. The research had developed beyond the physical renewal and touched the social, economic, cultural and community issues. For instance, Fang Ke (2000) further developed Wu’s organic renewal and emphasized the retention and activation of local residents by the “cooperative community renewal”. The efforts of pro-conservation scholars and professionals eventually led to the announcement of the first historical conservation plan for Beijing’s old city in 1999. At the same time, the civic activists and non-governmental organizations started to actively advocate and take part in the preservation of historical neighborhoods, especially in Beijing. In 2003, Wang Jun, a journalist of Xinhua News Agency, published his book *Beijing Record*, which elaborated the debate between Liang, Chen and their opponents in the 1950s and the following destruction of Beijing’s old city by urban reconstruction. As one of the best sold books of the year, this pro-conservation book drew the public attention to the issue of urban renewal and historical conservation, which mainly used to be a hot topic for academics, professionals and governors. The rising criticisms from academics, activists and the public actually contributed to the slowdown of large-scale, wholesale reconstruction in Beijing after 2004.

But different from their antecessors such as Liang, Chen and Wu, who usually held the belief of social reform and national rejuvenation, many new-generation theorists and activists were highly influenced by neo-liberalism. Besides the preservation of historical city areas, they often strongly supported privatization and marketization, and largely argued for reducing public intervention. Most of them are not grassroots from old neighborhoods and show no real interest on improving the living conditions of the poor. In their terminology, “people” is equal to private property-owners and the “free market” becomes omnipotent. In nature, those neo-liberal preservationists stood on the same side as their opposites – the pro-growth decision-makers and professionals (who are also ideologically different from the pro-reconstruction social reformers). The former do not mind the speculation of individuals and market-based gentrification, whilst the latter encourage the real estate investment to refurbish not only physical appearance but social structure of old neighborhoods. As a result, urban renewal in China gradually turned to an Anglo-American way, both theoretically and practically. In addition to the wholesale reconstruction that is still taking place in many Chinese cities, the physical rehabilitation via gentrification became a favorable model, in particular for the historical conservation areas. The representative cases of gentrification included Xintiandi in Shanghai and 798 art district and Shichahai Lake

area in Beijing. Those historical areas have become the urban Disneylands for upper-class and middle-class, though the former was a result of top-down intervention and the latter two were bottom-up initiated. Even Ju'er Hutong was to a certain extent gentrified: many former residents have been replaced by Westerners.

This new situation caused further rethinking of urban rehabilitation. Some of the more recent studies began to pay more attention to the negative impact of the market mechanism. Guo Xiangmin (2006), for example, criticized both the top-down reconstruction and market-driven gentrification, according to the case studies on Beijing, Shanghai and Guangzhou, and tried to establish a "multi-interest balanced" mechanism for urban renewal that concerned the different interests of government, market and community. There were also some studies that linked urban renewal to the public interventions that control and guide market forces, such as social housing policy or public private partnership. The latest theoretical evolution hinted at a possibility to look for a middle way between total planning intervention and complete market mechanism.

In general, either the practice or the theory of Chinese urban rehabilitation is still a new subject that is under development and confronts a lot of uncertainties. In theory, most of the concepts on urban renewal were introduced from the West but are still waiting to be really adapted to the local situation. Some concepts were even consciously or unconsciously distorted. This theoretical chaos and uncertainty of urban rehabilitation is just an integral part of the hybridity of ethos in a transitional society. Theorists and professionals are inevitably involved in the life-world of the ethical hybridity, needless to count their attachments to certain interest groups. There was continual debate between social (or socialistic) reformers, conservative thinkers and (neo)liberalists, and also between the promoters of total westernization and the nationalists. In the context of the hybridity of ethos, the conflict of different interests in the urban renewal practices is ethically a result of the tension between individuality and collectivity. However, the existing dilemma of urban renewal in Beijing and other Chinese cities resulted not only from this tension but from the one-sided, exclusive and inter-contradictory thinking of urban renewal, which actually roots in different ethos. The simple and unilateral thinking is unable to adapt the research of Chinese urban rehabilitation, which has to deal with those practical, transitional and ethically plural urban questions. In theory, the biggest challenge that Chinese urban rehabilitation is confronting is just the ethical crisis. Therefore, for the research on the urban rehabilitation of former public housing areas, there should be, first of all, an open, plural but integrated theoretical framework that can both ontologically and methodologically think of the existing hybridity.

## § 2.3.2 Thinking of Spatial Phenomenon – A Theoretical Establishment

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For the research of Chinese urban rehabilitation, the new theoretical framework should not just reflect but also cope with the hybridity of ethos in a transitional society. That actually means a not just ontological or epistemological but methodological turn. But where will this turning point of thinking come from? This turn, in fact, is not something exclusively fabricated but has been implied in a general trend. The clue settles in the philosophical transition of the Western thinking, including the thinking of space, about the hybrid ethos that came out with modernization and globalization. In the meantime, the answer must also be Chinese, which is an inescapable context of Chinese urban rehabilitation. As early as the 1920s, Liang Shuming, the founder of modern Neo-Confucianism, had argued for the cultural pluralism or relativism and the balanced combination of Chinese and Western cultures in modern China, while objected to absolutely transplant Western thinking. This attitude, which itself roots in the pragmatic tradition of Chinese thinking, is still adaptable for the research on Chinese urban renewal. There has to be a modern and Chinese establishment of thinking, responding to the existing situation of the hybridity of ethos, to open up a new starting point for the research of Chinese urban rehabilitation.

### § 2.3.2.1 Phenomenalization and Pragmatization of Spatiality

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The ethics of modernity is, in short, based on the ideas of materialization, rationalization and capitalization. But unlike the positivistic expectation, modernization was not a panacea but also caused the new problems, such as social confrontation and ethical uncertainty. It met the unprecedented crisis even since the late 19th century. Philosophically, the positivism and idealist dialectics of modernity faced challenges from two sides, the structuralized and materialistic critical philosophy and the irrational and humanistic thinking. For Georg Lukács (2005), there was a constant confrontation between the “rational” and “progressive” and the “irrational” and “reactive”. The former was represented by Marxism and the latter by the irrationalistic tradition from Schelling and Schopenhauer to Nietzsche and Heidegger. As the reflections to the hybrid ethos, the debates of different thoughts on modernity or modernization caused a tendency of hybridization and reintegration of the Western thinking. Jürgen Habermas (2001) summarized all four philosophical thoughts in the 20th century – analytic philosophy, phenomenology, Western Marxism and structuralism – and their “post-isms” in fact as one. Consequently, this four-in-one *postmetaphysical thinking* (*Nachmetaphysisches Denken*) distinguished the modern from the traditional.

Within the philosophies of different modern thinkers, a general trend can be named as pragmatization, which means that the starting point of study has turned from the metaphysical essence to the world of phenomena. This trend presented in Marx's materialization of Hegel's originally idealistic terms (such as dialectic and alienation) and reemphasis of human agency in philosophy, in Edmund Husserl's rejection of idealized essence (including its scientific version) and return to the study of phenomenon, in Charles Peirce's "pragmatism" (as a kind of "prope-positivism") replacing metaphysical deduction and unifying practical purposes and the means to achieve these purposes, in Friedrich Nietzsche's announcement of the death of God (which actually means the death of metaphysical understanding of the world) and praise of the will to power, in Martin Heidegger's ontological summary of phenomenological, pragmatic and nihilistic thinking in his rediscovery of Being and human-being-in-the-world (*Dasein*), and also in Ludwig Wittgenstein's "self-evolution" from a logical positivist to a precursor who understood philosophical problems as miscommunication and called on the return to everyday language in the philosophical study. Habermas himself, through his theory of communicative action, further argued a pragmatic transition of philosophic thinking in the context of "life-world" (a term borrowed from Husserl). Even the radical left intellectuals such as Slavoj Žižek combined the Marxist-Leninist tradition of totality and structuralization with the knowledge of individual and perceptual experience (derived from Kierkegaard, Derrida and Lacan) and therefore resulted in a more "phenomenalized" Marxism.

The philosophers' continuous study and reflection of their living world also influenced the consensus of the world. In fact, the pragmatization of Western philosophy just matches the process of modernization, which means the ethical secularization, materialization and capitalization. The traditional metaphysics was replaced by new belief in order to deal with the unprecedented uncertainty and hybridity of modernity. This historical trend was presented not just by the break between the modern and the traditional but also by the self-criticisms to modernity. In its intrinsic dialectics, the modern Western philosophy, defined by Hans-Georg Gadamer as *phronêsis* or reasonableness of practical knowing, is continually rebuilt. It is a process of the pragmatization of pragmatized philosophy, and of infinite ontologization of epistemology, as Heidegger discovered in his interpretation of Being. The hybridization simultaneously means the reintegration. The hybrid ethos is not just the "object" that we must confront but also subjectivized: for most of the modern Western thinkers (except for a few such as Heidegger or Peirce), the postmetaphysics is more about epistemology than ontology. The postmetaphysical thinking thus becomes a new metaphysics (if not a new theology) in the era of the hybrid ethos: a new "one" of plurality, a "goodness" of modernity. Or, in the more socio-political words of Žižek (2005), it is the establishment of liberalistic-democratic totalitarianism (which is the political representation of global capitalism) through the attacks to those formal, other totalitarianisms. Similar to its predecessors for the pre-modern eras, the theory of talking about modern issues has to be modern.

The general trend inevitably determines the researches about contemporary spatial and urban questions. Ronald Johnston (1986) summarized three sorts of philosophies that largely influenced the contemporary human geography – positivism/empiricism, humanism (which for him comprises idealism, pragmatism, phenomenology and existentialism) and structuralism (which mainly refers to Marxism), and discussed the confrontation and integration of those ideologies for the research on space. The prerequisite of modernity, such as the predominance of science, ration and practical experience, is primarily linked to positivism and also widely acknowledged in humanistic and structuralistic thoughts. Within the debate or conflict between different ideologies, new integration emerged. For instance, the works of Western Marxist thinkers including Castells and Harvey less or more includes some “irrational” (for Lukács) or “humanistic” (for Johnston) factors, particularly in their studies on architecture and urban space. John Logan and Harvey Molotch (2007) combined the thoughts of Marxism with Chicago School’s human ecology and hence tried to build up a political economy of place. Scott Lash introduced the cultural or (what he called) aesthetic dimension to structuralistic socio-spatial studies (Beck, Giddens and Lash, 1994). A more fundamental reintegration can be found in the redefinition of space and spatiality that was started by Henri Lefebvre and developed by Edward Soja. In his writings on the production of space, Lefebvre (1991) searched for the reconciliation between abstract or mental space (of philosophers) and physical and social space that we experience every day, and thus tried to build a bridge between the realms of theory and practice. Soja (1996) developed this dialectical relationship as the concept of “thirdspace” or “the trialectics of spatiality”, a trialectical approach about perceived space (firstspace), conceived space (secondspace) and lived space (thirdspace), and (2000) further applied this theoretical framework in the study of contemporary cities. By rediscovering Lefebvre, space was regarded as not only a sphere but a production of human practice. In general, all those theoretical evolutions on space can be concluded as the phenomenalization and pragmatization of spatiality.

The trend of phenomenalization and pragmatization is also presented in the Western theories on spatial interventions. Nigel Taylor (1998) outlined the transition of urban planning theory in the Western countries since 1945: from the traditionally physical blueprint to the systems and rational process views of planning, and further to the emphasis of implementation and, more recently, planning as a form of “communicative action”. It was the paradigm changes from planning as design to planning as science, and from modernism to postmodernism. The role of planner has accordingly changed from “master” and technician to coordinator. Karsten Harries (1997), from the more architectural point of view, regarded architecture as a language interpreting the common ethos of the time, and revealed the change of its idea from the pre-modern to the modern and from the artistic to the rational. In fact, the evolution of the Western urban renewal theory, which was analyzed at the beginning of this chapter, precisely showed this trend: the transition from reconstruction to rehabilitation was a process of pragmatization from the ideal, total transformation

to the phenomenal, adapted intervention; so were the emergence of community participation, public private partnership and other bottom-up urban rehabilitation strategies.

All these theoretical phenomenalization and pragmatization processes were not merely metaphysical but can be seen as the response and reflection to the globally social individualization/differentiation, economic liberalization/capitalization and (objectivized) ethical hybridization. *The hybrid ethos* is not only objectively but also subjectively meaningful and has therefore been alienated. Space and spatial theory cannot be separated from the Being. In other words, as Heidegger pointed out in his famous lecture *Building Dwelling Thinking (Bauen Wohnen Denken)* in 1951, building and thinking are inescapable for but themselves belong to dwelling – the basic character of Being, in keeping with which human beings (mortals) exist. The prevailing phenomenalization and pragmatization of spatiality is the presentation of contemporary global (or Western) being, reintegrated by the oneness of hybridity and plurality. In the era of globalization, the Chinese urban rehabilitation, including its research and theory, has to adapt this trend.

Even so, there is still a question on the localization of the urban rehabilitation theory in order to adapt to the spatiality of contemporary China, which, as discussed previously, is involved in the social, economic and ethical globalization but identified by its special feature of *the hybridity of ethoses*. In a much more plural and transitional context, the challenges and corresponding solutions for urban renewal become unprecedentedly complicated and uncertain. On the one hand, Chinese society and its spatiality have been involved in globalization or westernization. The individualization and diversification is not just social but also spatial, and the bottom-up strategies began to be more popularly adopted in spatial intervention. Along with the capitalization of urban space came the more regulatory measures of planning (than the traditional commanded plan). On the other hand, the Chinese tradition is presented in the contemporary spatiality in many respects. As Friedmann (2005, pp.87-89) pointed out, the “public sphere” (in the sense of Habermas), as well as a civil society in the Western sense, has not really appeared in China. Deng Zhenglai (2008), who argued the gradual emergence of “a Chinese version of civil society”, also revealed its weakness and dependency in front of the traditionally predominant role of state. State and other types of collectives (such as family, danwei or corporation) strongly intervene in the spatial transformation of a city. The top-down interventions, including compulsory land expropriation/allocation (while in the form of land lease) and physical blueprint, continually serve for the effective means of spatial planning and design. Under this background, the thorough adoption of the Western thoughts for the research on Chinese spatial questions such as urban rehabilitation is inconceivable.

However, the phenomenalization and pragmatization of the contemporary Western theories still revealed a hint of developing a theoretical framework of Chinese urban

rehabilitation. It is not because of the westernization of Chinese society but settles in the pragmatic and postmetaphysical character of modern philosophy itself. The criticism to something other than the hybrid ethos is just the self-criticism to its own metaphysics. For the hybridity of ethos, the belief of the hybrid ethos (e.g. individualism, liberalism, capitalism, free market, private property, civil society, etc.) inescapably becomes prejudicial, exclusive and unpractical. Thus, the adapted thinking of the existing Chinese spatial questions must be a process of further phenomenalization and pragmatization, based on the self-criticism of the contemporary Western philosophy. This theoretical framework of urban rehabilitation should be open and inclusive for different ethos, some of which may always be in transition. This kind of inclusiveness and pragmaticness, in fact, just matches a very Chinese thinking that roots in the traditional Chinese philosophy.

#### § 2.3.2.2 Pragmatic Tradition of Chinese Thinking

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Liang Shuming tried to make the distinction between the Chinese and the Western philosophy. He regarded the Western philosophy as a thinking that always looks forward and is interested in discovering the essence of objective universe, and the Chinese, on the contrary, refused absoluteness and focused on the sensation of present life (Liang Shuming, 2010, pp.82-179). Different from the Western culture that was constructed based on the common acknowledgement of the *one*, whatever in the form of Socrates' "Goodness" or Jesus' "Godhead", the Chinese tradition is doubtlessly non-metaphysical and atheistic. Lao-tzu ontologically considered the essence of Being as nothingness and demonstrated a phenomenal world that is always dialectical. This nihilist tradition was inherited by Taoist philosophy and Zen Buddhism. Confucius, who argued that "To work for the things the common people have a right to and to keep one's distance from the gods and spirits of the dead while showing them reverence can be called wisdom"<sup>19</sup>, also adopted this ontological statement but developed his social and pragmatic thought. Chinese society and Chinese culture, as aforementioned, was ethically secularized thousands of years ago, and Chinese thinking was actually a practical philosophy about phenomena rather than the (Western) metaphysical term of essence. As the mainstream of Chinese philosophy, Confucianism refused absolute freedom of individualism and placed individuals in the mutual and reciprocal relationships with each other (in other words, in community). It is an ethics that is

always social and pragmatic: the human practice aiming to reach the so-called 大同 Datong (Great Unity, the whole world as one community in which everything is public and everyone is in justice) – the final utopia of the secular world. This practice should be open for the uncertain, the unbalanced and the hybrid that are always with us, not be limited by preset principles, and fit in with a certain situation, through the approaches of 和 He (Harmony) and 中庸 Zhongyong (Balance and Moderation). In practice, the essential theme is Confucius' 仁 Ren, which was understood as acute, proper sensation by Liang Shuming and the authoritative by Roger Ames and Henry Rosemont<sup>20</sup>. Made up of two elements 人 ren (person) and 二 er (two), Ren indicates that we are, from our inchoate beginning, irreducibly social (Ames and Rosemont, 1998, p.48). When the human being feels competent to judge what is fit for turning situations into problems that can be solved, *Ren* is achieved (Grange, 2004, p.110). The Chinese practical philosophy argued for the refusal of separating theory from practice, which is typically manifested in the concept of 知行合一 zhi xing he yi (the unity of knowing and doing) of Wang Shouren, the greatest Confucian thinker and a successful politician in the 16th century. The social and political practice is regarded as a process of knowing and studying. In the Western words, the Chinese philosophy is the pragmatic thinking on a phenomenal world.

This pragmatic tradition, Chineseness, is also presented in the modern Chinese thought, while often mixed with the Western thinking or reinterpreted by the westernized manifestations. As usual, it was the Chinese tradition to integrate theory with social practice, official philosophies and actions of political figures. Sun Yat-sen, for instance, combined his democratism with the concept of Great Unity. Likewise, communist ideology matched the Chinese ideal of the world community of equality and justice. Mao Zedong, who inherited the Chinese pragmatic tradition, proposed the historical dialectics for a particular situation in his sinification of Marxism (*On Practice and Contradiction*, which for Žižek is the greatest development of Marxism after Lenin), and practiced his theory in the revolutions. The theory of the Reform, if it is really a theory, is very pragmatic, especially through Deng Xiaoping's redefinition of socialism ("the essence of socialism is the liberation and development of productive forces"). Even the theory of "Harmonious Society", the existing official philosophy of China, can be regarded as an effort to revitalize the Chinese tradition, while its effectiveness has to be questioned. The Chinese way of pragmatic thinking, as social, open and practical philosophy, is still permeated in practice.

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Confucius' Ren is traditional translated as "humanity" or "benevolence". Ames and Rosemont (1998) dug out its philosophical meaning and translated this term as "authoritative conduct, to act authoritatively, and authoritative person". Joseph Grange supported their translation and interpreted the sense of "authoritative" as to grow or create oneself through appropriate behavior within one's culture (2004, p.28).

In many respects, the Chinese pragmatic tradition is comparable with the contemporary, phenomenalized and pragmatized Western philosophy. They are both secular and refused the merely metaphysical thinking, though the latter still insists on the oneness based on individualism but the former ontologically does not. The sociality, openness and practicality of Chinese thinking can find their Western counterparts in Marxism (in the sense of the social), phenomenology (in the sense of Husserl and Heidegger) and pragmatism (in the sense of Pierce and Dewey). It is this kind of comparability that conditions the “modernization” of Chinese thinking. Responding to the hybridity of ethos, the Chinese thinking, which never absolutely deviated from its tradition, has to be more open and inclusive whilst carrying out its practicality and harmoniousness. As for the research on Chinese urban rehabilitation, the new theoretical framework ought to derive from the spatial dimension of the modernized Chinese thinking.

There have been some attempts to set up the modern but Chinese spatial theory. A very example is Wu Liangyong’s “a General Theory of Architecture” (1989) and “the Sciences of Human Settlements” (2001), which was inspired by Constantinos A. Doxiadis’ *Ekistics* but actually inherited the pragmatic tradition of Chinese thinking. From a rational and scientific point of view, Wu wanted to establish an open, comprehensive and interdisciplinary theory for the spatial issues of contemporary China. He emphasized the Chinese idea of harmony in the relationship between human beings and social environments, as well as between human beings and natural environments. And, as an architect and urban planner, Wu and his followers tried to apply and testify his theoretical statement in research and design practice, in which urban rehabilitation is one of the important issues. However, confronting the existing complexity and uncertainty of spatial questions in Chinese urban renewal, which are inevitably determined by the increasingly different actors or stakeholders, the increasingly individualized and diversified interests, and, more critically, the increasingly hybrid ethical situation, the theoretical framework should be further phenomenalized and pragmatized. In other words, it must be a pragmatic theory that can adapt to the hybridity of ethos.

#### § 2.3.2.3 Thinking of Spatial Phenomenon and the Ethical task of Chinese Urban Rehabilitation

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For the research on Chinese urban rehabilitation, I would like to introduce a new starting point by **thinking of spatial phenomenon**. As an urban question about spatial intervention, the study of urban rehabilitation should have a “spatial” theoretical framework. And the term “phenomenon” means that it is a course about the world of phenomena – the life-world that we are involved in every day. Corresponding to the existing Chinese ethical-spatial situation of hybridity, thinking of spatial phenomenon

simultaneously derives, more epistemologically, from the Western postmetaphysical thinking and, more ontologically, from the Chinese pragmatic tradition. While the adoption of the Western terms is inescapable, for the communicativeness in a global era of the predominance of the Western thinking, this theoretical establishment for urban rehabilitation aims to be pragmatic, modern and Chinese. In fact in this dissertation, I will distinguish the terms “space”, “spatial” and “spatiality”, all of which refer to this phenomenal definition of space, from the term “physical” for describing the objective, Cartesian space.

The phrase *spatial phenomenon* indicates the spatiality of Being as a whole, both conceptively and perceptively. This wholeness determines three basic characters in thinking of spatial phenomenon. First, in contemporary China, an era and a place of the hybrid ethos, space or spatiality especially in urban rehabilitation is ethically dimensional, presented in the confrontation, overlapping and coordination of different ethos. Second, space is historical and its research hence has to be practical: in particular in contemporary Chinese cities, we are not only experiencing but changing the space every day, with our human agency. Third, the wholeness means that there must be something, rather than nothing, to spatially safeguard our human beings, even at this time of the hybridity of ethoses.

According to the current ethical situation, thinking of spatial phenomenon in the research on Chinese urban rehabilitation can be viewed from three dimensions: *the socio-economic dimension*, *the community-placial dimension* and *the aesthetic-technical dimension*. This three-dimensional framework is not only theoretically but also practically pragmatic. Opening to the differences, those ethical dimensions can reveal different ethos closely linking to the values, interests, actors, physical morphologies and other important factors that are increasingly differentiated in urban renewal.

- *The social-economic dimension*

In contemporary China, modernization is an irreversible process, along with which came *the economic* and *the social*, as the twin products of modernity. Economy is no doubt the basis of our modern society which is predominated by its secularity and materialization. As Marx revealed, the economic alienation (or “commodity fetishism”) is the most fundamental alienation and resulted in the unbalance of modern, capitalistic society. Socialism, the social concern on justice or equality, hence emerged as the counterpart of capitalism. The social structure is inescapably determined by its economic base, but has to be continually adjusted in order to rebalance the economy. The socio-economic dimension of spatial phenomenon means not just the symbiosis but the balance between economic growth and social justice in the thinking of space. On the other hand, the socio-economic thinking indicates an ethos which is structuralized: either the socially-spatial or the economically-spatial analysis is based on the prerequisite that phenomenon is not something merely empirical but generalized by a universal structure, a structural

whole. This structuralized point of view brought on an overall and top-down understanding of space and spatiality, and actually matches the Chinese tradition of the priority of collectivity and hierarchy. The spatial theories in the socio-economic dimension are those that were influenced by the structuralistic ideologies (including Marxism and its Chinese reinterpretations). In urban rehabilitation, the socio-economic thinking is often presented in the values and interests of those economically alienated names of actors – government, developer, landlord, homeowner, tenant... and related to the institutional interventions such as strategic planning, urban governance, land development, housing policy and financing and economic balance. Even the ecological/environmental issues that are prevailing today can be concluded as a socio-economic question: how to efficiently use and to equitably distribute resources on the earth.

- *The community-placial dimension*

Besides the generalized and structuralized ethos, spatial phenomenon also leaves space for the individualized and human-centered thinking, which is an indispensable dimension of urban rehabilitation. A key word of this “humanistic” dimension is *place*. The meaning of place is usually merged with that of space in body experience, as Yi-Fu Tuan (1977) argued, but not limited to that. Heidegger gave “place” a preeminent position in his postmetaphysical thinking, through a via media between body and mind. Thanks to such features as gathering and nearness, place becomes for him the very scene of Being’s disclosure and of the openness of the Open in which truth is unconcealed (Casey, 1997, p.244). In other words, human beings can only access his being-in-the-world and thus “be cared” in place, while the access may be irrational and indirect for an individual. Places do not just give rise to locations in a world time-space but demonstrate, as Confucianism pointed out in its spatial order, individuals’ reciprocal relations with each other. The placial space always links individuals to *community*, somewhere people dwell together through their intimacy and proximity. Akin to place, community is neither physical nor mental but both, which means: *placial*. It is area-based and related to not the physical but the socio-spatial morphology of area. The community-placial dimension of spatial phenomenon reveals an ethos of the intimate and phenomenized understanding of space in “everydayness”, so that it is an essential dimension in the research on urban rehabilitation. The community-placial thinking is theoretically represented in the study interests on genius loci (or place), public space, neighborhood (or community), everyday life, behavior, time-space and so on. It reflects, in the practice of experiencing and changing our living space, the most challengeable aspect of existing Chinese urban renewal: the opinions held by those who really co-inhabit in a place, which means the residents (as individuals) or local community (as collective, including danwei, shequ, family and other types of collective units). The thinking of community and place is also responded by the invention of bottom-up strategies, such as community participation, public-private partnership, residential mixture and neighborhood management.

- *The aesthetic-technical dimension*

As aforementioned, modernity is something about secularization and materialization, both of which are also the characters of Chineseness. Our modern world is based on a positive and empirical belief. As for the thinking of spatial phenomenon, that results in what I term as the aesthetic-technical dimension. If we accept Heidegger's interpretations, the essence of artwork and of technology are both the ways of revealing of beings, albeit the former is beyond but the latter is often related to science since the Scientific Revolution. Even in their Chinese translations, the two words, 美术 *meishu* (method of beauty) and 技术 *jishu* (method of skill), are both regarded as 术 *shu*, the meaning of which is "way" or "road" originally in ancient Chinese and extended as "method". In the modern sense, those ways or methods must be material, empirical and scientific. Hereby I prefer to apply those two terms, *aesthetic* and *technical*, for describing that people believe that they can reveal the essence of experienced world and positively improve this world through all the tools materially available. The aesthetic-technical dimension of spatial phenomenon is the scope of physical space. It is aesthetic, as our sensational perception in everyday experiences, and technical, as our rational conception in an undifferentiated, Cartesian space. In theory, the aesthetic-technical thinking refers to those positivistic, empiricistic and scientific thoughts on urban renewal that do believe that physical intervention can contribute to social reform. In practice, the aesthetic-technical point of view is usually the angles of professionals such as planners, architects, engineers and managers, who are considered as (social) experts, technicians or artists. The aesthetic-technical interventions in urban rehabilitation are related to all those disciplines about physical built environment: physical planning, urban design, architecture, landscape architecture, interior design, civil engineering, traffic engineering, etc. However, neither art nor technology can be truly "objective" or "independent", but largely determined by individual or social values. For instance, a currently indispensable topic that is both "aesthetic" and "technical" is the ecological/environmental issue.

It must be emphasized that these three dimensions are not three separate fields with clear boundaries in one horizon but three different dimensions of a whole. In other words, they are different angles of the existing spatial phenomenon. The Western and Chinese thinking of space and spatiality are included and integrated in each dimension. But different dimensions are constantly unfolding, twisting, clashing, reversing, redefining and interweaving so as to compose an ethical-spatial picture of the Chinese urban rehabilitation. In short, they are different ethos in the hybridity of ethos.

As a pragmatic establishment, thinking of spatial phenomenon is also identified by its *historicality* and *practicality*. Urban rehabilitation is doubtlessly a practical issue, and all the spatial phenomena are inevitably historical in a postmetaphysical era. People recorded and analyzed the past at present and try to explore the "truth" to guide the practice for the future. But this kind of "truth" has to be testified and updated in the

consequently historical practice. As one of the precursors of modern philosophy, Giambattista Vico's well-known notion about history – "true itself is fact" ("verum esse ipsum factum") – actually revealed the importance of historicity in modern thinking. This kind of importance was also presented in Chinese tradition which is conventionally secular and atheistic: history was given an indispensable and primary role amongst all theories, especially in the official philosophy. As a result, the modern but Chinese thinking of space and spatiality should be historical. The historical in essence means the practical. The historicity of space is nothing abstract and absolute but something rooting in practice. What are spatially tested in a historical process can be not only the consequences but also the objectives and methods of human practices. The spatial practices are always historical, from the past, at present and toward the future, and the research is always problem-oriented – to deal with the issues that are uncovered in practice. The historical angle that "true itself is fact" implies the unity of theory and practice. The research on Chinese urban rehabilitation must therefore focus on the truly pragmatic thinking to answer the practical questions under the circumstance of the hybridity of ethos. With regard to this urban question that links with spatial intervention, the practicality is not just ontological but methodological: the research should be based on concrete case studies, with pragmatic methodologies such as research by design or research by practice.

The historicity and practicality of thinking of spatial phenomenon in fact gives rise to its third character – the research on Chinese urban rehabilitation must be linked to something that can, through its wholeness, spatially safeguard our human beings. In other words, urban rehabilitation, as spatial intervention aiming to facilitate the comfortable and affordable living conditions for urban residents, should fulfill its *ethical task*. Confronting the existing ethical crisis, the basic question for any spatial intervention is still, as Heidegger stated in his lecture about *Building, Dwelling, Thinking*, that "the proper dwelling plight lies in this, that mortals ever search anew for the essence of dwelling, that they must ever learn to dwell" (Heidegger, 1993a, p.363)<sup>21</sup>. This question exactly becomes more critical in contemporary Chinese urban renewal in terms of the hybridity of ethos. Thinking of spatial phenomenon may provide a way for alleviating this plight. It means neither simply abandoning anything ideal nor absolutely thinking of something metaphysical but the unity of theory and practice. What can safeguard the human-being-in-the-world would be, though indirectly, unconcealed through this unity. In the same lecture, Heidegger seemed to give us an answer: "... as soon as a man gives thought to his homelessness, it is a

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Here, the term "dwelling" that was adopted by Heidegger does not just mean (physically or mentally) housing or settling but can be understood as the spatial form of being-in-the-world.

misery no longer... it is the sole summons that calls mortals into their dwelling. But how else can mortals answer this summons... to bring dwelling to the fullness of its essence? This is they accomplish when they build out of dwelling, and think for the sake of dwelling" (ibid. p.363). The safeguarding, which undoubtedly has to be spatial, settles in that human beings recognize the ethical crisis (in theory) and cope with this crisis (in practice). What links theory to practice and realizes their unity is the *end* that results from the research and is wished to be achieved in practice. The end is indeed about *the good*. The good here is not the absolute and metaphysical "goodness" any more, especially in the era of the hybridity of ethos. Rather, it is *made* in our social, historical and spatial practice and always *pragmatic* and *dialectical*: in fact, Vico's notion that "verum esse ipsum factum" can also be translated as "the true itself is made". It is not the good of essence but the good of phenomenon. But even the good of phenomenon, namely the end, can never be achieved in itself. "... in our search for the good", Gadamer (2004, pp.42-43) pointed out in his critique on Richard Rorty's pragmatism, "we will, at best, hit upon the better, never the good in itself... it is also true that we will never search for or find what is better for us without seeking the good in itself or at least having it in mind... One really must recognize that the better is actually only the better in relation to a final end". The existence of our human beings and human society does stem from the *approaching-to-the-good*, the better related to an end. As for the spatial questions, it is the approaching to the good of spatial phenomenon – the good spatial form of being-in-the-world – that dimensionally brings together all spatial phenomena and historically unifies theory and practice as a whole. Something that spatially safeguards our human beings is that we make, believe and think of the good of spatial phenomenon and create or find a better space in practice for approaching to the good of spatial phenomenon. This spatial approaching-to-the-good actually recalled the utopia of social reform by urban renewal, which was distorted and buried in history, but on a pragmatic way. Urban rehabilitation, as same as any other spatial interventions, always has its ethical task. Beyond the practical questions such as improving living conditions or solving housing problems, the ethical task of Chinese urban rehabilitation is profoundly critical in an era of the hybridity of ethos, and just settles in the approaching to the good of spatial phenomenon.

Therefore, thinking of spatial phenomenon comes up with the most important question for the research on Chinese urban rehabilitation: what will be the good, as well as the approach to the good, in a situation of the hybridity of ethos today? In other words, what is the ethical task of the urban rehabilitation in contemporary Chinese cities? In order to answer this question, we may turn to the pragmatic tradition of Chinese thinking, which has for a very long time focused on the practical themes in our life-world – a world of spatial phenomenon. As the predominant ethos in Chinese tradition, Confucianism is social, phenomenal and pragmatic. All the Confucian concepts are about the social issues and the practices of those issues. The good of phenomenon accordingly means the good society. In a dialogue about governance with Tzu-kung, Confucius argued that the confidence of the people is the most essential

requisite of government and said: "... if the common people do not have confidence in their leaders, community will not endure"<sup>22</sup>. He actually revealed an idea that the existence of human beings and human society is essentially safeguarded by the good that is not metaphysical but phenomenal and social, in the form of the faith that we are dwelling in a good society. The ancient Chinese thinkers and politicians were always busy on making what is phenomenally and socially good and on searching for ways to approach it. In the Chapter 礼运 *Liyun* of 礼记 *Liji* (*The Book of Rites*), Great Unity was raised as the final utopia of the good society but can hardly be achieved; but as an alternative that is less ideal but relatively tangible, a better mode of society is 小康 *Xiaokang* (the Better-off), a family-based and hierarchical society, in which everyone should be in his own place according to 礼 *Li* (ritual propriety). In comparison with Great Unity, the society of the Better-off was that the Chinese governors, at least nominally, tried to realize in their socio-political practice. This pragmatic attitude of catching the better (the Better-off society) by approaching to the final end (the society of Great Unity) might still adapt to the current Chinese situation.

In a transitional society, we are actually facing the same critical question as what Confucius faced thousands of years ago. For an era of the hybridity of ethos, the essential challenge is an ethical crisis: as a result of the constant clashes between the different ethos (with the different goods), human beings are thrown into a situation of social anxiety and ethical homelessness. The existing dilemma in Chinese urban renewal precisely presented this ethical crisis: the plight derived from the lack of a common ethos. In order to get out of this plight, the making of the commonly good, the good of a common ethos, is called on. The transitionality of the Chinese society provides a hint that the commonly good is still about the good society. In terms of the hybridity of ethos, the concept of the good society cannot be certain and concrete. Instead, as the final end that is intangible, what can be commonly good is *the belief in the forthcoming of the good society*, a new Great Unity in whatever form but in which all the people will peacefully and comfortably dwell, rather than any certain and concrete modes of the good society. The good just roots in its intangibility as a common will that leaves hope for approaching to the good society. The approaching-to-the-good, namely the better, hence becomes unprecedentedly crucial. It must be something tangible that will link *the currently hybridity of ethos* to *the belief in the forthcoming of the good society*. The solution can again resort to a Chinese-style pragmatic way – a way of openness, balance and harmony, and will also recover the social reformers' original concept of urban renewal or rehabilitation. Approaching to the new Great Unity should not depend upon copying any existing model, but lie on

the openness for the differences, the balance of the conflicts and the harmony in the hybridity of ethos. Just as what Confucius said, "Exemplary persons seek harmony not sameness; petty persons, then, are the opposite"<sup>23</sup>. In a modern sense, this kind of harmony can be translated as *social integration*. Yet I would like not to limit this term into its conventional meaning, which is only societal and about the desegregation of different income or ethnic groups. Regarding the existing Chinese situation, especially the situation of Chinese urban renewal, the integration should be really social – of or relating to society. This means that the social integration here also implies bringing together different ethos (or people with different values) into equal association. Combining the respect for differences with the will to the new unity, social integration is the means as well as a tangible stage toward the good society. It can thus be regarded as the approaching-to-the-good in the era of the hybridity of ethos. Since all the beings that are social are inescapably spatial, the primary thesis of thinking of spatial phenomenon must be *socio-spatial integration*, which on the one hand can spatially safeguard our human beings at the time of the hybridity and, on the other hand, integrates the dimensionality, historicity and practicality of thinking into a whole. In short, socio-spatial integration means *approaching to the spatial being of the good society*, and has more to do with methodology than with ontology. In nature, it implies spatially bringing different people together and to let them be authorized and authorizing for the sake of solving the present problems and looking forward to a better future. That approach can effectively ease the tension between individuality and collectivity, and might be an ethical and pragmatic answer to the existing challenges of urban rehabilitation in China. Therefore, thinking of spatial phenomenon in the research on Chinese urban rehabilitation also means *thinking of socio-spatial integration*, which can be seen as the *ethical task* of Chinese urban rehabilitation.

In terms of its openness, practicality and integration, thinking of spatial phenomenon ontologically and methodologically established a new theoretical framework for the research on Chinese urban rehabilitation. It stems from the phenomenalization and pragmatization of spatiality in modern Western philosophy, as well as the pragmatic tradition of Chinese thinking, and aims to clarify the ethical task of Chinese urban rehabilitation in an era of the hybridity of ethos. In theory, thinking of spatial phenomenon may provide an adapted approach to answer the research question and to test the hypothesis. As methodology, this theoretical framework is properly adoptable for enframing the research on the urban rehabilitation of former socialistic public housing areas in Beijing.

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## § 2.4 Research Methodology and Structure

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The methodology of my research on the urban rehabilitation of Beijing's former public housing areas roots in the thinking of spatial phenomenon. As methodology, thinking of spatial phenomenon indicates a way of pragmatic study, which closely links to practice and has to be both *problem-driven* and *purpose-driven*. On the one hand, the research must cope with concrete problems. In this research, these problems mean, as mentioned in Chapter 1, the general *housing problem* of the city and *the dilemma of urban renewal*, both of which are presented in the existing challenges for renewing the former socialistic public housing areas in Beijing. They together composed my research question.

On the other hand, a decent research should always have its pragmatic purpose. It is not just related to an empirical hypothesis of practical alternative, i.e. *urban rehabilitation*, but a theoretical and ethical *end* (in a pragmatic sense), which in this research means *socio-spatial integration*. As the proposed ethical task of Chinese urban rehabilitation, socio-spatial integration connotes the *approaching to the spatial being of the good society*. According to the thinking of spatial phenomenon, it is not only ontological but also methodological. Socio-spatial integration therefore serves for the main theme and *purpose* to guide the research on urban rehabilitation in the context of the hybridity of ethos in a transitional society.

By clarifying the problem and the purpose, the thinking of spatial phenomenon also, methodologically, provides analytical tools. The research methodology will be framed by a matrix that is composed of two axes: *the historical axis* and *the dimensional axis*.

Here, the "historical" axis does not mean the research along the temporal sequence of history but the historical and practical logic of research by thinking of spatial phenomenon. It is more related to the problem-driven research on the concrete matters. Based on the study of historical and practical cases, the research will start from the history and existing situation of the former socialistic public housing areas in Beijing and of the efforts to renew those areas, in the context of the evolution of the Chinese urban housing stock. According to the analysis and "problem statements" of the Chinese situation, some urban renewal cases that have been proven successful, under the comparable backgrounds in European and Asian cities, will be studied in order to summarize referable experiences. Consequently, all those "histories" – the study of the past and present practices – will contribute to the development of the adapted strategies for Chinese urban rehabilitation, which will also be induced from the research by design of rehabilitating the representative neighborhood of Beijing's former public housing areas. Along this historical axis, the research will be composed of four parts: the historical review, analysis of the status quo, referable case studies, and development of new strategies.

The practicality of research also presents in detail, along with the historical axis. The historical review, problem analysis or study of referable experiences will not be limited to documentary study and logical analysis (deduction or induction) but will include the concrete case study comprising field research and interview with practitioners. In particular in the development of new strategies, the research methods will comprise research by design and pilot research. Apart from stating the general problems and examining successful experiences, the generation of a new approach of urban rehabilitation in the Chinese context has to be based on the pilot design research of representative former public housing neighborhoods in Beijing. And for each design research project, the development of design and strategies will depend on the method of design by research<sup>24</sup>.

In comparison with the historical axis, the dimensional axis of the methodological matrix is specified for the research in the context of the hybridity of ethos. It can be regarded as an analytical tool for the purpose of socio-spatial integration. According to the existing ethical situation, thinking of spatial phenomenon is composed of three dimensions – the socio-economic dimension, the community-placial dimension and the aesthetic-technical dimension. These will be three angles of the research on the Chinese urban rehabilitation. In order to deal with the existing dilemma of urban renewal, which can be seen as a presentation of the collision of different ethos, all three dimensions have to be overall and comprehensively analyzed. Therefore, the three-dimensional analyses will back up, frame and permeate my research on urban rehabilitation, “perpendicular” to the historical axis of historical review, problem statement, case studies or summary of new strategies.

In conclusion, thanks to the thinking of spatial phenomenon, my research is methodologically problem-driven and purpose-driven, and thus following an analytical matrix consisting of the historical axis and the dimensional axis. To look for a solution of the current urban housing problem and dilemma of urban renewal, and for the purpose of socio-spatial integration, the study on rehabilitating Beijing’s former socialistic public housing areas is enframed by the historical review, the existing problem analysis, referable case studies and, consequently, the development of new strategies, in the socio-economic, community-placial and aesthetic-technical dimensions (figure 2-8).

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There are various definitions of research by design and design by research, as two important research methods related to design. In this book, the definitions of these two terms need to be clarified: research by design or design research means that design practice in a concrete context is regarded as an approach to generating knowledge for or testing hypothesis of research; and design by research or research design implies that the design depends on the research analysis of available data and a certain research question.

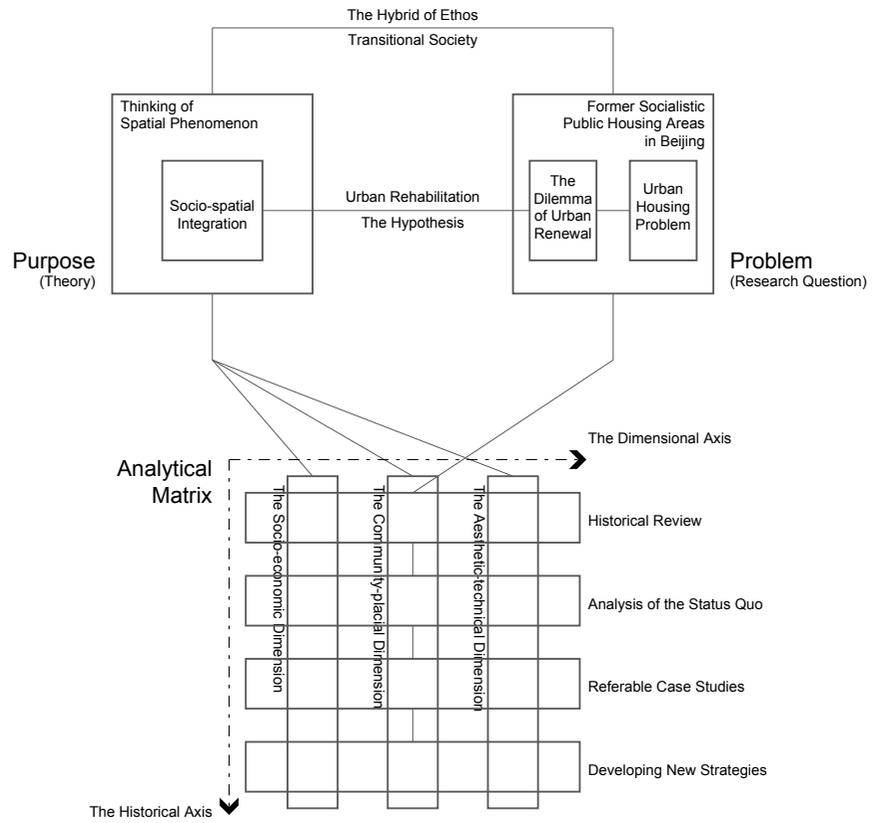


Figure 2.8  
Framework of the research methodology.

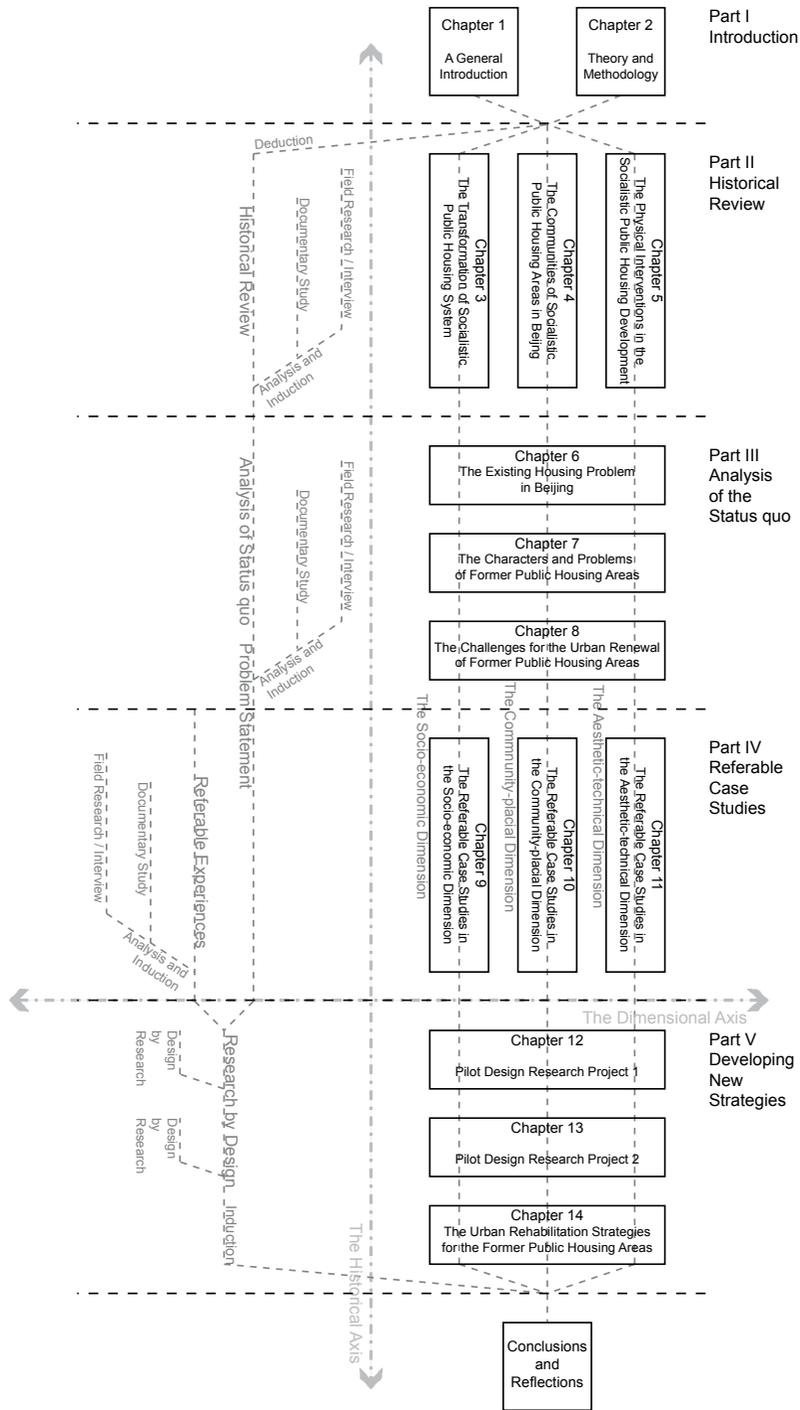


Figure 2.9  
Structure of the book.

The research methodology therefore determined the structure of this dissertation (figure 2-9). In general, the book is divided into five parts:

- Part I includes two chapters: Chapter 1, a general introduction about the existing challenges for the urban renewal of former public housing areas in Beijing and Chapter 2, theory and methodology of the research.
- Part II provides a historical review of the socialistic public housing in Beijing. This review is structured according to three dimensions of spatial phenomenon: Chapter 3 focuses on the transformation of socialistic public housing systems in the socio-economic context, Chapter 4 focuses on the communities of public housing areas in Beijing and Chapter 5 focuses on the physical interventions in public housing development.
- Part III analyzes the current situation and states the current issues faced by those former socialistic public housing areas in Beijing. Chapter 6 discusses the current housing problem, while Chapter 7 deals with the characteristics and issues faced in those former socialistic public housing areas of Beijing. Taking those two chapters as its background, Chapter 8 presents the evolution of urban renewal policies in Beijing and the current challenges for the urban renewal of former public housing areas, the latter of which will be categorized based on three different dimensions of spatial phenomenon.
- Part IV presents the case studies of the referable renewal experiences in the urban context comparable to Beijing. Responding to the existing challenges in Beijing, those case studies are also sorted in the socio-economic dimension (Chapter 9), the community-placial dimension (Chapter 10) and the aesthetic-technical dimension (Chapter 11). These dimensions enframe the referable strategies presented.
- Part V, provides an account of the development of the strategies of urban rehabilitation based on design research. Chapter 12 and 13 present two pilot design research projects of urban rehabilitation in a representative former public housing neighborhood, respectively. To conclude, Chapter 14 generalizes the adapted strategies for the urban rehabilitation of former socialistic public housing areas in Beijing, in the socio-economic, community-placial and aesthetic-technical dimensions under the theoretical framework of spatial phenomenon thinking. At the end of the dissertation, the general conclusions are followed by some reflecting remarks.



PART 2 **Historical Review**



### 3 The Chinese Socialistic Public Housing System in Beijing within the Socio-Economic Transformation

As the precondition to study the urban renewal of former public housing areas in Beijing, the research has to start from the understanding of the Chinese socialistic public housing – its system, development, community and design, especially in the context of the city of Beijing. From 1949 to 1998, the socialistic public housing used to be the major (if not the only) solution to deal with the housing problem in Beijing and other Chinese cities. This housing system, as a byproduct of the Soviet-style planned economy, was also “problematic” in some aspects and finally ended in the economic marketization. Even up to today, a great amount of Chinese citizens are still living in the former socialistic public housing areas. Particularly in Beijing, the past and existing situations of former public housing compose the most representative cases in China.

In Part II, we will focus on the review and analysis of the Chinese socialistic public housing in Beijing. According to the theoretical framework of thinking of spatial phenomenon, this study will be categorized into three parts: Chapter 3 will discuss the socialistic public housing system and its development within the socio-economic transformation in Beijing; Chapter 4 will focus on the characteristics of former public housing communities in the community-placial dimension; and finally, in the aesthetic-technical dimension, the different types of physical planning and design, as well as the building technologies in the development of socialistic public housing will be summarized in Chapter 5. As a result, the historical review and analysis on the socialist public housing development in Beijing will reveal the characteristics of those former public housing areas and thus largely support the exploration of their urban renewal.

Housing, as a fundamental human right, and the human well-being within a proper dwelling place are more or less guaranteed in each modern society in the form of social or social-oriented housing. As a traditionally centralized and hierarchical society where the collectiveness was prior, China has a long history on the public interventions on the housing stock. In particular after 1949, as aforementioned, China’s communist regime used to develop its own social housing system – socialistic public housing – that widely covered the urban residents. But ironically, the shortage of the social

housing guarantee has presently been one of the most critical problems of Chinese cities only about ten years after this public housing system was abandoned. To rethink this transformation, it will be impossible to ignore the socio-economic context that determines but is presented by the housing stock. Those socio-economic factors cover from the general social and economic structure, which highly impacted the housing development, to the detailed institutional initiatives that directly intervened in the housing stock – urban policy, land policy and, especially, housing policy. From the socio-economic point of view, the development of the Chinese urban housing stock after 1949, which is represented by the situation in Beijing, can evidently be divided into two periods. First came the “planned” period during which the socialistic public housing system played the most important role in the urban housing provision, before the radical housing reform in 1998. The second one is the current “market” period. Thus, nowadays, owner-occupied, private housing has become the dominant sector in the housing stock (even a majority of social housing is owner-occupied). In this chapter, the socialistic public housing system in Beijing that was developed in the former period will be precisely reviewed and analyzed in order to grasp its socio-economic context.

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### § 3.1 Public Housing Tradition in China – A Prehistory

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As a traditionally centralized country, where “all of the land under the Heaven belongs to the king and all of the people to the boundary of the earth are the king’s subjects”<sup>1</sup>, China has a long history on public housing interventions, although they were not always successful. Thanks to the tradition of ambiguous land ownership, of which the Chinese Emperor was nominally the owner of all of the land of the country while the private land ownership was actually popular, the government was given enormous power for expropriating property owners, exempting housing rents or developing publicly-owned houses. The residents of the capital city, which were the “closest” to the central government, could usually benefit from those public housing interventions. As early as in the 南宋 Southern Song Dynasty (1127-1279), the tenants of publicly or privately rented houses in 临安 Lin’an (currently, Hangzhou) often enjoyed the rent exemption according to the orders from the emperor<sup>2</sup>. In the 明 Ming Dynasty (1368-1644), the

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1 See 诗经·小雅·北山 *Beishan* in *Xiaoya of Shijing (Classic of Poetry)*.

2 See 周密 Zhou Mi (1232-1298), 武林旧事 *Wulin Jiushi (The Old Stories of Wulin)*.

government built in Beijing some public houses (called “廊房 Langfang”) which could be rented out for an affordable price<sup>3</sup>.

Until the 清 Qing Dynasty (1644-1911), the last dynasty of the Chinese Empire, the publicly-owned houses became more popular in Beijing. The so-called “官房 Guanfang” (Governmental Housing) in Beijing that was built by the Qing government represented the welfare housing policy mainly for the Manchu or, more precisely, for the 八旗 Ba Qi (Eight Flags)<sup>4</sup>. To understand this, one must know the special Manchu-Han separately-living policy during the Qing Dynasty. As a minority authority, the Qing government defined a strict rule to let the Ba Qi people settle down separately from the Han Chinese majority in the main cities, in order to protect and identify them. In Beijing, all the Han Chinese had to live in the outer city (the southern part of Beijing), while the inner city (the northern part of Beijing) was kept for the residences of the Ba Qi. In this context, the housing provision, maintenance and management for the Ba Qi was the responsibility of the government.

Thus, most of the residential buildings in the inner city of Beijing during the Qing Dynasty belonged to Guanfang, which was allocated among the Ba Qi people. The Guanfang mainly had three sources: the distribution of existing houses, the government subsidizations to buy or build one’s own house, and the new houses constructed in the public-owned lands by the government (Wu Jianyong, 1994, p.140). Normally the Guanfang allocation was supposed to follow political ranking – people with a higher political status could receive more residential spaces. And based on Chinese traditional building rules, the scale, form and ornament of the houses was also dependent on the dweller’s political status. Apart from the Guanfang for allocation, the Qing government also constructed some residential buildings that were then sold to Ba Qi by the installment which was “deducted from the salary”. However, private trade of Guanfang was strictly prohibited (ibid. p.143). On the other hand, although most of the houses in the outer city were in private ownership, there were still a few Guanfang in correspondence with a social welfare idea. While the rent policy has been adjusted throughout history, normally it was the low-rent houses, of which the deduction or exemption of the rent was sometimes offered to the low-income groups (ibid. p.144).

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3 See 沈榜 Shen Bang (1540-1597), 宛署杂记 *Wanshu Zaji* (*The Stories of Wanping County Office*).

4 Ba Qi is originally the special social organization of Manchu. While it is usually used as a synonym of Manchu, the Ba Qi includes 满洲八旗 Manchu Ba Qi, 蒙古八旗 Mongolian Ba Qi and 汉军八旗 Han Ba Qi (the Han Chinese conquered by Manchu before they got the national authority). Ba Qi people composed the privileged class during the Qing Dynasty.

Furthermore, the maintenance or management of Guanfang was also taken charge and financed by the government. The government invested large amounts in order to repair the Guanfang damaged by natural disasters, – e.g. storms, earthquakes and floods. Moreover, the government would also provide financial loans for housing maintenance, or directly handle maintaining works if the housing dweller was incapable (ibid. p.143). The Guanfang construction also contributed to the urban renewal projects in Beijing at the time. For example, the urban renewal project in 1765 cost more than 198,820 两 liang<sup>5</sup> silvers from the treasury and involved the construction of “Guanfang of 944 rooms, shops of 231 rooms and 61 gates/pavilions, and restoring the streets” (ibid. p.144).

While the Guanfang in the Qing Dynasty partly contributed to solve the housing problem, it cannot completely be ascribed to the meaning of social housing in a modern sense. Most Guanfang target groups represented a minority – the Ba Qi and governmental officers, though it also partly covered the housing demands from the lower classes, especially the poor Manchu. It thereby eventually became a privilege. The Guanfang, as well as other political or economic priorities particularly for the Ba Qi, not only caused a heavy economic burden for the government but also intensified socio-ethnic conflicts. The Manchu-Han independent living also resulted in acute spatial segregation. All those housing problems, later, can also be described as one of the reasons for the overthrow of the empire during the republican revolution in 1911<sup>6</sup>. The lessons learned from the Qing Dynasty reveal that inadaptable public housing would lead to a disaster.

During the period of the Republic of China (1912-1949), the direct public interventions to the housing stock were rarely implemented due to the actually divided state, continual wars and political and economic weakness of the government. Faced with the serious housing problem in the trading and industrial cities, some municipal governments and large enterprises invested in the development of working-class housing. For instance, in Shanghai and Nanjing, the municipal governments announced and developed some shack quarters and populace housing projects in the

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5 Liang is the traditional Chinese weight unit; 1 liang = 50 gram.

6 Even in the revolution that was led by the republicans, a slogan of national antagonism – “to evict the barbarian (Manchu)” – was largely announced by Sun Yat-sen and his comrades.

1930s<sup>7</sup>, and in some industrial towns, the industrial and mining enterprises also built rental houses for the workers. However, most of the construction plans were never fully realized and the quality of living in those working-class residential areas was really poor. The large-scale public housing development in modern China only occurred after 1949.

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## § 3.2 Establishment of the Socialistic Public Housing System and Its Socio-Economic Background

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When the People's Republic was founded in China in 1949, the country was facing a series of severe socio-economic problems. After decades of wars, the national economy had fallen into a financial crisis and a serious inflation. Meanwhile, the social problems were even more serious. There was a huge gap between the rich, half-colonized coastal cities and the broad but traditional countryside in hinterland. The social inequity was hyper-evident: thousands of hectares of farm lands were concentrated in the hands of the landlords and a large amount of poorest agricultural proletariat without any pieces of lands for their autarkic survival; and the private villas or big houses were occupied by bureaucrats, bourgeoisie and foreigners, but the working class had to be settled in the urban slums at the same time. But it was just the support from those ordinary peasants and the urban working classes that ensured the victory of the Communist Party in the civil war and the success of the following "Socialistic Transformation". The peasants received their farmland plots (which was later transformed into and guaranteed by the rural collective land ownership) through the "Land Revolution" and the working class was empowered as the "owners" of their plants or corporations by the nationalization of "capitalist industries".

However, behind the programmatic, socio-economic crisis, there was the much deeper ethical challenge for the Chinese society. After the failure of the Opium War, the invasions of western colonists, as well as ideologies, highly shocked the traditional Chinese Empire. China used to be one of the most prosperous civilizations in the world

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The shack quarters were developed for resettling slum-dwellers. The government was responsible for the land clearance and building of infrastructure, and the dwellers were required to build their simple houses which were also partially subsidized by the government. The populace housing, at the same time, was actually the low-rent houses that were developed by the municipal government. For detail, please see Lù Junhua, Rowe and Zhang Jie, 2001, pp.96-99.

and was still intoxicated by its cultural ascendancy. By facing the modern, western superiority, the Chinese people, especially the intelligentsia, for the first time in history, since the classical Chinese ethos was formed more than 2000 years ago, started to really recognize the “weakness” of their tradition and appealed to the Chinese modernization. Various attempts of social transformation – meliorism, monarchic constitutionalism, democratism, nationalism and finally socialism/communism therefore came onto the stage. All of them presented a seemingly paradox but in fact coherent dual-purpose: to realize the modernization by learning from the west on one hand and to keep the national independency in the trend of westernization on the other hand. This is not exclusive for China but prevalent in other non-western civilizations with their own brilliant histories. The Chinese communists were indubitably full of passion for achieving national rejuvenation through the westernized modernization.

In 1949, the mainstream of worldwide political reality was the confrontation between the East and the West. In China, since the United States was still supporting the Taiwan-based Kuomintang authority that lost in the Chinese civil war, the new communist government turned to the eastern campaign led by the former Soviet Union, which was ideologically its most possible ally. The Soviet centralized and planned socialism, which was also considered as an efficient way to accelerate industrialization/modernization in practice and to solve the problem of socio-economic inequity by the collective power, hence was transplanted. The so-called socialistic public economy was introduced into China.

The Chinese socialist public housing system was just established under this background. In his famous *Zur Wohnungsfrage (On Housing Problem)*, Friedrich Engels criticized that the capitalist system (“the market”) is unable to provide the working class with sufficient and affordable houses. Before 1949, most of housing properties in Chinese cities were privately owned. The working class and other poor in the city were unable to afford the hygienic housing conditions. In order to improve the housing conditions for the working class and other poor, as well as to boost the industrialization, the communist authority adopted the socialistic public housing system in the city where both modern industries and working class were concentrated. According to the classical Marxist concept, housing was as a kind of “means of subsistence” which has to be collectively developed and distributed by the state (as same as the means of production) under the socialistic planned economy so as to make sure of its efficiency and equality. Housing was regarded as a fundamental well-being rather than a commodity. Ideologically, the socialistic public housing system, as an integral part of Soviet-style socialism, was able to be applied.

In the meantime, the new land policy to realize public land ownership in the city guaranteed the large-scale development of socialistic public housing. In Chinese cities, the private lands were gradually communalized by the state. As early as 1951, the government confiscated all the land plots that belonged to the “civil war criminals,

traitors, bureaucratic capitalists and members of the counterrevolution” as well as to the foreign capital. The land, as one of the major “means of production”, were nationalized (in the urban areas) or collectivized (in the rural areas) in the Socialistic Transformation (1953-1956). The first Constitution of the People’s Republic that was enacted in 1954 endowed the state with the right to purchase, expropriate and nationalize the urban or rural land and other means of production for the purpose of public demand. Finally the 1982 Constitution confirmed the state ownership of all urban lands, while in the rural areas, the lands of a village are collectively owned by the villagers. Under the orthodox socialistic planned economic system, the land was not a commodity that can be transacted in the market but a resource freely distributed by the government. For any building constructions in the city, including the housing development, the plots were distributed according to the application from the developers and the annual plan issued by the government. The public land ownership is in fact the most important precondition of the large-scale public housing development.

In practice, the public housing policy was also regarded as an effective solution for the housing problems in the city. The major task of the new People’s Republic was to recover the national economy and to boost the modernization and industrialization. The development of an independent and modern industrial system, especially the heavy industries, was the priority in the national economic plan. Urban and rural areas were endowed different tasks for industrial and agricultural developments, respectively. According to the planned economic system, the city was defined by the concentration of modern industries in comparison with the countryside, which was identified by the agricultural production. In order to realize the industrialization within a relative short time, the state applied a Stalinist strategy to compulsorily transfer the agricultural production to support the industrial development, through the centrally distribution of national income under the planned economy. And for concentrating the economic accumulation on the heavy industrial production, the urbanization was also controlled. It in fact conducted to the formation of a binary social structure in urban and rural areas in China, which is still in use today. Within this dual structure, while the housing conditions of peasants were guaranteed by the collective ownership of private housing premise that was prohibited to be transacted in the market, the urban residents were collectively regarded as working class (including officials and intellectuals), and their housing demands had to be guaranteed by the state through the socialistic public housing system. Along with the process of industrialization, the urban population in China was still growing fast. In Beijing, the challenge was more severe: as the proposed political, economic and cultural center of the state, it was not only the newly introduced modern industries but also the establishment of central government offices and cultural, educational or research institutions that led to its significant population growth. As a result, the permanent urban residents in Beijing increased from 1.65 million (1949) to 3.21 million (1957), which inevitably brought a challenge for the housing provision.

On the other hand, the housing shortage and inequity was a serious problem in Beijing before the new authority was founded. In the city of Beijing, the polarization of housing conditions between the rich and the poor, as well as the residential differentiation and socio-spatial segregation, was extremely evident before 1949. The Manchu-Han separate-living policy during the Qing Dynasty had resulted in the obvious housing polarization and spatial segregation between different social groups. Manchu (more precisely, Ba Qi), as the ruling minority, was living in the Inner City (north city) that was identified by the regular hutong urban fabric and the capacious, typical hutong courtyard houses. But the Han Chinese had to settle in the Outer City (south city), which was full of narrow and congested streets/alleys and small houses. The different residential environments can still be physically observed in the remaining historical hutong areas today (figure 3-1). This housing inequity was never ameliorated during the period of the Republic of China. The rich and higher classes owned and occupied a large amount of housing properties in the preferable housing areas, whilst the poor and lower class were still facing the serious problem of housing shortage. The dwelling condition in the Outer City even got worse – there were some congested slums (such as Jinyuchi) without any hygienic infrastructures. The so-called 大杂院 *Dazayuan* (Mixed-yard House, which meant that many families had to share one congested courtyard) was actually not anything new since the housing socialization after 1949 but the true living conditions of the working class in Beijing before 1949. A classic research by sociologist Tao Menghe in the 1930s revealed the poor housing conditions of the working class in Beijing (Peking): each working class family, with 4.33 persons in average, only occupied (rented) 1.04 rooms (5-11 m<sup>2</sup>); the independent courtyard houses could only be affordable by the middle class; along with the rent increase, the poor had to move to the suburb or dilapidated houses in the city; and speculative developers built simple, single-storey row houses that were rented to the working class (Tao Menghe, 2011, pp.66-70). In 1949, 95% of the urban housing stock in Beijing was owned by private owners, but 83% of the total households were the tenants of private rented dwellings; and the hutong courtyard houses in good quality (accounted for 20%-30% of the total housing stock), which were originally built during the Ming and Qing Dynasties and were located in the Inner City, were mainly occupied by the bureaucrats and merchants, but the low-quality houses for the poor (amounted to 20% of the total housing stock) were concentrated in the Outer City and outside along the city wall (Dong Guangqi, 2006, p.195).



Figure 3.1  
*Hutong areas in the Inner City (left) and Outer City (right) of Beijing's old city*

In order to ideologically realize the Socialistic Transformation and to practically deal with the problem of housing shortage and inequity, two approaches of public housing development were applied. The first approach was the socialization of the existing housing stock, as an efficient but temporary solution for the problem of housing shortage. Immediately after 1949, the housing properties belonging to the former Kuomintang authority, bureaucratic capitalist and foreign capital were confiscated by the new authority and transformed into public housing. But the private housing that was categorized as the properties of "other capitalistic private ownerships than the bureaucratic capital" were still protected by the government. The municipality started to intervene in the housing market by regulating the housing rent, subsidizing the housing maintenance and facilitating the housing transaction. Thus in the early 1950s, the public housing only accounted for 23% out of the total housing stock while 77% was the private housing (half of which was privately rented) in Beijing.

However, the situation was fundamentally changed after the Socialistic Transformation. In 1956, the government initiated the large-scale housing socialization, as a measure of socializing the means of subsistence after the socialization of the means of production. A private owner could keep no more than 15 rooms of his/her existing housing space for the self-occupation or private rental. The "superfluous" houses or housing space other than 15 rooms was regarded as the non-occupied and thus had to be "socialistically transformed" (socialized). At the same time, the so-called "经租房 Jingzufang" (Commissioned Rental Housing) policy was implemented in order to control the rent of private rented sector. The Jingzufang policy meant that private owners commissioned the government to uniformly maintain, manage and rent their unoccupied houses with a standard rent, so that it was also called the "标准出租房 BiaoZhun Chuzu Fang" (Standard-Rent Housing). It was de facto a privately owned but publicly rented housing system. Later during the Cultural Revolution, a certain amount of Jingzufang was absolutely socialized as the public

housing in terms of the radically leftist movement<sup>8</sup>. As a result of all those measures of housing socialization, the government controlled the majority of housing resources in the old city of Beijing and guaranteed affordable housing. The socio-spatial structure of the hutong areas therefore hugely changed, while physically the historical urban fabric was still retained. Until the 1980s, more than a half of the hutong courtyard houses were transformed into public housing. A traditional courtyard house that used to be occupied by one household was shared by several families, which actually conditioned the physical transformation from hutong courtyard house to dazayuan. Thus, the problems of housing inequity and spatial segregation were at least partly solved: accompanied with the housing socialization, the gap of housing conditions between the originally rich and poor was gradually merged. Under the planned socialism, everyone was “equalized” in his/her housing condition. However, since the lack of modern infrastructure and facilities, the living conditions of the hutong areas were still incomparable to the newly developed housing areas.

The second but major approach of socialistic public housing development was the large-scale new construction of modern public housing. From 1949 to 1997, more than 143 million m<sup>2</sup> of newly-built public housing were developed in Beijing (though most of these properties have been privatized after 1998). The development of new public housing was usually related to both the urban renewal and urban expansion. The urban renewal for the public housing development were preliminarily the projects to clean up the slums and to reuse the empty lands in the old city (especially in the Outer City), and later referred to the reconstruction of deteriorated hutong areas. We can thereby see many newly-constructed, modern public housing buildings dispersing in Beijing’s old city. Nevertheless, since the space available in the existing city area was limited and the overall reconstruction of historical city was never realized, the new public housing development was mainly combined with the urban expansion, which is an inevitable result of urbanization. In Beijing, except for the newly-constructed public housing in the old city (inside the 2nd ring road), most of the socialistic public housing neighborhoods were concentrated in the urban expansion area between the 2nd and 4th ring roads and those satellite towns, both of which were developed from the 1950s to the 1990s. As the main approach to solving the housing problem of working class, the majority of urban residents after the Socialistic Transformation, the newly-constructed public housing areas had to meet certain standards. The modern infrastructure and amenities, e.g. water supply, sewage system, power supply, central heating system, hygienic facilities, etc., fundamentally equipped

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A certain proportion of Jingzufang still remained in Beijing after the Cultural Revolution. This institution continued for above 40 years was totally stopped in 2003, when the Beijing municipal government decided to invest to resettle the last 19,000 tenants from the Standard-Rent Housing.

the public housing. Those new public housing buildings and areas thus became the identity of modernization and the honor of socialism. Moving to the new public housing apartment and enjoying the life of “upstairs and downstairs, electric light and telephone” were the ideal of many residents. In fact, it was the newly-constructed public housing that composed the majority of public housing sector in Beijing and therefore became the “image” of the Chinese socialistic public housing. Concerning the socialistic public housing areas, as the research topic of this dissertation, it indicates the urban areas mainly occupied by the newly-constructed, modern public housing.

Parallel to the socialization of the private housing sector and the large-scale development of new public housing, the development of owner-occupied private housing, which was considered as a kind of capitalistic property ownership incompatible with the communistic ideology, was almost restrained in Beijing and other Chinese cities. As a result, the proportion of the private housing sector in the Chinese urban housing stock significantly decreased from 48.2% (1958) to 17% (1990) (Gu Chaolin et al, 1997, p.577). The proportion of the public-rented sector amounted to more than 80% in the 1980s.

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### § 3.3 The Chinese Socialistic Public Housing System in Beijing – A Brief Introduction

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Public housing, as well as other non-monetary benefits (medical care, education, etc.), were regarded as basic welfare for the urban residents, the working class of industrial sectors. This was partly accomplished with the assistance of the 户口 *hukou* (household registration) system, which divided the urban and rural residents restraining their mobility. In principle, the Chinese socialistic public housing system was identified by its basic characteristics: the danwei public housing development, allocation and management system on the one hand, and the standardization of public housing, which was thought as an effective and efficient way of large-scale public housing development, on the other hand.

#### § 3.3.1 Danwei Welfare Housing – Development, Allocation and Management of Socialistic Public Housing

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In the Chinese socialistic public housing system, the most fundamental and indispensable factor was the danwei (work unit), which often played the role of

the housing developer, owner, distributor and manager. Thus the socialistic public housing system was also named 单位福利分房制度 *Danwei Fuli Fenfang Zhidu* (Danwei Welfare Housing Allocation System) in China. Comparable with the family in the traditional Confucian society, the danwei composed the basic unit of social structure under the planned socialism, and its legacy still significantly influences the existing Chinese society. In order to understand the role of danwei, we have to grasp the ethical background, as well as the economic system, of the planned socialism. As the classical Marxism never ignored, the materialism is the foundation of modernity, whatever in a capitalistic or socialistic modern society. Any *superstructure* must be determined by its economic base. The modern society is understood and structuralized as a mechanism based on different economic relationships, through which the human being, as well as the relationship between individuals and society, has been alienated or materialized<sup>9</sup>. In order to overcome the social inequity and the economic disorder caused by the capitalism (the liberalism, individualism and “free market”), the public economy and the collectiveness should be introduced by the socialistic revolution. Under the newly-established planned economic system, the means of production and means of subsistence were controlled and distributed by the state or collective, and the role of market was restrained. It was thought as an effective way to realize both the social equity and rapid industrialization. Therefore in the Chinese cities, the public economy gained the dominant role after the Socialistic Transformation<sup>10</sup>. This economic structure inevitably determined the social life, which means most of citizens’ daily living should be afforded by the state or collective. Based on the “low wages and high benefits” policy of Chinese planned socialism, the personal income included not only the monetary wage but also many non-monetary benefits – housing, medical care, education and pension were all regards as the public welfare. Under this situation, the asking rent of public housing was keeping at a rather low level (only CNY 0.2-0.3 /m<sup>2</sup> per month).

The basic unit of the new socio-economic structures was danwei. Danwei – a special Chinese term that could be translated into English as Unit or Work Unit – was not just the economic unit of production but also the unit of social organization that an individual could be directly affiliated with. Danwei actually referred to all the government (or party and military) agencies, enterprises and non-government institutions in the city. The danwei, as the unit of the socialistically economic

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9 According to the Marxism, the human society can be mapped by the dialectics between productive forces and production relations, and the persons are materialized as the labor force by the capital.

10 Although the private economy still existed in the city, its proportion in the total urban economy had been squeezed onto a quite low level.

production, was also the provider of wages and all benefits, as well as the organizer of the daily life of its employees – a social condenser. In the planned socialistic society of China, in which the collectivity takes priority over the individuality, it was not the single person but the danwei that composed the basic unit of social life. In Beijing and other cities, except for the self-employed, each urban resident had to affiliate with a danwei, as the credential of belongingness of the individual to the collective (hitherto the word *danwei* is still popular in the daily language today to present a person's social affiliation or working place). Danwei hence directly took charge of any monetary (the wage) or non-monetary (the benefits) distribution of means of subsistence, including the public housing, to its employees. The development, allocation and management of Chinese socialistic public housing, of which the target group was urban residents, largely depended upon the danwei system.

#### *Public housing allocation based on danwei*

In fact, the so-called “danwei welfare housing” mainly indicates the public housing allocation determined and provided by a danwei. Urban residents were mostly employed by the public economy and hence had to affiliate with their danwei under the socialistic planned economic system. Thus, as a representative of the state, the danwei was directly responsible for the provision and allocation of available public housing. For most of the urban residents, as the tenants of socialistic public housing, their danwei played the role of allocator and actual *landlord* of their dwellings.

As the distribution system of public benefits, the public housing allocation had to follow the unified and standardized regulation announced by the government, though the danwei was the actual operator. The housing allocation standard was based on a ranking system, by which public rented dwellings were allocated to the tenants according to their “ranks” counted by the living floor area of a household<sup>11</sup>. The ranking primarily depended upon the tenants' political or administrative status, seniority at work, superior age, marital status, family size, etc. The ranking decided not only the housing standard of a tenant but also his/her position in the waiting list of public housing application. But the housing condition would be improved along with the “upgrading” of the tenant's placement within the ranking system. Once new public housing was available, the danwei could reallocate the public rented dwellings for its employees. For instance, in a danwei with typical public housing allocation system, a

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11 Different from the later widely applied standard to count the housing space by the usable floor area (excluding the floor area occupied by the structure) or building floor area (including the floor area occupied by the structure), “living floor area” is the original unit for the socialistic public housing allocation. The living floor area of a household only counts the “indispensable” living space of bedroom and living room, by which the “accessorial space” such as kitchen, toilet, bathroom, storage or lobby is excluded in the calculation.

junior worker who just started his/her career could have shared a collective dormitory with other junior colleagues. A few years later, he/she could move to a small one-room dwelling in the so-called 筒子楼 tongzilou (the dormitory-like housing building with shared kitchen, toilet and other public facilities) once he/she got married. However, if the young couple was lucky enough, it was also possible for them to move into an independent, one-bedroom apartment. Later on, a two-bedroom apartment would be available for this family if the couple were recognized as seniors and had had their children. For a “leader” with higher administrative status, a higher-standard apartment with 3-4 bedrooms could be allocated to his/her family. Within the process of public housing reallocation, not only the new but the evicted dwellings (as the result of the upgrade of the housing standards of their original tenants) would be available for the applicants in the waiting list. Thanks to the public housing allocation with the unified standard, the existing public rented dwellings could be reused or recycled, and the over-occupation of public housing was restrained. The leaders/officials and ordinary staff members in a danwei even could have lived in the same building. The difference in housing conditions between the tenants of different ranks was controlled so as to avoid the emergence of a privileged group (Hua Lanhong, 2006, p.140).

This ranking system of public housing allocation was also applied in the standard of housing design. Housing design criterion, especially the ration index of floor area, was usually estimated according to the standard of public housing allocation. However, this allocation and design standards were not always coherent. For instance, in the early 1950s, the Soviet design criteria that was incompatible for the Chinese housing allocation standards and thus resulted in the so-called “rational design and irrational use”. And since the 1980s, the situation that a household occupied more than one smaller dwelling in order to reach its proposed housing allocation standard became popular, as a result of the enhancement of housing allocation standards and the reallocation of existing public housing stock.

However, while the housing allocation standard was unified, the actual housing conditions of urban residents in different danwei were dissimilar in practice. There was a major distinction between the 全民所有制单位 *Quanmin Suoyouzhi Danwei* (State Danwei) and 集体所有制单位 *Jiti Suoyouzhi Danwei* (Collective Danwei), both of which were the result of two forms of public economy in Chinese cities under the classical socialistic planned economic system. . Firstly, there were some industrial sectors directly controlled by the government in order to ensure the concentration of the means of production and labor force. These were called 全民所有制经济 *Quanmin Suoyouzhi Jingji* (State-owned Economy). As the productive unit of the State-owned Economy, the danwei owned by the state, provincial or municipal government was hence called the *State Danwei* which mainly included heavy industries and important light or service industries. In addition, these state danwei also incorporated government officials and the non-productive but vital institutions of social service, such as educational and research institutes, hospitals, cultural and recreational organizations, etc. Owing to

the fact that these major sectors were highly supported by the state, the government investment and land distribution for public housing development as well as the centrally developed new public housing were usually immediately available for those danwei. Secondly, less relevant industrial sectors in the city, such as smaller light industries and other service industries belonged to the 集体所有制经济 *Jiti Suoyouzhi Jingji* (Collective Economy), which was officially not managed by the state but by regular citizens. The danwei run by Collective Economic sector was called the *Collective Danwei*. They encompassed enterprises, cooperatives and non-government institutions of the Collective Economic sector that were nominally collectively owned. In comparison with the state danwei, the collective danwei were often much smaller, and in Beijing they were usually supervised by the Sub-district (Jiedao) government<sup>12</sup>. The collective danwei, as well as the individual or private economic bodies, together constituted the Non-state Sector. For these bodies the state direct investment and land distribution for new housing development were almost unavailable. The public housing available for the employees of collective danwei was usually the socialized old houses that were owned and managed by the local government (such as the socialized courtyard houses in the hutong areas). In some cases, the distinction of housing conditions between the state danwei and the collective danwei was rather evident: the difference between dayuan and dazayuan is actually an exact presentation.

Moreover, the housing conditions and qualities of different state danwei were also differentiated to a certain extent. In Beijing, normally more housing investment was available for the enterprises, institutions or government agencies directly belonging to the central government rather than the danwei owned by the municipal government. For example, a survey conducted in 1983 indicated that for a staff member working in a Beijing-based danwei belonging to the central government, the average investment for housing and average living floor area were CNY 1,880 /person and 8.29 m<sup>2</sup>/person respectively; but for a person who worked in a danwei belonging to the municipality, the figure were CNY 490 /person and 5 m<sup>2</sup>/person (Lü Junhua, Rowe and Zhang Jie, 2001, p.118). This difference of actual housing conditions between different danwei was even enlarged when the danwei was empowered more financial and administrative independency on public housing development and allocation in the Chinese Economic Reform. The “excessive standard” housing started to emerge in some “rich” danwei while the housing conditions of the employees of “poor” danwei were hardly improved. In general, although legally the allocation standard of socialistic public housing was unified by the government, there was actually the noticeable difference of public housing conditions between different danwei, as the result of danwei-based housing

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But the collective danwei could be “upgraded” to be the state danwei if it grew up onto a certain scale.

allocation. And along with the growth of individual or private economy, the danwei welfare housing system that only covered the urban residents in the public economic sectors was increasingly questionable as a generally public welfare. Within the market-oriented reform, the public housing allocation based on danwei inevitably presented its incompatibility: it resulted in a new housing inequity to a certain extent.

*Public housing development: danwei self-construction and unified construction by the local government*

In the Chinese socialistic public housing system, danwei was not only responsible for the housing allocation but, in many cases, directly involved in the development of new public housing. In fact, there were two approaches to public housing development: the *danwei self-construction* and the *unified construction by the local government*. The former was usually thought of as the mainstream approach.

Under the Chinese socialistic planned economic system, while urban development projects were centrally planned, financed and supervised by the government, their implementation was actually shared by the municipality and state danwei, of which the state direct investment and land distribution for construction was available. Since 1956, the responsibilities and powers of the construction in the urban expansion areas and new industrial towns had been clarified. Danwei, as well as their supervisory government departments were responsible for the development of infrastructure, roads and buildings that were directly related to the danwei daily operation, including the housing quarters for the employees. But the construction of urban infrastructure, roads and facilities had to be financed and implemented by the local government. In practice, this meant that the danwei started to be responsible for the new construction of public housing for its employees. This approach was known as the *danwei self-construction* in public housing development.

Under the Soviet-style planned economy, the financial independency of the state danwei was often limited: all of its income had to be submitted to the treasury and its operational cost was centrally distributed by the state according to the planned budget. This was called the “two separate procedures of income and expenditure”. The public housing development proposed by a danwei had to be listed in its annual construction plan and approved by its supervisory government. Once the public housing construction plan was approved, the construction funds were made available by the state and the land supply was provided by the municipal government. The state danwei usually set up its own, specialized “construction office/department”, which was responsible for the management and operation of housing development, as well as the construction of all other buildings and infrastructures, for the danwei.

However, different from the planned economy in the former Soviet Union and Eastern European countries (where almost all the economic activities were strictly and centrally controlled by the state), the Chinese planned socialism gave more economic

independency to the danwei, especially after the Stalinist economic mode was rethought in the late 1950s. This in fact fostered the emergence of the danwei “self-financed” housing construction in the 1970s. Thus, housing development in Beijing was boosted by allowing danwei to explore its own financing means for the public housing construction on the construction land available. Later after the mid-1980s, along with the market-oriented economic reform, the danwei was given much more independency on financing and management. The self-financed development became popular in the danwei self-construction of public housing, in particular for the “rich” state danwei. As the late development of danwei self-construction of public housing, the danwei self-financed housing construction effectively accelerated the public housing development, but, on the other hand, enlarged the difference of housing conditions between different danwei and led to urban fragmentation without integral planning.

The danwei public housing self-construction often resulted in a famous socio-spatial morphology in Chinese cities – “Danwei Community”, which precisely presents the social belongingness of individuals to their danwei, as an autarkic unit of social life. In Beijing, danwei communities were popular in the urban expansion area and new industrial towns, where the working and housing areas of a danwei were together developed in order to reduce daily commutes. The so-called *Dayuan* (*Mega-yard*), normally developed by the state danwei, is the most representative physical presentation of a danwei community. In a danwei dayuan, the public housing was planned and developed together with the working place and communal facilities to support the residents’ daily life (i.e. restaurant/canteen, school/kindergarten, clinic/hospital, club/cinema, shop, guest house, public bathroom, sports field, garden and other public spaces) so as to form a self-sustained community. The residents from different political statuses or income ranks could live together in one danwei community and share the same public space and facilities. They might complete their daily round in the relatively closed dayuan without the dependence on the urban public facilities or infrastructures. The urban expansion areas at that time therefore can be regarded as the areas that were composed of various danwei dayuan surrounded and connected by urban roads and other public infrastructures. The socio-spatiality was presented as the relative homogeneity between danwei dayuan and the mixed and differentiated social structure inside the housing area of a danwei (Liu Fang, 2006, p.132). However, in urban areas such as the old city of Beijing, the physical separation of working and residential places was still popular due to the unavailability of land for construction. Even the new residential quarters in the old city were often not self-sustained but more dependent on the urban public facilities/infrastructures, so that their socio-spatiality was more heterogeneous. But in terms of the affiliation of the individual to the danwei collective, danwei was always indispensable in the daily life of urban residents. Under the socialistic planned economic system, Beijing and other Chinese cities were all made up of danwei communities.

Apart from the danwei self-construction, another approach to public housing development was the unified construction, which meant that the local government was directly responsible for the new public housing development. In comparison with the individual danwei, the local government was more capable to efficiently coordinate the investment and land supply for the large-scale public housing development in either urban expansion or urban renewal. The strategy of unified construction was adopted in the 1950s in order to create a plan that integrated urban form and public facilities. In Beijing and many other Chinese cities, the large-scale unified construction of public housing by the local government was promoted in the 1970s as an efficient approach to solve the problem of housing shortage brought by the re-growth of urban population. At the same time, the unified construction with integral planning was also thought of as an effective solution to improve the disordered urban form. The Offices for Unified Housing Development (OUHDs) – 统建办公室 Tongjian Bangongshi, as the specialized government departments for the housing development, were established in Chinese cities. The municipality began to develop large-scale residential areas through unified construction. This newly-constructed public housing had to be distributed to different danwei with housing demands.

In the 1980s, along with the housing commercialization and the emergence of real estate development, the unified construction was gradually put on a commercialized cloak – the so-called “comprehensive development”. Housing started to be regarded as a commodity that could be transacted in the market. The OUHDs were often entrepreneurialized playing the role of real estate developers – the municipal urban development companies. The development and distribution of unified-constructed public housing was thus commercialized. Instead of the free distribution by the local government, the *commodity housing*, as the result of unified construction in the form of real estate development, became a new source of public housing provision. Since the socialistic public housing system still played the dominant role in the urban housing provision before the radical housing reform in 1998, the most popular buyer of commodity housing at the time was not the individual homeowner but the danwei, who was the group purchaser of commodity housing to allocate to its employees as public rented dwellings. Apart from the municipal urban development companies, many non-municipal but publicly owned real estate development corporations were also founded within the process of market-oriented economic reform. Some of these real estate corporations were even owned by state danwei with excessive financing means and construction land for housing development. In the 1980s and 1990s, the housing development fostered by those “semi-marketized” developers facilitated a new, but commercialized approach to public housing provision.

The unified construction of public housing indeed contributed to improving the public housing provision for those smaller danwei that were incapable to receive enough budget and land supply for housing self-construction. In the meantime, the unified public housing development that was directly coordinated and implemented by the

municipal government helped to overcome the urban fragmentation caused by the uncontrolled danwei self-construction. However, the late transformation of unified construction, which means the commercialization of public housing development, in practice intensified the housing difference between different danwei: the “rich” danwei no doubt had more budgets available to purchase “excessive standard” housing for their employees.

*Public housing management: government direct management, danwei self-management and commissioned management*

Although danwei played the role of allocators of public housing, it did not have to be responsible for housing management. Housing developers could not be either. The management system of socialistic public housing in Beijing involved three sections: *government direct management, danwei self-management and commissioned management.*

Government direct management implied that the municipal government was directly involved in the daily management and maintenance of public rented dwellings by setting up a specialized department. The earliest governmental housing management body of communist authority was even established in 1948 during the period of civil war. In 1956, the 房屋管理局 Fangwu Guanli Ju (Building Management Bureau) was established in each Chinese city in order to centralize the management of publicly owned buildings. The main body of the public housing that was directly managed by the Municipal Building Management Bureau (and its local subdivisions) comprised those socialized private houses (such as the hutong courtyard houses that had been expropriated or socialized in Beijing), which were thus labeled “directly-managed public housing”. The cost of housing management and maintenance was proposed to be covered by the rent income. In some cases, the Building Management Bureaus were also directly charged with the mission to develop public housing, especially in urban renewal, by which the newly-constructed public housing would be directly-managed as well.

But in comparison with the direct intervention of the local government, public housing management by danwei was more customary according to the danwei welfare housing allocation. In the newly-constructed public housing areas, the mainstream of housing management was the danwei self-management. In particular for the danwei self-constructed public housing, the danwei was often simultaneously responsible for housing development, allocation and management. The unification of housing developer, manager and actual owner facilitated the management of those newly-constructed public housing areas, and the public rented dwellings managed by danwei were named “self-managed public housing”. Therefore, danwei self-management of public housing was in fact the most popular form of socialistic public housing management in Chinese cities.

The third method of public housing management was the so-called “commissioned management”, in which the actual owner (allocator) and the manager of the public housing were not the same. It usually implied that the danwei commissioned the management of their public housing to the Municipal Building Management Bureau. In comparison with other Chinese cities, commissioned housing management was more popular in Beijing. Its target group was quite exclusive – the public housing properties owned by the central government (including the Central Committee of the Communist Party). As the capital of China, the public housing of central government amounted to a considerable proportion of the total housing stock in Beijing. From the 1950s, the management and maintenance of central-government-owned public housing was commissioned to the Municipal Building Management Bureau of Beijing in order to facilitate the unified management. But in practice, the central government departments, as the danwei, were still partly involved in the management of their housing areas.

Nonetheless, while the sophisticated housing management system was introduced, in practice the quality of socialistic public housing management was not equal in different areas. In terms of the low-rent policy, which actually resulted in the negative growth of rent, the funding problem embarrassed the public housing management for a long time. Starting from the 1970s, the popularity of illegal construction by danwei or individuals also greatly impacted the quality of living in the public housing areas. The danwei with additional financing means might keep the quality of housing management to a certain extent in its self-managed housing area. But the management and maintenance of public housing by the municipal government or “poor” danwei was not really satisfactory due to the restricted budget. The Municipal Building Management Bureau was often criticized because of its inefficiency and bureaucracy.

### § 3.3.2 Housing Standardization for the Large-Scale Public Housing Development

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Apart from the public housing development, allocation and management discussed above, we can mention the factor of housing standardization. This second key characteristic of the Chinese socialistic public housing system was not only a manifestation of centralized and mechanical planned socialism but also an efficient approach to boost the large-scale development of public housing.

#### *Standardization of public housing allocation*

First of all, housing standardization regulated housing allocation. As aforementioned, public housing allocation was legally in accordance with a set of unified standards issued by the government. The introduction of the Soviet socialism profoundly

influenced the housing development in China. The unified housing standard overemphasized collectiveness in the Soviet-style planned socialism. In this model, industrialization was not only a means, but the aim. The planned socialistic society was designed as a centralized, industrialized and mechanical collective, and each individual person was materialized as a part in his/her position of this tremendous and sophisticated "machine". Housing, as a means of subsistence, was centrally distributed to the residents according to their rankings: one's housing standard nominally corresponded with his/her contribution to society. The housing standard was not based on the market but on the centralized plan. In practice, the unified housing standard could facilitate the industrialized, mass production of public housing, so that it was thought of as an efficient approach to boost housing development.

On the other hand, while the standardized housing allocation system presented the ideology of Soviet socialistic industrialization, it ironically just harmonized with the Confucian tradition of China, which also emphasizes the priority of the collective to the individual and the hierarchical social organization. Thus, these ideas were shortly accepted in China<sup>13</sup>. However, considering the dissimilar socio-economic situation between different regions, the Chinese version of unified housing standards, in fact, presented certain variations. Based on the national standard, each provincial or municipal government could issue its own local standard of public housing allocation. For instance, the unified housing allocation standard in Beijing was in many cases higher than the national standard.

#### *Standard design and industrialized building of public housing*

Along with the unified standard for public housing allocation came the Soviet-style ration index of production and standard design for housing, as well as the concept of industrialized building. The ration index presents the standard of housing allocation and the standard design is the physical means to realize housing standardization. The idea of housing standardization and industrialization, including the standard design of public housing, was introduced by the Soviet Union into China in 1952. It represented a methodology of large-scale, efficient and economical housing production and an effective approach to solve the problem of housing shortage under the socialistic planned economic system<sup>14</sup>. The basis of design standardization is the ration index

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13 In fact, the housing allocation with standardized ranking still operates today. In the social oriented housing provision for the "civil servants", the housing standard is still corresponding to the ranking of the homeowner.

14 At that time, the industrialization of housing building was thought of as a methodology that could quicken construction speed, lower costs and save labor in the Former Soviet Union. The main features of housing building industrialization included design standardization, the mass production of components and systematic construction.

system issued by the government. The ration index of housing floor area per person (or per household) was stipulated according to the unified housing allocation standard, so that the state could precisely estimate and determine the investment for housing production. This system was indispensable for the public housing development under the planned economy, which was mostly financed by the government. At the beginning, the design standard for housing was directly issued by the central government. But, in terms of the differentiated climatic, cultural and economic conditions in China, the housing standard design started to be addressed at the local level after 1959. In principle, the municipal or provincial institute of architectural design of each municipality or province was responsible for composing the reference of housing standard design<sup>15</sup>. Nevertheless, along with the increasing independency of danwei in the public housing development, as well as the emergence of the real estate development, the standard design centrally issued by the government was gradually inapplicable. Instead of directly issuing standardized physical designs, the central and local government preferred to announce the legalized stipulation on the ration index and design standard for the public housing development.

In principle, the design standard had to be consistent with the allocation standards in the public housing development. But when the standard design was just introduced, the inconsistency was already present from the early 1950s due to the gap between the Soviet-standard ration index of living floor area (9 m<sup>2</sup>/person) and the actual housing standard in Chinese cities (approximately 4 m<sup>2</sup>/person). That situation resulted in the so-called “rational design and irrational use”, which meant that two or more households had to share one apartment. This unreasonable situation was finally changed in 1957: since then, the design standard of public housing apartments was adapted to the Chinese reality and started to correspond with the standard of housing allocation. According to the ranking standard of public housing allocation, the standard design also had to be as adapted to different categories. For example, the housing design standard in Beijing was confirmed to be divided into three categories from the 1970s: the category A of 3-or 4-bedroom apartment for the high-rank officers (whose development needed the special permit from the government), the category B of 2-bedroom apartment and category C of 1-bedroom apartment for the ordinary residents. In 1981, the state officially announced the four ranks of design standard

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Under the Chinese socialistic planned economic system, the architectural design of all public projects in a city was normally developed by the municipal institute of architectural design. The function of this institute was to serve as the design office in charge of the tasks from initial stages of design to the construction drawing. It involved architects, structural engineers, MEP engineers, etc. Each one of those architectural design institutes was responsible for the housing standard designs in their localities. The Beijing Institute of Architectural Design (BIAD) is a representative case of those municipal architecture offices.

for housing: first, 42-45 m<sup>2</sup> apartment for ordinary worker/staff; second, 45-50 m<sup>2</sup> apartment for ordinary official; third, 60-70 m<sup>2</sup> apartment for “mid-level intellectual” and “county-level cadre”; and fourth, 80-90 m<sup>2</sup> apartment for “high-level intellectual” and “bureau-level cadre”. While it was continually updated, the ranked housing design standard, together with the socialistic public housing system, was implemented by the end of the 1990s.

The design standardization indicated not just the standardized ration index of floor area but also the standardization of technical criteria for housing design/construction, which was a precondition of industrialized building of public housing. In the early 1950s, the inner-corridor, dwelling-unit apartment housing plan was introduced together with the concept of standard design. For the dwelling-unit housing type, the most fundamental “cell” in the design of housing is the dwelling unit. A unit is to be designed with standard components conforming to a construction module, and consisted of several apartments all sharing the same staircase. Various combinations of such standard units are to form different buildings, and when the different buildings were put together, they form residential areas (Lü Junhua, Rowe and Zhang Jie, 2001, p.125). The dwelling-unit standard design was considered an efficient design solution to satisfy the different demands under the framework of building standardization and industrialization. Consequently, this design was widely used, in particular, in the construction of multi-storey apartment buildings – the most popular building type of public housing in the following decades<sup>16</sup>. The introduction of dwelling-unit housing design actually conditioned the “standardization of blueprints”<sup>17</sup> as the earliest mode of design standardization and building industrialization for the public housing development.

But the early public housing buildings still relied mostly on the on-site brick masonry and thus less “industrialized”. The technical progress of building standardization and industrialization occurred at the beginning of the 1960s, when the prefabricated concrete components of 0.3-metre module, which could be massively produced in the factory, as well as the construction by partly using machinery, started to be widely applied in the housing development. This “standardization of components”, which was still mainly developed for the mixed structure in brick and concrete, pushed forward the industrialized building and also liberated the standard design from a few

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16 As an efficient but flexible design type for housing, the dwelling-unit apartment design is still popularly employed today in the design of both multi-storey and high-rise apartment buildings.

17 The “standardization of blueprints”, as well as the following “standardization of components” and “standardization of systems”, will be explained in detail in the Chapter 5.

standard housing plans. Until the 1970s, along with the large-scale application of new industrialized structural technologies, such as block system, prefabricated concrete panel, moulded concrete panel and concrete frame, the building industrialization for housing was finally realized via the “standardization of systems”, of which the standard design of each building system was developed. With the introduction of new structural technologies, the high-rise residential building started to be widely designed and constructed for public housing. Besides the standardized housing plan, the technical standardization became more important. The *General Design References* (建筑设计通用图集 *Jianzhu Sheji Tongyong Tuji*), a collection of blueprints, construction methods and indexes for the technical designs of buildings, were developed and issued by the government for different regions<sup>18</sup>. In particular, from the late 1980s, the application of general design references became the most effective means for industrialized mass production of public housing<sup>19</sup>. It was at the time when the standard housing plans also became less functional within the market-oriented reform, In fact, the standard design and industrialized building were continually emphasized till the end of socialistic public housing system in China.

#### *Balance between standardization and diversification*

Housing standardization and industrialization was an efficient approach for the large-scale public housing development. However, the over-unified and industrialized housing design for the “average persons” could not meet its demands. The balance of “diversification” against standardization was always a challenge in the socialistic public housing development in Beijing and other Chinese cities. As a measure to emphasize the efficiency of public housing development, the standard design also had to facilitate different choices and compositions. From the very beginning, the design of dwelling-unit apartment housing – originally learnt from the Soviet Union – was flexible in order to balance housing standardization and diversification. It was achieved by the implementation of various combinations of standard dwelling units. By the end of the 1950s, the task to develop the standard design for housing was decentralized and assigned to the local government in order to develop designs that met the local needs and circumstances. The standard housing plans were frequently updated according to the changing housing allocation standard. And the slight modification of standard

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- 18 The Standard Design Reference was issued for the design not only of housing but also of all other buildings. Considering the local climatic conditions, the Standard Design Reference had different versions for the different geographic regions of China. For instance, the Standard Design Reference that was popularly applied in Beijing was the version of “North China” and “Northwest” regions.
- 19 As same as the dwelling-unit apartment design, the general design references issued by the local government are still thought as an effective means of housing design, and therefore continually updated and widely applied today.

design was always allowed according to the requirements of users in practice. But in terms of the dominance of leftist extremism that overemphasized the collectiveness, the housing design and planning in the 1960s and 1970s was in general vastly unified.

From the beginning of the 1980s, the diversification of housing design was unprecedentedly stressed along with the economic reform. In the physical planning of public housing area, a mixture of different building types – such as multi-storey and high-rise – started to be emphasized. In Beijing, the main concerns on the standard housing plans issued by the municipal institute of architectural design gradually changed. The danwei or the developer could ask the architect to develop the housing design based on its own requirements, while the housing ration index and technical criteria had to be followed. Also, the Standard Design Reference was usually referred to. It was not until the 1990s that the municipal government of Beijing decided to select (from successful design practices or from specialized competition) and edit the “Recommended Housing Design Collection”. Nevertheless, albeit the elements of diversification were increasingly involved, the housing standardization, which is fundamentally based on the idea of unified housing allocation and industrialized building, was criticized as something unable to meet “the requirements of the market economy”. It even became one of the “sins” of the Chinese socialistic public housing system, which led to the radical housing reform in 1998.

Although the Chinese socialistic public housing was in general characterized by the danwei-based welfare system and the housing standardization, the development of socialistic public housing in Beijing and other Chinese cities was not smooth but fluctuant. The policies or strategies for housing were frequently adjusted due to socio-economic transformations. According to the emphases of the socio-economic development and the changes in the political atmosphere, the development of socialistic public housing was largely promoted by the government at some time. Nevertheless, as a “non-productive construction”, it had to be subordinated to the development of heavy industry and infrastructure in a certain period. Some housing initiatives were proven to be successful in practice, but some others failed. In order to comprehensively understand the Chinese socialistic public housing in the socio-economic dimension, this research must focus on the historical review on the transformation of socialistic public housing system in Beijing under its socio-economic context.

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### § 3.4 Transformation of Socialistic Public Sousing System in Beijing within Its Socio-Economic Context

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In general, the modern history of China after 1949 can be divided into two periods in accordance with its socio-economic transformation: the period from 1949 to 1978 before the initiation of the Reform and Opening-up, and the period of the Reform and Opening-up after 1979. It was during the former period that the Soviet-style socialistic planned economic system was more “faithfully” implemented and a series of radically political movements or social experiments were attempted. Then, during the latter, China experienced the market-oriented economic reform and the transition from a conventional planned economy to a “socialistic market economy”. In terms of the traditional top-down structure of Chinese society, especially under the framework of the planned socialism, the state ideology not only reflected but also highly influenced the socio-economic transformation. As the top-down public intervention to the housing stock, the development of public housing was inevitably determined by the changes of relevant state policies, which presented the transformation of the socio-economic context. The Chinese socialistic public housing system was founded as a dominant sector of urban housing stock along with the establishment of the planned socialistic system in the 1950s, but ended by the radical housing reform in 1998. Some classical writings, such as *Modern Urban Housing in China 1840-2000* edited by Lü Junhua, Peter Rowe and Zhang Jie, have revealed the relationship between the socio-economic transformation and the socialistic public housing development.

In principle, the public housing development was directly guided by the housing policy and strategies of government, and considerably influenced by other relevant public interventions such as land policy and urban policy. According to the conventionally top-down socio-political structure of China, they were all determined by the general socio-economic plan of the state, as not only the reflection of but also the intervention to the socio-economic development. The development of the public housing system was to a large extent “structuralized”, and can be seen as the presentation of socio-economic transformations. However, there was always the non-synchronization: even under the planned economic system, the socio-economic transformation, as a historically gradual process, did not immediately respond to the change of the national policy but it tended to be “delayed”. The public housing system in some cases was also not so “sensitive” to immediately adapt to the actual socio-economic changes. For example, the planned economy still played a dominant role for a long time since the Reform was initiated, and the socialistic public housing system, as an important legacy of planned socialism, was totally stopped in 1998, twenty years after the start of the Reform and six years after the announcement of the transition from a planned economy to a “socialistic market economy”. Therefore, different from the conventional methodology based on the socio-economic determinism, which often defined the developmental phases of public housing exactly in accordance with the official division

of the socio-economic development stage, the transformation of the public housing system itself was picked up as the main “axis” of my research on the socialistic public housing in its socio-economic dimension. In the dialectics between the development of public housing system and the socio-economic transformation, the socio-economic background of public housing development will be reasoned and reflected. This structuralistic history of the Chinese socialistic public housing in Beijing is generally divided into the following five phases:

- The establishment of the socialistic public housing system and the emulation of the Soviet mode: the Socialistic Transformation and the First 5-year Plan (1949-1957);
- Various attempts to develop the Chinese public housing system: from the Great Leap Forward to the early Cultural Revolution (1958-1970);
- The foundation of the socialistic public housing system with Chinese identities: the late Cultural Revolution and its period of influence (1971-1978);
- The Chinese public housing in development and transformation: the early age of the Reform (1979-1991); and
- The epilog of the Chinese socialistic public housing: the transition from the Socialistic Planned Economy to the Socialistic Market Economy (1992-1998).

The boundaries between those developmental phases were oftentimes not so well defined or explicit, especially when the housing development was impacted by the market force within the economic reform. Hence, this historical review will fundamentally reveal the transformation of socialistic public housing system in Beijing under its socio-economic context. The research of public housing development in Beijing is the most representative case study of the socio-economic dimension of the Chinese socialistic public housing system. However, regarding the regional difference, the locally socio-economic conditions have to be considered.

### § 3.4.1 **Establishment of the Socialistic Public Housing System and the Emulation of the Soviet Mode – The Socialistic Transformation and the First 5-year Plan (1949-1957)**

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During the first decade of the People’s Republic of China, the mainstream of Chinese history is indubitably the establishment of the Soviet-style, planned socialism. 1949 to 1952 was the period of economic recovery to the newly founded People’s Republic. During the period of economic recovery, the private economy still remained to a certain extent. But from 1953, China initiated the Socialistic Transformation, by which the socio-economic socialization was realized within a short time and the Soviet planned economic system was introduced. In 1956, the central government announced the

finalization of the Socialistic Transformation<sup>20</sup>. With the support from the Soviet Union, China also successfully implemented its “First 5-year Plan” (1953-1957), which largely boosted the process of industrialization, especially the development of heavy industry<sup>21</sup>.

As a kind of “means of production”, the land had to be inevitably socialized in the Socialistic Transformation. Different from the collectivization of rural land, which was transferred to be collectively owned by the villagers, all the lands in the city were communalized, through public purchase or expropriation, and thus legally owned by the state. The first Constitution of the People’s Republic enacted in 1954 actually empowered the state to nationalize the land for the public demands, such as industrial development, infrastructure construction and urban renewal or expansion. The state ownership of urban land was established in China. It in fact conditioned the large-scale development of socialistic public housing.

In the meantime, the process of urbanization was accompanied with industrialization. Particularly in Beijing, the central government and many academic/cultural institutions were set up. In order to realize the socialistic industrialization, the modern industries were also established under the slogan of “transforming a consumptive city into a productive city”. The modern concept of urban planning was introduced for guiding the process of urbanization. As early as 1949, the Urban Planning Commission of Beijing was founded. After years of discussion, some common conclusions were drawn:

- Beijing should not only be the capital and political center of China but also a cultural, scientific and artistic center, as well as an important industrial city, so that the proportion of working class in the total urban population should be increased;
- Along with the socio-economic development, the urbanized area and urban population would rapidly grow up;
- The city should be radically-expanded from the center in this way: the industrial area to the south-east, the university and recreational areas to the north-west, and the residential areas should be near the working places in order to reduce commutes.

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20 As a result of the Socialistic Transformation, the proportion of public industry increased from 44.8% (1952) to 72.8% (1957); and in 1957, the percentage of “capitalistic” industry in the gross value of industrial output had been reduced to 0.1%.

21 During the period of the First 5-year Plan, the annual growth of the gross value of industrial output reached 18.4% in average, which even surpassed the original plan (14.7% annually). In the capital construction investment to the industrial sector, 88.8% was used for heavy industry.

According to those conclusions, the municipal government developed “the Outline of the Planning Draft to Transform and to Expand Beijing City” from 1953 to 1954 (figure 3-2) as the first draft master plan of Beijing after 1949. In this draft, Beijing was proposed as the political, economic and cultural center of China, and the population was predicted to reach 5 million. The city acquired a mono-centric spatial structure due to the fact that the urban expansion surrounded the old city.. While it was not officially approved by the central government, the urban development in Beijing during the period of the First 5-year Plan was in fact implemented in accordance with this draft, and the general concepts of this draft were passed onto and developed by the following urban master plans. As a result of urban development, the growth rate of the urban population rose from 12.46% (1952) to 15.39% (1957). The permanent urban residents in Beijing increased from 1.65 million in 1949 to 3.2 million in 1957. The high-speed urbanization inevitably brought the pressure of housing shortage in the city.



Figure 3.2  
Draft master plan of Beijing in 1954  
(Source: Dong Guangqi, 2006, p.29)

Although some “market” measures (e.g. promoting private housing rent and transaction) were temporarily applied in the period of economic recovery, the main solution to the housing problem under the planned socialism was the socialistic public housing. As discussed in the previous section, the Chinese socialistic public housing system was characterized by danwei-based housing allocation, development and management as well as by the housing standardization. Within the Socialistic Transformation, as well as the process of urbanization, the socialistic public housing system was in general established in Beijing and other Chinese cities. Danwei was also given the special position in the Chinese urban society. It was acknowledged as the

basic unit not only of economic production and social organization, but also as a source of public housing provision. In 1955, along with the official establishment of the wage system (which replaced the earlier system of free supply), the rents of public housing were even set at lower rates than before. The “low wages and high benefits” system was finally fixed. Apart from the socialization of the existing housing stock, the large-scale development of newly-built socialistic public housing, which is also the research objective of this dissertation, became the main approach to solve the urban housing problem. The socialistic public housing ushered its first “golden age”.

In comparison with the following decade, the housing development was more emphasized during this period. The investment in urban housing construction remained around 9% of the total investment in capital construction. In the period of the First 5-year Plan, the newly completed housing floor area amounted to 35.5% of the total floor area of all building construction. In Beijing, the floor area of completed housing rose steadily each year, and so did the proportion of the floor area of housing in total building construction (Lü Junhua, Rowe and Zhang Jie, 2001, p.119). The newly-constructed public housing areas were concentrated not only in the urban expansion area but also in the old city mainly through the reuse of urban waste lands<sup>22</sup>. Those housing areas were often planned by combining with the danwei working area and hence resulted in the formation of dayuan. Since 1956, the danwei self-construction has become the major approach to public housing development; but the unified construction of public housing by the municipality was only adopted in some cases such as the renewal of directly-managed public housing. This situation was continued till the 1970s.

Along with the establishment of the socialistic public housing system came the introduction of the Soviet concepts of housing planning and design. At the very beginning immediately after the People’s Republic was founded, the so-called “排房 paifang”, the linear-arrayed, single storey houses only with shared amenities, and “tongzilou”, a kind of 2-3 storey dormitory housing with public kitchen and toilet, was developed in Beijing as the earliest types of public housing. They were evidently just temporary solutions without sophisticated planning and design. Afterwards, the concept “Neighborhood Unit”, which was proposed by American architect Clarence Perry in the 1920s, was introduced for the planning and design of public housing areas. However, this planning concept was soon criticized as a “capitalistic” concept and was hence abandoned when the Soviet-style socialistic system was established in

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The newly-constructed public housing areas in the old city that developed in the period of the first 5-year plan included Hufangqiao, Baizhifang, Tiyuguanlu, Fanjiahutong, Youanmennei, etc. Please see Zhang Jinggan, *The Urban Planning and Construction in Beijing during Recent 50 Years*, 2001, p.157.

China. Only a few Neighborhood Unit projects were accomplished. The Zhenwumiao Neighborhood in Beijing is an example of a neighborhood unit project (figure 5-1).

The first Soviet planning concept for housing that was popularly introduced into China was the concept of "Neighborhood" ("街坊 Jiefang"). In the 1953 draft of Beijing's master plan, the "Grand Neighborhood" was proposed as the planning concept of residential areas. As a Stalinist planning concept, the Neighborhood was then identified by its symmetric physical morphology. Together with the planning concept, the Soviet physical layout of housing areas was introduced. The multi-storey, European style perimeter courtyard block layout was usually applied for the development of Neighborhoods. The perimeter courtyard block neighborhood facilitated the quiet internal living environment of the neighborhood and the well-organized urban forms (figure 3-3). But this physical planning that emphasized the formalistic spatial layout created many east-west dwellings. It also, had some other inconveniences related to sunlight, natural ventilation and noise. Therefore, it was not well accepted due to its deficiency to adapt to the local climate and the living preferences of the Chinese people.



Figure 3.3  
*A typical Soviet-style public housing Neighborhood*

Figure 3-3 A typical Soviet-style public housing Neighborhood

As aforementioned, the Soviet standard design and the inner-corridor, dwelling-unit apartment housing plan was also introduced in the early 1950s. As a kind of standardized design concerning different housing demands, the dwelling-unit apartment housing became the standard mode of public housing design (figure 5-25), which was widely applied and well-developed in Beijing and other Chinese cities and still influenced the design of residential buildings today. The 2-bedroom apartment became the most popular dwelling type. However, the early-introduced, Soviet ration index for housing design ( $9 \text{ m}^2/\text{person}$  of living floor area) was much higher than the

actual housing standard in China (4 m<sup>2</sup>/person) at that time. This difference resulted in the so-called “rational design and irrational use” in the design practice: the housing standard was assumed to rise within a short period so that the design should be based on a higher standard; and the bigger apartment could be shared by several families for the time being. This concept was evidently unrealistic and in practice brought much inconvenience for the residents.

At the same time, the predominant theory of architectural design was also the Soviet “Socialistic Realism”. According to the principle of “socialist content and national form”, some Chinese architects tried to combine the traditional Chinese “big roof” (大屋顶 dawuding) and other classical Chinese building components or patterns with Western architecture<sup>23</sup>. This style was regarded as a presentation of the greatness of New China and its national identities. In Beijing, the “nationalistic”, “big-roof” design used to be popular in the architectural form of public housing before 1955 (figure 5-63).

From the technical point of view, the public housing development in the period of the First 5-year Plan was still rather “pre-industrialized”. The building standardization and industrialization for housing focused on the “standardization of blueprints”. Due to the limited level of industrialization, the industrialized building technologies were rarely applied in the housing construction. In the 1950s, the residential building was mainly made by brick-wood or brick-concrete masonry.

Nevertheless, after several years’ practice, the inadaptability of the absolute copy of Soviet model started to emerge in the mid-1950s. The unbalanced industrialization, in which the heavy industry was overemphasized over the economic development, gradually produced a negative impact. Meanwhile, the Stalinism was questioned and criticized in the Former Soviet Union in 1955. China began to rethink its own way of development, and, learning from the Soviet Union became a critical and selective process. This subtle shift no doubt influenced the public housing development. In order to ensure the development of heavy industry, the “waste” of non-productive buildings started to be criticized in the late period of the First 5-year Plan. For the development of public housing, the criticism focused on formalistic planning and design as well as the unrealistically high housing design standards. The economy of housing development was unprecedentedly emphasized. The average cost of urban housing construction in China was reduced from CNY 93.4 /m<sup>2</sup> (1953) to CNY 65 /m<sup>2</sup>

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In fact, the combination of Chinese traditional building elements with Western architecture was the dream of many of the first generation of Western-trained Chinese architects. Some design attempts had been developed before 1949.

(1957). The total investment for housing also significantly dropped. Under the slogan of “production first and life after”, the urban housing construction, as the production of the means of subsistence and a non-productive sector, started to be subordinate to the industrial development.

In the planning of public housing areas, the “Neighborhood” was increasingly criticized for its formalistic concept and the inadaptability to the local situation. It was finally replaced by the newly-introduced planning concept of the “Residential Quarter” or “小区 Xiaoku” in 1957. Different from the concept of “Neighborhood” that emphasized the physical morphology, the “Residential Quarter” was regarded as the presentation of socialistic ideology in urban social structure and equipped with a complete set of communal facilities so as to create an integral built environment for the daily round. The Residential Quarter for 10,000-20,000 inhabitants in the site of 30-60 hectares was officially defined as the basic cell to organize the life of urban residents (figure 5-4). In many aspects, the concept of Residential Quarter was comparable to the “Neighborhood Unit”, but it was larger. The concept of Residential Quarter had a far-reaching impact on the planning of residential area in Beijing and other Chinese cities. The term “Xiaoku” is so far still the most popular Chinese word referring to a housing area.

From the mid-1950s, there was also a continual debate on whether to apply the courtyard or linear-arrayed layouts in the physical planning of public housing areas. The courtyard block layout overemphasized the closed living environments and well-organized urban form but sacrificed the south access to sunlight and natural ventilation. In contrast, the multi-storey, south-north oriented and linear-arrayed row-housing layout (figure 5-12) was more welcomed by the people. At the same time, the latter seemed more conducive to mass production of public housing. However, the linear-arrayed layout was also problematic in terms of its monotonous outdoor environments and homogeneous physical morphology. Under the background of emphasizing the economy and functionality of housing planning/design, the linear-arrayed layout was evidently more preferable. Instead of the courtyard block, the linear-arrayed row-housing became the most popular layout in the physical planning of public housing areas.

Meanwhile, the criticism to the formalistic architectural design, which was presented by the “big roof”, also rose. It has to be recognized that the formalism in architecture and urban planning also started to be criticized, as part of the criticism to Stalin, in the Soviet Union beginning from 1955. As symbols of waste in building construction, the big roof and other decorative components were removed from the design of buildings. From the late 1950s, the architectural design of public housing gradually tended to be simple and functional.

Along with the emphasis of economy in public housing development, the ration index for housing standard design was also reduced from 6-9 m<sup>2</sup>/person to 4-5 m<sup>2</sup>/person. This revision led to the development of the “small-sized apartment”, of which each family occupied an independent apartment so as to avoid the “rational design and irrational use”. The standard design for housing compromised with the Chinese reality, and the synergy between the standard of housing allocation and housing design was finally achieved. In housing design, the dogmatic simulation of the floor plans from the Soviet Union was criticized. In Beijing, the dwelling-unit housing plan started to be revised according to the lowered, new design standard (figure 5-26). The innovative housing type such as small-sized, open-corridor apartment building was developed (figure 5-38). The trend to explore the Chinese approach was continued after the period of the First 5-year Plan and further accelerated by the “Great Leap forward” movement.

### § 3.4.2 Various Attempts to Develop the Chinese Public Housing System -- From the Great Leap Forward to the Early Cultural Revolution (1958-1970)

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As discussed in the previous section, the insufficiency of the Soviet mode of socio-economic development, as well as the problem of absolute emulation of this mode, had evidently emerged at the end of the First 5-year Plan. In the late 1950s, the break of the Sino-Soviet alliance and the following controversy between the two countries further strengthened the determination of China to explore its own development approach to socialism. In fact, except for the period of the First 5-year Plan, China never strictly followed the Soviet mode of centrally commanded and planned economy. From 1958, China initiated a series of social, economic and political experiments, which were exemplified by the “Great Leap Forward” (1958-1960) and the “Cultural Revolution” (1966-1976). While these experiments determined by the ultra-leftist ideology were not successful but led to serious social and economic problems, they were inevitably influenced the development of socialistic public housing in Beijing, including its allocation standard, planning, design and construction. The public housing developments during this period can be considered as, sometimes extreme and tentative in many aspects. Successful and unsuccessful attempts were the paving stones of the way to the formation of the Chinese socialistic public housing system. In this section, we will review those attempts on public housing development, which also present the experiments of socio-economic development.

The high-speed industrialization and economic growth during the period of the First 5-year Plan resulted in an optimistic passion to explore the Chinese own way of socialistic modernization. The radical “Great Leap Forward” (大跃进 Dayuejin in Chinese) was initiated in 1958 with the idea of “greater, faster, better and more frugal

development of socialism” and the aim of “catching up with the United States and exceeding the United Kingdom” for economic development. Since the production and accumulation of heavy industry was regarded as a symbol of industrialization, the national investment unprecedentedly concentrated on the heavy industrial sector. From 1958 to 1960, the average of annual growth rate of heavy industry was 49%. But the non-productive investment was sharply decreased in order to make sure of the industrial accumulation. On the other hand, it was the high-speed urbanization accompanied with the industrialization. The labor force was largely attracted from the rural to the urban areas. The proportion of Chinese urban population sharply increased from 15.39% (1957) to 19.7% (1960). In Beijing, the permanent urban residents grew from 3.2 million (1957) to 4.56 million (1960). The pressure of housing provision was further intensified.

Parallel to the Great Leap Forward, another nationwide, leftist campaign was launched. It was the “People’s Commune Movement” (人民公社运动 Renmin Gongshe Yundong). This movement was thought of as an advanced form of social organization toward a communist society, and, according to the Marxist theory of urbanization, would help to eliminate the contradiction between city and countryside, which was a result of the capitalist form of production. In a people’s commune, the collectivity was particularly emphasized and gained absolute priority over the individuality. From the economic point of view, the collectivization by the establishment of people’s commune in the rural areas was also regarded as an effective approach to raise the agricultural output, which could support the high-speed industrialization. The People’s Commune Movement firstly swept over the countryside. Until 1960, the people’s communes started to be established in the city. Nevertheless, the people’s communes did not really improve the production but, on the contrary, restrained productivity. Both the Great Leap Forward and People’s Commune Movement worsened the unbalanced development between the industry and agriculture and thus induced the economic crisis. The attempt of the Great Leap Forward finally failed in 1960 and the People’s Commune gradually disappeared in the urban areas<sup>24</sup>.

The Great Leap Forward and the People’s Commune Movement inevitably influenced urban planning and construction. “The Master Plan of Urban Construction in Beijing”, as the first official master plan of Beijing in its modern history, was proposed in 1957 and approved in 1958. Continuing the basic concept of the 1953 planning draft, the 1958 master plan confirmed the spatial structure of the new Beijing: the mono-centric

metropolitan structure was composed of the central city (city proper) and satellite towns. The city proper was planned to be structured by the urban central area and peripheral clusters, which are separated by the green belts, according to its “scattered agglomerations” spatial layout; and the road system was sketched out in ring roads (figure 3-4). In the city proper, the old city was proposed to be totally reconstructed, with the ambition and passion to build a new socialistic city. The urban expansion of central area followed the functional zoning<sup>25</sup>. And 10 periphery clusters were planned for the industrial, tourist or recreational use. The Residential Quarter, with complete planning and communal facilities, was defined as the basic cell where urban residents could live. In fact, the People’s Commune ideal was also presented by this master plan. According to the concept of “scattered agglomerations”, the zoning plan based on urban functions was weakened, and the city was planned to be composed of many subdivisions with their own industries, residential areas and other facilities. In comparison with the preliminary proposal in 1957 (before the start of Great Leap Forward and People’s Commune Movement), the final version of the 1958 master plan evidently enlarged and extended the green belts in the city proper. These belts were planned not only as the “lungs” of the city but also as farmlands to provide agricultural output for the city. This change explicitly presented the concept to build up self-sustained communities that could eliminate the difference between urban and rural areas. Meanwhile, the mixture of different functions was also introduced into urban neighborhoods. Living nearby the working place was unprecedentedly advocated. Besides danwei dayuan, small industries and communal facilities started to be inserted into hutong areas in order to create the self-sustained communities. While the Great Leap Forward and People’s Commune Movement failed within a short time, their impact on urban construction, as well as the development of public housing, cannot be ignored. The influences of the 1958 master plan to the spatial structure and city form of Beijing can still be clearly observed today.

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In the 1958 master plan, the urban expansion areas or so-called “inner-suburb” of Beijing’s urban central area were divided into the West Suburb (areas for the government), the Northwest Suburb (areas for universities and academic institutes), the North Suburb (areas for research institutes), as well as the Tonghuihe North, Tonghuihe South and South Suburban industrial zones.



Figure 3.4  
 Urban master plan of Beijing in 1958  
 (Source: Dong Guangqi, 2006, p.31)

During the period of the Great Leap forward, China continued the trend to explore its own way of public housing development, which further deviated from the original Soviet model. In order to guarantee the high-speed development of heavy industry, the proportion of housing investment, as a non-productive sector investment, was further reduced<sup>26</sup>. In 1958, the rents of public housing were lowered once more, as a result of an unbalanced economic structure (Lü Junhua, Rowe and Zhang Jie, 2001, p.150-151). But preceding the continual growth of urban population along with the high-speed industrialization, the decrease of proportion of housing investment and housing rents resulted in the further lowering of housing standards.

Since 1959, the responsibility of organizing housing standard designs had been decentralized from the central government and taken over by the provincial governments in order to adapt standard design to the local situations. At the time of the Great Leap Forward, the housing design standard had corresponded with the allocation standard (4 m<sup>2</sup>/person), and the small-sized apartment designs were popularly applied. Many new dwelling types that derived from the dwelling-unit housing plans were developed. For example, the "small lobby" started to appear in the floor plan of a housing apartment so as to leave space for the "semi-private" activities of a family, which was missed in the original Soviet design that usually did not distinguish the functions of bedroom and living room.

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During the period between 1958 and 1965, the proportion of housing investment in the total investment in capital construction only amounted to 4.82%, much lower than the 9% during the First 5-year Plan.

However, because of the impact of ultra-leftist trends, many extreme cases emerged in the designs of public housing. A popular trend at the time was the emphasis of economy on housing development. This trend eventually led to the low-standard housing designs that accentuated economization ex parte (figure 5-27). In Beijing, several hundred thousand square meters of low-standard public housing were built up. The low quality of those “economical” apartments brought much inconvenience to the residents, and their developments were stopped along with the end of the Great Leap Forward. On the other hand, there was an opposite extreme trend of impractically raising housing design standards. It was induced by the optimistic trust in radically leftist movements. An example is the “9014” standard design in 1959, of which the ration index reached 9 m<sup>2</sup> /person again (figure 5-28). But this “luxury” trend of high-standard housing design was revised before long.

It must be pointed out that the most special case during the period of the Great Leap Forward was the “People’s Commune Mansion” (figure 5-44). In a people’s commune mansion, the individual kitchen was removed from each apartment and replaced by the public canteen. Communal clubs, kindergartens and other public facilities were introduced into the residential building to strengthen the collective life. In Beijing, three people’s commune mansions were built. But along with the failure of the Great Leap Forward and the People’s Commune Movement, this exclusive housing type was also proved unsuccessful and never further developed.

Faced with the serious economic crisis, which was exactly contrary to the expectation, caused by the Great Leap Forward and the People’s Commune Movement, China started an economic readjustment in 1961. After the Second 5-year Plan (1958-1962), the central government did not announce the new 5-year plan but planned three years for revitalizing the national economy. During the period of economic readjustment (1961-1965), the investments to the heavy industry and capital construction were reduced, the urban population and the number of cities/towns were decreased, and agriculture was reemphasized. The ratio between the industrial output and the agricultural outputs changed from 4:1 (1960) to 2:1 (1962). The investment in capital construction sharply decreased from CNY 38.9 billion (1960) to CNY 7.1 billion (1962). The economic policy making was rationalized, and the national economy gradually recovered. The socio-economic development in China was stabilized by 1965.

In order to solve the problem of the shortage of agricultural laborers that was induced by the irrational urbanization in the Great Leap Forward, an urban policy of de-urbanization was executed in the economic readjustment. The newcomers who migrated from rural areas to the cities after 1958 were sent back to the countryside in order to increase the agricultural workforce. The proportion of urban population in China decreased from 19.7% (1960) to 17.3% (1962). In Beijing, the permanent urban residents decreased from 4.56 million (1960) to 4.21 million (1962). The urban construction was also slowed down in 1961. The hukou system, originally

instituted in 1958, was reinforced as an efficient approach to control the growth of urban population in 1964. The conversion from rural hukou to urban hukou was strictly controlled, so that migration to the cities was restrained. The binary social structure in urban and rural areas, peculiar to China, was finally sanctioned and institutionalized. Therefore, while the national economy was gradually revitalized, the growth of urban population was relatively moderate after 1963. The urban residents in Beijing slightly increased from 4.21 million (1962) to 4.48 million (1965). Those policies of de-urbanization and restraint for the growth of urban population also helped to alleviate the urban problems (including housing shortage) caused by the Great Leap Forward.

Along with the reduced capital construction investment and the de-urbanization, urban housing investment in 1962 dropped to the lowest level since 1953. Nevertheless, after the economic downturn, housing investment gradually rose, accompanied with the economic recovery. By 1964, investment in housing construction had almost reached the level of 1957. In the period of economic readjustment, although the economy of housing development was still stressed, the design of public housing was re-rationalized, and the extremely low as well as extremely high standard housing designs were avoided. After years of debate, the small-sized apartment for one family was finally confirmed as the mainstream of public housing development. The average living floor area was controlled onto 4-5 m<sup>2</sup>/person, and for the most popular designs of 2-bedroom apartment, the total floor area was 40-50 m<sup>2</sup> (figure 5-29). At the same time, the enrichment of housing designs was attended to. Different from the simulation of Soviet-style designs in the 1950s, more housing types adaptable to the local conditions were developed. In Beijing, the apartment designs with a “small lobby” started to be widely applied.

In 1966, a more radically social and political campaign – the Proletarian Cultural Revolution (无产阶级文化大革命 Wuchanjieji Wenhua Dageming) – was launched. From 1966 to 1976, China experienced a very special period in its modern history. The original ideal of this political campaign was to stir up the bottom-up force to break down the existing bureaucratic class (“Capitalist Roaders”), which was formed due to the regime of the Communist Party, so as to establish a new, revolutionary culture (while the actual motivation of Mao Zedong to launch the Cultural Revolution is still controversial). According to the ultra-leftist thought that the class struggle still existed in a communist country, the economic development had to be subordinate to the political campaign, with the slogan “Class Struggle as the Key Link”, in order to prevent the “restoration of capitalism”. In the early Cultural Revolution (1966-1970), mass movement, as well as political struggle, was particularly serious. The country filled into political fanaticism and social chaos. In the meantime, the unbalanced economic structure was intensified once more due to the predominance of the ultra-leftist ideology. For instance in Beijing, the proportion of heavy industry in the gross value of industrial output increased from 54.9% (1966) to 65.7% (1970) (Cao Zixi and Yu

Guangdu, 1994, p.80). The investment in non-productive construction, especially the housing investment, dropped to an unprecedented low level.

On the other hand, due to the continual growth of urban population and the economic policy of overemphasizing heavy industry, the shortage of job opportunities in the city had become an urban problem in the mid-1960s. In the meantime, the neglect of agriculture resulted in the stagnancy of agricultural productivity, and the output of grain was directly connected with available area of arable land. Thus, the government began to advocate land-saving and the control of urban expansion. During the early Cultural Revolution, the policy of de-urbanization was adopted again in the form of political movements, including moving urban residents to border areas to support local developments and settling high-school graduates in the countryside<sup>27</sup>. As a result, the proportion of urban population in China decreased from 17.98% (1965) to 17.38% (1970). In Beijing, the urban residents reduced from 4.48 million (1965) to 4.03 million (1970).

It was during this time that the urban planning, construction and governance systems in Chinese cities were eradicated. In Beijing, the implementation of the 1958 master plan was stopped in 1967, and the urban planning authority was dismissed in 1968. From 1969 to 1972, the urban construction in Beijing was under an uncontrolled situation. The housing management bodies were not functioning, so that the regular maintenance of public housing, urban infrastructure and service facilities were also neglected. Without urban planning, construction in the urban area mainly adopted the approach of “见缝插针 Jianfeng Chazhen” – inserting buildings on available small land parcels<sup>28</sup>. Except for the new buildings in the existing housing areas, the development of new housing areas was ceased.

Under this chaotic background, public housing development was marginalized. In the Third 5-year Plan (1966-1970), the completed floor area of urban housing in China (54 million m<sup>2</sup>) was less than half of that in the second 5-year plan (1958-1962). In 1970, the percentage of housing investment in total capital construction dropped to 2.6%, the lowest since the founding of the People’s Republic (Lü Junhua, Rowe and Zhang Jie, 2001, p.173-174). In the early age of Cultural Revolution, the new housing construction in Beijing decreased to the lowest amount ever since 1949. Particularly in

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27 At the same time, the Chinese universities stopped recruiting new students, so that the youth had no any other choices other than joining the army or going to the countryside.

28 Literately, Jianfeng Chazhen can be translated as “Pinning the Needles in any Interstices”.

1969 and 1970, the annually completed floor area was only about 200,000 m<sup>2</sup> (Zhu Guanghui, 1999, p.47).

The prevailing ultra-leftist ideology resulted in the re-emergence of “extreme economism” in the public housing development in the early stage of the Cultural Revolution. In fact, housing standards had been lowered since 1965, under the slogan of “building the country through thrift and hard work”. In 1966, according to the new housing design standard issued by the central government, the living floor area per person should be no larger than 4 m<sup>2</sup> and no more than 18 m<sup>2</sup> per family. The construction costs were also reduced in order to ensure the economy of housing construction (Lü Junhua, Rowe and Zhang Jie, 2001, p.176)<sup>29</sup>. The development of low-standard housing in cities was stressed. In Beijing, the representative case of “economical” housing was “简易楼 Jiányilou” (Simple Housing). This extremely low-standard housing system was to a large extent similar to a dormitory due to the lack of private kitchens, toilets and even tap water supply in each dwelling (figure 5-45). The average building floor area per dwelling was only 31.5 m<sup>2</sup>. From 1965 to 1968, 1.35 million m<sup>2</sup> of simple housing were built up in Beijing by replacing 0.5 million m<sup>2</sup> of hutong courtyard houses (Zhang Jinggan, 2001, p.140-141). Because of the low-standard housing conditions and low-quality construction, this simple housing became obsolete in a short time. However, the trend of low-standard housing design continued till the beginning of 1970s, while the later developed public housing readopted the dwelling-unit apartment design. The leftist extremism caused the abnormal development of public housing during the early Cultural Revolution.

In general, public housing development during the period from 1958 to 1970 was characterized by various, oftentimes extreme, social, economic and political experiments. Nevertheless, some “general” trends were developed as the results of the continual stress of the economy of housing development during this idealistic but turbulent period. These trends included the evolution of architectural forms and building technologies, . After the “big-roof” style was criticized in the late 1950s, the architectural designs of public housing were simplified along with the lowering of housing design standards. The nationalist decorations were gradually taken off from the building façades of public housing. But in comparison with the architectural designs in the 1970s, public housing buildings that were developed during the period of either the Great Leap Forward, the economic readjustment or the early Cultural Revolution were more “decorative”, especially in details such as balconies and cornices.

In the 1960s, the architectural design of socialistic public housing presented a “transitional” style (figure 5-64).

As an effort for the frugal development of public housing, the industrialized and standardized building was further emphasized in this period, which centrally presented in the improvement of building technologies. Since the beginning of the 1960s, the prefabricated concrete components had been widely applied in the construction of mainstream, brick-concrete residential buildings. The 0.3-metre module of prefabricated concrete components was standardized. The “standardization of components” was completed in Beijing. In addition to hand masonry, the machinery was more popularly adopted in the building construction. Apart from the traditionally mixed structure of brick and concrete, the “industrialized” structural technologies such as the block system and prefabricated panel were introduced in the public housing development from the end of the 1950s. Those new technologies were regarded as the approach that can either increase the floor area of houses (in terms of thinner walls) or reuse industrial waste. But in the 1960s, the application of industrialized structural technologies was still in its initial stage, and most of those housing development projects were tentative.

### § 3.4.3 Foundation of the Socialistic Public Housing System with Chinese Identities -- The Late Cultural Revolution and Its Period of Influence (1971-1978)

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Albeit the Cultural Revolution officially lasted till 1976, the ultra-leftist ideology, while only partly, started to be rethought in the early 1970s. In the second half of the Cultural Revolution, the social order was rebuilt. The economic development began to be reemphasized, so did the development of public housing. Moreover, the predominance of leftist ideologies did not terminate immediately along with the end of the Cultural Revolution but still continued till 1978. In some aspects, the late Cultural Revolution and its period of influence can be seen as a “preparation” period of the following “Reform and Opening-up”. More important is, after decades of attempts, the socialistic public housing system with Chinese identities was gradually completed in the 1970s. Many policies, strategies and technologies that deeply influenced the public housing development were introduced or improved during this period. Therefore, different from the conventional division of historical period, I proposed that the period from 1971 to 1978 should be separately discussed for the research of Chinese socialistic public housing in Beijing.

By the early 1970s, the continual mass movement and social chaos had brought the country into a crisis. The ultra-leftist trend intensified the unbalance of economic structure, and the development of the non-productive sector (including the

development of public housing) was largely neglected. The relevance of the Cultural Revolution started to be questioned. Therefore, while the leftist thought was still dominant, the government began to rebuild the social order after 1971. In particular from 1973, the economic development was reemphasized and readjusted. The authorities on urban planning, construction and governance were reappointed. Until 1975, the Chinese society had been relatively stabilized, and the national economy had been gradually recovered. The economic redevelopment in the late age of the Cultural Revolution can be regarded as the prelude of the later economic reform. In October 1976, the Cultural Revolution formally ended after the ultra-leftist “Gang of Four” was arrested. However, the leftist ideology was still influential till 1978 and thus determined the socio-economic development.

Along with the recovery of social order and national economy, the process of urbanization restarted. The population that was evacuated to the border areas and countryside began to return to the cities after 1973. The natural growth rate of the population was still high. By 1978, China’s total population had reached 962.59 million, out of which 17.92% corresponded to urban population. Urban residents in Beijing increased from 4.03 million (1970) to 4.43 million (1975), and further to 4.95 million (1979). While the urbanization process in the 1970s was moderate in comparison with the following decades, it inevitably intensified the population pressure and housing shortage in big cities. Therefore urban construction was reemphasized. Together with the reestablishment of urban planning authority, a new draft of urban master plan of Beijing was constituted in 1973 (figure 3-5), but, it was never approved or implemented.



Figure 3.5  
*Draft master plan of Beijing in 1973*  
(Source: Zhang Jingan, 2001, p.44)

Parallel to the socio-economic readjustment and the process of urbanization, the public housing development was also re-boostered. In the period of the Fourth 5-year Plan (1971-1975), the totally completed floor area of housing construction in Chinese cities was 125.75 million m<sup>2</sup>, more than two times higher than that of the Third 5-year Plan (1966-1970). The housing standard was re-enhanced. After more than a decade of experimental attempts, the original Soviet model of socialistic public housing was finally localized and adapted to the Chinese situation. New but creative housing development strategies and planning/design concepts were introduced. The increment of housing density started to be unprecedentedly emphasized in public housing development for the purpose of land-saving. The Chinese identities of socialistic public housing were generally formed in the 1970s and significantly influenced the public housing development, as well as the urban morphology, in the following decades.

In order to solve the problem of housing shortage, some new development strategies were introduced. They presented two parallel but seemingly contradictory trends – centralization and decentralization, which actually revealed a general effort to explore diversified approaches for the public housing development. In the 1970s, according to the concept of “comprehensive development and unified construction”, the unified construction of public housing started to be promoted in addition to the danwei self-construction. In comparison with the previous popular approach that separated the construction of housing (by danwei) and urban infrastructure/facilities (by municipality), this “centralized” new strategy stressed the responsibility of the local government in matters of public housing development. Yet, housing allocation was still based on danwei. The unified construction by local government could hence improve the efficiency housing construction and facilitate the defragmentation of urban form. The OUHDs and other municipal departments responsible for unified construction were established in Beijing and other Chinese cities. As a result of this, large-scale residential areas started to be developed.

At the same time, the decentralization of housing development applied in Beijing was presented in two bottom-up strategies: danwei self-financed housing construction and the promotion of housing self-extension. From 1974, in order to impel danwei self-financed housing construction, the municipal government relaxed the regulation and permitted danwei exploring their own financing means for developing public housing in the lands they occupied. This strategy indeed promoted the public housing development and alleviated the housing problem. In the old city of Beijing, the danwei self-financed housing construction generated a new wave of housing development.

From 1974 to 1986<sup>30</sup>, the total floor area of new public housing construction in the old city was 7 million m<sup>2</sup>, which accounted for 70% of that since 1949 (Dong Guangqi, 2006, p.200). This bottom-up strategy of activating danwei self-construction was continued and further developed in the following market-oriented reform.

Another bottom-up strategy was the promotion of housing self-extension by residents. In the late 1970s, the strategy of “extending, extruding, enlarging”, which meant permitting the self-extension of hutong courtyard houses, was promoted in Beijing. Danwei was even encouraged to provide building materials for its employees’ housing self-extensions. In particular after the Tangshan earthquake in 1976, many temporary shelters that were built by the residents were actually legalized. In fact, the self-extension strategy led to the proliferation of illegal construction for housing not only in hutong areas but also in newly-built public housing areas from the 1970s.

Although those bottom-up strategies partly alleviated the problem of housing shortage, their side effects were also obvious. The uncontrolled decentralization of housing construction largely destroyed urban form, whether in the hutong areas or dayuan areas, and caused urban fragmentation. Especially the promotion of housing self-extension directly accelerated the transformation from hutong courtyard to messy dazayuan (mixed-yard). In addition, the new housing construction without integral planning or coordination led to the deficiency of urban infrastructure. The unplanned development actually reduced the quality of living environments.

It was also in the late age of the Cultural Revolution that the fundamental structure for the physical planning of public housing areas – the 3-level planning structure of Residential District-Quarter-Cluster – was established. In the mid-1970s, the planning concept of Residential District was introduced along with the promotion of unified construction in public housing development. The planning concept of Residential District was composed of a 3-level structure: the Residential District (居住区 Juzhuqu) for 30,000-50,000 residents, the Residential Quarter (Xiaoqu) for 5,000-10,000 residents, and the Residential Cluster (组团 Zutuan) for 1,000-3,000 residents. A residential district was usually composed of several residential quarters, each of which contains some residential clusters. The standards of public facilities and infrastructure were set up at different levels according to the amount of residents they accommodated. From 1975, the introduction of planning concept of Residential District, together with the unified construction of public housing, facilitated the

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1986 is the year when the unplanned, danwei self-financed housing construction in the old city of Beijing was officially prohibited.

developments of residential districts in Beijing, including Tuanjiehu (figure 5-5), Jinsong (figure 5-6) and Qiansanmen. But in the 1970s, the communal facilities for public service were not emphasized in the residential planning due to predominance of leftist thought. This resulted in the insufficiency of public service facilities in the public housing areas developed during that period. Nevertheless, the 3-level structure of Residential District-Quarter-Cluster determined the planning of public housing areas in Beijing and other Chinese cities. Its influence can still be evidently seen in the spatial planning of residential areas today. In this 3-level planning structure, the Residential Quarter (Xiaoqu), as a basic cell independently accommodating urban residents' daily life, was still the most important unit for the planning of public housing areas.

As aforementioned, the linear-arrayed, multi-storey row-housing had become a major type of spatial layout in the planning of public housing areas since the end of 1950s. This trend developed onto an extreme level in the 1970s. In order to save land and to increase housing density, the buildings were simply parallel and the outdoor space was reduced. The heights of multi-storey apartment buildings were raised by lowering the height of storey and increasing the number of storeys<sup>31</sup>. Because of the impact of the ultra-leftist ideology, the free-style or flexible layouts were refused. As the most popular spatial layout in public housing development of Beijing in the 1970s, the merely linear-arrayed row-housing was undoubtedly monotonous and was thus criticized as "barracks" style (figure 3-6). However, in terms of its economy and adaptability to the local climate, the linear-arrayed layout was still widely applied in the following decades, while its design was continually improved.

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The multi-storey apartment buildings that emulated the Soviet designs usually had 3-4 storeys, of which the height of each storey was 3.2-3.3 meters. By the 1970s, the storey height had lowered to less than 3 meters, and the number of storeys had in general increased to 5-6.



Figure 3.6  
*Cityscape of a typical former socialistic public housing area in Beijing*

In the meantime, some new spatial layouts or building types were introduced for the purpose of land-saving. The multi-storey “towers” (figure 5-14) started to be popularly adopted in the public housing developments. In the physical planning of public housing areas, the tower apartment buildings could be a more effective way to increase housing density in comparison with the row-housing. The tower was also more frequently adopted in housing construction on small or irregular sites. But the inconvenience of tower buildings was also evident: not all dwellings enjoyed preferable sunlight and natural ventilation. Moreover, the most significant innovation in the development of building types was the introduction of high-rise apartment buildings. Actually, the “People’s Commune Mansions” built in 1960 can be seen the earliest attempts of high-rise residential buildings in Beijing. Along with the increasing demand of raising density and the development of concrete structural technologies, the high-rise apartment buildings began to be largely developed in the early 1970s. The Qiansanmen Residential District in Beijing, which was planned in 1975 and completed in 1978, is the first high-rise public housing area that was attained in China (figure 3-7). The new high-rise buildings included both high-rise slabs and high-rise towers. In fact, almost all major spatial layouts or building types in the public housing development of Beijing had emerged by the late 1970s.



Figure 3.7  
*Qiansanmen Residential District – the first high-rise residential area in China*

From the early 1970s, the housing design standard was largely improved, especially in comparison with the housing standard in the early Cultural Revolution. In 1973, a new housing design standard was stipulated by the state. Building floor area, instead of living floor area, was used as the criterion to control the area of an apartment. The building floor area per family was to be 34-37 m<sup>2</sup> and 36-39 m<sup>2</sup> in extremely cold areas. The standard of construction costs was also largely enhanced (Lü Junhua, Rowe and Zhang Jie, 2001, p.176). The enhancement of housing standards also came along with the widely accepted idea of one apartment per family and small-sized apartment designs. Under the framework of standard design, housing types were further localized and diversified. From 1970, the national general standard designs were ceased and the standard designs were all carried out locally.

In Beijing, more dwelling types were developed along with the introduction of the aforementioned new building types, including the multi-storey tower and high-rise apartment buildings. Besides that, the designs of the mainstream dwelling-unit apartment housing were also improved in many aspects. For example, based on the “small lobby” design, the function of lobby in an apartment was further concerned in the 1970s. So, the so-called “small and light lobby” apartment design was developed. This small lobby could receive direct or indirect sunlight, though (figure 5-31).

With respect to the architectural forms of public housing, the designs were further simplified in the late Cultural Revolution and its period of influence. That can be seen as a result of both the stress of economy in public housing development and the development of industrialized building. By the 1970s, the merely decorative designs had almost disappeared from the façades of residential buildings. The buildings presented in a functionalistic style: the façade was mostly composed of simple brick or concrete walls, only with simple ornaments on window frames, door canopies, parapets and eave ends which were often made by prefabricated components (figure 5-65). Since this 1970s simple style facilitated housing mass production, it continued

to influence the public housing architectural designs in the 1980s and 1990s. But this style evidently neglected building identities and was thus mocked as “matchboxes”.

As an efficient approach to solve the problem of housing shortage, the industrialized building was largely developed in the 1970s, along with the process of modernization and industrialization. The construction of brick-concrete apartment buildings had been partly industrialized by widely using machinery. The industrialized structural technologies that were introduced in the late 1950s, including block system and prefabricated concrete panels, had been well applied till the 1970s. The new building systems such as moulded concrete panel cast in situ and concrete frame began to be introduced and developed in the mid-1970s. The standard design, manufacturing and construction technology of each building system was developed for the “standardization of systems”, which largely boosted the industrialized building for housing. In addition, the Tangshan earthquake in 1976 led to the emphasis of seismic design. The technical standards of public housing design were thus reviewed and updated.

#### § 3.4.4 Chinese Public Housing in Development and Transformation – The Early Age of the Reform (1979-1991)

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A significant transformation in modern Chinese history occurred in 1978. After 30-year attempts to develop a planned economic system, a 20-year “self-reliant” development and a series of political movements, an industrialized but unbalanced economic structure was formed in China. A modern heavy industrial sector was established, with restraint of consumption and sacrifice of agriculture, light industry and tertiary production. The high accumulation in heavy industry was not beneficial to the significant improvement of individuals’ well-being, and the emphasis of egalitarianism even limited the efficiency of productivity. That unbalanced situation was worsened by the Cultural Revolution. The national economy was thought to fall into stagnancy. Therefore, China launched the “Reform and Opening-up” (改革开放 Gaige Kaifang) in 1978. The Reform is not only a transformation of national policy from the ultra-leftist “class struggle” to the economic development, as it was originally proposed, but also a market-oriented, gradual transition of abandoning the Soviet planned economic mode and promoting market economy. In principle, the history of China’s Reform can be divided into two phases: before 1992, and the transition from the planned economy to the “socialistic market economy” after 1992. During the former, the planned economic system was still officially acknowledged but the private economy had been gradually developed.

China's Reform and Opening-up soon after got caught up in the latest wave of globalization, the displacement of manufacturing industries from developed countries into developing countries. The Reform and Opening-up implied an ethical change from the highly centralized collectiveness to the tolerance, at least economically, to individuality, as well as a top-down intervention for marketization. Dependent upon a large amount of educated laborers and the attractiveness of huge domestic market, China soon became involved in the re-division of world economy and became the "world factory". The Reform boosted the economic boom of China in the past 30 years. China became the second largest economy in the world by 2011. The economic commercialization inevitably induced social transformation. The Chinese society started to tend to be opened and diversified. Nevertheless, the development of market economy also brought on and intensified social polarization and stratification. Without an effective balance to free market, social inequality increasingly becomes a problem.

The tremendous socio-economic transformation profoundly influenced the socialistic public housing development in Beijing and other Chinese cities. In general, the evolution of the Chinese socialistic public housing after the start of the Reform can be divided into two phases in accordance with the transformation of socio-economic system: the public housing was still the main sector of urban housing provision in China, especially in Beijing, before 1992; and afterwards, the Chinese socialistic public housing system came to its "epilog", along with the transition to the market economy, and was finally terminated in 1998. These two phases will be separately discussed in this and the following sections.

Started from the privatization of agricultural production in rural areas<sup>32</sup> and the setup of Special Economic Zones (such as Shenzhen) in coastal areas, the economic reform successfully stimulated the economic growth and its focus soon moved to urban areas. In 1984, the announcement of the "Planned Commodity Economy" establishment indicates that China decided to develop its own "Socialism with Chinese Characteristics". This economy model was based on public ownership, as national economic policy guiding the early Reform. Albeit the public economy still played a dominant role in general, the centrally commanded, Soviet-style planned economic system was gradually decentralized. Local government and state enterprises received much more financial and management independency. The development of a collective economy, as well as an individual and private economy, was also promoted. The

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In 1980, with the official establishment of "Household Contract Responsibility System", the rural people's commune and its collective mode of agricultural production started to be abandoned, and household was re-used as the basic unit of China's agricultural economy,

equalitarianism in wage system was broken. Commodity and market was not regarded as a taboo anymore but as an important tool to develop the national economy.

The Reform largely contributed to the readjustment of the unbalanced economic structure. Thanks to the economic reform, the investments in heavy industry, light industry and agriculture tended to be balanced, and the tertiary industry began to be developed. In order to improve the living standards of the individual, the development of the non-productive sector, including housing development, was unprecedentedly stressed. For instance in Beijing, the completed floor area for housing from 1979 to 1988 (48.5 million m<sup>2</sup>) greatly exceeded that for factory buildings in the same period (8.4 million m<sup>2</sup>) (Cao Zixi and Yu Guangdu, 1994, p.194). The individual incomes, in the form of wages or benefits, were growing fast. Decentralization resulted in drastic change in the distribution pattern of the national income: proportions of government, enterprise and individuals' income were 33.5%, 19.3% and 47.2%, respectively, at the end of the 1970s; but the proportions changed into 18.7%, 28% and 53.3%, respectively, in the mid-1980s (Lü Junhua, Rowe and Zhang Jie, 2001, p.195). In this process, the incomes were transferred to the more "private" sectors, including state or collective enterprises. The introduction of "commodity economy" significantly boosted the economic growth in China. The Gross Domestic Product (GDP) grew from CNY 364.52 billion in 1978 to CNY 2,178.15 billion in 2006, and GDP per capita increased from CNY 381 in 1978 to CNY 1,893 in 2006.

However, the exercise of planned commodity economy also led to a series of socio-economic problems. Because of the contradiction between the market-oriented reform and planned economic system, the economic fluctuations inevitably happened in the mid and late 1980s. The inflation and economic overheating resulted in several rounds of government interventions of economic contraction in the second half of the 1980s. The economic development in China filled into a quandary of economic "chaos once deregulated and stagnancy once regulated". The continual inflation also caused political instability. On the other hand, since danwei largely received financial and management independency and thereby became the key link in the redistribution the incomes in the process of decentralization, the individuals' incomes, in the form of both wage and non-monetary benefits such as housing, were increasingly differentiated between different danwei or within a danwei. The privilege in redistribution, as well as corruption and bureaucracy, started to be popularly criticized by the public.

The high-speed economic development accelerated the process of urbanization. From the late 1970s, the population that was sent to the countryside in the early Cultural Revolution largely returned to the city. As a result of economic reform, the booming urban economy based on manufacturing and service industries further boosted the growth of urban population. The development of small cities and towns was encouraged in the 1980s, but the big cities still faced the increasing pressure

from growing population. In 1980, the central government decided not to emphasize the role of Beijing as national economic center anymore in order to optimize the urban functions. The second official master plan of Beijing – the Master Plan of Urban Construction in Beijing – was developed in 1982 and approved in 1983. In this new master plan, Beijing was only planned as the “political and cultural center” of China. The development of heavy industry was to be limited and the urban population to be controlled. The spatial structure of the city was basically maintained, but the improvement of environmental quality and the protection of the historical cityscape started to be stressed (figure 3-8). Nonetheless, along with the economic boom, the total population of China had reached 1.16 billion by 1991. By then, the percentage of urban residents had amounted to 26.94%. The population of Beijing Municipality was 10.94 million in 1991, which had exceeded the objective proposed by the 1982 master plan (10 million), and the permanent urban residents was 8.08 million. The continual growth of urban population inevitably intensified the housing problem.



Figure 3.8  
Urban master plan of Beijing in 1982  
(Source: Dong Guangqi, 2006, p.44)

Actually, housing development was emphasized from the beginning of the Reform. As a means to solve urban housing problems and to improve the living standards of the individual, the socialistic public housing was developed with an unprecedented speed. In Chinese cities, the living floor area per capita increased from 3.6 m<sup>2</sup> in 1978 to 6.7 m<sup>2</sup> in 1990. In the early and mid-1980s, the proportion of public housing in the housing stock of Chinese cities reached the highest level (figure 3-9). In 1982, the proportions of public housing that was directly managed by municipal housing management authorities, danwei self-managed public housing and private housing were 21.17%, 55.77% and 17.03%, respectively (Feng Jun, 2009, p.223). In Beijing, the completed floor area of urban housing was 68 million m<sup>2</sup> from 1978 to 1991,

which largely exceeded the total floor area of urban housing that was built in the period before the Reform (27.4 million m<sup>2</sup>). In the same period, the housing standard was also significantly enhanced. By 1992, the living floor area per capita of urban residents had been 12.09 m<sup>2</sup> in Beijing. Identified by the publication of technical guidelines for housing in the mid-1980s, not only the quantity but the quality of public housing was emphasized. From my point of view, the period from 1979 to 1991 is the second “golden age” of socialistic public housing development in Beijing and other Chinese cities.

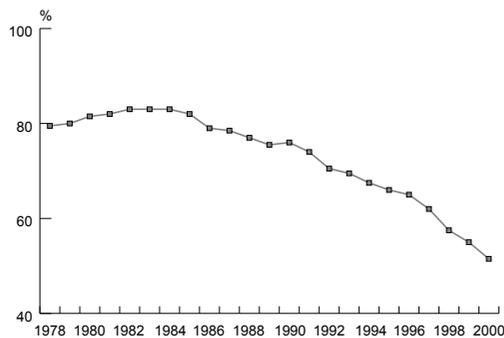


Figure 3.9  
*Proportion of public housing in China's urban housing stock (1978-2000)*  
 (Source: Feng Jun, 2009, p.215; chart by author)

During this period, new concepts and policies on urban housing development were introduced along with the market-oriented reform. There were two general trends – commercialization and decentralization, which inevitably influenced the development of socialistic public housing. As early as in 1980, Deng Xiaoping proposed to regard houses as “commodities”. After years of debate, it came to a consensus in the government that the aim of “housing reform” should be the commercialization, which would finally let people afford to buy houses. In the early Reform, the reform of existing public housing system focused on the rise of rents and partly sale of public-rented dwellings. In fact, because the individuals’ share in the distribution of incomes was continually rising, the low-rent policy of public housing had to be changed. However, preceding the problem of serious inflation and opposition from the tenants, several efforts on raising the public housing rents in the 1980s and the early 1990s all failed. At the same time, the attempts to partly selling public housing were not really successful either. The pilot projects of the sale of public housing caused many side effects, such as selling houses with unreasonably low prices and buying bigger houses through the privilege, and thus had to be ceased in a short time.

On the other hand, the promotion of real estate development in Chinese cities, as another important strategy of housing commercialization, was going more smoothly. From 1980, the OUHDs and other public bodies formerly responsible for public housing development, including the construction departments of some danwei, were transformed as real estate development companies with the characteristics of administrative institutions and were further entrepreneurialized after 1984. They started to develop "commodity housing" for sale. The individual purchase of commodity housing was also encouraged. But since the public housing allocation by danwei was the dominant approach of housing provision for urban residents, the main purchaser of commodity housing was the danwei. Generally, the proportion of public housing in the Chinese urban housing stock began to decrease in the second half of the 1980s. However, the public-rented sector was still predominant in Beijing under the planned commodity economy.

The promotion of real estate development also resulted in the "comprehensive development", a commercialized transformation of unified construction. In comparison with the conventional method of unified construction of public housing, the comprehensive development emphasized the business perspective. It was considered as an effective approach not only to create accumulation of wealth (profits) but also to facilitate the construction of auxiliary facilities and infrastructure, and thus could link the economic, social and environmental benefits. By the mid-1980s, the comprehensive development had become an important mode of public housing development.

The commercialization of housing development, however, also induced some new problems. In practice, the promotion of real estate development led to the irrational emphasis of housing density in the public housing development. Along with the introduction of business perspective in housing construction, the pursuit of profits, instead of the concern of protection of arable land, became increasingly the major and direct motivation for largely raising the floor area ratio in housing developments. The higher housing density was often achieved through the scarification of function and comfort and therefore incurred the criticism from the residents. Contrary to the original expectation, the balance between the economic, social and environmental benefits could not be attained by the promotion of real estate development. In the meantime, the commercialization made the public housing development largely rely on the trend of macro-economy. Different from the situation before 1978, of which the housing construction was mainly determined by the state investment, public housing development became unprecedentedly influenced by the flow of funds within the macro-economy and its fluctuations, especially after the mid-1980s. Accordingly, the housing development also experienced the fluctuations in the second half of the 1980s. The completed urban housing construction in China reached 95.65 million m<sup>2</sup> in 1985 but decreased to 48.25 million m<sup>2</sup> in 1990, and again increased to 69.19 million m<sup>2</sup> in 1992.

Together with commercialization, came along the further decentralization of the public housing system. As aforementioned, the decentralization of planned economic system resulted in more financial and management independency of local governments and enterprises. Danwei increasingly played a key role in the redistribution of incomes. Under this background, the danwei self-financing was further promoted and had become the main approach of public housing development by the 1980s. By exploring their own financing means, danwei could either self-develop public housing or buy commodity houses for renting to their employees. The danwei self-financed housing development no doubt alleviated the insufficiency in housing investment and thus highly boosted the public housing development in the 1980s. Nevertheless, the side effects of self-financing began to emerge. As a fundamental benefit for urban residents, the public housing allocation was based on danwei. Within the process of decentralization, the difference of housing conditions between the employees of “rich” and “poor” danwei was enlarged. Even in one danwei, the housing conditions between officers and ordinary staff members were further differentiated. While the public housing allocation and construction should correspond with the standards that were stipulated by the state and local governments, the public housing of higher-standard started to be popular in those rich danwei. As part of the criticism to the privilege and corruption, the complaint for the differentiation of housing conditions was gradually rising. Moreover, the self-financed developments of public housing, which in many cases did not coordinated with urban planning, further intensified the deficiency of urban infrastructure, as well as the urban fragmentation.

Preceding the challenges derived from the commercialization and decentralization, the conventional regulation based on administrative commands was growingly inadaptable to the public housing development under the planned commodity economy. In the market-oriented reform, the establishment of a legal system to guide market forces became inevitable. The legislation that is related to urban housing development was emphasized during the 1980s. In 1980, the “Interim Regulation on the Standards of City Planning” stipulated the requirements for public facilities in residential districts and residential quarters. In 1983, the “Stipulation on the Strict Control of Housing Standard in Cities and Towns” was announced by the State Council to limit the development of higher-standard housing. The “Blue Paper on Technical Policies of China” that was published in 1985 stipulated the detailed technical guidelines in housing planning and design. And in 1987, the “Code for Housing Design” was promulgated for the first time. Finally the “Law of City Planning” that was enacted in 1989 legally placed housing development under the supervision of local government. In the same period, many local decrees on urban housing development were also announced.

Based on the 3-level planning structure of Residential District-Quarter-Cluster, which had been introduced since the mid-1970s, the planning concept of public housing areas was further developed and optimized in the early period of the Reform. Together

with the comprehensive development, the integral planning was emphasized from the 1980s. This meant integrally planning residential areas with auxiliary facilities and urban infrastructure. The public facilities were stressed in the planning of public housing areas according to the standards of the size of facilities and their specific service targets per thousand people<sup>33</sup>. The quality of outdoor environments was also reemphasized in the physical planning. The human-centered planning and design became a core issue. In Beijing, the representative public housing areas that were planned in the early Reform included the Fangzhuang Residential District (figure 5-8) and Enjili Residential Quarter (figure 5-9).

From the early period of the Reform, a general trend of the spatial layout in the physical planning of public housing areas was diversification, which actually presented the effort to meet the increasingly diversified and individualized social demands along with the market-oriented reform. The monotone and homogeneity of housing areas that were mainly composed of linear-arrayed, parallel row-housing was broken. A new type of spatial layout – multi-storey housing cluster – began to be widely applied. In comparison with either perimeter courtyard block or linear-arrayed row-housing, the spatial layout of multi-storey housing cluster was more flexible. With the building entrances toward one or more inner courts, a housing cluster was usually centripetal so as to create a semi-public space (figure 3-10). Furthermore, the spatial layouts of public housing areas was not limited to one or two building types but in the form of mixture of several different types from the early 1980s. It was the mixture not only of row-housing, tower or housing cluster but also of the multi-storey and high-rise, usually in a flexible pattern (figure 3-11). In general, the diversification started to be particularly emphasized in the spatial layouts of public housing developments.

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The system of the standards (ration indexes) of public facilities per thousand people is still adopted for the physical planning of residential areas today.



Figure 3.10  
*A multi-storey housing cluster*



Figure 3.11  
*Mixture of different building types in a public housing area*

However, with the emphasis on land-saving and raising housing density, the wide application of high-rise buildings in the public housing development was seemingly an inevitable choice. But there were arguments from the beginning that opposed the large-scale development of high-rise mainly for its high costs and poor environmental and social effects. Especially in Beijing, the high-rise developments would seriously damage the historical cityscape. The opponents also argued that the land-saving could be also achieved by increasing the depth of the multi-storey apartment buildings. It was a heated and famous debate between “high-rise and lower building density” and “mid-rise and higher building density” among Chinese architects and scholars from the early 1980s. This debate evidently did not draw any conclusions. With the trend of raising housing density that was impelled by the commercialization of housing development, the increases of the number of storeys and the building depth were in fact simultaneously developed<sup>34</sup>. On the one hand, the proportion of high-rise housing development in Beijing amounted to 25.01% in the period from 1978 to 1989. In the late 1970s, the slabs was still the majority in the developments of high-rise public housing, but from the mid-1980s, the high-rise towers, as a more “land-saving” building type, were widely applied. On the other hand, many new types of multi-storey apartment buildings with enlarged depth were developed, and the depth of high-rise buildings was also increased. Nevertheless, the emphasis on raising density also resulted in unwelcome spatial layouts or building types, such as the buildings of east-west orientations, by the scarification of housing comfort.

A general trend of the designs of public housing in the early period of China's Reform was also the diversification, under the framework of standardization. From the beginning of the Reform, the design standards of public housing were largely improved, as a result of stressing urban housing development. In 1977, 1978 and 1981, the national housing standards were continually upgraded. By the 1980s, the housing design standards for the ordinary urban resident in Beijing, which were usually higher than the national standards, had been 56 m<sup>2</sup> per apartment in multi-storey building, 62 m<sup>2</sup> per apartment in high-rise slab and 64 m<sup>2</sup> per apartment in high-rise tower, respectively. In 1984, the concept of the "apartment unit", which legally conveyed the idea of one apartment with an independent kitchen, a toilet and corresponding amenities for one family, was introduced by the Blue Paper on Technical Policies of China. This concept was reinforced by the Code of Housing Design in 1987. It actually indicated that the quality of public housing, in addition to the quantity, began to be emphasized. Together with the concept of apartment unit, the usable floor area became the major standard of housing allocation. Under the background of improving housing standard, the balance between standardization and diversification was unprecedentedly emphasized. In order to meet increasingly diversified and individualized housing demands, growing together with the commodity economy, the diversification of standard designs became a trend. In Beijing, the traditional form of housing standard design, of which the referable standard designs centrally developed by the municipal architectural design institute, was changed from the late 1980s. Diversified types of public housing, of either the multi-storey or high-rise, were developed under the strict control of unified housing design standards, especially the ration indexes of floor area.

The diversification also presented in the evolution of floor plans of apartment houses. With the social diversification and individualization, there was a higher demand for different spaces in people's daily lives. The division of different functional rooms in one apartment unit was stressed by the Blue Paper on Technical Policies and Code of Housing Design. The appearance of independent living room exactly presented the diversification and individualization in family life. In Beijing, the small living room of about 10 m<sup>2</sup>, instead of small lobby, had been placed on the floor plans of public housing apartments since the early 1980s (figure 5-32). From the mid-1980s, the designs of "bigger living room, kitchen and bathroom, smaller bedroom(s) and more storage closets" (or "bigger living room and smaller bedrooms") were promoted (figure 5-36).

The increasing stress of raising housing density indubitably had impacts on housing design. In the process of diversification of public housing types, there was an effort to balance housing comfort, limited standards of floor area and higher density. As aforementioned, the number of storeys and the height of apartments were evidently increased in the housing designs of the 1980s. As a result, many large-depth dwelling types were developed. For example, the multi-storey designs with receding stepping

of floors on the north side of buildings (figure 5-36) or with small patios for lighting (figure 5-34) were widely applied in Beijing. In comparison with the former type that is still popularly adopted in the designs of residential buildings today, the latter was often unwelcome by the users for the mutual inferences between neighbors, and was therefore gradually replaced by the housing plans with external recesses for lighting (figure 5-36). The similar tendency also presented in the development of the designs of high-rise apartments: many new and flexible housing types with more dwellings in each floor plan were developed. However, the increase of housing density, while in many cases was carefully designed, inevitably scarified the comfort of living, including the benefits of sunlight and natural ventilation.

The diversification was also an overall trend in the architectural styles of public housing, as the aesthetic presentation of social transformation. While the simple and functionalistic style was still popular in the architectural designs of public housing due to the economic reason, the substantial increase of new housing types resulted in the diversification of building forms. The homogeneous “matchboxes” were gradually replaced by heterogeneous and flexible architectural designs. From the 1980s, the pursuit of local architectural identities became a new tendency in the designs of public housing, which can partly be seen as a result of the introduction of the “postmodernist” architectural style. Along with the economic growth and social diversification, more decorative elements that presented local identities reemerged in building façades. But different from the nationalist style in the 1950s, the new ornaments were often abstract, postmodernist “symbols” (figure 5-67).

The Reform accelerated the technical improvements in public housing development. The adoption of Opening-up policy conditioned more opportunities of introducing advanced building technologies and methodologies. And the continual economic growth made those industrialized technologies that used to be “luxury” start to be widely applied. In Beijing, the structural technology of concrete cast in situ, as a seismic design, was largely promoted. In the meantime, the diversification was significantly stressed in the standardized and industrialized building. The standardization of components and standardization of systems were regarded as effective methods to harmonize housing building diversification and industrialization (Zhang Jinwen and Qiu Shengyu, 1999). The building components had been systemized in order to meet the requirements of diversified housing types. The general design references with various technical designs adaptable to different buildings, such as 88] series in

Beijing<sup>35</sup>, were well developed and widely applied in housing designs. The technical improvements also presented in the housing amenities and infrastructure. By the 1980s, the kitchen and toilet facilities had been popularly equipped, and the gas pipelines, TV antennas and telephone lines had begun to be introduced into public housing areas. In addition, there were technical upgrades for existing public housing stock. For example, the housing apartments in Beijing that were damaged by the 1976 earthquake were all structurally reinforced.

### § 3.4.5 **Epilog of the Chinese Socialistic Public Housing – The Transition from the Socialistic Planned Economy to the Socialistic Market Economy (1992-1998)**

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In 1992, a more radical phase of China's Reform began. The official announcement of the transition from a socialistic planned economy to a "socialistic market economy" greatly accelerated the market-oriented reform, but also brought the socialistic public housing system to its epilog. The housing commercialization and privatization was further impelled, while it was modest at the beginning. Eventually in 1998, a radical housing reform announced the termination of the socialistic public housing system in China. In this period from 1992 to 1998, the evolution of Chinese socialistic public housing was more significantly affected by the market-oriented reform.

The motivations for the decision of the transition to the socialistic market economic system were complicated. In China, along with the economic growth, there was the discordance between the planned economic system and rising market forces, which led to the economic fluctuations and serious inflation during the second half of the 1980s. The privilege and corruption increasingly became a problem. The social diversification and individualization also induced the rise of liberalistic thought and appeals for political democratization. The social discontent resulted in the protest march and riot in 1989, and thus threatened the political stability. In the Communist Party, there was a continual debate on whether adhering to the traditional planned economic system or further liberating market forces in the late 1980s and the early 1990s. In the meantime, from the destruction of the Berlin Wall in 1989 to the disintegration of the Soviet Union in 1991, the collapse of Socialist Camp in the Soviet Union and Eastern Europe greatly shocked China. The Soviet-style planned economic mode, as well as

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88] is the Chinese abbreviation of the General Architectural Design References of North China and Northwest Regions that were published in 1988. As the technical design standards, the 88] series are continually updated and still widely used in architectural designs today.

the ideology of Stalinist socialism, was unprecedentedly doubted. With this domestic and international background, the acceleration of economic development by further promoting marketization was regarded as an effective way to ensure social, economic and political sustainability.

In 1992, after Deng Xiaoping's series of speeches on his inspection tour in southern China, the 14th National Congress of the Communist Party officially announced the objective of constructing the socialistic market economy in China. The ideology that linked socialism to planned economy was abandoned. On the contrary, market could be a basic economic form of socialism. The transition from the planned economy to the socialistic market economy caused profound changes of China's socio-economic structure. The dominance of mandatory planning gave way to the dominance of market forces in economic operations. Singular public economy was replaced by the coexistence of multiple economic sectors of different ownerships. It was the economic reform not just of commercialization and decentralization but of marketization and privatization. At the same time, the transition to market economy also speeded up the opening-up. China further became involved in the process of globalization and increasingly appealed the global capital. Foreign direct investment (FDI) continually moved in and supported the boom of the export-oriented economy. In fact, the economic marketization boosted the high-speed GDP growth in China till today. From 1992 to 1997, the average GDP growth rate per year almost reached 12%.

However, the market-oriented reform did not always go smoothly. Without effective measures to balance the market forces, the marketization immediately induced the economic overheating in 1992 and 1993, which was represented by a serious real estate speculation. The GDP growth rate jumped up from 9.2% in 1991 to 14.2% in 1992. The real estate bubbles led to the economic disarray and encroachment of inflation. The central government had to intensify the macro-economic regulation in 1993, and the Chinese economic development was re-stabilized by 1997. But in that year, the burst of the Asian financial crisis inevitably impacted the Chinese economy. The state thus applied a series of economic stimuli of promoting domestic consumption and investment. The termination of the socialistic public housing system, as well as the large-scale housing privatization, by the radical housing reform in 1998 was just an integral part of the economic stimulus plan.

The leap forward of market-oriented also accelerated the transformation of social structure, which meant not only the social diversification/individualization but also the social stratification/polarization. Along with the process of economic marketization, the non-public sectors were consistently growing up. But many publicly owned enterprises were either privatized or bankrupt. There was a shrinking of employment

in the public economy but a growing labor market in private sectors<sup>36</sup>. Urban residents increasingly lost their social benefits that were guaranteed by the public economy and were thrown into the “market”. On the other hand, the marketization and privatization generated the new rich. The development of private economy resulted in an “entrepreneur” class. The combination of political power with capital intensified the uneven distribution, transfer and redistribution of interests. Then, the Chinese society was sharply stratified in the process of the market-oriented reform. In comparison with the situation in the 1980s, the difference of incomes and benefits between different social strata was further enlarged<sup>37</sup>. In the transition to the market economy, the efficiency was peculiarly stressed prior to the equality.

The marketization and following economic boom further impelled urbanization. The prosperity of urban economy attracted an unprecedented population migration from rural areas to urban areas or from small cities to the big metropolises. The proportion of urban population in China grew from 27.46% (1992) to 31.91% (1997). In Beijing, permanent urban residents increased from 8.19 million in 1992 to 9.48 million in 1997, in which the amount of people without hukou registration in Beijing sharply increased from approximate 0.5 million to more than 1.5 million in the same period. Meanwhile, the urban planning was revised in order to adapt to the transition to the market economy and to cope with the rapid urbanization. In 1993, the Urban Master Plan of Beijing (1991-2010) was officially approved and enacted (figure 3-12). The 1993 master plan presented the idea of establishing the socialistic market economy, and Beijing was proposed to be “a worldwide famous historical city and a modern international city”. The development of high-tech industry and tertiary industry, as the economic sectors “adaptable to the characteristics of a capital city”, would be promoted. The permanent population was to be controlled to 12.5 million and floating population to 2.5 million in 2010. With respect to the spatial structure of the city, two “strategic shifts” were proposed: to shift the focus of urban development from the city proper to the satellite towns and to shift from urban expansion to urban renewal. The overall conservation of the historical city started to be emphasized. There was a specified chapter on housing development in the 1993 master plan, which did not just propose the objective of increasing the housing building floor area per capita from 11.6 m<sup>2</sup> (7.7 m<sup>2</sup> of living floor area) in 1990 to 14 m<sup>2</sup> (9.5 m<sup>2</sup> of living floor area) in 2000

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36 For example in Beijing, job opportunities that were provided by public sectors began to reduce from 1993, but the total employment of non-public sectors increased 2.5 times from 1992 (146,000 persons) to 1997 (512,000 persons).

37 In 1985, the difference of family income between low-and middle-income households and high-income households in urban areas was less than two-fold, but in 1996, the difference was enlarged to about three-fold.

and to 16.5 m<sup>2</sup> (11 m<sup>2</sup> of living floor area) in 2010, but also stipulated the planning and design principles of urban housing developments.



Figure 3.12  
*Urban master plan of Beijing in 1993*  
(Source: Dong Guangqi, 2006, p.72)

Within the process of economic marketization, the commercialization of land use was greatly promoted. The land lease system was introduced in China in the form of “paid assignment and transfer of the right of land use”. As early as in 1988, the amendments to the Chinese Constitution had issued the principle of paid use of state-owned lands in Chinese cities. In 1990, the “Interim Regulations of the People’s Republic of China Concerning the Assignment and Transfer of the Right to the Use of the State-owned Land in the Urban Areas” was promulgated and symbolized the legalization of the land lease system in China. After the pilot projects in some coastal cities in the 1980s, the land lease system was widely applied in Chinese cities from 1992, with the transition to the socialistic market economy. In Beijing, the first case of land lease was issued in 1993. It was the establishment of land lease system that conditioned the further commercialization of urban housing stock and largely promoted the development of the real estate market.

The transition from the planned economy to the market economy accelerated the pace of housing reform. In 1994, the new policies of housing reform were announced. As a result of the market-oriented ideological transformation, owner-occupation was

proposed as the objective of China's housing reform. The proposed urban housing stock in the future was to be mainly composed of two sectors: the owner-occupied, subsidized "affordable housing" sector for the low-and middle-income groups and the market housing sector for the high-income earners. But the socialistic public housing system was retained in the 1994 housing reform, while the rents were once more planned to be raised in order to partly cover the costs of housing development and maintenance.

The retention of socialistic public housing system indubitably guaranteed affordable and decent housing provision and therefore avoided irrational housing speculation. However, the inadaptability of socialistic public housing to the market economy was rising. On the one hand, the shrinking public economy indicated the reduction of the coverage of public housing sector. On the other hand, the differences of public housing conditions between danwei and between the individuals were further enlarged, as a result of market-oriented reform that boosted the differentiation of financial conditions of different danwei. While many poor danwei were incapable to improve the housing conditions of their employees, the higher standard public housing was popularly developed by the rich danwei. The new effort to raise housing rents was also not really successful. The public housing to a certain extent became a privilege rather than a general social welfare. At the same time, the owner-occupied market (commodity) housing was only affordable by a few high-income earners. The criticism to the inequality of urban housing distribution was continually raised.

But in terms of the neo-liberalistic thought that was popular among Chinese decision-makers and think tanks in the 1990s, the resolution of this housing problem was not to reform and adapt the public housing system to the market economy but to promote housing privatization. The free market was thought as an effective means for "fair" housing distribution. In the meantime, marketization of housing stock, as well as the development of real estate market, was considered as an efficient approach to boost the economic growth. Therefore, the radical housing reform in 1998, as a measure of economic revitalization, was directly triggered by the Asian financial crisis. The Chinese socialistic public housing system finally ceased, and a majority of socialistic public housing was privatized in a few years<sup>38</sup>.

In general, the proportion of the public housing sector in the total urban housing stock continually decreased in the 1990s, as a result of the accelerated housing reform. By 1997, the proportion of the public housing sector had been reduced to about 60%.

However, the socialist public housing was still the majority of urban housing provision before the radical housing reform in 1998. Along with the economic growth and the process of urbanization, the total amount of public housing was still growing. In Beijing, more than 58 million m<sup>2</sup> of urban housing was newly developed from 1992 to 1998 (averagely 8.3 million m<sup>2</sup> per year), 75% of urban housing corresponded to public housing. The housing standards were further improved in quantity and quality. But due to the urban expansion and the lack of available construction lands in the central areas, Beijing's public housing developments in the 1990s focused on the areas out of the 3rd ring. Therefore, the separation of working places and living areas, even in a danwei, became evident.

A new development in the last period of the socialistic public housing system was the combination of public housing and urban renewal. In Beijing, the large-scale urban renewal was proposed by the municipal government in 1990 and greatly boosted by the booming real estate market after 1992. In the 1993 master plan, urban renewal was also stressed as one of "two strategic shifts" of urban development. In terms of the still dominant role of public housing, urban renewal in the 1990s was often combined with the development of public housing, but mainly consisted of wholesale demolition and reconstruction. In the reconstruction of hutong areas, the public-rented dwellings were constructed as resettlement housing for improving the housing conditions of the residents. Meanwhile, some early public housing areas that were developed in the 1950s also started to be reconstructed. Apart from the reconstruction, the renovation of early-developed apartments or dormitories, public housing buildings were also included in the reconstruction<sup>39</sup>.

Along with the market-oriented reform, the public housing development was also more commercialized and profit-oriented in the period from 1992 to 1998. The danwei purchase of commodity houses became increasingly popular in order to provide public housing for their employees. From 1991 to 1994, the proportion of state danwei investments on commodity housing purchase reached 32.7% of the total urban housing investment in China. In Beijing, more housing construction offices of danwei were transformed as real estate development enterprises. The urban development companies, as the enterprises of undertaking public tasks, also became more profit-oriented.

In order to guide the increasing market forces in the housing development, the legislations on the planning, design, construction and management for housing were

further emphasized. In 1993, the “Planning and Design Code of Urban Residential Areas” was announced by the state. This code legally confirmed the 3-level planning structure of housing areas and systematically stipulated the requirements of scales, land uses, auxiliary facilities and infrastructure in residential districts, residential quarters and residential clusters. In Beijing, the “Provisions on the Distances between Residential Buildings” was promulgated in 1994 to guarantee sunlight, sanitation and fireproofing for housing areas, which were growingly threatened by the higher housing density. It was also in 1994 that the state issued the “Measures for the Management of Newly Constructed Residential Areas in Cities”, by which the property management, as a specialized business mode of housing management, was officially introduced. For the purpose of developing the housing industry, the Ministry of Construction issued the “Outlines for the Trial Work of Modernizing the Housing Industry” and the “Outlines for the Technological Development of the Pilot Projects of Modernizing the Housing Industry” in 1996. The establishment of a standardized, industrialized but market-oriented housing production system was proposed. All those legislative measures inevitably influenced the development of public housing.

In principle, the planning and design of public housing areas after 1992 continued two general trends from the 1980s: the diversification and the higher housing density. On the one hand, the integral planning and comprehensive development had become mainstream, so that the newly developed public housing areas were usually well equipped by public facilities and infrastructure. Along with the social diversification and stratification, planning and design of public housing areas tended to be more human-centered and demand-driven in order to meet different demands of living environments. The quality of outdoor space and greenery was particularly emphasized, and the housing types were increasingly differentiated and mixed in a housing area. On the other hand, the further commercialization of public housing development drove the unprecedented concern of higher housing density. The spatial layouts or building types that could efficiently enhance housing density, including perimeter block, east-west oriented slab and high-rise tower, had been already widely applied by the mid-1990s. Some higher-dense building types, such as conjoint high-rise tower, high-rise tower-slab and even high-rise perimeter block, were developed. However, the higher density indeed meant the further scarification of interior comfort of housing apartments.

With the economic boom, the design standards of public housing were continually improved in the 1990s. In 1992, housing design standards in Beijing of the Seventh and Eighth 5-year Plans (1986-1995) were promulgated. It stipulated the housing design standards in three categories: the ordinary workers’ apartments, B-type apartments for the mid-level officers, intellectuals and technicians, and A-type apartments for the senior officers, intellectuals and technicians. The building floor area of ordinary workers’ apartments, in which the majority was to be the 2-bedroom apartments, was controlled to 56 m<sup>2</sup> in multi-storey and 62-64 m<sup>2</sup> in high-rise

buildings, respectively; the B-type apartments (with no less than three bedrooms) were to be 70-75 m<sup>2</sup> in multi-storey and 76-81 m<sup>2</sup> in high-rise buildings, respectively; and the A-type housing (with no less than four bedrooms) were to be 83-92 m<sup>2</sup> in multi-storey and 93-102 m<sup>2</sup> in high-rise buildings. Later in 1996, housing design standards in Beijing of the Ninth 5-year Plan (1996-2000), which were actually the last design standards of the socialistic public housing in Beijing. It enhanced the housing standards again. According to the concepts of housing reform that was proposed in 1994, the housing design standard of the Ninth 5-year Plan was only applicable to the "ordinary housing" for the low-and middle-income households, including the danwei public housing. In this last design standard of public housing, the building floor area of 2-bedroom apartments, as the majority of public housing, was increased to 60-65 m<sup>2</sup> in a multi-storey and 67-72 m<sup>2</sup> in high-rise buildings, respectively; 1-bedroom apartments had to be 45-50 m<sup>2</sup> in multi-storey and 51-56 m<sup>2</sup> in high-rise buildings, respectively; and 3-bedroom apartment were to be 75-80 m<sup>2</sup> in multi-storey and 83-88 m<sup>2</sup> in high-rise buildings, respectively. The design of "bigger living room and smaller bedrooms" became obligatory according to this design standard.

In Beijing, the standard design of public housing that only relied on uniformly-developed, standardized housing plans had been abandoned by the 1990s. As an alternative measure, the standard housing designs were replaced by the "recommended housing designs". Through selecting successful design practices and organizing citywide design competitions, the urban planning authority of Beijing collected good design schemes and edited the "recommended housing design collection" as references for architects. In fact, those recommended designs played the role that the standard housing plans used to do.

As same as in the planning and design of public housing areas, the general trends in public housing design after 1992 were also continued as the diversification and the higher density. The economic marketization and social diversification caused a demand-driven housing market, which inevitably resulted in the diversified housing designs of higher quality, even for the designs of public housing. More and more different housing types were developed, and, as a design adaptable to diversified and individualized family lives, the designs of "bigger living room and smaller bedrooms" had become the mainstream in the 1990s. The independent dining room even appeared in some high-standard public housing apartments. However, as a result of further commercialization of public housing development, the public housing designs increasingly tended to facilitate a higher housing density. The efforts for increasing the number of storeys and the depths of apartments were finally combined. The depth of apartments was further enlarged in either the multi-storey or high-rise public housing buildings (figure 5-37). Apart from the emergence of higher-dense building types, new

housing plans were developed in order to efficiently increase housing density (figure 5-59), while sunlight and natural ventilation had to be further sacrificed<sup>40</sup>.

As a visual presentation of socio-economic transformation, the architectural forms of public housing became increasingly decorative in the transition to the market economy. In the 1990s, the local architectural style was overemphasized in Beijing. Under the slogan of "recapturing the image of the historical city", the application of postmodern elements that were translated from traditional Chinese architecture was greatly promoted in the architectural designs by the municipal government. The façades of newly-built public housing were popularly decorated by this nationalist but postmodern style. Although there were some well-designed, successful cases, the "image of historical city" was often simplified as adding Chinese "big roofs" on modern buildings and thus met rising criticism (figure 5-68). This top-down promoted style gradually faded in the late 1990s.

In the last period of the Chinese socialistic public housing, the technical standards of public housing designs were also continually enhanced. With respect to the economy, the designs of combining load-bearing structure of cast-in-situ concrete and non-load-bearing walls of light materials were widely applied in order to generate more usable floor area. The concept of "life costs" was raised to avoid the debasement of technical standards in housing construction. The environment-friendly or energy-saving measures, such as the application of thermally-isolated walls, roofs and windows, were further promoted. On the other hand, the modern housing amenities, including kitchen and toilet facilities as well as gas pipeline, TV cable and telephone line, had become the standard equipment for public housing by the 1990s. The MEP designs were also upgraded in order to meet the requirements of widespread uses of home appliances.

Last but not least, the market-oriented reform led to the changes in public housing management. In the last few years of the evolution of the public housing system, the specialized, business-oriented property management started to be introduced in the management of some public housing areas. Along with the termination of socialistic public housing system, danwei officially took off its responsibilities as the allocator, developer and manager of public housing.

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With the popular application of air conditioners, the natural sunlight and ventilation seemed not an important manner any more for some decision-makers, developers and architects.

## § 3.5 Conclusions

In this chapter, we briefly reviewed the Chinese socialistic public housing system and its evolution in Beijing within a socio-economic context. Since the People's Republic was founded in 1949, housing has been regarded as a basically social welfare, as well as a means of subsistence. As an integral part of the socialistic planned economy, the socialistic public housing system, by which the state uniformly provided the public housing of low rents for urban residents, was therefore established in Beijing and other Chinese cities. The socialistic public housing used to play the predominant role in solving the urban housing problems in China, but, along with the market-oriented reform, was thought of as inadaptable to the market economy. Finally, it was terminated in 1998 by a radical housing reform.

In general, the Chinese socialistic public housing system was identified by two characteristics: danwei welfare housing and housing standardization. The former means the mainstream of danwei-based public housing allocation, development and management, while in some cases the municipal governments also directly intervene, and the latter indicates not only the unified and ranked standards of housing allocations and designs but also the standardized and industrialized building of public housing. Nevertheless, the development of socialistic public housing in Beijing, as a top-down intervention to the housing stock, was not smooth but fluctuated and significantly determined by the changes of relevant policies and strategies, as well as the generally socio-economic transformation.

In principle, there were two "golden ages" for the Chinese socialistic public housing: the periods of Socialistic Transformation and the First 5-year Plan (1949-1957) and the early period of China's Reform and Opening-up (1979-1991). During those two periods, the social and economic development was relatively balanced. The development of public housing was emphasized as a social benefit for urban residents. Housing investments were continually increased, and housing standards were higher. More importantly, the adapted interventions on public housing, whether the introduction of public housing system and housing socialization in the 1950s or the decentralization and commercialization of public housing development in the 1980s, resulted in the more economically balanced and more socially just urban housing stocks. In the physical planning, design and construction of public housing, the balance between standardization and diversification was stressed.

In between these two golden ages, there were two decades that were dominated by the ultra-leftist ideology, which inevitably greatly influenced public housing development. From 1958 to 1970, along with a series of social, economic and political experiments to explore China's own way of socialism, from the Great Leap Forward to the Cultural Revolution, various attempts in public housing development were tested,

while many of them were extreme and unsuccessful. But due to the over-priority of heavy industrialization, as well as the continuously political movements, the housing development, as a “non-productive” sector, was unemphatic. The de-urbanization policies were applied in order to control the growth of urban population. Investment in public housing and housing standards were reduced to the lowest level since 1949. Some extreme cases of public housing designs and constructions were developed. Thereafter in the late Cultural Revolution and its period of influence (1971-1978), albeit the leftist ideology was still predominant, the rebuilding of social order and the economic redevelopment restarted the process of urbanization and thus re-boosted the development of public housing. The housing investment and housing standards began to increase. The creative development strategies, innovative planning concepts and adapted design criteria of public housing, as well as the industrialized building systems, were introduced and promoted. In fact, it was in this period, after decades of emulations and attempts, that the socialistic public housing system with Chinese identities was finally established.

In the last period of Chinese socialistic public housing, which means the period from the announcement of the transition to socialistic market economy in 1992 to the official termination of the public housing system in 1998, the development of public housing was decreasingly emphasized, with the promotion of housing owner-occupation in the market-oriented reform. Although the socialistic housing system was still retained and the total amount of public housing was still growing, the proportion of public-rented sector continually dropped. The danwei-based public housing allocation and development was gradually inadaptable to the market economy and even tended to become a privilege. Parallel to the enhancement of housing standards and the diversification of living environments in the public housing areas, the further commercialized and profit-oriented public housing development resulted in higher housing density, which at least partly scarified the housing comfort. In the process of economic marketization and social stratification, the housing stock was becoming differentiated, and the difference of housing conditions between different social groups was increasingly enlarged.

In all, the evolution of the Chinese socialistic public housing system presented and was determined by corresponding socio-economic transformations. It was introduced as an integral part of the Soviet-style planned economy but gradually localized according to the Chinese socio-economic context. The historical review in the socio-economic dimension also revealed that the structurally adaptable public housing system would facilitate the socio-economic development. Otherwise it would cause more problems. To conclude, there was a dialectically developmental process of Chinese socialistic public housing system in Beijing within its socio-economic context, while this top-down housing intervention was fated to be ended within a historical process of neo-liberalistic enthusiasm. However, although the socialistic public housing was introduced as a top-down intervention to the housing stock from the overall point

of view of socio-economic development, it on the other hand deeply influenced the people's daily lives and the formation of their communities. Therefore in the next chapter, the research will focus on the review of Beijing's socialistic public housing in the community-placial dimension.



# 4 Communities and Their Socio-Spatial Morphologies of Socialistic Public Housing Areas in Beijing

Although the socialistic public housing was in principle a top-down intervention to the urban housing stock, it inevitably influenced people's daily lives. As a sector used to cover the majority of urban residents, the socialistic public housing system to a large extent determined the communities in Chinese cities. The formation of community derived from the public-private relationship in the temporal-spatial transformation. Behind that transformation we can actually discover the ephemeral-eternal human being in the cities he inhabits. In fact, in the traditionally centralized and hierarchical Chinese society, the institutional and structuralized organization was decisive in the formation of communities. The communist or centrally planned socialist ideology just met this tradition. Like family for the Confucian society, danwei played the role as the basic unit of social composition under the planned socialistic system, which was structurally isomorphic to the state. As an integral and important part of danwei welfare system, the public housing, both physically and mentally, in particular contributed to defining the danwei-based communities. However, these communities were not just abstract concepts but spaces where residents accommodated its everyday life. People lived in the communities and dwelled in their places. They were perceptively experiencing and, gradually in many cases, changing the living environments of communities in their daily rounds. Therefore, the review for the evolution of socialistic public housing in Beijing should not only be done from a structuralist perspective but also from the socio-ecological and "bottom-up" point of view. This means that the physical and socio-spatial morphologies of those areas, defined by the danwei and local communities, have to be considered in order to study them.. Therefore, Chapter 4 will focus on the community-placial dimension of those socialistic public housing areas, which means the areas themselves and their socio-spatial morphologies.

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## § 4.1 The Danwei Community

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According to John Friedmann (2005), the danwei, associated with the hukou system, recalled the walled compounds and regimented order of ancient 长安 Chang'an (currently, Xi'an), the capital of the 唐 Tang Dynasty (618-907) of the Chinese Empire. As a "city of aristocrats" (Heng Chye Kiang, 1999), Chang'an was composed of palaces,

government offices, two walled central markets and 109 坊 fang – the walled and introvert residential wards that regularly closed at night and opened at dawn<sup>1</sup> – inside the city wall. Even though a walled fang reflected the Confucian ideal of city plan and governance, it is partly correct to compare it with a danwei compound. From the angle of physical morphology, many danwei dayuan (such as state-owned factories, research institutes and universities) were enclosed by walls, and presented some similarity with those walled fang in the Tang Chang'an and other capital cities with comparable urban structure in Chinese history.

Nevertheless, this kind of similarity has to be questioned from the placial point of view. The 里坊 Li-Fang system actually played a role of settlement governance in ancient China. The settlements were multi-layered, and the layers were hierarchical (Wu Liangyong, 1989, p.10-11). The terms such as 邻 lin, 里 li, 坊 fang and 乡 xiang were related to different scales (based on the number of families or area) and ranks of governance. The fang in Chang'an city was precisely an important link of the hierarchical chain of urban governance. In fact, fang, li and other units of governance were popularly adopted in ancient Chinese cities before and after the Tang Chang'an, while many of them were not walled. Heng Chye Kiang (1999) described the transition from the "city of aristocrats" of Chang'an to the "city of bureaucrats" of 开封 Kaifeng, the capital of the 北宋 Northern Song Dynasty (960-1127). In this later capital city, the walls of residential wards disappeared and the city was characterized by its open and demotic streets. In the Ming Dynasty, the fang in Beijing had become administrative unit of urban governance that was not enclosed by the walls (figure 4-1). Till the Qing Dynasty, according to the urban policy of Manchu-Han separate living, the inner city of Beijing was managed based on 旗 Qi (a not only military but social organization of the Manchu) and the outer city was divided into five urban districts (figure 4-2). Moreover, at the local level, there was an "informal urban governance" of neighborhood associations (Friedmann, 2005, p.96-99). This system of urban governance often played the assistance role in the social and spatial composition of the city, but they were not considered fundamental socio-spatial units. Hence, the urban governance system that was introduced under the planned economy, which includes the municipal, district and sub-district (街道 Jiedao) governments as well as the residents' committee (居民委员会 Jumin Weiyuanhui, as an organization of residents' "self-governance"), can be regarded as a modern interpretation of the lifang system based on the localities.

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1 According to Sui Wendi (Yang Jian), the first emperor of Sui Dynasty (581-618), who is the actual founder of Chang'an city and a believer of the Confucian principles, the buildings and blocks in the city should avoid opening to the main streets in order to restrain the proliferation of the commodity market.



Figure 4.1  
Beijing city in the Ming Dynasty, with 36 fang  
(Source: He Shude, 1994)

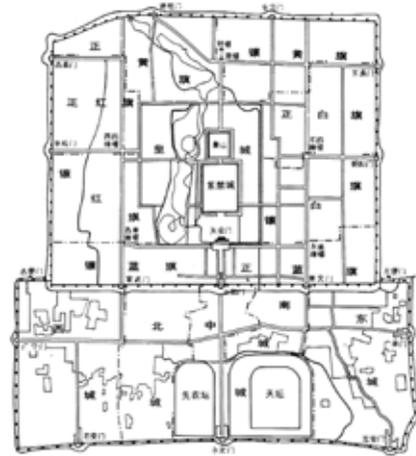


Figure 4.2  
Beijing city in the Qing Dynasty, with eight Qi in Inner City and five districts in Outer City  
(Source: Wu Jianyong, 1994)

Here a question that can be raised is: what does danwei, as a unit of social and spatial composition of city, derive from? On the one hand, it was indubitably a byproduct of the Soviet-style planned economy; and on the other hand, from my point of view, the danwei actually took over the role that the family used to play in the traditional Confucian society.

In ancient China, the family was linked by ancestry and embodied the fundamental unit of society. The sociologist Li Anzhai summarized it this way:

*In all, there were only two kinds of official and recognized organizations in the Chinese society: state and family. The state was simply regarded as an enlarged family. Similar to a father, the head of a family, the king (emperor) was the head of the state. Loyalty (to the state) and piety (to the family) were the two fundamental disciplines of moral, without which the rest are not even worth mentioning (Li Anzhai, 2005, p.55).*

*The basic principle of politics was the ruling of good persons in the government, of which the operation depended on the human relations that were defined by the ethical standards; in other words... the so-called state was a large-scale realization of a family (ibid, p.74).*

It was the family-state system that sustained the agricultural empire of China. Thanks to the same structure of family and state, the gigantic empire could be governed by a few officials. The unit that the state had to directly deal with was not the individual but

the family<sup>2</sup>, and within a family, the family rules were regarded as laws. The family was to a certain extent “autonomous”, while its structure was still hierarchical and top-down. Within this system, a major task was “正名 Zhengming” (rectification of names) according to Li (ritual propriety)<sup>3</sup>. Confucius said “let the ruler be a ruler, the subject a subject, the father a father, the son a son”<sup>4</sup>. Thus, the collective or, more precisely to say, the structure gained the absolute priority over the individual. In the meantime, the family-state structure was not just social but also spatial. The layout of a typical hutong courtyard house (四合院 Siheyuan) in Beijing that accommodated a family with several generations, for example, representatively presented the placially spatial order of family, by which parents, sons, daughters, servants and guests could exactly find their own places (figure 4-3). Like other traditional houses in Han Chinese history, this courtyard was also introvert and enclosed by walls, but, unlike the fang, the walls as spatial limits were never really opened so as to protect the wholeness and hierarchy of a family. As a prototype, the courtyard house could be copied and multiplied with the growing family. A similar spatial structure was also applied for city planning, which reflected the social structure of the state. According to the planning principles defined in the text known as 周礼 Zhouli (*Rites of Zhou*), the palace (the forbidden city) was located in the center and surrounded by government offices, markets, temples, altars and hutong courtyard house areas (figure 4-4). This palace could be seen as a multiplied courtyard house for the royal family. The spatiality of Beijing’s old city, as the placial center of the world, impressed a universal order not only on the physical map but also on the mental map (figure 4-5). Therefore, the family, assisted by the li-fang governance system, could be regarded as the basic socio-spatial unit of ancient Chinese cities. This structure that emphasized the priority of the collectivity over the individuality deeply influenced the people’s everyday life and habit of living. For example, according to the laws of the Ming and Qing Dynasties, the relatives, first, and neighbors of a homeowner had the priority of purchasing his/her house in the housing transaction. In other words, any transactions of housing properties had to be admitted by the families and neighborhood associations<sup>5</sup>. In fact, the far-reaching influences of the family or ancestry, though increasingly fading, can still be observed in Chinese people’s daily lives, especially in the rural areas.

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2 For instance, the population statistics of the Chinese Empire, as well as the scale of the units of settlement governance (such as li or fang), were primarily based the number of families.

3 In fact, there is not the precise translation of Li in English. “The meaning of Chinese Li comprised the ‘forkways’, ‘mores’, ‘institution’, ‘rite’ and ‘order’... it can be equal to ‘culture’ in a broad sense, but ‘ceremony’ in a narrow sense” (Li Anzhai, 1930, 1990, 2005, p.3).

4 *The Analects of Confucius*, 12.11 (Yang Bojun and D. C. Lau, 2008, p.213)

5 This custom in the housing transaction were actually still applicable in some areas of China till 1949.

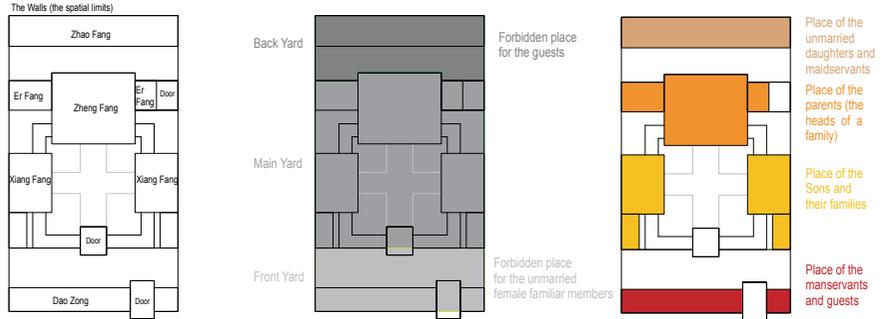


Figure 4.3  
A typical hutong courtyard house in Beijing.

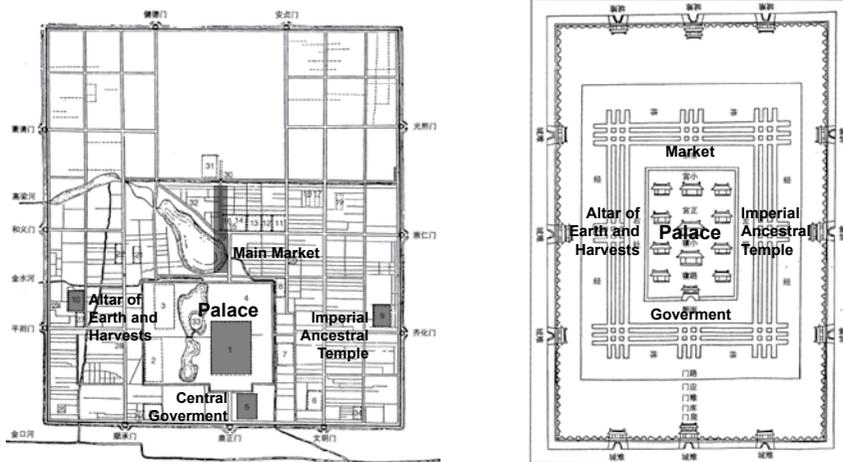


Figure 4.4  
City plan of Dadu (Beijing in Yuan Dynasty) (left) according to the capital city planning principles in Zhouli (right)

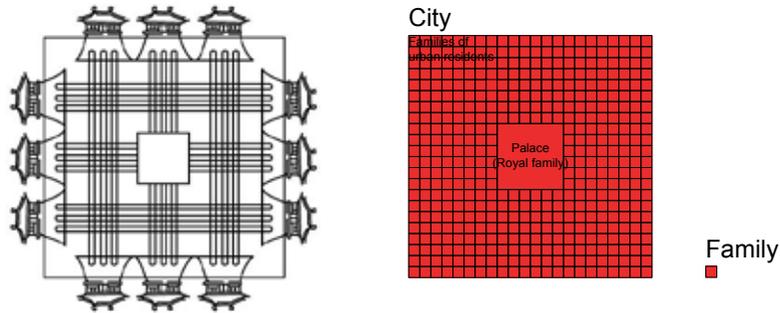


Figure 4.5  
Socio-spatial composition of a traditional Chinese city

As a socio-spatial unit under the planned socialism, the danwei played the same role as the family did in the Confucian society. Like the ancestry that tied a family together, the industrialized, collective production united people within a danwei. By the transformation from a “consumptive city” into a “productive city”, the major task of Chinese cities under the planned economy was the industrial production. While the individual/private economy remained to a certain degree, the public sector was established and became the major sector in the urban economy, and the danwei was not only the work unit but also the basic social organization of most of urban residents, who (as the “proletariat”) collectively owned the urban properties. The danwei comprised enterprises and factories, publicly-operated institutions (such as universities, research institutes, museums, hospitals, etc.), and government offices (including agencies of the Communist Party and military forces). They could be state-owned or collectively-owned. The danwei cared for their employees by providing them with basic welfare, including medical care, pension, education and housing. Furthermore, representing the state, these work units also took charge of the social organization, supervision and surveillance. Therefore, each danwei gave individuals a sense of belongingness and affiliation. Similar to the family-state system of the Confucian society, the danwei-state system composed the fundamentally social structure of the planned socialism in Chinese cities. Although this system was rather top-down and hierarchical, it was widely accepted by the Chinese, not as an abstract concept but as part of their everyday life, since it just met the Chinese tradition of centralization and philo-productiveness<sup>6</sup>. In fact, even though the planned economy

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6 In ancient China, as an agricultural empire, agronomic production (which could be centrally managed by the state) had priority over the commodity transaction (market). This principle that was frequently repeated by the official philosophy in Chinese history was at least formally adaptable to the attitude of planned socialism to the market economy.

had been replaced by the socialistic market economy, “danwei” as a working place, social organization or linguistic term still largely influences people’s daily lives nowadays, whether they are working for the remaining public sector or employed by private enterprises.

The relationship between urban residents and their danwei was also spatial. Thanks to the socialistic public housing system, of which the development, allocation and management of public housing were normally the responsibility of the danwei, the socially and placially spatial affiliation of the individual to the danwei was introduced. Under the orthodox planned economy, housing was part of the basic welfare for the urban residents and was thus uniformly provided by the state via the danwei. By listing the housing construction in the annual plan, danwei used the construction budget from its supervisory department and the construction land from the local government to develop public housing. Thus, representing the state, the danwei owned and allocated the public housing to its employees for a low rent. As discussed in the previous chapter, the housing allocation followed a special ranking system, in which the floor area of each apartment (housing standards) was unified and an employee rented a dwelling according to his/her rank. The ranking depended upon the political or administrative status of the tenants, and also their seniority, age, marital status, family size, and other similar factors. Due to the public ownership of housing, people’s housing condition could be improved along with the change of their placement in the ranking system.

This danwei welfare housing system, together with other danwei-based welfare systems and supervision, resulted in the formation of the so-called *danwei community*, which was spatially (placially) the unit of socialistic public housing areas. The danwei, as the basic unit of social structure that socially, economically, mentally, and linguistically merged with people’s daily life. It gave shape to the community, endowed people with an identity and created a sense of collectiveness. As a major actor that was responsible for the development, allocation and management of public housing, the danwei, to a certain extent, played a more important role in the development of urban housing areas in comparison with the municipal government and its urban planning. The dominance of danwei collectiveness was presented in the spatial planning and designs of public housing areas, which undoubtedly strengthened the danwei communities. For instance, in the early-developed public housing neighborhoods, “semi-private” behaviors (such as meeting with others) were often held in the communal public spaces (i.e. canteens, clubs, playgrounds and public gardens). Only the most “private” activities were restricted to the apartment. This can explain the absence or limited space for an independent living room. Thanks to the danwei-based but unified-standard public housing allocation system, people from different social strata, such as senior officers and workers, could live together and share the public space in one danwei community.

Meanwhile, there was a difference of housing conditions between the “good” danwei (usually state-owned and with more construction land and budget for housing) and the “poor” danwei (normally collectively-owned and with limited resources for housing). This disparity was an important feature to distinguish a danwei community from another, as well as a social group from another. These distinctions were also spatially recognizable and present in, for example, the difference between dayuan and dazayuan. This predominant role of danwei in the composition of urban space was even strengthened from the 1970s. In order to solve the problem of housing shortage, the public housing provision system that was strictly supervised by the government was loosened. Starting from 1974, danwei were encouraged to find its own financial means for housing development, so that the “self-financed” danwei public housing development became increasingly popular. By the early 1980s, the self-financed danwei investment had amounted 60% -70% of the total investment for housing in Chinese cities. Along with the economic reform and the following high-speed urbanization, danwei acquired much more independency for housing construction and allocation since the 1980s through the commercialization of public housing development. But on the other hand, the increasing independency of danwei in public housing development engendered the discordance between the actual housing construction and the integral planning. While the housing allocation and design standards still had to be legally obeyed, the housing developments that conflicted with the urban planning were popular and even tolerated by the government. Therefore, the difference between the good danwei communities and the poor danwei communities was further enlarged.

In general, it was the danwei – the fundamental unit of the planned socialistic society – that dominantly shaped the urban morphology of the public housing areas not only socially but also spatially. Thereby under the planned economy, there was a vivid cityscape of temporally placial-space in Beijing that was precisely composed by people and their danwei: going to work at 8:00, going home at 17:00, having lunch in the canteen, shopping and relaxing during the holidays, celebrating weddings with colleagues, going for treatment in the danwei clinic, sending children to the danwei kindergarten or school, holding the funeral ceremony with assistance from danwei... This spatial phenomenon presented a well-organized mechanism for the average people, in which they could easily find their urban “place” through their belongingness to a danwei community. From the placial point of view, the danwei communities were the units of socialistic public housing areas and, therefore, they spatially made up the planned socialistic city (figure 4-6).

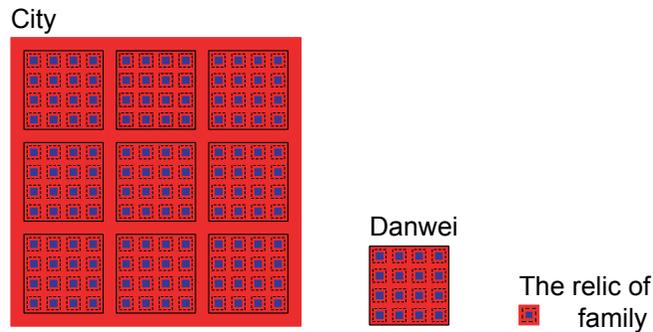


Figure 4.6  
Socio-spatial composition of a planned socialistic city

In addition, parallel to the danwei-state system, there was the official, hierarchical urban governance system of city, district, sub-district and residents' committee. The administrative structure of the governments in urban areas legally comprised three levels – city, district and sub-district (Jiedao)<sup>7</sup>. Under the supervision of the sub-district office, the residents' committee (居民委员会 Jumin Weiyuanhua), as the self-governance organization, played the role of the administratively lowest level on the urban governance. This urban governance system officially defined the spatial divisions of different administrative areas in accordance with their physical localities. Within this system, the sub-district office, as the most basic representative of the government, and the residents' committee, as the self-governance organization of neighborhood, functioned at the local level and bridged the regime and the citizens. In practice, they were the governors and organizers of local communities (dependent upon the sizes of communities), although the danwei was more responsible for the social organization of its employees. Both of them contributed to shaping the urban space, while in many cases they had to be subordinate to the danwei system. For instance, the residents' committee in a danwei dayuan was often under the supervision of danwei, and in the dayuan areas, we could see “the ‘trinity’ of danwei, jiedao (or jumin weiyuanhui) and local community” (Huang Xu, 2002, p.144). However, this urban governance system based on localities also functioned as the complement of danwei. The sub-district office and residents' committee were responsible for the social organization and welfare benefits (including housing provision) of the residents out of the state-owned

7 Jiedao, which means “street” or “road” in Chinese, is the basic level of government in Beijing and other Chinese cities. The so-called “街道办事处 Jiedao Banshichu” (Sub-district Office), as the representative office of the district government, is responsible for the urban governance in each sub-district. In Beijing, normally the population in the administrative area of a Jiedao is 30,000-60,000 people.

danwei system, including the unemployed, self-employed and people employed by small, collectively-owned danwei or private enterprises. The sub-district office took charge of the allocation and management of the government directly-managed public housing, and the public facilities such as kindergartens, clinics and shops were introduced into the old neighborhoods. In particular in the preexisting built-up areas, such as the hutong areas in Beijing, where the small enterprises (which were usually operated by the sub-district office) and self-employment were popular, the sub-district office and residents' committee played an important role on shaping people's everyday space.

Therefore, we can see two parallel but overlapped systems under the planned economy that supported the formation of public housing communities: the danwei-state system and the local governance system of sub-district office and residents' committee. The former resulted in the socio-spatial affiliations of individuals to their danwei and hence placially shaped the urban space. Meanwhile, the latter, defined according to the physically spatial localities, was usually subordinate. In a sense, those two systems were comparable to the family-state system and li-fang system that shaped the urban space of ancient Chinese cities. Actually, it was the overlapping of danwei-state system and local governance system that conditioned different spatial types of danwei-based public housing areas in people's everyday life.

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## § 4.2 Typological Analysis on Socio-Spatial Morphology – Dayuan, Residential Area and Public Housing Patch

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While the public housing areas under the planned socialism were in general based on danwei, they still can be categorized as several types with respect to their spatiality. In the community-placial dimension, the typological analysis has to depend on the *area* or *neighborhood*, the physical presentation of *community*, instead of individual buildings. The research does not focus on the physical but the *socio-spatial morphology* of those city areas. The socio-spatial morphology implies the morphology of placial space that people perceive and conceive in their everyday life, which is determined by their sense of community and place for dwelling. The socio-spatial morphology resulted not only from the top-down physical planning/designs but also from the actually daily uses of the residents. Thus it can also be linked to the presently spatial phenomenon of former public housing areas in Beijing.

The formation of different types of public housing communities mainly derived from the danwei-based public housing system. As we have discussed in the previous chapter, danwei played the most important role on the development, allocation and

management of socialistic public housing. The danwei self-construction of public housing was the mainstream. Under the supervision of the state, the early-developed public housing neighborhoods were always physically located nearby the working place of their danwei and comprised the communal facilities and infrastructure that could self-sustain their employees' daily round. But from the 1970s, the municipal government intervened more directly and actively in the public housing development, especially the development of large-scale public housing districts, and the danwei gained more independency to explore their own means for housing construction. Those changes resulted in the separation of the danwei communities from the local communities. This separation was further intensified from the 1980s, owing to the commercialization of public housing development. However, in terms of the affiliations of individuals to their danwei, the danwei-based communities were still placially predominant. On the other hand, the local communities based on their physical localities, which usually facilitated the daily-round facilities and were normally organized and supervised by the sub-district office and residents' committee, started to be more influential in people's everyday life.

The overlapping and separation of danwei and local communities led to different types of socio-spatial morphologies. According to those socio-spatial morphologies, behind which the housing area is regarded as a compositional part of the city that linked the individuals and their communities, we can categorize three major types of socialistic public housing areas under Beijing's urban context, which are: dayuan, Residential Area and Public Housing Patch.

#### § 4.2.1 Dayuan

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The first type of public housing areas in this categorization is the so-called *dayuan* (mega-yard), which was often developed by the large, state-owned danwei with the direct land supply and construction budget for housing. According to the concept of housing nearby working<sup>8</sup>, a dayuan is an urban area that contained the working place and residential area of danwei, as well as a complete set of public facilities (kindergartens, schools, canteens, shops, clubs and other recreational, sports or service facilities) for the residents' daily lives. In a typical dayuan, the closest affiliations

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In order to reduce traffic and to facilitate the daily round, setting the housing areas nearby the working places was one of the basic concepts of Beijing's urban planning in 1950s (Zhang Jinggan, 2001, p. 28).

between the individuals and their danwei were established. The residents' committee often became the organization of danwei's employees and their families. While people might have different social, economic and political statuses, they were working in one danwei, sharing the same communal facilities and knowing each other, and thereby composed an integrated community. In fact, the dayuan could also be developed and managed together by some different danwei that were concentrated in one physical locality. In those cases, different danwei could have the working places in the same location and share the same dayuan that directly anchored to the working places by the spatial nearness. In general, dayuan can actually be seen as the physical overlapping of danwei community and local community. It was the most representative case of the public housing community based on danwei, the basic unit of planned socialistic society.

As a result of the most original mode of the public housing development and the most typical representation of the socio-spatial composition in a planned socialistic city, the dayuan space physically and placially presented and reinforced the danwei communities. Considering their internal urban form, the dayuan that had been developed since the 1950s and 1960s were usually adopted the planning concept of the Soviet-style Neighborhood or residential quarter and the design of multi-storey courtyard block or row-housing. In the later evolution, the new buildings, including the multi-storey or high-rise residential buildings and the additional public buildings, were inserted into the original urban fabric by the "self-construction" of danwei. And the additionally illegal or temporary structures were also constructed by the residents in dayuan, as a result of the individual's efforts for improving their housing conditions, which actually meant the privation of the public space. In the meantime, the restructuring of danwei themselves also impacted the integrity of the original community. However, those transformations only partly destructed but never fundamentally changed the socio-spatial morphology of a dayuan. On the other hand, due to the separation of the housing development (by the danwei) from the construction of urban infrastructures, roads and facilities (by the municipality), from the city point of view, the dayuan as the typical danwei communities were the self-sustained and relatively independent neighborhoods that facilitated every step of daily round. Some dayuan, such as large industries and universities, were even walled so as to physically emphasize their independency. In Beijing and in many other Chinese cities, the urban morphology of the urban expansion areas after 1949 can be considered as a set of numerous dayuan surrounded by urban roads. Often presented as a mega-block, the dayuan in many cases became a basic unit of urban structure. Thus, in the city areas that were composed of dayuan, there were simultaneously a socio-spatial heterogeneity within the dayuan and a homogeneity between different dayuan.

But dayuan mostly belonged to the "good", state-owned danwei, e.g. the state-owned large industries, important institutions of public utilities and services, universities

and research institutes, government and Communist Party offices, administration of military force, etc., which normally owned their own housing areas. These housing areas were usually attached to their working places. Same as the danwei that provided social identity to an individual, the dayuan spatially endowed people their identities. "Living in dayuan" used to spatially and linguistically identify people's better social status – working in better danwei, in comparison with "living in a hutong" (where the residents often worked in the small danwei or private sector). And "living in which dayuan" also granted specific identities to people in the social interaction.

In Beijing, the dayuan areas were exemplified by the government/party/military dayuan in the western and north-eastern parts of the central city (such as Sanlihe, Baiwanzhuang, Hepingli and Gongzhufen), the industrial dayuan in the eastern part of the central city and satellite towns (such as Dabeyiao, Jiuxianqiao, Shijingshan, Yanshan and Liangxiang), and the universities/colleges with their campus dayuan. Figure 4-7 and 4-8 show a representative dayuan in Beijing.



Figure 4.7  
Sanlihe Neighborhood 1 – the Guojiajiwei dayuan in 1993 (before the urban reconstruction)  
(Source: CPMC)



Figure 4.8  
Existing condition of Sanlihe Neighborhood 1 – the Guojiajiwei dayuan

## § 4.2.2 Residential Area

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The second type of socialistic public housing areas is the *Residential Area*. It resulted from the unified construction and integral planning of public housing areas by the municipal government (or the collaboration of several danwei). Within the process of urbanization, the housing space in dayuan became too limited to accommodate the increasing the continually growing number of danwei employees and their families, and the housing problems of small danwei were still waiting to be solved. The municipal government therefore started to directly intervene in the public housing development for distributing (selling later) to various danwei. By setting the OUHDs, and imitating the developments of large-scale residential districts with integral planning, the unified construction of public housing was greatly promoted in Beijing and other Chinese cities from the 1970s. From the mid-1980s, comprehensive developments of residential districts or quarters became an important housing developmental approach, along with the commercialization of public housing development. The OUHDs were popularly entrepreneurialized as the municipal urban development companies, and various real estate development companies were founded by large danwei or by the cooperation of several danwei. The unified-constructed public housing began to be sold to the danwei, instead of distributed. Many of those comprehensively developed housing areas were also commissioned to resettle citizens who moved from the urban reconstruction areas. As a result, the Residential Area, which did not belong to a danwei community, became one of the major types of socio-spatial morphologies.

With the integral planning, Residential Areas were usually designed according to the 3-level planning structure of Residential District-Quarter-Cluster. They were well equipped with the sufficient and self-sustained public facilities, including shops, department stores, restaurants, schools and kindergartens, cinemas, hospitals, post offices, parks, sports fields and other auxiliary facilities that were listed in the planning standards for residential districts. Physical planning was also assorted with the urban governance system: a residential district often corresponded to the administrative area of a sub-district office, and a residential cluster to a residents' committee. But different from the dayuan, Residential Areas were not physically attached to the working places of danwei. That indicates the separation of local communities from danwei communities, whereas there were still the strong social and placial affiliations of the residents to their danwei. In terms of sharing public space and facilities that were conditioned by the Residential Areas, there was actually the dual belongingness of residents to the separated local community and danwei community, both of which were partly overlapping. From the urban point of view, local communities of Residential Areas, at least partly, bridged different danwei communities so as to contribute to urban integration, albeit the latter was still more important and predominant in people's everyday life. The integrated urban space of Residential Areas was also physically presented. Since those unified-constructed public housing areas were normally integrally planned and directly supervised or coordinated by the municipal government, Residential Areas were easily accorded with the urban planning and harmonized with the preexisting urban fabric. Unlike the dayuan areas, Residential Areas were rarely walled and opened to the surroundings, so that they were less independent and regarded as integral parts of the city. At the same time, the physical urban form of the Residential Areas, which were usually developed during the period between 1970s and 1990s, was identified by the mixture of different spatial layouts or building forms, such as the multi-storeys and high-rises and the slabs and towers, as well as the integrally designed public space, facilities, infrastructure and landscape.

In Beijing, the representative examples of Residential Areas included the Qiansanmen Residential Area (which was actually uncompleted and still shared the public facilities with its surroundings)<sup>9</sup>, Tuanjiehu Residential District, Jinsong Residential District, Xibahe Residential District, Wuluju Residential District and Fangzhuang Residential District (figure 4-9, 4-10 and 4-11).

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Originally, Qiansanmen High-rise Residential Area was planned with "two lines" and sufficient public service facilities. But due to the resettlement problem and budget limitation, only the construction of the "front line" was completed and the housing and some public facilities in the "back line" were never realized, which conduced to the incompleteness of this residential area (Zhang Jinggan, 2001, p. 149).



Figure 4.9  
*Qiansanmen High-rise Residential Area*



Figure 4.10  
*Fangzhuang Residential District – a typical Residential Area in Beijing*

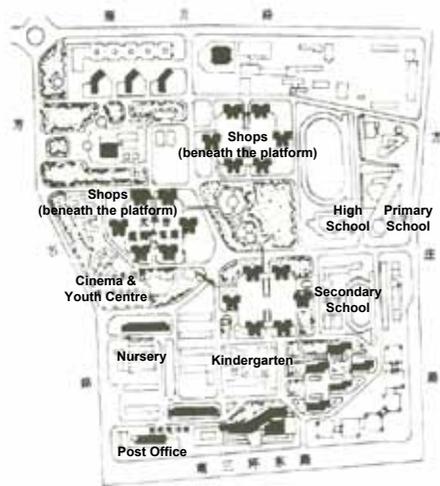


Figure 4.11  
Master plan and public facilities of the Fangxingyuan Residential Quarter in the Fangzhuang Residential District

### § 4.2.3 Public Housing Patch

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The third type of public housing areas is a urban morphology that can evidently and broadly be seen in the hutong areas of Beijing, which I prefer to name as *Public Housing Patch*. Different from the dayuan and Residential Areas, the formation of Public Housing Patches derived from the self-financed public housing construction by danwei, which were usually lack of the integral planning. Because of the socialization of the private-rented houses, a great amount of hutong courtyard houses in Beijing were transformed into danwei public ownership. But due to the housing problem that resulted from the increasing number of residents, which also conduced to the formation of the so-called *dazayuang* (mixed-yard), some danwei started to attempt a more efficiently use of those plots and houses. From the mid-1960s, the implementation of urban planning was paused for the duration of the Cultural Revolution, and the so-called "Jianfeng Chazhen" housing constructions became popular. In 1974, a "bottom-up" strategy of public housing development that encouraged the "self-financed" housing construction by danwei was announced in order to deal with the housing problem. The self-financed constructions were often out of control and led to the reconstructions in many hutong housing plots. A lot of traditional courtyard houses (or the spare lands) were thus replaced by the new multi-

storey or high-rise residential buildings<sup>10</sup>. Those anarchical actions were eventually prohibited in the late 1980s but inevitably resulted in many “patches” of newly-built public housing in the historical hutong areas<sup>11</sup>. In fact, the Public Housing Patches in Beijing existed not only in the hutong areas of the old city but also in the urban expansion areas. This was a result of the smaller-scale housing developments in the available plots among or in the dayuan or the exchange of public housing properties between different danwei.

While the social and spatial compositions of the Public Housing Patches might have been rather complicated<sup>12</sup>, what differentiated the Public Housing Patch from the former two types of public housing areas is its not-self-sustained socio-spatial morphology. As a result of the self-financed and jianfeng-chazhen housing constructions without regard for integral planning, the Public Housing Patches had to share the public spaces and local facilities with their surroundings, while they were mostly walled and physically “isolated”. In terms of the transplantation of new public housing into the existing built-up areas, they were not presented as “autarkic blocks” but combined with the neighboring hutong areas (or dayuan) and other Patches. These Public Housing Patches can be regarded as part of mixed neighborhoods that they were located in. However, similar to the Residential Areas, most of the residents of the Patches were still affiliated to their danwei but spatially included in the local communities, the latter of which partly facilitated their daily round. In fact, Public Housing Patches can placially be regarded as “sub-communities” of both the danwei communities and the local communities. But physically they were presented as the “enclaves” in the existing urban fabric: on the one hand, they were often far from their danwei working place in the temporally spatial distance, and on the other hand, those Patches were still easily distinguished from the surroundings in their urban form.

The local communities that contained the Public Housing Patches were usually opened and integral parts of the city. There, the sub-district offices and residents’ committees

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- 10 During the same period, another bottom-up strategy also permitted the self-extension of traditional courtyard houses by the individuals, which directly brought on the formation of dazayuan (especially after the earthquake in 1976).
- 11 The self-financed public housing constructions were actually not just the “priorities” of large, state-owned danwei which occupied many pieces of plots in the hutong areas. Many originally small, collectively-owned danwei (which were usually supervised by the sub-district offices) were growing and getting “rich” throughout the market-oriented reform and could thus financially self-sustain public housing developments.
- 12 A Public Housing Patch could have been composed of one or several buildings, developed either individually by one danwei or collaboratively by some different danwei; and a certain percentage of newly-built houses in a Public Housing Patch could also be used for the resettlement of the original residents in the same plots.

played an important role on the social organization and hence influenced the formation of the socio-spatial morphology. But in terms of social organization, this kind of local communities was less structured even than the Residential Areas. The social structure and physical urban form were both rather mixed: there were residents from state-owned danwei, collectively-owned danwei and even from the private sector, as well as a mixture of Public Housing Patches, dazayuan and hutong courtyard houses. This kind of mixture actually promoted the socio-spatial integration through partly breaking the boundaries of danwei communities and bridging the “good” danwei communities and the local inhabitants.

With respect to the existing urban morphology, the representative cases of the Public Housing Patches in Beijing were concentrated on the hutong areas of the old city. Figure 4-12 shows the Public Housing Patches that scattered in the Nannaoshikou area.



Figure 4.12  
*Public Housing Patches in Nannaoshikou area*

#### § 4.2.4 Community-Placial Typology on the Socio-Spatial Morphologies of Socialistic Public Housing Areas

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In the overview of the urban morphology of Beijing, especially of those urban expansion and renewal areas that were developed under the planned economy, it can be seen, in general, as a systematic complex composed of the (former) socialistic public housing

areas. From the community-placial point of view, the morphology is not just physical but socio-spatial. The typological analysis on different socio-spatial morphologies of public housing areas in Beijing revealed that actual urban space is always a result of the compromising of the dialectic interventions and the reflections between different actors – the state, the municipality, the danwei or the individual.

Comparable with the compositional role of the hutong courtyard house in the old Beijing city of the Chinese empire, which was the presentation of the Confucian consensus on the family space, the danwei-based public housing areas were the basic units of Beijing's urban space under the planned socialism. Everyone was primarily identified by his/her collectivity that was presented firstly by danwei but secondly by his/her individuality. It is because of the emphasis of collectivity that the morphologies of public housing areas were largely determined by the public interventions, which can be understood as the *primary elements* termed by Aldo Rossi (2002, p.86-87) as "those elements capable of accelerating the process of urbanization in a city". Those interventions comprised the "hardware" like the important public building/space and urban infrastructure, as well as the "software" (such as housing policy, urban planning and governance). Among all those elements, what decisively determined the morphologies of public housing areas was indubitably the danwei-based public housing system.

Due to the relatively "autonomous" status of danwei, the housing provision system (by the danwei) was parallel to but separate from the urban planning and governance systems (by the municipal government). Particularly in Beijing, because many danwei that directly belonged to the central government (such as the ministries or state-owned large enterprises) were administratively ranked equal to or higher than the municipal government, the urban planning could often play a limited role intervening the constructions of those danwei, and the urban planning authority was in many cases only a coordinator rather than the regulator. And the socio-economic development plan, which, to a large extent, determined the plan of public housing development, was separated from the spatial planning<sup>13</sup>. Under this background, housing development was often out of the strict control of the urban planning in practice, especially after the 1970s, since the "self-financed" housing construction of danwei became popular. At

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In the Chinese urban administrative system, especially under the planned socialism, the social-economic development plan was separated from the physically spatial planning. A much more powerful municipal plan commission was responsible for the general plan of socio-economic development, but the spatial planning took charge by the urban planning authority. In the meantime, the task of the realization of spatial planning was also shared by different governmental sectors, including planning, construction, transportation and civil infrastructure departments. This multiple administration system also brought the difficulty to realize an integral spatial urban planning and the efficient urban governance.

the same time, the municipal government started to directly intervene in the housing construction, according to its own plan. Even under the centralized system of the planned economy, the confrontation between the “top-down” (the urban plan and direct involvement in public housing development by the municipality) and “bottom-up” (the housing construction by danwei) interventions caused the difficulties on the implementation of the blueprints of urban master plans, but also conducted to the formation of different morphologies of public housing areas in Beijing (figure 4-13).

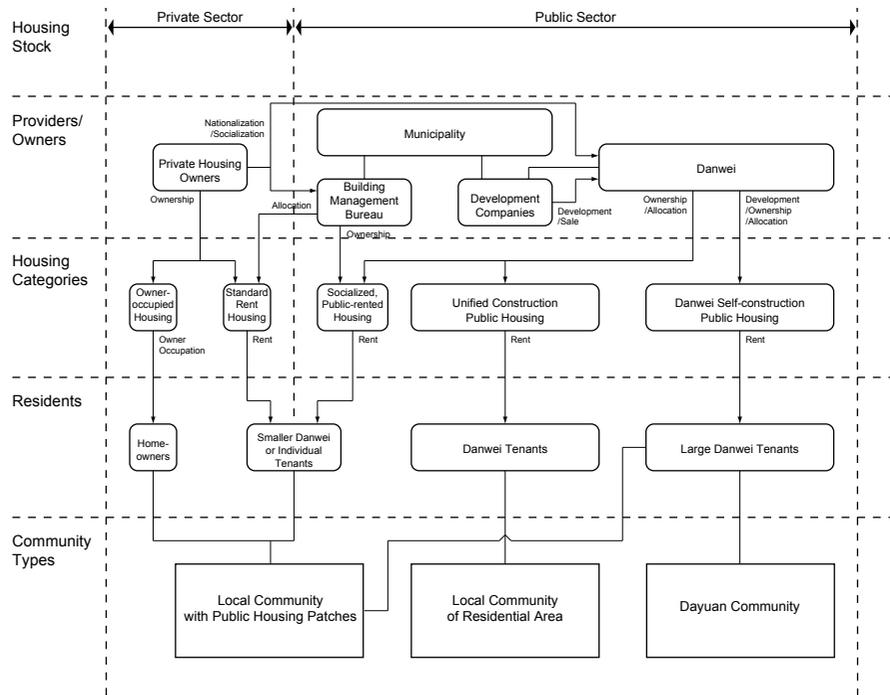


Figure 4.13  
Housing provision and communities under the planned socialism

On the other hand, public housing communities based on danwei, as aforementioned, mentally determined the socio-spatial morphologies of socialistic public housing areas. As the basic unit of planned socialistic society, the danwei played a dominant role on the formation of communities in the city, while the local governance system of the sub-district and residents' committee also functioned in the organization of local communities. The predominant danwei communities tied the individuals through their socio-spatial affiliations to the danwei, and the role of local communities was relatively evident in the hutong areas and unified-constructed public housing areas, where the

local governance and facilities at least partly shaped the residents' everyday life. The overlapping or separation of danwei communities and local communities resulted in different types of public housing areas. It was the overlapping of the self-sustained danwei community and local community that composed the *dayuan* (figure 4-14). But the not only physical but placial mixture of the separated danwei communities and local communities shaped the socio-spatial morphologies of the *Residential Areas* in the unified-constructed public housing areas (figure 4-15) and the *Public Housing Patches* in the hutong areas (figure 4-16), respectively. Different types of public housing areas were categorized according to people's everyday life that was based on the communities instead of only the physical morphologies. In general, thanks to the danwei-state system, which was predominant in both the social organization and the housing provision, the community-placial typology of socialistic public housing areas in Beijing comes into being in accordance with the socio-spatial morphologies that placially presented the danwei communities and local communities, either in the forms of *dayuan*, *Residential Area*, or *Public Housing Patch*.

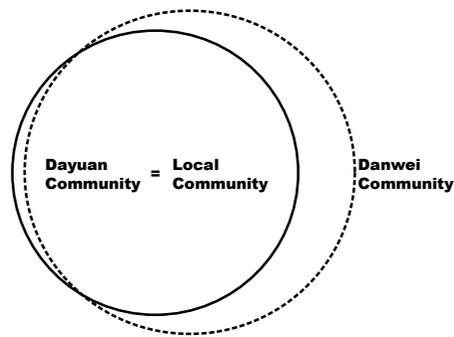


Figure 4.14  
*Diagram of socio-spatial morphology of dayuan*

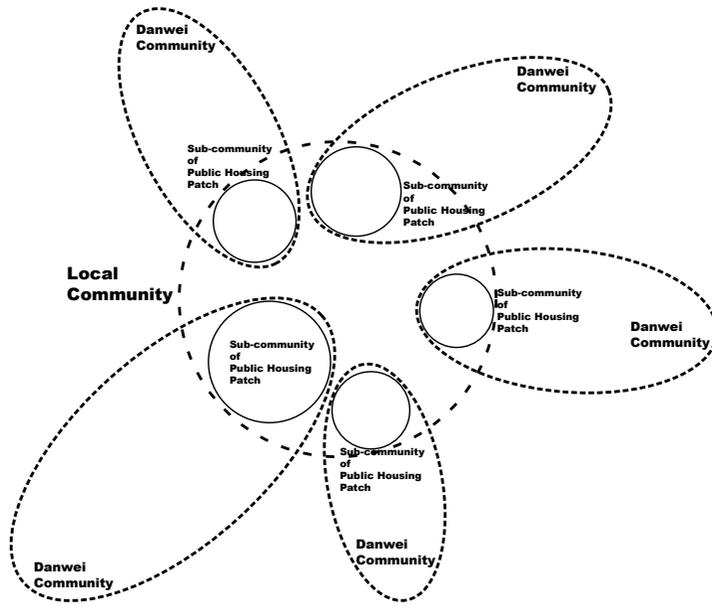


Figure 4.15  
Diagram of socio-spatial morphology of Residential Area

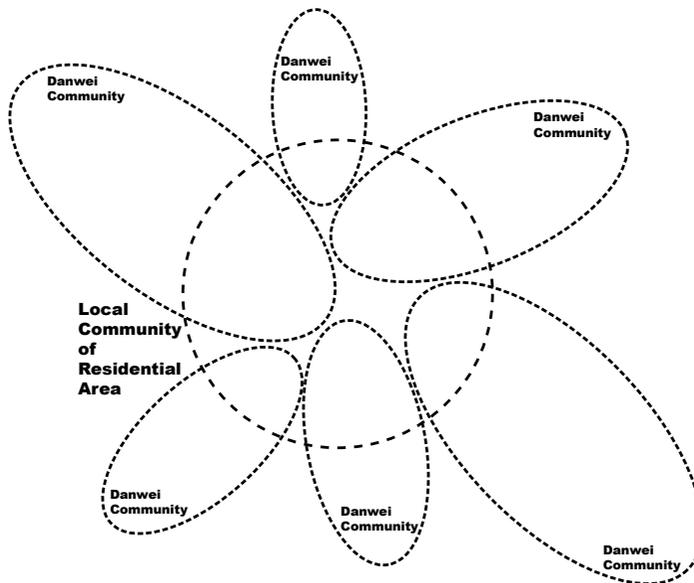


Figure 4.16  
Diagram of socio-spatial morphology of Public Housing Patch

Although the socio-spatial morphologies of socialistic public housing areas were to a large extent determined by the top-down structuralized systems, they were, as the typological analysis revealed, urban spaces of the lively communities that were experienced in people's everyday life. The socio-spatial morphology was actually formed in the dialectics between the interventions and reflections. Besides the top-down interventions, the residents perceptively used and conceptively changed the urban space in their everydayness. Those bottom-up behaviors could be individual (such as the illegal structures) or collective (such as the self-financed danwei housing constructions), but spatially presented the people's using and reforming of their living spaces. In the community-placial dimension, different types of socio-spatial morphologies of public housing areas were also formed through the residents' daily uses. In a dayuan, for example, the residents highly perceived their sense of belongingness to the danwei community but still changed their living environments. In a Residential Area or a Public Housing Patch, people held their danwei identities but shared the public space with others, whether they preferred it or not. In conclusion, the socio-spatial morphologies of socialistic public housing areas were something that people placially got involved into day by day.

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### § 4.3 From Danwei to Shequ – Communities in Transition

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We should not ignore that the socio-spatial morphology of an urban area is never static, but often changes within a historical process, especially under the ongoing, radical social transition that was caused by China's reform. In this process, the socialistic public housing areas underwent a contextual transition – the socio-economic restructuring that dismantled the affiliations between many individuals and the danwei and increased the socio-spatial mobility, the changing demographic composition of local residents, or the materially aged built environments – on the one hand, and the top-down interventions that directly affected the preexisting morphologies, including the privatization of public housing and the effort to reestablish the local community, on the other hand. All of these have involved the former public housing areas into a transitional process.

Nevertheless, the transitional process did not mean the break from the past – at least in the areas being not totally demolished and reconstructed, but a constant sequence connecting the past to the future by the present. This can be represented in the every moment of daily round, the building conditions and the cityscapes. Despite the endless changing process of society, the socio-spatial morphologies of former public housing areas that derived from its original forms were still there as the foundation of any further interventions. The physical urban form (not only individual buildings) strongly

remained a part of the image of city, in the citizens' collective memories and existing mental maps, albeit it always suffered the interventional and reflective changes. More importantly, while the tenure exchange, housing privation and following private renting have changed the originally socio-demographic structure, the public space and living habits, as well as the transformative local governance, in the former socialistic housing areas placially kept the communities in the residents' daily round. While the danwei system is gradually dismantling, the dependency on danwei still has roots in the senses of many residents, especially of the elderly living in the dayuan. Though the danwei should officially have quit from the direct interventions to the housing stock, some of them (especially in the remaining public sector) still take part in the management and even renewal of their former public housing areas. Linguistically, the terms related to the socio-spatial morphology of socialistic public housing areas, such as danwei and dayuan, are also often mentioned in people's daily dialogue. Therefore, regarding the remains of the residents' daily round and of the physically built environments, different types of socio-spatial morphologies can still be observed in the existing former public housing areas. However, under the background of rapid social transition, the socio-spatially morphological transformations, gradually or radically, took place in those areas. Same as the identities of those original types of public housing areas, those transformations were also based on the communities. In the community-placial dimension, the former socialistic public housing areas should have integrated their temporal and historical axis.

In the transition from the planned economy to the socialistic market economy, the conventional danwei-state system inevitably was abandoned. Within the marketization of the pension, medical care, education and, particularly, housing provision system, the affiliations of the individuals to their danwei were largely disjointed. The role of danwei in the social organization and supervision was weakened. The Chinese society is increasingly diversified, stratified and polarized. In this pluralized process, the individuality and self-consciousness is unprecedentedly evoked, and, in the words of John Friedmann, it is the "expanding spheres of personal autonomy". Perhaps for the first time in its history, the individual, different from the family in the Confucian society or the danwei in the planned socialistic society, becomes the basic "unit" of Chinese society. The new system of social organization, which spatially functioned too, has to be introduced.

The newly-introduced system is what is termed as *Shequ* (社区) system. *Shequ* means community or commune in Chinese. Its invention emphasizes local communities within the social organization under the market economy. Different from the danwei, the shequ's domain is defined by its physical territory. The responsibility of social organization/supervision, as well as some welfare provisions (pension and medical care), was transferred from the danwei to the shequ. As the newly-proposed unit of socio-spatial structure, the shequ were widely established in Beijing from the end of 1990s for replacing the residents' committees. While it is still a top-down intervention,

the shequ is definitely clarified as an organization of “residents’ autonomy”. In order to promote the local democracy, the administrators of shequ are proposed to be elected by the local residents under the supervision of government. The shequ may thus be the meeting point of where the state will and the civil force meets. Here the communities in Chinese cities, unlike in the civic cities of the western society, are again the top-down intervention to bottom-up reorganize the individuals (figure 4-17). Along with the dismantling of danwei system and the emerging arguments for the individuality, the shequ may never tie and control the residents as the danwei did. However, by strengthening the organization of local communities, it successfully contributed to the socio-spatial restructuring of Chinese cities.

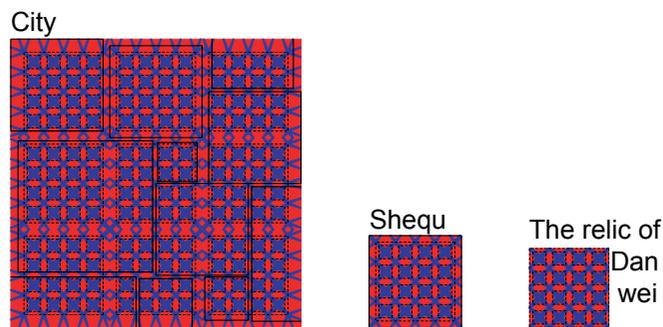


Figure 4.17  
Socio-spatial composition of the city based on the shequ

The new communities of shequ no doubt led to the transformation of the socio-spatial morphology of former public housing areas in Beijing. But as we have discussed, any transformations are not the breaks from the past. The strong images of former danwei communities or local communities in those areas decisively influenced the construction of shequ, since “in old public housing areas... the residents’ senses of community management and autonomy normally are much stronger, and the works of community organization well-developed...” (Huang Xu, 2002, p.77). In practice, the shequ were usually set up in accordance with the preexisting territories of one or several residents’ committees, under the supervision of the sub-district offices. In the dayuan areas, it actually meant the domain of original danwei communities, which were also local communities, were physically confirmed; and in the Residential Areas and the neighborhoods with the Public Housing Patches, the local communities that were previously defined by the sub-district and residents’ committee were reinforced.

Apart from the establishment of the institutionalized organization for the local communities, the shequ development also means the further socio-spatial interventions. Along with the transfer of social functions from the danwei to the shequ, the new communal facilities such as community centers and elderly centers were introduced and the existing facilities were renewed in order to facilitate the completely local daily round. The quality of public space and outdoor environments was improved for the local communities. Even the walls (or fences) were much more popularly built up around or in the neighborhoods for the security, so that many of those old neighborhoods became really comparable to the walled fang in Chinese history. Local communities, many of which originally rooted in the danwei communities, were thus not only socially but also spatially strengthened (figure 4-18).



Figure 4.18  
*A shequ division according to the original danwei in a dayuan area*

As a result, although the increasing mobility is an inevitable trend, the identities of the socio-spatial morphologies of former public housing areas, whether in the physical or non-physical aspects including the sense of place and community, well-organized public space, convenient daily facilities, identified urban form and originally mixed social structure (the mixture of different income groups), are less or more retained. The establishment of this kind of local communities actually revealed the effort to explore the possibility of reinventing what Manuel Castells (2000, p.407-459) termed “the space of places” at the time of “the space of flows”. Here we can see the reaction of the spatiality to the sociality. The socio-spatial dialectics conditioned the bottom-up construction of community but reflected the top-down intervention of shequ institution. In this process, the preexisting socio-spatial morphologies of former public

housing areas in Beijing at least partly remained. The originally local communities were reinforced, accompanied with the dismantling of danwei communities. If we closely investigate the existing shequ in the former public housing areas, they largely repeat and represent the territories and morphologies of *dayuan*, *Residential Areas* and *Public Housing Patches*. The communities in transition still placially indicate the homes and belongingness of many urban residents and spatially compose the neighborhoods. Therefore, the community-placial typology of socialistic public housing areas elicits the understanding of current socio-spatial morphologies, and will probably reveal the potentials for the future researches and interventions.

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## § 4.4 Conclusions

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In this chapter, the research focused on the community-placial dimension of socialistic public housing in Beijing, which meant the socio-spatial morphologies of public housing areas based on the communities. Thanks to the danwei-state system under the planned socialism, especially the danwei-based public housing system, which resulted in the affiliations between the individuals and their danwei, the danwei communities were placially the basic units of public housing areas that facilitated the urban residents' daily round. In addition, the local communities that were organized based on the sub-district offices and residents' committees played a complementary role. As a result of different approaches of public housing developments and social organizations, the overlapping and separation between the danwei communities and local communities led to different types of socio-spatial morphologies of socialistic public housing areas – *dayuan*, *Residential Area* and *Public Housing Patch*, which were categorized according to not only the physical morphologies but to the community-based people's everyday life. While the danwei system and danwei communities were largely dismantled in the transition from the planned economy to the market economy, the development of shequ (which replaced the residents' committees) actually reinforced the originally local communities that were proposed as the new units of socio-spatial organization in the city. The remains of socio-spatial morphologies of former public housing areas can still be, physically and placially, experienced in people's everyday life.

In Chapter 3 and Chapter 4, we systematically reviewed the socio-economic context and institutional interventions for the socialistic public housing (in the socio-economic dimension) and the community-based, socio-spatial morphologies of those public housing areas (in the community-placial dimension), respectively. But as a result of public housing interventions and the physical form and space that people perceived in their everyday life, the physically built environments of socialistic public housing

areas are also an indispensable aspect of the research, under the theoretical framework of spatial phenomenon. In the next chapter, the review and analysis will focus on the physical interventions that largely determined the aesthetic-technical dimension of former public housing in Beijing.



# 5 Physical Interventions for Socialistic Public Housing in Beijing

In the previous two chapters, the analyses of socialistic public housing focused on its socio-economic and community-placial dimensions, respectively. However, if the Chinese socialistic public housing and its development in Beijing are regarded as a spatial phenomenon, the historical study should also include the third dimension; meaning, the aesthetic-technical dimension. In this dimension, the physically built-up environments also positively and materially constructed people's living spaces. In this chapter, our discussion will focus on the ideas and practices that physically shaped the spatiality of socialistic public housing areas in Beijing. The typological analysis on those physical interventions will cover the fields of spatial planning, design and building technology.

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## § 5.1 Planning Concepts of Public Housing Areas

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In principle, the planning concepts on residential area constructively guided the developments of socialistic public housing areas. In Beijing, the evolution of planning concepts for public housing areas, from the "barrack-like" row-housing area at the very beginning to the 3-level planning structure of Residential District-Quarter-Cluster that still influences the physical planning of residential areas today, was a progressive process from simply placing housing buildings to integrally planning housing areas with complete public facilities and human-centered living environments. In this section, we will review those planning concepts and their transformations.

### § 5.1.1 The Row-Housing Area and the "Neighborhood Unit"

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Along with the foundation of the People's Republic, developments in public housing were immediately on the agenda in order to solve the housing problem. But due to the limited economic and technical conditions, the earliest public housing developments in Beijing were concentrated on those linear-arrayed and south-north oriented row-housing areas out of the existing city walls, which were composed of the so-called "paifang", the single storey row-houses only with shared amenities, or "tongzilou", a

kind of 2-3 storey dormitory housing with public kitchen and toilet. Without integral planning and complete facilities, those row-housing areas were evidently temporary solutions and were usually called “barrack-like” row-housing areas.

In the beginning of 1950s, the concept “Neighborhood Unit”, which was proposed by American architect Clarence Perry in the 1920s, was introduced for the planning and design of public housing area. According to the concept of Neighborhood Unit, a housing neighborhood was defined as a component of a town, in which the urban traffic could not pass through and the inner roads were curved and ended. Schools and other public facilities were placed in the center of the neighborhood, and its size was based on a five-minute walking radius in order to facilitate the residents’ daily-routine. In 1951, the Neighborhood Unit concept was applied in a 40-hactor public housing development in Zhenwumiao, Beijing, consisting of 2-storey detached garden houses and 3-storey terrace houses (figure 5-1). However, this planning concept that was introduced from the United States was soon criticized as a “capitalistic” concept and was hence abandoned. The Zhenwumiao project is actually the only public housing neighborhood unit that was realized in Beijing.

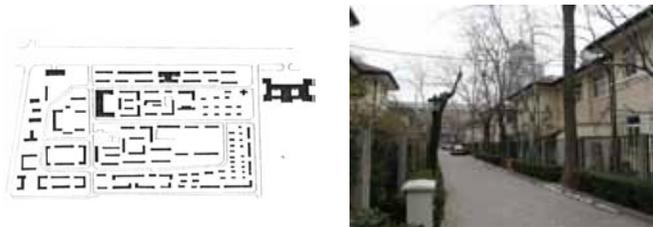


Figure 5.1  
Zhenwumiao Neighborhood Unit  
(Source: Chen Qi and Zhao Jingzhao, 1999, p.4; photo by author)

### § 5.1.2 Soviet-Style “Neighborhood”

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Accompanied with the establishment of the socialistic public housing system, the Soviet planning concept of “Neighborhood” was introduced and popularly applied since 1953. The 1953 draft of Beijing’s master plan suggested to “adopt the Grand Neighborhood concept in the planning of residential areas, usually 90,000 to 150,000 m<sup>2</sup>... with buildings that have to be less than 4-5 floors high... the neighborhood has to be uniformly planned and designed with auxiliary cultural/service facilities, green

areas, and children's playgrounds. Moreover, it has to ensure enough sunshine and fresh air in the residential area" (Zhang Jinggan, 2001, p.127). As a Stalinist planning concept, the "Neighborhood" in particular stressed the closed, healthy and quiet living environment, large-scale greenery, as well as a well-planned, symmetric urban form. Those neighborhoods usually adopted the spatial layout of perimeter courtyard block and thus were called the perimeter courtyard neighborhoods. In Beijing, the representative cases of Soviet-style neighborhoods included the residential area of the Eastern Suburb Cotton Factory (figure 5-2) and Baiwanzhuang Neighborhood (figure 5-3).

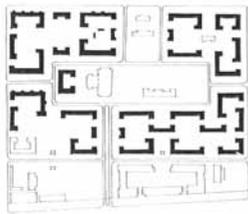


Figure 5.2  
*Residential area of Eastern Suburb Cotton Factory*  
(Source: Chen Qi and Zhao Jingzhao, 1999, p.4; photo by author)



Figure 5.3  
*Baiwanzhuang Neighborhood*  
(Source: Chen Qi and Zhao Jingzhao, 1999, p.5; photo by author)

However, as a physical planning concept that emphasized the symmetric, European-style spatial layout, the neighborhood was not well adaptable to the local climate and the living habit in practice. This physical planning and design presented several problems for Chinese residents, such as too many east-or west-oriented dwellings, not enough exposure to sunlight, poor ventilation, and "labyrinthic" layout. In comparison with physical morphology, the planning of public facilities was also less emphasized

in those neighborhoods. Therefore, its planning concept was finally succeeded by the “Residential Quarter” in 1957.

### § 5.1.3 Planning Concept of the Residential Quarter (Xiaoqu)

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In 1957, a new planning concept of “Residential Quarter” (“Xiaoqu” in Chinese or “Микрораион” in Russian) was introduced from the Soviet Union. The Residential Quarter was regarded as the presentation of socialistic ideology within the urban social structure. The symmetrically physical morphology was not stressed any more. A residential quarter should be equipped with a complete set of communal public facilities, including a primary school, a kindergarten, restaurants and shops, so as to create an integral built environment for the residents’ daily lives. Also, in this year, the urban planning authority of Beijing proposed that the “Residential Quarter” was to be the basic cell of residential areas in the city and surrounded by the urban roads. Each residential quarter was to be planned for 10,000-20,000 inhabitants in the site of 30-60 hectares, and public traffic should be prohibited to pass through a residential quarter. The first residential quarter that was realized in Beijing was the Xizhaosi Quarter (figure 5-4).



Figure 5.4  
*Xizhaosi Residential Quarter*  
(Source: Chen Qi and Zhao Jingzhao, 1999, p.5; photo by author)

In many aspects, the concept of Residential Quarter was comparable to the “Neighborhood Unit”, but in a larger size. The concept of Residential Quarter had a far-reaching impact on the planning of residential areas in Beijing and other Chinese cities. The residential quarters actually determined the existing spatial sizes of “mega-blocks” in Beijing. “Xiaoqu” is still the most popular Chinese word referring to a housing area today.

#### § 5.1.4 Establishment and Development of the 3-Level Planning Structure of the Residential District-Quarter-Cluster

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From the 1970s, the unified construction and integral planning of public housing areas with urban facilities and infrastructure was emphasized. The limited size of the residential quarter was hence inadaptably to the large-scale public housing development. In the middle of 1970s, a new concept for the physical planning of public housing areas – the 3-level planning structure of Residential District-Quarter-Cluster – was introduced. The planning concept of a Residential District presented a 3-level structure:

- Residential District (Juzhuqu) for 10,000-15,000 dwellings and 30,000-50,000 residents,
- Residential Quarter (Xiaoqu) for 2,000-3,000 dwellings and 5,000-10,000 residents, and
- Residential Cluster (Zutuan) for 300-700 dwellings and 1,000-3,000 residents.

A residential district, which is surrounded by the main urban roads, is usually composed of several residential quarters (surrounded by the ordinary urban roads), each of which contains some residential clusters (clusters of residential buildings, as basic units of a residential district). There was also the Residential District-Cluster. It was a 2-level planning structure or the resident district of “mixed structures” by combining the 2-level structure with 3-level structure. The standards of public facilities and infrastructure were set up at different levels according to the amount of residents that they accommodated. The population sizes of different levels also facilitated the urban governance: the residents of a residential cluster were often organized by a residents’ committee (Juweihui), and a sub-district (Jiedao) could be set for a residential district. From 1975, the planning concept of Residential District began to be applied in the developments of large-scale public housing areas in Beijing. Those areas included the Tuanjiehu (figure 5-5), Jinsong (figure 5-6) and Qiansanmen Residential Districts. Since then, the 3-level planning structure of Residential District-Quarter-Cluster was established as the fundamental concept for the physical planning of public housing areas. But the Residential Quarter, as a relatively independent unit with the most fundamental public facilities that made easy the lives of the residents, was still the most popular cell for the planning of public housing areas<sup>1</sup>.

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1 In practice, since the available lands for the developments of large-scale residential district were limited, the residential quarters were still widely applied as independent cases.



Figure 5.5  
*Tuanjiehu Residential District*  
 (Source: Chen Qi and Zhao Jingzhao, 1999, p.6; photo by author)



Figure 5.6  
*Jinsong Residential District*  
 (Source: Chen Qi and Zhao Jingzhao, 1999, p.7; photo by author)

From the 1980s, the 3-level planning structure of Residential District-Quarter-Cluster was further optimized and developed along with the market-oriented reform. The economic growth indubitably led to the requirements for higher quality of living, and the economic marketization accompanied social diversification and stratification, which resulted in the diversified and differentiated demands of living environments. In addition, the commercialization of public housing development also brought the challenge of balancing housing density and living quality. As a result, the integral planning of housing areas was further emphasized. There were two trends in the physical planning of public housing areas in Beijing since the early 1980s: on the one hand, the quality of public facilities and outdoor environments; and on the other hand, the diversified and human-centered planning.

In order to deal with the insufficiency of communal facilities for public service, the development of public facilities was in particular stressed from the beginning of the 1980s. In 1980, the “Interim Regulation on the Standards of City Planning” stipulated the requirements for public facilities in residential districts and residential quarters. A system of the standards (ration indexes) of public facilities per thousand people was established. In 1981, the urban planning authority of Beijing promulgated the

planning code on the standards of public facilities in residential areas, which included 50 types of 6 categories and covered the levels of resident district, residential quarter and residential cluster. In the mid-1980s, this code was improved to include 63 types of 7 categories (Zhu Guanghui, 1999, p.96). For a residential quarter, the public facilities focused on those which could facilitate the residents' daily round, but the public facilities on the level of residential district had to involve some urban functions, including shopping centers, post offices, bookstores, cinemas, cultural centers, secondary schools, etc. In the meantime, the outdoor environments were also emphasized from the 1980s in the physical planning of public housing areas. The design quality of open public spaces, landscapes and greenery was improved. The control of the distances between buildings began to be particularly stressed in order to guarantee sunlight, natural ventilation, sanitation and fireproofing of housing areas. The regulations on controlling building height and density were also announced.

On the other hand, the diversified and human-centered planning was promoted in the public housing developments. The diversification not only meant the flexible mixture of different building types or spatial layouts but also indicated the multiple and humanized living environments. The planning/design of public facilities and outdoor environments also tended to be human-centered. For instance, the planning of shopping facilities was changed to trace the residents' activities: instead of being located in the center of a residential quarter, they were often placed in the main entrances or perimeters of a public housing area.

In Beijing, the representative residential districts or residential quarters that were developed in the 1980s and 1990s included Wuluju Residential District (figure 5-7), Fangzhuang Residential District (figure 5-8) and Enjili Residential Quarter (figure 5-9). In general, the establishment and development of the 3-level planning structure of Residential District-Quarter-Cluster meant not just the enlargement of the sizes of public housing developments but the transformation of the start point of planning. It was a concept of integral planning of housing areas from the viewpoint of city: the relationship between residential areas and urban development was emphasized; the requirements for public facilities, infrastructure and living environments were optimized; and the physical, social and environmental benefits were balanced. In fact, the planning concepts that derived from this 3-level planning structure, such as the standards of public facility per thousand people, still have far-reaching influences on the planning of residential areas today.



Figure 5.7  
 Wuluju Residential District  
 (Source: Chen Qi and Zhao Jingzhao, 1999, p.13; photos by author)



- 1—中学 2—小学 3—托幼 4—商业服务设施 5—地区商业中心
- 6—商店 7—办公、业务楼 8—文化中心 9—体育中心 10—门诊、医院
- 11—影院 12—青年公寓 13—专用地 14—工厂 15—公园

Figure 5.8  
 Fangzhuang Residential District  
 (Source: Bai Demao, 1993, p.39; photos by author)



Figure 5.9  
*Enjili Residential Quarter*  
 (Source: Bai Demao, 1993, p.97; photos by author)

## § 5.2 Spatial Layouts and Building Types in Public Housing Areas

For a long period, the spatial layouts or building types in the public housing areas were a hot topic in the debates among architects, planners, scholars and even the public in Beijing. It was related not only to the built environment, housing comfort and density but also to the protection of historical city image. In principle, there were two major categories of building types – the multi-storey (including the low-rise and mid-rise) buildings and the high-rise buildings, which were composed of different spatial layouts.

### § 5.2.1 Spatial Layouts of the Multi-Storey Residential Buildings

Before the mid-1970s, the public housing areas in Beijing were mostly made up of the multi-storey apartment or dormitory buildings, which usually had 3 to 6 storeys. From the 1970s, although the high-rise buildings started to be popularly developed, the multi-storey apartment buildings were still largely applied in the planning and design of public housing areas, as more “user-friendly” building types that could also be beneficial to the protection of the historical city image.

### *Perimeter courtyard block*

As aforementioned, the multi-storey, perimeter courtyard block, as a type of spatial layouts in the physical planning of public housing areas, was introduced together with the Soviet Neighborhood planning concept in the early 1950s. The spatial layout of courtyard block emphasized the well-organized and symmetric urban form and resulted in the safe, quiet and comfortable inner courts. The communal facilities were placed in and between the blocks. The residential area of the Eastern Suburb Cotton Factory and the Baiwanzhuan neighborhood were both the very examples of the courtyard block neighborhoods. The Xingfucun neighborhood that was planned in 1956 can be seen as a localized case of a courtyard block neighborhood: the symmetric plan was not emphasized, but the spatial layout of buildings was adapted to the local topography so as to create the diversified and favorable living environments (figure 5-10).



Figure 5.10  
*Xingfucun Neighbourhood*  
(Source: Chen Qi and Zhao Jingzhao, 1999, p.5; photo by author)

But in practice, this European style spatial layout was not thought really adaptable to the local situations. The layout of courtyard block resulted in approximately 40% of east-west oriented dwellings and many corner shadows in a block, which inevitably led to the scarification of the access to the sunlight and natural ventilation. The residential buildings that were placed along the street were noisy. The monumental urban form and labyrinth urban fabric were also criticized inadaptable to the residential function. Therefore, along with the criticism to the formalistic tendency in the urban planning and architectural design, the large application of the spatial layout of courtyard block was terminated in Beijing in the late 1950s. However, the perimeter courtyard blocks began to be widely readopted in the physical planning of public housing areas from the late 1980s. Instead of creating a complete urban form, they were mainly applied for generating higher housing density.

### *Linear-arrayed row-housing*

The linear-arrayed, north-south oriented and parallel row-housing was the most popular spatial layout of the multi-storey public housing buildings. In fact, as a building type mostly adaptable to the local climate and habits of living, the linear-arrayed row-housing can be regarded as a modern but vertical transformation of urban fabric in traditional hutong courtyard housing areas (figure 5-11)<sup>2</sup>. The south-north oriented row-housing guaranteed the preferable access to the sun and natural ventilation for each dwelling. The more “standardized” row-housing facilitated the industrialized building and mass production of public housing. And in some well-designed cases, the more flexible layout of linear-arrayed row-housing also created friendly living environments. Thus, the linear-arrayed, south-north oriented row-housing had become the mainstream spatial layout of the multi-storey public housing buildings in Beijing since the late 1950s and is popularly applied in the physical planning/design of residential areas even today. The Longtanhu Residential Quarter that was developed in 1964 is a representative of well-designed neighborhood of linear-arrayed row-housing (figure 5-12).

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2 In the old city of Beijing, the typical hutong areas were composed of rows of courtyard houses in between several east-west oriented hutong areas. A typical hutong courtyard house was also south-north oriented. Therefore, if we compare the apartment units in a linear-arrayed row-housing to the courtyard houses in a hutong, the spatial layout of linear-arrayed row-housing can be comparable with the urban fabric of traditional hutong areas.

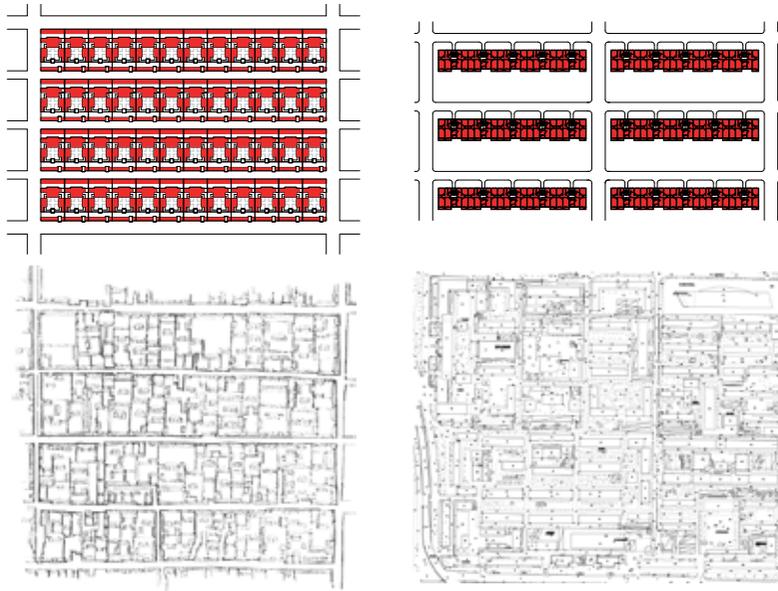


Figure 5.11  
Typically spatial layouts of Hutong (left) and Linear-arrayed public housing areas (right)



Figure 5.12  
Longtanhu Residential Quarter  
(Source: Chen Qi and Zhao Jingzhao, 1999, p.6; photo by author)

However, in comparison with the courtyard block, the shortage of linear-arrayed row-housing layout was also evident: the closed outdoor environments and complete urban form were sacrificed. In particular from the 1960s to the early 1980s, many linear-arrayed row-housing areas were developed without integral urban planning and design. The monotonous living environments and homogeneous physical morphology earned the nickname “barrack-like” housing areas.

#### *Housing cluster*

From the 1980s, along with the development of 3-level planning structure and the emphasis of human-centered physical planning, a new type of spatial layout – the

housing cluster – was widely adopted in the planning and design of public housing areas in Beijing. The housing cluster can be seen as a layout that combined the characteristics of the courtyard block and the linear-arrayed row-housing. On the one hand, the closed outdoor environments of each cluster were emphasized, and on the other hand, the south orientation of apartment buildings was mostly guaranteed. With the building entrances toward one or more inner courts, a housing cluster was usually centripetal so as to create a semi-public space. In comparison with either the courtyard block or the linear-arrayed row-housing, the spatial layout of multi-storey housing cluster was more flexible. More importantly, the layout of housing cluster represented not only a physically but also socially spatial concept – the physical size of a housing cluster actually corresponded to the planning size of a residential cluster and the governance size of a residents’ committee. As a spatial layout that was widely applied in the developments of public housing areas in the 1980s and 1990s, the representative cases that adopted the spatial layout of housing cluster included the Fujiangxili Residential Quarter (figure 5-13) and Enjili Residential Quarter.



Figure 5.13  
*Fujiangxili Residential Quarter*  
 (Source: Lü Junhua, Rowe and Zhang Jie, 2001, p.210; photo by author)

#### *Multi-storey tower*

As a type of spatial layout of multi-storey buildings, the concept of multi-storey tower was originally proposed in the early 1960s and more popularly adopted in the public housing developments from the late 1970s. In comparison with the aforementioned three layouts, which can all be regarded as the multi-storey “slabs”, the multi-storey tower generated less shadows so it was allowed to shorten the distances between residential buildings. Under the background of stressing the land-saving, it was undoubtedly a spatial layout that could effectively increase the housing density in the multi-storey public housing areas and thus began to be promoted in the late 1970s. In addition, in terms of its smaller footprint, the multi-storey tower was more adapted to the irregular or small sites on the one hand and could be flexibly composed for creating the diversified morphology of building clusters. Nevertheless, the problems of the multi-storey tower cannot be ignored. The south-oriented accesses to the sun

and natural ventilations of many apartments were sacrificed, and the construction costs were higher. In particular when the high-rise apartment buildings had been widely constructed, its effect of increasing housing density became less important. Hence in Beijing, the spatial layouts of multi-storey towers were only used for the sites with limited available spaces and for being mixed with other building types. Figure 5-14 shows the multi-storey towers along Yuetanbei Jie that were developed in the 1970s.



Figure 5.14  
*Typical multi-storey towers – the residential buildings along Yuelanbei Jie*

## § 5.2.2 Spatial Layouts of the High-Rise Residential Buildings

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In the 1970s, a new category of building types – the high-rise buildings – was introduced in the public housing developments. As an effective and economical means of raising housing density, they were largely applied in the physical planning and design of public housing areas in the 1980s and 1990s. Until the late 1980s, the proportion of high-rise buildings in the annually completed housing constructions had amounted to more than 45%. In the newly planned residential districts, the proportion of high-rise buildings increased from 30% to 80%. The spatial layouts or building types of the high-rises mainly included the slabs and towers.

### *High-rise slab*

Similar to the multi-storey, linear-arrayed row-housing, the south-north oriented high-rise slab guaranteed the natural sunlight and ventilation for each apartment and was therefore more welcome by the residents. By increasing the floor area ratio, the high-rise slab was a land-saving approach of public housing development. The dwellings on the higher floors also enjoyed the better views. But the insufficiencies of high-rise slab were also obvious in comparison with the multi-storey building types. Its construction costs were higher. The high-rise caused unfriendly environmental and

social effects. And especially in Beijing, the development of high-rise buildings in the old city was criticized for damaging the historical cityscape (figure 5-15).

Figure 5-15 High-rise slabs along Fuxingmenwai Dajie

The more flexible transformations of high-rise slab were developed with the trend of diversification in the physical planning of public housing areas. For example, the high-rise slabs with non-linear footprints started to be applied in the late 1980s (figure 5-47). But on the other hand, the commercialization of public housing development led to the further emphasis of raising housing density. As a result, many high-rise slabs were placed to be east-west oriented, which inevitably damaged the comfort of interior home space.



Figure 5.15  
*High-rise slabs along Fuxingmenwai Dajie*

#### *High-rise tower*

In comparison with the multi-storey buildings, the high-rise tower had the same strengths and weaknesses as the high-rise slab. Furthermore, the spatial layout of high-rise tower, by which the distances between the residential buildings were effectively shortened, could further raise the housing density in the public housing areas. The application of high-rise towers also facilitated the more flexible layout in the physical planning, and they were more adapted to the new housing constructions on the smaller sites in the existing built-up areas, where the available ground spaces were often limited (figure 5-16). However, as an intrinsic shortage of tower layout, the high-rise towers were criticized for their lower quality of apartments' micro-climate and thus less welcome by the users, compared with the south-north oriented high-rise slab. The uncontrolled insertion of high-rise towers also destroyed the original urban morphology of built-up city areas.



Figure 5.16  
*A typical high-rise tower*

#### *Conjoint high-rise tower and high-rise tower-slab*

As a result of the overemphasis of raising housing density, the “multiplex” and hyper-dense high-rise building types by conjoining slabs and towers were developed in the 1990s. The application of those conjoint high-rise towers (figure 5-17), high-rise tower-slabs (which meant the high-rise towers conjoined with slabs) and even closed or semi-closed high-rise perimeter blocks could largely enhance the floor area ratio in the public housing developments. But the sunlight and natural ventilation of many apartments were compromised. Also, the comfort of living environments was evidently sacrificed. Therefore, the spatial layout of conjoint high-rise tower or high-rise tower-slab was not largely promoted.



Figure 5.17  
*A conjoint and Y-shaped high-rise tower*

### § 5.2.3 Mixed Layout of Different Building Types

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In many cases, a public housing area was not composed of one type of layouts but of several different spatial layouts or building types, as a result of integral or non-integral planned housing constructions. Particularly from the early 1980s, the diversification

was stressed in the physical planning and design of public housing areas in Beijing and hence the increasingly caused mixed spatial layouts.

As early as in the 1950s, the debate between the arguments for perimeter courtyard block and linear-arrayed row-housing resulted in a mixed spatial layout of the two. The Hepingli residential quarter was an example (figure 5-18). This mixed layout inherited the strengths of both courtyard block and linear-arrayed row-housing but together had their weaknesses. Later in the 1960s and 1970s, the introduction of the building type of multi-storey tower enriched the spatial layouts in the planning of multi-storey public housing areas. The Shuiduizi residential quarter planned in 1963 (figure 5-19) was a good example of the mixed layout of linear-arrayed row-housings and multi-storey towers.



Figure 5.18  
*Hepingli Residential Quarter*  
(Source: Chen Qi and Zhao Jingzhao, 1999, p.6; photo by author)



Figure 5.19  
*Shuiduizi Residential Quarter*  
(Source: Chen Qi and Zhao Jingzhao, 1999, p.6; photo by author)

From the 1980s, the large development of high-rise apartment buildings provided more choices for the spatial layouts of buildings in public housing areas. Along with the emphasis of the integral but diversified planning, the high-rise and multi-storey buildings were increasingly mixed in one public housing neighborhood. The Tayuan

residential quarter planned in 1980 (figure 5-20) is an early attempt, where the high-rise towers were developed together with the linear-arrayed multi-storey buildings. Their spatial layouts also became more flexible and “free-style”. For example, in the Xibahe Dongli residential quarter, the radially laid high-rise slabs and towers were planned together with the multi-storey and linear-arrayed row-housing buildings (figure 5-21). Another representative case was the Fangchengyuan residential quarter in the Fangzhuang residential district, where the high rises and multi-storey garden houses were flexibly mixed (figure 5-22). In general, the mixed layout of different building types changed the monotonous and homogeneous morphologies of early developed neighborhoods, and contributed to creating diversified and human-centered living environments in public housing areas.



Figure 5.20  
Tayuan Residential Quarter  
(Source: Lü Junhua, Rowe and Zhang Jie, 2001, p.209; photo by author)



Figure 5.21  
Xibahe Dongli Residential Quarter  
(Source: Bai Demao, 1993, p.245; photo by author)



Figure 5.22  
*Fangchengyuan Residential Quarter in the Fangzhuang Residential District*  
(Source: Lü Junhua, Rowe and Zhang Jie, 2001, p.237; photo by author)

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## § 5.3 Designs of Public Housing

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During the approximately 50-year history of the Chinese socialistic public housing in Beijing, many different but standardized housing designs were developed. In order to facilitate the large-scale development of public housing, the standard design was particularly emphasized. The balance between design standardization and diversification was also stressed, especially after the start of China's Reform. Under the strict control of housing standards on floor area, the housing types covered from the low-rise dormitory house to the multi-storey or high-rise apartments. Apartment housing was, by no doubt, the mainstream housing design, while some another tendency was adopted. Designs were also developed from a few standard housing plans to various dwelling types. The evolution of public housing designs presented the efforts of different periods for solving the housing problem.

### § 5.3.1 Designs of Multi-Storey Public Housing<sup>3</sup>

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Since the early 1950s, the multi-storey residential buildings (including the low-rise and mid-rise) had been adopted as the major building types in the developments of

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3 All floor plans in this section were drawn by author together with Song Xiaoyu.

public housing. From the 1950s to the 1990s, various types of multi-storey housing designs were developed as standard designs. In this section, the representative housing types will be discussed in order to review the evolution of the designs of multi-storey public housing.

*Paifang and tongzilou – the designs of dormitory housing*

As mentioned above, the dormitory-like public housing – Paifang and Tongzilou – began to be developed in Beijing immediately after the People’s Republic was founded in 1949, as the temporary solution for solving the problem of housing shortage. The so-called paifang was the single-storey (and usually south-north oriented) row houses without independent kitchens or toilets. The standard housing plans of paifang included the dwelling types of single room, one and a half rooms and two rooms, each of them with an auxiliary space of 3-5 m<sup>2</sup> (figure 5-23). Besides, the tongzilou was actually the 2-or 3-storey dormitory housing with inner public corridor and dwellings on its both sides. Each dwelling had one or two rooms, and the dwellings on each floor shared a public kitchen, toilet and water taps (figure 5-24). In fact, those dormitory houses did not separate the functional rooms for each dwelling and was not really adapted to the modern requirements of quality of living.

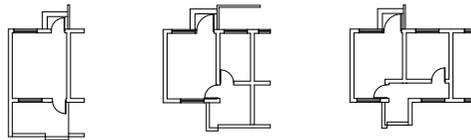


Figure 5.23  
Housing plans of paifang – 1-room (left), 1.5-room (middle) and 2-room (right) dwellings

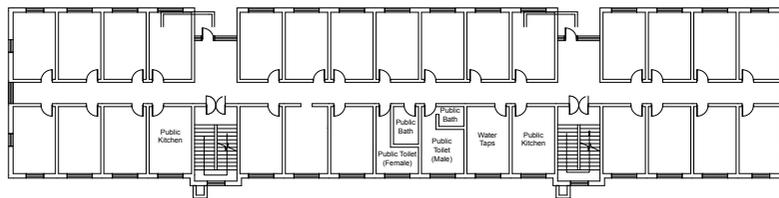


Figure 5.24  
Standard floor plan of a tongzilou

*Dwelling-unit apartments – the mainstream of multi-storey public housing designs*

Together with the Soviet methodologies of standard design and industrial building, the inner-corridor, dwelling-unit housing plan was introduced from the early 1950s. As

the most fundamental cell in the design of housing, a dwelling unit is to be designed with standard components conforming to a construction module, and consisted of several apartments all sharing the same staircase. Each apartment had its own kitchen and toilet, as well as water supply, sewage and heating facilities. Inner public corridors and staircases avoided the interferences between different apartments. Various combinations of such standard units (including the units for the middle, end and corner sections of buildings) are to form different buildings, and when the different buildings were put together, they form residential areas. The dwelling-unit housing plans could efficiently satisfy the different demands under the framework of building standardization and industrialization, and therefore were widely applied as the most popular standard designs of multi-storey apartment housing in the following decades. Actually, as a basic model, it still influences the existing designs of residential buildings in Beijing and other Chinese cities.

At the beginning, the design standards were directly introduced from the Soviet Union. With the technical support from Soviet experts, the designs of dwelling-unit apartments were developed. In Beijing, the standard design No.2, which was developed by the municipal institute of architectural design (BIAD) in 1955, consisted of typical designs of Soviet dwelling-unit housing plans. The standard floor plans of dwelling-units with five bays mainly involved two types: the dwelling-unit of two apartments (one 3-bedroom apartment and one 4-bedroom apartment, 98.88 m<sup>2</sup> per apartment averagely) and the dwelling-unit of three apartments (three 2-bedroom apartments, 62.92 m<sup>2</sup> per apartment averagely) (figure 5-25). Since the Soviet standard of living floor area per person (9 m<sup>2</sup>) was much higher than China's actual living standards at that moment (about 4 m<sup>2</sup>), the absolute emulation of Soviet housing designs resulted in differences between housing design standards and housing allocation standards and the so-called "rational design and irrational use". The Soviet higher-standard designs had to be revised. However, the "5-bay" dwelling unit housing plans, especially the dwelling unit of three 2-bedroom apartments, were adopted as the "prototypes" for the designs of dwelling-unit apartment buildings in public housing developments.

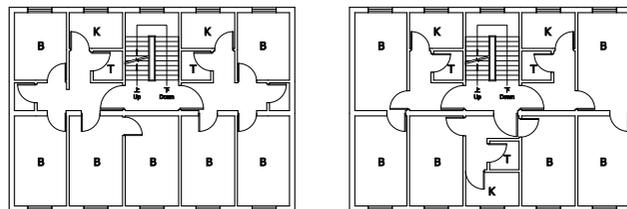


Figure 5.25  
Dwelling-unit plans of standard design No.2 – dwelling-units of two apartments (left) and of three apartments (right)

From 1957, the public housing design standards were lowered in order to adapt to the local conditions. The ration index of living floor area was controlled to be no more than 4 m<sup>2</sup> per person in Beijing. According to the new design standards, the “small-sized” apartment designs, of which one apartment was designed for one family, were developed. The newly-designed dwelling-unit housing plans were evidently “shrunk” but more adapted to the local habits of living. The standard design 701C3 (52 m<sup>2</sup> per apartment) that was developed by the BIAD was one of the most welcome dwelling-unit housing plans at that time (figure 5-26).

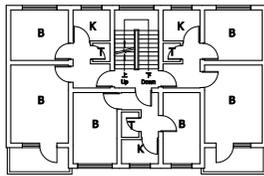


Figure 5.26  
*A dwelling-unit plan of standard design 701C3*

The Great Leap Forward (1958 – 1960) generated two radical trends in the designs of public housing. On the one hand, there was the trend to overemphasize the economy in housing design. The living floor area per household was controlled to be no more than 18 m<sup>2</sup>, and building floor area per apartment was further lowered to about 40 m<sup>2</sup> in the designs of dwelling-unit apartment buildings. With narrower staircases, corridors and doors, smaller rooms, lower interior space, and thinner roofs, floor slabs and walls, those low-standard designs were criticized as “narrow, small, low and thin” houses. The housing design for the Hongmaogou residential quarter was an example of low-standard dwelling-unit apartments (figure 5-27).

On the other hand, the passion for realizing communism within a short time caused the irrational raise of housing design standards. A series of high-standard, dwelling-unit housing plans were developed again in Beijing according to the standard of living floor area 9 m<sup>2</sup> per person. The standard design 9014 (67.38 m<sup>2</sup> per apartment) was just a representative high-standard housing plan (figure 5-28). While those high design standards were abandoned along with the failure of the Great Leap Forward, the 9014 design, as a typical 5-bay housing plan of three 2-bedroom apartments, had far-reaching influence for the designs of dwelling-unit public housing in the following years.

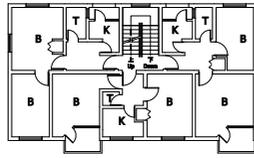


Figure 5.27  
A dwelling-unit plan of public housing in  
Hongmaogou Residential Quarter

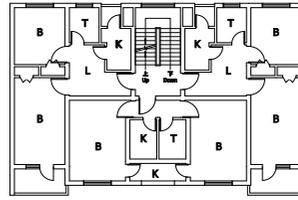


Figure 5.28  
A dwelling-unit plan of standard design 9014

During the period between the Great Leap Forward and the Cultural Revolution, the designs of public housing became more rational. Many different housing plans of dwelling-unit apartments were developed. The 64 Housing-2 (59.04 m<sup>2</sup> per apartment) that was developed by the BIAD in 1964 was a representative standard design in this period (figure 5-29).

In the early period of the Cultural Revolution, the standard and quality of housing design dropped to the lowest level since 1949, due to the impact of ultra-leftist ideology. In the beginning of the 1970s, the public housing development started to be reemphasized. The small-sized apartment designs had been widely applied. The housing design standards were re-enhanced especially from 1973. The standard design 74 Housing-1 (50.81 m<sup>2</sup> per apartment) was a dwelling-unit housing plan that was popularly adopted in the 1970s (figure 5-30).

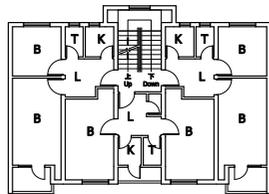


Figure 5.29  
A dwelling-unit plan of standard design 64 Housing-2

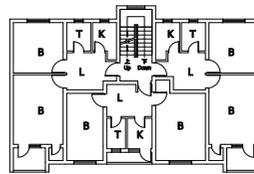


Figure 5.30  
A dwelling-unit plan of standard design 74 Housing-1

After the Tangshan earthquake in 1976, the seismic designs were unprecedentedly stressed in the development of public housing. The standard design 76 Housing-1M was hence developed by modifying the housing plan of 76 Housing-1. As a design of dwelling-unit apartments with improved seismic standards, the 76 Housing-1M was

identified by the continuity of load-bearing walls and the additional structural pillars and ring beams (figure 5-31).

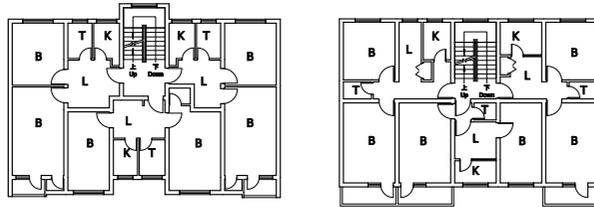


Figure 5.31  
*Dwelling-unit plans of standard design 76 Housing-1 (left) and 76 Housing-1M (right)*

In 1978, China officially initiated its Reform and Opening-up. Along with the following economic boom and social diversification, the housing design standards were largely improved, and the diversified and creative housing types were accordingly developed. In Beijing, the standard designs of “80 and 81 Housing Series” developed by the BIAD were popularly applied in the 1980s. Based on the standards of 56 m<sup>2</sup> per apartment in multi-storey building, 62 m<sup>2</sup> per apartment in high-rise slab and 64 m<sup>2</sup> per apartment in high-rise tower, this series of standard designs optimized the floor plans of apartment units (by adding living rooms and changing toilets to bathrooms), upgraded the home amenities, included the buildings of different construction technologies, and provided diversified choices of housing designs<sup>4</sup>. For the designs of dwelling-unit apartments, the creative housing plans were developed. The standard design 80 Housing-2 was a representative of those new designs: it broke the tradition of 5-bay dwelling-unit and adopted a more flexible composition of the floor plans of 3-bay dwelling-unit in the middle section (with one 2-bedroom apartment and one 3-bedroom apartment) and 4-bay dwelling-unit in the end section (with three 2-bedroom apartments or with one 1-bedroom apartment, one 2-bedroom apartment and one 3-bedroom apartment) (figure 5-32). This standard design was welcome by the users and widely applied in Beijing. Another example was the standard design 80 MD1, which retained the floor plan of 5-bay dwelling-unit with three 2-bedroom apartments but adopted the structure of cast-in-situ and moulded concrete panel (figure 5-33).

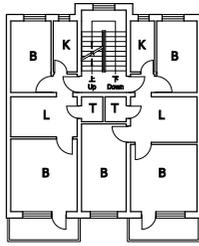


Figure 5.32  
A dwelling-unit plan of standard design 80 Housing-2

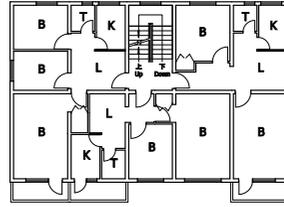


Figure 5.33  
A dwelling-unit plan of standard design 80 MD1

Raising the housing density was a trend in the designs of the multi-storey, dwelling-unit public housing since the end of 1970s. In order to effectively do so, the depth of floor plans had to be enlarged. A solution was the so-called “small patio” housing design. Therefore, a small patio was placed in the center of a dwelling-unit with two apartments. This patio provided daylight and natural ventilation for the living rooms and kitchens. The standard design 80-005 was an example of small-patio apartment housing designs (figure 5-34). However, the challenges of these dwelling-units were also obvious: it resulted in visual interferences as well as undesirable smoke and smell exchanges between the neighbors. The apartments on lower floors normally received poor lighting; and the patio itself often became a dirty place without adequate maintenance. The small-patio designs were therefore criticized by the users and gradually replaced by housing plans with external recesses. The latter kept the floor plan of a dwelling-unit with two apartments but, instead of the small inner patio, adopted the external recesses on the south side for sunlight and natural ventilation for the living rooms (figure 5-36). The “external-recess” housing designs were more welcome in practice and thus popularly applied in Beijing from the late 1980s. Figure 5-35 shows a modified design of dwelling-unit apartment that combined the small patio with external recesses, in which the patio only provided light for the staircase.

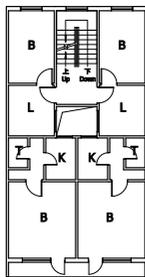


Figure 5.34  
A dwelling-unit plan of standard design 80-005

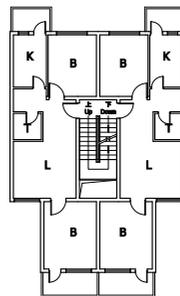


Figure 5.35  
A modified dwelling-unit plan of “small patio” multi-storey housing

Apart from enlarging the building depth, another approach for raising density in the design of multi-storey public housing was the reduction of distances between residential buildings. The receding stepping floor design on the north side of a building, which could reduce the shade of the building to the south, was considered as an effective measure. In Beijing, receding steps were usually adopted on the top floors and resulted in the “6.5-storey” dwelling-unit apartment buildings, which had duplex and penthouse apartments with north-oriented terraces (figure 5-36). In practice, those measures for increasing housing density, such as the external recesses and receding steps, were often combined in the designs of multi-storey, dwelling-unit public housing.

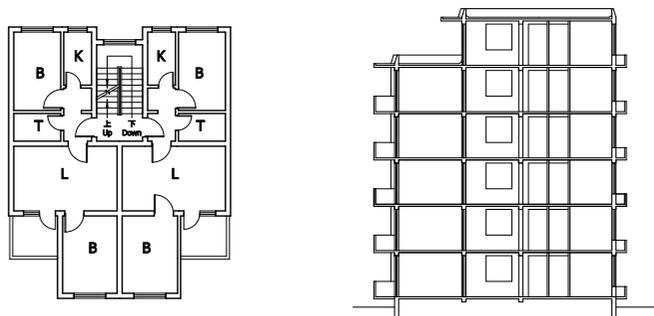


Figure 5.36  
Standard design 87 BIAD Housing-1 – a dwelling-unit plan (left) and the section (right)

With the social diversification and individualization, there was a higher demand for different spaces in people’s daily lives. From the mid-1980s, the design concept of “bigger living room, kitchen and bathroom, smaller bedroom(s) and more storage closets” (or “bigger living room and smaller bedrooms”) was promoted in Beijing. The standard design 87 BIAD Housing-1 in the “86-90 Housing Series” of BIAD was a representative case. This design of a dwelling-unit with two apartments together adopted the concepts of “bigger living room and smaller bedroom” as well as south-oriented external recesses and a north-oriented receding stepping top floor (figure 5-36). In its housing plan, the space of living room (14.87 m<sup>2</sup>) was evidently larger than the bedrooms (9 m<sup>2</sup> and 8.18 m<sup>2</sup>), and sizes of kitchens (4.1 m<sup>2</sup>) and bathrooms (2.7 m<sup>2</sup>) were also increased. Designs of “bigger living rooms and smaller bedrooms” thereafter became the mainstream in the 1990s.

From the end of the 1980s, the situation that the designs of public housing largely relied on the uniformly-developed standard designs was gradually changed along with the housing commercialization and the diversification of housing demands. Until the 1990s, much more varied designs of multi-storey, dwelling-unit apartments

were developed by different architects, while the unified design standards had to be obeyed. On the one hand, the housing design standards and quality were further enhanced, especially with the announcement of the standard of the Ninth 5-year Plan. On the other hand, housing commercialization resulted in the increasingly stress of raising housing density in public housing developments. Building depths of prevailing dwelling-unit apartment designs had been enlarged. Although the housing plans were continually optimized, the large-depth inevitably impacted the housing comfort, including sunlight and natural ventilation. The so-called “land-saving” housing design was an example of dwelling-unit apartments designed in the 1990s. For a dwelling-unit with three 2-bedroom apartments, the depth of floor plan was further enlarged and the external recesses were adopted. The plans of apartment units were also updated by adding dining rooms and a functional division of a “dry” area (for basins and washing machines) and a “wet” area (for toilet and bath) of bathrooms (figure 5-37).

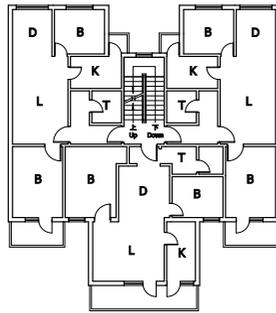


Figure 5.37  
A dwelling-unit plan of “land-saving” housing design

As the mainstream type of multi-storey public housing, the dwelling-unit apartment and its continual evolution, in fact, revealed the transformation of public housing designs in Beijing. Derived from the Soviet 5-bay standard designs, the designs of dwelling-unit apartments had to be localized and hence resulted in the small-sized apartment designs that were widely applied from the 1950s to the 1970s. From the early 1980s, the housing standards were largely enhanced and the designs of dwelling-unit public housing were increasingly improved and diversified. The concept of “bigger living room and smaller bedrooms” started to be widely accepted, and the methodology of uniformly-developed standard designs was gradually abandoned by the end of the 1980s. In the meantime, the emphasis of raising housing density led to the popularity of large-depth housing designs, which inevitably and partly scarified the housing comfort. In general, the evolution of dwelling-unit apartment designs presents the trends from uniformity to diversity and from lower density to higher density.

### *Outer-corridor multi-storey apartment – as an attempt*

Besides the inner-corridor, dwelling-unit apartments, a “non-mainstream” attempt in the designs of multi-storey public housing “slabs” was the outer-corridor apartment building. The outer-corridor apartments were developed in the late 1950s, as a result of the search for new and smaller housing options. In the floor plan of an outer-corridor apartment building, an open public corridor was usually placed on the north side of a row of apartments, and one staircase could serve the whole building. In each apartment, the bedrooms were normally located on the south side while the kitchen and toilet were located near the open corridor. In Beijing, for example, the apartment buildings in the Xinfucun neighborhood were the representative of the outer-corridor apartment (figure 5-38).

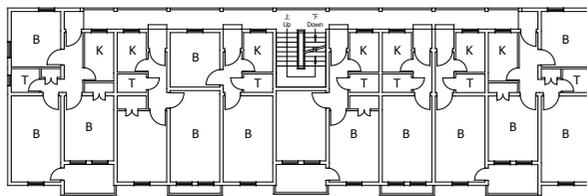


Figure 5.38  
An outer-corridor apartment in the Xinfucun Neighborhood

### Figure 5-38 An outer-corridor apartment in the Xinfucun Neighborhood

In theory, the long, open and outer corridor more adapted to the building that was mainly composed of 1- or 2-bedroom apartments. The outer-corridor housing plan could guarantee sunlight and natural ventilation for each apartment, and the long corridor could be used as the space of storage and communication. However, the adoption of outer corridor also caused some problems. It was wasteful in space efficiency, and, more importantly, a long and open public corridor next to the apartments was regarded by the residents as the interference of their privacy. Therefore, the out-corridor housing plans were not widely applied in the designs of multi-storey public housing. But some derivative configurations such as the short outer-corridor housing plan combined with the characteristics of the dwelling-unit apartment were developed.

### *Housing types of multi-storey towers*

A multi-storey tower normally only had one unit, which facilitated a more flexible layout of housing plan. In comparison with the dwelling-unit apartment, the staircase of a multi-storey tower served more apartments. In order to guarantee sunlight and natural ventilation, different types of multi-storey towers were developed by varying

the housing plans. The popular housing types included the rectangular, "I"-shaped, "T"-shaped, "Y"-shaped floor plans, etc.

The original type of multi-storey tower apartment was the building of a rectangular floor plan. With larger floor space, more apartments on each floor and less surface area of outer walls, the rectangular floor plan was regarded as the most economical design in comparison with the multi-storey towers with other floor plans. But sunlight and ventilation in the rectangular floor plan was evidently not the best. There were many rooms oriented to the east or to the west and rooms where sunlight could not enter. The architectural form of rectangular tower was also too monotonous. For instance, the standard design 77 Tower-1 was a representative design of rectangular multi-storey tower (figure 5-39).

In comparison with the rectangular floor plan, the housing comfort of "I"-shaped floor plan of multi-storey tower was upgraded. The rooms without sunlight were fewer and the lighting and ventilation of east-or west-oriented apartments were improved. The architectural form of I-shaped multi-storey tower was no doubt more delightful. However, the I-shaped floor plan often resulted in fewer apartments per floor and longer corridors in and out of the apartments. This reduced space efficiency. An example of I-shaped multi-storey tower apartment was the standard design 77 Tower-2 (figure 5-40).

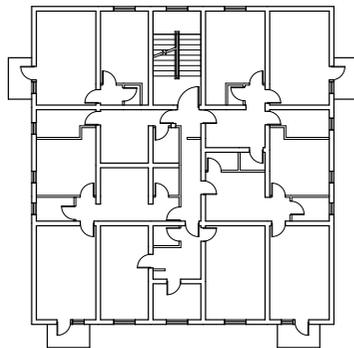


Figure 5.39  
Floor plan of standard design 77 Tower-1

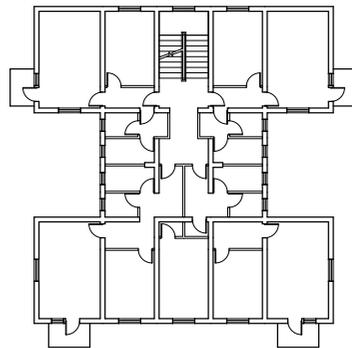


Figure 5.40  
Floor plan of standard design 77 Tower-2

By shortening the south wing or lengthening the north wing of the I-shaped floor plan, the "T"-shaped floor plan of multi-storey tower came into being (figure 5-41). The T-shaped multi-storey tower guaranteed at least one south-oriented room for each apartment and thus largely improved the sunlight and ventilation. It was one of the most popular types of multi-storey apartments.

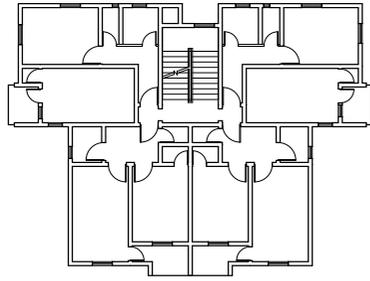


Figure 5.41  
Floor plan of a T-shaped multi-storey tower

The “Y”-shaped multi-storey tower means the floor plan composed of three wings, between which the angle was about 120 degrees (figure 5-42). By adopting the Y-shaped floor plan, entering sunlight and views of the apartments on the two “back” wings were optimized. With longer wings and a larger floor plan, the Y-shaped plan could accommodate more apartments on each floor. Its symmetric shape also facilitated the construction. However, the Y-shaped plan caused a much longer corridor and thus lowered space efficiency. The sunlight and ventilation of the two “corner” apartments were not desirable. Figure 5-43 shows an upgraded design of a multi-storey tower (named as “Cozy Housing”) developed in the 1990s, which combined the characteristics of the T-shaped and the Y-shaped floor plans. This floor plan provided the direct sunlight and natural ventilation for all the rooms (figure 5-43).

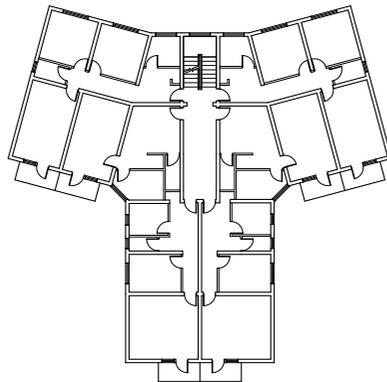


Figure 5.42  
Floor plan of a Y-shaped multi-storey tower

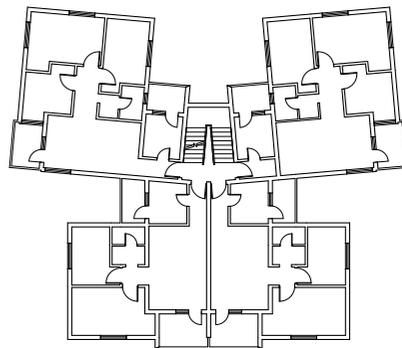


Figure 5.43  
Floor plan of “Cozy Housing”

In principle, the multi-storey tower apartments were developed as a design for raising housing density and saving lands. But in order to effectively increase the housing

density, the floor plan of multi-storey tower had to accommodate no less than four apartments, which inevitably impacted the quality of sunlight and ventilation. In addition, the single-unit floor plan of multi-storey tower resulted in more outer walls, which increased construction costs and energy consumption. Thus, in comparison with the dwelling-unit apartment slabs, the multi-storey towers were less popular in Beijing and were only adopted for being mixed with the multi-storey slabs or for sites with limited ground spaces.

*Instances of extremism – people's commune mansion and simple housing*

Amongst various designs of public housing in Beijing, there were some tentative housing types that were developed as the result of practicing radical theories on public housing design. In particular during the periods while the ultra-leftist ideology was predominant, the emergence of "extremist" designs presented some unrealistic ideals. The so-called "People's Commune Mansion" and "Simple Housing" were representative cases of those tentative but extremist public housing designs.

In the period of the Great Leap Forward and the People's Commune Movement, an exclusive type of public housing design was developed, the People's Commune Mansion. Its introduction showcased the ideal of establishing people's communes in the city. People's commune mansions can be seen as the physical presentation of people's communes and of the concept of collective living. In a people's commune mansion, the individual kitchen was taken off from each apartment and replaced by the public canteen. Communal club, kindergarten and other public facilities were introduced into the mansion building in order to strengthen the collective life. The design standards, as well as the construction quality, of people's commune mansion were also higher. They were equipped with electronic amenities such as elevators and telephones, which were rarely seen in other apartment buildings at that time<sup>5</sup>. In Beijing, three people's commune mansions were finally completed as pilot projects. For example, as an 8-storey, inner-corridor residential building (about 230,000 m<sup>2</sup>) that was built in 1958, the Fusuijing Commune Mansion accommodated more than 350 households (figure 5-44).

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In fact, the people's commune mansion can also be regarded as the earliest attempt of high-rise residential building in Beijing, in which the elevators were introduced into residential buildings for the first time.



Figure 5.44  
Fusijing Commune Mansion in Beijing

However, the concept of people's commune mansion was indubitably too idealistic. In practice, the public canteens did not really work well. Especially after the failure of the People's Commune Movement in the city, the residents of commune mansions had to establish their own "kitchens" and storages in the inner public corridors, which not only disturbed people's daily lives but also brought about potential fire danger. This idealistic and abnormal housing type was hence proved unsuccessful and did not develop after the Great Leap Forward. While some standard designs of multi-storey or high-rise commune mansions had even been developed, all of them were never implemented.

As another radical tentative, simple housing was also a presentation of ultra-leftist ideology. But different from the people's commune mansion, which presented the pursuit of an utopia. Simple housing originated from an attempt to lower irrationally the housing standards. In 1965, this standard was further lowered under the slogan of "building the country through thrift and hard work" in Chinese cities. From 1966, the standard of public housing dropped to the lowest level in the early period of the Cultural Revolution, and the so-called *Jianyilou* or simple housing became a major housing type in the public housing developments in Beijing. In this extremely low-standard housing, the rooms and staircase were linked by inner or outer corridors. The average building floor area per dwelling was only 31.5 m<sup>2</sup>, and there was no private kitchen, toilet or tap water supply in each dwelling. The technical standards of building construction were rather low, and the central heating system was even cancelled. In some extreme cases, public toilet was located out of the residential building. In fact, such simplified apartments were to a large extent similar to dormitories. In practice, the developments of simple housing were often related to the reconstruction in hutong areas. Figure 5-45 shows the inner-corridor simple housing in Suluobo hutong of Baitasi area in Beijing.

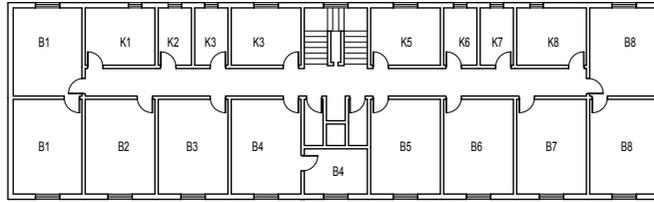


Figure 5.45  
Simple housing in Suluobo Hutong

Figure 5-45 Simple housing in Suluobo Hutong

Because of the low-standard housing condition and low-quality construction, the simple housing could certainly not satisfy the residents and was dated in a short time. Many of them even became structurally dangerous ten years later after the Tangshan earthquake. However, the trend of low-standard housing design continued till the beginning of the 1970s, while the independent kitchen and toilet had been reintroduced into the simplified apartment designs.

### § 5.3.2 Designs of High-Rise Public Housing

Since the 1970s, the designs of high-rise apartment buildings had been applied to the public housing developments in Beijing, as a measure of land-saving by raising housing density. In general, the housing types of high-rise apartments can be divided into two categories: the high-rise slab and high-rise tower. Along with the wide adoption of high-rises in the public housing developments in the 1980s and the 1990s, many different types of high-rise slabs or towers were developed. As same as the evolution of multi-storey apartments, there were two trends in the designs of high-rise public housing – the diversification and the higher density – besides the general improvement of housing standards.

### *High-rise slabs*

While the outer-corridor floor plan was not widely applied in the developments of multi-storey apartments, it was the most original and basic model of high-rise-slab public housing in Beijing. For the design of high-rise apartments, the elevator was indispensable. But from the 1970s to the 1990s, the adoption of dwelling-unit housing plans, of which two or three apartments could share one elevator, was economically unaffordable in the developments of high-rise public housing. Hence, the floor plan with long and outer corridor linking apartments and elevators was an inevitable choice in the design of high-rise slabs. In the designs of south-north oriented high-rise slabs, the outer public corridors at the north side were the accesses of the apartments on each floor to the elevators and staircases<sup>6</sup>. The outer-corridor housing plans also guaranteed the access of the sunlight and natural ventilation, as well as the spatially rational and efficient design, of each apartment. For example, the standard design 81 MG3 in the “80 and 81 Housing Series” was a typical design of outer-corridor high-rise slab in Beijing (figure 5-46). Nevertheless, the intrinsic insufficiencies of outer-corridor design were not neglected. The long public corridor inevitably brought out the interference for the privacy of apartments. The north-oriented rooms of many apartments only had indirectly sunlight (through the outer corridor); and the grease and smoke from the kitchens near the outer corridor polluted the public environments. In order to solve or alleviate those problems, many updated designs of high-rise slabs derived from the outer-corridor housing plan were developed in the mid-1980s.

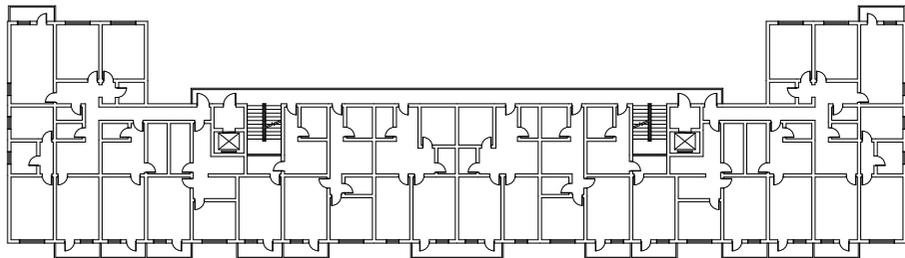


Figure 5.46  
*Floor plan of standard design 81MG3*

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6 For the design of east-west oriented, outer-corridor high-rise slab, the outer corridor was often located at the west side.

A focus of improving the design of high-rise slab was the reduction of the interferences from the long public corridors. A popular updating was the so-called "cross-storey-corridor" high-rise apartment. In this kind of apartment building complex, the lower floors usually adopted the dwelling-unit housing plan, which did not rely on elevators. For the upper floors, the outer public corridors linking the elevators were placed in between each two storeys. Through separate stairways, each public corridor served two floors. The apartments on its upper floor had tall windows and those on its lower floor had low windows on the side of the corridor, so that the interferences from the public corridor to the privacy of apartments were avoided. Figure 5-47 shows an example of cross-storey-corridor high-rise slab. However, since the sizes of the windows on the side of the cross-storey corridors were restrained, the sunlight and ventilation of apartments were inevitably impacted. A modified type of cross-storey-corridor high-rise was thus developed. In its floor plan, the north recesses not only "separated" the public corridor from the main body of the building but also ensured the full-sized windows for the north-oriented rooms (figure 5-48).

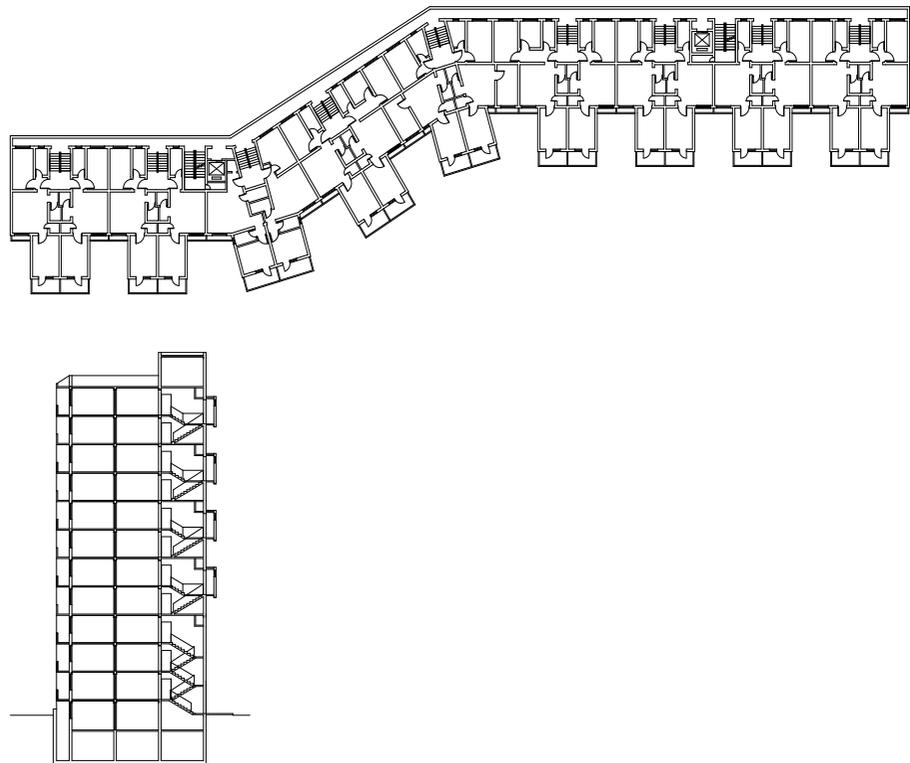


Figure 5.47  
*Floor plan (upper) and section (lower) of a cross-storey-corridor high-rise slab*

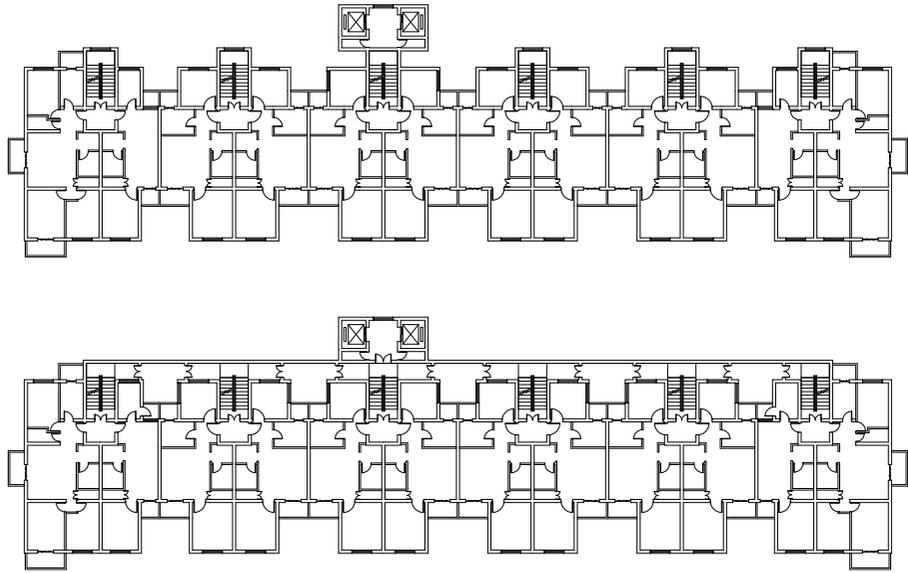


Figure 5.48  
*A modified design of cross-storey-corridor high-rise slab – the floor plan without public corridor (upper) and with public corridor (lower)*

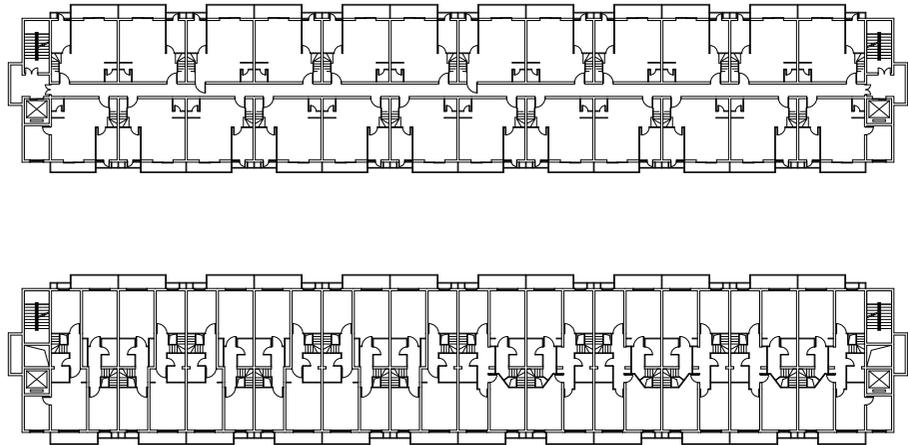


Figure 5.49  
*A design of inner-corridor and duplex high-rise slab – the floor plan with public corridor (upper) and without public corridor (lower)*

Apart from the outer-corridor designs, the inner-corridor high-rise slabs were also developed. The design of inner-corridor, duplex high-rise apartments started to be adopted in the mid-1980s. The inner public corridors were set every other floor.

The south-north oriented duplex guaranteed at least one room facing south in each apartment. Without the windows to the inner corridors, the privacy of apartments was ensured (figure 5-49).

For the east-west oriented high-rise slabs, the inner-corridor floor plan was a reasonable choice. The east-or west-oriented apartments on each floor was linked by an inner public corridor to the elevators and staircases. Figure 5-50 shows a well-designed housing plan of an inner-corridor high-rise slab. But in terms of their east-west orientation, residents did not show preference for this type of high-rise apartments.

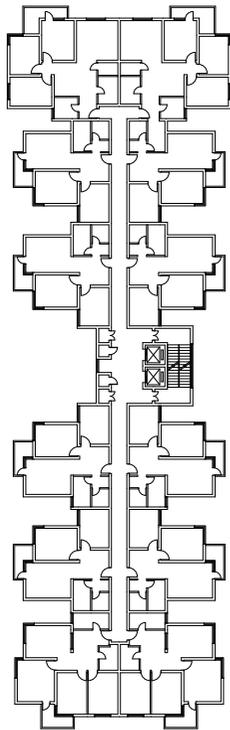


Figure 5.50  
*Floor plan of east-west oriented high-rise slab with inner public corridor*

With the increasing emphasis of raising density in the public housing developments, the depth of housing plan was also evidently enlarged in the designs of high-rise slabs. As same as the transformation of the multi-storey, dwelling-unit designs, the large-depth housing plan with external recesses began to be widely applied in the designs of high-rise slab apartments. In the meantime, along with the enhancement of housing

standards and the diversification of home space, the designs of “bigger living room and smaller bedrooms” were popularly adopted for the high-rise apartments from the late 1980s. For instance, the housing plans in figure 5-47, 5-48, 5-49 and 5-50 all present those trends. In general, albeit the enlargement of building depth partly impacted their sunlight and ventilation, and in terms of housing comfort, residents preferred the high-rise slabs (except for the east-west oriented slabs) in comparison with the high-rise towers.

#### *High-rise towers*

Economically, the high-rise tower was indubitably the best choice because it facilitated a higher-dense housing development, though this housing category did not ensure enough sunlight and ventilation. Along with the strain of land-saving, as well as the commercialization of public housing developments, higher housing density was increasingly emphasized in the process of high-speed urbanization. Accordingly, the development of different types of high-rise tower apartments was largely promoted in the 1980s. Compared with the high-rise slabs, there was normally no problem of interference from the public corridor in the high-rise towers. A “traffic core” with elevators and stairways served all apartments on each floor. As one “unit”, the floor plan of high-rise tower usually contained six to eight apartments.

In theory, the most economical floor plan of high-rise tower was the rectangular one, of which the ratio of depth to width was 1:1 – 1:1.5. Figure 5-51 shows a representative design of high-rise tower apartment with the rectangular floor plan. However, the rectangular housing plan would result in many rooms without sunlight access and hence brought about apartments people disliked. Therefore, a focus on the development of high-rise tower designs was to improve the sunlight and ventilation of apartments.

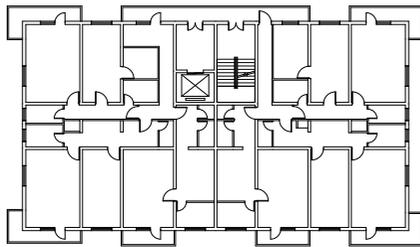


Figure 5.51  
*Floor plan of a rectangular high-rise tower*

The early-developed housing types of high-rise towers also included designs with the “Π”-shaped floor plan (figure 5-52) and “Z”-shaped floor plan (figure 5-53). In

comparison with the high-rise tower of rectangular plan, the II-shaped and Z-shaped towers both increased the number of rooms with direct accesses to the sunlight. But they still retained many west-or east-oriented rooms, and the ventilation problem was still critical.

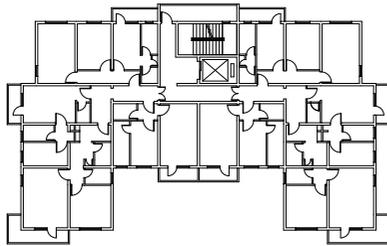


Figure 5.52  
*Floor plan of a II-shaped high-rise tower*

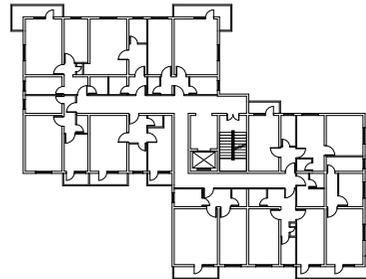


Figure 5.53  
*Floor plan of a Z-shaped high-rise tower*

The inner-patio floor plan was also adopted in the designs of high-rise tower public housing (figure 5-54). As an outdoor space, the inner patio improved the ventilation of the building. The kitchens, bathrooms and public corridors were located along the inner patio and directly or indirectly received light. However, similar to its application in the multi-storey apartments, the inner-patio design had some inherent problems: the visual interferences, the undesirable smoke and smell exchanges between neighbors, less sunlight for the lower floors, and dirty inner patio without the adapted maintenance. In addition, there were still some merely east-or west-oriented apartments.

The cross-shaped floor plan of the high-rise tower (figure 5-55) significantly enlarged the area with direct access to the sun. About 80% of the apartments had at least one room facing south, and natural ventilation was also guaranteed. But the apartments in the north wing did not enjoy desirable exposure to sunlight. They were east or west oriented and the sunlight was even shaded by the east and west wings.

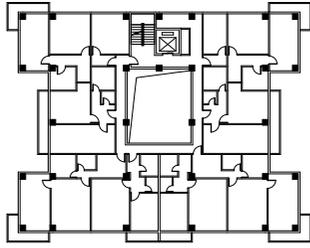


Figure 5.54  
Floor plan of an inner-patio high-rise tower

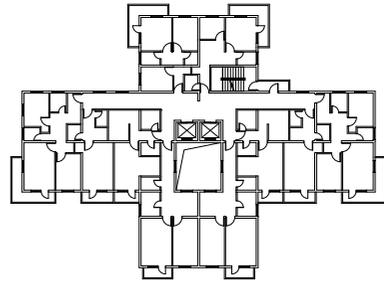


Figure 5.55  
Floor plan of a cross-shaped high-rise tower

By rotating the cross-shaped plan 45 degrees, the “X”-shaped floor plan of high-rise tower was achieved (figure 5-56). This plan effectively shortened the public corridor, and eliminated the issue with the east-or west-oriented apartments. But on the other hand, almost no rooms had the favorably desired south orientation.

The “Y”-shaped floor plan, which could guarantee the south-oriented sunlight and natural ventilations for most of apartments, was widely applied in the designs of high-rise tower public housing in the 1980s and early 1990s (figure 5-57). However, in this floor plan, there were always one or two apartments that were not really appealing. And the Y-shaped plan was also thought of as less compact and thus not ideal for land-saving.

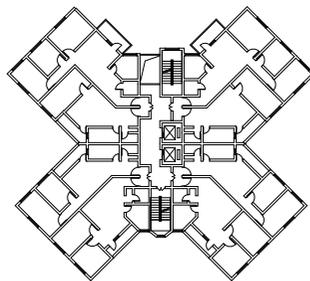


Figure 5.56  
Floor plan of a X-shaped high-rise tower

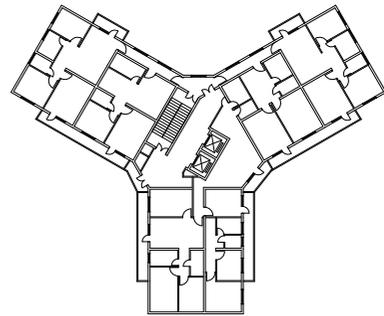


Figure 5.57  
Floor plan of a Y-shaped high-rise tower

Along with the emphasis of higher housing density, as well as the improvement of public housing standards, the designs of external recesses and “bigger living room and smaller bedrooms” were more popularly adopted for the high-rise towers. As a result, the so-called “butterfly”-shaped housing plan was developed (figure 5-58). The four

wings were separated by the external recesses for sunlight and ventilation. Two “back” wings were lengthened to ensure direct sunlight from the south for each apartment. This type of relatively compact housing plan that basically guaranteed the housing comfort of apartments was more popular and thus became the mainstream in the 1990s.

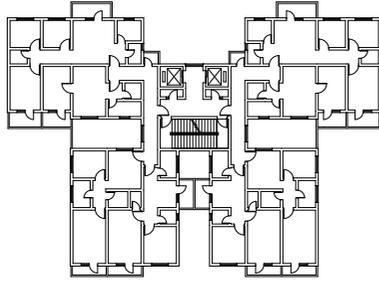


Figure 5.58  
*Floor plan of a butterfly-shaped high-rise tower*

In general, the large-scale development of high-rise tower public housing, which, as a category of housing types, was less preferred by the residents, was a result of raising density in public housing developments. The evolution of different types of high-rise towers was actually a process of balancing the higher housing density and the improved housing standards. Nonetheless, with the housing commercialization, the pursuit of higher density gradually became overwhelming, especially in the 1990s. That was implemented by the development of hyper-dense high-rise towers, of which the housing comfort was to a large extent scarified. For example, the high-rise tower with ten (or even more) apartments on each floor (figure 5-59) was developed. According to this housing plan, the sunlight and ventilation of most apartments were not satisfied.

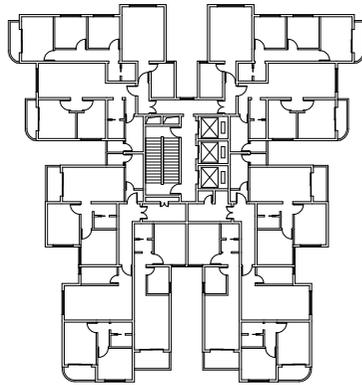


Figure 5.59  
*A ten-apartment floor plan of high-rise tower*

*Conjoint high-rise towers and high-rise tower-slabs – the cases of hyper-density*

As aforementioned, the housing types of conjoint high-rise towers or high-rise tower-slabs were representative cases of hyper-dense high-rise apartments. The emergence of those building complexes was a result of the effort to develop high-rise slabs according to the planning and design codes of high-rise towers, which no doubt could lead to higher floor area ratio<sup>7</sup>. In the late period of the socialistic public housing history, especially in the process of further commercialization of housing development, the designs of conjoint high-rise towers and high-rise tower-slabs were adopted in some public housing projects in Beijing. Figure 5-60 shows a design of conjoint high-rise tower in the 1990s. Those hyper-dense housing types inevitably and largely scarified the housing comfort of apartments. Their developments were eventually prohibited along with the optimization of planning and design codes for housing.

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According to the planning and design codes for housing, the required distance between towers was much shorter than the distance between slabs. But in the 1980s and 1990s, the definitions of high-rise slab and tower were not definitely clarified. This loophole directly conditioned the development of conjoint high-rise towers or high-rise tower-slabs.

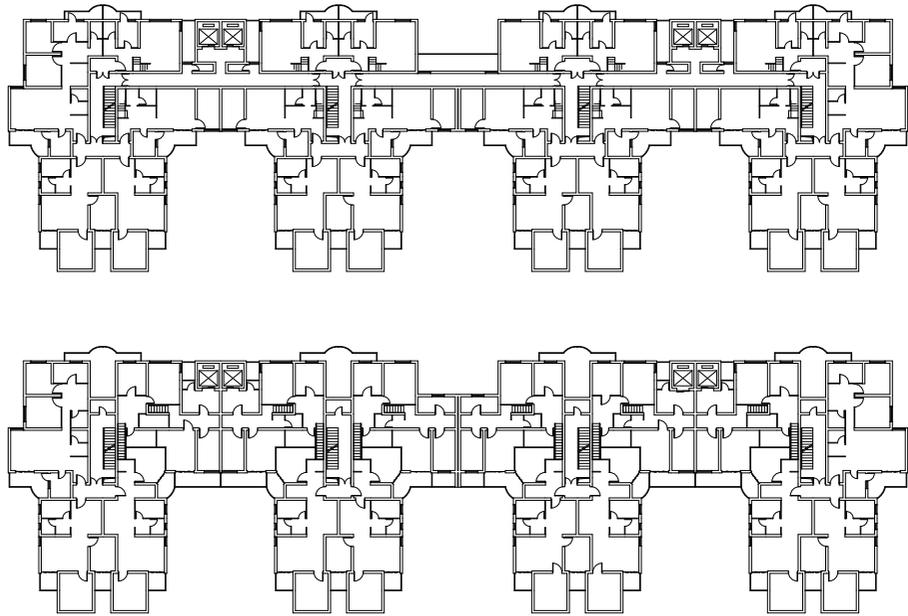


Figure 5.60  
*A design of conjoint high-rise tower – the floor plan with public corridor (upper) and without public corridor (lower)*

### § 5.3.3 Design Evolution of Public Housing Apartments – The Shift from the Collectiveness to the Diversification

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The evolution of public housing designs since 1949 was to a large extent the presentation of socio-economic transformation and the changes of people's life styles. No matter to say those types of dormitory-like public housing that reflected the emphasis of collective life, the changing designs of apartment types also presented the shift of different design concepts. The transformation of housing plans of multi-storey, dwelling-unit apartments, as a major category of public housing, was definitely an indication of design evolution.

In fact, this evolution of apartment plans focused on the functional division of rooms, especially on the layout of the living room (lobby) (figure 5-61). Originally, in the Soviet-style housing plans of dwelling-unit apartments, such as the standard design No.2 developed in 1955, the living room and bedrooms were not functionally divided. There was no independent living room in an apartment, and the rooms were only connected by a passageway. This apartment plan not only presented lower

living standards at that time but also, more importantly, emphasized the collective life, of which the individualized family life was ignored and the communication was concentrated in the public space. Until the end of the 1950s, with the localization of housing design, the so-called "small lobby" began to appear in the apartment plan. The passageway was enlarged as the small lobby of 4-5 m<sup>2</sup> for the "semi-private" activities of a family, such as dining or temporary living. But the lobby was still too small and had no natural light. In the 1970s, the design of a small lobby was updated as "small and lighted lobby", which could receive direct or indirect sunlight. After the start of the Reform of Opening-up, the functional division of rooms was unprecedentedly stressed in the designs of apartments. As in the Beijing "80 and 81 Housing Series", the small living room of about 10 m<sup>2</sup> gradually replaced the small lobby, and the toilet also evolved into the bathroom in the apartment designs. Along with the social diversification, the apartment plans of "bigger living room, kitchen and bathroom, smaller bedroom(s) and more storage closets" were promoted from the mid-1980s. The living room started to be larger than the bedrooms in order to facilitate the increasingly diversified and individualized family life. By the 1990s, the designs of "bigger living room and smaller bedrooms" had been popularly adopted in the design of public housing apartments. Not only the larger living room, but also the independent dining room was laid out in the apartment plans.

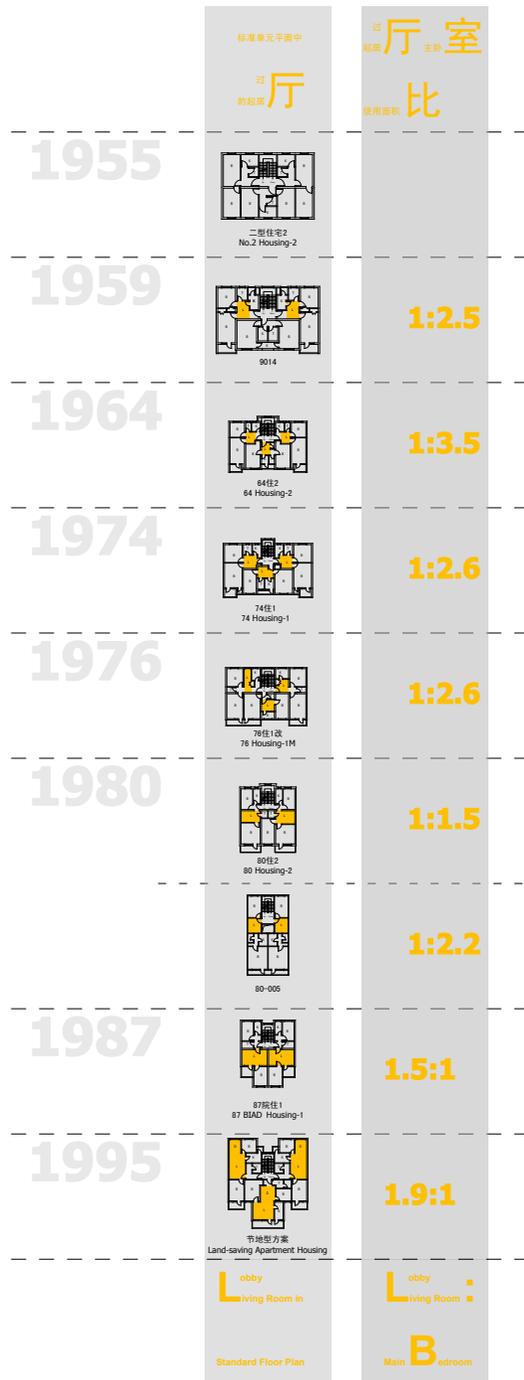


Figure 5.61  
Design evolution of public housing apartment – the changing ratio of living room to bedroom

As a symbol of social transformation, the evolution of the apartment plans in public housing development actually not only presented but also shaped people's family lives. In the early-developed designs under the planned economy, the collective life was emphasized and the houses were regarded as a merely private living space. But in practice, the division of spaces for private and semi-private activities was still inevitable. In the market-oriented reform and the accordingly social transition, there was the rising demand for different functional space in a home. The trend of apartment designs, especially by the setting of a living room, provided and also promoted the diversified and individualized home space.

### § 5.3.4 Changes on Building Depth and Height – The Increase of Housing Density

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Apart from the shift from the collectiveness to the diversification, another general trend in public housing designs was the pursuit of higher housing density, which presented in the enlargement of building depth on the one hand and in the changes of number of storeys and storey height on the other (figure 5-62). Before the 1980s, the depth of residential buildings was restricted to about 10 meters. But along with the emphasis of land saving, as well as the commercialization of public housing development, the lengthening of building depth became an effective measure to raise the housing density. From the early 1980s, some "large-depth" housing plans, such as the designs with small patio or external recess, were introduced. The building depths had been significantly and popularly enlarged to be more than 15 meters by the 1990s. The efforts to enlarge the depth presented in the housing designs not only of the multi-storeys but also of the high rises. Since the late 1980s, plans with external recesses had been widely applied in the design of high-rise slabs, and whether the inner-patio, Y-shaped or butterfly-shaped plans actually enlarged the depths of high-rise towers.

The effort of raising density was also presented by the changing designs on building heights. In the 1950s, the design of Soviet-style apartments was a comparatively "luxury". The height of each storey reached 3.3 m and there were usually three or four floors in an apartment building. This kind of lower-dense designs obviously paid more attention to the urban form rather than the efficiency of land use. From the end of the 1950s, the storey height was lowered and the number of storeys increased. In the 1960s and early 1970s, the storey height decreased to about 2.9 m and the number of storeys increased to five. Till the late 1970s, the storey height was uniformly reduced to 2.7 m, and the multi-storey public housing usually had six floors as a result of further stressing land-saving and higher density. At the same time, the high-rise apartment was introduced in public housing development. In the 1980s, the "6.5-storey" designs with receding steps started to be adopted in the developments of multi-storey

apartments, and the high-rise apartments of 12-16 storeys were widely developed. By the 1990s, the number of storeys of high-rises had raised to more than twenty.

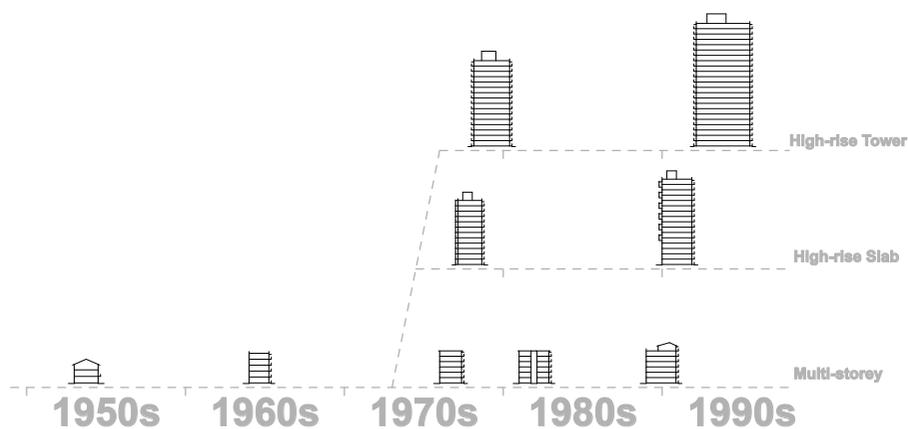


Figure 5.62  
Evolution of building depth and building height of public housing

In general, although there was a heated debate between the arguments for enlarging depth and for increasing height, those two measures were in fact simultaneously adopted. As an effective means to raise the density in the public housing developments, the depths of housing plans were continually enlarged in the design evolution of either multi-storey or high-rise apartments, while the number of storeys was increasing and the height of each storey was decreasing. In addition, this decrease was also regarded as an efficient measure to reduce construction costs<sup>8</sup>. The increase of building depth and building height were considered as the inevitable design solutions for the efficiency and economy of public housing development in Beijing.

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Once the storey height decreased 0.1 m, the construction costs of apartment building were estimated to reduce 10%.

## § 5.4 Transformation of Architectural Styles

According to Karsten Harries (1997), architecture has its ethical function and represented the ethos of its time. This statement can be well exemplified by the transformation of architectural styles of Chinese socialistic public housing in Beijing. In practice, the architectural aesthetics of public housing buildings did not just present the prevailing ethos, but in many cases, they were consciously empowered to take on the social, political and ethical tasks.



Figure 5.63  
*Big-roof architectural style of public housing in the 1950s*

Along with the Soviet standard design for socialistic public housing came the architectural style of “Socialistic Realism”. Based on the principle of “socialist content and national form”, this Stalinist style emphasized the sublime, ornamental and nationalist architectural form of the city in particular. The architecture of public housing, as the “palaces” of the working class, should present the greatness of socialism. With the efforts of Chinese architects to represent the Chinese identity in architectural design, the Chinese translation of this architectural style was soon developed. By the combination of Chinese traditional building elements with Soviet, European-style composition of façade, the “big-roof” style was popularly adopted in the public housing designs in Beijing in the early 1950s (figure 5-63). Besides the Chinese big roof, other elements of Chinese traditional architecture were also widely applied to ornament the components of building façade such as balconies, windows or front doors. In the architectural design, the function often had to subordinate to the

form. For instance, balconies were only regarded as ornamental elements of façade, so that they were usually equipped for a few apartments in a building.

However, the formalist trend of big-roof style started to be criticized a few years later, as a result of ideological transformation. The unbalanced economic structure led to the reduction of investment in non-productive sectors, and the ideological debate with the Soviet Union impelled China to explore its own way of socialism. The big-roof style of architecture became a symbol of luxury and waste in housing development from the late 1950s. Big roofs were taken off from the designs, and architectural form of public housing tended to be simplified along with the lowering of housing standards. In the 1960s, housing architecture was presented in a “transition” from a nationalistic to a functionalistic style (figure 5-64), under the slogan of “building the country through thrift and hard work”. The flat-roof design became mainstream, and the balconies were not merely regarded as the ornaments any more. But some decorative elements were still kept in the eaves, balconies, windows and doors<sup>9</sup>.

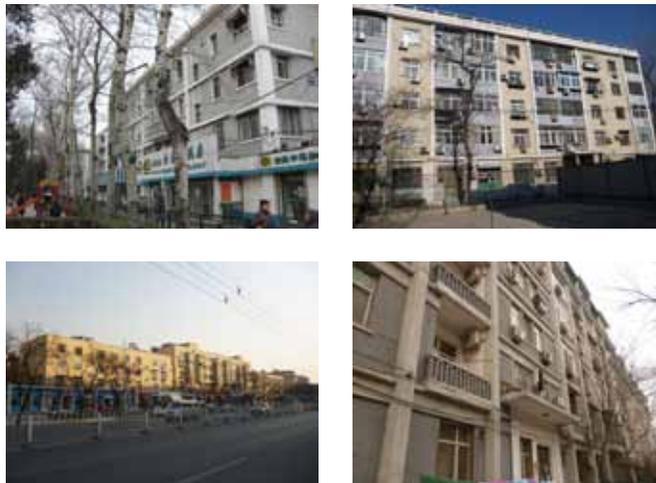


Figure 5.64  
*Transitional architectural style of public housing in the late 1950s and 1960s*

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9 Actually the “transitional” period of architectural style in housing design cannot be explicitly defined: while the big-roof style was criticized at the end of 1950s, some public housing developments still adopted the “big roofs” till the early 1960s; those residential buildings that were built in the mid-1960s but applied the industrial structures had presented in a much more functionalistic style, as the prelude of the 1970s; and the transitional style can still be seen in some housing developments in the early 1970s in Beijing.

Until the 1970s, the modernist but functionalist style of socialistic public housing was eventually established with an emphasis on economy in public housing development and the development of industrialized building (figure 5-65). The architectural style still had to take on the ideological task as the symbol of collectivity and frugality. While the composition of building façade was still deliberate, attention was paid to function rather than to architectural form. The merely decorative designs had almost disappeared from the façades. The façade of residential buildings was mostly composed of simple brick or concrete walls, only with simple ornaments on window frames, door canopies, parapets and eave ends which were often made by prefabricated components. The layout of balconies ensured the outdoor space for each apartment. This functionalist style was widely adopted in the developments of both multi-storey and high-rise apartments. As an architectural style that facilitated the mass production for housing, it continually influenced the architectural designs of public housing in the 1980s and 1990s<sup>10</sup>. Nevertheless, this kind of simplified designs that neglected building identities evidently resulted in monotony and homogeneity of built environments. It was hence often criticized as “matchboxes” by the residents.



Figure 5.65  
*Functionalist architectural style of public housing widely-adopted since the 1970s*

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Some slight differences could be observed between the functionalist designs in the 1970s and in the 1980s/1990s. In principle, the later architectural designs tended to be more “ornamental”.

The Reform in 1978 actually released the architectural style from its political meaning, which was given at the time that the ultra-leftist ideology was predominant. But the market-oriented reform brought on the social diversification and stratification, which also presented in the changes of architectural styles of public housing. The diversification was a general trend in architectural designs, while the functionalist style was still popular. Thanks to the development of different shaped housing plans, the architectural forms of apartment buildings were diversified from the early 1980s. New designs, including the T-shaped, Y-shaped and X-shaped towers as well as the external recesses or receding steps, enriched the expression of individual buildings. And the flexible mixture of different types of buildings changed the homogeneous appearance of public housing areas (figure 5-66).



Figure 5.66  
*Mixture of different building types in public housing areas*

Along with the economic growth and social diversification, the architectural aesthetics gradually tended to be decorative. From the mid-1980s, the pursuit of local architectural identities became a new tendency in designs of public housing. On the one hand, learning from traditional form would improve the quality of architectural environments, and on the other hand, according to the prevailing postmodernist aesthetics, the local ornaments could be easily identified with by the residents. More decorative elements that presented local identities reemerged in building façades. The slope roofs were readopted and often combined with the receding steps or terraces, and those ornamental building components were added at the eaves, windows, doors and stairwells. Different from the nationalist style in the 1950s, the new ornaments were often abstract, postmodernist “symbols” (figure 5-67). Nonetheless, the promotion

of locally identified forms for public housing resulted in another extreme: under the slogan of “recapturing the image of historical city”, the postmodern architectural style was overemphasized by the municipal government of Beijing in the 1990s. The façades of newly-built public housing were popularly decorated by the elements that were translated from traditional Chinese architecture. Although there were some successful design practices, the “image of historical city” was often simplified by merely adding Chinese “big roofs” on modern buildings. Many locally architectural symbols were abused and added on the building façades without the adapted design (figure 5-68). This top-down promoted fashion thus met rising criticism and had to be abandoned in the late 1990s.



Figure 5.67  
*Architectural style of public housing with local identities in the 1980s and 1990s*



Figure 5.68  
*Abuse of local architectural symbols in public housing design*

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## § 5.5 Technical Progress of Public Housing

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Different from the changing architectural aesthetics that was often endowed with ethical meaning, building technologies of socialistic public housing in Beijing continually progressed along with the socio-economic development. As an integral part of housing standardization, the improvement of standardized and industrialized methodologies of building was undoubtedly a main theme of technical progress. The structural technologies, facilities/equipment and even the measures of energy-saving for housing were also the emphases of upgrading building technologies. The development of technologies for the building of public housing in Beijing actually depended upon their safety, economy, operability and aseismicity.

### § 5.5.1 Technical Standardization of Public Housing Design

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The industrialized building was a major means for the large-scale development of socialistic public housing. The industrialized building in principle meant design standardization, mass production of components and systematic construction, in which the design standardization was the precondition. The main features of design standardization technically comprised building modulization, as well as standardization of building components and housing plans. The housing designs were developed according to the parameters of building and sizes of components, as well as the unified technologies for details, which were rationally preset. This method was considered as an effective way to balance the standardization and diversification in public housing development. In general, the evolution of technical design standardization in Beijing experienced three phases: the standardization of blueprints, the standardization of components and the standardization of systems.

The design standardization was introduced along with the establishment of socialistic planned economy in China. The Soviet mode of industrialization significantly influenced the housing development, including the ration indexes of living floor area, the standard designs and the industrialized methods of construction. For example, the dwelling-unit apartment was a result of design standardization. From the technical point of view, the design standardization in the 1950s was featured by the standardization of blueprints, which meant developing a whole set of blueprints for a building as a general design. Without the unified modules and sizes of building components, the standardization of blueprints was less industrialized. The general designs of standardized blueprints were inadaptable in many cases and could thus not facilitate the mass production for housing. In the meantime, the technologies

for industrialized construction were under development. Only a few prefabricated components were used in public housing construction.

From the late 1950s, the standardized and industrialized methods of housing design and construction were further stressed for the purpose of mass and economical development of public housing. In 1959, the responsibility of design standardization was decentralized and taken over by the provincial governments for the localization of standard designs. In Beijing, the prefabricated concrete components that were uniformly produced by factories began to be largely applied in public housing construction. Hence, the design standardization in the 1960s was presented by the standardization of components. At the beginning of 1960s, the 0.3-meter module of prefabricated components was adopted. In 1964, general designs of standardized components were officially announced and started to be widely applied in the designs of brick-concrete buildings. The industrialized building was further developed. Machinery was more popularly adopted in housing construction, and some industrialized structural technologies, such as block system and prefabricated panel system, were introduced. Nevertheless, a majority of public housing before the 1970s was the buildings of mixed structure in brick and concrete. As a partly industrialized housing system, the brick-laying was still completed by hand.

In the 1970s, along with the popular application of industrialized building systems, which included not only block systems and prefabricated panels but also moulded concrete panels and concrete frames, the standardization of components developed to be the standardization of systems. A standardized building system meant defining a set of unified modules and parameters, standardizing a set of general components (prefabricated components or standardized moulds for cast-in-situ concrete) and developing a set of technical standards for building details. Different housing projects could adopt the unified parameters, components and details, and this system was called "open system" or "general system" (Zhang Jinwen and Qiu Shengyu, 1999). The standardization of systems basically indicated the completion of industrialized building for housing.

After the initiation of the Reform, the diversification was unprecedentedly and increasingly emphasized in public housing development. At the same time, the industrialized production of building components was largely developed along with the economic growth and technical progress. In comparison with the standardization of blueprints, the standardization of components and systems was indubitably more adapted to the requirements of balancing standardization and diversification. From the late 1980s, the uniformly-developed and standardized housing plans were gradually abandoned in the public housing developments in Beijing. The design standardization had mainly to do with in the technical dimension. Apart from the ration indexes, codes and requirements of housing design standards, the general design references, a collection of blueprints, construction methods and indexes for various technical

designs adaptable to different buildings, were widely used in public housing designs. For instance, the General Architectural Design References of North China and Northwest Regions published in 1988 (“88J”) was continually updated and are still in use today.

From the standardized design blueprints to the standardized building components and systems, the evolution of technical standardization of public housing design reflected the pursuit of mass and industrialized housing development that was mostly publicly-financed, as well as the effort of harmonizing the housing diversification with standardization. While the design standardization was criticized for its lack of flexibility and individuality, this “supply-driven” methodology was the precondition and guarantee of large-scale public housing development.

## § 5.5.2 Development of Structural Systems

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The requirements of housing industrialization pushed the technical development of building structural systems. From the brick-wood or brick-concrete building system that mainly relied on the hand masonry to the wide application of industrialized technologies such as prefabricated or cast-in-site concrete structures, the technical progress of structural systems was aiming to enhance the efficiency and economy of large-scale public housing developments. Meanwhile, the seismic design was also an important issue in Beijing, a city nearby earthquake belts. Since the early 1950s, major structural systems that were adopted in public housing development comprised brick-concrete systems, block systems, prefabricated panels, moulded panels and concrete frames.

### *Mixed structure in brick and concrete*

The mixed structural system in brick and concrete (or brick-concrete structural system) was the most traditional system for building public housing. In this system, clay brick was the smallest and most flexible component, which composed the hand-laying walls as vertically load-bearing structures. The horizontal structures such as floor slabs, roof slabs and stairs were normally made of prefabricated concrete. In the 1950s, the concrete components were often prefabricated in construction sites and without unified standards. From the 1960s, the standardized prefabricated concrete components were uniformly manufactured and largely applied, and the construction machinery, such as tower crane, was also more popularly used in housing constructions. After the Tangshan earthquake in 1976, the structural design standard was enhanced. The structural concrete pillars and ring beams were thus added to the designs of brick-concrete buildings. In fact, when compared with the cast-in-situ concrete systems, the brick-concrete structure, as a partly industrialized system, was

less seismic and in principle only adoptable for the multi-storey residential buildings. However, in terms of its economy and technical maturity, the mixed structural system in brick and concrete was the mainstream and widely adopted in the public housing developments till the 1980s. The brick-concrete buildings that was built before 1976 and damaged by the earthquake were structurally reinforced by attaching additional concrete pillars, ring beams or walls.

#### *Block system*

As an early-developed industrialized structural system, the block system was introduced in 1957. It used to be widely applied in the cities of southern China, and was adopted in some cases in Beijing. Similar to the brick-concrete building system, the block system also depended upon both masonry and machinery construction, but in which the manufactured blocks replaced clay bricks. The construction costs of the buildings in block system were lower and the construction periods were shorter, in comparison with the brick-concrete system. The manufacture of blocks employed large amounts of industrial waste and other local materials. But the major problems of block structural system also lay in the block itself: often it was deficient in structural strengths and thermal isolation properties (Lü Junhua, Rowe and Zhang Jie, 2001, p.184). The block system was also only adoptable for the multi-storey housing.

#### *Prefabricated concrete panel system*

The prefabricated concrete panel structure was first introduced in 1958. In terms of the manufactured components and machinery construction, the prefabricated panel system was regarded as a completely industrialized structural system. After many years of pilot projects, it started to be popularized in the late 1960s. As an industrialized system, this panel structure promoted the speed and efficiency of construction and improved the aseismic properties. It could also increase the usable floor area due to thinner walls. However, the prefabricated panel was a higher-cost system and its thermal isolation properties were worse than the brick system. In comparison with the moulded concrete structures, the earthquake resistance of prefabricated panels was not desirable. In Beijing, the application of prefabricated panel systems was thus less popular.

#### *Moulded (cast-in-situ) concrete panel system*

As another major structural system that was largely applied in Beijing's public housing development, the moulded concrete panel system started to be promoted in public housing development in 1974. For this kind of industrialized structure cast in situ, what were standardized were not the building components but the moulds. The moulded panel buildings essentially comprised three types: one with both inner and outer walls cast in situ, one with cast-in-situ inner walls and prefabricated-concrete-panel outer walls, and another with cast-in-situ inner walls and brick outer wall. While its construction cost was higher, the moulded concrete panel system significantly facilitated fast construction. Its technique was easily mastered and popularized. More

important is that the aseismicity of cast-in-situ panel building was much better. Along with the economic boom, the moulded concrete panel systems, especially the systems with prefabricated-panel or brick outer walls, became the mainstream from the 1980s in the public housing developments in Beijing. The structures with cast-in-situ inner walls and brick outer walls were widely applied in the multi-storey public housing, and those with prefabricated-panel outer walls were more adapted to the high-rises<sup>11</sup>.

#### *Concrete frame system*

In the concrete frame system, the load-bearing structure was the reinforced-concrete columns and beams cast in situ, and the non-bearing walls were usually composed of the panels that were made of light materials. This structural system hence was also called the framed lightweight-panel system. The concrete frame housing began to be developed in 1975. As a lighter structural system with aseismicity, the concrete frame system adapted to different functions of buildings and facilitated the flexible division of rooms. The application of this structural system simplified the design and construction. However, the columns and beams of frame structure brought about inconveniences for the arrangement of housing space, of which the height was lower and the floor space was smaller. The merely concrete frame system only adapted to the multi-storey building; and for the structure of high-rise building, the frame had to be combined with the shear wall. Therefore in Beijing, the concrete frame system was often adopted in the housing complex with ground floor stores.

### § 5.5.3 Improvement of Housing Facilities and Equipment

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The technical progress of public housing also presented in the evolving standards of housing facilities and equipment. At the beginning, the modern infrastructure, such as electric power, water supply and sewage systems had been introduced in the newly-developed public housing areas. In the 1950s, the kitchen and bathroom facilities in the Soviet-style, higher-standard apartments were well equipped. In some apartments, bathtubs even equipped the bathrooms. But generally, the housing facilities and equipment were not a focus of public housing development before the 1980s. Along with the lowering of housing standard in the late 1950s, the bathroom was simplified as the toilet in the “small-sized” apartments. And for the dormitory-like public

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11 When the moulded concrete panel system was used for the high-rise buildings, it was also termed as shear wall structure.

housing, only the public kitchens, toilets and even water taps were available. The gas pipeline was not popularly introduced either. Most kitchens had to rely on coal stoves or bottled liquefied gas.

China's Reform brought about not only the economic boom but also the continual enhancement of public housing standard, including the improvement of housing facilities and equipment. In 1985, the concept of the apartment unit was introduced for the purpose of improving the quality of family living. A unit of housing should have an independent kitchen, a toilet with corresponding facilities, such as a shower, as well as gas service and a heating system (Lü Junhua, Rowe and Zhang Jie, 2001, p.228). In the 1990s, the standards of housing facilities were further improved. All those resulted in a "revolution" of kitchen, bathroom and toilet designs, which meant not just the enlargement of their floor area but also the upgrade of the corresponding facilities. In Beijing, the shower facilities had widely been introduced in the designs of public housing apartments since the early 1980s, and toilet thus was updated as bathroom. Until the 1990s, a kitchen range, a cooking table, a sink, cupboards, and settings for a kitchen exhauster and a refrigerator, as well as a toilet, a shower or bathtub, a washbasin, a mirror, an air-exhaust installation and settings for a washing machine, had become the standard equipment in a public housing apartment.

In the same period, more modern infrastructure, including gas pipelines, telephone lines and TV cable, was introduced in the public housing developments in Beijing. For instance, in Beijing's housing design standard of the Seventh and Eighth 5-year Plans, gas range, telephone and TV sockets, as well as water, electricity and gas meters, had been the standard equipment for housing. Not only the newly-built public housing, but the existing apartments were popularly equipped by those new amenities through technical updating. The design standards and capacities of electricity, water and sewage systems were also upgraded with the widespread use of household appliances. From the mid-1990s, the security system such as door control and intercom was introduced.

## § 5.5.4 Energy Efficiency for Housing

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The energy efficiency of housing building largely depended on building technologies<sup>12</sup>. But before the 1980s, the energy efficiency or energy saving was not an important issue in public housing development. After the energy crisis in the 1970s, the concept of energy efficiency for building was raised, and in China, the topic of energy saving arose from the early 1980s. The state government announced a two-step policy of energy saving for buildings: the energy efficiency was proposed to increase 30% before 1995, and to reach 50% afterwards. In the housing design standards in Beijing during the Ninth 5-year Plan, the “life cost” concept was proposed for encouraging the energy saving in public housing development<sup>13</sup>. However, the energy-saving policy was not well implemented in public housing development due to financing and technical restrictions. The wide application of concrete outer walls and steel-framed windows/doors was not conducive to energy saving. In fact, only 5% of newly-built housing reached the proposed standard of energy efficiency.

In Beijing, energy-saving measures were tested in some public housing developments in the 1980s and 1990s. These measures focused on the building envelop. The energy-efficient techniques for outer wall comprised adding thermal isolation layers on regular brick or concrete wall and using new wall materials such as aerated concrete, perforated brick or air brick. For windows and doors, the energy-saving glass and aluminum or plastic-steel frames began to be used. The thermal isolation of roof was also improved by adding an isolation layer or adopting a slope roof. Moreover, measures for improving the efficiency of heating system, as well as the electricity-saving and water-saving installations, started to be promoted. Nevertheless, many of those energy-saving technologies were not widely applied but only attempted in some projects.

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12 In comparison with the energy-saving techniques, the energy efficiency of building in fact more basically relied on the micro climate that was generated by spatial design, such as the building orientation and ventilation.

13 The concept of “life cost of housing” was proposed in order to avoid the irrational debasement of technical standards of housing construction and to encourage the adoption of energy-saving measures.

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## § 5.6 Conclusions

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In the aesthetic-technical dimension, the typological review and analysis of the Chinese socialistic public housing in Beijing revolved around the aspects of planning concepts, spatial layouts of housing areas, housing designs, architectural styles of buildings and building technologies. In general, the track of the public housing history was physically developed from the emulation of the Soviet mode to the localization, and to the evolution of local characteristics.

In the 1950s, the Soviet-style physical planning and architectural design significantly influenced the public housing development in Beijing. It resulted in some high-quality designs but also in great inadaptability to the local situation. While the design standardization began to be promoted, the technical standards of housing construction were still under development. From the late 1950s to the early 1970s, the planning and designs of public housing were gradually localized along with the generally lowering of housing standards. The physical form of housing areas and individual buildings turned to subordinate to the local climate, habits of living and functional requirements. Some industrialized building techniques were introduced. But also many extreme and unsuccessful attempts were made. In the 1970s, the public housing development started to be reemphasized. The planning structure, building types (including the high-rise), housing designs and architectural style that influenced the public housing development in the following decades were developed. Most of industrialized building systems had been introduced and promoted, and the standardization of building components and systems was primarily completed. However, the quality of physical planning, housing designs or building techniques still had to be improved. China's Reform since the end of 1970s largely promoted the development of socialistic public housing, including its planning, designs and technologies. In the 1980s and 1990s, the main themes were the continual enhancement of housing standards and housing diversification. Not just the physical planning and spatial layouts, but also the housing designs were soon diversified. The human-centered planning and design became an important issue. Many different types of housing were developed while the design standards and quality were upgraded. The architectural forms of public housing buildings were to be ornamental, especially by learning from the local architectural styles. The technical standards of housing design and construction were also continually improved. But, on the other hand, housing density was increasingly raised, as a solution for urbanization, land-saving and housing commercialization. In particular, in the 1990s, the developments of high-dense public housing inevitably led to the scarification of housing comfort.

The 50-year public housing development resulted in plenty of different housing buildings, facilities and outdoor environments in Beijing. They not only presented but also shaped the urban societies and daily lives at their times. Considerably "classic"

planning and designs, such as the 3-level planning structure of residential district, quarter and cluster, the dwelling-unit housing plan and the technical standardization were developed. Nevertheless, there were also many irrational or low-standard attempts. The higher-quality or classically-designed housing buildings and areas no doubt will be well maintained, while the low-standard and decayed one seemingly deserve a fate of demolition and reconstruction. Nevertheless, varied types of buildings, facilities and environments together composed the mixed and diversified physical morphology not only of a city but in a public housing area, as a result of integrally-planned or not-integrally-planned public housing developments. It is this physically hybrid situation that conditions the heterogeneous but integrated social structure as well as daily round in a (former) socialistic public housing area in the past and even at present. In the aesthetic-technical dimension, the physical planning and design could still contribute to the realization of ideals.

In Part II, we briefly reviewed the history of the Chinese socialistic public housing in Beijing under the theoretical framework of spatial phenomenon. In the socio-economic dimension, the socialistic public housing system was identified by two characteristics – danwei welfare housing and housing standardization, and its evolution not only presented but was determined by socio-economic transformations. In the community-placial dimension, danwei communities to a large extent influenced the socio-spatial morphologies, as well as the everyday lives of socialistic public housing areas in Beijing. And in the aesthetic-technical dimension, many different physical planning, designs and technologies were developed so as to present and to shape urban society and residents' lifestyle, but their mixture also resulted in the diversified built environments of public housing neighborhoods. In general, all those identities were not just abstract concepts or individual percepts but the spatially everyday phenomena that people experienced. They also conditioned the sociality and spatiality of existing former socialistic public housing areas in Beijing.

However, the radical housing reform in 1998 induced significant changes. The socialistic public housing system was officially terminated and most of public housing was privatized within a few years. The marketization and capitalization of housing stock caused a series of urban housing problems. Besides the general transition of housing stock, the fate of (former) socialistic public housing areas was also changed. While those areas still accommodate a majority of urban residents in Beijing, they are facing the realistic threats of neighborhood decline and destruction of originally social structure. In the meantime, urban renewal, as an important housing intervention, was largely influenced by the housing reform. The marketized renewal policy resulted in the dilemma of urban renewal of former public housing areas in Beijing. Therefore in the following Part III, the discussion will turn to our research question, which means the former public housing sector in the existing housing stock and the challenges of its urban renewal at present.



PART 3 **The Status Quo and Challenges**



## 6 Chinese Housing Reform and the New Urban Question

In Part II, we reviewed the transformation of the Chinese socialistic public housing system and its development in Beijing. This system used to deal with the housing shortage problem. However, because of the socio-economic transition that happened as a consequence of the reform in China, this housing system which had its roots in the planned economy was gradually becoming inadapted. Finally in 1998, radical housing reform officially ended the socialistic public housing system and a majority of public-rented dwellings were privatized. But the alternative social housing system was not well established to begin with. Unlike the expectations, the housing reforms through privatization and marketization did not solve but caused more problems. Urban housing was alienated as private property and these property prices shot up in a short time. The seriously unbalanced structure of housing stock in Beijing and other Chinese big cities has induced a series of new urban problems. At the same time, the former public housing areas, which still house many urban residents and are identified by their mixed communities, are facing the threat of neighborhood decline. The renewal of those former public housing areas therefore is able to contribute to not only improve the local living conditions, but also to resolve the structural problem of housing stock. Nevertheless, while the objective of urban renewal in Beijing was originally proposed to solve housing problems and to improve the integrated urban development, due to the present renewal approach, based on the strategies of market-oriented and unitary reconstruction, the renewal of former public housing areas was soon manipulated by the capital and speculation, leading to severe conflicts between differentiated interests. Many renewal projects had to be at a standstill, until alternative renewal strategies are explored.

In this part of my thesis, I will focus on the analysis of those critical issues on urban renewal of former public housing areas. As background, the analysis in Chapters 7 and 8 will respectively concentrate on present urban housing problems and the existing conditions as well as problems of former public housing areas. In Chapter 9, I will investigate the reasons for the current dilemma of the renewal of former public housing areas, by which the challenges to improve renewal strategies will be stated.

As we have discussed in Part II, a socialistic public housing system was established in China after the People's Republic was founded in 1949. The ideological thought

was that housing was a fundamental welfare benefit for urban residents, the majority of which are working class. The planned economic system and the nationalization of urban land ownership resulted in the large-scale development of low-rent socialistic public housing for urban residents. In most cases, the *danwei* (Work Unit) as the representative of the state (or the collective) directly took charge of the public housing development, distribution and management for its employees<sup>1</sup>. Therefore, the socialistic public housing system is also called “Danwei Welfare Housing Allocation System” in China. The socialistic public housing system formerly played a very important role in solving the housing problem in Chinese cities and, in general, ensured the effectiveness and evenness of housing distribution for urban residents.

However, since China initiated the “Reform and Opening-up” – a market-oriented but top-down driven transition, the conventionally socialistic public housing system became increasingly inadaptable to the changing socio-economic situation, especially after the transition to the “Socialistic Market Economy” since the early 1990s. A reformation of the urban housing system had therefore become inevitable in China. As a result of the housing reform, the public housing system was brought to an end in 1998, and the urban housing provision was mostly committed to the market.

Nevertheless, the market-oriented housing reform did not successfully solve the problem of housing shortage. On the contrary, the over-marketization of housing stock has brought a series of new urban problems, particularly in big cities like Beijing. The questions related to urban housing issues have become the hot topic for the public. To answer those questions, it is necessary to review the history of the Chinese urban housing reform and the process of its reasoning.

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Under the planned economic system of China, the *danwei* provided most welfare, including not only public housing, but also other benefits such as medical services, pension and sometimes education for its employees. A strong dependency was built between urban residents and their *danwei* so that the “*danwei* community” was the basic unit of urban composition.

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## § 6.1 From Public Welfare to Private Property – Review of the Chinese Housing Reform and the Following Urban Problems

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### § 6.1.1 Early Attempts of Housing Reform in the 1980s

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The reformation of the urban housing provision system in China can be traced back to the early 1980s. In order to understand the reasons for initiating a housing reform, we have to review both the practical housing challenges on the one hand and the ideological change in the definition of housing on the other.

The practical challenges of the urban housing stock had two main aspects: housing shortage and the financial deficit in housing development. On one side, the lack of emphasis on housing development after the 1950s, together with urbanization had been the cause of urban housing shortage until 1978. Moreover, the economic development that brought about the reform further accelerated urbanization and improved the standards of housing. As a consequence, the problem of urban housing shortage became more acute. In contrast, insufficient public housing investment emerged as a critical problem, along with the decentralization process in the reform. In the distribution of national income, the proportions received by danwei and individuals significantly increased. So this situation resulted in a deficit in the urban housing investment, which was mainly financed by the state. The conflict between the increasingly “commercialized” economic structure and the still “planned” housing investment/consumption gradually came to the fore.

Nevertheless, the ideological redefinition of housing was more fundamentally conducive to the initiation of the housing reform. Urban housing was formerly defined as a form of public welfare – a mean of subsistence that was centrally provided by the state for urban residents (the working class). After the start of the reform, which also belongs to the process of theoretical reinterpretation of socialism, the understanding of housing became a question. A series of debates tried to re-clarify the essential attributes of housing through the re-explanation of the classical writings of Marxism. Finally housing was labeled as a “commodity” in the beginning of the 1980s. This attribution was confirmed when “the planned commodity economy” was established in 1984. In general, the orientation of the housing reform was guided to promote commercialization, in order to realize a financial self-balance in housing development and management.

With the socio-economic reformation, more diverse and decentralized approaches were adopted to encourage urban housing development. The roles of individuals

and danwei were emphasized in the new housing developments. In the meantime, real estate development was legally permitted in 1984. The “commodity housing” thereafter was able to be traded between different entities. Since the danwei public housing system was still dominant, the majority of commodity housing was “group-purchased” by danwei.

However, the reformation of the public housing distribution system, which is the core issue of the housing reform, was not successful in the 1980s. Its original aim was to increase the share of individuals in the total urban housing investment to a reasonable level, in order to promote self-financing of the public housing system. But several attempts to reform the socialistic public housing system in the 1980s failed. These attempts mainly focused on the raise of housing rent associated with the subsidized sale of public properties. The enhancement of rent was not easily accepted by the tenants at a time of high inflation, while the continuous low-rent policy reduced the possibility of selling public housing at a reasonable price. The emergence of the sale of public housing, which particularly benefited powerful and rich families, began to provoke critique as to the inequality inherent in the housing privatization. As a result of the failure from the housing reform attempts in the 1980s, the shortage and unbalanced structure of urban housing investment was not improved. On the contrary, the proportion of housing expenditure as part of the total expense per household decreased from 2.3% (1975) to 0.74% (1990). The search for a more radical reformation of the urban housing policy seemed to be necessary.

### § 6.1.2 Housing Reform in 1994 and Its Consequences

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The housing reforms of the 1990s, however, should be not only seen as the response to those unsuccessful attempts in the 1980s, but also analyzed by considering the social, economic and ideological transformations of the Chinese society in the early 1990s.

As in the 1980s, the transformation in the 1990s was directly induced by the process of a top-down reform. The Chinese government pushed ahead with economic reform, in which marketization was the orientation, after the instability of domestic economic development in the late 1980s and the collapse of the “communist camp” in the Soviet Union and Eastern Europe. In 1992, the transition from a planned economy to a “socialistic market economy” was officially announced in the 14th National Congress of the Communist Party. This transition fundamentally changed the orientation of housing reform.

As a presupposition of a market-oriented housing reform, the commercialization of the land provision system was indispensable. In China, urban land was state-owned.

Under the conventional planned economy, land was regarded as a means of production and therefore centrally distributed by the government free of charge. As early as the beginning of the 1980s, the land lease system started to be introduced as a pilot project. The amendment of the Chinese Constitution in 1988 and the promulgation of the “Interim Regulations of the People’s Republic of China Concerning the Assignment and Transfer of the Right to the Use of State-owned Land in Urban Areas” in 1990 legislatively separated the right to urban land use from the land ownership, as a *commodity*. After the transition to the market economy had begun, the process of the land reform gained speed. The first example of land lease in Beijing occurred in 1993.

The release of land lease system boosted the real estate development, but also land and housing speculation, which directly caused the economic overheating of 1992 and 1993. The state government thereby had to strengthen their economic “macro control” to deal with the overheated real estate economy. However, the housing reform did not stop, but further developed as an important part of the effort to establish a socialistic market economy.

In 1994, “The Decision of State Council on Deepening the Reform to Urban Housing System” was declared. In order to boost the housing reform, there were two new but critical policies in this document. The first was to establish two separate housing provision systems – “the affordable housing<sup>2</sup> provision system with the character of social security for the middle and low income households” and, “the market housing provision system for the high income households”. The second policy was to generalize the Housing Accumulation Fund System<sup>3</sup>. These changes in fact indicated that the purpose of the housing reform had changing emphasis, from the improvement of public housing system, associated with market housing development, towards an effort to establish a more unified “commercialized” housing stock, mainly composed of owner-occupied housings. Nevertheless, the housing reform decision in 1994 still preserved the danwei welfare housing distribution system. Policies to increase public housing rent and to partly privatize public housing continued within this system. The

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2 Affordable Housing is a government subsidized, owner-occupied housing system. The governmental subsidies to affordable housing development include the exemption of land lease, investment on urban infrastructure, tax reduction and other financial supports. The price and profit of affordable housing are highly controlled in order to ensure its affordability for the middle and low income groups.

3 The Housing Accumulation Fund is a public fund monthly paid by the individual and his/her employer (according to the individual’s wages and the total wages of the employees). It is reserved for purchasing, constructing and repairing housing. The savings and interest in the personal account of the accumulated housing fund will be refunded upon retirement.

decision also proposed the development of a housing exchange market as well as a housing maintenance/management market.

However, the measures of the 1994 housing reform could not be well implemented in practice. The efforts to enhance housing rent and to partly sell public housing at a cost price were still unsuccessful. This was due to opposition from both the “privilege group” who occupied many low-rental houses, but also the low income group – the “loser” in the economic reform, who was guaranteed public housing. While affordable housing was gradually developed, it did not and could not replace the role of public housing. The Housing Accumulation Fund only covered the government agencies and public enterprises/institutions but was not largely applied in the growing private sector.

On the other hand, the housing reform that started in 1994 encouraged real estate development in Chinese cities. The development of a housing market was also thought to be an efficient way to increase government income and to promote economic development. The majority of the trade of commodity housing gradually shifted from the danwei to private purchase. In Beijing, the proportion of private purchase in the sale section of commodity housing doubled from 19.6% (0.35 million m<sup>2</sup>) in 1995 to 39.7% (1.02 million m<sup>2</sup>) in 1997. The proportion of the public-rented sector within the urban housing stock continued decreasing in China.

However, the incompatibility of the socialistic public housing system and the transition to the market economy presented itself as an increasingly serious problem. The self-financing of public housing development, and even maintenance, could not be achieved. Along with the process of market-oriented reform, the housing standards of the danwei and individuals further differentiated. Ironically, the public housing system that was originally designed as basic public welfare for urban residents, contributed to the formation of privilege in housing distribution. In the meantime, it was impossible for the danwei public housing to cover the increasing private economic sector. A unitary and socialized public housing stock was never really established. Therefore, a further reform to the Chinese urban housing stock, dependent upon the danwei distribution, seemed inevitable.

### § 6.1.3 Radical Housing Reform in 1998 and the Following Urban Problems

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Unfortunately the next step in the housing reform was not toward socialization but marketization. The reason for this change was rather complicated. Apart from the practical questions aforementioned, the influence of ethical/ideological transition should not be ignored. The “Reform and Opening-up” process of China was timely

in catching the wave of globalization after the 1970s, which also brought neo-liberalist ideas to China. The Chinese Reform was a process of top-down economic marketization, in which GDP growth gained priority and even the remaining public sector became profit-oriented. It was thus named as, “neo-liberalism with Chinese characteristics” by David Harvey (2007). Until the 1990s, superstition towards the market prevailed in the think tanks of the Chinese government. The market was ideologically aggrandized as a panacea, and therefore the housing problem became distorted, believed to be fundamentally solved by the free market. The proposal to establish a mono-structural housing stock dominated the owner-occupied market housing sector was promoted.

Besides that, the “Growth Machine”<sup>4</sup> was also an important driving force in the housing reform. The pro-growth local government, for whom the land lease and the real estate tax represented its main income, promoted a housing stock based on real estate development in order to attract investors and to increase local fiscal income. The high savings of Chinese urban residents were regarded a “pre-condition” for housing privatization. All parties were theoretically prepared for a more radical housing reform, which further deviated from its original track.

Under these conditions, the strategy to completely marketize urban housing stock and to promote real estate development was adopted by the Chinese government in order to sustain the economic growth after the Asian Financial Crisis in 1997. “The Notice of the State Council on further Deepening the Reform to the Urban Housing System and Speeding up Housing Construction” was declared in July 1998. The danwei welfare housing distribution totally ceased, instead, “the new-developed affordable housing in principle could only be sold but not rented”. The urban housing distribution was absolutely “monetized”. The socialistic public housing system thereby finally ended, so that the urban housing policy changed from the state guaranteed public rental system toward an owner-occupied dependent on the housing market.

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Growth Machine is a pro-growth mechanism of American cities described by urban sociologists Logan and Molotch in order to indicate the blind competition for economic growth between cities, which in fact destroys the fortunes of ordinary urban residents. It particularly emphasizes economic growth or capital accumulation. In their latest writings, the Growth Machine was also applied to illustrate the pro-growth urban development in China (Logan and Molotch, 2007).

As a direct consequence of the radical housing reform in 1998, most public housing was privatized within a few years<sup>5</sup>. However, the affordable public housing market was targeted at the existing tenants. While each city or danwei could make its own detailed rules, the asking prices of housing privatization, in general, depended upon the cost prices, working years of the tenants and housing allocation standards. The latter two could significantly lower the housing prices, and consequently, the formerly public-rented houses were “given away” to their tenants in some cases<sup>6</sup>. Meanwhile, the government almost completely withdrew from direct intervention in the housing stock. Urban housing provision mainly depended on the real estate market. As a result, the radical housing reform fundamentally changed the structure of the Chinese urban housing stock. Till 2000, the proportion of the publicly rented sector decreased to 51.39% (Feng Jun, 2009, p.215). And the proportion of the households who privately owned their houses in Chinese cities sharply increased to 75.72% by 2005 whilst the proportion of the households living in the public rented dwellings shrunk to 8.13%, which were even exceeded by those who lived in the private-rented sector (12.21%)<sup>7</sup>. Finally, as a form of private property, the private housing ownership was legally recognized and protected according to the Constitutional amendment (2004) and the promulgation of *Property Law* (2007). In housing management, the concept of property management became the mainstream: the individual homeowners and their organization, at least legally, were asked and empowered to be responsible for the maintenance and management of their properties, though danwei and municipal/district government had to intervene the housing management of those old, still partially publicly-owned neighbourhoods (see Chapter 7).

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5 The privatization usually aimed at the public housing with fully equipped amenities. Those dwellings with shared toilets, bathrooms and kitchens, such as the hutong public housing and the dormitory-like tongzidou, were unable to be sold because the properties could not be separated.

6 According to the Chinese liberalists, the working years of tenants, especially under the planned economy, were counted as their “contribution” to the state and should be repaid by the deduction of asking prices in the housing privatization (for which the extremely low rents of public housing were intentionally or unintentionally ignored). At the same time, the floor area standard, based on the ranking in public housing allocation system, was also an indispensable factor to decide the prices: if a tenant’s existing living space was larger than his/her eligible allocation floor area, he/she had to pay the extra space with the cost price; and contrariwise, if one’s existing housing condition is lower than his/her eligible standard, he/she would be compensated by cash, floor area or price deduction. Therefore in some cases, elder tenants who often worked in a danwei for a considerably long time were eligible to receive their houses for free or even with an extra compensation. However, since different cities or danwei had different rules on privatization, the actual property ownerships in the former public housing areas is still complicated and confusing today.

7 In big cities such as Beijing, Shanghai and Tianjin, the proportion of publicly rented sector is higher than the national average.

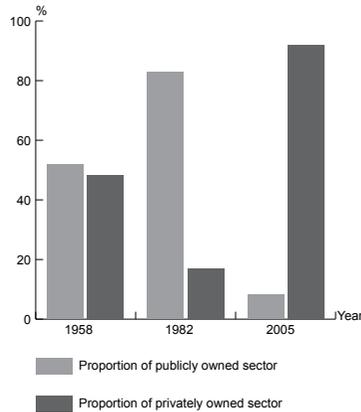


Figure 6.1  
*Proportions of public-owned and private-owned sectors in the Chinese urban housing stock*  
 (Sources: Gu Chaolin et al, 2002 and Feng Jun, 2009; chart by author)

As a strategy to stimulate the economy, the 1998 housing reform was successful in the short term. Housing consumption and investment enlarged the domestic market. The real estate sector soon became one of the most important engines of the Chinese economy. China's economy has in average kept an annual growth rate of more than 10% since 2000, at least partly contributed to by the real estate economy. Only in Beijing, the total GDP almost quadrupled in the recent decade<sup>8</sup>, and the GDP per capita has reached CNY 75,943 (USD 11,218) in 2010 (figure 6-2). From 1998 to 2008, the direct contribution rate of real estate investment to total GDP of China increased from 6.32% to 10.95%, and if the indirect contribution (which means the relevant growth supported by real estate investment) was counted, the total contribution rate of real estate economy reached 21.76% in 2008 (Liu Lin, 2010). Spatially, the continuous economic growth and booming real estate economy boosted the process of urbanization. From 1998 to 2011, the proportion of Chinese urban population increased from 30.40% to 51.27%. On the other hand, the government was finally free from its overloaded investment in public housing. On the contrary, the boom of the real estate market boosted the increase of land lease rate and the tax income, which composed the majority of public revenue in particular for the local government. The fiscal income of Beijing municipal government thus hugely increased (figure 6-3). Meanwhile, the financing problem of urban renewal, which embarrassed the

8

From 2000 to 2010, the local GDP of Beijing increased from CNY 316.17 billion to CNY 1,411.36 billion.

government for a long time, was seemingly resolved: the housing privatization and real estate investment significantly pushed ahead large-scale urban reconstruction (which will be discussed in detail in Chapter 8). Furthermore, the problem of the privilege or injustice in public housing distribution superficially “disappeared”. And along with the destruction of the danwei community, the shequ (community) establishment (as aforementioned in Chapter 4) was introduced to strengthen the governance of local communities. Furthermore, the problem of the privilege or injustice in public housing distribution was superficially solved. However, the long-term impact of radical housing reform based on housing privatization and marketization was unexpectedly negative.

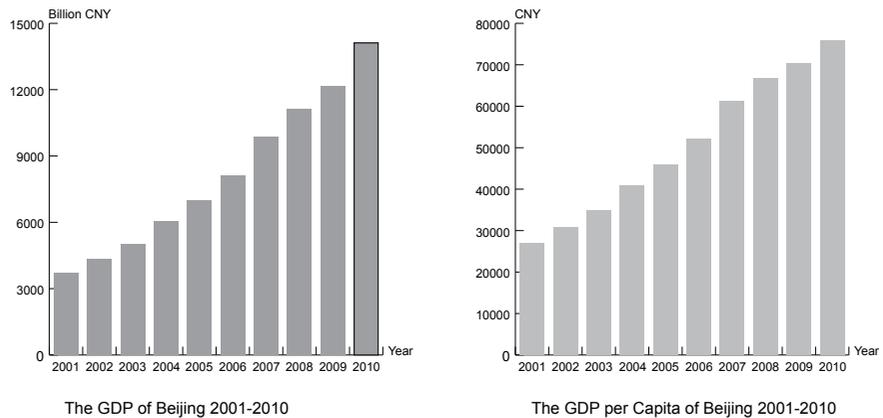
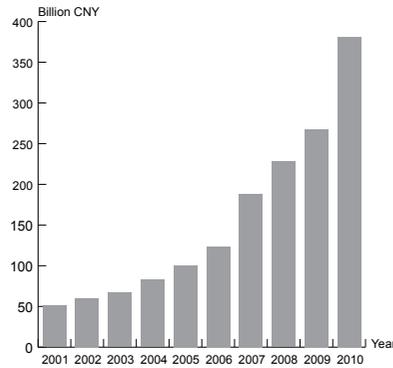
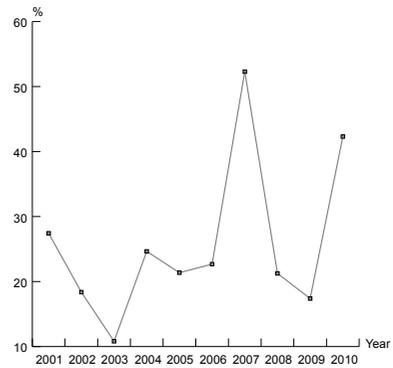


Figure 6.2  
*GDP growth of Beijing Municipality*  
 (Source: Beijing Municipal Bureau of Statistics, 2011; charts by author)



The Fiscal Income of Beijing Municipality 2001-2010



The Growth Rate of the Fiscal Income of Beijing Municipality 2001-2010

Figure 6.3  
*Increasing revenue of Beijing's municipal government*  
 (Source: Beijing Municipal Bureau of Statistics, 2011; charts by author)

Firstly it is an ethical problem that the basic human right to housing was, in a Marxist term, alienated to be commodity and private property. The housing problem almost became a merely economic issue for the government. In particular for the local government, the rise in housing prices means not only the GDP growth but also revenue mainly from the land lease and tax related to the real estate market. The contribution from the market housing development to the national GDP growth had reached 5.37% in 2007 (Feng Jun, 2009, p.40); and in Beijing, the tax incomes that were directly related to the real estate market amounted to 21.2% of the annually total revenue for the municipal government (ibid, p.48) and the percentage of land lease income may have been even higher<sup>9</sup>. Boosted by the Growth Machine, an actual alliance was formed. It was comprised by local governments, developers and other vested interest groups that benefited from the housing privatization. Many local governments thus intend not to control but to tolerate the rapid increase of market housing price, which apparently would push the rise of land lease<sup>10</sup>. Without

9 The income from the land lease is hardly presented in the fiscal report on the municipal government but in the large-scale construction of urban infrastructure.

10 From 2002 to 2007, the land lease per square meters for the real estate development rose from CNY 713.02 to CNY 7,489.14 in Beijing, in which the average annual growth rate was 60.25%. This rate even exceeded the annual growth rate of market housing price (Feng Jun, 2009, p.143).

an effective balancing force, the housing market was destined to be polarized and speculative.

At the institutional level, the public interventions to the urban housing stock were deficient and inefficient. The social-oriented housing, including affordable housing (for the mid and low income households) and low-rent housing (for the lowest income group), were not sufficiently well-developed in practice, because they were not attractive to the pro-growth local government. For instance, in 2006 the amount of annually completed affordable housing only represented 1/10 of the market housing in Beijing (figure 6-4). Even the attribute of affordable housing, which is actually highly subsidized by the government, was ambiguous: while it was defined as social-oriented housing for mid and low income people, the income level of the buyer was not strictly checked and the rent or transaction of purchased affordable housing was almost not controlled<sup>11</sup>. The Housing Accumulation Fund still did not fully cover all urban residents<sup>12</sup>. Without strict supervision and regulation, many employees of the private economic sector were excluded. Besides the absence of a well-developed social housing system, the legislation to protect the rights of tenants in the private-rented sector was also insufficient. The tenant could be easily expelled by the landlord. Without a guarantee of either the social housing system or the rights of tenants, the private, owner-occupied housing became almost the only choice for the urban residents. In addition, the financial intervention to the real estate market was deficient. Loans and mortgages for real estate investment were not under efficient supervision. Facing the opposition of interest groups, the levy of real estate tax or land value increment tax was still under debate. Hence, the housing speculation could not be effectively restrained.

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11 At the beginning, the transaction of purchased affordable housing only required payment of 10% of land lease or 3% of transaction price as the repayment of land lease.

12 Till the end of 2008, the ones who have regularly paid for the Housing Accumulation Fund just amounted to 69.25% of the total amount of the residents who should be included in the Housing Accumulation Fund system in Chinese cities (Feng Jun, 2009, p.127).

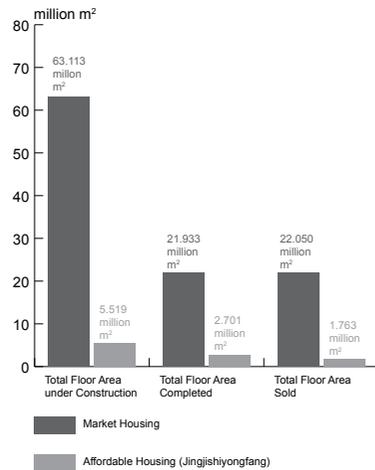
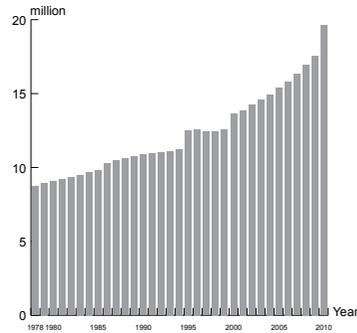
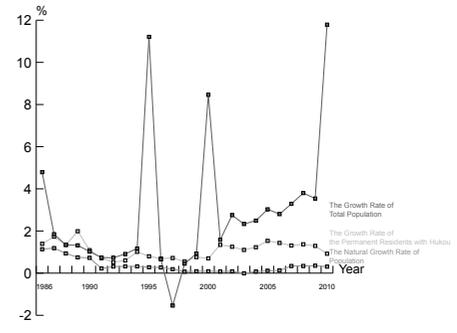


Figure 6.4  
 Market housing and affordable housing development in Beijing (2006)  
 (Source: Beijing Municipal Bureau of Statistics, 2011; chart by author)

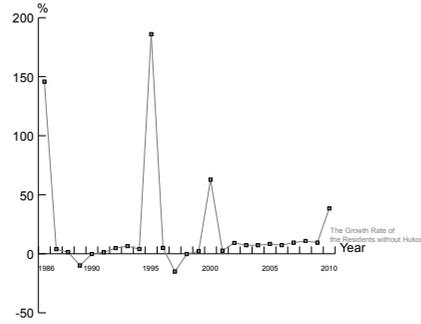
At the same time, different from many developed countries where housing privatization usually started to be promoted after the problem of housing shortage was basically solved, the privatization and marketization of urban housing stock in China occurred when the country was still experiencing high-speed urbanization. Accompanied by economic explosion and high-speed modernization, the urban population of China has reached 690.79 million in 2011, and represented 51.27% of the total population. In the municipal area of Beijing, the permanent residents reached 19.62 million in 2010. Newcomers, immigrants from other regions of China, have become the main impetus of population booming in Beijing (figure 6-5). Meanwhile, the family structure shifted from the traditional extended model to the nuclear one. The change of ratio of different sized households in Beijing between 2004 and 2010 obviously show this trend (figure 6-6). The rapid urbanization and the transformation of family structure has led to the constant pressure of housing shortage both in quantity and in quality. Under this background, the dream to solve housing problems by privatization, which means to ask each household in the city, including the low-income, newcomer and starters, to buy their own dwellings, is evidently unrealistic. Unlike the argument of some experts, a high proportion of the private-owned sector in Chinese urban housing stock is unable to totally ascribe to the Chinese “tradition” to purchase housing property, but mainly derives from the large-scale privatization of public housing and the dominance of real estate development after the radical housing reform (Feng Jun, 2009, p.156). This unitarily “marketized” form of housing provision in the city still preceding serious housing shortage, will no doubt, result in a not only over-privatized but also capitalized urban housing stock.



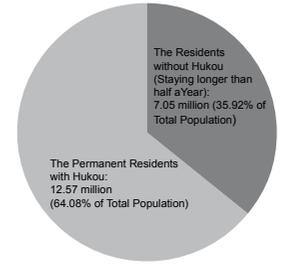
The Population Growth of Beijing Municipality 1978-2010



The Population Growth Rate of Beijing Municipality 1986-2010



The Growth Rate of the Residents without Hukou of Beijing Municipality 1986-2010



Total Population of Beijing in 2010: 19.62 million

The Proportions of the Residents with and without Hukou of Beijing Municipality (2010)

Figure 6.5  
Population growth in Beijing  
(Source of data: Beijing Municipal Bureau of Statistics, 2011; charts by author)

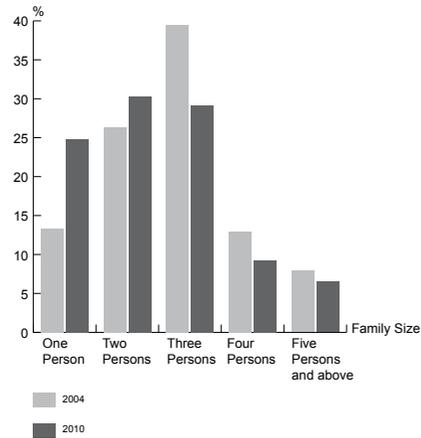


Figure 6.6  
Proportions of different sized families in Beijing  
(Source: Beijing Municipal Bureau of Statistics, 2011; chart by author)

Therefore, it was only a few years after the housing reform that a series of intractable urban problems emerged, especially in big cities like Beijing. Although the housing building floor area per capita of urban residents increased from 18.6 m<sup>2</sup> (1998) to 26.0 m<sup>2</sup> (2010) through the enthusiasm for real estate investments<sup>13</sup>, urban housing shortage was not successfully solved but transformed into a structuralized societal problem with a background of fast urbanization and social stratification. A result of housing privatization and marketization was the soaring price of market housing: the average market housing price in Beijing increased 126% from 2001 to 2007. During the same period, the average personal income of urban residents increased only 90%. The average newly-developed market housing price in the city proper of Beijing had reached CNY 10,661 / m<sup>2</sup> in 2007, which was already unaffordable for the average income group. According to the annual disposable income per household of urban residents in Beijing at the same time (CNY 61,569), the ratio of average newly-developed market housing price to the annual income of urban household (i.e. "ratio of housing price to income") was 21.5 in 2007 (Feng Jun, 2009, p.99). Actually, this estimation even ignored the fact that social differentiation and polarization was increasing. If we estimate separately the annual incomes of low-income, mid-low-income and mid-income urban households, the ratio would have respectively reached 40.9, 29.1 and 22.9. This unaffordable level of market housing price evidently does not just root in the owner-occupied demand. In comparison with the moderate increase in average rent level, which more precisely represents the actual housing supply and demand for self-occupation, soaring housing prices in fact indicate the active speculation in housing trading market. In order to earn high profits, the developer and the speculator controlled the housing sales so that a large amount of vacant or non-occupied market housing existed<sup>14</sup>. Contrary to the imagination of the promoters of housing privatization, the end of the public housing system did not restrain but, ironically, intensified the injustice in urban housing distribution. Since housing was converted into private property, corruption related to housing distribution or transaction became more serious, while the opportunity for ordinary urban residents to apply for public housing disappeared... Generally, in terms of the absence of an effective balance to the market force and especially in regards to the insufficiency of social housing, the urban housing stock significantly polarized. In a capitalized housing stock, the problem of housing shortage is the result of a growing discrepancy

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13 In 2010, the usable housing floor area per capita reached 19.5 m<sup>2</sup> for urban residents in Beijing.

14 According to the Beijing Municipal Bureau of Statistics, the total floor area of unsold vacant market housing in Beijing was 5,119,000 m<sup>2</sup> in 2010. On the other hand, there are not official statistics on the non-occupied market housing for either owner-occupation or private rental. According to the preliminary estimation of some scholars, the proportion of non-occupied housing in the market housing sector of Beijing was about 27%.

between supply and demand rather than a merely quantitative deficit. This structural housing shortage increasingly represented a situation of disadvantage for low-income families. There was a severe housing shortage for the poor while the rich and upper class occupied large amounts of housing. Even the middle class was threatened by the mortgage burden, which highly limited their budget and gave them the nickname of “slave of house”.

The capitalized and speculative housing market reactively and inevitably accelerated the social stratification and polarization, which was the by-product of China’s market-oriented reform. Housing status or housing status group has become an evidence of social stratification (Li Qiang, 2010, p.230). Instead of the salary income, the property income played a more important role in the income structure of Chinese urban residents. That indubitably resulted in the unbalanced distribution of wealth. According to the 2011 report of the CASS, the low and mid income groups account for over 50% of the total urban population, while the high-income population only amount to less than 10%<sup>15</sup>. A few people actually owned a really huge amount of wealth. In the meantime, the social security system (including the social housing system) was insufficient to support the low and mid income earners. This unbalanced situation was even more serious in big cities like Beijing, Shanghai and Shenzhen. Based on the official statistics, the annual disposable income per capita of the 20% high-income urban households was more than five times of that of 20% low-income households in Beijing (while the family sizes of the former were often smaller than the latter), and this gap is increasingly enlarging (figure 6-7). This enlarged social polarization largely results from the difference in property incomes: in Beijing, the average salary income per capita of 20% high-income households (CNY 41,047) is only less than four times of that of 20% low-income households (CNY 11,971), while the rental income per capital of the former (CNY 1,160) is more than 15 times of that of the latter (CNY 75).

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In fact, the report of CASS was even criticized for underestimating the proportion of the low-income groups.

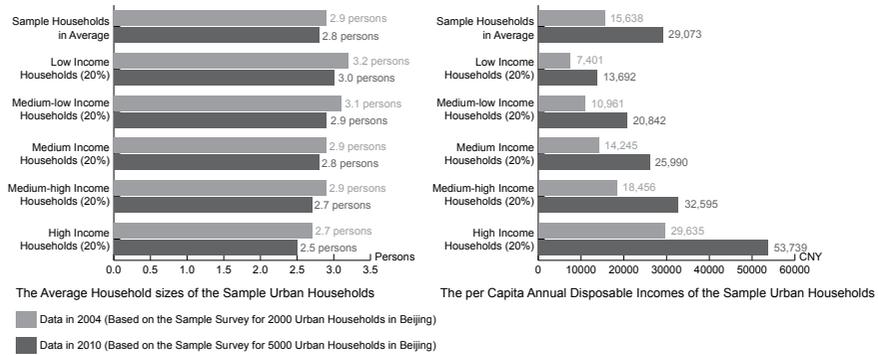


Figure 6.7  
*Per capita annual disposable incomes of different urban households in Beijing*  
 (Source: Beijing Municipal Bureau of Statistics, 2011; charts by author)

The stratification and polarization was not only temporal but also spatial. This is clearly presented in the change of the urban spatial structure. Under the planned economy, the social composition in a neighborhood was rather mixed, according to the danwei public housing system, and the urban spatial structure based on the danwei community was homogeneous. By the year 2000, the spatial structure of Beijing had changed to become heterogeneous according to the economic income of households, for which the housing reform was one contributory factor (Feng Jian, 2004, pp.159-162). Along with the transformation of Chinese society, the social stratification started to present itself in the form of spatial differentiation and even segregation, in which the land and housing reform provided the institutional precondition. The prices of properties are largely determined by their locations. The place of the neighborhood as commodity, which was originally termed by Logan and Molotch (2007) for American cities, has come into being in Beijing and other Chinese cities. Different strata were “filtered” from the originally mixed neighborhoods, so that the homogenization of neighborhoods and the heterogenization between different neighborhoods were proceeding simultaneously. The income and social stratification has become the most decisive factor for this socio-spatial differentiation (Liu Fang, 2007, pp.76-77). Moreover, the socio-spatial filtering is sorted not only by income but also by age: in the context of aging population<sup>16</sup>, the elderly people, who physically and psychologically more attach to their community and economically vulnerable, often prefer to stay

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Till 2010, the population aged 65 and over has reached 1.19 billion (8.9% of total population) in China.

in their old neighborhood, and the younger generations more intend to move out. As a result in Beijing, accompanied with the deterioration of those early-built and old housing areas, the socially and programmatically mixed communities that were developed under the planned economy have confronted the danger of destruction. The gated communities of market housing estates for the rich and upper strata occupy the best locations of the city (figure 6-8), the middle class can only afford the prices of market housing in the outskirts. Most of social-oriented housing neighborhoods were less accessible or far from the city center (figure 6-9). In addition to this “natural” process of socio-spatial filtering, the market-oriented urban renewal was a more radical approach of boosting residential differentiation and community destruction. The mid-low and low income groups have to live in decayed, old areas or move to the suburbs as relocatees of the urban reconstruction projects. This trend is obviously presented in the ladder of newly-developed market housing price, which sharply downgrades from the city center (characterized by good spatial locations with well-developed urban facilities and the majority of job opportunities in Beijing) to the periphery. As a phenomenon of residential inequity, this socio-spatial segregation is presented in Beijing as well as in other big Chinese cities.



Figure 6.8  
*A newly-developed, gated market housing estate in Beijing*

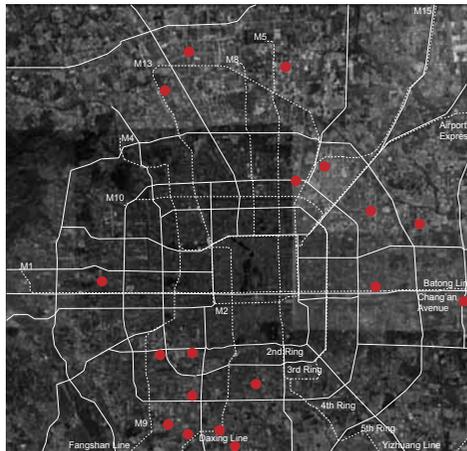


Figure 6.9  
Existing or planned affordable housing areas in the city proper of Beijing

Thus, whether temporal or spatial, the over-marketization of urban housing provision induced more urban social problems. The housing reform toward privatization and a unitary owner-occupied urban housing stock speeded up the process of social polarization.

There is irony in the fact that the radical housing reform did not only bring forth social problems, but also threatened the urban economy, whilst it was originally regarded as an efficient tool to stimulate economic growth. Due to the lack of effective interventions to balance out market forces, the housing market was unprecedentedly “prosperous” after 2000 and the real estate development became an important “pillar” of the national economy. The capital largely flowed from the manufacturing sector, which is the base of the Chinese economy and provides the majority of job opportunities, to the real estate market as short-term investments with high profits<sup>17</sup>. The following economic virtualization and shrinking of the manufacturing industry started to threaten the sustainability of the urban economy. At the same time, the popularity of housing speculation presented a danger to the banking system, in which the real estate loans and the mortgages were seen as potential financial products. The real estate bubble became a reality. On the side of consumption, the absence of

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In Beijing, the annual investment in real estate development increased from CNY 52.21 billion (2000) to CNY 290.11 billion (2010), in which the annual investment in housing building construction increased from CNY 28.83 billion to CNY 150.90 billion. And in the same period, the annual sales of market housing increased from CNY 40.93 billion to CNY 206.05 billion.

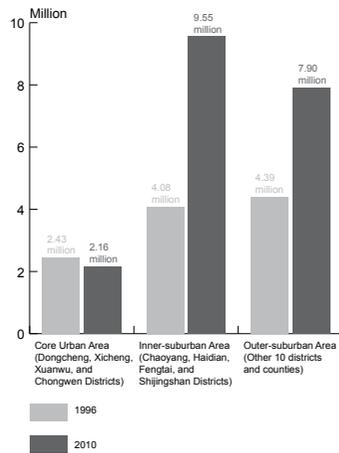
an efficient social housing system inhibited the growth of domestic consumption<sup>18</sup>. Behind the economic boom and low inflation of recent years<sup>19</sup>, was the higher growth of expenditure for housing and other welfare products (i.e. hospital, pension, education, etc.), so that the increment of individual income, especially of the mid and low income groups who usually contribute to consumption rather than investment, rarely converted to increased domestic consumption. This further limited the development of the manufacturing industries. As a structural problem of the Chinese urban economy, at least partly induced by the radical housing reform, this has been an evident factor in the latest Global Economic Crisis. The Chinese economy is increasingly criticized for being “abducted” by the real estate market.

Furthermore, the privatization and marketization of urban housing stock also ecologically caused urban problems. Unlimited real estate development consumed large amounts of land resources and speeded up the process of urban sprawl and suburbanization. The built-up urban area of Beijing city rapidly sprawled from 488.28 km<sup>2</sup> in 1998 to 1,180.1 km<sup>2</sup> in 2003 and further to 1,310.8 km<sup>2</sup> in 2009. The population proportion of residents in the city center is decreasing when the population proportion in the suburbs increases. In particular, the residents without hukou registration in Beijing, who usually are low and mid income earners, mostly live in the suburbs (figure 6-10). Along with the urban sprawl, the daily commuters between the city center and the suburbs hugely augmented, thereby creating increasingly severe traffic jams and air pollution. On the other hand, the profit-hungry real estate development sector, in which one-time investment was more of a deciding factor than the lifecycle cost of building, obstructed the widespread application of ecological building technologies for energy saving. Without a balanced housing stock, the ecological problem will present an even larger challenge for Chinese cities.

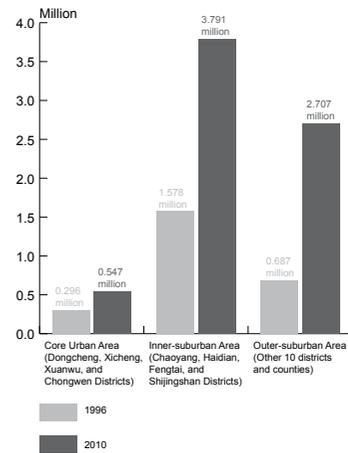
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18 By comparing the contribution of three components (consumption, investment and export) in 2000 and 2008, the contribution share of consumption decreased from 65.1% to 45.7% and the share of gross capital formation (investment) increased from 22.4% to 45.1%.

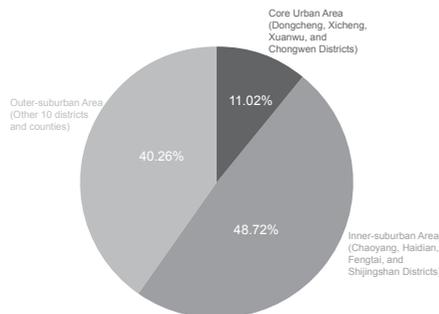
19 From 2001 to 2007, the average annual GDP growth rate of China reached 10.2% but the nominal inflation was controlled below 5%.



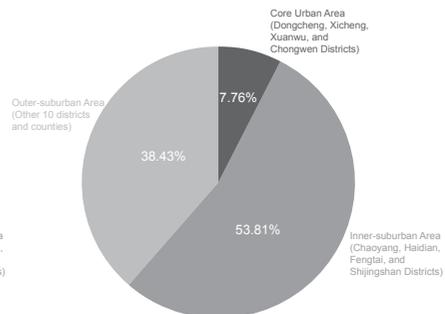
The Populations of Different Districts in Beijing (1996 and 2010)



The Residents without Hukou in Different Areas of Beijing (1996 and 2010)



The Geographic Distribution of Population in Beijing (2010)



The Geographic Distribution of the Residents without Hukou in Beijing (2010)



Figure 6.10  
 Changing population distribution in Beijing  
 (Source: Beijing Municipal Bureau of Statistics, 2011; charts and map by author)

All of the aforementioned urban social, economic and ecological problems, brought up by a radical housing reform, have severely threatened the sustainable development of Chinese cities. Starting from the debate on soaring housing prices, the housing problem has increasingly become a hot topic among the public in recent years. Hence,

the Chinese government started to intervene more frequently in the urban housing stock, in order to stabilize the market housing price and to re-establish the social housing system.

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## § 6.2 Effort to Reestablish Social Housing System and the Existing Challenges for Housing Interventions

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### § 6.2.1 Reemphasis on Social Housing

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A series of urban problems inevitably led to the improvement of public interventions. In order to regulate the booming process of urbanization, the Urban-Rural Planning Law was announced in 2007 and the role of spatial planning was further emphasized in urban development<sup>20</sup>. And the so-called Circular Economy Promotion Law, which tried to control the market-driven reconstruction and called on the sustainable use and improvement of old buildings, was also announced in 2008. More importantly, responding to the serious urban housing problem, the Chinese government started to intervene more frequently in the urban housing stock, in order to stabilize the market housing price and to re-establish the social housing system.

Since 2003, facing the problem of an overheated real estate investment market and soaring housing prices, the state government began to carry out a series of interventions to regulate the disordered housing market. But the housing problem was still misunderstood as something that could be solved by the market. Even the regulation of the housing market mistakenly relied on administrative help. The interventions were thereby inefficient in practice. In addition, the pressure from the alliance between the local government, developers and financial institutions, which are the first beneficiaries of housing marketization, led to policy reversals. As a result, the increment of real estate investment actually speeded up from 2003 to 2007 and

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The *Urban Planning Law* of China was firstly introduced in 1989. It was revised in 2007 and renamed as *Urban-Rural Planning Law* under the background of marketization.

the market housing price was not stabilized but continued to increase. Thus, the urban housing problem became more prominent.

Faced with those unforeseen housing problems and challenges, the attribution of housing had begun to be rethought. Housing was re-cognized as a necessity of human well-being. Therefore, the state emphasized the reestablishment of a social housing system, which was stated in the declaration of “the Observations of State Council on the Housing Problems of Urban Low-income Families” and termed as “the social security housing system” in 2007. The aim was to build a binary urban housing stock composed of market housing and social housing. The Chinese Ministry of Construction was renamed the Ministry of Housing and Urban-Rural Construction in 2008. The ministry developed a new framework for an urban housing provision system in which the majority of social-oriented housing included low-rent housing (for the low-income), affordable housing (for the mid-low-income) and limited-price market housing (for the mid-income). Later, the new public-rented housing was proposed as a solution to the housing problems of the “sandwich” class<sup>21</sup>. In 2008, the “Social Housing Act”, which was proposed to promote and to regulate the social housing development, started to be included in the legislation plan of the National People’s Congress (NPC).

Under pressure from both the state government and the public, the local government also reinforced the social-oriented housing development. In 2007, the Beijing municipality put forward a three-year developmental plan of 15 million m<sup>2</sup> of affordable and low-rent housing and 15 million m<sup>2</sup> of “double-limited” housing<sup>22</sup> (24.4% of total urban housing construction). This plan prioritized the location of social housing developments near metro stations and the mixture of social housing in market housing developments. The regulation on the application and transaction of social housing was particularly strengthened. The application process for low-rent, affordable and limited-price housings started to be supervised by the public. The sublet of low-rent housing as well as the rent of affordable and limited-price housing were legally prohibited; and the transaction of purchased affordable housing or limited-price

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21 The “sandwich” class indicates the mid or mid-low income groups of urban residents, young starters and newcomers, who cannot afford the price of market housing but also are not covered by the social housing system.

22 “Double-limited” housing is a sort of limited price market housing in Beijing, in which the price and the floor area of dwellings as well as the profit for the developer are regulated by the government. The target group of double-limited housing is the mid income households whose annual income is lower than CNY 88,000.

housing was more strictly limited<sup>23</sup>. From 2009, the development of public-rented housing started to be emphasized by the municipal government. The low-rent housing was planned to be merged into the public-rented housing system by transforming the brick-and-mortar aid into monetary aid for the lowest income group in the future. In 2010, the central government also announced a new policy to encourage the public-rented housing development, which was proposed as a trend of China's social housing. Eventually, the existing framework of an urban housing provision system was established (figure 6-11). The new social housing system or, more precisely, social-oriented housing system was set up in Beijing by including low-rent housing, public-rented housing, affordable housing and limited-price housing. Tables 6-1 and 6-2 show the current target groups and design standards for the new social housing.

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According to the new regulations enacted after 2007, the newly-purchased affordable housing and limited-price housing are prohibited to be traded within 5 years, unless they are sold to the government. In a housing transaction after the 5-year period, a certain proportion of the spread between social housing and ordinary market housing in the same area must be repaid to the government. For the affordable housing, the government has the priority to purchase.

	Category	Target Group	Policy Orientation	Rental Market
Market Sector	Villa High-grade Market Housing	Super High Income Earners High Income Earners	Strict Limit of housing supply by land provision, tax and credit policy; regulation of housing consumption by tax and other policies  Limit of housing supply by land provision, tax and credit policy; regulation the housing consumption by tax and other policies	Market Sale or Rental
	Ordinary Market Housing	Mid-high, Mid and Mid-low Income Earners	Different land provision policies to small/medium houses and large houses, appropriate locations of small/medium houses by considering costs of living and job opportunities; differentiated housing credit policies; improvement of housing tax and differentiation of tax rates; a certain proportion of the housing below 90 m2	Only for Sale
	Limited-price Ordinary Market Housing	Mid-low Income Housing Needy Households and Relocatees	Mainly composed of 90 m2 houses, and only one dwelling for each household; supported by land provision	
Social (-oriented) Sector	Affordable Housing	Low and Mid-low Income, Housing Needy Households with a Certain Ability-to-pay	Strict control of housing standard; clarify housing ownership; supported by land provision and tax policies	Only for Rental
	Public-rented Housing	Low and Mid-low Income, Housing Needy Households	Strict control of housing standard; supported by land provision and tax policies; partly replacing affordable housing and low-rent housing	
	Low-rent Housing	Low Income, Housing Needy Households	Government-invested housing development of housing aid according to housing affordability; housing aid standard (counted by floor area) according to local condition; full or most of rental subsidies available for the lowest incomes	
Sector for Special Groups	Housing for Farmer Workers	Migrant Workers from Rural Areas	Land provision, tax and long-term financing supports	For Rental or for Sale
	Housing for Civil Servants	Employees of Governments (Differentiated standards between different governments, regions and administrative ranks)	Housing subsidies; as an interim measure, the unified development of civil servant housing within a certain period; the standards of civil servant apartments referring to the preferential policies of affordable housing	

Figure 6.11  
Existing framework of the urban housing provision system in China

	Household Size	Annual Household Income <sup>a, c</sup>	Total Household Assets <sup>c</sup>	Existing Average Personal Housing Floor Area
Low-rent Housing <sup>b</sup>	1 person	6,960 and below	150,000 and below	7.5 m <sup>2</sup> and below
	2 persons	13,920 and below	230,000 and below	
	3 persons	20,880 and below	300,000 and below	
	4 persons	27,840 and below	380,000 and below	
	5 persons	34,800 and below	400,000 and below	
Public-rented Housing	3 persons and below	100,000 and below	-	15 m <sup>2</sup> and below
	4 persons and above	130,000 and below	-	
	The households who has been included in the waiting list of low-rent housing, affordable housing, limited-price market housing and other households with housing problems			
The non-Hukou-registered newcomers, who have worked and lived in Beijing for a certain period, with stable incomes and without their own houses				
Affordable Housing	1 person	22,700 and below	240,000 and below	10 m <sup>2</sup> and below
	2 persons	36,300 and below	270,000 and below	
	3 persons	45,300 and below	360,000 and below	
	4 persons	52,900 and below	450,000 and below	
	5 persons	60,000 and below	480,000 and below	
Limited-price Housing <sup>b</sup>	3 persons and below	88,000 and below	570,000 and below	15 m <sup>2</sup> and below
	4 persons and above	116,000 and below	760,000 and below	

a The income criteria for the applicants of low-rent housing, affordable housing and limited-price housing were announced in 2008, whilst those of public-rented housing announced in 2011.

b In this chart, the application criteria of low-rent housing and affordable housing are applied to the six districts (Dongcheng, Xicheng, Chaoyang, Haidian, Fengtai and Shijingshan) in the city proper of Beijing. The outer suburban districts/counties had their own criteria which are slightly different.

c All amounts in CNY.

Table 6.1

*Target Groups of Social housing in Beijing*

(Source: Beijing Municipal Commission of Housing and Urban-Rural Development; elaboration and translation by author)

	Typology of Dwelling	Floor Area
Low-rent Housing	No more than 50 m <sup>2</sup> per dwelling	
Public-rented Housing	Single Room	Approximately 30 m <sup>2</sup>
	Small-size	Approximately 40 m <sup>2</sup>
	Medium-size	Approximately 50 m <sup>2</sup>
	Big-size	Less than 60 m <sup>2</sup>
Affordable Housing	Approximately 60 m <sup>2</sup> per dwelling	
Limited-price Housing	1-bedroom	Less than 60 m <sup>2</sup>
	2-bedroom	Less than 75 m <sup>2</sup>
	3-bedroom	Less than 90 m <sup>2</sup>

Table 6.2

*Design Standards of Social housing in Beijing*

(Source: Beijing Municipal Commission of Housing and Urban-Rural Development; elaboration and translation by author)

In the meantime, public intervention in land transaction and the housing market was reinforced and improved. In 2004, in order to protect land resources and to curb land speculation, the transfer of land use rights in private was banned so that land lease had to be enacted through public auction, tender or bidding. The government retook control of vacant building plots. Stricter financial means were applied to regulate the housing market in 2007. Foreign investment in the real estate market and mortgages for non-owner-occupied residential property, such as a second home, were limited in order to restrain serious housing speculation.

In general, the Chinese urban housing stock underwent a significant change after 1998. This change presented a kind of not only socio-economic but ethical “extremism” in a way of Chinese-style modernization. In this sense, it may be comparable to those radical attempts in the 1950s and 1960s. While the latter were ultra-left, the former was market-oriented. As Peter Rowe stated, “nowhere has the same state regime taken such an extreme set of views on housing provision and on such a scale as in China, moving essentially from the remnants of a free-market system of private ownership to absolute public ownership and social welfare provision and then back – albeit with more and better guarantees of social fairness – to a market-oriented system once again” (Lü Junhua, Rowe and Zhang Jie, 2001, p.285).

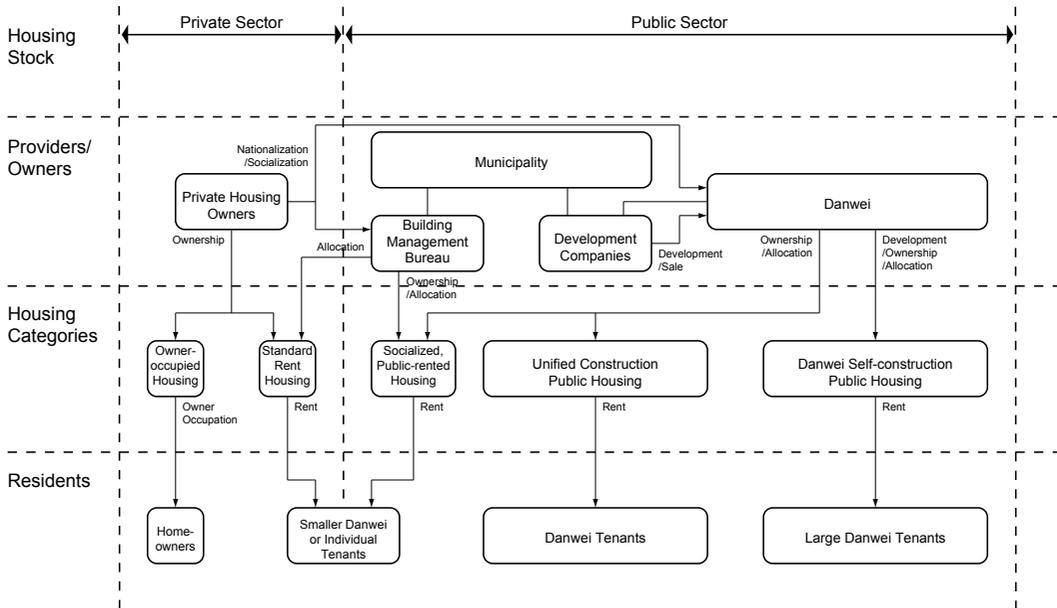


Figure 6.12  
 Mechanism of urban housing provision in China before the housing reform

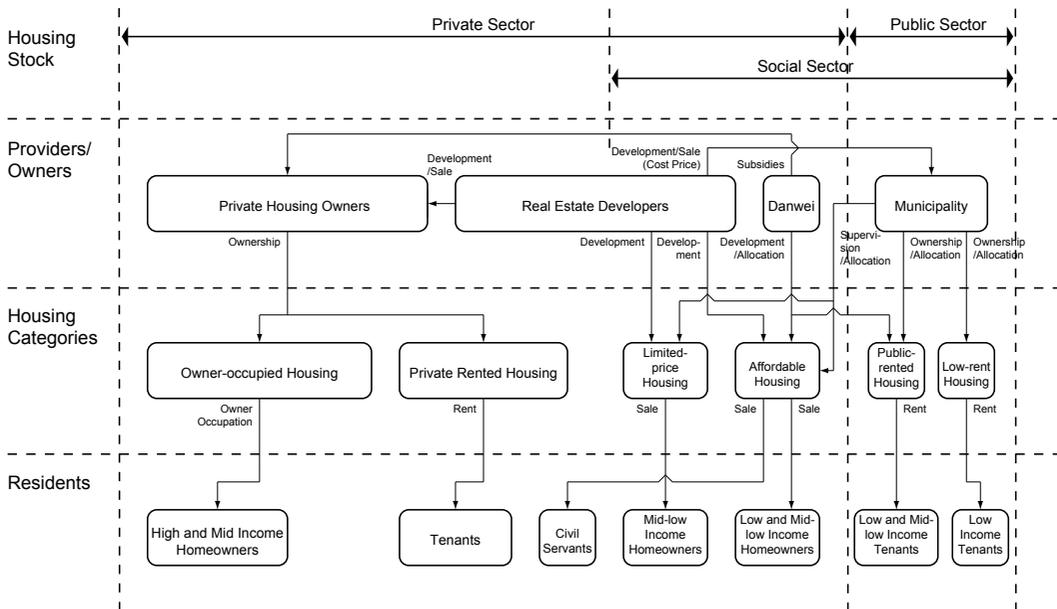


Figure 6.13  
 Mechanism of urban housing provision in China after the housing reform

## § 6.2.2 Existing Challenges for Public Interventions in the Urban Housing Stock

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According to the implementation of these new interventions, the Chinese urban housing stock would have been optimized. Nevertheless, after the housing reform, a balanced urban housing stock is still under-construction, and inconsistency of housing intervention still exists due to the economic development conditions and the interference of various interest groups. In order to cope with the Global Economic Crisis in 2007, the real estate development was once more applied as an engine to stimulate economic growth. The urban problems related to housing issues are still challengeable.

First, although the development of social-oriented housing has been reemphasized, the present limited amounts of social housing supply, especially in the rented sector, still cannot cover the demands of mid and low income families who are the majority of urban residents. With the continuous rise in market housing prices, the so-called "sandwich" class is increasingly enlarging. And so far the target groups of social housing system in Beijing are only limited in the urban residents with hukou registration, which means that newcomers, who make up a certain proportion of urban residents, are still excluded. The necessity to develop a social housing sector that can cover the wide range of different strata becomes increasingly important.

Second, the financing of social housing, especially the newly-established, publicly rented sector, is still a challenge. Different from the owner-occupied and social-oriented housing categories (i.e. affordable housing and limited-price housing), of which the investments can usually be balanced by selling the apartments, it is difficult to realize the financial balance for the developments of public-rented housing and low-rent housing in a short time, even though some public subsidies from the central government have been available<sup>24</sup>. Without the sustainable financial backup, such as long-term public loans, the sustainability of social housing is still unsecure.

Third, the present social housing system is too complicated and chaotic. Except for four types of "official" social housing – low-rent housing, public-rented housing, affordable housing and limited-price market housing, some of the other housing typologies in the existing housing stock, including the "civil servant housing", the collectively-developed or-purchased housing of public-owned large enterprises or institutions,

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Different from the affordable housing and limited-price housing, which mainly depend on the subsidies from the local governments, the direct subsidies from the central government are available for the publicly rented housing categories. The existing subsidies from the central government are about CNY 400 /m<sup>2</sup> for the low-rent housing and CNY 100 /m<sup>2</sup> for the public-rented housing, respectively. They are evidently far from enough.

resettlement housing for the urban residents involved in urban renewal and even the privatized former public housing, are publicly subsidized and thus can be categorized as social-oriented housing. The confused attribute of limited price market housing and affordable housing<sup>25</sup> has created an opportunity for corruption and speculation, unchecked by the deficient financial regulatory system of private property in China, so that their sustainability is doubtful. In addition, ambiguity also exists in attribution of so-called civil servant housing and the collectively-developed housing for particular groups, which has been criticized for creating new housing privileges and inequity. The attribution, ownership and management of privatized socialistic public housing are even more ambiguous (this will be discussed in detail in Chapter 7). This complicated and chaotic system not only induces speculation and corruption but also conduces to a segregated housing provision system, by which even the mid and low income urban residents are artificially divided into different groups according to their incomes. The current social housing system in general needs to be improved.

Fourth, the locations for newly-developed, social-oriented housing neighborhoods are usually chosen in less-valued places, which are far from the city center, less accessible and without adequate service facilities. The rate at which social housing is planned to be mixed into newly-built market housing projects is still too low (usually about 15% in Beijing). Hence, the threat of socio-spatial segregation is unprecedentedly realistic. Moreover, the design standards of social housing, especially the low-rent housing and public-rented housing, are rather low in comparison with market housing. It even has to be questioned if the limited floor area of those small dwellings can really provide suitable housing conditions for their target groups.

Besides the problems in social housing development, the public intervention in the housing market also met difficulties. The tax interventions to limit speculation, such as housing property tax or land value-added tax, still cannot be really implemented, due to the opposition of vested interest groups. Under the pressure to stimulate economic growth after the Global Economic Crisis, the Chinese government deregulated the restraints on bank loans for real estate development and mortgages for second homes, since the end of 2008. While officially real estate development was not listed in the economic stimulation plan of the Chinese government, a huge amount

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The ambiguity of affordable housing is always a critical question. Even according to the new regulation on affordable housing declared by the Beijing Municipality in 2008, the newly-built affordable housing can be traded in the housing market in 5 years after the home-owner obtained the property rights whilst 70% of the spread between sale and purchase price have to be repaid to the government (the rate of repayment is even only 10% for the affordable housing that was purchased before 11th April 2008). Furthermore, in the transaction of limited-price market housing, which was thought "less" social, only 10% of transaction price has to be paid as the compensation for land lease.

of currency was in fact flowing to land development, market housing construction and personal mortgage, which are considered as highly profitable investments by banks and other investors. Many local governments also took this opportunity to slow down the development of social-oriented housing. These measures, taken in order to revitalize the economy did not only rescue developers and speculators but also caused a new round of housing price escalation in 2009. In contrast to the world-wide economic slowdown, the housing price in Chinese cities ironically increased onto an unprecedentedly high level. The ratio of housing price to income had reached 25 by the end of 2009, and the ratio of average housing rent to housing price had exceeded 1:500. Thanks to the Crisis, neo-liberalism with Chinese characteristics was revitalized within the Chinese housing stock. The reversal of and inconsistency in housing policies was repeated. Accordingly, the state had to restrain real estate loans and mortgages once more. However, those financial interventions did not seem to effectively change the trend of housing price. In Beijing, the average price of newly-built market housing further increased to more than CNY 20,000 /m<sup>2</sup> in July 2010, in which the average price inside the 4th ring road (i.e. the central area of the city) reached over CNY 34,000 /m<sup>2</sup>. The price ladder from the center to the suburb in the housing stock of Beijing becomes much sharper, and the market housing price in the city proper has obviously not been affordable for lower income groups (figure 6-14 and 6-15). Furthermore, without the efficient means to protect the rights of tenants, the effort to restrain the speculative demand in the housing trading market induced the increasing speculation in the rental market: the rise of the housing rents, which for a long time was thought moderate, began to speed up. Therefore, the government had to further strengthen the financial intervention and even applied the administrative measures in order to control housing speculation<sup>26</sup>. More stringent interventions to the urban housing stock, such as the levy of property tax for high-price, big or non-occupied houses, started to be tested in some cities, while the tax rates were rather low<sup>27</sup>. Nonetheless, the land and housing speculation has not yet been totally controlled. Although the high-speed increase of market housing prices in Beijing and other big cities is seemingly restrained, the speculation has passed on to the second-tier and third-tier cities. The rent of privately rented housing continually rises. And the arguments from the interest groups to loosen the public interventions to the housing stock are emerging again. The equity

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26 In order to control an upsurge of market housing price, the mortgage for the third home was stopped and the down payment ratio and the mortgage rate for the second home were largely increased since 2010. In Beijing, the municipal governments announced stricter administrative regulations – each local household was only permitted to buy two houses and each non-local household could only buy one house.

27 From the beginning of 2011, the property tax for private-owned housing began to be levied in Shanghai and Chongqing.

of urban society and the sustainability of the urban economy are still facing serious challenges.



Figure 6.14  
*Price ladder of newly-built market housing in Beijing (July 2010)*  
 (Source: Beijing Municipal Bureau of Statistics, 2010; drawing by author)

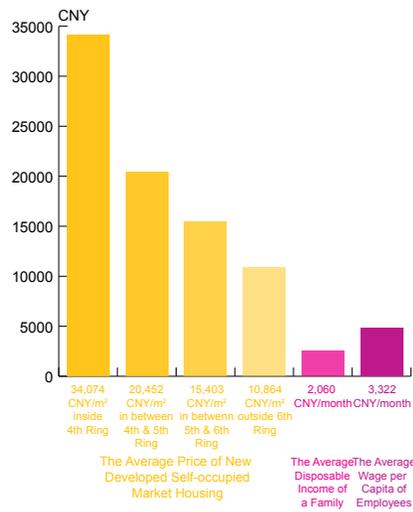


Figure 6.15  
*Unaffordable market housing prices in Beijing*  
 (Source: Beijing Municipal Bureau of Statistics, 2011; chart by author)

In general, urban problems following the radical housing reform are not solved, while the efforts to redevelop social-oriented housing and to further intervene in the housing market have been emphasized. Through marketization, the urban housing in China has been alienated as property. This capitalized transformation of housing stock is not only practical but also ethical. When people enthusiastically devoted themselves to this capitalization, the mechanism of market and capital soon destroyed the original balance of the housing stock and caused social conflicts. Alongside this chaotic transition, the effort to rebalance is inevitable. But any attempts to rebalance housing stock are facing uncertainty and challenges.

First of all, under the market economy, the real estate market highly links to macro-economy. Today, the Chinese economy has to a large extent relied on real estate investment. It is not only because of the contribution of real estate economy to the GDP growth<sup>28</sup> but also in terms of the risk of the real estate bubble bursting (which has become an important sector of the capital market). The collapse of the real estate market would bring on danger for the financial system and might result in economic recession, but the continuous economic growth is considered as a precondition of social and political stability. At the same time, the macroeconomic policies, such as investment policy and financial policy, closely interact and interweave with the real estate market (e.g. the rise or drop of interest rate can effectively impact real estate investment, and the prosperity or recession of real estate market is an important factor in the credit policy decision-making). Thereby instead of a rigid suppression, the Chinese government looks forward to the “soft landing” of the speculative housing market, for which a subtle and balanced intervention is necessary.

However, there is the challenge of an inexperienced government to intervene in the housing stock under the market economy, while the over-estimation of market force has been rethought and criticized. In many cases, real estate investment had been regarded as an inevitable means to boost economic growth. An effective and efficient approach to balance the social side and the market is still under construction. This challenge critically presents itself in the public intervention of urban housing stock, including the development of a new social housing system. Meanwhile, any intervention to balance the housing stock is increasingly challenged by vested interest groups. The social stratification, brought forth by the economic marketization, created those groups who were also the “winners” of housing privatization and capitalization. They include groups from local governments, bureaucrats, developers,

banks, speculators, other newly wealthy groups and even the middle-class property owners (for the latter of whom market housing is regarded not just as home but as rather profitable investment and saving). Together with the upward growth of market force, this new rich and privileged class, which is a monster created by the mixture of capital and bureaucratic power, becomes influential through lobbying the government or controlling public debate through mass media. They obstruct any social-oriented intervention to the housing stock which will damage their vested interests.

Except for the interference from interest groups, the insufficient participation of residents is also an important challenge for rebuilding a balanced urban housing stock. Three main factors in the Chinese housing stock – governments, developers and residents (Liu Fang, 2007, p.40) respectively represent the political executive force, the market/capital force and the bottom-up social force. Compared with the former two, the bottom-up force from the residents is rather weak. This is not only because of the growing combination of capital and political power but also derives from the deficiency of civil participation in the traditional centralized socio-political structure of China. But the imbalance between the three acting forces is certainly reflected by an unbalanced urban housing stock. In the transition to a market economy, which means the double processes of the decentralization of top-down social administrative power and the centralization of market/capital force, it is difficult to balance the market force with the absence of a civil voice from urban residents. In general, the inefficiency of governmental intervention, the interference from vested interest groups and the lack of civil participation all together present a key issue in contemporary Chinese urban society: *there are increasing conflicts between different groups or actors, for which the efficient balance mechanism has not been established*. This is the reason why the inconsistency, ambiguity and reversal of housing policy making and implementation repeatedly appear.

Without effective answers to these challenges, urban problems, including social polarization/segregation, economic unsustainability and ecological threats, caused by unbalanced housing provision and distribution will continue to exist or even be exacerbated. In order to solve present structural problems of urban housing stock, the possibility of a future housing reform has been argued<sup>29</sup>. Nonetheless, how to establish an urban housing system that can balance economic efficiency and social equity is still a question.

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### § 6.3 Urban Renewal: A Potential Approach to Answering the Urban Housing Question

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Evidently, a return to the outdated socialistic public housing system, which roots in the planned economy and absolutely relies on public funding, will be impossible in the existing marketized and differentiated urban society. But the large-scale development of new social housing areas in the suburbs in a short term would be unbeneficial, not only in terms of economic infeasibility but also the threat of socio-spatial segregation. Urban renewal, however, can be a potential solution to the structural problem of the housing stock. In fact, confronting the deterioration of those early-built, old housing areas, there were strong arguments from both the residents and the government to improve their living conditions. In Beijing, the urban renewal of old housing areas (while it was later manipulated by the market force) had largely been initiated as a measure to solve the housing problem in the early 1990s (see Chapter 8 in detail). In parallel with the current reemphasis of social housing establishment, housing renewal has been officially listed as one of the major approaches to recovering the social housing system by the state<sup>30</sup>. Those old housing areas in Chinese cities, including a large number of former public housing areas, increasingly become the concentration of mid and low income groups that tends to decline. The renewal of old housing areas therefore should be an effective approach to improving housing conditions particularly for the mid and low income urban residents.

Among those old housing areas in cities, the former socialistic public housing areas that were developed from the 1950s to the 1980s are majority. In Beijing and other Chinese cities, those modern-designed neighborhoods are usually located in the “good” places of the city, still provide for the housing of the majority of urban residents, who include not only the original residents but also many young starters or newcomers as tenants of privatized public housings. They cover a wide range of different strata from the middle class to the low-income groups so that they can actually be indicated as the “people”. Nevertheless, those areas are also facing the problem of deterioration in particular after the large-scale privatization. The urban renewal of former public housing areas therefore will largely contribute to the improvement of people’s living conditions. Moreover, the renewal of those old neighborhoods, in which many dwellings are still social-oriented or semi-social, provides the possibility to reintroduce

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See the State Council, 《国务院关于解决城市低收入家庭住房困难家庭的若干意见》 (*The Observations of State Council on the Housing Problems of Urban Low-income Families*), 2007, and the Ministry of Construction, 《多层次住房保障体系研究》 (*The Research Report of Multilevel Social Housing System*), 2007.

social housing in the built-up areas at good spatial locations, which no doubt will be helpful to resolve the structural problems of the present urban housing stock.

However, the mode of urban renewal to either former public housing areas or other old housing areas is still under discussion. Most of the existing cases are based on wholesale demolition-reconstruction, in which capital played an important role. That will guide the renewal to deviate from its social objective and lead to more urban problems, including community displacement, gentrification and segregation. In fact, the wholesale reconstruction has met increasing resistance and fallen into a dilemma in Beijing<sup>31</sup>. On the other hand, while the renovation of old housing has been proceeding, it focuses only on the technical matters without much attention to the issues on community or urban housing stock. Thus, in order to deal with the existing challenges in rebalancing the urban housing stock, innovative but feasible strategies of urban renewal must be developed.

As a response to the existing urban housing challenges, the urban renewal of former public housing areas indicates the possibility to discover an efficient way to solve the urban problems related to the housing issue. However, similar to any form of intervention, the approach of urban renewal must be tested and adjusted in practice, it may produce new questions. With the transition of the modern Chinese society, the questions faced by the urban housing stock are changing and yet await pragmatic answers.

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The existing dilemma of wholesale reconstruction will be discussed in Chapter 8.

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## § 6.4 Conclusions

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In terms of practical urban housing problems and ideological changes, China initiated the process of housing reform in the beginning of the 1980s, along with the socio-economic transformation brought about by the Reform. However, the early attempts in the 1980s to reform the public housing system, in order to become self-financing, were not successful. A further housing reform in 1994 began to change the direction towards promotion of owner-occupation. Heavily influenced by neo-liberalistic thought, the radical housing reform in 1998 eventually terminated the socialistic housing system. Most of the public housing was privatized, and the owner-occupied market housing development provided the majority of urban housing. But the new social housing system was not really established at the same time.

However, the long-term impact of the radical housing reform was more harmful than helpful. The housing was alienated as property. The market housing prices soared to an unaffordable level within a few years, and the balance of urban housing stock was massively degraded. That resulted in a structural housing shortage. The over-privatized, capitalized and speculative Chinese urban housing stock caused a series of urban problems, which did not only increase the social polarization/segregation, but also threatened economic and ecological sustainability. In order to solve those problems, the Chinese government started to re-establish a social housing system and to strengthen the regulations on the housing market. These efforts, however, were not smoothly implemented, and policy inconsistency and reversal repeatedly emerged. The reliance on real estate economy, the increasing interest conflicts and the inefficient balance mechanism have become major challenges to further efforts of rebalance an alienated urban housing stock. In conclusion, we may summarize the existing Chinese urban housing stock and its context under the theoretical framework of spatial phenomenon in the following table.

	Advantages	Disadvantages
Socio-economic dimension	<ul style="list-style-type: none"> <li>- Continuous economic growth</li> <li>- The increase of public revenue</li> <li>- The reemphasis of social housing by the central and municipal governments</li> <li>- Urban renewal as an important social housing intervention</li> <li>- Interventions to restrain real estate speculation</li> </ul>	<ul style="list-style-type: none"> <li>- The high and rising price of property (especially in good urban locations) and generally capitalized urban housing stock</li> <li>- Insufficiency of social housing provision (especially in the central area of the city)</li> <li>- Mechanisms of socio-spatial filtering and neighborhood decline</li> <li>- Social polarization and spatial segregation</li> <li>- Speculative urban economy largely relying on real estate market</li> <li>- Aging population in general (especially in the old neighborhoods)</li> </ul>
Community-placial dimension	<ul style="list-style-type: none"> <li>- Shequ (community) establishment to strengthen local communities and urban governance</li> <li>- Responsibility of property owners, danwei and municipal/district government in housing management</li> <li>- The (both top-down and bottom-up) strong demands to improve the living conditions of old housing areas</li> </ul>	<ul style="list-style-type: none"> <li>- Alienation of housing</li> <li>- The increasing interest conflicts (between different groups or actors) and inefficient balance mechanism</li> <li>- The destruction of lively and mixed communities by neighborhood decline or urban reconstruction</li> <li>- Residential differentiation, gated community and socio-spatial segregation</li> </ul>
Aesthetic-technical dimension	<ul style="list-style-type: none"> <li>- The improvement of public interventions for the city (spatial planning, social housing development, etc.)</li> <li>- The promotion of housing renewal</li> <li>- The emphasis of resource- and energy-saving and recycling (including the sustainable use and improvement of old buildings)</li> </ul>	<ul style="list-style-type: none"> <li>- Deterioration of early-built and old housing areas in the city</li> <li>- Wholesale urban reconstruction</li> <li>- Urban sprawl, suburbanization and increasing daily commuting</li> </ul>

Table 6.3  
Existing Chinese urban housing stock and its context in the socio-economic, community-placial and aesthetic-technical dimensions

Faced with the continuing process of “neo”-liberalistic globalization (which is probably nothing really new after the birth of the modern capitalistic ethos), in addition to the growing obstruction from domestic, bureaucratic-capitalistic groups, it seems that both top-down (i.e. further institutional reformation of the urban housing provision system) and bottom-up initiatives (i.e. community participation through urban renewal) have to be combined. Concerning the historical developing context, the balance of socialization and marketization in the urban housing stock might still be a critical question in the transition of the Chinese society.

Urban renewal of old housing areas, especially the renewal of former socialistic public housing areas, could be a potential response for the existing housing questions. However, the approach of urban renewal is open for discussion. Instead of conventional modes of wholesale demolition-reconstruction and technical building renovation, which have been proven insufficient, an innovative but feasible renewal approach is awaiting to be explored as a solution to the urban problems related to the housing issue. Any new approaches, however, must be tested and modified in practice. In the next chapter, we will start to analyze the existing conditions of former public housing areas in Beijing, by which the opportunities and challenges will be investigated.

## 7 Existing Conditions of Former Socialistic Public Housing Areas in Beijing

In the last chapter, we analyzed the current unbalanced urban housing stock in Beijing and a series of urban problems resulting from this situation. Former socialistic public housing areas still make up a major part of the existing housing stock. Therefore, the reuse and renewal of these areas might be an effective approach to solve those housing problems. While the renewal of those old housing areas has started in Beijing since the 1990s in the form of demolition and new-construction, most projects have stalled due to the rising opposition. A sustainable renewal approach is still to be explored. But for the purpose of renewal, the understanding of the existence of former public housing areas is inevitable. In Part II, we have reviewed the development of socialistic public housing areas in Beijing, by which the background, structure, planning and design of those areas have been summarized. However, those housing areas are also gradually, sometimes even radically, undergoing changes after the radical housing privatization, and thus they are facing new problems. In this chapter, we will examine the existing conditions of those former public housing areas in Beijing.

Considering the increasing housing problems in Beijing, the analysis will be done in three installments. Firstly, it is essential to outline the identities of former public housing areas in spatiality. Secondly, we will investigate the existing situation of housing stock in the former public housing areas which decisively impacts the spatial transformation. Finally, the socio-spatial threats or problems that those areas are facing will be discussed in detail.

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## § 7.1 Mixed Neighborhoods in Good Urban Locations

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### § 7.1.1 Housing Areas for the People

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Before the Chinese socialistic public housing system was abandoned, over 140 million m<sup>2</sup> dwellings were built in Beijing, in which the majority was developed as public housing. After the radical housing reform in 1998, most socialistic public housings have been privatized. However, in terms of the large-scale development of public housing, the existing built-up city areas of Beijing are still largely made up of the former socialistic public housing areas (figure 7-1), and those housing areas accommodate almost 2/3 of the urban residents in Beijing. According to the 2010 Beijing Municipal Bureau of Statistics survey to 5,000 households of urban residents, 49.8% households are living in privatized public housings and 13.3% households are tenants of public housings that have not been privatized. That means, a total of at least 63.1% households in the city still reside in former public housing areas<sup>1</sup> (figure 7-2). Originally, the socialistic public housing system was proposed to widely provide accommodation for most urban residents. While the housing privatization has caused a certain demographic change, the former public housing areas as yet covered the people of the so-called "Salary Stratum"<sup>2</sup>, the majority of urban residents in Beijing.

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1 The statistics do not distinguish the newly-built public housing after 1949 and the public housing transformed from the socialized hutong courtyard houses. But the former is no doubt the main part of former socialistic public housing sector.

2 In China, "Salary Stratum" or "工薪阶层" (Gongxinjiecheng) refers to people who have legal and stable jobs in the city and whose incomes mainly depend on their official salaries. It usually refers to the middle and mid-low income groups, who compose the majority of the urban population.

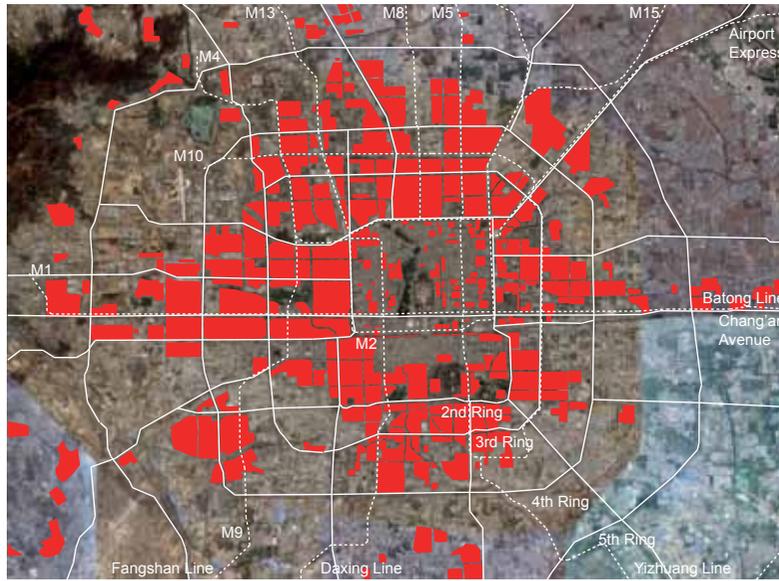


Figure 7.1  
Former socialistic public housing areas in the central city (city proper) of Beijing

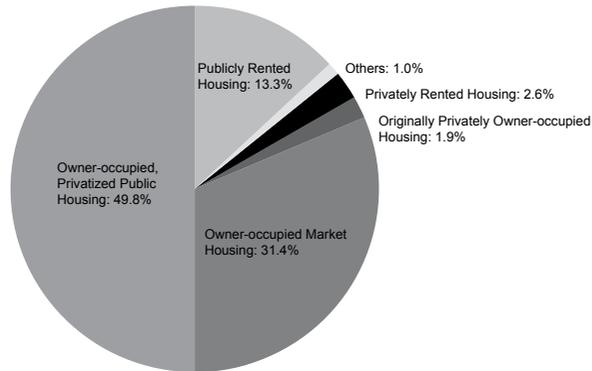


Figure 7.2  
Housing conditions of 5000 sample families in Beijing (2010)  
(Source: Beijing Municipal Bureau of Statistics, 2011; chart by author)

Moreover, the former public housings also compose a major part of private-rented sector of housing stock, which houses considerable mid- and low-income residents in the city. Those residents usually include the “floating population” or newcomers – migrant workers and starters without hukou in Beijing – as well as the local young starters who (or whose families) have houses in the periphery but work downtown. The

lower rents of privatized public housings (including the illegally sublet public housings) in the old neighborhoods provide for them affordable dwellings in the city. This fact also can explain the weird phenomenon of the gap between the soaring housing prices and the stable housing rent in Beijing, which is importantly contributed by the existence of large amounts of former public housing areas.

Besides, if we are thinking of the design of those former public housings, they were usually designed to meet the basic demands of dwelling. As a means to solve the problem of housing shortage, the main challenge of public housing design was always to balance the quality (home comfort) and the quantity (housing density). That makes the socialistic public housings rather comparable with the existing social security housings in the design standards. The floor areas of former public housing apartments usually vary from 30 m<sup>2</sup> (1-bedroom) to 90 m<sup>2</sup> (3-bedroom). The mainstream of those residences is the 40-60 m<sup>2</sup> 2-bedroom apartments. Those designs exactly match the present design standards of social security housings. Unlike the market housing designed for high profit and luxury residence, most of former public housings are the dwellings for the population with less acquisitive power. This factor also affects residential mobility and social composition in those areas.

Hereby we can conclude that the former public housing areas spatially house the majority of urban residents by either the amount or social structure. This means that these areas house authentic *population* of the city. Hence, the maintenance and improvement of the living conditions in those housing areas becomes crucial because it is about the safe, healthy and decent dwelling of the people in the city.

### § 7.1.2 Good Spatial Locations in Beijing City

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From the mapping of former socialistic public housing areas in Beijing at the macro scale, one can easily observe that their majority concentrates inside the 4th Ring Road (which means the urban central area), as the results of urban developments before the end of the 1990s. These areas, at the same time, comprise most of the important urban public facilities and infrastructures in the city. They include the commercial, cultural, recreational, educational, sports, health, religious and other social service facilities as well as the public traffic system (figure 7-3). And insomuch as most government offices, institutions or enterprises also spatially concentrate in the city center, those areas provide the majority of job opportunities in Beijing. Even for the former public housing areas in the peripheral clusters and the satellite towns, overlapping of housing, working place and urban public facilities are evident as well. This is partly due to the concepts of living nearby the working places and of the danwei communities. Furthermore, it is not only quantity but also quality what the housing

issue demands. Job opportunities or public facilities/infrastructures in those areas are usually further developed in comparison with the ones in the newly-developed urban areas, where even plenty of luxury market housing estates locate. Therefore, in terms of this overlapping, living in the former socialistic public housing areas normally does mean closer distance to the working place, easy access, high-quality public facilities, and good public transport system.

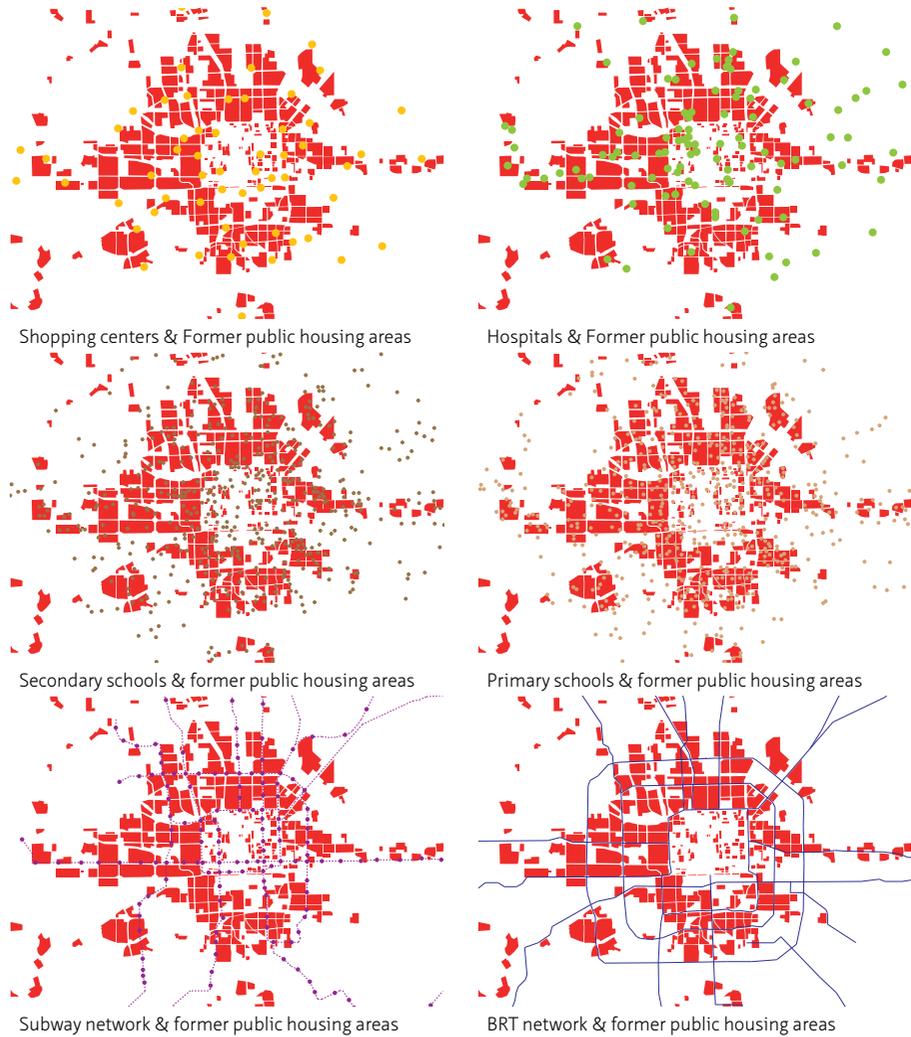


Figure 7.3  
*Urban public facilities/infrastructure (existent and to be completed) and former public housing areas in the city proper of Beijing*

The good urban locations of former public housing areas are also presented by the housing market, as a more precise indicator of mental map. The spatial location of housing area is unprecedentedly emphasized by municipal government, developer and residents. The housing location is both a necessary and prior factor for housing purchasers and a key reason in the decision-making of developers and municipal governments (Liu Fang, 2007, pp.40-41). The ladder like decrease of housing price from the center to the periphery in Beijing just presents this trend. In fact, the price ladder is reflected not only by the market of newly-built housing estates, but also in the “second-hand housing” price and private housing rent in the existing housing stock, including those privatized former public housings. A representative case is the so-called “学区房” (Xuequfang) or “Housing nearby a school” in the housing market. According to the present educational policy, the students in principle only can choose their primary and secondary school schools in the areas where their hukou is registered. And most good primary or secondary schools concentrate in the former public housing areas of the inner city or university district due to historical reasons. In order to move the hukou of their children nearby good schools, many high and middle income families are willing to buy their second or third houses (it does not matter if they will really live there) in those areas. The price of privatized former public housings (especially those housings in better situation which were built from the 1980s to the 1990s) in those “good spatial locations” thus increases very fast (the price usually has been over CNY 30,000 /m<sup>2</sup> presently). Because most of those housing trades are only for the purpose of non-living demands or speculation, this trend has rarely contributed to the improvement of former public housing neighborhoods but caused the threat of spatial segregation (which we will discuss in detail later in this chapter). Nonetheless, the current housing market reveals the placially good locations of the former public housing areas in Beijing.

In general, the former socialistic public housing areas no doubt locate in good urban places of Beijing. These good spatial locations facilitate a convenient living for the residents, however, also bring a negative impact: housing speculation. While place usually conditions the spatial segregation in a capitalized “free” housing market, it is just the good locations of former public housing areas that provide the potential to create mixed neighborhoods and social integration by effective public interventions including urban renewal.

### § 7.1.3 Mixed Housing Types, Mixed Programs and Mixed Social Structure

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The mixture actually is not just one of the characteristics but the identity of those former socialistic public housing areas in Beijing. It is physically present in the mixed housing types. Intuitively, it can be easily seen that different types of residential

buildings coexist in one housing area, whether they are courtyard multi-storey, linear-arrayed multi-storey, high-rise slab or high-rise tower. It is the result of both top-down planning – the emphasis of housing diversification in the integral planning of residential areas since the 1980s (figure 7-4), and bottom-up strategies – the tolerance or even encouragement to the *jianfeng-chazhen*, *danwei* self-construction without the integral planning, especially from the mid-1960s to the late 1980s (figure 7-5). In addition, the housing mixture is also present in the differentiation of dwelling types. The Chinese tradition of emphasizing the balance of standardization and diversification in public housing design, which can be traced back to the introduction of the dwelling-unit housing design, results in the mixture of different types of dwellings, from the 1-bedroom to the 4-bedroom, in one neighborhood or even one building. This trend was strengthened by the changing design standards in different periods.



Figure 7.4  
*An integral planned former public housing area with the diversified housing types – the Fangzhuang Residential District*



Figure 7.5  
*Mixture of different housing types resulted from self-constructions in an originally integral planned housing area – the Baiwanzhuang area*

Besides the mixture of housing types, the former public housing areas in Beijing are also identified by the mixture of programs or urban functions. According to the concept of *danwei* community, public housing areas were often developed together with the working places. Sometimes even small enterprises or institutions were inserted into housing areas in order to create job opportunities. Moreover, the setting of sufficient public/communal facilities and infrastructures in the public housing areas had been originally considered to facilitate self-sustaining daily round and collective community life. That is evidently presented by the “Residential District-Quarter-Cluster” 3-level planning system of housing area, in which the quantity and quality of communal facilities are indispensable indices. Therefore, the original ideal of the Chinese socialistic public housing planning emphasized the mixture of urban functions and thus differentiated from the modernist urbanism of CIAM. This mixture is strengthened by the market-oriented economic reform, in which a large

number of collective or private small businesses often related to the commercial and recreational functions emerge in those housing areas. Although the originally public-owned communal service enterprises or institutions gradually shrank, they have been largely replaced by the more flexible and vital private businesses. In particular after the housing privatization, some apartments have been transformed into retail stores, restaurants, barbershops and facilities with other commercial/recreational uses (figure 7-6). Thanks to the originally mixed land uses, many small offices could also find affordable spaces in former public housing areas. The former socialistic public housing areas actually “incubated” many small enterprises: for instance, the registered addresses of more than 70% of enterprises in the Dongcheng District of Beijing are located in Hepingli Sub-district, a sub-district that was developed in the 1950s and with many former public housing neighborhoods. In addition to these bottom-up transformations, some new communal service facilities (e.g. elderly club, center for the disabled, sports fields, etc.) are inserted as public interventions for the shequ development (figure 7-7). In the socio-economic transition, the former public housing areas in Beijing did not lose but reinforce that programmatically mixed identity, which is not only convenient but also provides many job opportunities for the residents.



Figure 7.6  
*Privatized public housing apartments transformed into local shops*

The mixture is not only present in those “intuitively” spatial factors, such as housing types and urban programs, but more fundamentally in the socio-spatial structure of the former public housing neighborhoods. Here we have to thank the socialistic public housing system once more. While the average housing standard was not high and differences of housing conditions existed between different administrative ranks or between different danwei, that system ensured the relatively fair housing allocation. This even distribution of former socialistic public housing is also spatial. The original residents of public housing areas were normally the employees of the public sector, who composed the main body of the urban population at the time. In the danwei dayuan, minister and ordinary civil servant, manager and worker, professor and student... could live in one community and share the same communal spaces and facilities. In the large-scale Residential Areas and the hutongs area with Public housing

patches, the barriers between danwei were even broken – people from different danwei were sharing the same public facilities. The socialistic public housing system made sure of the mixed social structure in those public housing areas and avoided the socio-spatial exclusion and segregation based on the income. Although demographic changes have occurred in the former public housing areas along with the housing privatization, the mixed social structure of those areas basically remains. As housing areas for a majority of urban population, the residents cover groups from the mid-high to the low income (whether they are homeowners or tenants), in which the majority is the so-called Salary Stratum.



Figure 7.7  
*Newly-introduced communal facilities in the former public housing areas*

Mixed housing types, mixed programs and mixed socio-spatial structure together identify the former socialistic public housing areas as mixed neighborhoods. This identity of mixture, in comparison with the newly-developed market housing estates or social security housing areas which have defined their target social classes at the beginning, at least presently conditions many integrated and lively communities in the city.

## § 7.1.4 Lively Communities of Former Public Housing Areas

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When one steps into a former public housing area in Beijing, one must be attracted by its lively image of everyday life. You will see the urban or neighborhood streets that were designed for the pedestrian or cycling but not the car (the car traffic was limited or never taken into consideration when the public housing area was planned). Buildings in different types, some of which have been refurbished and some lack maintenance, are standing next to each other. The flourishing greenery disperses in the whole area, either along both sides of the street or in between the buildings. The neighborhood usually centers round the school, kindergarten or community center, which is often the busiest location during the day time. Plenty of commercial or recreational facilities, including supermarkets, shops, restaurants, internet cafés, barbershops, foot spas, etc., locate along the streets in between neighborhoods or blocks. Some were originally planned and some were simply transformed from the housing apartments. In the evening, floating stalls start to appear along the main streets or by the entrances of neighborhoods so as to form those legal or illegal “evening markets” that bring on the vitality of housing areas. The well or rarely maintained small squares, sports fields and even pavements become the daily meeting places of residents... That image vividly illustrates the viability and diversification of those housing areas as “mature” communities in the city (figure 7-8).



Figure 7.8  
*Vibrant local lives of former public housing areas in Beijing*

More importantly, the former public housing areas are characterized by the strong sense of community of the residents. As we have discussed in Chapter 4, the socio-spatial morphologies of former public housing areas largely depended on the danwei communities and local communities. The original residents of public housing areas were not only the neighbors but also colleagues in terms of the danwei welfare housing allocation system. The typical danwei communities were formed in dayuan areas and spatially overlapped with the local communities. In a large-scale Residential Area or a housing area mixed with Public Housing Patches, the danwei sub-communities were united spatially in a local community through urban administration and communal spaces/facilities. As mentioned above, those are mixed communities involving different income groups. While undergoing the social and demographic changes, those communities still remain and are sometimes reinforced by the public interventions such as the shequ development. The former public housing areas thereby become the urban areas with the most active and integrated community life in Beijing.

As compared with the existing hutong areas in the old city whose residential spaces are usually smaller and lack modern infrastructure, the living conditions of the former public housing areas have been notably improved. Moreover, notwithstanding the newly-built market housing areas literally have better public/communal facilities in quality and quantity according to the improvement of planning indices, those areas (including the luxurious housing estates) never have such vital, diversified and integrated urban life as same as the former public housing areas. In those well-designed and usually gated market housing communities, the communal facilities are prepared for their specialized “consumers”. The well-decorated restaurants, cafés and beauty salons underlying the high-rise are ordinarily only affordable by at least the middle class. The clubs, gyms and sports fields in the gated neighborhoods only open to the residents who have paid the high property management fees. Even schools and kindergartens became private and known for catering only for “the elite”. Nevertheless, those facilities in many cases are empty since considerable houses in those housing estates are vacant as the result of speculation. Otherwise the mid- and high-income residents prefer their personal recreational places just reachable by car. It has to be doubted, in my point of view, whether those market housing estates should be counted as real communities in the spatial sense compared with the former public housing neighborhoods.

Therefore, it is just the vitality, diversification, mixture and integration of former public housing areas that have spatially created the liveliest communities in the city of Beijing. These housing neighborhoods constitute communities that are certainly valuable and indispensable for a sustainable urban society. Thus, they ought to be kept and improved so that the general public can benefit from the development of the city.

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## § 7.2 Ambiguity in Housing Stock of Former Public Housing Areas

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### § 7.2.1 Mixed Housing Stock and the Ambiguous Housing Ownerships

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While the spatial image reveals the presently social vitality and integration of former public housing areas, the sustainability of this vitality and integration could be questioned, especially when the social transition is still undergoing and followed by the intense socio-spatial dialectical dynamics. As we mentioned in the last chapter, the socio-spatial dialectics is precisely represented in the changes of housing stock and housing problems. Facing the increasingly serious housing problems in Beijing, the analysis to the housing stock of former public housing areas and its impacts to the spatial transformation is necessary for the research on urban renewal as a feasible solution to housing problems.

As same as the mixed physical morphologies, the housing stock in the former socialistic public housing areas also apparently presents in a “mixed” status. After the radical housing reform, the majority of public housings have been privatized, but a certain amount of dwellings are still public-rented. On the one hand, some original tenants preferred to continue enjoying the low rent of public housing<sup>3</sup> rather than to buy their houses (while the price for the tenants was low as well). On the other hand, those “non-apartment” public-rented dwellings (the public-rented hutong courtyard houses, the tongzidou, single-storey simple houses and other dormitory houses in the former public housing areas) were could not be directly privatized since it would be impossible to privatize the public kitchens, toilets or bathrooms shared by different dwellings. The retained public housings (13.5% of existing urban housing stock in Beijing) are mainly composed of those “non-apartment” dwellings. It is in the housing stock of former public housing areas that the coexistence of owner-occupied (mainly privatized apartment housings) and public-rented (usually retained “non-apartment” dwellings) housings exists, at least in principle.

Nevertheless, the actual ownerships in the housing stock are not such clarified. The “房改房” (Fanggaifang, which literally means “Reformed Housing”) or privatized public

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Although the rent of public housing has increased several times, the existing standard rent in Beijing is only CNY 3.05 /m<sup>2</sup> per month.

housing was sold based on the cost price<sup>4</sup> or standard price (discounted price)<sup>5</sup>. But the land lease was usually not counted into the housing price in terms of free land distribution for public housing development. According to the working years of people for their danwei, they could get special discounts as “compensation”<sup>6</sup>. Hence the tenants could acquire the “ownership” of their houses for very low prices<sup>7</sup>. Since plenty of direct or indirect subsidies were included in the privatization of public housing, the ownership of privatized public housing is legally a kind of joint-ownership by homeowners, danwei and the state. The transaction of privatized public housing thus must follow certain regulations. However, those regulations are actually deficient. Although the privatized public housing usually only can be transacted five years after it was sold (except the housings in the listed urban renewal areas), just 3% of the transaction price had to be repaid to the municipality, namely as the land lease. After 2003, the repayment for land lease further decreased to 1% of the cost price in Beijing in order to promote the supply of second-hand houses. Some tax deductions also have applied in the transaction of privatized public housing. Even the regulation on the repayment to the danwei for the transaction of the standard-price privatized public housing (which is usually equal to 6% of the cost price in the housing privatization) is never strictly executed. Therefore, the joint ownership of privatized public housing dwelling is ambiguous in practice. Without effective regulation, the speculative transaction on privatized public housing growingly becomes popular in the housing market. In opposition to the original expectation to promote housing supply, the lack of control of privatized public housing transaction does not only result in the abuse of public subsidies but activates speculation.

The difference between the joint ownership of privatized public housing and the full ownership of owner-occupied market housing mainly rests in the “public” parts

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- 4 The cost price in the public housing privatization represents the housing price that is calculated according to its construction costs. In order to simplify the calculation and to prevent corruption, it usually refers to a municipal price criterion in Beijing. For instance, the cost price declared by the Beijing municipal government in 2000 was CNY 1,640 /m<sup>2</sup>.
  - 5 The standard price is in fact a discounted price in the selling of public housings. It was originally calculated based on the income of tenants and lower than the cost price. It was usually equal to 94% of the cost price in Beijing.
  - 6 According to the prevailing theory at that moment, the low price strategy in the housing privatization was thought as the compensation for the low salary policy under the planned economy. However, this neo-liberalistic theory obviously ignored the low rent from the socialistic public housing system.
  - 7 The most extreme example is the zero price or even the minus price in the housing privatization. The latter means that the danwei should pay extra money to its employee besides a free house after the calculation of housing discount based on his/her working years.

of housing buildings. In most cases, only the floor space of an apartment itself was calculated when a public housing apartment was sold. That is different from selling market housing which includes the floor area of the shared parts. Thus in the former public housing areas, not only the outdoor public spaces but also the shared spaces of the housing building, including the stair case, pipeline, roof, outer wall, etc., are still public-owned so that the danwei or the government has to be responsible for their maintenance, even though those interior spaces of privatized dwellings can be seen as “private” properties. For the transaction of privatized public housing, the homeowner legally has to pay for those shared spaces to the danwei or to the municipal government. But it is always a question how to calculate the shared space. In some cases, those public areas which the buyer may not pay for even became the “bonus” for the seller to increase the asking-price. In general, the complicated and ambiguous ownership of privatized public housing causes much confusion in both housing transaction and housing maintenance.

More ambiguity could be found in the retained public housing sector. While those public housings are legally still public-owned dwellings, they are ironically considered as private properties by the tenants in many cases. In the Chinese tradition, property ownerships were never clarified as same as the western merchant society in which the “Spirit of Contract” is emphasized. Under the socialistic planned economy, public housing was regarded as a general welfare, which endowed the rights to the tenants almost as same as homeowners. The prevailing neo-liberalistic thought since the 1990s resulted in a consensus equalizing housing with private property. Since the housing reform, the ownership of retained public housing and the rights and obligations of the tenants have not been re-clarified. Additionally, the “Housing Reform by Urban Renewal” policy, which actually regarded public housings as the properties of the tenants in the “monetized” urban renewal (which we will discuss in chapter 9), further confused the ownership of retained public housing. Many people thus still occupy the public-rented dwellings while they have other housing properties. Thus, subletting properties resulted in a popular practice. Therefore, the main tenant only pays the original low rent but sublets the public housing for the current market price. The unclear ownership and regulation on retained public housing also aggravated housing speculation.

This chaotic situation produced not just a mixed but an ambiguous housing stock of former public housing areas in Beijing. The ownerships of public spaces, facilities or infrastructures, the privatized public housings and the retained public-rented dwellings still ought to be clarified. So do the rights and obligations of various actors in housing transaction and maintenance, including homeowners, tenants, danwei and the government. This ambiguity is precisely the reflection of the unbalanced Chinese urban housing stock. It is also a representation of the intense conflict and changing compromise between public and private interests in an urban society in transition. This transition is not only from a planned economy to a market economy but also from

a traditional “relational” society to a westernized “contract” society. The ambiguity de facto urged the ethical over-privatization of former public housing areas in practice, so that it has brought about many housing problems and further conduced to the difficulties in urban renewal. However, ambiguities often can create opportunities. This ambiguity can be understood as the existence of mixed and joint ownerships (which means that those former public housing areas are not absolutely privatized) and can seek further clarification of the rights and obligations of each part. So, it might become an opportunity for the reintroduction of public intervention.

## § 7.2.2 Unbalanced and Divided Housing Market

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Except for the urban renewal areas where the housing transaction is prohibited, the ambiguous ownerships and over-privatization have resulted in an active housing market in the former socialistic public housing areas. This housing market mainly refers to two sectors of the housing stock – the owner-occupied sector, which means the housing trading market, and the private-rented sector (including the subletting public housings), the housing rental market. Same as the general urban housing stock in Beijing, this housing market is also unbalanced and divided.

In the housing trading market, the prices of privatized public housings are increasing and have reached a considerably high level. Under the background of the sped-up urbanization and the now popular housing speculation, homeowners of privatized dwellings are certainly not willing to voluntarily lower down the selling prices. In the meantime, albeit those privatized public housings are dated and sometimes lack of maintenance, the good spatial locations (such as the concept of “Housing nearby a school”) and the lively community make them attractive for some mid-high or mid income groups. Higher income families start to purchase their second or third houses in those old neighborhoods. That conduces to the growing market demands resulting in high prices of privatized public housings, especially in those “good locations”.

Compared with the “prosperity” of the housing trading market, the rental market in the former public housing areas is rather stable. Many homeowners of privatized dwellings and tenants of retained public housings have moved out to the newly-built owner-occupied housings that they bought, but prefer to keep their original dwellings in the former public housing areas for rent, while legally they only have the joint ownerships or even no ownerships of those houses. On the one hand, they can acquire the speculative incomes from the rentals; on the other hand, their hukou registrations will remain in those old neighborhoods so as to ensure that they will not lose their “privileges” as residents of good urban locations. But in terms of worse housing conditions, the rents of those older, smaller and usually badly-maintained dwellings

are much lower than the newly-built market housings<sup>8</sup>. Since the lack of statistics and the popularity of illegal rentals, there are no official data on those private-rented dwellings. Yet they are increasingly popular in the former public housing areas<sup>9</sup>. They provide for the mid-low and low income population affordable accommodations in the central areas of the city, while those accommodations are often in worse conditions, used as temporary dwellings and not legally protected.

In fact, these two dynamics that are seemingly paradox and divided – high property price and low housing rent – are just the presentation of an unbalanced, over-privatized and speculative housing stock. The divided housing market of former public housing areas also reinforces the unbalance of general housing stock. The market expectation and speculation to the privatized public housings further boost the prices of second-hand houses. But the less heated housing rental market can attribute to the existence of numerous private-rented old privatized or retained public housings. Meanwhile, the unbalanced and divided housing market has boosted residential mobility in the former public housing areas and is changing the demographic structure. Their socio-spatial impacts therefore must be examined.

### § 7.2.3 Confusion in Housing Management and Maintenance

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Another problem brought by the ambiguous ownerships is the confusion of housing management and maintenance. The change and uncertainty of the actors of housing management came along with the housing reform. According to the original proposal, housing management should have been transferred from the collective to the individuals. Consistent with the idea of housing marketization and privatization in the housing reform, danwei or government had to retreat from housing management leaving this responsibility to the “Property Owners Committee”. However, in many cases, the shared parts of housing buildings and open public spaces or communal facilities in the former public housing areas are still public-owned. In terms of the

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8 Among those private-rented former public housings, the rents of subletting public housings are usually lower than the average level. Since the sublet is legally prohibited, the main tenants often prefer to lower down the rentals in order to avoid the disputes with the second tenants or sub-tenants. In addition, the shared-rent and group-rented dwellings also start to popularize in those former public housing areas, while their housing conditions are much worse.

9 According to my interviews with some shequ (Community) offices, the predicted proportion of private-rented sector is about 15%-30% in some former public housing areas of Beijing.

ambiguity in housing stock, the organizations of homeowners have rarely been established in those areas. The residents are still accustomed to rely on the danwei or government for the housing management and maintenance, but some danwei have merged, bankrupted or just disappeared in the radical socio-economic transition. In those formerly government-directly-managed or commission-managed public housing areas, the housing management, due to the lack of financing, is evidently not efficient, while the Building Management Bureaus (many of them have nowadays been entrepreneurialized as the government-owned property management corporations) legally still intervene (at least for the shared spaces). Thus, who is responsible for the housing management, especially the maintenance of public spaces, is legally still a question.

In the meantime, the funding of public management and maintenance of those former public housing areas is still a problem. Unlike the market housing estates, in which the homeowners have to pay property management fees, the daily management and maintenance of the shared parts of former public housing areas are financed by the "Housing Maintenance Funds" from the incomes of housing privatization. Those funds are usually owned and managed by danwei or by the government, but in many cases they are not efficient enough to finance housing management and maintenance. Therefore, the residents are also seldom willing to pay extra for public maintenance. Maintenance and renovation of open public spaces and communal facilities still often rely on the public subsidies. In most cases, the present homeowners of former public housing areas are not asked to pay any property management/maintenance fees, which in fact are still covered by the original landlords, such as danwei or the government. Besides that, the transaction of privatized public dwellings make the funding of maintenance more complicated since the new homeowners, who usually have bought the "full ownership", are still unable to pay the property management fee. Same as the public parts of those old housing buildings, the exemption from property management fee has turned into another attractive "bonus" for housing speculation. The existing funding system for the management and maintenance of former public housing areas is evidently not sustainable.

Actually in the technical dimension, it is also difficult to clearly distinguish the public or shared and the private-owned spaces of the housing buildings. Some parts of buildings, such as walls and other load-bearing elements, floors, or pipelines, are shared but included in the "privatized" spaces. The maintenance or repair of those parts thereby becomes quite hard because it is difficult to reach an agreement with all the relevant residents, in which some always argue for their "private rights". On the contrary, because of the deficiency of public intervention in housing management, the illegal privatization of public space is increasingly severe in the former public housing areas.

All these facts are evidence of the lack of an effective housing management mechanism in order to cope with this mixed but ambiguous and increasingly privatized housing stock of former public housing areas. In most cases, the old system of public housing management is still adopted. But well maintained houses and environments are only found in those areas belonging to a danwei capable and willing to subsidize the housing management<sup>10</sup>. In many old neighborhoods, the confusion in former public housing management accelerates the deterioration after the radical housing reform. This confused situation de facto indicated a transitional process from collectivity to individuality, in the management of Beijing's former public housing areas. A new housing management system that can clarify rights and obligations and fairly balance the public and private interests is still waiting to be established.

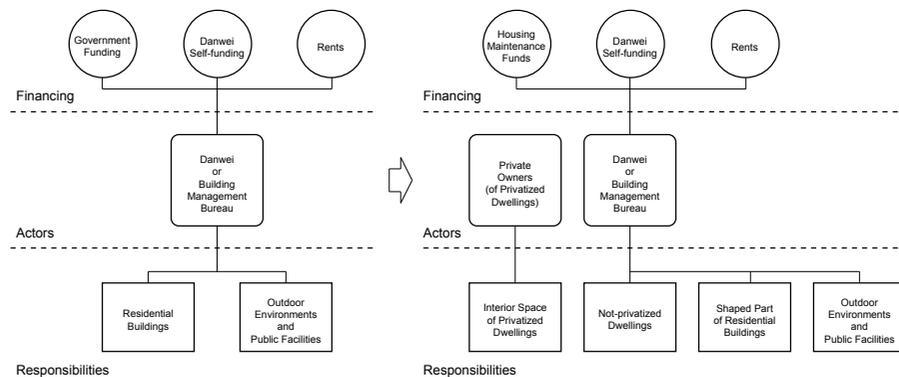


Figure 7.9  
 Changing mechanism of former public housing management: before (left) and after (right) the housing reform

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Nonetheless, the excessive subsidies for housing management and maintenance by danwei incur the critiques to the abuse of public funding and the privilege of some danwei.

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## § 7.3 Challenge of Deterioration

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### § 7.3.1 Aged Buildings and Decaying Housing Conditions

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While the former public housing areas so far provide for many urban residents appropriate accommodation, some spatial problems, which to a certain extent are the results of the ambiguous and unbalanced housing stock, have occurred and are getting serious. These problems have realistically and indubitably threatened the sustainability of those neighborhoods.

Physically, the primary spatial problem is the decaying housing conditions. Many tongzihou, single-storey shelters or other dormitory-like simple housings still stand in the former public housing areas. In terms of the housing shortage, most of these originally temporary or short-stay residences had been used as permanent dwellings. But their living conditions are rarely improved. Many residents still have to share kitchens, toilets, bathrooms or even tap water counters and sinks with their neighbors. The public corridors in many cases have become the shared kitchens or storage rooms, which also cause the safety problems, such as the danger of fire (figure 7-10).



Figure 7.10  
*Poor living conditions of tongzihou and single-storey houses*

For the apartment public housings, their design standards are low and dated in comparison with the present criteria. As we analyzed in Part II, the living conditions of some public housings that were built in the ultra-leftist periods, including the “Great Leap Forward” and the early Cultural Revolution, were acknowledged as being too low. As the limitations of the times, even the plans of those well-designed public housing apartments could not reach the existing technical standards of residential buildings. For instance, many early-designed apartments applied the design of “big bedroom and

small lobby”, which obviously does not meet the current life style; the small spaces of kitchen and bathroom as well as the insufficient storage spaces are also criticized by the users; and most multi-storey housings do not have elevators. Building technologies on energy-saving were not the emphasis in the early designs of public housings. Even the dated standards of power supply could not support the increasing number of home appliances. More importantly, since the structural designs of the housing buildings built before the earthquake in 1976 could not reach the existing anti-seismic standards, the structural conditions of those buildings have to be examined while most of them had been reinforced in the 1980s. In addition, those housing designs that overemphasized the standardization and industrialization were often criticized as buildings without identities and aesthetically valueless (figure 7-11).



Figure 7.11  
*Standardized housing designs without identities*

The problems of former public housing buildings not only focus on their dated design but also on the worn-out building conditions. The designed life (usually 50 years) of many early-built public housings has expired. Even most housing buildings developed after the 1970s have stood for 20-30 years. These buildings were gradually aged and undoubtedly needed to be maintained or updated. However, the situation was getting worse in terms of the problem of maintenance. Even before the socialistic public housing system ended, the maintenance of public housings was not so efficient due to the shortage in public housing investment. In particular, after the housing reform, the housing privatization and the confusion in housing management accelerated the decay of housing buildings. While the homeowners were always trying to improve their “private” spaces, none of them really care for the public parts of the building without an effective housing management mechanism and an efficient community organization. On the contrary, the arguments or actions for private interests often damage the shared parts or infrastructures and obstruct public interventions. Therefore, poorly maintained facilities can be seen in those former public housing buildings. These include public

doors, windows, staircases or corridors, the load-bearing walls damaged by private home redecoration, the water pipes that have not been replaced for more than 30 years, the “anti-theft cages” and air conditioners that chaotically disperse on the building façade, etc. (figure 7-12).



Figure 7.12  
*Aged buildings showing lack of management and maintenance*

Actually the problem of housing decay is not just limited to the public sections of buildings. We have discussed that some original residents have moved out and rented out (or sublet) the old dwellings. That way, they can both retain their houses in the central areas (with the corresponding hukou registration) and can also get an extra income from the rent they receive. Since the rentals of those old dwellings are lower, the new tenants usually belong to the mid-low or low income groups. Without effective regulations on the private-rented sector of housing stock, those house-owners or main tenants are often not willing to pay much for the housing maintenance or renovation. And many new tenants or sub-tenants only see these private-rented dwellings as their “temporary” residences so that the houses are rarely well cared for, no matter if it has to do with the public or private instances. The increasing shared-rent and group-rent lead to the overuse of houses and thus accelerated the decay of housing conditions. As the “temporary” residents excluded from the local community, the voice of new tenants is still very weak. Thus in terms of the ambiguity and speculation in housing stock, the problem of decaying housing conditions has become increasingly serious and resulted in the threat of neighborhood deterioration.

### § 7.3.2 Privatization of Public Space and the Deterioration of Living Environments

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The problem of deterioration is present in not only the physical conditions of housing buildings but also in the overall living environments of former public housing neighborhoods. Without the sustained investment on maintenance and modernization, the outdoor environments, communal facilities and infrastructures, as the public parts of the built environments of a neighborhood, will inevitably face the effects of aging and outdated. But the most serious and challengeable problem is the illegal privatization of public spaces, which has highly damaged the living environments of the communities. The privatization of public spaces physically embodies two aspects in those old neighborhoods: the illegal construction and the uncontrolled car traffic and parking.

The most representative case of illegal constructions in the former public housing areas is the illegal additional structure. This phenomenon can be traced back to the middle of the 1970s, when the government started to connive at the actions of housing self-extension by the residents as a means to deal with the housing shortage. After the earthquake in 1976, many temporary shelters in the open spaces were transformed to “permanent” constructions. As same as in the hutong areas, those illegal additional structures, whatever the self-extensions of dwellings (mainly in the ground floor of housing buildings) or the residents’ “free-standing” self-constructions, have become popular in the former public housing areas since the late 1970s.

At the beginning, the illegal structure could be seen as the effort to improve the limited living spaces. But along with the market-oriented reform, the expansion of private dwelling by invading public space was increasingly popularized as a representation of booming privatism. The housing privatization further boosted this tendency. After the housing reform, the self-constructions of illegal structures develop much faster in quantity and quality as mentally “legal” actions<sup>11</sup>. The industrialized technologies and materials have replaced the traditional brick, woods and cement in those constructions. In addition to being on the ground, increasing numbers of illegal additional structures appear “in the air”, which obviously do not only work as anti-theft cages. Furthermore, many illegal structures start to be built for the additional spaces

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11                      Actually in Beijing, illegal structures widely exist in not only the former public housing neighborhoods and the hutong areas, but also in the newly-built market housing estates and even villa areas.

as private-rented dwellings or small businesses and other speculative purposes<sup>12</sup>. The illegal structures out of control not only destroyed the living environments of former public housing neighborhoods, but also have caused many conflicts between residents (figure 7-13).



Figure 7.13  
*Popularity of illegal structures in the former public housing areas*

Parallel to the individual behaviors of the residents, the illegal self-constructions in many cases were also collective actions. From the mid-1970s, the encouragement of self-financed housing development caused the popularity of danwei self-constructions by occupying the open public spaces in their housing areas. But many of those danwei self-constructions were not legally permitted. These illegal buildings by danwei included both housings and public facilities, and some of them were also developed for a profit-oriented purpose. Compared with the self-constructions by the residents, they were usually permanent buildings to larger scale, so that, it led to greater damage to the originally well-designed built environments (figure 7-14). While the danwei self-construction has been prohibited now, those illegal buildings have been difficult to be demolished but had to be “legally” admitted as accomplished facts.

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In some cases, an illegal structure is built only for a merely speculative purpose – for asking more compensation in the urban renewal which usually depends on the calculation of the living space of residents.



Figure 7.14  
*Illegal constructions by the danwei in a former public housing area*

Another major physical presentation of the privatization of public space in the former public housing areas was the uncontrolled car traffic and parking. When those housing areas were developed, private cars were unaffordable and unnecessary for most of Chinese urban households and thus rarely considered in planning or design. But the market-oriented reform brought the economic booming and unprecedentedly mobility in the city, by which private cars became the daily vehicle for ordinary urban residents. In Beijing, the number of cars sharply increased from 0.8 million in 2004 to 1.74 million in 2008. Thus, uncontrollable car traffic and the shortage of parking spaces become really problematic in many former public housing areas.

In some neighborhoods whose danwei are still willing to intervene in the management, car traffic and parking are either simply organized (such as roadside parking) or totally limited. But for those cases the problems are just parried but not resolved. Currently, in former public housing areas, car traffic and parking out of management can be pretty disturbing. Although the originally “passable but not clear” road planning inside the neighborhoods or quarters successfully slows down the cars, the neighborhood streets or paths mainly designed for pedestrian and cycling are now full of car traffic, which often conflicts with the pedestrians and cyclers (figure 7-15). The illegal car parking not only occupies the sidewalks of the streets but also invades the pavements and green spaces in between the housing buildings (figure 7-16). As the response to the popularity of illegal parking, the residents either illegally “legalize” their private parking spaces (figure 7-17) or set obstacles to car traffic and parking for their privacy. Without efficient physical or nonphysical interventions, the destruction of public spaces by private cars is a practical problem that damages the communal environments as well as the public interests in the former public housing neighborhoods



Figure 7.15  
*Disordered car traffic in the former public housing areas*



Figure 7.16  
*Popularity of illegal car parking in the former public housing areas*



Figure 7.17  
*Private "legalization" of illegal car parking by the residents*

In a sense, we can understand the illegal privatization of public spaces as the private efforts to improve living conditions. But those individual activities are often in conflict with the communal interests and ironically result in the deterioration of living environments as community spaces. While some public interventions on environment repairing and updating have been implemented in Beijing during recent years, the living environments of former public housing areas are not fundamentally improved in terms of the uncontrolled privatization of public spaces. More illegal structures appeared on the reprinted building façades. The replanted public greenery was soon nibbled by illegal extension of private gardens and other self-constructions. And the new pavements as usual became illegal parking spaces. The illegal privatization of

public spaces destroys the outdoor environments and other community spaces, causes safety risks (e.g. fire hazards and traffic accidents), and also becomes the fuse of the neighborhood conflicts. Here, same as the maintenance problem of housing buildings, the key issue is the increasing contradictions between private and public/communal interests. Facing the unprecedented worship of private ownership and free market, what is the public and how to maintain the public interests are critical questions. In the fast socio-economic transition, the balance between individuality and collectivity is always dynamic but mutually exclusive. But without the effective balance, the over-privatization does not overcome but impel the deterioration of living environments of the former public housing areas, and therefore, as in other cities relying on the capitalized housing stock, will induce the decline of those old neighborhoods in Beijing.

### § 7.3.3 Threat of Neighborhood Decline and Spatial Segregation

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While the diversified and integrated communities as well as the mixed socio-spatial structure still remain in most of former public housing areas in Beijing, the problem of neighborhood decline has emerged and more and more become troublesome. This problem can be considered from two aspects: the decline of overall living conditions of former public housing areas and the threat of socio-spatial decline in those areas. On the one hand, the decaying housing buildings and the deterioration of living environments result in the downgrade of overall living conditions of many former public housing areas. In many neighborhoods, the residents increasingly argue for the improvement of their living conditions. Actually in comparison with these legally registered “permanent” residents, who are usually the homeowners, the housing conditions of the new tenants or sub-tenants are often even worse. Unfortunately, those “temporary” residents are still excluded from the local community, so that their housing problems have not been officially considered. But in general, the decline of living conditions of former public housing neighborhoods has become a critical housing problem in Beijing.

On the other hand, the physically spatial deterioration dialectically interacts with the change of demographic and social structure of former public housing areas. Within the marketized and privatized housing stock, that socio-spatial dialectics results in the threat of social decline in those old neighborhoods. As mentioned above, there are two dynamics in the housing stock of those areas in Beijing: the lower rents of private-rented dwellings and the high prices of privatized public housings in good urban locations. The lower rental level of privatized public housings or illegal sublets certainly results in the immigration of new tenants who usually belong to the mid-low or low income groups. But the speculative price of privatized former public dwellings does not popularly bring the mid-high and mid income to move into the old neighborhoods

and also rarely contributes to the improvement of living conditions. The high price of privatized public housings is the result of the capitalization of place of dwelling in a speculative housing market. What is exchanged in the housing transaction is just the property ownership, which is not equivalent to the actual condition of residence. The purpose for many mid-high and high income purchasers of privatized public housings is to acquire “privileges” (such as the admission to better schools for their children) attached to the hukou registration in good urban locations, which are available for the residents of the neighborhoods in these locations. Those old and smaller former public dwellings are often their second or third houses for rent or for temporary occupation. Many so-called Xuequfang will be sold again in a few years when the children graduate. So, they are usually not well-maintained. Some are transacted for the purely speculative purpose – the expectation of future price increase. Even for the privatized public housings that are bought as the primary homes, the new homeowners hardly contribute to the maintenance of shared parts of buildings and public environments because of the ambiguity in ownerships and housing management. In terms of the popularity of speculation, the nominal attractiveness for the higher income households is actually of little benefit to upgrading the population structure and the overall living conditions of former public housing areas.

The dynamics in the existing housing stock will further catalyze the socio-spatial dialectics induced by the physical deterioration of old former public housing neighborhoods. The deterioration of living conditions has impelled more economically capable homeowners leave the old neighborhoods, while many of them still keep the housing ownerships. Parallel to the speculative transaction on housing properties, the actual residents have started to be partly replaced by the new mid-low or low income tenants. The speculation and the replacement of actual residents accelerate the deterioration of housing conditions and living environments, which will further boost the outflow of higher income residents (including the tenants who have improved their economic capacity). In an over-privatized and speculative housing stock, the tendency to social filtering has emerged. This tendency will destroy the existing mixed social structure and result in the concentration of low-income population in the former public housing areas of Beijing.

Another tendency that cannot be ignored in the demographic change is the aging population. Along with the socio-economic development, the proportion of elderly population (aged 65 and over) has reached 10.1% in Beijing (figure 7-18). But this proportion is much higher in the former public housing areas, where the original residents usually moved in decades ago. In many early-developed neighborhoods, even the majority of original residents have been the elderly. This tendency is strengthened by the changing household size. Within the transformation from the traditional extended family to the nuclear family, many younger generations are leaving their original neighborhoods. The retained original residents increasingly focus on the elderly who are either attached to the original community or economically incapable to

move. However, the planning, design and management of those old neighborhoods are still not ready for aging communities. It is also difficult for those elderly residents, who are usually just pensioners<sup>13</sup>, to finance the improvement of living conditions.

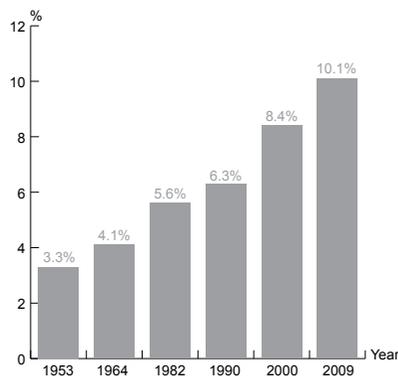


Figure 7.18  
*Proportion of population 65-year-old and above in Beijing*  
(Source: Beijing Municipal Bureau of Statistics, 2011; chart by author)

If there are no effective public interventions, the former public housing areas will inevitably become the neighborhoods of low-income, elderly and other vulnerable groups according to the current tendency of social and demographic changes. Unfortunately, this trend is increasingly becoming a reality in at least some of those old neighborhoods in terms of the confusion in housing management, maintenance and renovation. Those neighborhoods therefore will gradually lose the identities as the mixed communities and the good urban locations. The socio-spatial decline of former public housing areas has been a realistic threat in Beijing.

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13 In China, the pension that one may receive is normally much lower than his/her former salary. Many pensioners from the former public housing areas were the workers during the planned socialistic economy. In particular, they rarely have extra incomes other than their pension. Usually most pensioners also belong to the mid-low income groups in Beijing.



Figure 7.19  
*Declined landscape of a former public housing area*

Nevertheless, a more serious threat comes from the socio-spatial segregation that will be induced by the neighborhood decline. The decline of former public housing areas will further stimulate socio-spatial differentiation in the city. In terms of the ambiguity in ownerships and housing management, while some former public housing neighborhoods probably might maintain or even upgrade their existing social structure by renovation or reconstruction<sup>14</sup>, the social filtering in temporal dimension will result in the spatial concentration of underclass and people who have no other housing choices in many neighborhoods without effective interventions. Same as in many capitalistic cities, those neighborhoods will finally become the unwelcome areas that will be excluded by the mainstream communities. The social exclusion usually brings on the spatial segregation, which in fact is a spatial presentation of social polarization. The socio-spatial segregation will not only cause many social problems in those segregated former public housing areas but also intensify the social confrontation in the city. Therefore, the socio-spatial segregation induced by the decline of former public housing areas will be a serious threat for the urban sustainability of Beijing. Feasible renewal approaches have to be explored to deal with the challenges of neighborhood decline and potential spatial segregation.

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Since either the ownerships or the management of former public housing areas is still related to the danwei, the neighborhood decline might be controlled or reversed in some areas through the renovations or reconstructions by the danwei that are willing to intervene. But without an overall coordination, those interventions less or more may become the privilege of some "good" danwei, which will not balance but enlarge the socio-spatial differentiation between different neighborhoods.

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## § 7.4 Strengths, Weaknesses, Opportunities and Threats

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The elaboration in the above sections concretely revealed the existing “dual faces” of Beijing’s former public housing areas, with their characteristics and problems. On the one hand, these mixed neighborhoods in good spatial locations of the city, as the diversified but integrated communities, accommodate the people from the low to the mid-high income groups. On the other hand, the ambiguity of housing stock in those areas after the radical housing reform, including the over-privatization, the speculative housing market and the confusion in housing management, has accelerated the neighborhood decline which might result in the problem of socio-spatial segregation. However, apart from those “internal” factors, the analysis on the former public housing areas should not be separated from their “external” context, which is mostly related to the current housing problems and urban questions that I have elaborated in Chapter 6. In order to overview the existing conditions of those former public housing areas, the analysis must be comprehensive and inclusive for all those internal and external factors. The matrices in table 7-1, 7-2 and 7-3 just addressed a comprehensive analysis and summary in the form of strengths, weaknesses, opportunities and threats in the socio-economic, community-placial and aesthetic-technical dimensions.

Analysis: Internal/external advantages and disadvantages in the socio-economic dimension		
	Advantages	Disadvantages
Internal	<b>Strengths</b> <ul style="list-style-type: none"> <li>- Housing areas for the majority of urban residents</li> <li>- Good urban locations (with better job opportunities and public facilities)</li> <li>- Mixed social structure</li> <li>- Mixed urban programs or functions</li> <li>- Affordable housing areas (lower rents) for lower income groups</li> <li>- Neighborhoods for pensioners</li> <li>- Vibrant local economy</li> </ul>	<b>Weaknesses</b> <ul style="list-style-type: none"> <li>- Mixture and ambiguity in housing ownership</li> <li>- An over-privatized and speculative housing stock</li> <li>- Confusion in housing management and inefficient public intervention</li> <li>- Decline of living conditions</li> </ul>
External	<b>Opportunities</b> <ul style="list-style-type: none"> <li>- Continuous economic growth and increase of public revenue</li> <li>- Reemphasis of social housing by the central and municipal governments</li> <li>- Urban renewal as an important social housing intervention</li> <li>- Interventions to restrain real estate speculation</li> </ul>	<b>Threats</b> <ul style="list-style-type: none"> <li>- High and rising price of property (especially in good urban locations) and generally capitalized urban housing stock</li> <li>- Insufficiency of social housing provision (especially in the central area of the city)</li> <li>- Mechanisms of socio-spatial filtering and neighborhood decline</li> <li>- Social polarization and spatial segregation</li> <li>- Speculative urban economy</li> <li>- Aging population in general</li> </ul>
Confrontation: Challenges in the socio-economic dimensions		
	Opportunities	Threats
Strengths	<b>Offensive</b> <ul style="list-style-type: none"> <li>- Social-oriented urban renewal establishment (linking to social housing policy or strategy)</li> </ul>	<b>Defensive</b> <ul style="list-style-type: none"> <li>- Potential (of former public housing areas) to facilitate affordable housing provision (for the lower-income groups, elderly, etc.) and concrete urban economy</li> </ul>
Weaknesses	<b>Cleanup</b> <ul style="list-style-type: none"> <li>- Restraint of housing speculation and improvement of living conditions (in former public housing areas)</li> </ul>	<b>Survival</b> <ul style="list-style-type: none"> <li>- Prevention of neighborhood decline, socio-spatial filtering and segregation</li> </ul>

Table 7.1  
SWOT Analysis: Existing conditions of Beijing's former public housing areas in the socio-economic dimension

Analysis: Internal/external advantages and disadvantages in the community-placial dimension		
	Advantages	Disadvantages
Internal	<b>Strengths</b> <ul style="list-style-type: none"> <li>- Diversified but integrated communities</li> <li>- Lively and self-sustaining neighborhoods</li> <li>- Good places of living</li> <li>- Strong sense of community of residents</li> <li>- Danwei-based communities</li> <li>- Private efforts to improve living conditions</li> </ul>	<b>Weaknesses</b> <ul style="list-style-type: none"> <li>- Decaying housing conditions and living environments</li> <li>- Argument to improve living conditions from local communities</li> <li>- Ambiguous positions of homeowners, tenants, danwei and government</li> </ul>
External	<b>Opportunities</b> <ul style="list-style-type: none"> <li>- Shequ (community) establishment to strengthen local communities and urban governance</li> <li>- Responsibility of property owners, danwei and municipal/district government in housing management</li> <li>- Strong top-down and bottom-up demands to improve the living conditions of old housing areas</li> </ul>	<b>Threats</b> <ul style="list-style-type: none"> <li>- Alienation of housing</li> <li>- Increasing interest conflicts between different groups or actors and inefficient balance mechanism</li> <li>- Destruction of lively and mixed communities by neighborhood decline or urban reconstruction</li> <li>- Residential differentiation, gated community and socio-spatial segregation</li> </ul>
Confrontation: Challenges in the community-placial dimension		
	Opportunities	Threats
Strengths	<b>Offensive</b> <ul style="list-style-type: none"> <li>- Stabilization and strengthening of mixed and integrated communities (in former public housing areas)</li> </ul>	<b>Defensive</b> <ul style="list-style-type: none"> <li>- Avoidance of segregation and harmonization of conflicts (by maintaining former public housing communities)</li> </ul>
Weaknesses	<b>Cleanup</b> <ul style="list-style-type: none"> <li>- Improvement of living conditions for the local communities (in former public housing areas)</li> </ul>	<b>Survival</b> <ul style="list-style-type: none"> <li>- Prevention of the destruction of currently mixed and vibrant local communities</li> </ul>

Table 7.2  
 SWOT Analysis: Existing conditions of Beijing's former public housing areas in the community-placial dimension

Analysis: Internal/external advantages and disadvantages in the aesthetic-technical dimension		
	Advantages	Disadvantages
Internal	<b>Strengths</b> <ul style="list-style-type: none"> <li>- Mixture of diversified housing types</li> <li>- Well-developed public/communal facilities, infrastructures and local businesses</li> <li>- Friendly outdoor environments with flourishing greenery</li> <li>- Smaller houses with lower rents</li> <li>- Neighborhoods for pedestrians and people on bikes</li> <li>- Housing designs adaptable to the current criteria of social housing</li> </ul>	<b>Weaknesses</b> <ul style="list-style-type: none"> <li>- Dated housing designs and planning (e.g. small dwellings, insufficient car parking, etc.)</li> <li>- Aged residential buildings</li> <li>- Physical deterioration of outdoor environments, communal facilities and infrastructures</li> <li>- Illegal privatization of public space (e.g. illegal construction, illegal parking, etc.)</li> <li>- The original planning/design unready for the aging population</li> </ul>
External	<b>Opportunities</b> <ul style="list-style-type: none"> <li>- Improvement of public interventions for the city (spatial planning, social housing development, etc.)</li> <li>- Promotion of housing renewal</li> <li>- Emphasis of resource-and energy-saving and recycling (including the sustainable use and improvement of old buildings)</li> </ul>	<b>Threats</b> <ul style="list-style-type: none"> <li>- Deterioration of early-built and old housing areas in the city</li> <li>- Wholesale urban reconstruction</li> <li>- Urban sprawl, suburbanization and increasing daily commuting</li> </ul>
Confrontation: Challenges in the aesthetic-technical dimension		
	Opportunities	Threats
Strengths	<b>Offensive</b> <ul style="list-style-type: none"> <li>- Strengthening of public interventions for former public housing areas (e.g. the combination of housing renewal and social housing development, redesign of public space, etc.)</li> </ul>	<b>Defensive</b> <ul style="list-style-type: none"> <li>- Former public housing areas as affordable and livable neighborhoods for sustainable urban development</li> </ul>
Weaknesses	<b>Cleanup</b> <ul style="list-style-type: none"> <li>- Improvement of housing conditions and living environments in former public housing areas</li> </ul>	<b>Survival</b> <ul style="list-style-type: none"> <li>- Prevention of the downgrade of living quality in former public housing areas</li> </ul>

Table 7.3  
SWOT Analysis: Existing conditions of Beijing's former public housing areas in the aesthetic-technical dimension

According to the SWOT analysis, the main challenges for the former public housing areas focus on the physical deterioration of living conditions (in the aesthetic-technical dimension) and on the following community destruction (in the community-placial dimension) and neighborhood decline (in the socio-economic dimension). They have, at the urban scale, brought out the realistic threat of socio-spatial segregation, which may be regarded as not just a social, but also, a community crisis. In order to deal with those challenges, the interventions to improve the quality of living in Beijing's former public housing areas, such as urban renewal, become imperative. Furthermore, urban renewal of former public housing areas can also open a new approach to solve urban housing problems.

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## § 7.5 Conclusions

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In this chapter, we briefly discussed the current characteristics and problems of Beijing's former socialistic public housing areas. In terms of the speculative housing stock and deficient housing management, those mixed and vibrant neighborhoods in good locations of the city have been facing the challenges of physical deterioration, community destruction, neighborhood decline and, also, socio-spatial segregation. Public interventions such as urban renewal initiatives were therefore called on. In the meantime, confronting the increasingly critical urban housing problems, urban renewal, as I mentioned in Chapter 6, has become a key issue of social housing policy. Renewal of former public housing areas provide for the potential to social housing reestablishment, and would thus contribute to the socio-spatial integration of the city. Therefore, the major task in the urban renewal of Beijing's former public housing areas should focus on two respects – to improve the living conditions for local residents on the one hand and to facilitate the resolution of urban housing problem on the other.

In Beijing, the urban renewal of early-built public housing areas started in the early 1990s as an integral part of a large-scale urban reconstruction plan for old housing areas. However, urban renewal has encountered unprecedented obstacles in recent years. The prevailing approach dependent on wholesale reconstruction and market force did not effectively solve the housing problems but caused a series of social problems so that it was considerably criticized and resisted. On the other hand, the social-oriented renewal projects are facing funding problems according to the increasingly housing speculation. In the next chapter, we will review the transformation of urban renewal in Beijing and investigate the existing challenges for the renewal of former public housing areas.

## 8 Dilemma of Urban Renewal in Beijing's Former Public Housing Areas

In Beijing, urban renewal of the old housing areas can be traced back to the 1950's ambitious urban planning project to fundamentally reconstruct the old city. But under the planned economic system, in which either urban development or housing construction highly depended on public investment, the large-scale urban renewal was never really implemented because of funding problems. In the transition from the planned economy to the market economy, large-scale urban renewal by way of demolition-reconstruction started at the beginning of the 1990s through real estate development. The renewal of aged public housing areas also began at that time. Later, large-scale urban renewal in Beijing was further boosted by radical housing reform. However, urban reconstruction encountered increasing resistance because it largely depended upon the for-profit real estate investment that had caused many social problems. . After the legalization of private property, the popularity of housing speculation also affected the economic feasibility of urban renewal. Since 2004, a large number of urban renewal projects, including the renewal projects for the former public housing areas, have been suspended. The urban renewal of former public housing areas is in a dilemma.

In this chapter, we will investigate the reasons for the present dilemma of urban renewal by using historical and socio-spatial dialectic analysis. The research will start from the review to the historical transformation and existing status of urban renewal in Beijing.

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## § 8.1 Urban Renewal of Old Housing Areas in Beijing – The Transformation and the Status Quo

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### § 8.1.1 Urban Reconstruction for an Ideal City – Urban Renewal under the Planned Economy

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Like public housing, urban renewal by public interventions is not anything new in Beijing. As aforementioned, there were some urban renewal projects in relation to the Guanfang construction during the Qing Dynasty. Urban renewal in a modern sense, as well as the modern concept of urban planning, had already been introduced in the late Qing Dynasty and the Republic of China, along with the establishment of modern urban governance. In the early period of the Republic (1912-1928), when Beijing was still the capital city, some renewal projects linked to the construction of urban infrastructure or development of new urban district were implemented<sup>1</sup>. However, the plan of large-scale urban renewal was never proposed in Beijing until the People's Republic was founded. After 1949, the ambition of the newly-founded communist authority was to develop China from a backward agricultural country to a modern and socialistic industrial country. The objective of the spatial planning of Beijing was to transform a "consumptive" city to a "productive" city of the working class, and would stand as the political, economic and cultural center of China. As the center of "new" Beijing, the old city had to be reconstructed in order to fulfill the tasks of urban development. With the exception of some important monuments, the majority of old buildings in the old city were thought dated and not valuable enough to be protected. In the mean time, the socialist Constitution of China in 1954 gave the state power to expropriate lands and other means of production for public interest, and actually made large-scale urban renewal possible. Therefore, although there were opposing arguments such as Liang and Chen's proposal on the conservation of historical city, urban reconstruction was established as the main theme of city development in Beijing. According to the urban master plan of 1958, most of the hutong areas were to be demolished and replaced by new buildings (figure 8-1), which would thereby improve living conditions and possibly solve the housing shortage problem.

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1 Under the supervision of Zhu Qiqian, the important urban renewal projects in Beijing from 1912 to 1928 included the transformation of Zhengyang Men (the front gate of Beijing's inner city) and its surrounding area for improving the urban infrastructure, the construction of ring railway surrounding the inner city, and the pilot development of new urban district by reusing urban waste land at Xiangchang area.



Figure 8.1  
*A proposal of the detailed reconstruction plan for Beijing's old city in the 1960s*  
(Source: Dong Guangqi, 2006, p.33)

But according to the planned economy and the socialistic public housing system, the costs of urban renewal had to be funded mainly by the government. Since the housing socialization, many hutong courtyard houses had become public housing, whose maintenance and renewal depended on public investment. Based on the economic conditions of that time, especially considering the state emphasized industrial development rather than the “non-productive” constructions, this ambitious planning of reconstruction was evidently not feasible. Although the reconstruction of the old city was to be completed in ten years, it was never largely implemented. Within a few realized urban renewal projects, the stress was laid on the construction of public buildings and infrastructures. Until the beginning of the 1990s, the renewal projects for old housing areas usually only worked as passive and temporary reactions for the emergent housing problems. Dong Guangqi (2006) divided the urban renewal of old housing areas in Beijing during this period into four phases, which can be summarized in table 8-1.

	Phase I (1949-1966)	Phase II (1966-1974)	Phase III (1974-1986)	Phase IV (1986-1992)
Characteristics	Without large-scale housing renewal	Early attempts of urban renewal for housing areas	Housing renewal without planning	New tentative of urban renewal
Background	Economic development, industrialization and urbanization; many old houses of low quality; ambitious plan of urban reconstruction	Cultural Revolution; increasing decrepit houses in the old city; suspension of urban planning; frugal and "Jianfeng-chazheng" development	Economic redevelopment; Increasing urban population and housing shortage; reemphasis of urban development and housing construction	Fast economic development and urbanization; continuing housing shortage and the argument on housing reform; further deterioration of old housing areas; attempting to balance urban renewal of historical conservation
Strategies	Less care to the old housing areas with the optimistic prediction on wholesale urban reconstruction: <ul style="list-style-type: none"> <li>- Improving urban infrastructures and living environments</li> <li>- Renovation or reconstruction for a few decrepit houses</li> <li>- New housing developments in the vacant spaces of old city</li> <li>- Urban reconstruction related to important public construction projects</li> </ul>	The start of government intervention on the renewal of old housing areas: <ul style="list-style-type: none"> <li>- Replacing decrepit hutong houses by new low-standard "simple housings" (1966-1968)</li> <li>- "Snowball" renewal by phasing reconstruction and circulating rehousing (since the early 1970s)</li> </ul>	Two "bottom-up" strategies for the housing development in the built-up areas: <ul style="list-style-type: none"> <li>- Promoting the self-financed housing construction or reconstruction of danwei in its lands</li> <li>- Allowing the housing self-extension by residents</li> </ul>	Three pilot projects of urban renewal in the old city (Ju'er Hutong, Xiaohoucang, Dongnanyuan): <ul style="list-style-type: none"> <li>- Renewal by respecting historical urban context</li> <li>- Rehousing original residents in the same location</li> <li>- Resolving funding problems by combining urban renewal with housing reform</li> </ul>
Results/Effects	Improved urban environments; introduction of modern infrastructures into the old city; partly adjusted urban functions  Lack of housing maintenance due to the ambition of wholesale reconstruction; overload of the old urban infrastructures	Partly improved the housing conditions of some urban residents  Low quality of simple housings; failure of "Snowball" renewal owing to the long cycle and funding problem	Alleviated the problem of housing shortage  Guided urban renewal to the low-dense areas rather than the decayed high-dense housing areas; destroyed historical landscape of old city; resulted in the deterioration of overall urban environments	Improved living conditions in the old housing areas; balanced urban renewal and historical conservation; large-scale urban renewal initiated in 1990 according to the experiences of pilot projects  The difficulty of economic balance as a result of high subsidies to the residents

Table 8.1  
*Four phases of urban renewal of old housing areas in Beijing under the planned economy*

In general, the ambitious but unrealistic plan of reconstruction did not result in the improvement, but rather the deterioration of many hutong areas in the old city. The over-optimistic prediction of the large-scale reconstruction conducted to "emphasis of

new-construction, neglect of maintenance". A large number of old hutong courtyard houses decayed due to the lack of maintenance<sup>2</sup>. Without substantial investment and integrated planning, the renewal projects from the 1960s to the 1980s were only passive interventions that caused new spatial problems. As temporary solution, the simple housings aged soon. The Jianfeng-Chazhen self-financed housing development of danwei and the housing self-extension by residents (figure 8-2) induced the deterioration of overall living environments in the old housing areas. In the 1980s, the municipal government finally recognized that the reconstruction of the old city could not be completed in the near future. At the same time, historical conservation started to be emphasized. Though the concept of fundamental reconstruction was not totally abandoned, the master plan in 1982 changed the reconstruction of the old city to an aim to be "gradually" realized, and proposed the conservation of the local identity of Beijing. After that, the danwei self-financed reconstruction was legally prohibited in 1986. But faced with the increasing problems of housing deterioration, Beijing municipality initiated three pilot projects of urban renewal in 1987 in order to look for a balanced approach of housing reconstruction, economic feasibility and historical conservation, which actually conditioned the start-up of large-scale urban renewal for old housing areas in 1990.

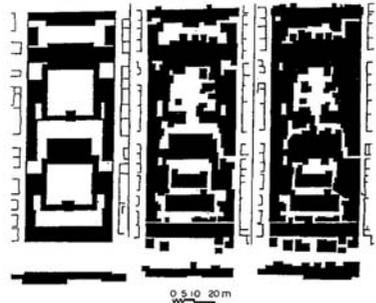


Figure 8.2  
*Deterioration of living environments in a hutong courtyard house caused by the uncontrolled housing self-extension*  
(Source: Wu Liangyong, 1999, p.59)

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2 According to the estimation of Dong Guangqi (2006, p.196), the decrepit old houses built before 1949 increased from 0.6-0.7 million m<sup>2</sup> (1949) to 2 million m<sup>2</sup> (2005) in the old city of Beijing.

While the ambitious reconstruction plan was never realized, some attempts at urban renewal during this period still provided useful experiences. For instance, the “Snowball” renewal in the 1970s attempted the strategies of phasing reconstruction and circulating re-housing in one neighborhood (though it was not completed due to the long cycle and funding insufficiency); the danwei self-financed reconstruction can be seen as the test for “bottom-up” forces in urban renewal; and the pilot projects in the late 1980s, especially the Ju’er Hutong project (figure 8-3), not only emphasized the balance between housing renewal and the preservation of historical urban fabric, but also the possibility of combining urban renewal with housing reform in order to solve funding problems. More importantly, the housing conditions of most of residents involved in urban renewal were improved. Improved housing conditions were, in fact, ascribed to the public housing system, as one of the preconditions for urban renewal.

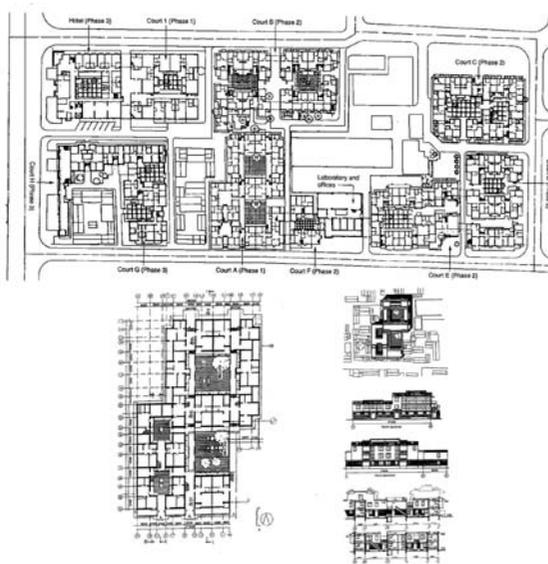


Figure 8.3  
*Ju'er Hutong pilot project*  
(Source: Wu Liangyong, 1999, pp.141-143)

According to the socialistic public housing system, it is the responsibility of the state to provide affordable housing to the urban residents. The public housing system ensured that each household involved in urban renewal could be rehoused in a public-rented dwelling. That meant the original residents of urban renewal areas would usually move from dated old houses to the new and bigger modern apartments without rent increases, thereby improving their housing conditions. Urban renewal was accordingly

welcomed by the residents. While there were other reasons, such as the priority of the collective, less demolition, etc., urban renewal under the planned economy did not meet large resistance from residents (as later urban renewal projects did face), mainly because of the guarantee of rehousing.

However, the rehousing guarantee also meant that the urban renewal of old housing areas relied heavily on public investment. Actually, the problem of financing was always the greatest difficulty facing the implementation of urban renewal in Beijing under the planned economy. Even those relatively successful pilot projects in the late 1980s, which attempted to combine urban renewal and housing reform, were far from achieving economic balance. The funding problem was thus the most critical challenge for urban renewal at that time.

### § 8.1.2 Large-scale Urban Renewal Initiative by Introducing Market Force – Urban Renewal in the Transition from the Planned Economy to the Market Economy

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Based on the experiences of the pilot projects in the late 1980s, the municipal government of Beijing initiated the large-scale “危旧房改造 Weijiufang Gaizao” (improvement of decrepit and old houses, which actually indicated urban renewal) in 1990. For the urban renewal, the municipal government proposed several principles, which included.

- Transforming the emphasis of housing development from urban expansion to the balance of urban expansion and urban renewal;
- Making the target group of urban renewal the residents of decrepit houses and the residents with housing difficulties (without houses or housing conditions lower than the standard);
- Making urban renewal the responsibility of the district/county government;
- Combining urban renewal and urban expansion;
- Combining urban renewal and housing reform;
- Combining urban renewal and real estate development; and
- Combining urban renewal and historical conservation.

The basic objective of the urban renewal of old housing areas was to solve the housing problems of urban residents and to achieve urban planning, the latter of which was proposed to support the long-term interests of integrated, sustainable urban development by adjusting land use, decreasing the residential density in the city proper and preserving the historical image of the old city (figure 8-4) (Xie Dongxiao, 2007). For the physical planning and design, the Xiaohoucang model, which means the reconstruction within the original urban fabric, was chosen as the basic strategy (figure 8-5). Those principles were later involved in the new master plan in 1993, which

proposed a strategic transformation of urban development from urban expansion to urban renewal on the one hand and finally replaced “the reconstruction of old city” by “the conservation and renewal of historical city” on the other. In September 1990, 22 old housing areas were chosen as the initial renewal projects. In order to solve the housing problem of those overpopulated areas, the approach to renewal continued the tradition of demolition-reconstruction in order to increase building density. The original street system was usually maintained in the planning. Later in 1991, the first Chinese legislation on urban renewal – “the Regulations on the Management of Urban Housing Removal”<sup>3</sup> – was enacted. The municipal government of Beijing subsequently announced the relevant local regulation. In order to encourage the renewal of old housing areas, the decision-making was decentralized from the municipal government to the district/county government. The operator of urban renewal transformed from the government to the commissioned renewal institution/corporation, which actually conditioned the involvement of for-profit real estate developers.

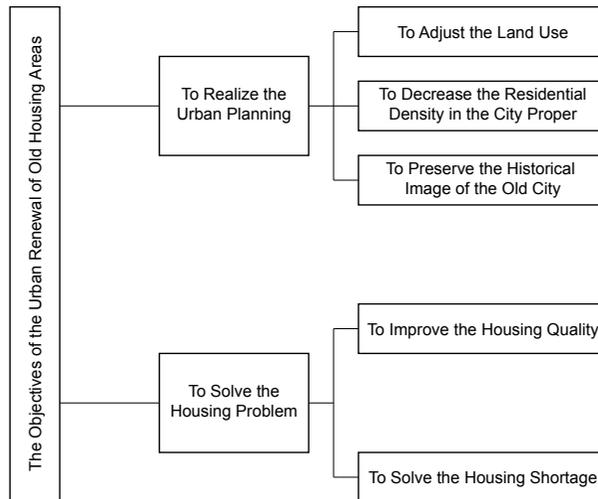


Figure 8.4  
 Objectives of the urban renewal of old housing areas in Beijing  
 (Source: Xie Dongxiao, 2007; translation and diagram by author)

3 In terms of the tradition of reconstruction, the most important issue of urban renewal in Chinese cities is the resettlement of original residents after the demolition. This process is called “拆迁 Chaiqian” in Chinese, which means demolition and rehousing. Literally, it can be translated into “Removal”. In spoken Chinese, Chaiqian is sometimes even equal to the renewal. The “Regulation on the Management of Urban Housing Removal” is therefore the most important legislation on urban renewal in China.



Figure 8.5  
*Xiaohoucang pilot project*  
(Source: Dong Guangqi, 2006, p.206)

Nevertheless, it was the transition to the market economy and the following real estate development that really boosted large-scale urban renewal of old housing areas in Beijing. As early as 1990, China officially established the urban land lease system, which legally conditioned real estate development. In 1992, the Chinese government announced the transition from the planned economic system to “the Socialistic Market Economic System”, as a new milestone of the economic reform that began in 1978. The transition to the market economy largely accelerated the commercialization of land use and housing stock. The land lease system was introduced to Beijing in 1993. Additionally, the 1994 decision on housing reform proposed the commercialization and monetization of housing distribution as an aim of housing reform. Market-oriented real estate development was promoted while the socialistic public housing system still remained.

The introduction of market force by combining real estate development and urban renewal resolved the funding problems of the renewal of old housing areas. The upsurge in the for-profit investment on real estate development encouraged the renewal of old housing areas. According to the 1991 Regulation on Urban Building Removal, tenants of public housing in the old housing areas could still be rehoused in public-rented dwellings based on households<sup>4</sup>. The original residents normally would not be displaced and the increased number of dwellings caused by the reconstruction contributed to the alleviation of the housing shortage problem. The housing conditions of many urban residents were thereby improved. In the mean time, urban renewal was

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The Regulation on Housing Removal in 1991 distinguished the rehousing for tenants of public housing and private homeowners. For tenants, the rehousing was based on the households (related to the hukou registries) and the allocation criteria of public housing. But the monetary compensation was applied for the resettlement of homeowners.

not just limited to the housing areas built before 1949, but included the public housing areas developed earlier. Since the designed building life was going to expire, many public housing areas developed in the 1950s were listed on the plan of urban renewal. Besides the municipal government, some danwei of central government initiated the renewal projects for their housing areas as well. The reconstruction projects of those public housing areas were usually directly operated by the danwei.

But the emphasis of economic dimension also caused unpredicted impacts. Soon after, urban renewal became an instrument to attract investments and boost economic growth. With the promotion of district governments, the planned urban renewal areas sharply increased to more than 200 (147 areas inside the old city) in 1996, even though the urban renewal plan in 1990 had not been completely realized (Dong Guangqi, 2006, p.212). The high profit of real estate development prompted many speculative investments to become involved in urban renewal. The developer started to replace the government as the main operator of urban renewal. While conservation started to be emphasized in the 1990s, the historical neighborhoods were unprecedentedly demolished due to the involvement of for-profit investments in urban renewal. In the name of economic balance, the wholesale demolition-reconstruction rarely respected the original urban context, and the planned building heights and densities were soon exceeded. Many originally social-oriented renewal projects were distorted to be profit-oriented. On the other hand, some social problems began as a result of the urban renewal. The profit-oriented reconstruction often resulted in low quality resettlement housings, which was increasingly criticized by the residents. Unreasonable compensations for the demolition of private houses (in which the compensation for land lease was never calculated) also drew the protest of homeowners<sup>5</sup>. Under the slogan of “decreasing residential density in the old city” and “combining urban renewal and urban expansion”, some residents of old neighborhoods had to move to the urban periphery. The voice of resistance against urban renewal began to rise during this period.

In order to solve the problem of economic overheating, China started to curb the real estate speculation. After 1996, the process of urban renewal evidently slowed down. The Asian Financial Crisis in 1997 also largely impacted the real estate market. The first upsurge of urban renewal for the old housing areas in Beijing gradually cooled down.

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In the 1990s, since the socialistic public housing system still played an important role, a majority of homeowners in Beijing are the owners of retained private houses built before 1949. Additionally, due to early attempts at housing reform before 1998, some originally publicly-rented dwellings had been sold to the tenants. Those new homeowners or half-homeowners (of the houses only for selling “the right of use”) also started to argue for the “fair” compensation in urban renewal.

In general, the large-scale urban renewal of the 1990s created a series of new urban questions, including questions regarding the problems of historical conservation and social conflict. But thanks to the socialistic public housing system, many residents, especially the low-income households with housing difficulties, could still improve their housing conditions through urban renewal. However, that situation changed soon after the radical housing reform, which caused the next upsurge of urban renewal in Beijing.

### § 8.1.3 “Urban Renewal by Housing Reform” – Urban Renewal after the Housing Reform in 1998

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In 1998, the radical housing reform ended the socialistic public housing system and fundamentally changed the urban housing stock in China. The housing privatization, marketization and capitalization caused real estate development boom tremendously. This change of the urban housing provision system provided an opportunity for urban renewal.

In order to boost the urban renewal of old housing areas, the municipal government of Beijing proposed a new concept of “Urban Renewal by Housing”, which called for promoting the urban renewal of old housing areas by privatizing housing. This concept was presented in the “Measures to Accelerate the Urban Renewal of Decrepit and Old Urban Houses in Beijing” (Municipal Decree [2000] No.19) and was announced in 2000. This decree clarified the new regulations on rehousing. The target group was limited to permanent residents with hukou registrations and legal dwellings in the listed housing renewal areas. The basic principles included: rehousing based on the original housing floor areas of each household; resettlement housings was for sale only, not for rental<sup>6</sup>; the rehousing fees were to be shared by the residents, danwei, and government; and the combination of resettlement in situ, relocation and monetary compensation in rehousing, in which relocation was encouraged<sup>7</sup>.

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6 The resettlement housing is subsidized by the government and specially sold to the residents involved in urban renewal. It is legally included in the affordable housing system.

7 In order to decrease the residential density of central areas, many resettlement housing areas were developed in the urban periphery for relocating the residents of urban renewal areas. Considering the ladder-like land lease, the prices of those relocated resettlement housings are cheaper than the resettlement housings in situ. Additionally, the residents who chose the relocated rehousing would receive bonuses, including extra housing spaces or compensations.

Faced with the changes of housing stock after the housing reform, the state government also revised the Regulation on Urban Building Removal in 2001. The municipal government of Beijing accordingly promulgated the new "Regulation on the Management of Urban Building Removal in Beijing" (Municipal Act [2001] No.87). This act is not only applied to the listed decrepit and old housing renewal areas, but also all other renewal projects with housing removal. According to the principle of housing privatization and marketization, the new act emphasized the monetization in rehousing. The household-based rehousing by public housing was legally ceased. Residents involved in urban renewal could choose between two new rehousing approaches: monetary compensation and "property swap". The compensation was calculated based on the assessed price of demolished houses, in which the new-construction costs and the location are counted. The property swap also depended on the assessed prices of demolished housing and resettlement housing, but residents typically would have to pay for the appreciation. In fact, both of the two approaches were monetized/marketized rehousing, for which the housing was regarded as the property evaluated by money. Act No.87 on housing removal repeated the policy of Urban Renewal by Housing Reform. The original tenants had to buy their resettlement houses, either in situ, or relocated via urban renewal. At the same time, the commissioned renewal institutions/corporations were legally ensured responsibility for housing removal. The local government and the court were in charge of judging and executing the forced expropriation and eviction.

The policy of Urban Renewal by Housing Reform actually "pre-privatized" public housings in the urban renewal areas and fundamentally marketized the approach of urban renewal, especially in rehousing. In the urban renewal of old housing areas (including hutong areas, former public housing areas, etc.), all housing is considered private property. The institution/corporation commissioned by the government is responsible for the housing purchase, demolition and reconstruction. If the residents have no other housing choices, they can buy the so-called "resettlement housings", which are normally subsidized and counted as affordable housings, provided by the renewal institution/corporation or government. As with early-developed affordable housing, the attribute of resettlement housing is ambiguous; meaning, it was proposed as a social-oriented but developed and transacted according to the marketized approach. Combined with the wholesale demolition-reconstruction and the relocation of at least some original residents, market-oriented renewal provides profit margins for real estate development. Therefore, along with the booming real estate market, the implementation of Decree No.19 and Act No.87 largely promoted the urban renewal of old housing areas in Beijing. Without the responsibility to rehouse the residents in situ by public housing, the new policy released the pressure of financial input for the local governments and danwei. On the contrary, the monetized and marketized urban renewal brought the land lease revenue. The potential for high profits attracted large numbers of real estate investments and the wide participation of developers in urban renewal. Many renewal projects therefore were led by real estate developers. After

2000, the number of old houses demolished annually multiplied in a short time (figure 8-6). The policy of Urban Renewal by Housing Reform once more boosted large-scale urban reconstruction in Beijing.

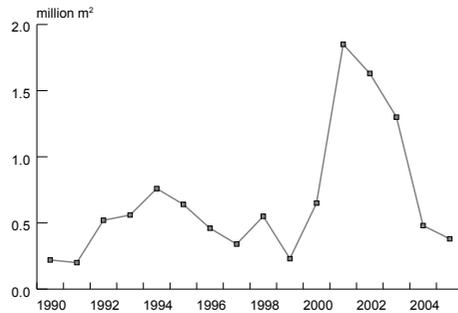


Figure 8.6  
Houses demolished annually in Beijing (1990-2005)  
(Source: Xie Dongxiao, 2007; translation and chart by author)

However, the implementation of Urban Renewal by Housing Reform actually resulted in the overemphasis of market force in urban renewal. Among the urban renewal principles proposed in 1990, “combining urban renewal with real estate development” was highly emphasized in practice. As with the privatization of housing stock, urban renewal was also thought of as an engine to push GDP growth. In many cases, an actual alliance between the pro-growth local government and for-profit real estate developers were formed. The originally social-oriented urban renewal had been distorted and highly driven by profit-hungry investors. That, of course, caused new imbalances. As a result, the unprecedented upsurge of urban renewal of old housing areas also magnified the relevant urban problems. One of the major problems that occurred was that the contradiction between urban renewal and historical conservation further intensified. Driven by profit, developers indiscriminately demolished not only old hutong areas, but also many historic former public housing areas and replaced them with high-rise or mid-rise residential buildings<sup>8</sup>. The building of those reconstructed high-density housing areas rarely respected urban context and as a result, the historical identities of Beijing were largely destroyed. In terms of the

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For high profits, the developers responsible for urban renewal often pursued the higher floor area ratio (FAR) in order to gain extra floor spaces of market housings.

displacement of original residents, traditional community life also disappeared in the old city areas. Urban renewal, especially the approach of wholesale demolition and new-construction, was hence severely criticized by scholars, activists and the public. Additionally, social problems increasingly became the most serious challenge in urban renewal. Like housing privatization, the market-oriented renewal approach ignored social differentiation and actually intensified social polarization. The accessed price for compensation was usually lower than the market housing price in the same location, but in the property swap, the situ resettlement housing was more expensive than the relocated housings on the urban periphery (even though they are both subsidized housings). Often, only the owners or registered residents of non-owner-occupied dwellings<sup>9</sup>, the households of big houses, and other high-income residents benefited from the monetized rehousing. Yet many low-income residents of small dwellings could not afford to rehouse in situ and had to move to the urban periphery. Meanwhile, in contrast to the less populous old housing areas situated in good urban locations that are attractive to real estate investors, the renewal projects of those highly-dense decrepit housing areas were still hard to initiate progress due to funding problems. All those factors led to two consequences. Firstly, there was increasing resistance to the reconstruction of old housing areas from the residents. Many “钉子户” (dingzihu, which literally means “nail households”) who refused to move elsewhere appeared in the urban renewal areas. In order to accelerate urban renewal, some developers applied even illegal measures to evict those residents. Thus, the housing rights of residents were infringed upon in the name of “public interest”. The confrontation between residents and developers or government resulted in social conflicts and even violence. Secondly, market-oriented urban renewal accelerated social filtering and residential differentiation. The lower income residents involved in urban renewal were displaced and had to move to the urban periphery where they were concentrated in the resettlement housing areas for relocation. After the renewal, many old areas in the central part of Beijing were gentrified or even replaced by the new gated communities, while some decrepit housing areas that were hard to renew increasingly turned into concentrations of low-income groups. The market-oriented urban renewal actually not only changed the mixed socio-spatial structure of the city, but also destroyed the original communities of old housing areas. As a result, the renewal of old housing areas did not help to eliminate but fostered socio-spatial segregation, which increased social polarization and social confrontation.

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According to the current systems on urban governance and housing management, the estimation of the residents is only based on the hukou registration. But the differentiation of hukou registration and actual housing place actually has widely existed. Although legally the target group of rehousing is just the actual residents in the urban renewal areas, the hukou-registered residents of non-owner-occupied houses still can be compensated in the urban renewal.

Under the pressure of rising criticism and resistance, the legislations and policies on urban renewal started to be rethought and revised. In order to balance urban renewal and historical conservation, since 1999 the municipal government of Beijing has developed a series of plans concerning historical conservation (figure 8-7)<sup>10</sup>. Historical conservation was particularly emphasized in the 2004 urban master plan, which also proposed for first time the preservation and reuse of “outstanding modern architectures”. Facing the growing threat of market-oriented reconstruction to historical conservation, the municipal government promulgated the “Provisions on Housing Protection and Renovation in the Historical and Cultural Conservation Areas in Beijing Old City” in 2003 and the “Notice on the Issues of Strengthening the Conservation of Beijing Old City and the Housing Improvement” in 2004. Those legal documents strengthened the implementation of conservation planning. The latter legally proposed to change the approach that combining wholesale reconstruction with real estate development particularly in the old city of Beijing. The large-scale renewal of historical housing areas thereby slowed down after 2004.

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As early as 1999, the municipal government had defined 25 historical conservation areas and announced the conservation plans of those areas. In 2002, the first specialized conservation planning of Beijing city – “Beijing Historical and Cultural City Conservation Plan” was promulgated.



Figure 8.7  
*Historical conservation plan of Beijing' old city in 1999*  
(Source: Dong Guangqi, 2006, p.118)

At the same time, housing privatization also changed the legal conditions for urban renewal. Under the planned economic system, private property was legally not well-protected by the state and was subordinate to public interests. The government was actually empowered with the ability to expropriate private estates. But with the transition to the market economy, civic awareness and vocalization about the protection of private property was increasingly strengthened. Since the radical housing reform in particular, housing has become the most important private property of many urban residents. The argument over the protection of private housing property was continuously rising. Finally, in 2004 provisions on the state's protection of private property and the compensation for state expropriation were added to the amendment to Chinese constitution. In 2007, the *Property Law* was enacted and legally limited the state expropriation of collective and private properties. Therefore, after 2004 the opposition to urban renewal was primarily concerned with the protection of private property. With soaring housing prices, the costs of rehousing were constantly increasing. Both the removal of housing and the economic balance of urban renewal became more and more difficult. A large number of renewal projects had to pause not just in the historical areas, but within the whole city of Beijing, The large-scale urban renewal of old housing areas came to a standstill.

#### § 8.1.4 Public Interests vs. Private Interests – The Stagnancy of Large-Scale Urban Renewal after 2004 and Some New Attempts

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Since 2004, Beijing's large-scale urban renewal of old housing areas has fallen into stagnancy due to public criticism and the resistance of residents. Apart from the debate on historical conservation, resistance to urban renewal today is mainly coincides with rising public awareness of the protection of private interests. The constitutional amendment in 2004 and the promulgation of *Property Law* in 2007 actually acknowledged the legitimacy of private property in China, which also symbolized the official establishment of Chinese market economic system. Those legislations were, to a great extent, responses to new questions over housing transaction and expropriation after the housing privatization. Private estates, including private housing, were thereafter legally protected by the state. The state can only expropriate land and housing property for the "public interests". Moreover, the state expropriation must be compensated; meaning, the housing conditions of those whose houses have been expropriated must be guaranteed. The new legislations, by no doubt, protected the private interests of homeowners in urban renewal, who were then empowered to argue for their own rights and interests in housing expropriation or removal. In Beijing, the abuse of public power in urban renewal was controlled to some extent. Faced with the rising call to protect private estates, the Regulation on Housing Removal in 2001 in many cases has been in practice ineffective. There were growing appeals to compensate housing expropriation based on "market price".

On the other hand, the enthusiasm for private property also resulted in the speculation of urban renewal. Without forced expropriation, the approach of wholesale demolition-reconstruction actually endowed the right of the one-vote veto to homeowners. In many cases, dingzihu received much higher compensation than the residents who agreed to relocate earlier. With the rapid rise of housing prices, many residents, who were not just low-income households with housing difficulties, were therefore willing to be dingzihu to not only solve housing problems but also to gain extra benefits. Costs and the duration of housing removals were soon multiplied, so that many renewal projects had to stop or be delayed. In Beijing, 131 renewal projects have been stalled since 2004.

It was also during this period that the unbalanced, speculative housing stock became a rather severe problem in Chinese cities. The dream to solve the housing problem by the market was broken. The state government has been emphasizing the development of a social security housing system since 2007. The scope of social housing development included not only the new-construction of limited-price housing, affordable housing, low-rent housing and public-rented housing, but also the renewal of decrepit and old

housing areas and of “shantytowns”<sup>11</sup>. In Beijing, the social dimension of the urban renewal of old housing areas was re-emphasized and the new renewal strategies started to be explored.

Unlike the market-oriented urban renewal that was usually dominated by for-profit real estate investment, the new attempts emphasized the role of public intervention. Public investment for urban renewal has been largely increased. Non-profit institutions, public-owned corporations and the original danwei of former public housing areas gradually replaced the developers as operators for the renewal projects of old housing areas. Under this background, attempts for the renewal of old housing areas comprised the rehabilitation of historical hutong areas, renovation program in old but not “decrepit” former public housing areas, a new rehousing strategy for urban reconstruction, the improvement of public participation, and new legislation on urban renewal.

#### *Rehabilitation of historical hutong areas*

In the historical conservation areas of the old city, the municipal government of Beijing finally abandoned wholesale reconstruction. The small-scale and gradual rehabilitation of historical hutong areas began in 2008 with the aims of “Renovation, Improvement and Evacuation”. The new approach combined housing renovation and reconstruction according to building quality; planned to improve living environments by partially demolishing illegal structures; and introduced modern infrastructures into the hutong courtyard houses (figure 8-8). For the financing of rehabilitation, the renovation or reconstruction of publicly rented houses and the private dwellings of low-income households as well as the improvement of living environments / urban infrastructures were to be funded by the government, but the renewal of private houses was to be paid by the homeowners. In order to decrease the residential density of those populous areas, the government provided attractive rehousing conditions to encourage residents to relocate<sup>12</sup>. At the same time, physical rehabilitation was still to be combined with the idea of housing privatization. The tenants of publicly rented houses were the primary

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- 11 In China, the decrepit and old housing areas officially include both the old housing areas developed before 1949 and the well-designed but deteriorated former public housing areas. The “shantytown” refers to the highly-dense simple housing areas in the city, which are usually extremely populous, have insufficient infrastructures and security and environmental problems. The shantytowns normally include the single-storey simple public housing areas and the “villages in the city” (which means the simple housing areas built in the collectively-owned rural lands that were encompassed by the urban expansion). All those areas are the concentrations of mid-low and low income groups.
- 12 If a household involved in the rehabilitation chose to relocate in resettlement housing out of the old city, the replaced housing area would be equivalent to at least 1.75 (for public housing) – 1.85 (for private house) times its original housing floor area.

target group of “evacuation”, and the exchange of properties was encouraged. Private owners or investors were encouraged to purchase and restore the hutong courtyard houses.



Figure 8.8  
*Renovation of hutong courtyard houses*

The new renewal approach was officially announced to resolve conflicts between the improvement of housing conditions and historical conservation. The traditional hutong landscape and urban fabric were retained while the housing conditions of many local residents were at least partially improved. However, there were still many challenges for rehabilitating hutong areas. On the one hand, the rehabilitation of hutong areas largely depended on public investment. In 2008 and 2009, the municipal government invested more than CNY 1 billion each year on the renewal of historical hutong areas. The sustainability of such a large amount of public investment is questionable. On the other hand, unlike the expectation, many illegal structures were not demolished but were legalized instead in the rehabilitation. Some residents even used this opportunity to enlarge their dwellings, the result of which was that the courtyards were not recovered but became denser.

A more serious problem was that the danger of socio-spatial segregation accompanied the physical rehabilitation. Since the building density was rarely increased, the original residents, especially those in low-income households, could only choose to move to the outskirts if they wanted to largely improve their housing conditions. In the context of housing privatization, the building renovation or reconstruction as well as the improvement of infrastructure will inevitably raise the rents and property prices. The well-restored courtyard houses could only be affordable to the rich. The newly moved-in, richer homeowners were rarely involved in the local communities. The market-oriented urban rehabilitation still resulted in the displacement of local community, especially the lower-income earners, as well as the further gentrification of historical hutong areas. Thus, the idea of “evacuation” has been criticized as an incentive to

create new social polarization and spatial segregation. The original aim of the renewal of historical hutong areas, which was to balance the historical conservation and the improvement of residents' living conditions, was still a challenge.

*"Pinggaipo" project – a renovation program in the former public housing areas*

Apart from the historical hutong areas, the renovation attempt also started to be applied towards the former public housing areas. In fact, some renovation programs, such as the transformation of tongzilou to apartment building (figure 8-9) and the enlargement of public housing apartment (figure 8-10), were implemented in Beijing in the 1990s. Unfortunately, those renovation programs, which largely depended on public funding under the socialistic public housing system, were mostly ceased after the radical housing reform.

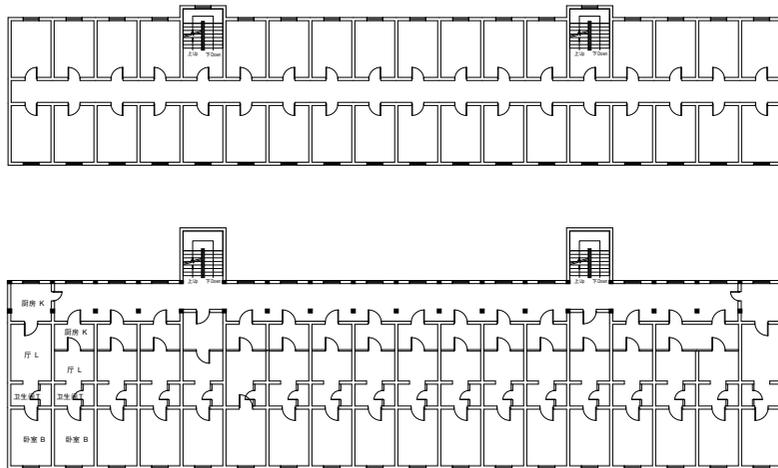


Figure 8.9  
Transformation of a tongzilou in Tsinghua University into an apartment building – the floor plan before (upper) and after (lower) the transformation  
(Source, Zhu Guanghui, 1999, p.156; redrawn by Song Xiaoyu)



Figure 8.10  
*Enlargement of living space for a public housing building*

The present renovation strategy for the former public housing areas was originally introduced in Shanghai in 1999, initially as an urban beautification program but was later viewed as an approach to improve living conditions and energy-saving in old housing areas. The target areas of renovation were the old housing neighborhoods that were out of the announced urban renewal/reconstruction areas. Those modern housing areas, which typically were developed after the 1970s, were outdated, but not “decrepit” (which meant the official designed lifespan had not expired or the building structure was better maintained). Because those renovation projects were usually identified by the transformation from the original flat roof to the slope roof (for the purpose of building beautification and improving roof insulation), they were often nicknamed “平改坡 Pinggaipo” (changing the flat to the slope) projects (figure 8-11), though the official name of those projects was “the Comprehensive Treatment of Old Housing Areas”. After 2007, as a strategy for the refurbishment of old housing areas, the Comprehensive Treatment started to be nationally promoted by the central government. In principle, the Comprehensive Treatment included the following measures.

- *Housing maintenance and repair*: adding a slope roof or other measures improving roof insulation, repainting or cleaning of the buildings’ façades, repairing public corridors and staircases, replacing or repairing the dated pipelines, etc.;
- *Maintenance and repair of outdoor environments*: removing illegal construction, replanting greenery, repairing roads and pavement, repairing or renewing sewage systems, repairing or adding street lamps, etc.; and
- *Improvement of communal facilities*: maintaining or adding the sheds for bicycle parking, adding car parking lots (only for the neighborhoods with enough spare spaces), adding electronic security systems, adding other necessary communal service facilities, etc (Min Shilin and Wang Guodong, 2007).



Figure 8.11  
*Hutong areas in the Inner City (left) and Outer City (right) of Beijing's old city*

In Beijing, the “Pinggaipo” projects of former public housing areas were largely initiated in 2007, partially as a pre-Olympic urban beautification program. In practice, the measures for “Pinggaipo” were also continuously modified and improved. As a means of renewing old housing areas, the renovation of former public housing was included in the new social housing policy. The new improvements focused on energy-saving concerns, for which the addition of thermal insulation to the outer walls, as well as the replacement of windows, started to be included. In the mean time, with the population aging, there were growing arguments, especially from elderly residents, to add elevators and other barrier-free instruments in the renovation of old multi-storey housing buildings. In Beijing, a few projects adding elevators have been implemented with relative success, and a new municipal decree was announced in September 2011 to encouraging the addition of elevators in addition to the extension of home spaces<sup>13</sup>. In 2012, the municipal government officially started a plan to renovate 150 million m<sup>2</sup> of old housing areas, including the housing renovation and improvement of outdoor environments that would be implemented by district governments.

However, the implementation of “Pinggaipo” projects still faced many challenges. On the one hand, although the original idea was that the costs of renovation should be fairly shared by the municipal/district governments, in practice, danwei and house-owners, as well as many private owners rarely paid their shares. This renovation hence relied on public funding and mostly depended on the fiscal condition and intention of danwei or local government. Its economic sustainability had to be doubted. On the other hand, some attempts at building improvements, including the replacement

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According to the new municipal decree, parallel to the lift-adding program, the floor space of old residential buildings could be extended outwards as far as 1 meter.

of aged pipelines or windows and, in particular, the addition of new lifts, met resistance from some residents who felt that those public interventions would invade their “private” spaces and rights. For instance, while the lift-adding program was promoted by the municipality and many danwei, only a few projects were successfully implemented. Thus, in many cases the renovation projects could only focus on “superficial” measures, such as adding sloped roofs, repainting façades, or refurbishing outdoor environments. In some beautification projects, of which the local governments or danwei were either unwilling or incapable to investing, the interventions were only concentrated on building refurbishments next to main streets (figure 8-12), but the housing conditions were not largely improved. Furthermore, while the Comprehensive Treatment or “Pinggaipo” projects undoubtedly contributed to improving the quality of living in many former public housing areas, those measures of physical renovation, without the adapted social housing strategy, had the potential to result in a new type of speculation and gentrification.



Figure 8.12  
A case of Pinggaipao as urban beautification project

#### *New rehousing strategy for urban reconstruction*

The new attempt at the reconstruction of “decrepit” neighborhoods, which focused on the modification of rehousing strategy, was also initiated in Beijing. In 2009, a new local decree titled “Provisions to Further Improve the Works on the Rehousing and Compensation in Housing Removal” was announced. Based on local Act No.87, two creative principles were added in this new decree: the combination of housing removal and social housing development, which means the priority of eligible households involved in urban renewal to apply for low-rent housing, affordable housing and limited-price market housing, and monetary compensation in accordance with the market price. At the same time, three pilot renewal projects of single-storey simple housing areas in the satellite towns of Beijing were also started in the name of the renewal of “shantytowns”. These projects were directly operated by the district

governments and continued to apply the strategy of demolition-reconstruction. The government provided start-up investment and public loans for the reconstruction. A majority of original residents would rehouse in situ, for which they were to receive bonus housing areas and allowances<sup>14</sup>. The low-rent and affordable housings were also arranged to resettle low-income households.

With regard to housing removal, these new strategies were considered successful. Until the end of 2009, most of residents in the three pilot areas had relocated. The municipal government therefore decided to promote those strategies in other renewal projects of old housing areas. Nevertheless, since the new attempt in fact did not abandon the concept of Urban Renewal by Housing Reform, some social and economic challenges for urban renewal still existed. Since both low-rent housing and affordable housing for rehousing the low-income residents were impossible to develop in the renewal areas, the new attempt would still result in social filtering and exclusion. In addition, the renewal based on housing privatization would no doubt induce speculative demands in rehousing, which not only intensified social inequity, but also tremendously increased the costs of renewal. Faced with fast rising costs, the economic sustainability of urban renewal has started to be questioned<sup>15</sup>. Moreover, all pilot projects were located in satellite towns, where both land lease and housing prices were much lower, so question still remained as to whether the new strategies were adaptable for the renewal of old housing areas in the city center.

#### *Improvement of public participation in urban renewal*

In addition to the new attempt about rehousing, another stress to the recent improvement of renewal strategies was public participation. In many renewal projects operated by public institutions/corporations or danwei, publicity and the transparency of the renewal process start to be emphasized. Besides traditional strategies that only focused on informing the public and the collection of residents' opinions, the residents began to have more opportunities to influence decision-making. In some recent attempts, the process of rehousing has been changed from the individual "black-box" negotiation to the public announcement of agreements with each household. This change actually improved public supervision on housing removal, which is usually the

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14 Similar to the rehousing strategy in the rehabilitation of historical hutong areas, residents gained bonus floor areas – the replacement ratio between the old and new housing floor areas was 1:1.7 (for public housing) or 1:1.8 (for private house). The additional floor areas of new dwellings of replaced spaces were sold with the subsidized price (6,000 yuans/m<sup>2</sup>). Additionally, the households would receive CNY 100,000 "award for early moving" if they chose to move within the announced period of time.

15 In August 2010, the municipal government announced a plan to explore the possibility of controlling the costs of rehousing.

most critical aspect of urban renewal and contributes promotes justice in rehousing. At the same time, the residents' opinions were increasingly included in the design of situ resettlement housings and physical planning of reconstruction. In more and more cases, the planning/design proposal had to be modified through negotiation with the residents. However, the purpose of those new attempts at resident participation was mainly to speed up the process of renewal, thus, only the opinions of residents were selected. The "bottom-up" forces still needed to be further activated via community participation in order to ensure the social objective of urban renewal.

#### *New legislation*

In January 2011, after years of both open and internal debates, a new, national legislation on urban renewal of the city called, "The Regulation on the Expropriation and Compensation of the Buildings on the State-owned Lands", was announced by the State Council to replace the preexisting regulation on urban housing removal. This new national legislation was designed to correspond to the *Property Law* and was based on the recent experiences of urban renewal in Chinese cities. The term "housing removal", whose roots were in the planned economy, was deleted and replaced by the terms "housing expropriation" and "housing compensation". Compensations for the values of expropriated houses were legally forbidden to be lower than "the market prices of comparable real estates" and the possible losses incurred by those whose houses had been expropriated had to be compensated. Social housing should have been made available to eligible residents. Unlike preexisting regulations, the new regulation did not just focus on the rehousing and compensation. The power of governments over urban renewal was limited and their responsibilities were clarified. The urban renewal projects had to correspond with public interests and be included in government plans, and the promotion of public participation in the decision-making process was proposed. Instead of urban renewal agencies, the housing expropriation had to be taken on by local governments, and for-profit expropriation was prohibited. Forced eviction and expropriation could only be judged and executed by the courts.

However, this new regulation still regarded housing as property. The speculative demands in urban renewal had not been distinguished from the non-speculative for residences. Benefits to tenants were largely ignored and, in practice, public interests will be difficult clarify. As a result, private benefits were unprecedentedly protect while the new legislations, without the effective control of speculation, did not reduce, but rather create more difficulties for urban renewal.

In general, while the tests to search for new approaches were still ongoing, the renewal of old housing areas in Beijing still faced a dilemma. With the transition from the planned economy to the market economy, both economic and social relationships were commercialized and capitalized. The ensuing social differentiation and polarization brought about the diversified interests of different strata or social groups. Individuality was unprecedentedly argued for. But the corresponding socially, economically and

politically institutional systems were not able to balance the increasingly diversified interests in the fast transformation of Chinese society. It was difficult to clarify the boundary between market regulation and government intervention. The different interests of the individual and interest groups created problematic confrontations and imbalance for urban renewal, while took the form of debate about private property or historical conservation. Although the urban renewal of old housing areas was proposed for public interests, the dilemma presented challenges from at least two sides.

On the one hand, after the radical housing reform, real estate development had been a main source of increased revenue and GDP growth, and hence resulted in enormous interests from both the developers and local governments. Due to the limited availability of urban lands, urban renewal was a major approach to push real estate economy ahead. In many cases, the urban renewal as a part of the Growth Machine damaged not only private but public interests, such as the housing rights of citizens and historical conservation. The social conflicts caused by urban renewal thereby drew more public attention. Even the legitimacy of urban renewal as public intervention started to be questioned.

On the other hand, the alienation of urban housing as private property (including the Urban Renewal by Housing Reform) actually contributed to the differentiation of residents' interests. Due to the ambiguity in the regulation of housing stock, some private interests were inevitably capitalized, resulting in the speculation in urban renewal. The phenomena of dingzihu not only represented vulnerable groups but also demonstrated a new way of getting rich. In market-oriented urban renewal, additional costs were usually transferred to housing buyers, which further pushed up housing prices. However, the social-oriented renewal of old housing areas was difficult to implement on account of the speculative demands and high costs, so that the housing conditions of low-income households in those areas were hardly improved. Here we see again the contradiction between privacy and publicity. This renewal approach neither rationally protected the private properties nor effectively ensured public interests, especially with regard to the housing rights of low-income groups. On the contrary, it resulted in the circulation of "high housing prices and high rehousing compensations".

Therefore within a privatized, marketized and capitalized housing stock, urban renewal is facing increasingly diversified and differentiated interests from various groups. Apart from local governments, real estate developers, danwei and other urban renewal institutions/corporations, the residents involved in renewal are also differentiated. In addition, more activists and external experts have also involved themselves in the renewal. Given these circumstance, the question becomes not only how to resolve the growing conflicts between different interests, but how to define the "public interests" in urban renewal. The biggest challenge facing the urban renewal of old housing areas in Beijing thus is to redefine public interests and to balance private and the public interests accordingly. However, the existing prevailing renewal strategies, including

urban renewal by housing privatization and monetized rehousing, the top-down style organization (without the active participation of residents) and the wholesale demolition-reconstruction, cannot possibly deal with this challenge. While some attempts to explore the new strategies have begun, the sustainable renewal approach to overcome the existing stagnancy is still underdeveloped.

From a historical perspective, it can be observed that the urban renewal of old housing areas in Beijing highly reflects socio-economic transitions, especially that of urban housing stock. Under the planned economy, even though the socialistic public housing system ensured the improvement of housing conditions for residents, the renewal of old housing areas was difficult to push ahead due to funding problems. In the transition to the market economic system, the combination with real estate development was thought of as an effective financing solution and largely encouraged urban renewal in Beijing. But the conflicts between large-scale urban renewal and historical conservation or emerging private interests were becoming severe in an increasingly diversified urban society. The radical housing reform thereafter fundamentally changed not only the urban housing stock, but also the renewal approach to old housing areas. After housing privatization and marketization, the combination of urban renewal and real estate development was actually further intensified. Urban renewal in many cases became a profit-driven and capitalized process and thereby resulted in the popularity of speculation. The protection of private property has been a new focus in urban renewal while the original problems, including historical conservation and financing balance, are still not resolved. In a "marketized" society, the social and economic interests referred to in urban renewal have diversified and differentiated within a short time, by which even the definition of "public interests" is confused. Yet, the existing renewal approach is becoming evidently inadaptable to the new conditions. Without an effective mechanism to balance those diversified and differentiated interests, the large-scale renewal of old housing areas has come to a standstill. Facing the existing dilemma, the question still remains as to how to achieve the original social objective of solving the housing problems of urban residents in the old hutong areas and the aged former public housing areas in Beijing. As an integral part of the renewal of old housing areas, the latter might be more critical for alleviating the structural problems of housing stock. In the following text of this chapter, we will further investigate the present strategies and difficulties in the renewal of former public housing areas in Beijing in detail.

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## § 8.2 Existing Dilemma of Urban Renewal in Former Public Housing Areas

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### § 8.2.1 Present Renewal Strategies

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In Beijing, former public housing areas still accommodate a majority of urban residents, but many of those areas have tended to decline. According to the estimation by Dong Guangqi (2006, pp.196-197), the “decrepit and old” former public housings have reached more than 5.8 million m<sup>2</sup> till 2005<sup>16</sup>. This number is even higher than the decayed hutong houses (over 2 million m<sup>2</sup>). Since the beginning of the 1990s, the renewal of deteriorated public housing areas has been included in the plan of large-scale urban renewal in Beijing, and some of those areas were thereby demolished and reconstructed. But as with the reconstruction of hutong areas, the large-scale renewal of former public housing areas came to a standstill after 2004. As mentioned above, this dilemma mainly derives from the inadaptability of renewal strategies to answer the existing challenges of urban renewal. In order to comprehensively understand the existing dilemma, an investigation of present renewal strategies needs to be started. .

In general, as an integral part of the urban renewal of old housing areas in Beijing, the former public housing areas did not exclusively employed their own urban renewal strategies. Based on local Decree No.14 and Act No.87, the reconstruction by housing privatization is still a legal renewal approach. However, considering the local situations in practice, i.e. the ownerships, the demographic structure and the building typologies, the renewal of former public housing areas is identified by its own characteristics. In principle, the prevailing renewal approach includes the following strategies.

#### *Urban renewal by the housing privatization*

In comparison with the renewal of hutong areas, the strategy of “Urban Renewal by Housing Reform” more typically presents in the renewal of former public housing areas in Beijing. While a majority of public-rented apartments were privatized after the housing reform, many houses in the former public housing areas, especially those dormitory-like dwellings, still remain in public ownership. In principle, the tenants of

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In Dong’s estimation, the decrepit and old former public housings include 4.5 million m<sup>2</sup> low-rise housings developed in the early 1950s and 1.3 million m<sup>2</sup> simple housings built in the late 1960s.

those retained public housings are supposed to be transformed as homeowners after the urban renewal.

As a (re)housing strategy, the Urban Renewal by Housing Reform meant the pre-privatization of all retained public housings and the monetized housing removal. The tenants usually need to buy their original housing areas before or after the renewal of the cost price of housing reform. Urban renewal agencies are responsible for the purchase of old housings in the renewal areas and the sale of new housings after the reconstruction. As the final guarantee of renewal, the government keeps the right of expropriation. The housing removal mainly includes two approaches – monetary compensation and property swap between the demolished and the resettlement housings, which both mean the privatization and marketization of rehousing (figure 8-13). Originally, the monetary compensation was counted based on the assessed housing price by estimating the construction costs and land lease, which, of course, is much lower than the soaring market housing price. In order to accelerate housing removal, the market price has recently been applied as the basis of monetary compensation. For the property swap, the resettlement houses include the situ resettlement housing built in the reconstruction and the relocated housing which was centrally developed by the government on the urban periphery. As “qualified” social housing, they are usually publicly subsidized but only for selling. But in comparison with the situ resettlement housing, the relocated housing is cheaper and bigger. Although legally in the property swap, residents have to pay the construction costs for the floor areas equivalent to their demolished housings<sup>17</sup>, this difference of cost prices is often exempted in practice. The increased floor areas have to be bought with the price referring to the affordable housing or limited-price housing. The resettlement housing is therefore counted as social-oriented housing and the homeowners only have joint ownerships. But as with privatized public housing and affordable housing, the transaction of resettlement housing is not in practice controlled due to the ambiguity in housing ownership.

In addition to the monetary compensation and property swap, some “bonuses”, i.e. the bonus for moving earlier and the bonus floor areas for small dwellings, have been applied in housing removal in recent years in order to impel the renewal of former public housing areas. In new attempts, the provision of low-rent housing and affordable housing is emphasized in the rehousing of low-income residents. However, the existing strategy on rehousing is still based on the idea of housing privatization and

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In the calculation of demolished housing areas, the additional floor areas shall be counted for the dormitory-like public housings as the compensation of shared kitchen or toilet.

marketization. The strategy of Urban Renewal by Housing Reform actually guides urban renewal as a market-oriented process of property transaction.

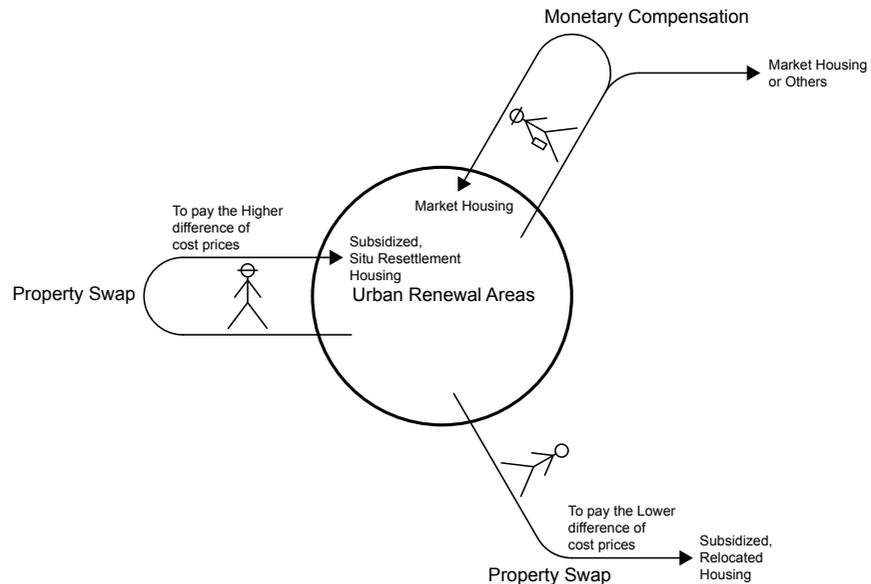


Figure 8.13  
Current housing removal/rehousing strategy in Beijing

#### *Market-oriented financing strategy*

The change in financing strategy of the renewal of former public housing areas closely relates to steps taken in the housing reform. As early as the beginning of the 1990s, when the large-scale urban renewal was initiated in Beijing, the combination of renewal and real estate development was implemented. After 2000, housing privatization and the implementation of Urban Renewal by Housing Reform largely changed the financing strategy of urban renewal. In contrast to the urban renewal that was completely funded by the government under the planned economy, the present de facto financing strategy is a mode of public private partnership (PPP), but in which the market force and private investment are often overemphasized.

According to Decree No.19, the investment of renewal should be shared by the government, danwei and residents. By referring to the development of affordable housing, the government reduces or exempts the land lease and relevant taxes and directly invests on the improvement of urban infrastructures for the renewal projects. The lands for the development of relocated housings are prepared by the government. In many cases, the government or danwei also provides start-up funding

and guarantees the financing of renewal in the capital market. Based on the principle of housing reform, most residents need to buy the resettlement housings with a subsidized price in which the urban renewal is partly financed by housing privatization. For the purpose of economic balance, a certain amount of commercial spaces, office buildings or market housings are usually allowed to be developed in the renewal. In order to attract the private investments, the real estate developers responsible for the renewal are permitted to have profits.

This PPP financing strategy is nominally a win-win solution. But in practice, it normally results in the over-dependence on the market force in the renewal of former public housing areas. Urban renewal in some cases becomes a means to attract private investment, which easily leads to the absence of government supervision and the substantial interest alliance between the pro-growth local government and the developer. In an ambiguous housing stock without the effective regulation to clarify the social housing development, the social-oriented and market-oriented tasks are easily confused. In the name of economic balance, in the planning developers often argue for a decrease of the proportion of situ resettlement housings and an increase of market housings or other profitable real estates. The capital thus obtains the dominant role in many renewal projects, so that the economic feasibility of renewal projects is realized at the expense of housing affordability. That inevitably results in the abuse of public subsidies and causes resistance from the residents. Therefore, the municipal government has tried to change the market-oriented financing strategy in the recent attempts of urban renewal. The renewal projects will only be commissioned to public-owned institutions/corporations, for which the start-up funding is shared by the municipal government, district government or danwei and public loans are provided. Nevertheless, the economic sustainability of this new financing strategy still has to be tested.

#### *Top-down organization of renewal projects*

The present top-down mode in the organization of urban renewal is often attributed to the planned socialistic system, in which collectiveness was emphasized. According to the uniformly social organization and socialistic public housing system, the renewal of old housing areas was a top-down commanded process. However, along with economic marketization and social diversification, the centrally commanded mechanism has to be loosened. In the 1990s, the decision-making for the renewal of old housing areas was "downgraded" to the district government in Beijing, and the operational tasks were usually commissioned to the developer. At the same time, the Regulation on Housing Removal in 1991 prescribed the obligation of informing and explaining to the government and operator of housing removal. But this decentralization never changed the top-down organizational structure of urban renewal due to the local governments' and the developers' common interests on economic growth. After the housing privatization, negotiation with the residents became a new challenge in the organization of renewal preceding the increasingly differentiated voices. In

Municipal Decree No.19, the residents were endowed the right to participate in the discussion of the planning of renewal by the organization of shequ. The Regulation on Housing Removal in 2001 legally confirmed the “publicity” of housing removal and provided for the residents’ right of appeal. After that, a series of measures to improve the distribution of public informing and the collection of residents’ opinions were gradually tested in legislation and/or practice. Government expropriation was also asked to be “carefully” implemented. In some recent cases in particular,, the publicity and transparency of housing removal has evidently improved. Public opinion is also increasingly included in the decision-making of physical planning/design. Nevertheless, in general the existing organization of renewal projects still keeps its top-down structure, and the “bottom-up” forces are rarely involved in the decision-making process. The top-down renewal strategy can be seen as a representation of the still-centralized political structure and social organization system in China. In my point of view, that is not just the remnants of planned socialism, but can also be greatly attributed to the traditional ideology of Confucianism, which is still influential in modern Chinese society. Since the interests of the state and the collective have at least nominal priority over private interests, the top-down hierarchical system is working in urban governance and project management.

In the existing organizational structure of the renewal of former public housing areas, the commissioned renewal agencies play a core role. In Beijing, a renewal project is usually initiated and supervised by the district government or danwei according to its original occupancy<sup>18</sup>. In terms of the principle of “marketized operation”, the renewal project is commissioned to an institution or corporation, which can be either a for-profit real estate developer or a non-profit organization attached to government or danwei. Based on the government’s permission and the urban regulatory plan, the renewal institution/corporation is responsible for the operation/management of the renewal project, including the physical planning and design, housing removal, negotiation with the residents and small enterprises/institutes in the renewal area, coordination with government, and realization/construction. In this framework, the relationships between different actors are unbalanced. In practice, the renewal institution/corporation is authorized with too much power, and the government is usually absent in supervision and coordination. In contrast, the position of residents is passive and weak in the urban renewal (figure 8-14).

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In principle, the renewal project of the government’s directly-managed public housing area or the housing area with mixed ownerships is usually initiated by the district/county government. However, the initiation of the renewal of danwei self-managed or commission-managed former public housing areas, especially the dayuan area, was the responsibility of the danwei.

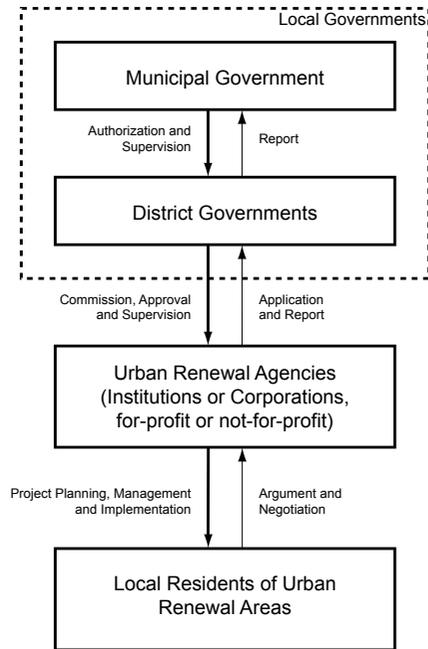


Figure 8.14  
Present top-down organization mode of the urban renewal of former public housing areas in Beijing

The operational process of the renewal project is also rather top-down. In many cases, the process of housing removal is parallel to, or prior to, the physical planning. That actually neglects other choices for the renewal. While informing the public and the collection of feedback have been institutionalized in the housing removal and planning process (figure 8-15), the opinions of residents are seldom adopted in decision-making when they largely conflict with the interests of government, danwei and developers. It is only in the negotiation of rehousing that the residents can bargain with the renewal institution/corporation. But the secret and individual negotiations often result in injustice and speculative demands in rehousing. Although the publicity and transparency of renewal (especially in housing removal) has been unprecedentedly emphasized in recent years, the organization of residents is rarely seen in the renewal of former public housing areas. In general, the current resident participation is a one-way approach – from officials to citizens. The organization of the renewal of former public housing areas is mainly a top-down process, in which resident participation is still at a preliminary stage.

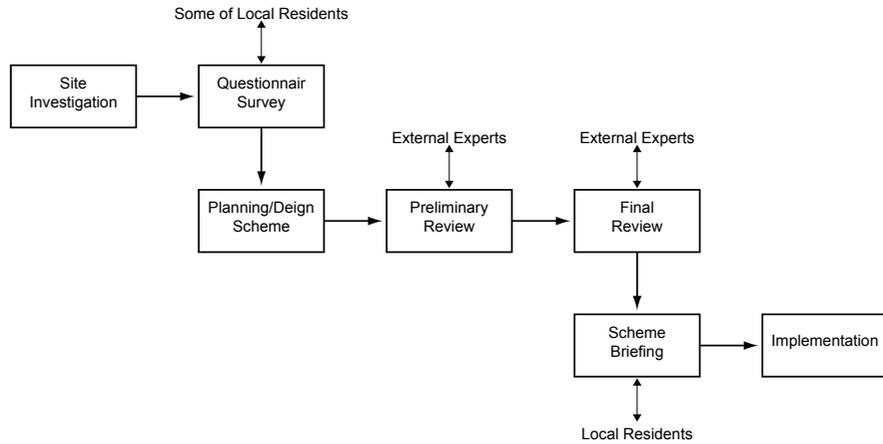


Figure 8.15  
*Current public informing and consultancy mode in the urban renewal projects in Beijing*  
 (Source: Huang Jing, 2010, p.43; translation and diagram by author)

#### *Wholesale demolition and reconstruction*

In fact, the renovation of old public housings as a renewal strategy is never refused in Beijing, but it is usually regarded as a “temporary solution” for the individual building or urban beautification projects. In the renewal of deteriorated former public housing areas, the demolition-reconstruction is always mainstream (figure 8-16).



Figure 8.16  
*Reconstruction of a former public housing block*

The reason behind an insistence on a particular strategy of reconstruction is complicated. On the one hand, it depends on the attitude towards the old and new buildings in the high-speed modernization. While the ideal model of CIAM regarding

the future city was not officially introduced to China, the socialistic idealism to create a modernized and industrialized new society in the 1950s resulted in the ambition to reconstruct the old city. The eagerness to modernize not only created the tradition of “emphasis of new-construction, neglect of maintenance” but also equated the old to the dated. Later on, the economic explosion and fast social transition meant not only the transformation from a planned economy to a market economy, but also the speeding-up transition from an agricultural society to an industrial or even post-industrial society, in which “all things solid melts into air”. With the backing of top-down forces to encourage socio-economic evolution, the replacement of old buildings by new construction in many cases symbolizes modernization, the progress of society, and the establishment of a new identity. On the other hand, the living conditions of some earlier-developed public housings, especially the dormitory-like simple housing, have to be of some concern. In those housings, either the housing standard or building quality is quite low. The lack of maintenance and long-term overuse accelerated the decay of buildings, and the popularity of illegal constructions also has brought about safety problems. Naturally, those dated and decayed housing buildings are thought of as being too economically and technically unreasonable to be maintained, and have to be demolished.

However, in practice wholesale demolition and new-construction is often driven by social and economic reasons such as the increase in housing density. In order to improve housing conditions in those populous and deteriorated former public housing areas, the increase in housing density is almost inevitable. That transformation normally results in the overall replacement of low-rise or mid-rise housing areas by high-rise buildings. From a social point of view, the largely increased housing density opens the possibility of in situ rehousing the original residents and providing additional dwellings for newcomers. The income from increased market housing and commercial spaces can contribute to the economic balance of renewal project. But in a marketized and capitalized housing stock, the high housing density is also considered as the superprofit. It is easy to deviate from the originally social-oriented urban renewal to for-profit real estate development. In some cases, the developer is keen on either increasing the FAR (floor area ratio) in the planning (usually by breaking the original regulatory plan) or decreasing the proportion of situ resettlement housings. Those actions no doubt damage benefits to the public (in particular the local residents) and result in the “stigma” of wholesale reconstruction. Therefore, while the demolition and reconstruction in many cases is still necessary, it increasingly needs to work with more balanced non-physical renewal strategies.

By analyzing present renewal strategies, we can see that the existing renewal approach to former public housing areas is defined by two characteristics: the introduction of market force on the one hand and the top-down intervention on the other. In principle, public intervention, by way of presenting the collective’s perspective and opinions, may be an effective measure to balance the profit-oriented and individualistic market

force. But as a double-edged sword, the combination of top-down driven renewal and market-oriented development also can lead to a coalition between political/administrative power and capital. Meanwhile, present renewal strategies are actually all based on one presumption: that urban renewal functions as a collective intervention on behalf of “average” people; which is too abstract to qualify. This presumption that is originally rooted in the top-down Chinese tradition and planned socialism inevitably resulted in a unitary methodology of renewal, which presents itself in housing privatization, market-oriented financing, top-down organization and/or wholesale reconstruction. Because of the interaction between capitalization and unitary methodology, urban renewal becomes an unbalanced and one-way process. In an increasingly diversified and differentiated urban society, the one-way renewal will doubtlessly meet a lot of resistance and difficulty.

### § 8.2.2 Existing Difficulties in the Renewal

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As mentioned above, the major challenge facing the renewal of old housing areas in Beijing is to balance the conflicts between differentiated interests of actors/stakeholders, in which even the public interest is hardly defined. In comparison with the renewal of historical hutong areas (for which the confrontation between renewal and conservation is always a hot topic) and villages in the city (which refers to the exchange of land ownerships), the renewal of former public housing areas is seemingly “less” challengeable. However, in neighborhoods that are usually more populous and mixed, urban renewal has to face more complicated and contradictory interest demands from a variety of groups. With the present unitary renewal strategies, conflicts and difficulties do not only exist in the rehousing, economic balance, and displacement of local community (which are traditionally critical issues), but are also present in the emerging debates on socio-spatial segregation, conservation of modern architectural monuments, and environmental sustainability.

#### *Difficulties of rehousing*

After housing privatization, rehousing is the most critical problem in the renewal of former public housing areas (figure 8-17). In an over-privatized, marketized, and capitalized urban housing stock, housing has been alienated as private property. According to the policy of Urban Renewal by Housing Reform, the original tenants have to buy their dwellings during reconstruction and transform to homeowners/property-owners. Those changes will indeed result in increasing conflicts for the different benefits.



Figure 8.17  
*Remaining public housing buildings resulting from the difficulties in rehousing*

Housing reform and the following boom of real estate economy actually engendered common interests between local governments and investors (or developers) in urban renewal. For local authorities, the renewal of old housing areas (including the former public housing areas) by real estate development became an effective measure to promote the GDP growth. Housing privatization and marketization of the renewal of former public housing areas also meant much more profit margins for the developer. The for-profit real estate investments therefore became largely involved in the renewal projects, and many of the originally social-oriented renewal projects were distorted to be profit-oriented in practice. Faced with the Growth Machine that was backed up by the coalition of administrative power and capital, residents involved in the renewal were rather vulnerable. Measures to reduce the costs of rehousing, including unreasonable compensation, large-scale displacement of residents, low quality of resettlement housing, forced housing removal, etc, infringed upon the benefits of residents and thus caused widespread resistance.

On the other hand, “the residents” are not a uniform group anymore. Coinciding with the economic marketization, there was a process of social differentiation, which was accelerated by housing privatization. In the former public housing areas, the residents split into different strata or social groups, whose interests were differentiated in the renewal. Dong Guangqi (2006, pp.219-220) summarized three types of residents in the renewal of historical hutong areas: the beneficiaries of monetized rehousing, meaning the higher income residents in big dwellings and the owners of non-owner-occupied housings; the residents unwilling to move, such as higher income elderly residents and households with good housing conditions whose residents are willing to stay in their original houses and community; and the lower income residents with dubitable attitudes toward renewal – they are eager to improve their housing conditions through urban renewal, but are unsatisfied with monetized rehousing or displacement. This typological categorization can also be applied to the homeowners and public housing tenants in the renewal of former public housing areas. In addition,

with the popularity of privatized public housing apartment rental, tenants of those privately rented houses who are usually the newcomers and lower-income earners, have become an important group comprised within the residents of the former public housing areas. Unfortunately, the existing unitary renewal strategies in Beijing ignored that differentiation. The unitary standard of rehousing is in fact more beneficial to the higher income residents rather than the lower income earners. Furthermore, housing marketization and capitalization encourages speculation in rehousing. dingzihu is not just limited to the low-income residents with housing problems, but has increasingly become a way to become rich, especially for non-occupied housing speculators. But the tenants of privately-rented houses are, to a large extent, excluded in the rehousing process. As a result, the monetized rehousing and the speculation that followed caused new inequity and further accelerated social polarization. Conflicts between the private interests of different residents have emerged.

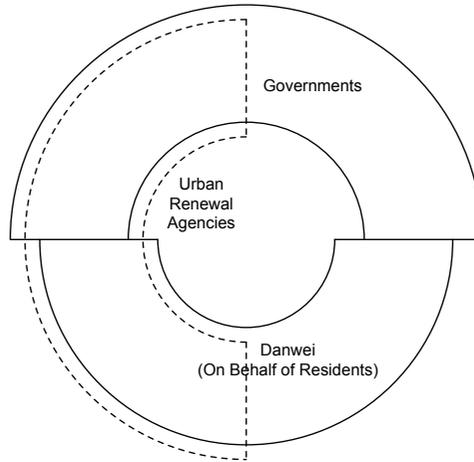
However, the difficulties in rehousing derive not only from the conflicts between different interests of actors/stakeholders but, more importantly, are rooted in the confrontation between the exaggerated and privatized economic interests of the high profit of investor or speculative demands in rehousing, and the original “public” interest in renewal (i.e. the improvement of urban housing conditions). When the large-scale urban renewal was initiated in 1990, the social aim to resolve the problem of the housing shortage in quantity and quality was confirmed as the main objective, which no doubt presented as public interest. But this social aim was gradually distorted in the market-oriented transformation of the renewal approach. Nowadays, the renewal of former public housing areas has been “highjacked” by the speculations, including both the profit-hungry Growth Machine and the speculative demands of individuals who claim to be “protecting private property”. While the former has widely met resistance, the latter is advocated by liberal scholars or activists and is deceptive to the public. Preceding the enthusiasm for private property and capital, the public interest in rehousing, which was to guarantee the housing rights of citizens as not only individual rights but social obligations, was overlooked and even became something difficult to acknowledge. In an unbalanced and ambiguous housing stock, the monetized rehousing actually stimulates speculation and causes social injustice. In Beijing, the design and construction qualities of many resettlement housings for the lower income residents, whether in situ or relocated, are not high, but even the improvement of housing conditions still remains a question. But in other cases the actual compensations for housing removal have been much higher than the current “market price” of expropriated housing properties. When the higher income groups with more housing space enjoy extra benefits, the original low-income residents in the small dwellings still cannot afford the new housing prices in situ. And due to the high costs of rehousing, many social-oriented renewal projects have to stop. The over-emphasis of either market force or private property in the renewal actually damages the housing rights of the “people”, who consist of a large number of middle and low income groups in the former public housing areas. The monetized rehousing based on the housing

privatization and marketization does not alleviate but rather exacerbates the urban housing problem. Although the social dimension of the renewal projects for the former public housing areas was reemphasized, it met unprecedented difficulty in rehousing.

The range of rehousing problems for locals is not limited to housing issues, but increasingly refers to the challenge to resettle local enterprises. In comparison with the housing removal or rehousing of local residents, the resettlement of local enterprises is rarely emphasized in the existing legislation and policy on urban renewal. As usual, resettlement of government agencies and publicly-owned institutions or enterprises (which are often related to the original danwei) in the former public housing areas is not very challengeable. But the increasing emergence of small, private, or individual businesses is becoming a new challenge for rehousing in wholesale reconstruction. Actors in the resettlement of small businesses, including the self-managed owners, the landlords and the tenant businesses, are also complicated. Protest or resistance to urban renewal from the small businesses has appeared with regard to unsatisfactory compensation. On the other hand, those small businesses not only condition the vitality of local economy, but also provide convenient community services and many job opportunities. The maintenance of the vibrant local economy is also closely related to the social sustainability of urban renewal areas. Without different and effective strategy, the resettlement of local small businesses is increasingly problematic.

Therefore, the existing difficulties in rehousing mainly concentrate on three levels of conflicts: the confrontation between the profit-orient investments and the private interests of residents (including the small enterprises), the conflicts between differentiated private interests among the residents, and the contradiction between the economic benefits and the social objective to solve housing problems, which are a public interest of urban renewal. The current difficulties in rehousing manifest in the rising complexity of interest conflicts in urban renewal. Before the housing reform the decision making usually depended upon agreements (including the deals on rehousing) between a few collective actors (urban renewal agencies, danwei and municipal/district governments). In contrast, today, the actors who may be involved in urban renewal of former public housing areas are much more individualized and complex. Though they are conventionally categorized as governments, developers (as the urban renewal agencies) and residents, in reality their identity and interests became more complex (figure 8-19). As with residents, the composition of local governments and developers complicated. For instance, the sub-district offices in many cases are landlords or stakeholders of some local enterprises. The statuses of

some actors, such as the danwei or shequ committees, are also ambiguous<sup>19</sup>. Their interests often overlap or are paradoxical. The increasing complexity of actors and the confrontations between their interests will bring about more challenges for rehousing.



 The actors before the housing reform

Figure 8.18  
*Actors/stakeholders in the urban renewal of Beijing's former public housing areas before the housing reform*

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In some cases, the danwei played the role of urban renewal agencies; but in other cases, they might represent the local communities. Similarly, the shequ committee is legally left to the self-governance of residents, but under the strict supervision of local governments.

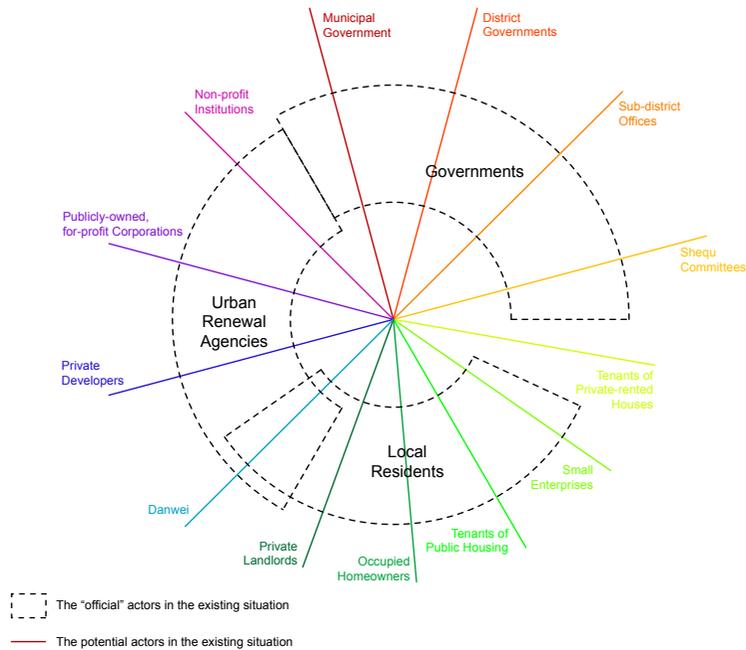


Figure 8.19  
Actors/stakeholders in the urban renewal of Beijing's former public housing areas after the housing reform

### *Economic balance and funding problem*

The market-oriented financing strategy of combining urban renewal and real estate development used to be thought of as an effective way to solve funding problems for the renewal projects. But in practice it not only causes social conflicts related to housing affordability or population displacement, but also leads to new challenges regarding the economic sustainability of the renewal of former public housing areas. Monetized rehousing, soaring market housing prices and land leases, as well as the ensuing inflation of construction expenditures all contributed to the continuous rising costs of urban renewal. In the profit-driven renewal projects dominated by real estate investment, the increasing costs were normally passed on to the property buyers. That further boosted housing prices and led to the circulation of "higher housing prices, higher renewal costs". But the social-oriented renewal of the former public housing areas faced more serious financing problems. While social-oriented projects usually receive exemptions for land leases and relevant taxes and permission to partially develop commercial buildings, the economic investment is still difficult to balance with speculative housing stock. Social-oriented renewal thus becomes less attractive to private investors. Many renewal projects operated by the original danwei or non-profit-making institutions/corporations thereby had to be ceased. In later attempts, the financing of social-oriented renewal projects started to largely depend on public funding. However, the sustainability of large-scale governmental investment was also

a problem. In fact, funding shortages have emerged in some of those projects. On the other hand, the present unitary and monetized rehousing hardly distinguishes between the occupied and non-occupied housing demands, resulting in substantial injustices in the distribution of public funding. For example, speculators are benefitting heavily from public subsidies, which are sometimes insufficient for low-income residents. Therefore, the renewal of former public housing areas still hasn't solved the dilemma of financing, which has resulted in the imbalance of housing affordability and economic feasibility, making the confrontation between social and economic benefits the most critical challenge to overcome.

*Displacement of local community and the threat of spatial segregation*

Another "traditional" criticism of urban renewal is population displacement. In the market-oriented renewal projects, many original residents, especially those in lower income households, have had to relocate for economic reasons. Newly-built housing is usually only available after reconstruction to higher income or "privileged" groups, such as civil servants. The former public housing areas are usually identified as having strong local communities (particularly the danwei communities). But population displacement naturally leads to the destruction of original social networks and daily rounds, which is of particular importance to the widespread elderly residents in the old neighborhoods. The Wholesale reconstruction also demolished once lively communal spaces and local businesses. During this process, the diversified and integrated communities of the former public housing areas are displaced. In Beijing, where most of the urban public facilities and job opportunities are concentrated in the city center, relocation to the newly-developed peripheral area means the removed residents experience less convenient service infrastructures and more expenditure for daily commutes. Relocated residents stand to lose familiar living environments, community lives, and even job opportunities. The displacement of local communities caused by urban renewal thus encounters increasing opposition from the public.

Accompanied with the economic marketization and subsequent social differentiation, the new threat raised by population displacement is social polarization in the spatial dimension; meaning socio-spatial segregation. In contrast to the "downgrading" social filtering induced by the deterioration of old housing areas, market-oriented wholesale reconstruction usually results in the upgraded process of social filtering not only in but also after the renewal. Although lower income original residents are displaced, many higher income residents involved in the renewal projects of former public housing areas, especially non-occupied homeowners, intend on selling or renting out their situ resettlement housings after reconstruction. The housing prices or rents in those reconstructed housing areas, as neighborhoods in good urban locations, is quite high. With the reconstruction, old buildings and affordable service facilities are demolished and new high-rise housings are erected, for which the residents have to pay comparatively high property management fees. For security reasons, the originally open neighborhoods were also replaced by gated communities (figure 8-20). Those

renewed areas, of course, will not provide cheap accommodations for low-income households, but will increasingly become concentrations of higher income groups. In fact, the market-oriented renewal of former public housing areas often engenders gentrification and social exclusion in some neighborhoods. In the mean time, there is a constant inflow of mid-low and low income groups from urban renewal areas from the central area of the city to centrally developed relocated housing areas or affordable housing areas on the urban periphery. Therefore, the implementation of the present renewal strategies for former public housing areas actually results in residential differentiation: the gentrification of some neighborhoods in good spatial locations of the city, the continuous decline of former public housing areas that are economically unfeasible for reconstruction, and the concentration of lower income groups in the less attractive city areas. Market-oriented urban renewal cannot restrict, but rather, will aggravate the realistic threat of socio-spatial segregation in Beijing. Criticism of the social exclusion and spatial segregation caused by urban renewal has, in recent years, risen in public debates.



Figure 8.20

*A walled and gated neighborhood resulting from the reconstruction of a former public housing areas*

#### *Question on historical conservation*

High-speed modernization and socio-economic transition do not simply carry the eagerness and anticipation of new cities and new architectures. The uncertainty of fast social transformation also brought increasing attention to historical conservation – the maintenance of collective memory. In fact, the concept of historical conservation is a byproduct of the (Western) modernity. In contrast with the pre-modern Western community, the modern *hybrid ethos* tries to find its own unity and eternity in history. In the former community, something else (e.g. religion) could ethically unify a society. Meanwhile, for the latter, the ideas of history (while always with the contemporary reinterpretation), historical identity and historic monuments play the similar role. But in the Chinese tradition, the historical city or historical architecture was never as valuable as the written history. For instance, the Confucian writings that

summarize the experiences and lessons of governing a state has enjoyed a respectable position,. On the contrary, it was a Chinese tradition that the building (or even city) was often regarded as temporary and its demolition and new construction conveyed its destiny of renovation. Rebuilding was much easier then, due to the fact that most structures were made out of wood. Therefore, the modern Chinese version of wholesale reconstruction did not just stem from the ambition to pursuit a modernist style, but it was rooted in the pragmatic tradition of *Chineseness*. Nonetheless, the conservation of historical buildings and urban texture, as a way to give “new” identities to both individual and community, should be reevaluated and thus becomes one of the most critical questions in urban renewal in a transitional society of *the hybridity of ethos*.

The historical value doubtlessly means anything valuable in the past. Besides the traditional Chinese architectural monuments and hutong areas, historical conservation of valuable modern architecture has been emphasized recently in Beijing. The urban master plan of 2004 explicitly proposed “to strengthen the identification, protection and reuse of good modern architecture”. As was analyzed in Part II, the planning and design of former public housing areas displayed the ethos of the time during which they were developed. For many people, those old housing areas are “red” memories of a certain historical period and identify urban development areas of the socialistic industrialization. Particularly in those originally well-design former public housing areas, the residents are still satisfied with and proud of their neighborhoods. At least the well-designed and representative former public housing areas increasingly drew attention in terms of their historical and cultural value.

However, just like the traditional reconstructive strategy for the hutong areas, wholesale demolition and new construction of former public housing areas rarely respects the historical urban context. In order to enhance housing density, many garden-style housing areas are simply replaced by high-rise buildings. The original urban fabrics are also demolished. In early-developed urban expansion areas in particular, where the urban design was emphasized, well-planned physical urban morphology is increasingly destroyed by the patchwork of high-rises. For local residents, especially the elderly, the demolition means the destruction of their original communities and collective identities. Hence, there is the rising voice of protest to the reconstruction of the former public housing areas with historical value.

Despite the call to preserve historical community areas, the conservation effort is often confronted with arguments to improve the living conditions in the renewal of former public housing areas. If you do not consider profit-driven motivation, the deteriorating housing conditions and living environments in many old neighborhoods must be improved. Due to differentiated social structure and housing conditions in those areas, the conservation of old neighborhoods, which is usually argued for by the elderly and the residents of well-designed apartments, also has to contend with contradictory arguments from two different sides of local residents in support of reconstruction : the

speculative demands from non-occupied homeowners on one side and the appeals to improve housing conditions from the residents of small and poor dwellings (such as tongzidou or other simple housings) on the other. In some cases, there is even equal protest to both the conservation and resistance to renewal. Here we see the conflict between different interests once more. It is the same as in earlier debates over the renewal of hutong areas; meaning the conflict exists between two extreme arguments – overall conservation and wholesale reconstruction, which combine to create another dilemma in the renewal of former public housing areas.

### *Ecological challenge*

A newly-emerging but also permanent challenge facing the renewal of former public housing areas is the ecological or environmental issue. Actually, as early as the 1970s, the issue of energy-saving had been discussed in the urban construction and housing developments in China. But in practice, in order to decrease one-time investments, the concept of energy-saving was never largely implemented until recently. To the contrary, large-scale reconstruction is an energy/resource consumption-based way of urban development. In Beijing and in other Chinese cities, the designed life of residential buildings is at least 50 years. But the legal land lease for residential areas is usually 70 years. That means the housing buildings often left to stand longer than their designed life. In fact, many cases in China, as well as other countries, have proven that the housings can continue to be used for much longer periods of time than originally estimated so long as they are carefully maintained and renovated. However, the tradition of “emphasis of new-construction, neglect of maintenance” typically results in the unsustainable treatment of former public housing areas in Beijing. On the one hand, the lack of maintenance speeds up the deterioration of housing buildings and outdoor environments. On the other hand, according to the prevailing strategy of overall reconstruction, buildings over 50 years-old as well as a lot of housings whose designed lives have not expired are wholesale demolished in the renewal of former public housing areas. Wholesale demolition-reconstruction does not contribute to energy/resource saving but produces a large amount of construction waste. Preceding the increasing social concern for ecological/environmental issues, this unsustainable renewal approach no doubt leads to lots of criticism. The rising argument to change the non-ecological approach of urban renewal even exists in legislations. The *Circular Economy Promotion Law*, enacted in 2008, not only legally emphasizes the environmental dimension in new buildings and urban development but clearly obliges the government and building owners/users to extend the life of old buildings and to avoid the large-scale demolition.

Nevertheless, simply extending the lifespan of old buildings does not mean that an ecological approach to urban renewal has been applied. As a result of the originally lower technical standards, many former public housing areas are actually energy/resource consumptive neighborhoods. Instead of wholesale reconstruction, the new approach of ecological updating has to be explored for both individual buildings and

living environments. At the same time, the misuse and distortion of ecological topics is also a threat. Manipulating of the eco-friendly movement by the capital includes the increasing use of phrases such as the “ecological sustainability”, “energy-saving” or “low carbon-emissions” as slogans for the developments of luxury houses and is simultaneously used as an excuse for profit-oriented reconstructions. The ecological challenge is becoming a new social problem. While high-income groups enjoy the fashionable “low-carbon” emission designs, the low-income earners have to spend substantially more for their energy-and resource-saving lives. In fact, ecological sustainability should not be regarded as an independent dimension, but as a technical issue related to socio-economic problems. The dilemma caused by the ecological challenge remains an unresolved problem in the urban renewal of former public housing areas.

By analyzing existing difficulties in the renewal of former public housing areas of Beijing, it is easy to recognize that they are often caused by conflicts between different interests in urban renewal. With market-oriented economic reform, China now faces dramatic social transition. The traditionally centralized Chinese society, which has its roots in Confucian culture, was later reinforced by planned socialism, and is gradually becoming decentralized, diversified and differentiated. Individuality is increasingly respected, while the top-down and hierarchically socio-political structure still functions. This social transition is resulting in rising collisions between different values – the modern and the traditional, the collectivistic and the individualistic, the socialistic and the liberalistic. But, the future of these collisions is still uncertain. In one word, *the hybridity of ethos*es in a transitional society determined the tension between individuality and collectivity. Under these circumstances, the renewal of former public housing areas in Beijing, which refers to the diversified interests of many different groups, is becoming unprecedentedly complicated and conflicted. Accelerated by the housing privatization and marketization, the actors of urban renewal are increasingly individualized and differentiated and their interests are further privatized and capitalized. The conflicts between the growing differentiated private interests make reaching a consensus quite difficult and, as a result, there is a quandary as to how to define public interest in the renewal. In fact, faced with the motives seeking for private interests and backed by market force, including the over-emphasis of GDP growth, for-profit real estate investment and (re)housing speculation, public interests in renewal (e.g. the improvement of urban housing conditions, economic sustainability, the conservation of local identity, the ecological challenge, etc.) were either ignored or distorted. The intended path of renewal has been skewed. The confrontation between the collective and long-term interests, and the privatized and short-term benefits, is a serious new problem. Nevertheless, the presently market-oriented renewal approach, which actually gives priority to economic value rather than social objective, certainly is not able to resolve the problem of confrontation, but rather intensifies the unbalance. When “the sphere of personal autonomy” is continually expanded, the renewal strategies, which rely heavily on the centralized “plan” and top-down administrative

power, are too unitary and powerless to cope with the increasingly differentiated but contradictory conditions. The inadequacy of the demoded approach to a transitional society leads to the dilemma in the renewal of former public housing areas. As a result, the aged and decrepit former public housing areas, where urban renewal is at a standstill, are continually deteriorating, while a few reconstructed neighborhoods have tended to be gentrified.

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### § 8.3 Challenges to Improve the Urban Renewal Approach

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In order to overcome the existing dilemma, the renewal approach of the former public housing areas ought to be “reformed”. The present strategies, regarding housing privatization, market-oriented financing, top-down organization or wholesale demolition-reconstruction, have actually formed a unitary path guided by both market force and administrative power, which is evidently inadequate for an increasingly differentiated urban society in Beijing and has deviated from the originally social objective of renewal. In an over-privatized and capitalized urban housing stock, the market-oriented reconstruction does not solve, but exacerbates the housing problems. But it is only because of the currently differentiated, conflicting and still transitional conditions, particularly in former public housing areas, that the existing difficulties for the renewal are not able to ascribe to any simplified reasons. Those difficulties are interwoven and contradictory and therefore cannot be resolved by unilateral change in any single strategy. For instance, the difficulties in rehousing are indubitably related to the problems of economic balance, community displacement, and historical conservation, but the resolution of those difficulties involve many aspects of the renewal approach, including housing policy, financing strategy, project organization and physical planning/design. Many attempts have proven that the one-sided changes, such as “market-price” rehousing or the refusal of any reconstructions, can only result in new imbalances. On the contrary, the improvement of renewal strategies must be based on a comprehensive framework, which is not only plural or flexible but also contains an integrated solution for the existing dilemma, in an era of the hybridity of ethos.

On the other hand, the renewal of former public housing areas, as mentioned in the preceding chapters, provides a potential solution for the present serious housing problems in Beijing. That means the return of urban renewal to its original objective – to improve people’s housing conditions in quantity and quality, which should be the precondition for any changes of renewal approach. By integrally considering the present renewal strategies and the existing difficulties of urban renewal, the social-oriented but comprehensive innovations to improve the renewal approach must be rethought within

the theoretical framework of spatial phenomenon. This means that the challenges of change should be answered in the socio-economic, community-placial and aesthetic-technical dimensions.

*How to realize housing affordability and economic feasibility in urban renewal?*

In the socio-economic dimension, the major problem leading to the existing dilemma in the renewal of former public housing areas in Beijing is the question of *how to realize housing affordability and economic feasibility*. As a means of solving the housing problem, the original objective of urban renewal determined its social task – the provision of decent, affordable housing for the residents. But the present housing policy that over emphasizes privatization and marketization resulted in the capitalization of not only urban housing stock but also urban renewal. In order to balance the market forces, social-oriented housing interventions have to be reemphasized in the urban renewal of those former public housing areas, in which the ambiguity of housing ownership and management brings about an over-privatized and capitalized housing stock. However, the social objective cannot always be separated from its economic feasibility in a modern, materialized society. The social housing strategies for urban renewal have to be economically feasible, and the socio-economic interventions also must include the maintenance of local small enterprises. The social vitalization highly depends on the sustainability of the local economy in urban renewal areas. Therefore, the question of housing affordability and economic feasibility actually indicates *the balance of social and economic sustainability* of urban renewal, and should hence be concentrated on the following two sub-issues:

- *The combination of social housing strategies with urban renewal* is probably the most fundamental challenge for the existing renewal approach. The present renewal strategy based on housing privatization and marketization in fact aggravates the unbalance of urban housing stock. Like the radical housing reform, the Urban Renewal by Housing Reform is actually a unitary strategy that ignored social differentiation. According to the concept of monetized rehousing, the so-called resettlement housing is ambiguous in its claim of being social or market housing. As a result, urban renewal was soon manipulated by the capital and speculation, which led to injustice towards the poor and accelerated social polarization/exclusion and spatial segregation. That undoubtedly induced the seriously growing social conflicts and the resistance to renewal projects. Meanwhile, in an increasingly unbalanced urban housing stock, the original social objective of urban renewal – to solve the urban housing problems – should be particularly repeated. The re-emphasis of social housing developments by the Chinese government will be an opportunity to combine social housing strategies with the renewal of former public housing areas. That is not only an effective approach to improve living conditions in the old neighborhoods for local residents, but also an efficient way to solve the existing problem of social housing shortage. More important to urban renewal is the reintroduction of social housings to those former public housing areas, which are usually in the good spatial locations of the city. This will contribute much to the

maintenance of the originally mixed social structure and the promotion of social integration. However, the question of how to realize this social-oriented transition of urban renewal in the existing urban housing stock, in which the market force is predominant and the housing right has been alleviated as private property, still remains a question.

- *Economic feasibility and sustainability*, as a long-standing but critical challenge for urban renewal in the economic dimension, implies two meanings – the economic feasibility of social housing interventions in urban renewal projects and the economic sustainability of the urban renewal areas. The economic feasibility in urban renewal, which is symbiotic with and, in many cases, seemingly contradictory to housing affordability, is a “traditional” challenge in particular for the combination of social housing strategies with urban renewal. Both the complete public financing and the market-oriented funding strategies have been proven unsustainable. While the PPP mode seems the only solution, it is still questionable to avoid the manipulation of capital. At any rate, the applicable housing strategies should be not only socially but economically sustainable. On the other hand, the maintenance of economic sustainability of urban renewal areas is becoming a new challenge. For those former public housing areas in particular, which are identified by their mixed programs and vigorous local businesses or small enterprises, the vitality of local economies will maintain the convenience of local life and create more job opportunities. The improvement of the economic capacities of local residents will effectively contribute to social revitalization and avoid the re-decline of those areas. Nevertheless, the issues on local businesses have long been neglected in the renewal strategies. The challenges in the economic dimension have a growing focus on sustainability not only in but also after the renewal.

#### *How to stabilize and strengthen mixed communities?*

The challenges for the present renewal strategies in the community-placial dimension mainly focus on the issue on *how to stabilize and strengthen the mixed communities*. The retention of existing mixed local communities in the former public housing areas will not only keep the sense of community for residents, but also contribute to the strengthening of the differentiated but integrated social structure in those old neighborhoods. In addition to the top-down interventions to maintain the existing communities, the bottom-up strategies to encourage the participation of local communities in urban renewal are also indispensable. Community participation is both an efficient way to present the collective voice of local residents, which will contribute to the retention of preexisting local communities, and an effective strategy to balance the differentiated interests. The challenge of changing the renewal approach in the community-placial dimension, which means the stabilizing and strengthening of mixed local community, thus also refers to two critical sub-issues:

- *The top-down intervention to stabilize the mixed community*, under the background of social differentiation and polarization, is increasingly critical to the renewal of former public housing areas. Traditionally, the former public housing areas are

identified by their mixture of programs, housing typologies and socio-demographic structure, which means that there are existing mixed but integrated local communities in those areas. According to the statistical data, the mixed community is not only an abstract concept but also, in the sense of residents' daily rounds, has a sense of everyday belongingness that derives from the danwei community. But in a marketized urban housing stock, many old former public housing areas in Beijing are facing the problem of neighborhood decline and "downgraded" social filtering, which will inevitably lead to the destruction of mixed communities as well as spatial segregation. The effective top-down public intervention to maintain those mixed communities is therefore necessary. However, the current renewal approach based on market-oriented reconstruction usually leads to population displacement and the destruction of mixed communities. It no doubt accelerates residential differentiation, social exclusion and the threat of spatial segregation and, on a local scale, directly results in the destruction of local identities and the mental "homelessness" of vulnerable groups – especially the elderly and the low-income earners. Hence, the maintenance of mixed communities, which is related to both the conservation of local identity and the improvement of social integration, should be a primary concern for any top-down interventions for the renewal of former public housing areas.

- *Community participation*, which is regarded as a bottom-up strategy, has become a crucial topic of urban renewal in an increasingly differentiated and stratified urban society. In the transition from a traditionally unified and hierarchical to a diverse but uncertain modern society, the hybridity of ethos results in difficulties in the formation of consensus. On the one hand, the centralized mechanism is decreasingly effective for the organization of the renewal of former public housing areas, which are identified by their mixed, but differentiated social structure. While the publicity and transparency of the renewal process has been unprecedentedly emphasized in recent years, the present organizational strategy for urban renewal is still comparatively top-down. According to Sherry Arnstein's eight rungs of a Ladder of Citizen Participation, the existing resident participation in the renewal of former public housing areas in Beijing is between the levels of "Informing" and "Consultation", so that it still belongs to a kind of "tokenism". Without the stronger bottom-up voice of residents, the local community can hardly be maintained. On the other hand, the emerging push to argue for the rights of residents is largely manipulated by individualism or liberalism, so that it often leads to the excessive expansion of private interests. In many cases, the resistance only presents as extremist actions for individual benefits, but the resident organization responsible for arguing for the collective benefits of local community is never seen. Without the effective organization of residents, public interest in the renewal of former public housing is barely formulated. The individualism might also result in the destruction of mixed local communities. Therefore, the critical challenge to improve the existing top-down organization is to introduce the collective bottom-up forces, which means that resident participation should exist in the form of

community participation, not the individual. How to organize and guide community participation will be a question for the future.

*What will be the alternative physical initiative of urban renewal?*

In the aesthetic-technical dimension, the major question for the improvement of the renewal approach presents itself in *what the alternative physical initiative of urban renewal will be*. The present strategy based on wholesale demolition-reconstruction, as a unitary physical solution for urban renewal, has faced unprecedented challenges in an increasingly diversified and differentiated urban society. But in most cases, physical interventions are still indispensable in order to avoid the further decline of former public housing areas. Alternative initiatives have to avoid unitary, wholesale reconstruction on the one hand and contribute to the improvement of not only housing conditions but also overall living environments of old neighborhoods on the other. Therefore, this aesthetic-technical question also comprises two aspects:

- *Alternative physical strategies for the site reconstruction* may contribute to meeting different housing demands. While the wholesale reconstruction of neighborhoods by increasing housing density is thought of as an effective strategy of improving housing conditions and balancing the investment, in practice it was often manipulated by the capital. The combination of site reconstruction and profit-driven forces actually resulted in a unitary and market-oriented solution for urban renewal. This unitary physical strategy of wholesale demolition-reconstruction thus does not only ignore the differentiated demands for private interests but, driven by the market forces, conditions population displacement, the destruction of local identity, environmental damage, and other problems to long-term public interests. The protest against urban renewal increasingly focuses on the argument to change the strategy of reconstruction. As a way of dealing with increasingly different demands in the renewal of former public housing areas, alternative design interventions will inevitably be developed, such as housing renovation or rehabilitation, to improve the housing conditions.
- *The overall improvement of living environments*, in addition to the physical interventions to improve the housing conditions, is also a critical challenge. The quality of living in old neighborhoods is determined not only by the housing conditions of residential buildings but by the overall living environments of the areas, which also includes outdoor environments, local facilities/infrastructure and the cityscape. Embarrassed by the unplanned constructions or privatization of public space, the living environments of many existing former public housing areas are awaiting the improvements. On the other hand, the housing renovation or reconstruction without integral planning will result in patchworks of former public housing areas. This will inevitably impact the quality of overall living environments. The alternative physical initiatives thus have to refer not just to architectural design and technologies, but to urban design, landscape architecture, and physical planning as well, all of which will support the overall improvement of the living environments of old neighborhoods.

In general, the challenges in the socio-economic, community-placial, and aesthetic-technical dimensions are interwoven into a question as to how to reform the renewal approach of former public housing areas. In a differentiated urban society with the hybridity of ethos, in which the private interests in urban renewal are increasingly booming but contradictory and the public interest of renewal is overlooked, the adaptable renewal approach has to be differentiated but integrated. This means that the alternative renewal strategies should not just be able to correspond to the increasingly differentiated reflections, but should also contribute to the improvement of public interests regarding urban renewal, especially on the subject of people's housing rights and social integration.

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## § 8.4 Conclusions

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In this chapter, we focused on the discussion on the experiences and existing dilemma of the renewal of former public housing areas in Beijing. According to the review of the transformation of the renewal of old housing areas in Beijing, it is evident that the strategies and problems of renewal are closely related to the changes of urban housing policy. Under the socialistic public housing system, the renewal of old housing areas was proposed as an approach to solve housing problem, but was hampered by a lack of funds. In the transition from the planned economy to the market economy, the combination of urban renewal and real estate development was regarded as a solution to funding problems and thus impelled the large-scale reconstruction of old housing areas. The radical housing reform of 1998 and the implementation of Urban Renewal by Housing Reform further boosted the upsurge of urban renewal. However, the large-scale demolition-reconstruction driven by the market force not only destroyed historical neighborhoods but, more importantly, undermined the housing rights of lower-income residents. Urban renewal thus met increasing resistance in Beijing. After 2004, the constitutional amendment and the promulgation of Property Law encouraged the over-privatization and capitalization of urban housing stock. The deeply intertwined relationship of urban renewal with housing privatization and real estate investment led to growing housing speculation, which indubitably caused new financing problem for urban renewal. Along with the economic marketization and social differentiation, the conflicts between different private interests in urban renewal were intensified by the capitalization of housing stock, in which public interest was overlooked or distorted. Most urban reconstruction projects for the old housing areas have thus been at a standstill since 2004. Afterwards, although there were some new attempts to explore alternative strategies, none of them were able to completely overcome the existing dilemma.

As an integral part of large-scale urban renewal of old housing areas in Beijing, the renewal projects of former public housing areas are not excluded from the existing dilemma. The present renewal strategies, including housing privatization, market-oriented financing, top-down organization, and wholesale demolition-reconstruction, have resulted in a unitary, top-down, but market-oriented approach. This unitary approach evidently becomes inadaptable in a diversified and stratified urban society. Represented by the difficulties on rehousing, economic balance, community stabilization, historical conservation and reduction of environmental impact, the existing dilemma in the urban renewal of former public housing areas has its roots in the conflicts between the unitary renewal approach and increasingly individualized and differentiated interests. Along with housing privatization and marketization, the private interests in urban renewal are capitalized and exaggerated, in the form of profit-hungry real estate investment or housing speculation. Preceding the serious conflicts between the capitalized, private interests, the public interests of urban renewal, such as economic sustainability, historical conservation, environmental benefits, and, most importantly, people's housing rights and integration, are ironically marginalized. Considering that a series of urban problems was induced by the unbalanced housing stock and the threat of neighborhood decline in the former public housing areas, the social objectives of urban renewal, which were to solve the housing problem in quantity and quality and to improve the integrated and sustainable urban development, should be reemphasized as public interests. In general, the dilemma of urban renewal, from my theoretical point of view, is precisely the very presence of *the hybridity of ethos*es in the existing transitional Chinese society. It is deeply related to the social, economic and ethical transformations, in which there is the increasing tension between collectivity and individuality. Therefore, to summarize the current challenges, urban renewal of Beijing's former public housing areas, theoretically and practically, ties up with the following concrete *issues* and *sub-issues*:

- *Intensified conflicts between public interests and private interests (e.g. a generally capitalized and speculative urban housing stock and the misleading ideas of urban renewal);*
- *Increasing conflicts between different private interests (of different actors or groups);*
- *The standstill of urban renewal (as a result of the confrontation between unitary urban renewal approach and plural/diversified urban society), which related to the sub-issues of*
  - *Rehousing;*
  - *Economic balance;*
  - *Community displacement and social segregation;*
  - *Historical conservation;*
  - *Ecological impact.*

Therefore, in order to overcome the existing dilemma in the renewal of former public housing areas, the current urban renewal approach has to be fundamentally and

comprehensively improved. Through the analysis of the socio-economic, community-placial and aesthetic-technical dimension under the theoretical framework of spatial phenomenon, the challenges to change renewal strategies should focus on the following questions:

- *How to realize housing affordability and economic feasibility in urban renewal?*
- *How to stabilize and strengthen mixed communities?*
- *What will be the alternative physical initiatives of urban renewal?*

Faced with the severe structural problem of housing stock and the realistic threat of the decline of former public housing areas, the change of existing renewal approach to the former public housing areas in Beijing is becoming rather critical. However, many of those challenges to change renewal strategies were also “new” to the transitional urban society regarding the hybridity of ethos. The case study for successful experiences in the socio-economic, community-placial and aesthetic-technical dimensions thereby should be helpful. In Part IV, the research is concentrated on those references as the possible answers to similar challenges in urban renewal.

## PART 4 **References**



## 9 Social and Economic Sustainability of Urban Renewal

As we discussed in Part III, in order to overcome the present dilemma in the urban renewal of former public housing areas in Beijing, the challenges to change the existing renewal approach, which means the market-oriented reconstruction, focus on three questions: *how to realize the housing affordability and economic feasibility* in the socio-economic dimension; *how to stabilize and strengthen mixed community* in the community-placial dimension; and *what the alternative physical initiatives of urban renewal will be* in the aesthetic-technical dimension. For the purpose of answering those questions, successful experiences in comparable cases are considered. Part IV therefore will concentrate on several case studies of some representative urban renewal projects for the old housing areas, particularly in those cities famous for public intervention in their housing stock, which include Berlin, Amsterdam, Rotterdam, Vienna and Hong Kong. This section of the study comprises three chapters that follow the three dimensions present in the research questions. The investigation of different social-oriented but economically sustainable strategies to promote urban renewal will be presented in Chapter 9; Chapter 10 will focus on the representative cases on the retention or strengthening of mixed community; and, finally, chapter 11 will deal with the innovatively physical initiatives in urban renewal. As a result, the possible strategies in these three dimensions will be concluded as references for further research on an alternative urban renewal approach for the former public housing areas in Beijing.

In an over-privatized and capitalized housing stock, the market-oriented renewal approach obviously cannot solve but intensify the housing problem, in particular, for the low-income residents and other vulnerable groups. Thus, such approach will induce a series of socio-economic urban problems, such as housing speculation, displacement of local population/enterprises and spatial segregation. In order to retrieve the original social objective of urban renewal of former public housing areas in Beijing, the possibility to reintroduce the social-oriented housing interventions in urban renewal has to be explored. However, the social-oriented urban renewal in a modern, "marketized" urban society is impossible without economic feasibility and sustainability. Thereby, the case studies in Chapter 9 will focus on the social and economic sustainability of urban renewal, which means, referring to the research question in the socio-economic dimension, to realize the housing affordability and economic feasibility, under a comparable socio-economic background. As we proposed

in the previous chapter, this research question is related to two sub-topics: the social housing strategy for urban renewal and the economic feasibility and sustainability of urban renewal. The case studies also will cover from the most “socialized” – land communalization and housing socialization (Charlottenburg Block 118 in Berlin and Oude Western in Rotterdam), to the most “marketized” – public subsidy or loan for stimulating the housing renewal by private owners (Hong Kong), and some representative projects in between (Vienna and Bijlmermeer in Amsterdam). Referable urban renewal strategies about social and economic sustainability will be reported based on the analysis of the relevant case studies.

In this regard, the review of these studies will start with a successful pilot project in Berlin, which is not only a winner of the golden prize of European Year of Monument Protection, but also a milestone of the feasibility of a socialized housing renovation project in Europe for the first time.

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## § 9.1 Economic Feasibility for Socialized Housing Renovation – The Charlottenburg Block 118 in Berlin

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The public intervention in the housing stock, including social housing and urban renewal, is traditionally emphasized in Germany, a country famous for its “social market” and “welfare state” model. However, how to define social housing in a German context is the question. In this Federal Republic, the social housing policy is rather *decentralized*: different Federal States can make their own housing policies. But there are still some common characteristics that can provide an overall picture. In Germany, the definition of social housing, in general, depends on three criteria: target group, subsidy and rent. The target group is defined by income: only those whose incomes are lower than a certain standard can be tenants of social housing. Social housing is subsidized by the government and rents are controlled according to the agreement between the owners and the government<sup>1</sup>. A term of agreement is usually 15 years (which can be extended for the next 15-year term) and, during the term of agreement, the allocation of social housing is responsibility of the government. That kind of housing provision follows a concession model, in which the public

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1 In Germany, the rents of market-rented housing are also regulated by the government. But since the social-rented houses are publicly subsidized, their rents are often lower than the market rents.

subsidies are exchanged by the promise to allocate those rental dwellings to the target group of social housing. As a result, the German social housing has two important characteristics. First, social housing is actually independent from ownership. Public subsidies for rental housing are open to everyone, including public as well as private landlords, but those subsidized dwellings are confined to regulations on occupancy, rent control and target group for a certain period. Second, social housing is “temporal”. Rental dwellings, though, could be profitable when the terms of subsidy expire. This policy indeed stimulated social-oriented housing investments.

In Germany, therefore, although officially the social-rented dwellings provided by publicly-owned landlords (such as municipal housing companies or housing associations/cooperatives) only accounts for 6% of the total housing stock, this country has the biggest privately rented housing market in Europe (51% of the total housing stock). In comparison with other Western European countries, its private-rented sector is strongly intervened by the government for social purposes. Social housing includes those subsidized rental dwellings provided by private landlords. The social housing provision can widely cover different strata, and Germany thus, among all countries in the European Union, has the lowest share of owner-occupied sector in the housing stock (only 43%). Berlin, a city traditionally known for its working class population, the share of social housing is evidently higher than the overall national level. In the 1970s, the social housing owned by public landlords used to reach more than 20% in Berlin’s housing stock. Until 2004, the proportions of public and private rented sectors were 12.3% and 66.96%, respectively.

On the other hand, in order to improve the living conditions of deteriorated housing areas, urban renewal is also considered as an important public intervention to the housing stock in Germany. Federal Republic’s Urban Renewal Act (*Städtebauförderungsgesetz*, abbreviated *StBausFG*) enacted in 1971 has a strong social democratic color and aims to restrain speculation. The Urban Renewal Act empowers the government to preempt and expropriate the land and decrepit houses from private owners in the listed urban renewal areas, in which the housing stock is mainly composed of private-rented dwellings that were built for the purpose of speculation. The asking prices to purchase those private-rented dwellings are based on their rental incomes. The renewal of those old housing areas is commissioned to urban renewal agencies, which can be both not-for-profit housing associations and private investors. After the urban renewal, the housing stock in many cases is re-privatized, similar to the existing financing strategy in Beijing, in order to balance investments. In the cases commissioned to non-profit housing associations, the housing stock usually remains in the public-rented sector after the renewal.

For a long time, urban renewal in Germany meant wholesale demolition and new construction, in terms of the dream of modernists to build ideal cities. As early as the 1920s, architect Ludwig Hilberseimer, for instance, had proposed a scheme

to reconstruct the Friedrichstadt district in the center of Berlin by demolishing the historical neighborhoods and introducing a modern plan. However, unlike the United States and Britain, those reconstruction plans were rarely realized in Germany, either before or after the WWII. The only exception was a reconstruction project that was implemented in 1963 in Berlin, which was the first realized reconstruction plan in Continental Europe. The wholesale reconstruction normally resulted in the sharp increase of housing prices or rent after the urban renewal, and thus caused the displacement of the original residents which was mainly composed of the low-income tenants and other vulnerable groups. In the 1960s, the protest to urban renewal emerged and soon prevailed in many West German cities. Similar to the present dilemma in Beijing, an alternative renewal approach had to be explored. Under this background, the pilot project Charlottenburg Block 118 in Berlin was planned in 1973 and successfully implemented in 1975. It, then, became a learning experience not only in Germany but also among European countries.

### § 9.1.1 Background

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As part of the urban renewal area Charlottenburg – Klausener Platz, which was the contribution of West Berlin to the European Year of Monument Preservation, Block 118 is a typical courtyard house block developed at the end of 19th century in Berlin. The courtyard house blocks in Berlin, which were the result of speculative housing construction during a period of fast industrialization and urbanization, are composed of buildings with many inner courts. Those blocks were often occupied by residents from different social strata: the big dwellings of middle class families (usually the former owners) on front side towards the street with sophisticated stucco façades coexisting with small and simple rented apartments for the working class on the back sides.

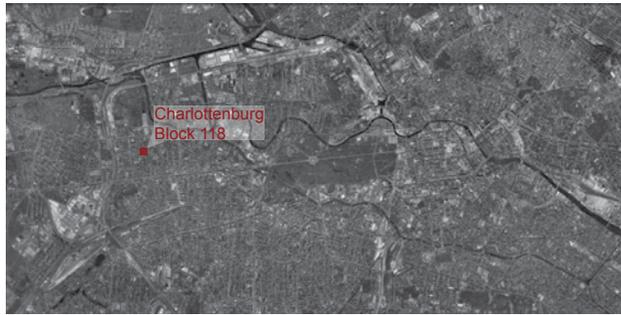


Figure 9.1  
*Charlottenburg Block 118 in Berlin*

Most of those 5-storey courtyard houses in Block 118 were built from 1886 to 1909. But part of the inner block buildings was destroyed during the war. Before the urban renewal, the total floor area of block 118 was 25,000 m<sup>2</sup> with 415 dwellings, and the Floor Area Ratio was 2.4. But about 30% of the apartments were vacant. On the ground floor of some buildings, there were local shops and other businesses (Hämer and Rosemann, 1976, p.2).

Until the 1960s, this block, same as many other 19th century tenement blocks in Berlin, had obviously deteriorated (figure 9-2). While the dwellings in the front side were usually equipped with their own toilets and bathrooms, the small apartments (1-2 rooms with a kitchen) on the back sides had to share toilets in terms of the original speculative design. Due to the lack of necessary maintenance, the old buildings faced not just serious problems with pipelines, installations, amenities and those non-bearing structures or building elements but with the hidden damage of the bearing structure (in particular, the wood beams). In addition, the outdoor environment was hardly maintained. Albeit Block 118 had comparatively large inner open spaces (because of the empty spaces left by buildings partly destroyed during the war), they were rarely accessible for the residents. Both playgrounds and parking lots were also missing.



Figure 9.2  
 Charlottenburg Block 118 before the renewal  
 (Source: Rosemann, 2005)

Same as in other urban renewal areas, the local residents were mostly low-income tenants, out of which a significant proportion (about 30%) was pensioners. A certain number of residents were immigrant workers, though the proportion was lower than other urban renewal areas in Berlin. Accordingly, the rent level of those old dwellings was rather low. In 1975, the average rent only amounted to 2.10 DM/m<sup>2</sup>, which was equivalent to less than a half of social housing rent in Berlin at the same time (4.50 DM/m<sup>2</sup>). The rents of those small backyard dwellings were even lower (Hämer and Rosemann, 1976, p.3).

However, Block 118 as well as the entire urban renewal area Charlottenburg – Klausener Platz also had its advantages. In comparison with other traditional working-class neighborhoods in Berlin, both social structure and built-up environment of this area were more “admired”. This district had been listed as a historical preservation area because of its good spatial location. It is near the Charlottenburg Palace, one of the most important monuments in Berlin.. Moreover, there was no restructuring plan to change the urban functions for this area. According to those conditions (which are comparable to a certain extent with many former public housing areas in Beijing), this area was resolved to be “revitalized” without wholesale demolition (at least for those front buildings), while it had been designated as an urban renewal area in 1963. More importantly, whereas there were lots of problems in this area, most local residents were willing to stay. A survey showed that 84% of tenants in the area of Charlottenburg – Klausener Platz preferred not to move out on account of cheap dwellings (ibid., 1976, pp.3-4). Besides that, a “tenant movement” to protest against urban renewal by demolition-reconstruction surged up. Yet on the other hand, the housing conditions in this old neighborhood no doubt had to be improved for the residents and had to avoid the further decline by “downgrading” social filtering. With this background, the urban renewal project of Charlottenburg – Klausener Platz, for which the primary concern was the conservation of the historical cityscape while improving the living conditions, was initiated by the government (figure 9-3). As a pilot project, Block 118 was chosen to test the alternative renewal strategy in order to preserve the old buildings on the one

hand and to avoid the displacement of original residents, which meant that housing should subsequently be affordable, on the other.



Figure 9.3  
*Block 118 in the urban renewal area of Charlottenburg – Klausener Platz*  
(Source: Rosemann, 2005)

In terms of this social-oriented objective, housing socialization ought to be an inevitable prerequisite. The renewal project of Block 118 was commissioned to a housing association owned by the trade union. Instead of re-privatization, the previously private-rented dwellings would be purchased or expropriated and transformed into social housing (while a few buildings remained in the possession of previous private owners, they had to subject to the long-term agreement as social housing in terms of public subsidies). Many public subsidies were available for this socialized urban renewal.

Nonetheless, only the housing socialization could not make sure of improving the housing conditions for the original tenants. As aforementioned, the prevailing renewal approach at that moment in Berlin was reconstruction, for which the cost was inevitably high. Even in the historical conservation areas, as the original planning for the blocks in Charlottenburg – Klausener Platz, it was usually that only the façade but not the houses behind were retained. According to the unadapted design and technical solutions that were usually applied for the new building, the costs of a few renovation cases in Berlin were equal to or even higher than the reconstruction, so that the housing renovation was thought “unreasonable” by the urban renewal agency and government. In general, the high cost of either reconstruction or renovation resulted in the significant rent increase, which actually evicted the low-income tenants from those “upgraded” neighborhoods.

But this conclusion on housing renovation was obviously questionable based on the research of the planning team for Block 118. The previous strategy of old housing renovation was misled by the concept for new building construction. This meant not only the repair or replacement of individual structures, amenities, installations and pipelines but also, the significant change of floor plan and the redrawing of apartments and rooms. Due to the complexity of construction work which is almost same as that of a new building, this kind of "large-scale" renovation had to be preconditioned by the "clean-up" program to the original residents. The retention of residents during the construction process of renovation was thus impossible.

Furthermore, the unadapted renovation strategy inevitably conducted to unnecessary high costs. The substantial modification of floor plan of old housings by applying the standards and technologies for new building construction certainly increased the cost of renovation to a large extent. The resident eviction also caused an additional expenditure (10-12% of total cost according to the investigation) for building repair, since more structural damages or destructions to old buildings were induced by the vacancy before the construction work started. The "large-scale" renovation also produced unnecessary organization costs: there were not only higher costs on project management but also the "unprofitable" expenditures for cleaning-up residents, such as compensation for rehousing or moving. It was also because of the resident eviction that the rental income during the construction period was lost.

Moreover, apart from those "technical" problems, the critical challenge for socialized housing renovation was from the capital exploitation. Even the non-profit housing association, whose task should be providing affordable dwellings for the vulnerable groups, was eager for excess profit by the massive rent increment after the urban renewal. In fact, the cost of urban renewal by housing socialization was largely covered by the public subsidies (including the subsidies for both urban renewal and social housing development) at that time in Berlin. But the rent in many cases was counted according to the "high cost" and thus almost raised onto the same level as the newly-built social housing, which evidently provided considerable profit margin for the housing association. Although the adapted renovation would largely save the public funding, it was unattractive for the housing association because of the loss of the excuse to increase rent level. As with a private developer, the housing association would also like to see the "upgrade" of social structure in those old neighborhoods via urban renewal, in which the original low-income tenants who could not afford the rent increase had to be displaced. Hence, the problem of rent increase rather derived from the decision-making and political debate than from the cost and financing (Hämer and Rosemann, 1976).

Therefore, it was challengeable for the pilot project Block 118 to explore an alternative approach to socialized housing renovation, for which the living conditions of the originally low-income tenants could be really improved.

## § 9.1.2 Strategies

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Fortunately, the growing criticisms to previous renewal approaches finally influenced the political decision-making. Firstly, the voice on the conservation of historical cityscape and urban identity had been increasingly raised in the professional debate and drawn the public attention. Secondly, within the resistance of resident action groups to profit-driven urban renewal, there was the upsurge of appeal to oppose the raise of rent and to protect the housing right of the low-income earners in the urban renewal areas. Thirdly, from the economic point of view, reducing the cost of socialized urban renewal, which largely relied on public funding, meant the alleviation of the government subsidy burden. At the same time, housing renovation, as a labor-intensive construction industry, also ensured more job opportunities. These three factors – the historical conservation, the socio-political impact of previous urban renewal and the economic benefits of renovation – together conditioned the favorable terms for the pilot project Block 118 as the first attempt of urban renovation (Hämer and Rosemann, 1976).

However, while the difficulty in decision-making had been overcome under the increasing socio-economic and political pressure, the economic, technical or operational possibility to avoid rent increase and tenant eviction was still a question in practice. In the pilot project Block 118, the innovative strategies to balance housing affordability and economic feasibility as well as to retain the residents within the process of housing renovation were introduced.

### *Renovation as a strategy to balance housing affordability and economic feasibility*

In order to avoid the significant rent increase, housing affordability after socialization was primarily considered. According to the consultation of the tenants' opinions, the rent increase was proposed to be controlled in an acceptable range (from 2.10 DM/m<sup>2</sup> to 2.90 DM/m<sup>2</sup>). An alternative renovation strategy thus was developed as an economical solution to provide affordable social housing.

Instead of the previous "large-scale" renovation, adapted design, technologies and operational procedures were employed. The massive change of floor plan was avoided by the more efficient use of the current apartments, including the dwelling exchange between tenants dependent on their actual demands. Only necessary amenities were added and improved (figure 9-4). More importantly, some innovatively technical solutions were developed in order to reduce the cost and to simplify the procedure – for example, a special looking glass derived from the gastroscope was applied to check the hidden bearing structures (wood beams) for shortening the construction period; and the folded fire ladder was designed as fixed structure to evade building demolition for fire engine (figure 9-5). Moreover, since the renovation proceeded without the clean-

up of tenants, the “consequential damages of resident clean-up” was also avoided. Even the assignment to the contractor was changed to be counted by the actual works.

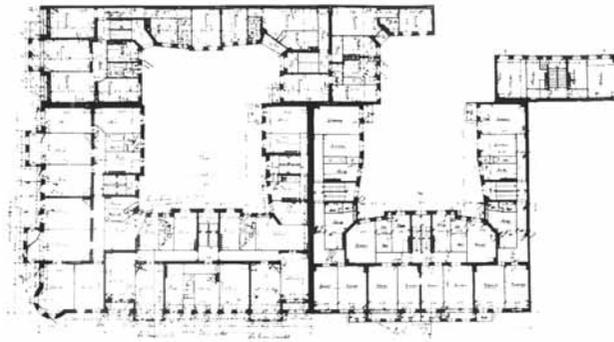


Figure 9.4  
*Housing renovation without massive change: Renovation plan of the first phase of renewing Charlottenburg Block 118*  
(Source: Hämer and Rosemann, 1976, p.10)

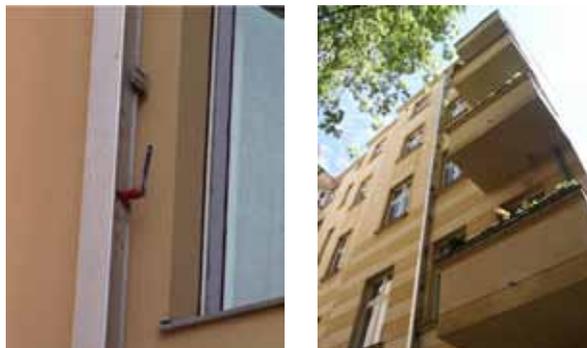


Figure 9.5  
*Newly-added, folded fire ladder on the walls of renewed buildings*

Some “expensive” renovations, nevertheless, were inevitable as social-oriented intervention. It was not only the renovation of old residential buildings but the “urban” renovation, which meant the improvement of overall living environments. Two inner-court buildings (12% of total floor area) had to be demolished due to the serious structural damage by the war. The back side of the block was transformed into the “front side” by enlarging the inner yard. The inner-court façades were restored, and playground, greenery, fountain and urban furniture were introduced in the inner court

to create a public space accessible by the residents (figure 9-6). On the other hand, the costs on implementation or operation, such as the compensation for interim move of tenants and the rent exemption during the construction period, should be included as well. In addition to the operational costs for the residents, there was compensation to the local small businesses for their income loss within the process of renovation in order to keep the vitality of local economy.

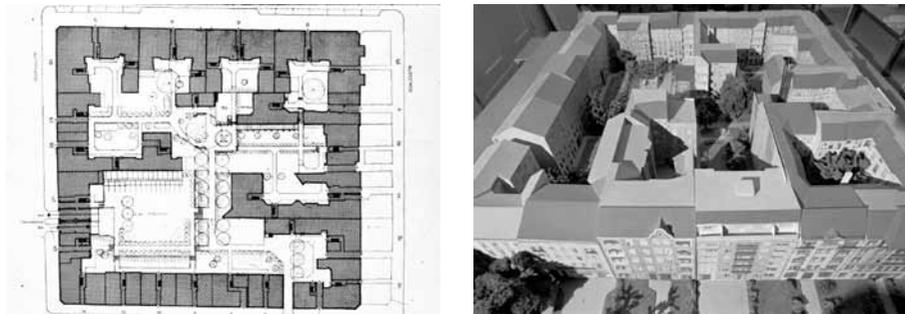


Figure 9.6  
*Master plan and model for the urban renewal of Charlottenburg Block 118*  
(Source: Rosemann, 2005)

In spite of those additional compensations the total cost of adapted renovation was estimated much lower than the demolition-reconstruction. According to the pre-calculation, the construction costs of renovation were equal to 70% of reconstruction on average, while the costs on planning and operation only amounted to 40%. In general, the estimated total cost of the pilot project Block 118 was equivalent to 60% of reconstruction. But counted by the proposed rent level (2.90 DM/m<sup>2</sup>), the object subsidies for social housing summed to 76% of the subsidies to new construction (which was calculated according to the rent level of 4.50 DM/m<sup>2</sup>). Together with other public subsidies for urban renewal, 90% of total cost of urban renovation in Block 118 would be covered by the government funding. Only a few remainders were afforded by the housing association and later allocated to the rent (Hämer and Rosemann, 1976, p.11).

Therefore, while there was not legal restriction on the long-term trend of rent increase (e.g. the income standard of future tenants), the lower rent in the pilot project Block 118 was ensured by the adapted renovation, which significantly reduced the cost of urban renewal. As a strategy to balance housing affordability and economic feasibility, urban renovation provides new possibility for socialized housing intervention in urban renewal.

### *Retention of residents within the process of renovation*

As a pilot project to emphasize conservation and social objectives, the residents should be considered as a departure point for the planning and implementation of the renovation of Block 118. Differentiated with the previous resident "clean-up program", the residents were proposed to stay at home during most of the time of the construction period in order to avoid the displacement of the low-income tenants. Not just adapted technologies had to be explored and applied, but also adapted procedures of planning and implementation thereby had to be well defined.

For lessening the interference to the residents, the renovation was phased building by building (figure 9-7). By the application of adapted technologies, the construction period of interior works, for which the residents had to temporarily leave, was limited to 5-8 weeks. Since about 30% of apartments were vacant at the beginning of the renovation, the housing socialization provided the opportunities for the tenants to move to the dwellings that had been already renovated. That not only resulted in numerous home exchanges of the residents, who did not want to return to their original apartments, according to their preferences on the size and location of their dwellings (e.g. the elderly favored ground floor apartments, while young families with children preferred larger apartments), but also offered temporary homes for the residents willing to return. It was the interim conversion of residents between the not-yet-renovated and the renovated building units within the block. For the residents who could not move to other dwellings in the same block (which usually occurred in the first phase of renovation), they could choose to stay in either a guesthouse paid by the renewal budget or in houses of their relatives or friends with the compensation of 200 DM/dwelling per week during the period of interior construction.

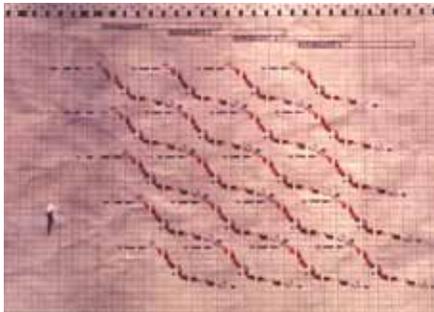


Figure 9.7  
*Phased schedule of housing renovation and its implementation*  
(Source: Rosemann, 2005)

Additionally, the renovation of each apartment highly paid respect to the individual requests of the residents. According to the discussion with the tenants in advance, whether they planned to return to their original homes or to move to new apartments, the problems of each dwelling were settled case by case. Inasmuch as the costs to meet those individual requirements were covered by the budget of renovation, the tenants in principle did not need to pay any extra money for the amenities.

Based on the aforementioned principles, the implementation procedure of construction works in the renovation of each building was divided into three steps in order to minimize the impacts to the residents:

- During the “early action”, which essentially focused on the renovation of the exteriors (walls, roof, etc.) and the preparation of the construction work in the apartments, residents could remain in their homes. The impact to the residential use should be reduced as much as possible. But the tenants need not pay the rent at this stage because of the interference.
- In a period of “core construction”, which meant the interior construction work in the apartments, the residents had to leave their dwellings, so that there was sufficient space for “radical” renovation. In order to minimize the “disturbing” time, the construction procedure at this stage had to be well-planned following a strict time schedule. In principle, this core construction was scheduled to last 4-8 weeks (figure 9-8).
- After the return of residents, the “trailing measures” included those construction works that could be carried out in an inhabited building without disturbing the residential use (e.g. renovation of the staircase, repairs, etc.) (Hämer and Rosemann, 1976, p.10-11).



Figure 9.8  
*Interior construction of housing renovation*  
(Source: Rosemann, 2008)

With those well-planned and adapted procedures, the residents had an opportunity to remain in the block during most of time of the renovation process (figure 9-9). Urban renewal without resident displacement not only after but within the period of implementation was not a dream any more.



Figure 9.9  
*Urban renewal with the residents staying in the block*  
(Source: Rosemann, 2008)

### § 9.1.3 Consequences

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Those innovative strategies of urban renovation were proven successful in practice. As a contribution of West Berlin to the historical conservation, the pilot project Charlottenburg Block 118 eventually received the Gold Medal of European Year of Monument Protection. More importantly, this pilot project on adapted housing renovation, as the first attempt in Europe, successfully fulfilled its socio-economic objective – the improvement of living conditions for the low-income tenants in the old neighborhood while reducing the costs of urban renewal. By applying adapted designs, technologies and procedures, the total cost of the renovation of Block 118 was reduced to 64% of the reconstruction, which is almost the same as the pre-estimation. It provided in total 382 renovated dwellings, which was almost equal to the amount before the renovation (415 dwellings). The rent was maintained at an affordable level after the housing socialization, and about 80% of the original residents remained.



Figure 9.10  
*Charlottenburg Block 118 today*

Although the originally proposed objectives were not fully achieved (for instance, the housing association rarely invests on housing maintenance), the pilot project Charlottenburg Block 118 is acknowledged as a factual milestone to open a new possibility for urban renewal of old housing areas instead of the demolition and reconstruction. As the first realized case of socialized urban renovation, the project Block 118 really became a “pilot” project – which soon became a learning experience for other European cities. In Berlin, the principles of “gentle urban renewal” were adopted by the city council in 1983. The urban renewal experiences of Charlottenburg district were later applied for the urban renewal division of IBA (Altbau-IBA) 1984-1987. And under the supervision of the Senate Hans Stimmann, a new plan for reunified Berlin, which focused on the urban rehabilitation and infrastructure improvement within the 19th-century urban texture, was eventually announced in the 1990s. Meanwhile, the strategies of housing renovation in Charlottenburg Block 118 were followed by many other European cities, and those adapted technologies and procedures are still widely applied in many existing European urban renewal projects. Actually, the pilot project Charlottenburg Block 118 represents a turning point of urban renewal in Europe from the reconstruction driven by the for-profit investment to the socialized renovation or rehabilitation, for which the background was similar to Beijing today. In this trend, another representative case of socialized urban renewal but in a larger scale was the so-called “Bouwen voor de Buurt” in Rotterdam.

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## § 9.2 Urban Renewal by Housing Socialization – The “Bouwen voor de Buurt” in Rotterdam

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As a community settling in the delta region, Dutch people, since the very beginning of their history, have been used to deal with water. It is in the battle against the adverse natural conditions that the collectivity is proved as the only efficient means for human settlement. The Netherlands thereby has a long tradition of public intervention that is assigned a certain supremacy to which private initiatives are largely expected to concede. On the other hand, according to the constant population growth and the limited available land, the Netherlands have become one of the most densely populated countries in the world. Until 2009, the total amount of Dutch population had reached around 16.5 million and the average population density was 484 persons/km<sup>2</sup>. In the most urbanized western part of the country, the population density amounted to over 1,000. Collective activity and public planning thus are not only a tradition but also a practical and realistic approach to efficient land use, housing provision and visionary development. So far 35% of the total housing stock in the Netherlands is social housing – the highest proportion among all European countries, which benefits about 50% of the Dutch population<sup>2</sup>. The social rented sector is still the largest housing stock in big Dutch cities, such as Amsterdam and Rotterdam. Housing socialization also has been well experienced as an effective measure of urban renewal.

Unlike most of other European countries, large amounts of land areas in the Netherlands are owned by the municipal governments. The reclamation of land as a result of a common effort within society has resulted in a special attitude towards the use of land and towards the ownership of land. A leasehold system of public land has been developed in Dutch cities as a reflection of collective will (which is comparable to the situation of Chinese cities). The proportion of public land ownership is thus higher in Dutch cities than in any other city in Western Europe. A trend-setter in this respect is the city of Amsterdam, where approximately 80 per cent of the surface area of the city of Amsterdam is owned by the municipal government. Public land leases are usually for 99 years. The public land for social housing development usually can be subject to concession in public land lease (e.g. discounted land rent and the application

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2 According to the national regulation that was newly enacted in January 2011, the eligible tenants for applying social housing refers to the groups whose annual household incomes are no more than €33,650, which actually comprises about 50% of the Dutch population.

of yearly lease<sup>3</sup>). In other municipalities, the proportion of municipal ownership is smaller, but there, too, the leasehold system is often used as a tool of town planning and development (Rosemann, 2006). The public land leasehold system not only makes sure of the flexibility of land use, the control of land price and the sustained government revenue of Dutch cities, but also, more importantly, conditions the large-scale development of social housing.

The Dutch tradition with respect to the collectivity of society also conduces to the attitude towards the housing stock. Preceding a severe housing shortage in quantity and quality of affordable urban housings in the process of industrialization and urbanization, which was evidently not able to be dealt with by the market force, the Netherlands is the first country in the world that promulgated a Housing Act (*Woningwet*) in 1901. While the Housing Act has been amended for several times, it defined housing as a right for everyone and the housing provision as an obligation of the society. According to the Housing Act, municipal authorities were empowered to force homeowners to maintain and restore their houses, to declare houses unfit for human habitation and to demolish dilapidated buildings. To ensure that houses were properly looked after, two other major local planning tools were introduced in the form of a building ban and expropriation (Rosemann, 2006). In order to inhibit housing speculation, a special institution was set up as “housing police” for the regular supervision and inspection of housing quality. If the quality of a private rented house cannot meet a certain standard, the municipal government has power to ban it to be rented as housing. If the house continues to dilapidate, it might be expropriated or demolished. A special point system for the rental housing was established: different rental houses, which cover both the public-rented and private-rented sectors, are given different points according to their quality, size, amenities and location. Consequently, rents must follow this point system<sup>4</sup>. In addition, property owners have to pay high taxes for their non-occupied homes (if they are not rented out), and the housing right

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- 3            Until 1995, there was a maximum standard of land rented for social rented dwellings. Nowadays, while the standardization on the all-in costs of social housing construction no longer exists, the land lease for social housing is still subsidized by local governments. In Amsterdam, the rent of public land for social rented housing (around € 20,000 per dwelling) is less than a half of the rent for private housing owner (around € 50,000 per dwelling); and unlike private owners who have to pay one-off rents, the social housing organization usually might pay the rent yearly during the lease term.
- 4            The tenants can apply for the point reevaluation if they are not satisfied with the asking rents, even after the rental contracts are signed. The existing “standard points” (2011) is 142, for which the equivalent rent is €650 /month. The rents of social housing must be no higher than this standard.

of tenants is well-protected by avoiding unreasonable eviction<sup>5</sup>. More importantly, the Housing Act not only provides the obligation of private house-owners, but ensures housing as a basic social well-being by the establishment of a Social Housing system at the national level.

The social rented sector of housing stock in the Netherlands started to develop in the second half of the nineteenth century in order to provide affordable and decent housing conditions particularly for the working class. In 1901, the legal status of social housing system was confirmed by the Housing Act. The housing organizations were given the status of approved institution that acted solely in the interest of public housing. They were not-for-profit organizations and were subject to state supervision (Priemus, 2009). According to the Housing Act, social housing in the Netherlands must be developed and managed by a social housing organization. Traditionally, social housing organizations involved private institutions – housing associations and housing foundations, as well as municipal housing companies. These social housing organizations must carry out social task in the field of social housing in accordance with the rules stipulated in the Housing Act. They are non-profit organizations that, traditionally, could qualify for public subsidies and loans. These public loans would be repaid by the rental income within the housing service lifetime while the gap between cost rent and asking rent was covered by the object subsidies to the housing organization. The asking rent of social housing is hence limited below a certain level in order to ensure the affordability. The target groups of social housing provision are persons who are incapable to find suitable and affordable housing on their own, which in the Netherlands not only primarily focus on the low-income group but also serve broader strata of population. The social housing system for broad range of target groups means higher housing quality and higher housing rent (with subject subsidies – individual allowances for low-income households) but lower object subsidies per unit. This approach economically supports large number of social housing construction and its sustainability, and avoids the serious social exclusion and spatial segregation.

The introduction of the Housing Act impelled the development of the Dutch social housing. Through social housing construction between 1916 and 1925 and the breakthrough of the development of the social rental sector after World War II (for which the social housing development was a major measure to solve the postwar housing problem), the share of social rented sector had reached its peak by the early 1990s – 42% of Dutch housing stock was social housing.

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In the Netherlands, the eviction of tenants is prohibited if they have lived in their rented dwellings for at least one year. Moreover, the tenants can occupy any houses that are vacant longer than one year, even without the permission of the owners.



Eigen Haard (1913-1920), Amsterdam  
Architect: Michel de Klerk



Kiefhoek (1928-1930), Rotterdam  
Architect: J.J.P. Oud



Buitenveldert (1960), Amsterdam  
Architect: Groosman



De Peperklip (1979-1982), Rotterdam  
Architect: Carel Weeber

Figure 9.11  
*Dutch social housing in different periods*

Same as Germany, the large-scale urban reconstruction was planned in the Netherlands but rarely realized. Until 1960s, the post-war construction concentrated on the development of new cities and suburban housing areas. According to the traffic schemes for the access from suburban areas to city centers, thousands of houses were demolished and their residents had to be displaced. On the other hand, the old housing neighborhoods in city centers were missed in urban planning for a long period. Those neighborhoods developed since the late nineteenth century, in which most of the housing stock consisted of private rented houses built by speculators for

workers, obviously deteriorated in terms of the lack of maintenance and declined due to social filtering. The planning to renew those old neighborhoods was proposed by the municipalities in the late 1960s but still in the form of demolition-reconstruction. This approach no doubt would cause the substantial increase in housing rent and the displacement of the original residents, especially the low income tenants. The "Tenant Movement" initiated by the action groups of local communities thereby broke out in major Dutch cities (as well as other big Western European cities) at the end of the 1960s and the beginning of the 1970s protesting for the reconstruction of old neighborhoods. Urban renewal, thus, became a political issue.

A fundamental change in the approach of urban renewal occurred in the 1970s. After the political change in 1973, in which the Dutch social democrats took power through election, urban renewal was mainly related to the housing problem and the concept of wholesale reconstruction was abandoned. Initiated by Rotterdam and followed by Amsterdam, The Hague and other Dutch cities, the municipal governments developed a "socialization and communalization" strategy for the improvement of housing conditions and living environments of urban renewal areas with the introduction of social housing. The physical strategy was changed to small-scale, step-by-step reconstruction at first and eventually to renovation and rehabilitation after 1976. As part of the Dutch tradition of housing and planning characterized by a considerable degree of government intervention, the approach under the slogan of "Bouwen voor de Buurt" (Building for the Neighborhood) in Rotterdam was the first and most representative case of urban renewal by housing socialization, depended on a coalition between local authorities, the tenant organizations and housing organizations.

### § 9.2.1 Background

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As an industrial center and the largest harbor in Europe, Rotterdam has traditionally been a city for the working class. The share of rental sector, including social rented and private rented housing, is relatively high in its housing stock. As a city largely devastated by World War II, the postwar reconstruction in Rotterdam primarily focused on the expansion of the port, the development of its infrastructure and the urban expansion plan over the decades. But the urban renewal of prewar housing neighborhoods in the inner city was neglected to a certain extent. The construction of those prewar neighborhoods can be dated from the late nineteenth century, when speculators bought building sites for developing rental houses. The neighborhoods were thereby mainly composed of private-rented, working-class dwellings. In order to reduce the costs, those low-rent dwellings were usually quite small and the speculators

often invested a little in maintenance<sup>6</sup>. The majority of the actual residents of those neighborhoods were middle- and low-income tenants. After the War, the densely populated working-class neighborhoods were thought to be unwelcome according to the modernistic plan for the city center. The threat of wholesale demolition accelerated the deterioration of those neighborhoods and the process of social filtering. Many families with better income left the low-rent dwellings for the new suburban housing areas, and were replaced by single parent families and immigrant workers, both of whom belonged to the low income groups. Until the end of 1960s, those prewar neighborhoods had evidently tended to decline (figure 9-12). For instance, in the Oude Westen, a typical prewar neighborhood, there were approximately 5,000 dwellings and 11,000 residents in an area of about 47 hectares before the renewal. Many 1- and 2-person households lived in this area, and 40% of the population was ethnic minorities. Most dwellings were in unfavorable conditions: the poor structural situation, the lack of technical equipment and amenities, and a large proportion of (originally almost 75%) small dwellings. The outdoor public space, facilities and infrastructure were also deficient in this densely built-up area (Kalle, 1980, p.798). Therefore, the appeal to halt the deterioration and decline of the inner-city neighborhoods had been rising continuously in the 1960s.



Figure 9.12  
*Old neighborhoods in Rotterdam before the urban renewal*  
(Source: Rosemann, 2005)

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6 It was not only in Rotterdam but also in other Dutch big cities that the share of owner-occupied housing was rather low in comparison with smaller cities. The old private houses were usually owned by people who did not inhabit them. These homeowners were either unable to pay the maintenance (because of the low rents) or if they could, it was only for the purpose of speculation.

At the end of the 1960s, urban renewal became the focus of the municipal government of Rotterdam. This was partly a result of the urban planning shift from urban expansion to compact city. The early attempt of urban renewal continued the idea of reconstruction: the demolition of old neighborhoods, the urban restructuring and the development of infrastructure (in particular the transport network). But the modernization of housing, the economical use of buildings, the maintenance of the urban fabric and social structure, and the consideration of the opinion of residents were all disregarded. With few exceptions to the strategies of other West European cities in the late 1960s, the demolition plan attempted to develop urban renewal by providing sufficient incentives for homeowners and other private investors and to promote the higher-value land use of renewal areas by converting users to affluent housing renters or buyers. Those strategies meant the filtering out of “unpleasant” residents, who were usually the economically weak and vulnerable groups, as a prerequisite (Fassbinder and Rosemann, 1980, p.784). Accordingly, the plan of demolition-reconstruction triggered massive opposition from the people, especially the tenants in those old neighborhoods. They wanted the improvement of living conditions on the one hand, and argued against the proposal of reconstruction, which would cause the displacement of original residents, on the other hand. The “Action Groups” of old neighborhoods emerged as the residents’ organizations against demolition, in which the Action Group of the Oude Westen was the first and most active one in Rotterdam. The demonstration for improving housing conditions and opposing wholesale demolition sparked a wave of large-scale “Tenant Movement”, which spread in Rotterdam and other Dutch cities in the early 1970s (figure 9-13). In the meantime, there were also new voices and growing debates inside the municipal authority on the alternative approach of urban renewal.



Figure 9.13  
*Demonstration for improving housing conditions and opposing wholesale demolition-reconstruction*  
(Source: Rosemann, 2005)

Under the political pressure for local communities, the urban policy on the one-sided emphasis of economic development was changed. The City Council of Rotterdam enacted the “Regulation on the Organization of Urban Renewal” (VOS) to establish the legal status of area-based organization of urban renewal in 1973. The breakthrough for the urban renewal policy came with the municipal election in 1974. Labor Party (PvdA) – the Dutch Social Democrats, for whom the demands of resident organizations were essential parts of their manifesto, won an absolute majority. J. G. van der Ploeg, the strongest and most energetic supporter of residents, became an Alderman responsible for urban renewal in Rotterdam. His policy report “Note of Urban Renewal 1975” symbolized the beginning of the socialized urban renewal in Rotterdam, which is famous for its motto – “Bouwen voor de Buurt”.

### § 9.2.2 Strategies

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With the slogan of “Bouwen voor de Buurt”, the urban renewal in Rotterdam meant to rebuild the housing areas by improving their living conditions avoiding population displacement. The visions of urban renewal focused on the needs and requirements of the local residents as a whole. It meant the change of the starting point for urban planning from the demolition and restructuring of deteriorated areas to the renewal and upgrading of living neighborhoods. As early as 1972, the action groups of old neighborhoods in Rotterdam and Amsterdam had presented their claims to the city councils, which included:

- Safeguarding the residential use and stopping the development of industries and offices in the old neighborhoods;
- Request for the replacement of broken houses;
- New housing with affordable rents for low-income people, for which all public housing should be allocated;
- The enforcement of the regulation that house-owners should maintain their properties in proper conditions, otherwise the municipality will expropriate their houses and take over the housing management;
- Utilities should be equally distributed over the neighborhoods;
- Building plans should be accepted and approved by the neighborhoods before they are put into practice; and
- The municipality had to obtain the rights of preemption and supervision (Fassbinder and Rosemann, 1980, p.785).

Those claims later involved the guidelines of urban renewal approach in Rotterdam. In 1973, “Bouwen voor de Buurt” was officially accepted as the principle of Rotterdam’s urban renewal by the publication of the VOS. Eleven urban renewal areas in the inner city, most of which were old neighborhoods of working class, were assigned (figure



environments of old neighborhoods for the local communities. In order to fulfill those tasks, innovative strategies were created and applied in Rotterdam. Apart from the wide community participation and the replacement of urban reconstruction by urban rehabilitation (which will be respectively discussed in Chapter 10 and 11), the strategies related to the socio-economic question included the housing socialization, the economic feasibility by public financing and the local social and economic revitalization, which will be elaborated below.

#### *Communalization and socialization of the housing stock*

After years of attempts, the approach to initiate urban renewal by numerous private owners, for whom the interests were land and housing speculation, were proved to be impractical. Alderman van der Ploeg drew a conclusion that urban renewal could only move forward if the tenures were transferred to the public owners (including the municipality and housing associations), which lead to the change of strategy to the communalization and socialization of housing stock. The municipal government of Rotterdam started the action of housing acquisition in urban renewal areas in 1975. With the denouncement to the housing vacancy and the lack of maintenance, the offer to all private property owners in old neighborhoods was: the purchase of houses (with land ownerships) by the municipality with the price equivalent to the current gross rental (4-5 years' rents) plus a 25% award if the tenures were transferred to the municipal ownership within one year. At the same time, it was announced to significantly strengthen the supervision and inspection of housing quality in urban renewal areas. The number of "housing police" was doubled and the threat to expropriate the abandoned houses or the houses out of maintenance was also increased. The private house-owners were also warned that the dilapidated housing conditions would cause the growing dissatisfaction of tenants and their organizations. That meant that the private owners had to choose between largely investing to housing maintenance and improvement or accepting the offer of housing purchase by the municipality.

The action of housing acquisition was proved to be a large success even than expected. 60% of dwellings in the 11 urban renewal areas had become the property of the municipality within one year. In addition to the original 10% publicly-owned properties, a total of 70% of dwellings in those urban renewal areas was owned by the municipality after the purchase action. In some neighborhoods, such as the Oude Westen, 85% of tenures were ultimately communalized. Based on the success of housing acquisition, the strategy for the implementation of urban renewal and the future housing management were developed with three aims: recovering the well-known tradition of social rented sector; remaining the influences of the municipality to the occupancy and use of housing stock; and democratic decision-making by the participation of residents (Fassbinder and Rosemann, 1980, p.794). The houses purchased by the municipal government were transformed into social housings and their ownership and management were eventually committed to housing

organizations. The land ownerships attached to those houses, at the same time, were kept municipally government-owned and were included in the land leasehold system. According to the introduction of the social housing system (which meant subsidies from the government) and the active participation of tenants and their organizations, the rents were settled beforehand and maintained at an affordable level. A housing allocation system was created to ensure the priority of the existing local residents (tenants) in moving to improved or new houses. For instance, the housing allocation criteria in the Oude Westen made 85% of the dwellings available for those from the neighborhood itself who were seeking housing (Jutten, 2005, p.175). The strategy of communalization and socialization in housing stock conditioned the maintenance of local residents and avoided the social exclusion of “vulnerable” groups in urban renewal.

Similar to the practice of the Charlottenburg Block 118 in Berlin but on a larger scale, the housing socialization meant that the government had the obligation to provide decent and affordable houses for the residents in the urban renewal areas. Residents hence had the right to stay in the neighborhood even during the construction (figure 9-15). According to the step-by-step rehabilitation, the residents could exchange their dwellings within the neighborhood. The tenants might choose to move in the new dwellings in the same street or block if their original houses needed to be reconstructed or fundamentally renovated. For the tenants who preferred to rehouse in the exactly same place, they could temporarily stay in one of the so-called “interim apartments” built by the municipality while their new dwellings were under construction. Those interim apartments were usually temporary houses that were transformed from shipping containers and set up in the vacant lands (such as parking lots) surrounding the neighborhood. Hence, the residents needed not move out even in the period of construction. For those who chose to move out the urban renewal areas, the newly-built social rented dwellings in the inner city area were available. In addition, all families involved in rehousing could receive 300-1,200 guilders moving subsidies from the government.



Figure 9.15  
*"Bouwen voor de Buurt" under construction*  
(Source: Rosemann, 2005)

Parallel to the absolute socialization or collectivization, a new form of housing ownership under the title of "joint property" was developed in some urban renewal areas as a result of the promotion of owner-occupancy by the Dutch government. After the housing acquisition, some dwellings were transferred to a special foundation created by the municipality. If the residents' economic capacities allowed, they could buy their homes from this foundation for a discounted price (according to their income) far below the market price and by using the subsidies for home ownership from the central government. But in order to restrain speculation, those new homeowners had to agree not to resell their houses except back to that foundation. In fact, the "joint property" meant the limited private ownership of housing property so that it could be regarded as a model of semi-socialization. However, this model was only applicable to the neighborhoods that were not excessively declined, in which at least parts of the local residents belonged to higher income groups.

In conclusion, by the introduction and recovery of social housing in the old neighborhoods, the significant increase of rents and the housing/land speculations (which are usually the inevitable results of urban renewal initiated by profit-oriented private investors) were constrained. The displacement and exclusion of the low-income and other vulnerable groups was therefore avoided in urban renewal while the decline of old neighborhoods in the inner city was effectively brought to a halt. As Alderman van der Ploeg predicted, the communalization of land ownership and the socialization of housing stock became the foundation of "Bouwen voor de Buurt" – improving housing conditions and keeping local residents by urban renewal. Moreover, the share of social rented sector, which was also available for new housing seekers, significantly increased in the inner city area according to the urban renewal. That represented the increase of affordable and decent housing supply for the lower income groups as well as the improvement of socio-spatial mixture or integration in Rotterdam. In general, the housing policy in the urban renewal of Rotterdam represented the collective rights and interests rather than the voice for individual property.

### *Economic feasibility of socialized urban rehabilitation*

The balance of housing affordability and economic feasibility, same as for any other urban renewal projects, is always an inevitable challenge. Thanks to the Dutch system of social housing, the realization of urban renewal in Rotterdam became financially possible. In addition, the central and local governments also provided other economic provisions for the implementation or operation of urban renewal at the time. In general, the financial solution of “Bouwen voor de Buurt” would have not been possible without the Dutch tradition on public intervention in the housing stock.

By the combination of urban renewal and social housing development, the total expenditures of urban renewal, including housing expropriation, renovation, new-construction and maintenance/management was ensured by the state loans and subsidies for social housing development. And the public loans would be finally repaid by the rental incomes. As mentioned above, the rent after the renewal was pre-settled according to the negotiation with the tenants and thus controlled to an affordable level (a maximum 250 guilders, including management costs) which was lower than the newly-built social housing in Rotterdam (averagely 306 guilders)<sup>8</sup> in order to avoid the displacement of original residents. The gap was partly fixed by the public subsidies under the legal framework of the Housing Act. Eventually, the Rotterdam municipality set up a new legislation that the costs of housing renewal could be included in the annual increase of rents – about 2.5% per year (while the annual rent rising of newly built social housing was calculated to be about 4%). The actual rents were manipulated according to the construction costs and the initial rents before renewal (Fassbinder and Rosemann, 1980, pp.796-797).

In Rotterdam, the “economical” planning/design was developed for urban renewal. At the beginning, it was an idea to replace wholesale reconstruction by small-scale, step-by-step reconstruction. Enlightened by the pilot project in Berlin, building renovation was introduced in 1976 as an economical strategy to reduce costs. Urban rehabilitation, which means the combination of renovation and new-construction, therefore replaced the wholesale demolition-reconstruction. An economic criterion to decide the renewal approach for each building was developed: except for the recognized monuments, a building would be renovated if the estimated cost of renovation was less than 70% of the cost of demolition and new-construction. On the contrary, it had to be demolished and reconstructed. According to the different building conditions, housing renovation also included two categories: the housing repair by

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Traditionally, the rent level in Rotterdam is lower than the national average. Until the end of the 1970s, the national standard rent of social housing was more than 400 guilders.

maintenance and pimping renovation as well as the housing modernization which meant a more radical transformation (which will be discussed in detail in Chapter 11). The estimated budgets of social housing development and management are in principle linked to its life-cycle rental income. According to the 50-year life expectancy of new residential buildings, the budgets for housing demolition-reconstruction are calculated dependent upon the rental incomes of 50 years. Similarly, the budgets for housing repair and housing modernization are estimated in accordance with the 15-year and the 30-year rental incomes respectively, which base on their expected life after the renewal. Since the public loans for social housing would be finally returned by the rental incomes, the central government of the Netherlands actually financed the start-up costs of the urban renewal in Rotterdam. By linking the costs and the rents to the housing renewal modes – repair, modernization or new construction, it was an economical strategy for saving public investment and realizing the long-term balance of housing affordability and economic feasibility of urban renewal.

Although the costs on social housing occupy a majority of the total costs of urban renewal, some other expenditures, including the costs of environmental improvements and the budget on organization/management (such as the operational fees of project offices or the payments for external experts or community workers), are also inevitable. For the urban renewal in Rotterdam, those expenditures other than the housing costs were financed by a special “urban renewal fund” from the Dutch government. As a municipality strongly promoting urban renewal, Rotterdam could receive 30% of the total annual funds (which meant about 1 million guilders per year). Besides that, the extra costs in urban renewal were often financed by the negotiation between the municipal and the central governments.

In general, the economic feasibility of “Bouwen voor de Buurt” in Rotterdam was ensured by the public funding in order to avoid the social exclusion and spatial segregation that might have been caused by a market-oriented urban renewal. It was the Dutch tradition of public intervention in housing stock that conditioned the constant financial support of the government.. This support combined with social housing development made this urban renewal project a success.

#### *Social programs and economic revitalization*

In comparison with the previous attempts to urban renewal, this case in Rotterdam was exclusive for its accompanying social programs. These programs ranged from the introduction of new communal facilities (elderly centers, youth clubs, medical services, kindergartens, schools, libraries, sports fields, playgrounds, etc.), various consultative and advisory services (including the legal consultancy about housing rent) and educational programs for youth and adult to community festivals, sporting and other events (figure 9-16). An example of these social interventions is a set of programs for immigrants. Since the postwar inflow of immigrant workers and their families had significantly changed the population structure in the old neighborhoods of

Rotterdam, how to really integrate them into the Dutch society was always a challenge. In order to avoid social exclusion and isolation of minorities, the social integration programs for immigrants, including special language training courses, relevant events or supportive measures in the normal school education, multi-culture library and multi-language publications (such as neighborhood newspapers), were initiated in the urban renewal areas. Another critical challenge in the old neighborhoods was the problem of unemployment and poverty. The changes in the labor market in the 1970s and the 1980s (which meant the expansion of the sections for service and high-skilled industries and the decreased amount of low-skilled, manufacturing sections) and the social filtering made the increasing concentration of minimum income in those old neighborhoods (45% in average in urban renewal areas). The problems of unemployment were also concentrated in these low-income and minority groups. The socio-spatial segregation had been a realistic threat till the 1980s. The training or education programs for the unemployed were thus initiated by both the local authority and resident organizations in the urban renewal areas. Those programs did not only mean abstract education but also included paid and meaningful work experiences, which were much more favored by the unemployed (Stouten, 1995, p.20). Urban renewal here also meant the social revitalization by improving the economic capacities of residents in the neighborhoods.

### § 9.2.3 Consequences

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Those innovative strategies of urban renovation were proven successful in practice. As a contribution of West Berlin to the historical conservation, the pilot project Charlottenburg Block 118 eventually received the Gold Medal of European Year of Monument Protection. More importantly, this pilot project on adapted housing renovation, as the first attempt in Europe, successfully fulfilled its socio-economic objective – the improvement of living conditions for the low-income tenants in the old neighborhood while reducing the costs of urban renewal. By applying adapted designs, technologies and procedures, the total cost of the renovation of Block 118 was reduced to 64% of the reconstruction, which is almost the same as the pre-estimation. It provided in total 382 renovated dwellings, which was almost equal to the amount before the renovation (415 dwellings). The rent was maintained at an affordable level after the housing socialization, and about 80% of the original residents remained.



Figure 9.16  
 Communal facilities in the old neighborhoods introduced by the urban renewal

Another “non-physical” aspect of urban renewal in Rotterdam is the economic vitality, especially on the small enterprises in old neighborhoods. Although originally these neighborhoods were absolutely residential areas, they had evolved into the mixed ones with many shops, cafes, service businesses and other small enterprises. They facilitated the “informal” daily life of the city, from which the low-income tenants mainly benefited. However, in terms of the strong argumentation of resident organizations, the residential function of the neighborhoods was exclusively respected at the beginning of urban renewal. Small businesses or enterprises were considered as the interferences for the residence, so that they had to be excluded in the urban renewal. But this intention was soon proved to be different from the reality. The small enterprises not only facilitated the local life of the residents, but also closely connected them to job opportunities and thus, fostered the further development of the local economy. There were nearly 9,000 businesses in the urban renewal areas. They offered jobs for 80,000 people that occupied 33% of the total employment in Rotterdam (Stouten, 1995, p.18). Those local economies and job opportunities were also highly related to the benefits of the residents in the urban renewal areas particularly under the background of socio-economic transition and increasing unemployment. Thus, retaining the viability of small local enterprises is not merely about economic revitalization but also a social issue. That also contributed to keep the prosperity of old neighborhoods after the renewal.

As an amendment to the original approach, the small enterprises and the revitalization of local economies were taken into account in the urban renewal since 1983. The representatives of small enterprises in the old neighborhoods were included in the process of decision-making. The special subgroup of small enterprises was set up under the framework of the project office for the resettlement and the further development of small businesses or enterprises in an urban renewal area. Same as the rehousing strategy for the local residents, the small local enterprises had priority to resettle their businesses in the same neighborhoods. The enterprises were affected by the urban renewal could also get compensations or subsidies. The revitalization of local economy by maintaining the viability of small enterprises had become an important component of the urban renewal approach in Rotterdam till the 1980s, and was finally taken into account and included in the "Bouwen voor de Buurt". As a result, the prosperity of local businesses and small enterprises was kept in the urban renewal areas (figure 9-17).



Figure 9.17  
*Local businesses in the renewed neighborhoods*

## § 9.2.4 Consequences

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Since 1974, an innovative approach of urban renewal had been developed in Rotterdam with the slogan of “Bouwen voor de Buurt”, in which the housing problem was a core issue. Together with the community strategy on the resident participation and the physical planning strategy of urban rehabilitation, the socialization of housing stock in the prewar inner-city neighborhoods was successfully proven as a socio-economic strategy of urban renewal to improve the living conditions of the low-income residents in those old neighborhoods. Based on the Dutch tradition of public intervention on housing stock and urban development, the public funding under the legal framework of social housing ensured the economic feasibility of housing socialization, for which the combination of renovation and reconstruction largely contributed to reduce the cost and control the rent increase. The strategy of linking the housing renewal modes, costs and the rents provided a long-term financial solution of urban renewal, which well-balanced the housing affordability and economic feasibility.

The success of “Bouwen voor de Buurt” in the first 11 urban renewal areas actually played a major role as a pilot project and therefore a milestone of socialized urban renewal. Its experiences were soon applied in other urban renewal projects of prewar neighborhoods in Rotterdam and other Dutch big cities, including Amsterdam and The Hague. Before the change of the Dutch social housing policy in 1993 (the turn toward decentralization and privatization), this approach of socialized urban renewal was popularly adopted in the Dutch cities. Only in Rotterdam, over 56,000 dwellings – approximately 34% of the prewar housing stock – and 9,923 businesses were purchased by the municipality during the years of 1974-1993 (Stouten, 1995, p.25). The majority (usually above 80%) of socialized housing stock was proposed for the original tenants. But in terms of the high mobility in the rented sector, eventually at least 40% of local residents stayed after the renewal. The rest of social rented dwellings were provided for the recently come home seekers. As a result of urban renewal, the social rented sector of housing stock in Rotterdam enlarged from 35.7% (1976) to 57.7% (1990) and the private rented sector shrunk from 56.3% to 26.5% during the same period. That also significantly contributed to solve the general problem of housing shortage in particular for the incapable groups.



Figure 9.18  
*Old neighborhoods in Rotterdam after the "Bouwen voor de Buurt"*

Furthermore, those "non-physical" strategies, including the social programs and the maintenance of local enterprises, played a very important role in the urban renewal of Rotterdam. Based on the concept of "Bouwen voor de Buurt", the core issue of urban renewal was not just the refurbishment of physical cityscape but the improvement of the living conditions of the residents in the old neighborhoods, for which the social and economic renewal is also crucial. Even the economic revitalization was linked to the solutions of social problems. Beyond the physical renewal, the social programs and the revitalization of local economy effectively contributed to regenerate and sustain the vitality of urban renewal areas in Rotterdam, so that the rehabilitation of old neighborhoods was possible to be realized. As early attempts, the experiences on social and economic revitalization also opened a new door for later urban renewal projects.

However, while the housing socialization has been proven as an effective strategy for the urban renewal of privatized and deteriorated housing areas, it is not always the only preferable choice for the social-oriented urban renewal of inhabited old neighborhoods, especially when the tenures/ownerships are in ambiguity or mixture. In some cases, the comparatively "bottom-up" strategy combined with top-down initiative is adapted for ambiguous conditions. In Vienna, a city also famous for the public intervention to the housing stock and the well-protected housing right of tenant, the experience on urban renewal revealed a possibility to combine top-down intervention with tenant participation.

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### § 9.3 Public-Private Partnership under the Strong Public Intervention – “The Soft Urban Renewal” in Vienna

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The housing provision in Austria is also defined as an obligation of society as a whole. But the definition of social housing in Austria, in comparison with the Netherlands, is more complicated and ambiguous. In principle, the social housing interventions so far comprise four measures: rent regulation in the private-rented sector (based on the strict legal framework of the *Tenancy Act*), municipal housing system (rental dwellings owned by the local governments), non-profit housing system (social housing developed by the non-profit, or limited-profit, housing associations which acts under the legal framework of the Non-Profit Housing Act) and the public subsidies for housing promotion (new construction and maintenance/renovation) to for-and not-for-profit developers as well as homeowners. However, the housing policy in Austria is decentralized according to its federal system. As a Bundesländer (province), Vienna has the relatively independent legal, financial and administrative status and thus a certain freedom in formulating its own housing policy. Vienna is the capital and largest city with more than 25% (2.3 million within the metropolitan region) of Austria’s total population. In terms of its social democratic tradition (the reign of social democrats since 1919 except during the fascistic period), this is a “different city” in comparison with the rest of the country, because of the strong public interventions to the housing stock in spite of the enforcement of the national legal regulations on the housing stock. Thus, albeit in general the housing stock of Austria presents a relatively “balanced” situation – 58% is rented sector and 39% is owner-occupied, the spatial distribution is rather separated: 82% of the housing stock in Vienna is rented whilst the dominant sector is owner-occupied (85%) in the small cities and towns.

Their social housing tradition can be traced back to the period of the “Red Vienna” (1918-1934) – the first social-democratic municipal authority in the world: besides the Wiener Siedlerbewegung (Viennese Settlers Movement, 1920-1923) – the collective, self-help housing constructions of grassroots that was organized by the municipality, the public-rented Gemeindewohnungen (municipal housing) started to be massively developed in order to deal with the serious housing problem in particular of the working class. After the periods of the Austro-Fascism (1934-1938) and the World War II (1938-1945), when its development was interrupted, social housing tradition in Vienna was recovered. From the 1950s to the 1980s, a large amount of municipal dwellings were developed in Vienna in order to solve the housing problem. Along with the population growth after the end of Cold war, the municipal government largely promoted the social housing developments in the mid-1990s. At the same time, the municipality gradually withdrew from new housing construction, and the main player of social housing development became the non-profit housing associations. A key role was commissioned to the WBSF (Land Procurement and Urban Renewal Fund of Vienna) – the current wohnfonds\_wien

(Fund for Housing Construction and Urban Renewal of Vienna), which was responsible for the purchasing of needed lands and for the organization of Bauträgerwettbewerbe (housing developers' competitions) – the public tenders for the new social housing developments for the purpose of reducing the costs and improving the planning, design and technical qualities<sup>9</sup>. Those measures ensured the tradition of high-quality public housing in Vienna (figure 9-19). In comparison with the private-rented houses, many residents preferred to live in the public-rented social housing neighborhoods.



Karl-Marx-Hof (1927-1930)  
Architect: Karl Ehn



Alt Erlaa (1968-1985)  
Architects: Harry Glück, Hlaweniczka, and Requat & Reinthaller



Kabelwerk (2002-2007)  
Architects: Mascha & Seethaler, Schwalm-Theiss & Gressenbauer, Hermann & Volentiny & Partner, Martin Wurnig, pool Architektur, and Werkstatt Wien Spiegelfeld, Holnsteiner & Co

Figure 9.19  
*Vienna's social housing projects in different periods*

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9 Based on the preset asking rents and (minimum) construction costs, the participants of public tender, the housing associations together with architects, had to compete for the architectural, economic and ecological qualities of new social housing projects.

Officially, social housing in Vienna today is mainly composed of the public-rented sectors. The rental social housing is usually developed, owned and managed by the local authority as municipal housing (only for rent) and the non-profit housing association. The income ceiling for access to social housing is rather high: more than 80% of population is eligible; and, thanks to the Tenancy Act, the eviction of tenants and the raise of rents for the occupied public-rented dwellings are almost impossible. The rents of municipal housing are usually lower than of the rental dwellings of housing associations<sup>10</sup>. In addition, public subsidies are also widely available in the owner-occupied sector: even the majority of owner-occupied houses are developed by subsidized housing program, for which they have to subject to the regulations concerning the income criteria of target group and later transaction.

Different from many other countries and cities, the social housing in Vienna is highly subsidized by the tax revenue of the government. Besides a fixed, earmarked part of national tax-income from the income tax, corporate tax and the housing contributions (paid by all employed persons), the municipality of Vienna also develops its own financial means for social housing, which includes the land tax, value-added tax, the tax to rental housing and the strict housing tax for non-occupied dwellings (which is counted according a certain criterion on the average living floor area per capita). In the meantime, thanks to the taxes and rent control in the private sector, both of which effectively restrains the land and housing speculation, as well as the high proportion of subsidized housing (about 80%-90%) in the new housing production per annum and the dedication of large areas exclusively for housing tasks, the land price in Vienna is largely influenced by the municipal government so as to efficiently reduce the costs of social housing developments. The rents (or the prices of subsidized owner-occupied dwellings) can be controlled onto a rather low level, so that the proportion of household expense on housing in Vienna keeps at the lowest level in the European Union. The target group of social housing can widely cover different strata (except the high income), in which the low income households are entitled to subject subsidies. Currently, 60% of all households in Vienna live in the social (subsidized) housing dwellings, in which 220,000 apartments are municipal housing and 136,000 apartments are rented by the non-profit housing associations (Förster, n.d.a, p.22)..

Nonetheless, the social housing in Vienna is not just limited in those subsidized sectors if we consider its precise meaning. The Tenancy Act (*Mietrechtsgesetz*) was first introduced in 1917 as a national law to avoid tenant eviction and rent increase in

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In order to avoid the social segregation, the municipality of Vienna presently tries to mix more higher-income tenants in the municipal housing neighborhoods by partly increasing the rents of available apartments.

the private sector of housing stock and remained up to the present. As the probably most rigorous legislation in the world and the foundation of social housing policy in Austria, the Tenancy Act stipulates not only the maximum asking rents of private rented dwellings according to their legal status, location and construction period but also the limitation of rent increase which is only possible in a very few cases. Under the legal framework of Tenancy Act, the rental contracts of most of rented dwellings in Vienna are indefinite and can even be passed on to children occupying the same apartment. In the social rented sector, only indefinite rental contract is available and the eviction due to the income increase of tenant is impossible. Tenants are guaranteed to widely participate into the daily management of their dwellings, even in the private rented sector. There are more rights of tenants in the decision-making on housing improvements than of the landlords. Hence, the housing right of tenants is highly secured and they can be counted as "semi-homeowners". Based on the unusual security for tenants, the housing stock in this "red" city, if the concept of social housing is fundamentally understood, is mostly "socialized". The existing housing stock of Vienna is hence identified by its exclusively high percentage of rental sector (figure 9-20)<sup>11</sup>, which is comparable to the housing stock under the socialistic public housing system to a certain extent. What is well protected is the citizens' housing right instead of the housing as private property.

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11 While the (right-wing) state government has pushed the privatization of public-rented dwellings since 2000, the efforts of housing privatization is rarely successful, especially in Vienna: in a housing stock with a large number of limited-rent and high-quality rental apartments, to purchase the owner-occupied private houses seems unreasonable.

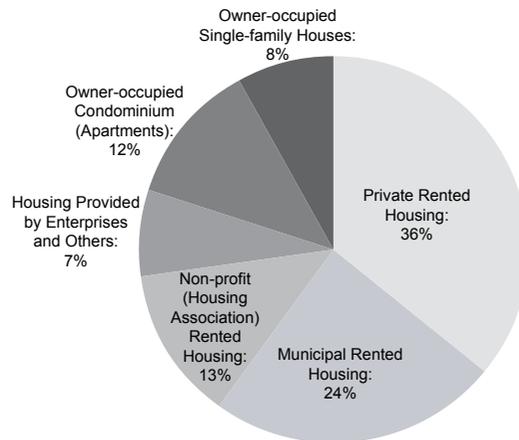


Figure 9.20  
 Housing stock in Vienna (2001)  
 (Source: *wohnfonds\_wien*; translation and chart by author)

Furthermore, while the rented housing areas are inhabited by different strata, the “ambiguity” of housing tenancy and ownership brings out the challenge of urban renewal. This tenancy includes the existence of condominiums which are in a sense also comparable to the former socialistic public housing areas in Beijing. Until the 1970s, the living conditions of many private rented neighborhoods (most of which were built before World War I) and early developed social housing areas obviously had to be improved. With respect to its specific condition of housing stock, Vienna initiated one of the world’s largest urban rehabilitation programs as a major social housing intervention. As winner of the UN HABITAT award for several times, this so-called “soft urban renewal” that is identified by the combination of top-down and bottom-up forces and public-private partnership (PPP), under the strong public intervention, is still running today and provided a new possibility for social-oriented urban renewal.

### § 9.3.1 Background

Almost 37% of the apartments in Vienna were built before World War I (Fassmann, Hatz and Patrouch, 2006, p.105). In those 19th century rental housing areas developed by the speculative landlords, the goal was the fast construction of a lot of houses, in which the housing quality was not one of the key concerns: the apartments were not equipped with many of the basic amenities, such as an independent toilet and/or running water supply (figure 9-21). Most of those private-rented, working-

class apartments are nowadays qualified in the Category D<sup>12</sup>. As a result of the implementation of the Tenancy Act in 1917, which froze the rent increases, the house-owners were rarely willing to maintain or renovate their properties from the end of WWI. Same as many other old cities in Europe, Vienna faced serious urban problems in those old neighborhoods – the concentration of the low-income residents, insufficient infrastructure and deteriorated housing conditions and living environments. At the same time, a large amount of municipal housing that was developed during the period of the “Red Vienna” (about 66,000 apartments) was also evidently dated: they were qualified as Category C apartments. Furthermore, many social housing estates built from the 1950s to the 1970s also increasingly needed to be improved. Before the urban renewal program was largely initiated in 1984, more than 300,000 apartments (39% of the total housing stock) in Vienna were in the category of “substandard”.

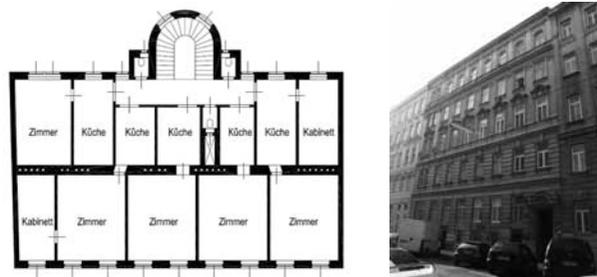


Figure 9.21  
A typical Category D apartment building in Vienna  
(Source: *wohnfonds\_wien*; photo by author)

However, those old housing areas also facilitated the vital and diversified urban life according to their mixed urban functions, their flexibility as well as their tolerance to new functions and newcomers (immigrants, for instance). More importantly, they accommodated a large number of urban residents, especially the low-income groups, with affordable dwellings. Thanks to the strict protection of tenants from evictions and rent increases, the large-scale reconstruction never occurred in Vienna. By learning

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12 In Vienna, the housing quality is organized into 4 categories. Category A means that the dwelling has at least 30 m<sup>2</sup> living space, with a room or rooms, a kitchen or a kitchen area, a lobby, a toilet, and a modern bath or shower, heating, and running water. Category B dwellings has a room or rooms, a kitchen or a kitchen area, a lobby, a toilet and a modern bath or shower. Category C apartment has its own toilets and running water supply inside. The Category D means there is no toilet and/or water supply in the apartment.

from the lessons of many other cities, the municipality of Vienna decided to develop and apply “the soft urban renewal” (or “the gentle urban renewal”), which is also regarded as an important social housing program, in order to avoid the wholesale demolition-reconstruction on the one hand and the displacement or compulsory rehousing of the original residents in the urban renewal areas on the other hand.

### § 9.3.2 Strategies

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By understanding the city as a continuously evolving system, the “soft” or “gentle” urban renewal in Vienna meant the improvement of living conditions within the preexisting urban structure without displacing the residents and avoiding wholesale demolition. The experiences of other large European cities, in particular Rotterdam and West Berlin, were utilized (Förster, 2004, p.14). But in an already “socialized” but ambiguous housing stock, in which the right of tenants is unusually protected, a public subsidized program for urban rehabilitation is developed in order to combine top-down initiative and resident participation. Differentiated with the housing socialization, soft renewal is the duty of both landlords and tenants, for which the responsibilities of different actors are clearly distributed.

The efforts to legally encourage the soft renewal in Vienna can be traced back to the end of 1960s: the *Wohnungsverbesserungsgesetz* (Apartment Improvement Act) was enacted in 1969 in order to stimulate the tenants to undertake housing improvements. In 1974, the *StEG* (Urban Renewal Act), which defined the specific urban renewal areas and empowered the municipal government to compulsorily purchase properties from the owners, was passed as a national law. In the same year, the *Gebietsbetreuung* (area renewal office) was introduced into in the districts in need of renewal. Unlike most urban renewal commissioners in other cities, the area renewal office is a neutral agency run by architects or housing developers in order to coordinate and to promote renewal programs. Since the financial means were hardly available at the beginning, the soft urban renewal concentrated on the situational analysis with a “first aid” program and thereby developed planning measures. The Tenancy Act of 1981, which was passed in 1986, provides incentives for the renovations by private owners through liberalizing rents for Category A apartments (Fassmann, Hatz and Patrouch, 2006, p.108). In 1984, the *WSG* (Residential Building Renewal Act) was promulgated. Public subsidy system began to be available for urban renewal. The *WBSF* (the current *wohnfonds\_wien*) was also founded in 1984 to centrally support and supervise urban renewal. The soft urban renewal was officially started. Later in 1989, according to the decentralization of housing policies in Austria, the *WWFSG* (Viennese Housing Subsidization and Renewal Act) was enacted as a local legislation for urban renewal

in Vienna. With the *WSG* and *WWFSG*, a decisive step was taken from the small-scale study to a large-scale urban renewal (Förster, 2004, p.15).

Under the legal framework of *WWFSG* and two national acts – Tenancy Act and Non-Profit Housing Act, the basic principles of the soft urban renewal in Vienna are: priority of social criteria, avoiding social segregation and gentrification, avoiding forced change of ownership, and rehabilitated affordable housing. Urban renewal is understood as a comprehensive process with the consideration of social, economic, cultural, aesthetic and ecological aspects. As a rehabilitation approach, the urban renewal in Vienna mainly focuses on the social- and resident-oriented tasks. Urban renewal is not only directed to the old, private-rented buildings but also to those early-developed social housing estates, especially the neighborhoods that were developed during the period of “Red Vienna”.

In Vienna, in contrast to the urban renewal in Germany or the “Bouwen voor de Buurt” in the Netherlands, it was not the location of a dwelling house in a declared renewal area that was decisive for a subsidy but exclusively the age of the building and the predominant category of the dwellings in the building (Förster, 2004, p.15). In the building-based renewal without resident displacement, public intervention is primarily concentrated on the renovation of the basic structure of building, as the so-called “Sockelsanierung” (basic renewal), in which the responsibilities of owners and tenants are divided and their wills are respected by the co-determination. The amount of public subsidies for housing renovation is based on the existing housing condition evaluated by *wohnfonds\_wien*, the rent increase after the renewal is highly controlled. Besides the renovation programs of individual buildings, the area-based rehabilitation scheme is developed as the “Blocksanierung” (block renewal). The economic impact of urban renewal is also specially considered. In general, in a collaborative framework, the partners of the soft urban renewal include both public and private actors: state, municipality, *wohnfonds\_wien*, area renewal offices, public/private landlords and tenants. The adapted measures, based on the concept of public intervention to the housing stock, are adopted for controlling rent increases and avoiding the displacement of resident and social segregation. Vienna established its own PPP mode, in which the public and private actors can both operate in their own interests and both benefit from the results.

As a successful social-oriented urban renewal program in the respect of socio-economic dimension, the soft urban renewal in Vienna is identified by two important strategies which might be referable in particular for the research question on the urban renewal of former public housing areas in Beijing: the housing renovation and urban rehabilitation by the distribution of responsibilities and the specific understanding of urban renovation and economic sustainability.

*“Sockelsanierung” and “Blocksanierung” – the housing renovation and urban rehabilitation by the distribution of responsibilities*

In Vienna, the most significant renewal strategy is what is termed as basic renewal (Sockelsanierung), which is preserving, improving and modernizing old housing stock without moving tenants (Förster, 1996, p.123). As a strategy for the overall renovation of inhabited buildings, the significance of Sockelsanierung places on the concept of the top-down intervention with the bottom-up participation, for which the following principles are defined:

- Distribution of responsibilities between property owners and tenants;
- Participation of tenants;
- Tenant-oriented renovation scheme; and
- Substitute housing offers (MA 50, Vienna, n.d.).

In the rental housing stock that the right of tenants is well-protected, the public subsidies for renovation, as incentive, are available for both public-owned and private-owned residential buildings. The Sockelsanierung provides for the simultaneous maintenance and modernization of buildings which are partially or fully inhabited. It can occur either all at once or in phases and the rental relations continue as before (Fassmann, Hatz and Patrouch, 2006, p.110). Housing renovation is primarily the duty of the house-owner, but, with the approval of tenants, the responsibilities are settled according to the rights of owners and tenants. In principle, as a “basic renewal”, the modernization of the “general” or “public” parts of old buildings (the renovation of structures, façades, windows, roof, main pipelines, public corridors and staircases, newly-added lifts, attic conversions, etc.) is laid as the responsibility of the owner, with the approval of the tenants. On the other hand, the renovation of inhabited apartments is the responsibility of tenants (approved by the owner), but they are not compulsory. The residents can stay in their apartments in the process of building renovation. Before launching the renewal, the owner is obligated to inform and integrate the tenants by offering several options.

- To stay in the apartment without participating in the renewal process at all;
- To move out either into another apartment offered by the owner or anywhere else together with financial compensation;
- To participate in the renewal process by improving the standard and/or increasing the size of the apartment (Fassmann, Hatz and Patrouch, 2006, p.115).

As for the renovation of those inhabited apartments, of which the tenants are willing to participate in the renewal, the responsibilities are technically and economically distributed between the owner and tenants. For instance, the owner is responsible for the replacement or repair of main pipes that are shared by different apartments while it is the tenants’ responsibility to modernize the “branch” pipelines in their apartments; and in some old buildings with two layers of windows, the renovation of outer windows (which are counted as a part of the façade) is assumed by the owner, and the tenants can decide whether they would like to replace the inner layer of windows or not. In the meantime, the vacant apartments should be largely improved to reach the standard

of Category A (which means the dwelling has central heating, bathroom and toilet) by the owner as substitute housing offers. The tenants could choose to move to those renovated apartments in the same building or to one that belonged to the same owner, or use them as the interim dwellings when their apartments have to be vacated for a major renovation. In fact, along with the growing vacancy of private-rented houses in Vienna (because the tenants are increasingly moving into public-rented apartments), this measure of pre-vacancy and total renovation of apartments, as a technically more efficient means, is recently more popularly applied in the private-rented sector. In addition, the addition of a new storey on the top of old buildings, as “attic conversions”, is also promoted in order to increase the housing supply. The attic conversions usually resulted in the new and high-quality rented apartments.



Renovation of private-rented apartment building



Renovation of municipal housing

Figure 9.22  
“Sockelsanierung” in the process of construction

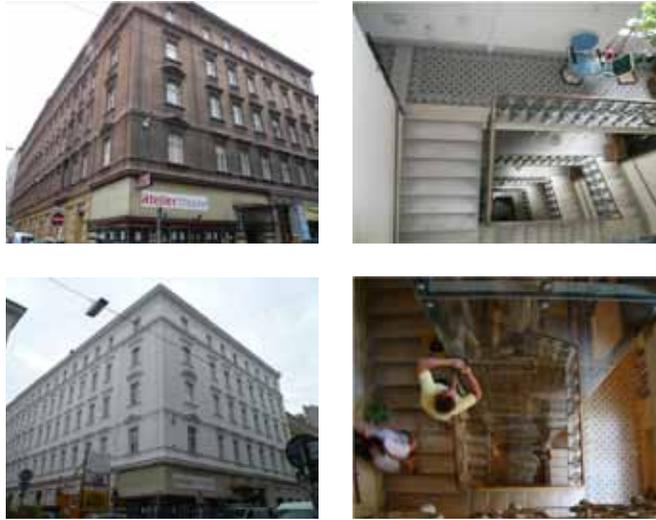


Figure 9.23  
*Burggasse 71 / Hermanngasse 33-35 (the 2nd price of urban renewal 2011) – an old residential building before (upper) and after the Sockelsanierung (lower)*  
 (Source: wohnfonds\_wien, 2011, pp.17-19)

Under the background of strong public intervention to avoid the eviction of tenants, the financing responsibility of Sockelsanierung is to a large extent taken by the state and municipal governments. The public funding is widely available for housing renovation. It includes the low-interest (1% per annum) public loans (which cover 25% of total costs), annual subsidies to bank loans (which often cover the interests) and objective subsidies for the owners<sup>13</sup> as well as the allowances to tenants. The municipality also provides bank loan guarantees for the owners. In average, public subsidies may cover about 60% of the total construction costs, and, up to 90% of the costs can be covered by the subsidies for payment of bank loans. Under the control of the municipal government, the rents of occupied apartments can temporarily rise to a cost-covering level to repay the rest of the bank loans, which means that the costs of renovation are also partly paid by the tenants. But in order to avoid tenant displacement, the new rents must be preset according to the agreement between tenants and owners and should be fixed for 15 years. Also, the privatization of existing rented apartments to the owner-occupation is prohibited. Furthermore, vacant apartments that reach the

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According to the existing economic condition, the direct objective subsidies are not available for the owners at present.

standard of Category A through the renovation, including, for example, the newly-added apartments by attic conversion, condition the additional means for the owners to cover the costs and to earn an extra profit<sup>14</sup>. Since tenants are not compelled to participate in the renovation, the Sockelsanierung can trigger the coexistence of fully equipped apartments and Category D or C dwellings within one building, which in turn, also results in social mixture at building level.

The application for the public subsidies of Sockelsanierung is a bottom-up process. The eligible buildings must be at least 20 years old, and legally be built and used (in accordance with the land use and land development plan) or preserved to provide a particular benefit to the public. The renewal scheme is usually applied by the house-owner, in collaboration with an architect, at *wohnfonds\_wien*. The priority of different applications of housing renovation is evaluated by *wohnfonds\_wien* according to its point system by the social, technical and infrastructural criteria. At the same time, the renewal scheme and budget of each project are also checked. The renewal scheme should not be against the land development plan of the plots. After the negotiation with various municipal administration departments and the public tender, the qualified Sockelsanierung project is recommended to the municipal government by *wohnfonds\_wien*. The final decision (including the setting of rents) is made by "Schlichtungsstelle" (Arbitration Board) of Vienna via the public proceedings including tenants. Hereby the municipality of Vienna provides public subsidies for housing renovation. The project implementation including the building process and actual costs is supervised by *wohnfonds\_wien*. Figure 9-24 precisely illustrates the planning, application and implementation process of Sockelsanierung. The application is actually quite competitive. Currently, a Sockelsanierung project, from the application to the completion, normally spends approximately 5-10 years.

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For the formerly vacant and newly-added apartments that are qualified as the dwellings of Category A after the renovation, the asking rents can be largely raised by the new rental contracts.

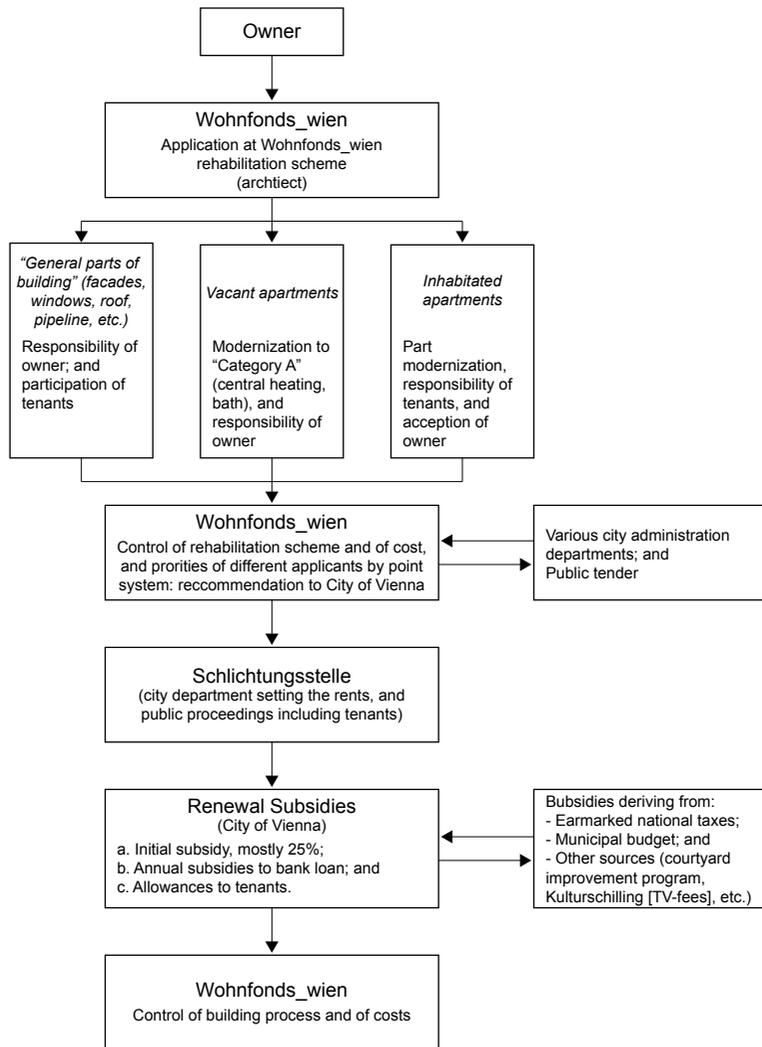


Figure 9.24  
Administrative process of Sockelsanierung  
(Source: Förster, n.d.b; drawing by author)

The Sockelsanierung actually presents a collaborative mode of public-private partnership for housing renovation. The state and municipality condition the legal framework and financing means, while wohnfonds\_wien provides administrative and technical support. The owner and tenants receive the support from those public actors but also partly self-finance the renovation. Broadly speaking, Sockelsanierung is a subsidized housing renovation with distributed responsibilities of not only owner and tenants but also state, municipality and other actors involved (figure 9-25). Both

public and private actors collaborate and contribute to the improvement of housing conditions in the Sockelsanierung. Behind the combination of top-down intervention and bottom-up participation, it is the equivalence between right and obligation.

	State	City	Wohnfonds wien	Owners	Tenants	
Legal Framework	Red	Orange				
Financing	Red	Orange				
Rules		Orange				
Administrative Framework		Orange				
Organization of Urban Renewal		Orange	Yellow			
Organization of Urban Housing			Yellow			
Renewal Scheme			Yellow	Blue		
"General Parts" of Building				Blue		
Modernization of Inhabitated Apartments					Pink	
Approval of Scheme			Yellow			
Public Tender			Yellow	Blue		
Recommendation for Subsidies			Yellow			
Setting the Rents		Orange		Blue	Pink	
Renewal Subsidies		Orange		Blue		
Allowances to Tenants		Orange			Pink	

Figure 9.25  
*Distribution of responsibilities in Sockelsanierung*  
 (Source: Förster, n.d.b; diagram by author)

Besides the Sockelsanierung, some other subsidy programs are also available for the old, rented dwellings and buildings. The so-called Totalsanierung (total renewal) means the thorough renovation of a vacant residential building (including the transformation of a formerly industrial building into a residential one) in order to create Category A apartments. The municipality also provides public subsidies for the basic maintenance, which means the undertakings to preserve but not to improve the buildings, such as the repair of building roof or façade. As for the individual apartments

in Category D or C, the low-interest public loans are available for the tenants in order to encourage their self-renovation, including the installation of heating system or bath/shower and improvement of the apartment floor plans. Since 2000, a new type of renovation, known as THEWOSAN (thermal renovation), has become popular as a part of the climate protection program of Vienna: it involves a complete installation of new insulation (including modern, insulated windows), and specially concerns the post-WWII apartments (Fassmann, Hatz and Patrouch, 2006, p.111). As with the Sockelsanierung, all those programs present the concepts of public intervention to the housing stock and distribution of responsibilities in the renovation.

The soft urban renewal is not just limited on a scale of the housing renovation of individual buildings. The improvement of the living conditions in the highly-dense neighborhoods is related not only to the premises but also to the whole block. The strategy of "Blocksanierung" has thus been developed as an area-based program of urban rehabilitation since 1988. In comparison with the Sockelsanierung, the Blocksanierung is more top-down initiated: the municipality designates the potential action areas (blocks) most in need of renewal, based on a series of social, technical and infrastructural criteria, and housing developers or architects are commissioned to develop block renewal concepts. In those areas, while the building renovations are still applied and implemented by different owners, the rehabilitation extends beyond individual buildings. The block renewal aims to coordinate the renovations of individual buildings and to improve the living conditions of the entire block or even area, as well as to ensure the implementation of urban planning. The wholesale reconstruction is avoided, and the physical interventions focus on housing renovation, improvement of public, semi-public or private space, infrastructure upgrading and ecological measures. In order to create open space and to improve living environments for a highly-dense block, some structures, particularly in the courtyard, have to be torn down, but the lost space is usually compensated through the additional storeys by attic conversions. In the less dense areas, gentler measures such as clearing and merging backyards are implemented. The new green space or car parking can be introduced through those interventions while the car traffic can be reduced. The social and economic renewal is also emphasized: the public facilities are renovated or newly-built, the social programs are introduced for helping vulnerable groups (such as the elderly and immigrants), and the local businesses and enterprises are actively involved. The social integration and small-scale mix of programs are key concerns of the Blocksanierung. In addition, the block renewal has turned out to be an ideal testing ground for new developments in the field of urban renewal (Förster, 2004, p.18). For example, some environment-friendly improvements for subsidized renovation were for the first time tested in the Blocksanierung projects.



Figure 9.26  
Improved courtyard by the *Blocksanierung*  
(Source: *wohnfonds\_wien*, 2007, p.23)



Figure 9.27  
Improved urban public space after urban renewal

Like *Sockelsanierung*, different actors are involved in the *Blocksanierung* with their own rights and obligations. The concerns of public or private property owners, small enterprises and local residents are taken into consideration from the beginning. All those who may be influenced by the block renewal have to be fully informed and can join the planning. The tenants are never forced to renovate their apartments or move out, but their assistance is welcomed. In the process of block rehabilitation, the area renewal office can play an important role to provide administrative and technical support for housing renovation and to coordinate the improvement of living environments. The responsibilities are fairly distributed between public and private actors. For instance, the renewal of the courtyard of block has to be realized through the collaboration and share of responsibilities between different landlords, usually with the intermediation and coordination of the area renewal office; and the municipality is responsible for the renovation of public space on the street sides and the improvement of public infrastructure. Everyone's interests are greatly respected through the transparent planning, coordination and implementation processes with open discussion and inclusive resolution of any arisen conflicts. In fact, the *Blocksanierung*, as a program of not only building but also urban rehabilitation, is another example of the PPP mode, as well as the combination of top-down and bottom-up dynamics, of the soft urban renewal in Vienna.

#### *Urban rehabilitation with economic sustainability*

Although as a social-oriented program, the economic dimension is not ignored in the soft urban renewal of Vienna but, on the contrary, emphasized through the specific understanding of the economic sustainability of urban renewal, including the balance between housing affordability and economic feasibility and the contribution of urban rehabilitation to the local economy.

Instead of the wholesale reconstruction, urban renovation or rehabilitation is a more economical approach, behind which there is an understanding that the renovated

apartments are not necessary to achieve the standard of newly-built houses and people have freedom to choose the dwellings suitable for their demands. Moreover, a funding system for urban renewal is established in Vienna in accordance with the strong belief that the housing provision should not be left to the market. Different from many other cities, where the tax deduction is often thought as a solution of housing problem but mainly benefits better-off households, the municipality of Vienna, plays a role of “condenser” to transfer its revenue to the housing provision as public welfare, including urban renewal intervention. This centralized and “socialistic” financing model not only ensures the sustainability for the funding of urban renewal but also contributes to equitable housing distribution. Those who occupy more resources have to take the equivalent social obligations to repay the economically vulnerable groups – the victims of “free” market.

Therefore, the financial solution of the soft urban renewal is based on public funding. From 1984 to 2003, the total amount of financial support for urban renewal projects in the municipality of Vienna was € 3,980.4 million (see table 9-1). And in 2004, the budget of urban renewal (€ 334.25 million) amounted to 3.5% of the entire municipal budget (Fassmann, Hatz and Patrouch, 2006, p.112). Regarded as a social housing program, the public subsidies to urban renewal derive from the earmarked national taxes, the budget of municipality and other relevant financing sources. But those public subsidies, as the sufficient financial incentive provided for the public or private property owners for the purpose of social-oriented urban renewal, must be used in an effective and sustainable way. The amount of subsidies depends on the building conditions and the renewal scheme, in which the houses in the worst condition (the “substandard” dwellings) gain priority. In many cases, like the Sockelsanierung projects, the initial cost is directly financed by the low-interest public loans and the rest is primarily covered by bank loans. The latter are partly repaid by annual public subsidies. In addition, individual allowances (subject subsidies) or public loans are also available for the tenants to renovate their apartments. As aforementioned, the maximum amount of public funding can cover 90% of the total costs of housing renovation, and in case of Blocksanierung, it can go up to 100% (ibid, p.113).

Type of Renewal	Private Properties	Properties of the Municipality of Vienna	Properties of Housing Associations	Total	Percent (%)
Basic Renewal (Sozialisierung)	1,166.1	1,095.4	113.3	2,374.8	59.7
Basic Maintenance	326.9	198.8	5.7	531.4	13.4
Total Renewal (Totalsanierung)	118.4	17.5	45.9	181.8	4.6
Individual Improvement	51.0	147.8	32.6	231.4	5.8
Thermal Renovation (THEWOSAN)	32.6	279.7	75.2	387.5	9.7
Homes	56.4	6.8	33.8	97.0	2.4
Block Renewal (Blocksanierung)	49.1	34.5	8.9	92.5	2.3
Others	0.0	84.0	0.0	84.0	2.1
<b>Total</b>	<b>1,800.5</b>	<b>1,864.5</b>	<b>315.4</b>	<b>3,980.4</b>	<b>100</b>

Unit: million euros

Table 9.1  
*Urban renewal costs of the municipality of Vienna (1984-2003)*  
 (Source: Fassmann, Hatz and Patrouch, 2006, p.112)

In this financing model, of which the public funding plays a role as incentive, a partnership between public and private actors is financially established in accordance with their rights and obligations. The public-private partnership also means the costs of renovation/rehabilitation are partially afforded by the house-owners and tenants. Besides the government subsidies, the public loan and bank loan are mainly paid back by the rent income. But the post-renovation rents for the existing tenants have to be no higher than the cost price and should not be changed in the upcoming 15 years. Among approximately € 218 million are annually invested for the soft urban renewal in Vienna, there is 60% provided by the public subsidies from the municipality and wohnfonds\_wien, and 40% from the owners and tenants. In terms of this PPP financing model that is highly supported by the public funding, the housing affordability and economic feasibility are well balanced in the soft urban renewal.

Perhaps more importantly, public funding for urban renewal in Vienna, unlike in many pro-growth cities, is not considered as a financial burden but as an initiative to promote sustainable economic development. The concept of soft urban renewal was de facto developed at the economically weaker time (1974-1983), during which period only the "first aid" for research was available. While the existing soft renewal in Vienna is largely supported by the public subsidies, these expenses are seen as seed money which will generate a much larger amount of private capital (Fassmann, Hatz and Patrouch, 2006, p.112). It also opens up great potential for the prosperity of labor-intensive construction industry. In comparison with the new housing

construction and underground construction measures, housing renovation creates more employment for the same volume of investment. A minimum of 6,000 long-term workplaces in construction and associated fields can thus be secured in the Vienna area (Förster, 2004, p.23). Moreover, the area-based small enterprises, which provide many job opportunities, are involved in urban rehabilitation as indispensable actors. In collaboration with those local businesses, the interventions such as improving shopping streets and revitalizing local markets, under the moderation by area renewal offices, are implemented in order to activate the local economy (figure 9-28). In addition, urban renewal is increasingly becoming an export article, especially to the Eastern European countries, that offers an important chance for the future of the Viennese economy in the medium term (ibid.). Urban rehabilitation in Vienna, therefore, significantly contributes not only to the revitalization but also to the development of urban economy.



Figure 9.28  
*Completion ceremony for the revitalization of a local market*  
(Source: *Gebietsbetreuung Stadterneuerung*, 2010, p.65)

### § 9.3.3 Consequences

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As a successful approach of urban rehabilitation, the soft urban renewal program largely improves the living conditions of old housing areas in Vienna (figure 9-29). Until January 2009, more than 10,800 projects have applied for subsidized housing improvement and about 6,200 applications have been approved. The investment volume recommended for subsidized improvement is valued at more than € 5.7 billion, in which the grant of the municipality of Vienna is about € 3.7 billion. More than 150,000 apartments, one sixth of the total housing stock in Vienna, have been renewed with public subsidies. From 1984 to 2006, the substandard dwellings

reduced from about 320,000 to less than 116,000, and the fully equipped apartments increased from about 328,000 to more than 715,000 (Förster, 2009). The soft urban renewal that was launched in 1984 is still running. Many dwellings will be renovated in the near future.

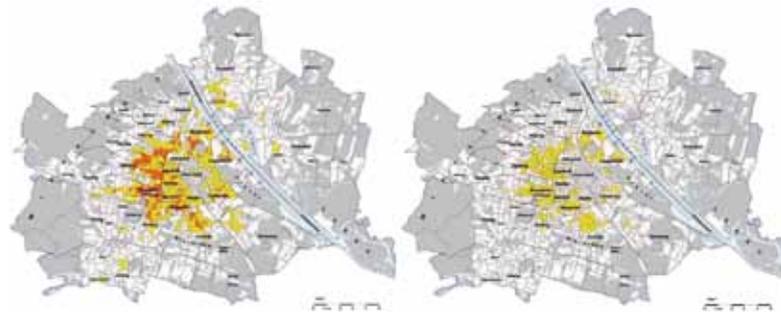


Figure 9.29  
Problematic areas of Vienna in 1971 (left) and in 2001 (right)  
(Source: Municipality of Vienna, 2005)

As a social- and resident-oriented program, the social task is placed as priority in the urban renewal in Vienna. The “soft” renewal strategies based on “small-scale” and “step-by-step” renewal schemes, including housing renovation and block rehabilitation, are therefore developed. In this top-down initiated intervention with bottom-up participation, the responsibilities of different actors are clarified and distributed and the public-private partnership of urban renewal is established. Thanks to the building-based renovation and inclusive process, the living conditions of old housing areas are significantly improved, without the exclusion and displacement of residents and social gentrification/ segregation<sup>15</sup>. The social mixture can even occur in a building. At the same time, a large amount of public subsidies for urban renewal, as social housing program, is not only the financial incentive but the guarantee of the balance between housing affordability and economic feasibility. The social-oriented

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Some research studies have revealed that the private-rented apartment buildings are tending to be “gentrified” after the *Sockelsanierung*: only 10% of the preexisting tenants participated in the renewal process, and the renovation is accompanied by the overlay of younger and higher-income households, as the tenants of formerly vacant apartments. But on the urban level, the scattered, building-based renewal, without the delineated renewal areas, successfully avoided the appearance of gentrified neighborhoods or ghettos of low-income groups and therefore maintained the social mixture. For the detailed analysis, please see Fassmann, Hatz and Patrouch, 2006, pp.116-117.

urban renewal can also promote the sustainable development of urban economy. In conclusion, the soft urban renewal in Vienna, as social-oriented intervention to the housing stock, successfully combines the top-down and bottom-up dynamics by applying a socially, economically and ecologically sustainable approach. It is hence famous as a “sustainable urban renewal”, which was awarded a UN HABITAT Best Practice in 1996, 2000, 2002 and 2006. In 2010, the City of Vienna received the most important human settlements prize of United Nation – the 2010 Scroll of Honor (Human Settlements Program UN HABITAT) for its soft urban renewal. Supported by the UN and EU, the successful experiences of urban renewal Vienna is also introduced to several Eastern European cities.

Today Vienna can be regarded as a “renewed” city. However, the urban renewal is always a continuous process and has to, as it used to, be constantly confronted with new challenges. The existing challenges comprise the increasing demand of environment-friendly improvement, the growing social disparity, the ageing society and the requirement of renovating the urban expansion areas built from the 1960s to the 1980s (Förster, 2004, pp.24-25). The strategies of soft urban renewal are hence continually being readjusted to answer the new questions.

Although the soft urban renewal in Vienna, as a PPP approach combining the top-down initiative and bottom-up participation, differs from the strategies of housing socialization in Berlin and Rotterdam, it is, like Wolfgang Förster (2004) described, built upon the concept of socially oriented urban renewal with sufficient public investment. Nevertheless, the globally shrinking of public investment to the housing stock, as a result of the neo-liberalistic wave since the later 1970s, gradually shook the foundation of socialized urban renewal, for which the massive public funding is inevitable. Even in some countries famous for its social housing tradition, such as the Netherlands, the housing stock also undergoes the marketization and privatization (which is comparable to the transition of Chinese housing policy to a certain extent). For the social-oriented urban renewal, more “marketized” strategies to further stimulate the contribution of residents were developed under this background.

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## § 9.4 **Combination Project and Socio-Economic Renewal – The Integral Urban Renewal of the Bijlmermeer in Amsterdam**

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Until the 1980s, the problem housing shortage in quantity was basically resolved in the Netherlands, so that the main challenge for the housing stock is the improvement of housing quality, in which the differentiation of housing stock is a key issue. At the same time, due to the economic recession and the popularity of neo-liberalism, for

which the role of free market is considered as a panacea of not only economic but social problems, the public funding for social housing (including the housing socialization in urban renewal) was gradually thought a heavy financial burden for the government. The Dutch housing policy was accordingly reformed by referring to two issues: decentralization and privatization. Decentralization meant that the risks of realization and financing of the housing program are for the local government and mainly for the housing organizations and no longer for the central government, while privatization stimulated the owner-occupied sector of housing stock, minimized the housing subsidies and made tenants pay a larger part of the housing costs (Stouten, 1995).

A reformation of the Dutch social housing system started in the late 1980s. It was symbolized by the retreat of government from the strongly financial support to social rented sector. The first step was the independency of social housing organizations at sector level, which meant the establishment of a 3-layer financial guarantee structure at the time of the government's pullback. The primary security was the solidity of social housing organizations and the Central Social Housing Fund (CFV – Centraal Fonds Volkhuysvesting), the latter of which was founded in 1987 as an independent administrative body set up by the Minister and received its resources from the charges levied on all social housing organizations and furnished interest-free loans to associations in need. The state loans to social housing organizations thereafter were discontinued in 1988. The secondary security was the Social House-Building Guarantee Fund (WSW – Waarborgfonds Sociale Woningbouw), which guaranteed the loans that housing organizations needed on the capital market. The WSW is a private fund set up by and for social housing organizations and supervised by the central governments and local municipalities. The tertiary security is the so-called "safety net" provided by the central and local governments. Although the risk is actually theoretical, the governments act as guarantors just in case the sector itself can no longer overcome its financial problems (Aedes, 2003)<sup>16</sup>.

The next step was the independency of individual social housing organization. In 1993, the Social Rented Sector Order (*BBSH – Besluit Beheer Sociale Huursector*) was enacted. The BBSH indicated the performance criteria that must be met by housing organizations and therefore shaped the administrative independency of housing associations. Before long in 1995, the Property-linked Subsidies Scheme

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Since the "Vestia Affair" in 2012, the financial risk of Dutch housing organizations has not been theoretical any more. Under the background of economic recession (which resulted in the extremely low interest rates), the housing corporation Vestia was asked by the banks to pay extra € 2 billion to guarantee its debts (which were usually secured by the derivatives against high interest rates). That eventually led to the bankruptcy of Vestia. Other housing corporations or associations therefore had to look for the guarantee from the WSW system.

(*BWS – Besluit Woninggebonden Subsidies*) and the so-called Grossing and Balancing Operation came into effect<sup>17</sup>. According to the agreement reached in 1993 between the government and the housing organizations, the object subsidies for the social rented sector ended in 1995 by exchanging the government loans to be repaid (balancing) to the (one-off) operational housing subsidies to be claimed (grossing). The rent increasing trend gradually links to the general price inflation. In addition, the tasks of WSW were expanded in order to provide more guarantees for housing organizations and the central and local governments promised to play the role of final security. The social housing organizations thus have gained independency in financing and operation.

Parallel to the decentralization of social housing system, it was the process of privatization. Currently almost all municipal housing companies have been privatized. A certain amount of social housings meanwhile have been privatized by selling to the tenants with subsidized price (in principle 90% of market price). As compensation for the abolition of government object subsidies, social housing organizations were given freedom to develop a certain proportion of market housings. The process of decentralization and privatization resulted in the decrease of the share of social rented sector to 35% (2008). However, this proportion is still the highest one among the countries in the European Union. In Amsterdam and Rotterdam, the share of social housing in the housing stock is still over 50%.

However, those changes do not mean that the state plans to totally withdraw from the field of social housing. The central government remained approachable on three core themes: availability of a sufficient number of dwellings at the right locations; affordability of the dwellings; and quality of the dwellings (Priemus, 2009). According to the Housing Act and the BBHS, social housing organizations had to meet the criteria for fulfilling the social tasks. The subject subsidies in the form of allowances to low-income tenants are promoted. The so-called Great Location Subsidy from the central government for promoting the development of new centralities, such as the VINEX projects<sup>18</sup>, can be beneficial to housing organizations if they are involved in those

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17 The Grossing and Balancing Operation was one of the byproducts of the Maastricht Treaty of European Union (which introduced Euro as the common currency). This treaty obligated the member countries to reduce their deficits, for which the grossing and balancing of the loans and subsidies for housing organizations was thought as an effective and immediate means.

18 The Fourth Memorandum on Physical Planning – Extra issued in 1990, referred to as VINEX, has attempted to guide the migration to the periphery of existing cities and to take the structural effect of traffic into account for the purpose of creating new centralities along the national transportation network. In the VINEX locations, 30% of housing stock is proposed to be social housing.

projects. Additionally, the local authorities assume more duties on financing the social rented sector. As the final financial security, housing organizations really in bankruptcy, irrespective of the cause of the problems, can be taken over by the government.

On the other hand, the social housing organizations have sufficient credit can seek loans from the capital market by themselves. More importantly, social housing organizations acquire more independency to commercially operate. They have been transformed into “profitable” non-profit organizations which may undertake market activities, especially by developing a certain proportion of owner-occupied and rented market housing, while any surplus must be used exclusively for housing purposes. This arrangement results in a “combination project”, of which social housing and market housing can be developed in one neighborhood. It is an effective strategy to cope with the threat of socio-spatial segregation, which has become one of the major challenges for Dutch cities under the background of enlarged owner-occupied housing sector and massive immigration inflow.

In general, the hybrid status of social housing organizations reflects their double commitment – to realize social obligations and to undertake market activities. Only by maintaining and strengthening the unitary rental housing system can segregation and exclusion be prevented (Priemus, 2009). However, the future of Dutch social housing still faces challenges: on the one hand, the competitiveness of housing organizations in the market is less or more questionable (since they were traditionally supported by the government); on the other hand, the growing excess capital of housing organizations by market activities and their excessive administrative expenditures (including salaries, benefits, costs of offices, etc.) attract increasing criticism. Nevertheless, the constantly growing and increasingly differentiated housing stock in the Netherlands will demand a robust social rented sector. The neglect of the Dutch tradition of social housing will be unaffordable.

According to the Dutch tradition, social housing as a sector taking on public tasks is usually involved in urban renewal. Social housing organizations are able to play an important role in the rehabilitation and the revitalization of the less popular areas of Dutch cities. However, the changes of housing policy fundamentally influenced the approaches of urban renewal. Both financing and administrative strategies of urban renewal have to be modified in order to react to a more “marketized” housing stock.

With the policies of decentralization and privatization, the purpose of the central government was to reduce its housing expenditure and involvement in urban renewal programs. Private investors have been stimulated to involve in urban renewal while the local governments and housing organizations were asked to take on more tasks. The economic renewal has gotten a priority for municipal governments of big cities in order to improve their competitiveness. In the meantime, socio-spatial segregation has increasingly become a realistic threat in Dutch cities. Along with the inflow

of immigrant workers and the transition of economic structure in the process of globalization, the traditional working class, especially in the manufacturing sector, is to a large extent composed of immigrants. Albeit the American-style slum or ghetto does not exist in the Netherlands, the concentration of socio-economically weaker but also ethnic minorities brought the challenge of social exclusion and spatial segregation.

Preceding the new challenges, urban renewal is not just limited in the prewar inner-city neighborhoods. The restructuring of old industrial sites is popular to create the new centralities by combining office, business and housing programs, the latter of which present in a mixture of luxury house, owner-occupied apartment and social housing for the purpose of housing differentiation and social integration. Along with the privatization and marketization in housing stock, the approach of urban renewal in old housing areas is “commercialized” as well. In the deteriorated pre-war neighborhoods, the owner-occupancy is promoted in order to attract the middle class and thus to encourage social integration. Instead of the large-scale housing socialization, the “soft” strategy is adopted through the public subsidies for the housing improvement of new homeowners. The concept of “Public-Private-Partnerships” (PPP) is popularly applied in urban renewal and restructuring projects.

Apart from those pre-war neighborhoods, urban renewal of those postwar social housing areas becomes a new challenge. The social housing areas that were developed from 1950s to 1970s in order to solve the postwar housing problems are decreasingly preferred because of not only the relatively lower technical standard but also their uniform design for the “average person”. Under the background of social differentiation, some of those areas became the concentrations of many people who had no other choices, which brought stigma to them and thus the threat of spatial segregation. Accordingly, the urban renewal of problematic social housing areas began in the 1990s. Housing organizations, which have been privatized and commercialized, play an important role in those renewal projects in collaboration with local authorities. Social integration is the key issue and more “marketized” strategies are developed. New housing types and ownerships are introduced for the purpose of differentiation. Social and economic programs are particularly accentuated. The keywords of urban renewal for postwar social housing areas are housing differentiation, social cohesion and economic revitalization. Within all those projects, the urban renewal of Bijlmermeer, a large postwar social housing area in Amsterdam, is the most representative case.

## § 9.4.1 Background

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In the Netherlands, the amendments of Housing Act in the 1960s opened up the possibility for the development of a large-scale social housing area. In the Bijlmermeer – a polder to the southeast of Amsterdam, a new district with 40,000 social rented dwellings started to be constructed in 1966 (Figure 9-30). The master plan of Bijlmermeer was based on the modernistic concept of CIAM, for which there was a radical separation of residential, work, recreational and traffic functions. Within the rectangular network of raised roads, underneath which the public facilities were planned, the honeycomb-shaped, high-rise gallery apartments “freely stood” in huge green space. 90% of dwellings were housed in those high-rise buildings that were built in an “industrialized way” and connected with pedestrian bridges on the first floor. Car traffic was strictly separated from pedestrian and bicycle routes. The parking garages were designed to provide 1.5 parking spaces for each household. The identity of individual dwelling was neglected while the communal spaces and facilities for day-care and collective activities were developed. In general, according to the ideal of future urbanism, in which people will live and work collectively, a hygienic, green, spacious, light and thus healthy city was proposed in contrast to the congested and “dirty” industrialized cities (Buurman, 2005). The planning and design of the Bijlmermeer presents a belief that a well-ordered, ideal society is makeable (figure 9-31).

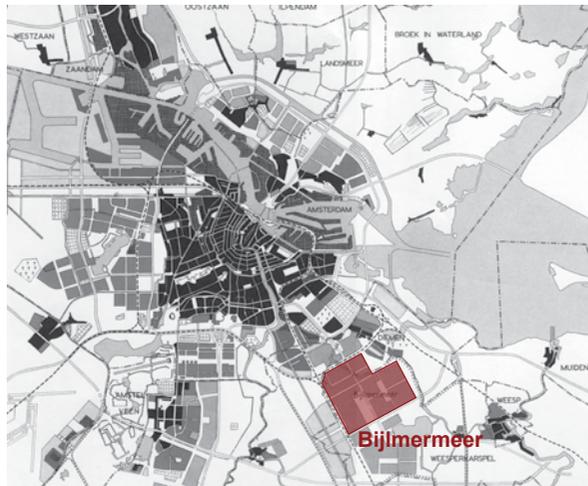


Figure 9.30  
*Bijlmermeer in the spatial planning of Amsterdam in 1965*

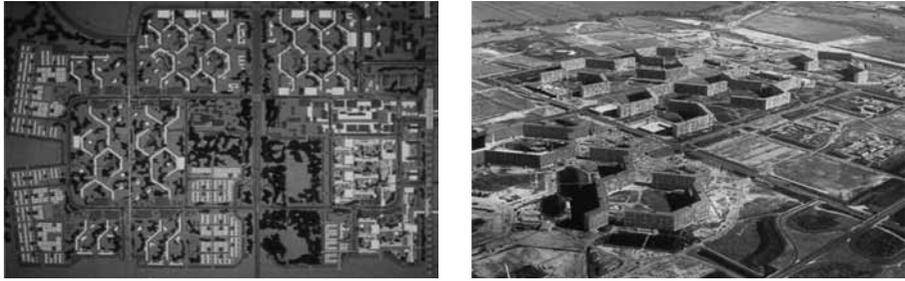


Figure 9.31  
*Planning and construction of the Bijlmermeer*  
 (Source: Luijten, 2002, p.10)

In 1968, the first residents moved into their homes in the Bijlmermeer, while the construction work of the whole district would be completed in the 1970s. Nevertheless, the criticism to the Bijlmermeer rose up before long. The monotone and uniform high-rise apartments, the large scale residential block and the functionalistic plan separately distinguishing fast and slow traffic were soon proven unwelcome in the housing stock in contrast with the low-rise and mid-rise neighborhoods. Without sufficient management, the large number of public and semi-public spaces, including the overhead pedestrian corridors, the large green space and in particular the plinth underneath the raised buildings and roads, were uncontrolled and thus experienced as unsafe. The planning and construction of infrastructures, facilities or non-residential programs were also problematic. As a “lobe” of Amsterdam, Bijlmermeer was planned to functionally link to the center of Amsterdam but separated from the nearby small cities. But the Metro to Amsterdam Central Station was only completed in 1980, long time after the first residents moved in (Luijten, 2002, p.15). Amsterdamse Poort, the most important and long-awaited shopping center for the district, was only ready in 1987. Business parks were isolated on the other side of the railway embankment. And the whole district was almost invisible from the elevated national highways as a part of the city.

In the meantime, the demands in the housing stock in reality were not as predicted. While the Bijlmermeer originally was proposed for young, middle-class families and residents from the urban renewal areas in Amsterdam, those target groups never massively moved in. Due to the stimulation of home ownership, there were more middle class families choosing to buy their own houses. The skilled workers preferred single-family dwellings or mid-rise apartments in and around Amsterdam rather than the high-rise. The massive influx of relocatees from urban renewal areas did not happen because of the change of urban renewal strategy from reconstruction to rehabilitation, such as *Bouwen voor de Buurt*, by which many people remained in the old districts. As a result, there was a deficient demand for the high-rise apartments in the Bijlmermeer during the construction in the early 1970s. Many tenants were

starters in the Dutch housing stock – single renters such as students and nurses. The independency of Surinam (formerly Dutch Guiana) in 1975 also brought a large amount of immigrants, for whom the Bijlmermeer was a primarily available settlement<sup>19</sup>. Even so, the vacancy rate in Bijlmermeer reached 25% in 1985, and 2/3 of parking garages were still empty till the 1990s.

The inadapted physical planning and design as well as the changing housing stock resulted in socio-economic problems. The Bijlmermeer gradually became a refuge of ethnic minorities and others with fewest choices in the housing stock, most of whom were from the lower income groups. As a result of the catchment of the low income, the rental arrears, lodgers and subletting were popular. Each year approximately € 1.4 in rental incomes had to be written off as uncollectible. Since the apartments were owned by many social housing organizations, the housing management was in chaos. No one was really responsible for the large public green. The Bijlmermeer was confused by criminality, vandalism, violence and social conflicts from the beginning. The percentage of break-ins and robberies was high. It got a nationwide stigma as an “unsafe” area in a short time. Hence there was high turnover of the residents. The middle class families continuously moved out, and most of the new tenants were the low-income earners. The Bijlmermeer became an unfavorable and excluded housing district by the majority of the members of the Dutch society (figure 9-32). After several unsuccessful attempts to improve the situation of the district, the municipality of Amsterdam eventually decided to start a fundamental renewal intervention at the beginning of the 1990s.

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Thanks to the introduction of subject subsidies in the Dutch social system in the 1970s, the low-income tenants from Surinam (who could choose to settle in the Netherlands after the Surinamese independency) could afford the higher rents of social housing in the newly-developed Bijlmermeer.



Figure 9.32  
*The “unfavorable” Bijlmermeer before the urban renewal*  
(Source: Rosemann, 2005)

## § 9.4.2 Strategies

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In fact, many improvement interventions had been introduced in the Bijlmermeer long before the 1990s. Some low-rise and medium high-rise blocks were built in the late 1970s and the 1980s in order to change the monotone housing stock. The projects to redesign public spaces were also carried out in the high-rise neighborhoods. With a dowry of 300 million guilders from the state and the municipality, various housing organizations were amalgamated into one housing corporation – Nieuw Amsterdam centrally responsible for the housing management and improvement. However, all those actions were not really effective. The problems continuously piled up. The economically capable households, especially the middle class, still constantly moved out. Preceding the high rate of vacancy, Nieuw Amsterdam suffered severe financial problems<sup>20</sup> and even the threat of bankruptcy (Luijten, 2002, p.17). The necessity of a fundamental transformation became acute at the end of the 1980s.

In 1990, an integral renewal program was approved by the Amsterdam Zuidoost (Southeast) District Council, the Municipality of Amsterdam and the housing corporation Nieuw Amsterdam as partners. The Project Office for the Renewal of the Bijlmermeer (PVB – Projectbureau Vernieuwing Bijlmermeer) was established in 1992 in order to supervise the implementation. The urban renewal of the Bijlmermeer was officially launched as the largest renewal project in the Netherlands (figure 9-33). As

a flexible program started from the individual projects in different areas, the master plan – Finale Plan van Aanpak (Final Plan of Approach) was produced in 2002 for coordinating the renewal of whole district.



Figure 9.33  
*Urban renewal under the construction in the Bijlmermeer*  
(Source: Leferink, 2005)

Faced with the threats of social exclusion and spatial segregation, the primary task of the urban renewal of the Bijlmermeer was to improve the social structure of the district for the purpose of social cohesion and integration, which do not mean the displacement of the poor but the encouragement of social mixture. The living conditions thereby should be upgraded not only to cease the outflow but also to attract the inflow of the higher income earners, and the existing vulnerable groups had to be largely supported to enhance their economic capacity. According to the analysis, the present problems were only able to be resolved by an “integral approach” of urban renewal that meant three parts inseparably linked with one another: spatial interventions, social and economic measures, and more intensive management (Kwekkeboom, 2002, p.79). A series of renewal strategies were developed in order to create a mixed community: a certain proportion of high-rise apartments were demolished and replaced by various housing types, in which more owner-occupied dwellings were provided; more vibrant urban life was introduced by creating new centers and by reorganizing the public space (Buurman, 2005, p.98); the organization of planning and implementation was rather flexible; and the management of housing area was intensified. Those strategies on creating a differentiated but integrated community will be investigated in Chapter 10, but the strategies referable to answer the challenges in the socio-economic dimension for the urban renewal of former public housing areas in Beijing will be discussed in this chapter. Those socio-economic strategies include the financing strategy by the collaboration between public and private partners and the social and economic revitalization program.

### *PPP financing strategy for a combination project*

The urban renewal project of the Bijlmermeer was initiated at the time when the Dutch housing policy was undertaking a significant transition. According to the idea of decentralization and privatization, the state government withdrew the direct public funding to social housing organizations and the owner-occupation was promoted in the housing stock. Differentiation of the housing supply was emphasized to meet the increasingly differentiated demand. Housing organization had to carry out both the social task and the market activities. The so-called combination project, in which the social housing and the owner-occupied or market rented dwellings can be built in the same neighborhood, started to be developed for the purpose of not only achieving social integration but also balancing the investment of housing organization. In addition, the local government was asked to take on more responsibilities to fund urban renewal.

The urban renewal of the Bijlmermeer can be seen as an example to practice the combination model, for which the commissioning actors or financiers were clarified from the beginning in a framework of public-private partnership. The municipal and district governments were responsible for planning, governance, land development, infrastructure, public space and social renewal, and the restructuring of housing stock is the emphasis of housing corporations with the support from CFV. The financial soundness of housing corporations was important. In 1998, Nieuw Amsterdam was reinforced by the Patrimonium housing foundation, a larger player in the housing stock of Amsterdam region, and the latter of which was later taken over by an even larger one – the Rochdale housing corporation. Except the rental income, the investment of housing corporations for the urban renewal was largely balanced by their “profitable” business – selling owner-occupied dwellings (or market rental). According to the final scheme in 2002, amongst 5,950 retained high-rise apartments, 1/3 (2,000 dwellings) was proposed to be renovated and sold/repositioned. And within 7,450 newly-built dwellings in the renewal area, 70% (5,200 dwellings) is market housing while 30% (2,250 dwellings) were kept as social rented. In total, the proportion of social rented dwellings in the housing stock of the Bijlmermeer decreased from 92% to 55% (Kwekkeboom, 2002, p.93). The economically capable homeowners actually to a certain extent contributed to the urban renewal. Meanwhile the residents who had to move were promised to be rehoused in the same area if they wished, so that the forced eviction of the vulnerable groups was avoided.

Nonetheless, the deficit still exists between the income and the cost of urban renewal. It should be covered by the “unprofitable” investments from public/private commissioning actors. The total investment of the urban renewal of the Bijlmermeer was estimated to be about € 2.5 billion, in which approximately € 530 million would be unprofitable. In accordance with the distinguished financing responsibilities, 42% of those unprofitable investments (€ 225 million) were paid by the CFV to the housing corporations, 53% (€ 280 million) were covered by the municipal government of

Amsterdam, and the rest 5% were shared by the Zuidoost District Council and the housing corporation.

As a combination project in a more “marketized” housing stock, the urban renewal of the Bijlmermeer set up a financing framework by including various actors. A partnership is established between private actors – tenants, homeowners, housing corporations – as well as public players – CFV, municipal and district governments. This PPP financing strategy, for which the responsibilities of different actors are clarified, shares the cost of urban renewal and covers the unprofitable investments (figure 9-34). By manipulating market activities within a social-oriented framework, the balance between housing affordability and economic feasibility is achieved.

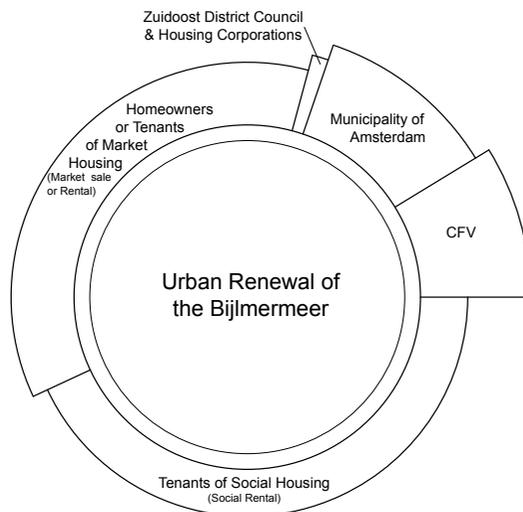


Figure 9.34  
PPP financing mode of the urban renewal of the Bijlmermeer

#### *Social and economic revitalization*

An innovative concept of the “integral” urban renewal of the Bijlmermeer is the emphasis of the integration of socio-economic renewal and spatial interventions, which was still unusual in the early 1990s. It was recognized that no physical renewal would be effective without the socio-economic revitalization. Apart from retaining and attracting better-off families, the improvement of social status and economic capacities of vulnerable groups by social and economic programs is a fundamental approach to renew the area and to avoid social exclusion and spatial segregation.

First of all, the physical renewal should be guided by the overall socio-economic perspective. In order to promote social mixture, the housing types are differentiated through partly replacing the high-rise apartments by the single-family and mid-rise dwellings (figure 10-17). Moreover, the social rented and owner-occupied dwellings are equally distributed in the retained high-rise and newly-built residential buildings to avoid segregation. In the meantime, the creation of new center (ArenA area as the center of Zuidoost District by connecting Amsterdamse Poort and the business park Amstel III via ArenA Boulevard), sub-centers and avenues as well as the reorganization of public space aim to introduce mixed, vibrant urban life and develop local economy (figure 9-35).



Figure 9.35  
*Newly-introduced centrality and its street life in the Bijlmermeer*

Secondly, the socio-economic revitalization places the demands on and thus works together with the physical renewal. The so-called “order form”, by which the socio-economic demands indicate the physical intervention as “order”, was introduced into the spatial planning. Not only are places given to accommodate social programs, such as community center, shopping, educational support, child care, sports fields and playgrounds, cultural and religious facilities, etc., but also available commercial spaces (usually beneath the high-rise and along the avenue) are realized to maintain

small enterprises and to condition business start-ups (figure 9-36). The raised road is lowered and transformed to the street (figure 9-37), and the accessibility to the new district center is in particular strengthened for the purpose of socio-economic revitalization (figure 9-38).



Figure 9.36  
*Communal facilities and local businesses created by the urban renewal*



Figure 9.37  
*Lowered street in the Bijlmermeer*



Figure 9.38  
*New accessibility linking Amsterdamse Poort and Amstel III*

Thirdly, as an integral part of urban renewal, the “non-physical” programs in a sense play a more important and direct role in the socio-economic revitalization. The social and economic programs including four main issues – work, education, guidance for newcomers and multicultural identity were formulated from the very beginning of the urban renewal of the Bijlmermeer. Many educational and training projects, which include both short-term and long-term programs, as well as the guidance programs for job-finding and start-up are implemented with the support of public funding. Urban renewal itself becomes job-provider – contractors for construction and management are required to preferentially hire unemployed residents. The employers in the fast developing ArenA area also promise to provide more job opportunities for the job seekers from the Bijlmermeer. In addition to those efforts to enhance the economic capacity of minorities and other vulnerable groups, there is the promotion of their political status. After a debate in 1996 launched by “Zwart Beraad” (Black Consultation) – a group of Surinamese Dutch who argued for the right of black and other color (the actual majority in the Bijlmermeer) in the administration, community and ethnic organizations were given a role in awarding subsidies (Kwekkeboom, 2002, p.84-85). The ethnic minorities are now empowered to widely participate in the political administration, the management and the consultancy with respect to multicultural elements. According to the support of socio-economic programs, the primarily vulnerable groups are able to significantly improve their social, economic and even political position. The effort to revitalize the local community and local economy fundamentally contributes to the sustainability of urban renewal.

### § 9.4.3 Consequences

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While the urban renewal of the Bijlmermeer was proposed to be completed by 2010 according to the Final Plan of Approach, all projects will not be done in accordance with the planned time schedule since the complexity of implementation is often underestimated. However, the integral urban renewal program is evidently proven successful. In the socio-economic dimension, it opens up new ways: on the one hand, the PPP financing framework of combination project not just provides the possibility to realize the social object within a marketized housing stock but also conditions the achievement of social integration by urban renewal; on the other hand, the social and economic revitalization, especially the programs to support the vulnerable groups, is emphasized in order to develop the local community and the local economy. As a result of those efforts, the outflow of better-off residents gradually slows down and the Bijlmermeer starts to be attractive for some middle-class households. More importantly, the social and economic position of many ethnic minorities and low-income groups is considerably improved via the integral urban renewal. The number of unemployed sharply decreases and the rate of decrease even exceeds the average

of Amsterdam. The Bijlmermeer gains identity as a socially-mixed and multicultural district and becomes an integral part of the city. The experiences of the Bijlmermeer in the socio-economic dimension build the link between the social-oriented urban renewal and the socio-economic sustainability.



Figure 9.39  
*Renewed Bijlmermeer as a socially-mixed and multicultural district*

In a marketized housing stock, public-private partnership might be an effective approach for the social-oriented urban renewal of old housing areas. But in many other cases, the role of housing market is more emphasized as the impact of liberalistic ideology. Preceding the challenge of over-privatization and even capitalization of housing stock, more “top-down” renewal strategies may be inevitable. In Hong Kong, a city with divided housing stock – a well-developed public housing system parallel to speculative real estate market, marketized stimuli are developed to encourage housing renovation by private owners.

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## § 9.5 Public Subsidy for Private Renovation – The Private Housing Renovation in Hong Kong

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Although it is a city only with 160-year history, along with the postwar population boom and the economic explosion since the 1970s, Hong Kong has become one of the most populous cities in the world. By 2010, the population density in Hong Kong had reached 6,420 persons/km<sup>2</sup> (21,000 persons/ km<sup>2</sup> in the urban area) and the total population was over 7 million but still growing. The city is identified by its high residential density. The housing shortage thus is always a major challenge that the city has to deal with.

Similar to Beijing and other cities in mainland China, the land ownership in Hong Kong belongs to the state<sup>21</sup>. Hong Kong therefore develops its public land lease system for urban construction (which is the origin of the present urban land lease system in mainland China). The public land ownership and the land lease system ensure the guidance of government to urban development and the large-scale construction of public housing on the one hand, and the long-term, stable government income on the other<sup>22</sup>. According to the concept of intensive land use, the urban development in Hong Kong concentrates in the urbanized areas, including the city area in Hong Kong Island and Kowloon as well as nine new towns (satellite towns) that developed since 1973. As a model of compact city, the housing construction in Hong Kong focuses on the high-rise apartments, but the average housing area per capita is still quite low (7 m<sup>2</sup> using floor area).

In Hong Kong, the housing stock is identified by its dualistic structure. With the tradition of “positive non-interventionism”, Hong Kong is famous for its liberalistic economy, so that the market plays an important role in housing provision. In particular after the 1970s, along with the transition of Hong Kong’s industrial structure from manufacturing to services, real estate development has gradually been one of the main pillars of Hong Kong’s economy. Under the background of long-term housing shortage, the emphasis of real estate economy no doubt caused widespread speculation in the housing market. The constant increase of land lease and market housing price has made Hong Kong become one of the world’s most expensive cities in housing costs. The highly capitalized “market” part of housing stock is also regarded as a means to stimulate economic growth.

But preceding the serious housing shortage and the following social problems, even the former colonial authority recognized that the housing provision should not rely on the market. Therefore a social housing program – public housing in Hong Kong was developed since 1954, after the fire of Shek Kip Wei squatter area in 1953 resulted in a large number of homeless. After the efforts of more than 50 years, a public housing system that widely covers the mid-and low-income groups has been established in Hong Kong. The public housing officially includes public rental housing (PRH) and subsidized sale housing supported by Home Ownership Scheme (HOS) and Private Sector Participation Scheme (PSPS). The developer and manager of public housing is

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21 The public land ownership in Hong Kong derives from its history as British colony. Before 1997, the land in Hong Kong Island and Kowloon was “owned” by the British Queen, and the New Territories used to be a piece of land rented by British government from China.

22 In Hong Kong, the income from land lease usually accounts for 15% of annual fiscal revenue of the government.

the Hong Kong Housing Authority (HA), a statutory body taking on public task under the legal framework of the Housing Ordinance. In addition to the HA, the Hong Kong Housing Society (HS), a non-governmental and not-for-profit housing organization, is responsible for the innovative housing interventions, such as the so-called “Sandwich Class Housing Scheme” (SCHS) – subsidized owner-occupied dwelling for the middle class and some urban renewal programs, to fill the gaps in and between the public and market housing sectors.

The divided attitude to the housing problem conduces to the dualistic housing stock in Hong Kong. On the one hand, the public intervention is inevitable to resolve the problem of housing shortage in both quantity and quality; on the other hand, the housing market and real estate development is thought a pillar sector for the economic performance in Hong Kong. Due to the social, economic and political considerations as well as the game between interest groups, the housing policy of Hong Kong government has to swing and balance public and private sectors. Eventually the housing provision system is clearly divided into two sectors: the private housing market and the social (public) housing provision supported by the government (figure 9-40), by which the housing demands of different strata are systematically covered (see table 9-2). Albeit the further development of subsidized sale housing (including HOS/ PSPS and SCHS) was ceased since 2002 in order to stimulate the real estate economy, the public permanent housing (including public rented housing and subsidized sale housing) still accommodated 47.7% of the total population in Hong Kong by the 1st quarter of 2011 (figure 9-41).

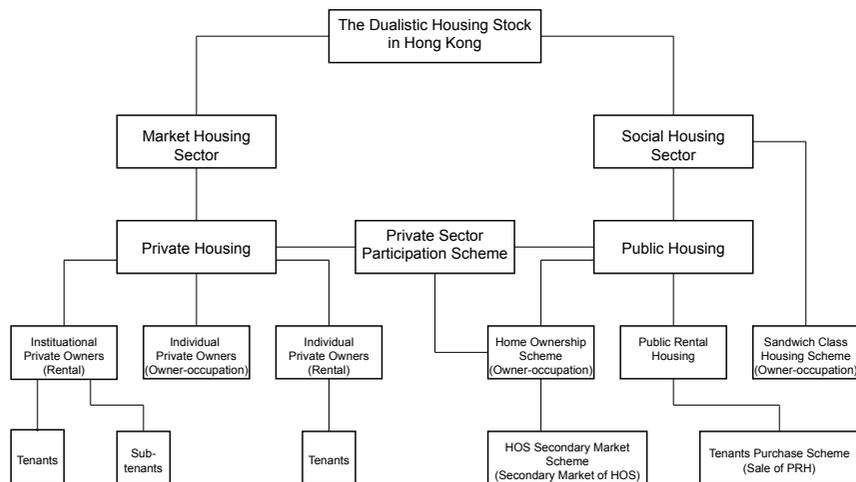


Figure 9.40  
 “Dualistic” housing stock in Hong Kong  
 (Source: eds. Li Jiange and Ren Xingzhou, 2007, p.229; translation and drawing by author)

Households by Income	Income Level	Housing Types	Housing Providers
High Income	Monthly income per household higher than HK\$ 60,000	Private permanent housing	Private housing market
Mid-high Income	Monthly income per household HK\$ 26,000 – 60,000	Sandwich Class Housing Scheme	Social housing provision (Housing Society)
Mid-low Income	Monthly income per household HK\$ 11,000 – 26,000	Home Ownership Scheme / Private Sector Participation Scheme	Public housing provision (Housing Authority)
Low Income	Monthly income per household lower than HK\$ 11,000	Public rental housing (eligible for the application criteria of PRH)	Public housing provision (Housing Authority)
		Public or private temporary housing (ineligible for the application criteria of PRH)	Public or private housing provision

Table 9.2  
*Target groups of housing provision in Hong Kong*  
 (Source: eds. Li Jiange and Ren Xingzhou, 2007, p.230, translation by author)

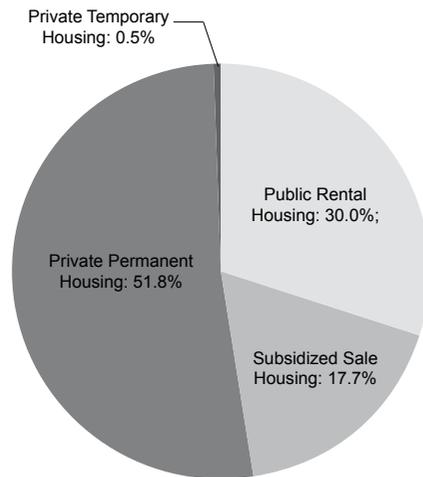


Figure 9.41  
*Distribution of population by types of housing in Hong Kong till the 1st quarter 2011*  
 (Source: HA, Hong Kong, 2011; chart by author)

The divided housing stock inevitably resulted in the actually dualistic urban renewal policy in Hong Kong: the redevelopment of public housing estates by the Housing Authority and the renewal of private housing stock that is commissioned to another public statutory body – the Urban Renewal Authority (URA). In the social housing sector, the large-scale and continuous redevelopment of public housing estates (which will be discussed in Chapter 10), as an important public housing program, is often appreciated. But in the market sector, the urban renewal of deteriorated private housing areas, in the form of wholesale reconstruction by introducing market-oriented strategy, met the increasing resistance and thus caused a series of social conflicts. However, among the renewal strategies of URA, there is a more bottom-up intervention – public subsidized housing renovation – that is welcome by the residents. In the following text, we will focus on the investigation on this social-oriented approach by properly guiding the market force.

### § 9.5.1 Background

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As the result of decades of high-density development and speculative real estate market, there is a large amount of deteriorated, private-owned residential buildings in the city area of Hong Kong. Among those old private housings, there are more than 15,000 buildings that are over 30 years, in which the 50-year designed life of more than 3,000 has expired. It is predicted that the deteriorated residential buildings would increase to 22,000 within 10 years if there are not any interventions. In those old buildings, the housing conditions are usually congested and poor. Illegal structure, crowding, sharing amenities, subletting and even sub-subletting are very popular. The urban renewal of private housing estates therefore is a critical challenge in Hong Kong.



Figure 9.42  
*Deteriorated, private-owned residential buildings in Kwan Tong, Hong Kong*

Actually, the urban renewal in Hong Kong has a long history. Even during the period from 1884 to 1905, the colonial authority had implemented a cleaning scheme of some slums. After 1959, some pilot projects of wholesale reconstruction were initiated, while most of them were not really successful. The large-scale urban renewal was proposed since 1972 as an integral part of the government program to improve the housing conditions in Hong Kong. Due to the limited public funds and the rising real estate economy, the government started to invite private property owners to participate in the urban renewal process in the late 1970s. A milestone of the urban renewal of private housing stock in Hong Kong is the establishment of the Land Development Corporation (LDC), as a financially independent, public organization that systematically copes with urban deterioration problem, in 1988 according to the Land Development Corporation Ordinance. With the financial support from the government, the LDC applied new renewal program by joint venture participation with private developers. However, the urban renewal program of LDC was not as successful as it was expected. Preceding the speculative housing market, the market-oriented reconstruction strategy can neither fairly protect the housing right of residents nor ensure the economic sustainability of urban renewal. The LDC soon had trouble with the prolonged site assembly process and ultimately fell into a financial crisis. Therefore, the Urban Renewal Authority was founded in 2002 under the Urban Renewal Authority Ordinance in order to take over the tasks and works of LDC. Another legal document – the Urban Renewal Strategy was also published by the Planning and Lands Bureau to guide the work of URA.

As a financially independent, statutory body taking on public task, the URA is responsible for the urban renewal of deteriorated city areas that are composed of private properties. The Hong Kong SAR government invested HK\$ 10 billion as the start-up capital of URA, under which the URA should independently operate. The URA was more broadly empowered in comparison with the LDC and enjoys other kinds of government support including the land lease deduction, the tax exemption and the financial guarantee. And the partnership with private developers is also permitted.

Since it is recognized that the problem of urban deterioration cannot be merely solved by reconstruction, the URA developed a comprehensive approach with “4Rs”: “Redevelopment” (the wholesale demolition-reconstruction of dilapidated buildings), “Rehabilitation” (housing renovation), “pReservation” (historical conservation) and “Revitalization” (the improvement of living environments), in which the redevelopment and reconstruction is still the main scheme. But, like the reconstruction programs of LDC, the redevelopment schemes of URA also induced many problems. In a capitalized housing stock, a monetized and marketized reconstruction strategy for the purpose of balancing investment inevitably caused the gentrification and serious conflicts of interests. On the one hand, it is almost impossible for the self-occupied homeowners to rehouse in the same area with the monetized compensation. On the other hand, the site assembly is still a very expensive and prolonged job as a result of speculative

demands, while the land ownership legally belongs to the government and the URA is empowered to apply for property expropriation. Moreover, the housing right of tenants, who are usually the low-incomes, is to a certain extent ignored in the redevelopment, especially after the government relaxed the protection for the tenement<sup>23</sup>. The for-profit eviction of tenants by property owners even starts before the redevelopment project is officially launched in order to earn more compensation. The redevelopment of private housing estate has become a game between the government, URA, developers and property owners and increasingly politicalized.

Therefore, in comparison with the redevelopment, the rehabilitation scheme of URA by housing renovation, as a more social-oriented urban renewal program, is rather successful. Traditionally, the idea of housing management, maintenance and renovation are missing in Hong Kong, so that the owners' organizations and property management companies are absent in many old buildings. That, no doubt, accelerated the decay of old housing estates. After decades of experiences on urban renewal, it was recognized that the reconstruction could never catch up the pace of urban deterioration if there was no adapted maintenance or repair of old housings. Hence in 2004, a housing renovation scheme in the name of "rehabilitation" was introduced by the URA for the renewal of those "less" decayed buildings via public subsidies. As a more economical and acceptable urban renewal program, the public subsidized renovation successfully improved the living conditions of many private housing estates.

## § 9.5.2 Strategies

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The Urban Renewal Strategy explicitly clarified the significance of the rehabilitation scheme: "Proper maintenance of buildings is an essential aspect of the regeneration of older urban areas. The rehabilitation of buildings improves the built environment and reduces the need or urgency for redevelopment. It is also in line with the Government's policy of sustainable development." (Article 14, *Urban Renewal Strategy*). In Hong Kong, nearly 30% of all buildings are easy prey for dilapidation since owners do not care for or are unable to afford building maintenance. The URA hence launched the building rehabilitation scheme in 2004. 11 city areas were defined as "URA Building Rehabilitation Scheme Areas", where the old buildings are concentrated. Those areas

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In order to revitalize the real estate economy, the Hong Kong SAR government decided to relax all "excessive" protection for security of tenure under the Landlord and Tenant (Consolidation) Ordinance in 2002.

comprise Yau ma Tei, Mong Kok, Hung Hom, Tai Kok Tsui, Ma Tou Wai, Sham Shui Po, Tsuen Wan, Kwun Tong, Cheung Sha Wan, Wan Chai and Central & Western. In principle, the target buildings of rehabilitation scheme are the private residential or composite buildings around or over 20 years old but still serviceable, with owners' corporation and agreed to undertake continuous building maintenance. The purposes of building rehabilitation scheme are to improve the environment, to improve living conditions in residential buildings, to improve building safety, and to extend useful life of buildings (URA, Hong Kong, 2011, p.26). A renovation strategy that encourages the housing renovation by the owners of private housing estates was thus developed through the public subsidies and financial incentives.

#### *Public subsidized housing renovation by property owners*

In order to effectively extend the useful life of old buildings and alleviate the urgency of urban reconstruction, the URA promotes the renovation of old private housing by establishing a collaborative framework with owners, the government and other partners. With the material or cash subsidies, incentive loan, insurance, advisory and other supports introduced by the URA, the owners of old buildings participating the so-called rehabilitation scheme are encouraged and supported to properly repair and improve the public part or "common area" of old buildings, including wall, roof, windows/doors, pipelines and environmental friendly facilities. The URA rehabilitation scheme normally includes the following measures:

- **Building Rehabilitation Material Incentive Scheme**  
This is a kind of obligatory renovation scheme for the old buildings subject to statutory actions under the Hong Kong Buildings Department's "Coordinated Maintenance of Buildings Scheme" or "Blitz" Operations or other relevant statutory order. The URA provides incentive building materials (or cash subsidy) amounted to a certain percentage of total renovation cost (see table 9-3). Those incentive materials usually include external and internal wall paint, water-proofing materials for re-roof work, piping materials for drainage, flushing water and public water supply, fire protection materials and environmental friendly materials (e.g. potted plants, recycle bins, energy saving light bulbs, etc.). For the eligible individual homeowners with economic difficulty (the low-income, elderly, disabled, etc.), the URA provides a grant maximum to HK\$ 10,000 for each. In addition, the URA will provide technical support and advice before the owner's corporation engages the professional consultants on project implementation.

Incentive Materials Ceilings	
Numbers of Unit	Ceiling Amount for Incentive Material
5 – 20	30% of the total contract, sum to HK\$ 150,000
21 – 49	20% of the total contract, sum to HK\$ 150,000
50 or above	20% of the total contract, sum to HK\$ 3,000 per unit
Cash Subsidy	
<p>- To relieve the financial burden of the building owners, the remaining balance of "Ceiling amount for Incentive Material", i.e. after deducting the actual incentive materials cost, would be released to the owner's corporation as cash subsidy for the rehabilitation works.</p> <p>- Cash Subsidy = (Ceiling amount for Incentive Materials) - (Actual Incentive Materials Cost)</p> <p>- However, value of "cash subsidy" cannot exceed the value of the "actual incentive materials costs".</p>	

Table 9.3

*Subsidy standards of "Building Rehabilitation Material Incentive Scheme"*

(Source: URA, Hong Kong)

- **Building Rehabilitation Loan Scheme**  
This is a relatively "voluntary" scheme for the old buildings without any statutory order or advisory letter for maintenance from the government, but of which the owners have reached consensus for building renovation and appointed the authorized person. Successful applicants to this scheme will receive the interest-free loan from the URA without means and asset tests. The maximum loan amount is HK\$ 100,000 or the total cost of the renovation of the common area and the associated works, whichever is the lower. The repayment period is up to 60 months. The URA also provides the individual grant with a maximum amount of HK\$ 10,000 to the eligible homeowners with economic limitations.
- **Better Mortgage Loan Scheme**  
Collaborating with the URA, Hong Kong Mortgage Corporation and 17 banks offer preferential mortgage terms for easy sale and purchase of the renovated housing properties. By activating the marketability and realizing value appreciation of renovated old housing, this scheme "indirectly" encourages the old housing renovation.
- **Third Party Risks Insurance Subsidy**  
This subsidizing scheme aims to protect owners from form third party claims due to accidents happened in the common area of old buildings. The beneficiaries are the owner's corporations who have participated in either the Building Rehabilitation Materials Incentive Scheme or the Building Rehabilitation Loan Scheme of URA and completed the major renovation works. The subsidy amounts to 50% of the annual premium or HK\$ 60,000 whichever the lower.



Figure 9.43  
*Renovated buildings financed by Building Rehabilitation Material Incentive Scheme*



Figure 9.44  
*Renovated buildings financed by Building Rehabilitation Loan Scheme*

In addition to the aforementioned measures, the URA also initiated some housing renovation programs, e.g. the “Building Maintenance Grant Scheme for Elderly Owners” for subsidizing the elderly aged 60 or above to improve their self-occupied housing conditions, in collaboration with the Housing Society. The implementation of all those subsidizing schemes of housing renovation contributes not only to enhance the safety and sustainability of old buildings but also to improve the housing conditions and built environments of old city areas.

In order to facilitate housing renovation and provide a more user-friendly service, the URA, in collaboration with the HS and Buildings Department of SAR Government, initiated a new, comprehensive scheme in April 2011. All preexisting rehabilitation scheme that provided by the URA and HS were consolidated into one “Integrated Building Maintenance Assistance Scheme” (IBMAS), which covers all the aforementioned grant and loan schemes. This new consolidated scheme enables all

homeowners throughout Hong Kong, who meet the same set of eligible criteria, to receive similar assistance (URA, Hong Kong, 2011, p.27). Additionally, in order to prevent building deterioration, the so-called "Mandatory Building Inspection Scheme" (MBIS) was announced in June 2012. Owners of old buildings aged 30 or above are required to carry out inspections of their buildings once every ten years, and MBIS financially assists the eligible owners in complying with statutory requirements.

Apart from fulfilling merely social tasks, the rehabilitation schemes in the capitalized private housing stock are also announced as an approach to lower the third party liability and to promote the appreciation of private properties. Furthermore, housing renovation is regarded as a measure to deal with economic recession, which is present in the recent development of the building rehabilitation scheme.

#### *Housing renovation as an economic revitalization strategy*

In early 2009, the Hong Kong SAR government announced a new subsidized housing renovation scheme "Operation Building Bright" (OBB) launched by the Development Bureau and the Buildings Department in collaboration with the HS and the URA. This renovation scheme was proposed to spend two years and HK\$ 1 billion financially and technically supporting the renovation of more than 1,000 old private buildings. Unlike in the past, this scheme was also considered as a measure to "secure the employment" and to cope with the global economic crisis. In comparison with the new construction, housing renovation, as labor-intensive sector, will create much more job opportunities for the construction industry in a short time. It is eventually acknowledged that housing renovation is not just a social measure referring to the well-being of urban residents but also an effective means of economic revitalization.

The executive bodies of OBB are the HS and the URA. It is innovative that the old buildings without owner's corporations, which were neglected in the past rehabilitation schemes, are included in this scheme. The eligible criteria for the target buildings are more relaxed: the residential or composite buildings aged 30 years or above; no more than 400 dwellings in the whole building or whole estate; the average annual rentable value per dwelling not exceeding HK\$ 100,000 in the urban area (Hong Kong Island, Kowloon, Shatin, Kwai Tsing and Tsuan Wan) or HK\$ 76,000 in other areas; and the building lack of maintenance or in dilapidated condition. Those target buildings are divided into two categories: category 1 is the eligible old buildings with owner's corporations, which can voluntarily apply to join this scheme; and category 2 is the selected buildings having difficulties in coordinating renovation works (e.g. buildings without owner's corporations), for which the Buildings Department, the HS and the URA will help the owners to carry out the renovation. The scheme for category 2 is obligatory. For the selected buildings, the Buildings Department issues statutory order of renovation according to the Buildings Ordinance. Overdue projects complied with the orders will be enforced to be implemented, and the owners have to pay the project cost after deducting the grants.



Figure 9.45  
 Owners briefing for "Operation Building Bright"  
 (Source: URA, Hong Kong, 2011, p.29)



Figure 9.46  
 "Operation Building Bright" in Hong Kong – the buildings under renovation

For OBB, the cash subsidy is directly available. The owners of approved eligible buildings can receive a grant amounting to 80% of the total renovation cost, for which a ceiling is HK\$ 16,000 per dwelling. The elderly self-occupied homeowner can apply for a grant to cover the total renovation (amounting to maximum HK\$ 40,000 per dwelling).

The subsidized renovation works mainly cover the maintenance and repair of the buildings common areas relating to the structure and fire safety of buildings as well as the sanitation facilities. The items include the repair of building structure, external walls and windows, the repair of fire safety constructions, installations and pieces of equipment, and the repair or replacement of building sanitation devices. The

remaining grant after covering the cost of the aforementioned works may be used for the additional repair and improvement works in the common areas, e.g. removing illegal structures, repairing water-proof membrane, improving other pipelines, devices and facilities, etc.

The OBB program received a positive response immediately after the scheme was announced. The applications reached more than 1,100 within a few months. Until 2010, this subsidized renovation scheme had been expanded to aid the renovation of more than 1,600 buildings, and the total amount of subsidies has amounted to HK\$ 2 billion. In July 2010, a decision was made to inject additional HK\$ 500 million to launch a second round of the Operation. In June 2011, the Legislative Council of Hong Kong SAR approved the further funding for OBB again, under which the total amount of buildings assisted by OBB, only within the URA Rehabilitation Scheme Areas, will be able to increase to about 1,100 buildings (URA, 2011, p.28). In general, except improving the housing conditions and cityscape of private housing areas, the Operation Building Bright successfully contributes to the economic revitalization and the creation of job opportunities in Hong Kong.

### § 9.5.3 Consequences

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In Hong Kong, where traditionally urban renewal means the demolition-reconstruction, the public subsidized renovation of private housing is really a new approach. However, as a not-for-profit program without building demolition, rehousing and resident displacement, the building rehabilitation (renovation) scheme of URA meets fewer resistances and is much more welcome by the residents than the redevelopment (reconstruction). Until March 2011, more than 520 old private buildings, comprising over 40,000 dwellings, had been assisted by the URA rehabilitation scheme, including Building Rehabilitation Material Incentive Scheme and Building Rehabilitation Loan Scheme (URA, Hong Kong, 2011, p.27). Under the scheme of Operation Building Bright, only the URA, by the end of March 2011, had provided financial and technical assistance to owners of more than 980 buildings, comprising over 40,000 dwellings (ibid, p.28). By the public subsidies, technical support and statutory order, the owners of private housing estates are induced or enforced to take on their social obligation – the improvement of living conditions in the deteriorated private housing areas. In the meantime, the housing renovation is also used as an initiative to stimulate economic revitalization. The public subsidized private housing renovation in Hong Kong actually establishes a partnership model of public and private actors – the government, non-profit organizations and property owners – for the urban renewal in a capitalized private housing stock.

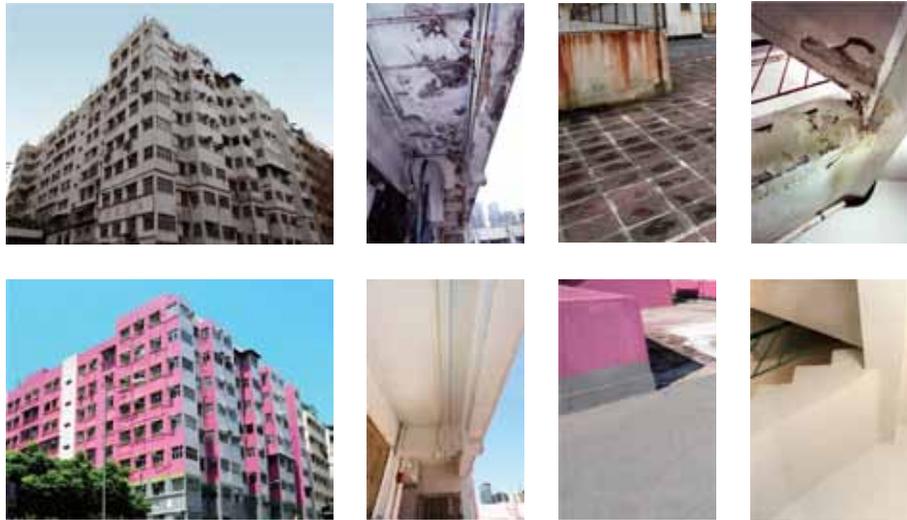


Figure 9.47  
 Wan Hong Building in Kwan Tong – an old residential building before (upper) and after (lower) the renovation  
 (Source: URA, Hong Kong, 2011, p.30)

However, it is also because of the capitalization of housing market in Hong Kong that the potential problem of subsidized private housing renovation is evident. Without the adapted control, housing speculation caused by the renovation is almost inevitable. Even the URA announced that its building rehabilitation scheme is an effective approach for the appreciation of private properties. While the individual grants are only available for the self-occupied homeowners, the non-occupied owners, who can either sell their housing properties for better prices or increase the rents, are de facto the biggest beneficiaries of public subsidizing. The eviction of lower-income tenants, with the relaxed protection of tenure, will occur. There is a threat to intensify social inequity by equalized public aid. In fact, the public subsidy to private owners for urban renewal, especially in the Far East cities with “prosperous” real estate economy such as Hong Kong, is always a double-edged sword.

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## § 9.6 Conclusions

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In this chapter, in order to answer to the socio-economic challenges to the urban renewal of former socialistic public housing areas in Beijing, the successful urban renewal practices of old or problematic housing areas under the comparable urban contexts was reviewed and investigated. Case studies on the urban renewal projects or programs in Berlin, Rotterdam, Vienna, Amsterdam and Hong Kong revealed the referable social-oriented but economically sustainable strategies for urban renewal, which may balance housing affordability and economic feasibility of urban renewal as well as ensure the socio-economic revitalization and sustainability of urban renewal areas. Those referable strategies include:

- *Housing socialization as an effective strategy to protect the housing right of urban residents in urban renewal*

The experiences in Berlin and Rotterdam have presented that the housing socialization can be an effective strategy for protecting the housing right of urban residents, especially the low income earners, in urban renewal. On the one hand, the combination of urban renewal and social housing development will avoid the displacement of vulnerable groups in the urban renewal areas and evidently improve their living conditions; on the other hand, the urban renewal of inner-city areas by housing socialization will efficiently increase the social housing provision in good places of the city and thus improve social integration<sup>24</sup>. In this process, the non-profit housing organization should be an indispensable player of both the urban renewal and the management of socialized housing stock.

- *Clarifying and distributing the responsibilities of public and private actors for the urban renewal in an "ambiguous" housing stock*

The success of the "soft" urban renewal in Vienna revealed that it is necessary to clarify and to distribute the responsibilities of public and private actors, which are consistent with the rights that they enjoy, in the urban renewal areas where the tenure can be seen as semi-ownership and the housing stock is mixed. For the renewal of former public housing areas in Beijing, in which the housing stock is comparable ambiguous and mixed, the clarification and equivalence of rights and obligations of different actors is no doubt referable.

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The housing socialization in inner-city area can help but do not must result in social integration. For instance, the long-term effect in Amsterdam showed that the gentrification was continually growing in its city center, while the proportion of social housing in the center is comparable to the outskirts. The gentrification to a large extent depends on the "attractiveness" of a place, which is not only determined by the housing stock but also by other factors (e.g. macroeconomic situation).

- *Public subsidy to initiate housing renovation by the owners of private housing areas*  
 For the urban renewal of private housing areas, especially for the public parts of buildings, the public subsidized renovation by private property owners, who have to take on their social obligations, may be an economic strategy. However, the self-occupied and the non-occupied housing demands should be clarified in the policy-making in order to control the possible housing speculation caused by housing renovation.
- *Urban renovation/rehabilitation as economic strategy of urban renewal to avoid population displacement*  
 The case studies in this chapter all revealed that the renovation or rehabilitation is a more economical strategy to avoid population displacement in the urban renewal of old housing areas in comparison with the wholesale demolition-reconstruction. By the adapted renovation/rehabilitation strategy, the residents can even stay in the neighborhood during the construction process of urban renewal. In particular for the socialized urban renewal, the renovation/rehabilitation will well balance housing affordability and economic feasibility.
- *Combination project as both the social and economic solution of urban renewal*  
 While the Bijlmermeer case is just an urban renewal project of a social housing area, it opens up the possibility of the so-called combination project not only as a way to promote social integration but also as a financing strategy by public-private partnership to balance the investment of urban renewal. The combination development of social housing and market housing in urban renewal may thus be a potential strategy to realize social mixture and to balance housing affordability (particularly for the low-income) and economic feasibility in urban renewal project.
- *Social and economic revitalization as indispensable program of urban renewal*  
 Starting from the early urban renewal cases in Berlin and Rotterdam to the recent practice in Bijlmermeer of Amsterdam, those successful experiences all present the importance of social and economic programs in urban renewal. Those programs refer to both the improvement of social facilities and services in the old neighborhoods and the revitalization of the local economy, especially the maintenance and development of small businesses and enterprises. The measures of social and economic revitalization of urban renewal areas are not only limited in the physical interventions but also the non-physical programs to help the vulnerable groups.
- *Urban rehabilitation and renovation to promote sustainable economy of the city*  
 Whether in Vienna or Hong Kong, urban rehabilitation/renovation is considered a strategy to promote economic development. As a labor-intensive industry, the work of rehabilitation and renovation will create more job opportunities and stimulate the economic revitalization. Furthermore, in a much broader sense, a city with the socio-economically balanced urban policy (including social housing policy and social-oriented urban renewal policy) often means an attractive place of living and working for the workforce (including both the “creative class” and employees of the low-end service economy) . And it is the choice of the workforce that nowadays

conditions the prosperity of knowledge-based and capital-intensive economy. Hence the social-oriented rehabilitation can be regarded as an effective approach contributing to the economic sustainability not just of the neighborhood but also of the city.

In the preceding analysis, we summarized the referable urban renewal strategies in the socio-economic dimension, which showed the possibilities to explore the socially and economically sustainable interventions for the urban renewal of former public housing areas in Beijing. Nevertheless, in a transitional urban society which is increasingly diversified, stratified and polarized, how to maintain or develop the mixed local community is a rising challenge for urban renewal. In the next chapter, the research will focus on referable cases in European and Asian cities on this community-placial question of urban renewal.

# 10 Urban Renewal for Community

The former socialistic public housing areas are identified by their mixed communities. From the perspective of the top-down structure, the mixed community here does not just refer to , neighborhoods with residents from different social strata or groups in its physical territory (in which physical territory is usually indicated by socio-economic statistics), but actually refers to the residents' sense of belonging to their community. As a relic of the danwei community that is still reinforced by shequ development, the socio-spatial morphology of former public housing neighborhoods presents as a diversified, but integrated, living entity in the sense of community. Nevertheless, the social filtering caused by those "natural" or "unnatural" processes in a marketized urban society will bring out the destruction of those lively, mixed neighborhoods. This situation, regardless of whether the neighborhood decline, was caused by the aged built environments or the subsequent population displacement resulting from the application of unadapted urban renewal approach. Therefore, in this chapter the research will concentrate on case studies for the purpose of answering the inevitable challenge facing the community-placial dimension of urban renewal: how to retain and strengthen mixed community.

As discussed in Chapter 8, there are two emphases in the research question of urban renewal for mixed communities: the top-down intervention to maintain or develop the mixed social structure of old housing areas and the more flexible and reflexive strategy to encourage the "bottom-up" forces, i.e. the participation of the local residents for the improvement of living conditions in their community. The studies in this chapter thus focus on the successful experiences of comparable cases, in which the community dimension of urban renewal in particular is emphasized. Comparable efforts that resulted in successful experiences include active community participation in Rotterdam and Vienna, the efforts to maintain or create mixed communities in the urban renewal of large-scale social housing areas of Berlin and Amsterdam, and the retention of local communities in the public housing renewal of Hong Kong. The effective urban renewal strategies for mixed communities will be summarized as references to improve the present renewal approach for former public housing areas in Beijing.

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## § 10.1 Urban Renewal by Community Participation – The Democratization and Decentralization of the “Bouwen voor de Buurt” in Rotterdam

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In the Netherlands, a country with a long tradition of merchant cities and civil society, urban renewal is always a challenge in the sense of community. The question is not just about the threat of community destruction but, more fundamentally, about how to transform individual rights/interests of different groups into collective actions. In the context of Western *hybrid ethos* (in which individuality is placed above the collectivity), the Dutch cases often present the effort to cope with the challenge of individuality versus collectivity through both top-down and bottom-up approaches. In large-scale urban renewal, for instance, the so-called *Sociaal Plan* (social agreement) normally has to be established between municipalities, housing organizations, and residents (tenants), as the locally legal instrument that is followed by all different actors of an urban renewal operation<sup>1</sup>. The democratic negotiation of different actors and active community participation has become identity hallmark of Dutch urban renewal. However, it was also a “historic” process to invent and develop those more bottom-up strategies, for which “Bouwen voor de Buurt”, again, can be seen as the beginning and most representative case.

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1 In the legal agreement amongst locals affected by Dutch urban renewal, *Sociaal Plan* is drawn up by the negotiation between residents, housing organizations and, sometimes, municipality. In large-scale urban renewal projects, it is almost obligatory, and has to be established at the beginning. In order to clarify the individual rights/responsibilities of different actors, *Sociaal Plan* often addresses the following rights of residents:

- Right to return (to one’s original home or original neighborhood, in case of demolition)
- Rehousing procedure
- Expropriation procedure
- Rents of new housing
- Individual subsidies (e.g. subsidy for higher new rents, etc.)
- Compensation for rehousing costs (e.g. moving cost, interim house, etc.)

In a *Sociaal Plan*, these issues are translated into the conditions for physical planning, which include:

- The way residents are consulted
- Percentage of consent for approval
- The guiding of physical planning and design
- The planning phases to be discussed and decided
- Decision makers (including the temporary decision-making structure)
- The implementation according to the capacity of rehousing
- Phases of implementation (adapted by the planning)
- The possibility to stop and alter the plan (conditioned by guaranteeing the livability of neighborhood)

Once a *Sociaal Plan* was made, it should be followed by all actors. In general, *Sociaal Plan* is regarded as an effective means of avoiding law cases and ensuring the implementation of urban renewal.

As discussed in the preceding chapter, “Bouwen voor de Buurt” – the urban rehabilitation practice in Rotterdam significantly contributed to improving the living conditions of residents in the old inner-city neighborhoods. The success of “Bouwen voor de Buurt” is not only due to the socialized housing strategy ensuring that tenants of the urban renewal areas stayed, but also, and to a large extent, because of the democratization and decentralization of urban renewal by the wide, active participation of local communities.

Urban renewal in Rotterdam and other Dutch cities conventionally followed a top-down model, in which the municipal government played a key role in decision-making, planning, and implementation. However, the reconstruction plan proposed by the municipality of Rotterdam at the end of the 1960s met widespread resistance from the tenants of old neighborhoods, for whom the reconstruction would result in their eviction. Under pressure from the tenant movement, the municipality finally changed the urban renewal approach from wholesale demolition-reconstruction to rehabilitation (“Bouwen voor de Buurt”), in which the tenants widely participated in not only the implementation, but the planning and decision-making of urban renewal.

### § 10.1.1 Background

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To a large extent, the start of “Bouwen voor de Buurt” was the result of the collective action of middle- and low-income tenants, who represented the majority of the local community in Rotterdam’s prewar inner-city neighborhoods, arguing for better living conditions without the wholesale demolition. Due to a lack of maintenance by speculative owners, those old neighborhoods evidently continually declined until the 1960s. The municipality of Rotterdam announced a “Renewal Report” in 1969, which put forth the idea of wholesale demolition-reconstruction of deteriorated inner-city areas and thus was also called the “demolition report” (Van Es, 1980, p.781). Reconstruction that largely relied on private investment would inevitably cause the displacement of many original tenants, who are economically weak and vulnerable, in the urban renewal areas.

The reconstruction plan immediately triggered massive opposition from people, especially the tenants of old neighborhoods. The “Action Groups” of old neighborhoods emerged as the residents’ organizations against demolition. The Action Group of the Oude Westen neighborhood that was founded in 1970 was the first and most active group in Rotterdam (figures 10-1 and 10-2). During the early 1970s, the demonstrations on improving housing conditions and on opposing wholesale demolition sparked the concern and involvement of the public and professionals (including architects and students) and a wave of large-scale tenant movement that

spread into Rotterdam and other Dutch big cities. In 1972, the residents' organizations in Rotterdam and Amsterdam presented their claims to their respective city councils, which did argue for not only the improvement of living conditions and the provision of affordable rental housing in the old neighborhoods without site demolition, but also the right of local community to approve the building plans. In 1973, a cooperative association of residents' organizations in Rotterdam was founded in the form of OSOW – *Overleg Stadsvernieuwing Oude Wijken* (Forum on Urban Renewal of Old District).



Figure 10.1  
*"Action Group" office of the Oude Westen in Rotterdam*



Figure 10.2  
*A meeting of the Action Group of the Oude Westen (Source: Rosemann, 1980, p.799)*

Political pressure from the tenant movement eventually resulted in the change of urban renewal policy in Rotterdam. The legal status of area-based urban renewal project organizations, such as the action groups, was established in 1973 by the VOS, which was a new municipal regulation on the organization of urban renewal. After the municipal election in 1974, J. G. van der Ploeg, the new alderman responsible for urban renewal from PvdA, totally accepted the arguments from the action groups and announced the initiative of "Bouwen voor de Buurt", in which the local community played a crucial role.

### § 10.1.2 Strategies

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Apart from the socio-economic strategies centered by the housing socialization, the "Bouwen voor de Buurt" approach to urban rehabilitation, is also famous for its democratized and decentralized decision-making, planning, and implementation process; which, included community participation. The "Bouwen voor de Buurt" not only conditioned the success of socialized urban renewal, but also contributed to the

maintenance and development of local communities by reaching what is probably the foremost characteristic of Rotterdam's urban renewal: consensus.

Due to the problems of deterioration and political pressure from resident organizations, eleven urban renewal areas, which were later termed the "inner ring" areas, were selected in the inner city of Rotterdam. Six of them (Oude Westen, Oude Noorden, Crooswijk, Cool, Kralingen, Delfshaven) were to the north of the Mass River, and the other five (Feijnoord/Nordereiland, Charlois, Katendrecht, Vreewijk, Afrikaanderwijk) were located to the south. Unlike the conventional model whereby the planning and administration was centrally managed by the municipal government, new decentralized and localized methods and experiments were stimulated. That resulted in the setting up of so-called "project offices" in each urban renewal area<sup>2</sup>. The project offices, in which the representatives of the municipality and the residents fairly shared power, were responsible for the organization of planning and implementation of urban renewal in their areas. Housing organizations also joined this decision-making framework some years later. In Rotterdam's "second ring" areas of urban renewal, which were assigned in the early 1980s, the same strategy was also applied<sup>3</sup>. This area-based, or neighborhood-based, strategy of planning and organization was another fundamental pillar of "Bouwen voor de Buurt".

Like the process of decentralization, democratization was mainly presented in the organization of project offices. As an independent entity, a project office was usually composed of representatives of the municipal government and local residents. Initially, however, there was debate as to who the representatives of the residents should be. At first, the municipality proposed to elect resident representatives from all groups of stakeholders in a given neighborhood. But this idea of "representative democracy" was strongly opposed by the resident organizations, who argued that private house owners and other interest groups should be explicitly excluded since housing rights should take precedence over property rights. The municipality eventually accepted this argument in 1974. Usually, the action groups of tenants were legitimated as the neighborhood organizations that represented the local community. The delegates elected by these action groups participated in the project offices as the representatives of the residents.

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2 The only two exceptions were Charlois and Africaanerwijk. The residents of Charlois chose to be represented by the district council, and Africaanderwijk ultimately decided not to participate into the urban renewal.

3 The second ring areas of urban renewal in Rotterdam also comprised 11 areas: Liskwartier, Agniesebuurt, Provenierswijk, Middelland, Nieuwe Westen, Spangen, Tussendijken, Bospolder, Hillesluis, Bloemhof and Tarwewijk.

The definition of “buurt” (neighborhood) or local community in the “Bouwen voor de Buurt”, however, was also updated. In the beginning, resident organizations argued that the target group of urban renewal was limited to the original local residents of old neighborhoods and used such slogans as “Rotterdam for the genuine Rotterdamer” and “no more than 5% foreigners in a neighborhood”. This argument was also supported by the municipal government, whose objective was to stop the exodus of middle class households with children and to avoid the degradation of the original mixed social structure in those neighborhoods. Thus it was proposed in the early stages of urban renewal that 85%-90% of new housing in the old neighborhoods should be provided for the rehousing of residents who had lived in the same areas for at least 5 years. The original residents (even former residents who had left) were given clear priority in accordance with the housing design and allocation criteria established by the resident organizations.

However, this strategy was soon proven to conflict with the actual social and demographical situations in transformation. The proportions of immigrants and 1- and 2-person households were constantly increasing, particularly among people faced with the problem of housing shortage. According to a simple survey done in 1979, 80% of registered housing seekers in Rotterdam belonged to this category (Fassbinder and Rosemann, 1980, p.784). Meanwhile, the trend of the growing concentration of immigrants was evident in the 1970s (the proportion of immigrant residents had reached 40% in some neighborhoods), so that the distribution of immigrants in Rotterdam became unrealistic. The participation of “minorities” in urban renewal was thus inevitable. Actually, the immigrants and other “unwelcomed” groups had even been taken into account in the initial phase by some resident organizations. The measures included social programs to integrate immigrants and the involvement of minorities in the housing allocation. Until the beginning of the 1980s, the municipality of Rotterdam also acknowledged the concentration of minorities in various neighborhoods and tried to integrate them into the local communities by strengthening their identity and self-esteem. The demands of immigrants and 1- and 2-person households were increasingly respected in the planning of public facilities and the design and allocation of social housing in urban renewal. Finally, “Bouwen voor de Buurt” was understood to mean the urban renewal for existing local residents instead of the previous social structure, and so immigrants and other vulnerable groups were also included in the framework of project offices as an integral part of local communities.

#### *Area-based project offices by community participation*

The setting of the framework of area-based project offices was sophisticated (figure 10-3). A project office was established by a special committee of the district council (as a steering group of urban renewal) in consultation with the mayor and responsible alderman. The general tasks of each project group were also determined by the consultation of the alderman, the steering group, and the

relevant neighborhood organization. The decision-making in the planning and implementation of a neighborhood's urban renewal was produced by the vote in its project office. A project supervisor (as well as his/her assistants) was designated by the district council for coordinating the project group, although he or she was unable to vote. The vote could only be made by the representatives of the residents and the municipality. The representatives of the residents, as mentioned above, were elected by the tenant organization. Representatives of the municipality were sent from all municipal administrations involved in urban renewal, which might have included the departments or offices of urban development, spatial planning, construction, housing affairs, social housing, traffic, public works, public land ownership, and possibly tourist, education, sport/recreation, social affairs and economic affairs departments or offices. They were endowed with relatively considerable autonomy in decision-making. The number of representatives varied in different project offices and the composition of seats depended upon the issues. The most crucial arrangement was that of the resident representatives, who were given the numerical majority. Resident representatives were given one seat more than the representatives of the municipality in order to ensure their voices were heard in the decision-making. This arrangement meant that the opinions of the residents would be decisive once they had consensus; otherwise the attitudes of the municipality would be dominant. If any proposals in urban renewal were not passed by the vote of the project offices, they had to be reprocessed.

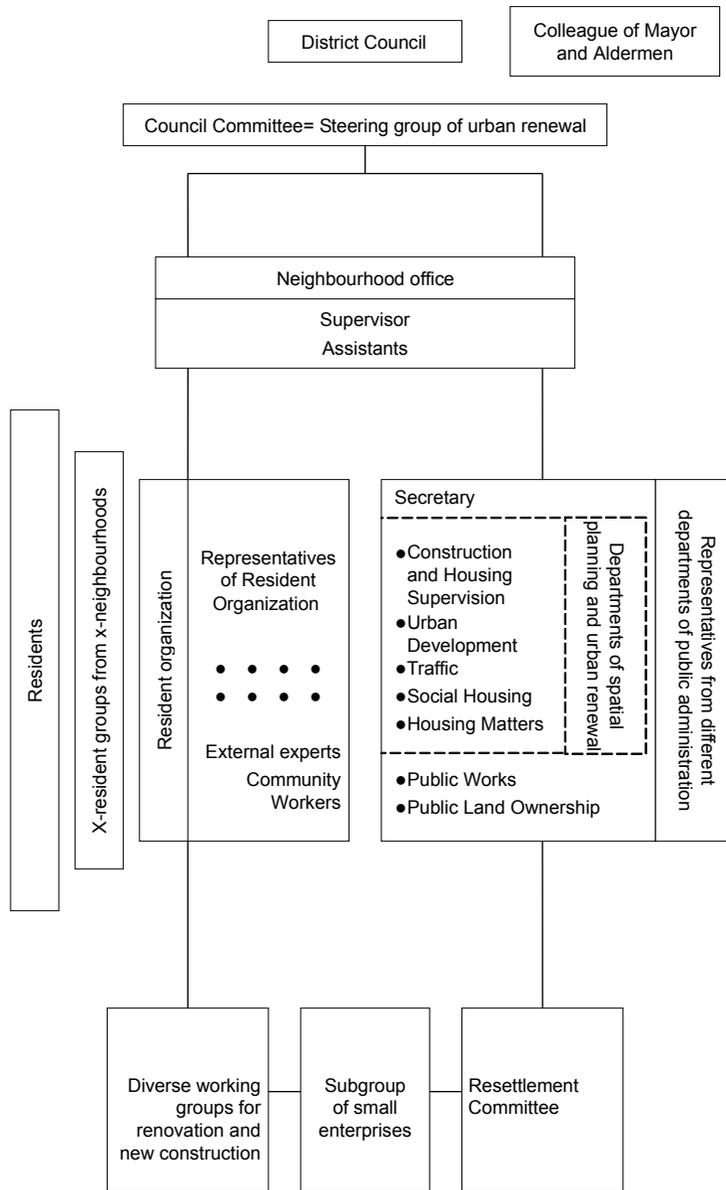


Figure 10.3  
 Framework of the project offices in the "Bouwen voor de Buurt"  
 (Source: Rosemann, 2005; translation and drawing by author)

At the same time, in order to prevent the resident representatives (who often lacked professional knowledge) from being overtaken by the expertise of their colleagues from the municipality, so-called "external experts" were introduced as professional advisors

to the residents and social or community workers as consultants of the resident organization. They were paid by the municipality and usually worked for prolonged periods of time at the project offices, which might have proven too time-consuming for the ordinary residents.

Under the framework of a project office, some special subgroups were set up for the implementation of different programs. Those subgroups normally included diverse working teams for renovation and new construction, subgroups of small enterprises, and resettlement (rehousing) committees. The residents as well as external experts and community workers were also widely involved in the works of those subgroups.

According to the new framework, the first project office in Rotterdam was founded in 1974 in the Oude Westen. It consisted of 9 resident representatives and 8 members from relevant municipal administrations (Kalle, 1980, p.798). This model was soon applied in most of the other urban renewal areas. Because of the sophisticated organization of the project offices, local residents could participate more heavily in the urban renewal (figure 10-4). Trust between residents and municipality was established. The setting of this operation also bridged the divide between long-term public interests represented by the municipality, and the relatively short-term interests of the collective of neighborhood residents.

Under the framework of neighborhood office, the demands of residents were presented and eventually achieved according to the agreements with the municipality in the decision-making process<sup>4</sup>. Based on the agreements, a primary task of the project offices was to develop a *Bestemmingsplan* (regulatory plans) for an urban renewal area. They worked as the legally binding contracts between the neighborhood and the municipality, in which the local development strategy for an area was specified. The regulatory plan provided clarity to the urban renewal on three levels: the residents could test whether the building plans met the end-situation for the neighborhood; the municipal approval procedure could run more smoothly because the building plans could be tested against a legally binding standard; and the financial resources would be found more easily because the subsidizing agencies could fit a specific plan into a total development (Jutten, 2005, p.175-176). It was also the responsibility of the project offices to coordinate and supervise the implementation of the plans. Furthermore, the tasks of the project offices also included numerous other works in the context of the

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In the later cases, the agreements between the residents and municipality were presented in the legalization of so-called *Flankerend Beleid* (Flanking Policy) at the municipal scale and in the engagement of Sociaal Plan of a large-scale urban renewal project.

renewal process. For example, there was a specified subgroup in a project office worked in the development of criteria for (re)housing allocations.

With its own budget, the project offices set up its offices and meeting rooms in the neighborhoods (figure 10-5). The official meetings of the project group usually took place in the evening, so that the resident representatives who worked during the day were able to attend. Those meetings were also open to the public. In contrast, the meetings of subgroups or working teams, which were primarily attended by the external experts involved on behalf of the resident organization, took place in the daytime. However, residents who were available during the day, including shift workers, housewives, pensioners, the unemployed and the disabled, were able join those team meetings as well (Kalle, 1980, p.798).



Figure 10.4  
Residents participating in the "Bouwen voor de Buurt"  
(Source: Rosemann, 2005)



Figure 10.5  
Project office in the urban renewal area of the Oude Westen  
(Source: Rosemann, 2005)

The principle of democratization and decentralization by community participation was also applied in the housing management of renewed areas. According to social housing tradition in the Netherlands, the "socialization" of housing stock in Rotterdam was different than the nationalization. Instead of state or municipal ownership and the unification of management by the government, housing ownerships after the renewal were ultimately conveyed to social housing organizations, for which the publicly-owned housing was actually a collective ownership. For the socialization and democratization of housing managements, an area-based housing management model was developed. Social housings in different urban renewal areas were assigned to different housing organizations. The area-based housing administrative and management divisions of housing organizations was established. All decisions on housing management

were independently made by area-based organizations, in which the tenants were included. In order to avoid exploitation from housing organizations, the rental income in each neighborhood exclusively served to finance maintenance and development of its own housing stock for the implementation of economic independence. Those neighborhood organizations only needed technical support from their “mother” housing organizations. While this model of area-based housing management used to cause controversy between both resident organizations and housing organizations, it was, in some cases, ultimately accepted.

#### *Reformation of municipal administrative structure*

The decentralization and democratization of the organization, planning, and implementation of urban renewal does not mean the abandonment of government interventions. On the contrary, only public intervention can balance the impacts of free market and individuality. The strategy of decentralization and democratization was thereby based on the Dutch tradition of public intervention in urban development. In addition to the policy and financial support (such as the application of central government subsidies) of the municipality towards urban renewal and the direct involvement of municipal administrations in the works of project offices, reformation of the hierarchical administrative structure of the municipal government was also inevitable.

In order to shorten the complicated administrative and decision-making processes, a special commission in the city council, chaired by Alderman van der Ploeg, was founded. This commission was responsible for making decisions particularly on the contentious issues between the government representatives in the project offices (who were given autonomy in the process of decision-making but were still the officials of their departments) and their own administrations. Since the affairs of urban renewal became more complex and gradually increased, the number of civil servants in the urban renewal sector largely grew. At the same time, the heads of the departments of urban development and housing affairs changed hands to a younger generation who supported the new approach of urban renewal. In order to make the Department of Urban Development more accessible to the residents, 7 district divisions were established after 1976 to correspond with the area-based project offices.

However, along with the decentralization of urban renewal organization, there was a “centralized” and “flattened” process at the level of general coordination. All spatial planning and urban renewal departments of the municipality merged in the “Dienstenstructuur Ruimtelijke Ordening Stadsvernieuwing” (DROS – Administrative Structure of Planning and Urban Renewal) for the improvement of inter-departmental collaboration and the coordination of different area-based projects. A special operational entity in DROS, “Urban Renewal Project Organization”, provided strong support to project offices so as to enhance the efficiency of urban renewal (Fassbinder and Rossmann, 1980).

### § 10.1.3 Consequences

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In accordance with the efforts made towards decentralization and democratization, Rotterdam established a new model for the organization of urban renewal, in which community participation played a key role. As a bottom-up strategy, the area-based approach and the framework of the project offices provided for the effective participation of the residents in decision-making. While the democratized process of planning was probably time-consuming, the implementation of renewal measures accordingly became much more efficient because the agreements had been reached beforehand. Compared to the blueprint planning of the 1960s (which usually drew major opposition and subsequent conflicts), this new model generally shortened the decision-making process (Stouten, 1995).

In the mean time, the housing rights of real local residents, meaning the tenants, was well-presented and protected because of the exclusion of speculators and other interest groups from community participation. The open discussion and democratized decision-making provided the local community a means to express and realize its own collective will. Local communities in those old neighborhoods were well-maintained and developed because of active community participation in urban rehabilitation. , As a result of this active participation, residents learned to work together and transformed individual focus to collective impetus. Moreover, in keeping with the fair negotiation and collaborative practices between the municipality and "grass-roots" residents, public and private interests were kept in balance in order to ensure the city as an integrated community. The Rotterdam model of renewal organization thus serves as a guideline to lead conflicting interests to a consensus. As a pillar of "Bouwen voor de Buurt" and a community strategy to bridge top-down and bottom-up forces, the decentralization and democratization of urban renewal by community participation was soon popularly applied in the other Dutch cities.

However, as with any other creative strategies, the democratization and decentralization of urban renewal also encountered several difficulties. Both the democratization of project organization and the broad community participation in urban renewal typically spent a lengthy amount of time forming a consensus between the residents, who often only focused on their local and short-term interests, and the representatives of municipality, whose task was to ensure the long-term sustainability of urban development. Any disagreements in the decision-making process could restart the whole process. A lot of time-consuming coordination and communication was inevitable in the balancing of public and private interests. In addition, the lack of more urban-scale consideration in "Bouwen voor de Buurt" also faced criticism. At the same time, it was also time-consuming to adjust the administrative structure of the municipal government so that the decentralized and project-oriented organization of urban renewal could be adapted. Nevertheless, though it was time-consuming, the

decentralized and democratized transformation by community participation was an indispensable initiative for urban renewal particularly in an increasingly pluralistic society. Thus, the difficulty of efficiency was more of a challenge than a problem. The practice of community participation in Rotterdam has proven to be an effective strategy in reaching consensus and improving community development in urban renewal.



Figure 10.6  
*Renewed neighborhoods of local communities*

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## § 10.2 Top-Down Initiated Empowerment – Community Participation in “the Soft Urban Renewal” of Vienna

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With regard to the establishment of public-private partnership, the approach of soft urban renewal in Vienna cannot be realized without the active collaboration of different actors. In order to avoid social segregation and the displacement of residents, the tenants should be fully informed and included in the process of planning and implementation. In regards to both building and block renewals, consideration also

has to be given to the interests of house-owners, local businesses and other private or public stakeholders, under the circumstances of strong public intervention in the housing stock. There are increasing demands to assuage local conflicts and to promote a sense of community. Vienna thus has set up a special mechanism, in which the area renewal office plays a key role, to mediate top-down interventions and bottom-up reflections.

### § 10.2.1 Background

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In principle, subsidized renewal in Vienna is based on the concept of activating the participation of owners and tenants in the improvement of their buildings and apartments. As for building renewal, owners are usually responsible for the funding application, organization, and implementation, with the agreement of tenants and the assistance of an architect. The renovation is then subsidized and supervised by the wohnfonds\_wien and the municipality of Vienna. However, with respect to rehabilitation on the larger scale, the motivation and coordination between different actors is a task that is inevitably more challenging. The challenge is in the renewal of not only inner-city block areas with many different public and private landlords, but also postwar, large-scale social housing estates.

Social mixture and integration is another important task of the soft urban renewal. Thanks to the predominance of rental sectors, the housing stock in Vienna is, in general, socio-spatially mixed. Many inner-city blocks, as well as municipal housing estates, provide affordable dwellings for a lot of low-income and vulnerable residents, including immigrants, the elderly, students and starters. But without effective improvements, the old neighborhoods face the problem of social decline: the rate of vandalism or social conflicts grows and the better-off tenants, who have other housing choices, tend to move on. Those neighborhoods are not regarded as “homes” by many people. In addition to the physical renewal of living conditions, other critical challenges to urban renewal include maintaining a socially-mixed demographic structure, the mediation of everyday conflicts, the rebuilding of a sense of local community.

### § 10.2.2 Strategies

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In Vienna, as a result of strong public intervention to the housing stock, the housing rights of tenants are highly protected. The subsidized renovation of apartments, buildings and neighborhoods facilitates the improvement of housing without the

compulsory eviction of residents. Therefore, the displacement of local community by urban renewal is, in principle, avoided in Vienna. Nevertheless, the coordination of the renewal process as well as the regeneration of community, both of which are inevitably tied to the varied interests of different actors, cannot be accomplished by “centralized” institutions such as *wohnfonds\_wien* and the municipality. In some municipal housing neighborhoods, such as Rabenhof, the tenants’ organizations are actively involved in the process of urban renewal (figure 10-7). More importantly, an institutional mechanism of so-called *Gebietsbetreuung*, or area renewal office, was thus set up in order to support and coordinate local renewal.



Figure 10.7  
*Rabenhof in urban renewal and a meeting of tenant representatives*  
(Source: *Gemeinnützige Siedlungs-Genossenschaft Altmannsdorf und Hetzendorf*, 1992, p.19 and p.24)

In contrast to the previous case in Rotterdam, in which the formation of the project offices was a bottom-up pushed initiative, the establishment of an area renewal office in Vienna could be regarded as a top-down initiated agency for community participation in urban renewal. In 1974 the first *Gebietsbetreuung* was introduced in the area Ottakring, ten years before the soft urban renewal officially began, where residents called for the improvement of their living conditions. Due to a limited budget, this attempt in Ottakring was only a pilot project for the preliminary study. However, the knowledge garnered from those experiences developed into urban renewal strategies that are presently, widely applied. Today, this kind of area renewal office has been established in every problematic area of Vienna.

#### *Gebietsbetreuung (area renewal office) – the medium of community participation*

In the implementation of urban renewal in Vienna, the *Gebietsbetreuung* plays a role “as a medium between the population and policies, as an easily accessible contact point for all the concerns and interests of the residents and other protagonists in the district, and, not least of all, as a testing ground for new planning approaches” (Förster, 2004, p.21). It is financed and supervised by the municipality of Vienna, and its staff is comprised of planners, architects, landscape architects, legal experts, and social

workers. Public tenders are now available to relevant enterprises from all EU countries; the winning tenders can receive the contacts for running those area renewal offices for terms of three years. Each office usually deals with urban renewal issues in an area consisting of 160,000-170,000 residents. Presently, area renewal offices are not only set up in the inner-city neighborhoods, but also cover the postwar, large-scale municipal housing estates that face the threat of social conflicts and decline. Today, in various districts of Vienna there are totally twelve offices and two branch offices, as well as a mobile area renewal office that serves as a contact point for people from different districts and addresses questions on housing and urban renewal.

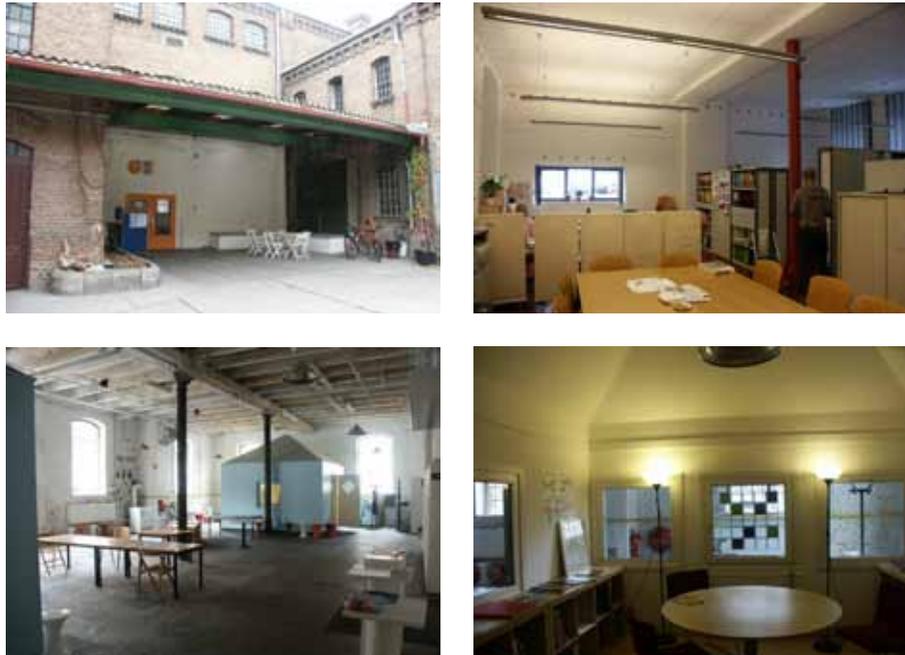


Figure 10.8  
*Gebietsbetreuung in District 10 of Vienna*

Originally, the works of Gebietsbetreuung were mainly concentrated on technical support and consultancy for urban renewal. Now, along with the trend of decentralization and individualization, the Gebietsbetreuung increasingly serves as the coordinator and organizer of public participation. As information centers in urban renewal, those area renewal offices explain the current and planned urban renewal interventions to the people living in renewal areas while allowing those people to convey their perspectives and concerns. From a policy, financing, and technical point of view, they provide information, advice, and services for tenants and owners on

housing and the renovation of housing and/or courtyards . Lectures and workshops by external experts are organized to assist residents and tenants (figure 10-9). In order to coordinate the apartment, building, block and neighborhood renewals, the Gebietsbetreuung coordinates dialogues in the form of meetings or excursions between tenants, homeowners, landlords, local businesses, wohnfonds\_wien, municipal and district governments. Residents are invited to actively participate in the planning process. The improvement of living environments in old neighborhoods, the renewal of urban public space and greenery, as well as the development of new traffic, and transport concepts, are all the responsibility of the Gebietsbetreuung, in which residents are able to participate in the decision-making, design and implementation (figure 10-10).



Figure 10.9  
A discussion in a workshop with invited experts  
(Source: Gebietsbetreuung Stadterneuerung, 2010, p.55)



Figure 10.10  
Gathering ideas from the youth for the design of a roller skating park  
(Source: Gebietsbetreuung Stadterneuerung, 2010, p.90)

Besides the physical renewal, the Gebietsbetreuung also plays an indispensable role on the comprehensive renewal of old areas from a non-physical point of view. Based on the successful strategies employed in the renewal of postwar municipal housing estates, one of Gebietsbetreuung's major responsibilities is acting as a local platform for the management and resolution of social problems and conflicts. Gebietsbetreuung emphasizes free and competent services on housing and tenancy issues, such as personal consultations, residents' meetings, arbitration between tenants and homeowners, and assistance in contacting relevant departments of municipality (figure 10-11). The initiatives are introduced for the resolution and prevention of conflicts in the community, through the activation of public events and resident participation. Furthermore, a series of social, economic, and cultural activities are organized with the participation of the local population, in order to revitalize the neighbourhoods and build a sense of community. There are programs to support the local economy

and to revitalize shopping streets and local markets through collaboration with local businesses. Cultural and artistic events, in which cultural diversity and local identity are promoted, are regarded as motivators of urban renewal (figure 10-12). Residents are encouraged to get involved in those activities, and their ideas for the neighborhood renewal can be heard. The development of social networks is largely supported. The individual characteristics of different districts are also maintained or strengthened. In fact, area renewal offices focus not only on issues of renewal, but also on interventions in social issues (Fassmann, Hatz and Patrouch, 2006, p.118). The Gebietsbetreuung is increasingly seen as an agency not merely of urban renewal, but of community management or governance.



Figure 10.11  
*Consultation with a tenancy expert in  
Gebietsbetreuung*  
(Source: *Gebietsbetreuung Stadterneuerung*, 2010,  
p.31)



Figure 10.12  
*A performance of artists in the public space*  
(Source: *Gebietsbetreuung Stadterneuerung*, 2010,  
p.78)

Above all, this transitional role of Gebietsbetreuung presents how the empowerment of local populations increases the potential for problem-solving and should be integrated as directly as possible into any decision-making affecting the local development process (Förster, 2004, p.22). Area renewal offices serve as the media for the empowerment of public participation in soft urban renewal (figure 10-13).

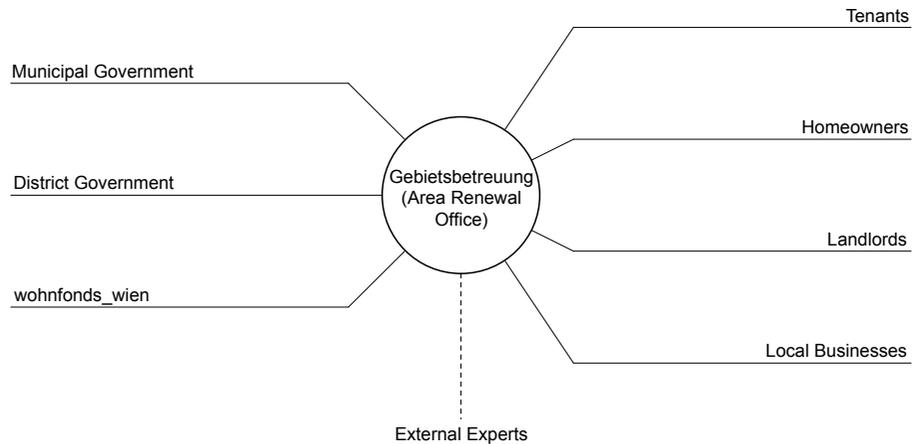


Figure 10.13  
*The mediation role of Gebietsbetreuung in urban renewal*

### § 10.2.3 Consequences

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In the soft urban renewal of Vienna, wide public participation is not just a prerequisite for public-private partnership; it contributes to the revitalization of local communities as well. The Gebietsbetreuung plays an important role as the medium in the coordination of the renewal process, the management of social conflicts, and the organization of local participation. As a result, the damages derived from vandalism and carelessness are reduced, and the level of people's satisfaction with their neighborhoods can be increased (Förster, 2004, p.22). Because of Gebietsbetreuung, the quality of community living has been enhanced. Social networks and local economies have also been revitalized. Because of those benefits, the sense of community has been rebuilt or strengthened in the renewed neighborhoods. In the mean time, community participation, as well as the strategy of housing renovation without compulsory eviction, prevents displacement and gentrification in local communities. The soft renewal did not exclude low-income residents from the renewed neighborhoods. Along with the physical improvement of living conditions, the analyses of the dynamics of the socio-demographic structure in the renewed areas show that the shares of immigrants and young starters did not change significantly in the last decade, either at the level of districts or at the level of census tracts (Fassmann, Hatz and Patrouch, 2006, p.116). The renovated, vacant apartments attracted higher-income tenants. Soft urban renewal never caused social segregation in Vienna. The top-down initiated empowerment of the local population rehabilitated the socially mixed community.

In the cases of *Bouwen voor de Buurt* in Rotterdam and the soft urban renewal in Vienna, the various efforts to improve social mixture and the inclusion of immigrants in the local community revealed the socio-demographic transformation that European cities have undergone since the 1970s. When considered with the process of globalization, this transformation reflects not only the increasing marketization and capitalization of a global economy, but also the stratification and polarization of a global society. In developed countries, the decrease of the traditional manufacturing industrial sector resulted in many “losers” in globalization, including both the immigrant and the native who served in those shrinking industries. This caused the further decline of some urban areas and intensified socio-spatial segregation. Therefore, since the 1990s, social integration has been a foremost purpose of urban renewal in many European cities. In the community-placial dimension, that means the maintenance or development of mixed communities through the process of urban renewal. The following two case studies will focus on the investigation of recent urban renewal practices for the promotion of mixed communities in European cities.

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### § 10.3 Urban Renewal for Creating a Mixed Community – The Integral Urban Renewal of the Bijlmermeer in Amsterdam

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In the preceding chapter, we introduced the urban renewal practice in the Bijlmermeer, a large-scale postwar social housing area in Amsterdam. On the one hand, the Bijlmermeer case presents, as was discussed in the preceding chapter, the PPP financing model of urban renewal and the emphasis of socio-economic revitalization in the context of housing marketization. But on the other hand, faced with the threat of socio-spatial segregation, the foremost task of the urban renewal of the Bijlmermeer was to revitalize this socially excluded area by creating a mixed local community. This chapter will investigate the strategies used in the urban renewal of the Bijlmermeer.

Traditionally, the social housing policy in the Netherlands held to an idea of a standard dwelling for a standard household. This idea of providing standard housing to the “average” person resulted in the uniformity and homogeneity of social housing estates developed in the 1950s and 60s, and created difficulties for those estates in the rental market. The Bijlmermeer is one of the most representative cases. Since the late 1970s, globalization and the accompanying neo-liberalism also accelerated the individualization and diversification of Dutch society. Along with the promotion of owner-occupation, more economically capable households started to look for their dwellings in the housing market, which may have provided more choices. Eventually in the late 1980s, the concept of “woonmilieudifferentiatie” (housing differentiation) was raised in the Netherlands.

The starting point for housing differentiation was the simple observation that human beings have different wishes with regard to housing and that the ways in which different social groups live their lives can no longer be captured in a uniform standard, but should rather give rise to highly differentiated requirements for houses and residential environments. In contrast to the ideal of social homogeneity, this hypothesis by no means requires that residents in a particular neighborhood necessarily all belong to the same social class. Rather it is a question of bringing together different social groups with different incomes who on the other hand complement each other with respect to their habits, behavior, and value systems and even, perhaps, provide each other with extra stimuli (Rosemann, 2006, p.35).

By acknowledging the differentiated housing demands, the differentiation of residential environments also becomes a core issue of urban renewal in the Netherlands, for which a major challenge is the promotion of social integration. For socially excluded urban areas, the creation of differentiated housing conditions and living environments for the various social or ethnic groups can be a way to realize a mixed and integrated community. The urban renewal of the Bijlmermeer in Amsterdam is precisely a representative case of this effort.

### § 10.3.1 Background

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The preceding chapter introduced the issue that the uniform high-rise housing design, the functionalistic plan, and poor accessibility to public transportation combined to make the Bijlmermeer unwelcomed in the housing stock of Amsterdam. With the large-scale inflow of immigrants in the late 1970s, the Bijlmermeer gradually became a concentration of minorities and people with the fewest choices in the housing stock. Until 1994, 45.5% of residents in the district were unemployed. In the early 1990s, about 70% of residents in the high-rise apartments were born outside the Netherlands (Kwekkeboom, 2002, p.77). As the “Zwart Beraad”, an action group of black residents, pointed out in 1996, the white population of the Bijlmermeer was in the minority (ibid, p.84). Even so, the vacancy rate of the Bijlmermeer was still quite high as its maximum percentage reached 25% in 1985.

The concentration of low income groups not only caused financial and management problems for the housing organizations because of the popularity of rental arrears, lodging, subletting, and vacancy, but also resulted in a series of social problems, such as vandalism, criminal activities, and social conflict. The Bijlmermeer thus gained a stigma as an “unwelcome” area in the Dutch housing stock, which conduced to high turnover and “downward” social filtering. The middle-class households, who were originally proposed as the target group of the Bijlmermeer, continuously moved on to

other areas. From 1985 to 2000, an average of one out of every six residents moved out per year. But the incomes of 90% of the new tenants were below the national average. Many of the newcomers were not stayers (Kwekkeboom, 2002, p.75-76). The Bijlmermeer finally became socially excluded by the majority of Dutch society, and was even not considered as “home” by many of its residents. Following the decline of the entire district and the problems of socio-spatial segregation, the urban renewal of the Bijlmermeer was inevitable.

### § 10.3.2 Strategies

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As mentioned in the preceding chapter, the primary task of the urban renewal of the Bijlmermeer, which was launched by the municipality, district council, and housing corporations was to improve the social structure of the district for the purpose of social cohesion/integration. This did not mean the displacement of the poor, but rather the encouragement of social mixture. The approach to realize this task was to hold on to the “upward” mobility of the local population, which meant lessening the number of existing residents moving out, lessening the number of social starters who were usually immigrant workers and other low income earners moving in, and giving support to vulnerable groups, thereby promoting the formation of a mixed community. As an “integral” approach to creating a mixed community, the schemes related to the spatial, socio-economic, and intensive management programs were applied in the urban renewal of the Bijlmermeer. The strategies included both top-down interventions to promote the differentiation of residential environments as well as flexible planning by involving the bottom-up participation of the local community.

#### *Differentiation of the housing stock*

As mentioned before, housing differentiation as well as housing decentralization and privatization were trends of the transformation of Dutch housing policy when the urban renewal of the Bijlmermeer was launched. On the one hand, the increasingly differentiated housing demands required different housing designs. On the other hand, economically capable households were encouraged to buy their own dwellings. In order to realize the social mixture and upward mobility of local communities, the most important strategy of the Bijlmermeer’s urban renewal was the differentiation of the housing stock.

Housing differentiation in the Bijlmermeer meant the differentiation of both housing types and ownership categories, in which the purpose was to provide attractive dwellings for local residents who were willing to leave and more “wealthy” newcomers from outside. The programs included demolition, new construction, and renovation and were related to 12,500 high-rise apartments (figures 10-14, 10-15 and 10-

16). According to the schemes in the initial stage (1992/1995), less than a quarter of the high-rise buildings (2,800 dwellings) were to be demolished and replaced by low-rise and mid-rise dwellings (in which 70% was owner-occupied). About 2,100 rented dwellings, of which 1,500 dwellings were in high-rise buildings, would be shifted from the rental to the owner-occupied sector, and all other rental dwellings would be renovated (Kwekkeboom, 2002, p.81). Those schemes were soon proven successful. The “half-way” evaluation in 1999 and the survey of residents in 2001 both supported the proposal of more demolition. The Final Plan of Approach in 2002 drew up the final image of housing differentiation in the Bijlmermeer: 6,550 high-rise dwellings (52% of the total 12,500) were to be demolished; amongst the retained and renovated high-rises, about 1/3 (2,000 dwellings) would be sold and 2/3 (3,950 dwellings) kept in social rented sector; and 7,450 new low-rise and mid-rise dwellings (a minimum of 110% of the demolished dwellings), in which 30% (2,250 dwellings) was social housing and 70% (5,200 dwellings) market (owner-occupied or market rental) housing, would be built in the renewal area. After the renewal, the Bijlmermeer became a district with different housing types including single family dwellings, maisonettes, mid-rise apartments, and high-rise buildings (figure 10-17). The housing stock transformed from the homogeneity (92% social housing) to a mixture (55% social rented, 45% market) (figure 10-18). Additionally, the social and market sectors were evenly spread over high-rise and low-rise buildings, and over new and retained dwellings. In the process of housing differentiation, no one was forced to leave the Bijlmermeer. Residents who had to move received affordable and suitable dwellings according to their choices.



Figure 10.14  
*Housing demolition in the Bijlmermeer*  
(Source: Koers, 2010)



Figure 10.15  
*Renovated high-rise apartments in the Bijlmermeer*



Figure 10.16  
*Newly constructed low-rise and mid-rise houses in the Bijlmermeer*



Figure 10.17  
*A mixture of different housing types in the Bijlmermeer after urban renewal*

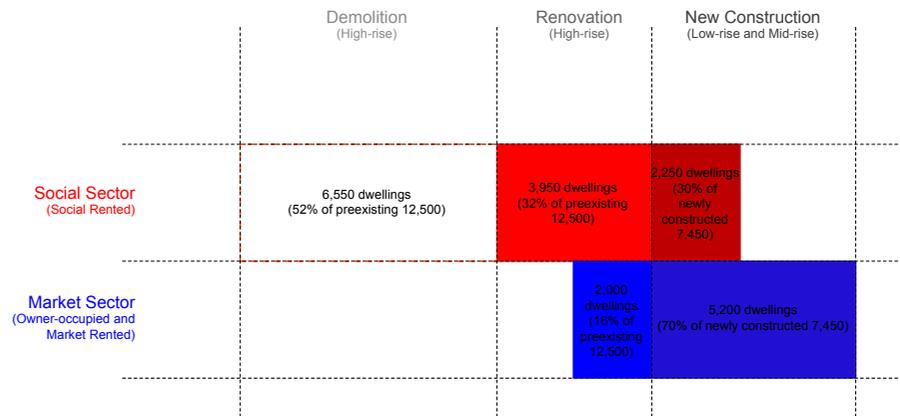


Figure 10.18  
Mixed housing stock of former high-rise areas in the Bijlmermeer after urban renewal

Of course the differentiation was not just limited to housing types and ownerships but the overall living environments of the district. Beginning with “individual” projects, different sub-areas of the urban renewal area were given their own identities by the differentiated design interventions. Raised roads as well as connected parking garages and shopping centers were demolished and transformed into ground-level streets. Interventions to the buildings were supported by transformations of the surrounding open spaces. Former public green areas were differentiated into limited public spaces (for better social control) and into different ‘privatized’ spaces (as individual gardens for individual residents or as collective gardens/green spaces/playgrounds for the residents of one building) (Rosemann, 2006, p.38). The ground space that was used solely by pedestrians and cyclists were made accessible to cars. More human-centered and differentiated living environments were introduced into the Bijlmermeer (figure 10-19).



Figure 10.19  
Renewed outdoor environments in the Bijlmermeer

### *Mixture of urban programs*

For a long time, the Bijlmermeer was almost a “mere” residential district. The district functionally linked to the center of Amsterdam rather than the surrounding small cities. The main shopping center was completed long after the construction of residential areas. Business parks were isolated to the west of the railway embankment. While it was planned as a satellite town, the Bijlmermeer had no real “town center”. Even inside the residential areas, the residential, recreational, and traffic functions were strictly separated according to modern functionalistic planning. There was not only a shortage of social facilities/services but also a lack of job opportunities within those large-scale residential blocks. The mono-functionality of socio-spatial morphology was also an important factor that made the Bijlmermeer unwelcomed in the housing stock of Amsterdam and led to it turning to decline. The differentiation in the Bijlmermeer, apart from the housing differentiation, also meant mixing different urban programs in the district.

The interventions were developed according to the so-called socio-economic program. Many new social, commercial, recreational, and cultural facilities were introduced and spread over the Bijlmermeer. An emphasis was placed on the promotion of economic activities in the district by way of the development and maintenance of small businesses. Along all three of the east-west, lowered avenues across the Bijlmermeer, the main commercial space (including new shopping malls, squares, and a space for small businesses/offices or recreational/cultural facilities) were developed. Even the ground floors of some high-rise residential buildings were transformed into spaces for small enterprises or offices. All those interventions contributed to and facilitated community life and created more job opportunities. Besides the physical interventions, there were also many non-physical schemes to support economically weak groups; for example, educational/training projects and programs for job-finding and business start-ups. The revitalization of economic activities largely helped the upward mobility of local community by increasing the economic capacity of vulnerable groups.

Apart from economic programs, the mixture of urban programs also sparked the introduction of more social and cultural programs. On the one hand, it meant the addition of extra community facilities (community centers, school, kindergartens, sports fields, playgrounds, etc.) and the redesign of public spaces; and on the other hand, it meant that the physical or non-physical interventions with respect multiculturalism, such as cultural educational centers and churches, were particularly emphasized in the urban renewal (figure 10-20). As a housing district where the ethnic minorities were in fact the majority, the new urban programs presented their own cultural and religious characteristics. The Bijlmermeer therefore gained an identity as a multicultural community and, as a result, the middle-class minority families were retained or attracted from the outside. In this sense, the urban renewal of the Bijlmermeer also practiced the concept of housing differentiation, which meant it created identities in different areas for people with different common interests.



Figure 10.20  
*Newly-introduced public space/facilities in the Bijlmermeer*

In the mean time, the mixture of urban programs did not only mean the introduction of extra programs in residential areas. Actually the Bijlmermeer was included into an integral development plan of the Zuidoost District of Amsterdam. Even before the large-scale urban renewal was initiated, Amsterdamse Poort, the shopping and office center of the Bijlmermeer, was built in 1987. In the early 1990s, a new center area, Amstel III Business Park, started to be developed on the other side of the railway line, where the most important stimulus was the construction of ArenA Stadium (the new football stadium of the famous Ajax football club). Amsterdamse Poort and Amstel III together laid the foundation of so called *Centrumgebied Zuidoost* (Center Area Southeast) (figure 10-21). At the same time, the Physical Planning Department of Amsterdam formulated a new vision of urban development, by which the *Centrumgebied Zuidoost* was planned as a sub-center of Amsterdam. Afterwards, a series of interventions were applied in order to create new centrality.



Figure 10.21  
*New center area of Amsterdam Southeast*  
(Source: Buurman and Kloos, 2005, p.112)

In the vision of the Zuidoost District Council, Amsterdamse Poort and Amstel III were to function as the economic motor of the Bijlmermeer, in which the link between the two would be crucial (Luijten, 2002, p.23). A new axis, the ArenA Boulevard, was therefore built to connect the AreaA Stadium and the Amsterdamse Poort shopping center at both ends through a walkway beneath the railway line. Along the boulevard, commercial and recreational programs were developed (figure 10-22). In 2007, the new railway station "Amsterdam Bijlmer ArenA" was completed as a pivot project to create centrality. According to the transparent design above the boulevard, the station spatially, visually, and perceptually connected both sides of railway line (figure 10-23). Because of its varied functions and excellent accessibility, ArenA area was important not only to the Bijlmermeer and Amsterdam, but to the entire region (Buurman, 2005, p.110). The existing residential areas also benefited from the new centrality. Bijlmerdreef, a lowered avenue of the Bijlmermeer, extended to Amsterdamse Poort, and became the main street of Zuidoost District, along which the District offices, the main shopping center, and the sports hall were located (figure 10-24). Economic and cultural life took place chiefly along the avenues and in the vicinity of ArenA (Kwekkeboom, 2002, p.93).



Figure 10.22  
The ArenA Boulevard



Figure 10.23  
The railway station "Amsterdam Bijlmer ArenA"



Figure 10.24  
Bijlmerdreef – the lowered main street of the Bijlmermeer



In general, the mixed district development highly contributed to the urban renewal of the Bijlmermeer. The business park provided potential job opportunities for the residents of the Bijlmermeer while the ArenA area facilitated recreational programs. Those who worked in the business park could shop in Amsterdamse Poort, and could potentially even find more housing choices in the renewed residential areas. Together with the development of Centrumbegied Zuidoost, the Bijlmermeer went on to be not only a mixed, lively district but an integral part of the city.

*Collaborative framework and organic planning in cooperation with local community*

As mentioned in the preceding chapter, the public-private partnership mode was adopted in the integral urban renewal of the Bijlmermeer. This collaborative mode was not only a financing strategy but also worked as a framework of project management, planning, and implementation. In the Western context of *the hybrid ethos*, bringing together individual rights and transforming them into collective actions was always a challenge. With the popularity of neo-liberalistic ideology, private interests became

unprecedentedly complicated and contradictory in urban renewal. Based on the experiences of Amsterdam, Niko Koers (2010) pointed out the fields of complexity in urban project: physical aspects, actors, direction/steering, and dynamics. After linking the fields of complexity to Chaos theory, he gave respondent strategies of project management such as flexibility in physical interventions, consideration to the roles and interests of actors, and reliability and agreement of process. These initiatives were presented in the management, planning, and implementation processes of renewing the Bijlmermeer.

In 1987, the Zuidoost District Council was founded as a consequence of the administrative decentralization of Amsterdam. That change gave the Bijlmermeer an opportunity to develop its own plan and became an important foundation for the initiation of large-scale urban renewal. The integral urban renewal of the Bijlmermeer was officially launched in 1990 in a collaborative effort between the City Council of Amsterdam, the Zuidoost District Council, and the housing corporations. Under this organizational framework of public private partnership, the PVB (the Project Office for the Renewal of the Bijlmermeer) was set up to supervise and coordinate the operation of urban renewal (figure 10-25). The financing and operational emphases were shared by different partners: the housing corporations (with the support from the CFV) focused on the differentiation of the housing stock, while the Zuidoost District Council was mainly responsible for social and economic renewal. The important decision-making was laid down in contracts between the City Council, District Council, CFV, and Rochdale Housing Corporation, who also officially examined the progress biannually. In this framework, the Zuidoost District Council, which was elected by local residents, could indirectly represent the opinions of the residents, particularly after the black/white discussion of the late 1990s, when the composition of the District Council started to better reflect the multicultural demographic structure of the Bijlmermeer.

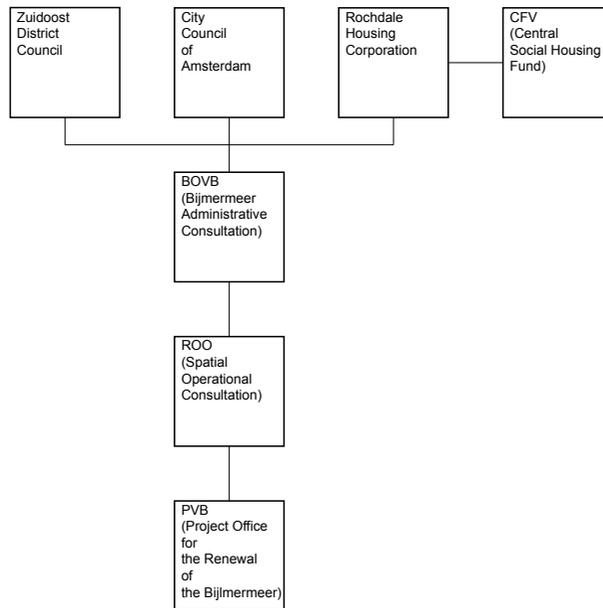


Figure 10.25  
 Organizational framework and decision-making structure of the urban renewal of the Bijlmermeer  
 (Source: Koornstra, 2009, translation and drawing by author)

Unlike the “Bouwen voor de Buurt”, the residents’ organization did not directly participate in the decision-making framework of urban renewal of the Bijlmermeer. However, the democratic process, as well as the active community participation, is a “tradition” of Dutch urban renewal. The engagement of Sociaal Plan, as a local legal agreement between tenants, housing organizations and municipalities, has already become a national policy and part of *Prestatieafspraken* (agreements on performance) that is obligatory in BBSH. In the urban renewal of Bijlmermeer, the Sociaal Plan was drawn up at the very beginning to clarify the rights and responsibilities of different actors. Moreover, thanks to the Sociaal Plan, which provides the possibility to alter the plan and stop the implementation, the urban renewal of Bijlmermeer is in particular identified by its organic planning process. That assures the flexibility of urban renewal to reflect the “bottom-up” demands of the residents.

As mentioned earlier, the urban renewal of the Bijlmermeer started from the individual projects of different sub-areas, each of which had its own project group and its own planning, rather than an overall master plan. This phased, flexible strategy could not only meet the dynamic demands of changing circumstances, but also make the results visible in the process of communication with and persuasion of the local community. In 1992, urban renewal began in Ganzenhoef, the “worst” section of the Bijlmermeer, with urban planning at the beginning. The low-rise dwellings (in which 30% was social

rented, 70% was owner-occupied) were built on undeveloped land in order to rehouse tenants of high-rises that were to be demolished. Despite arguments from anti-demolition groups who felt that the decrease in social housing would damage poor minorities thus resulting in years of lawsuits, the project was soon proven to be going well. All newly-built social housing was occupied by former tenants of the demolished apartments, and 60% of new owner-occupied dwellings were bought by the rising black middle class who was familiar with the Bijlmermeer (including those who left earlier as well as residents from the better parts of the Bijlmermeer). The success of the first project in fact worked as a pilot project for the new strategy to create a mixed community by housing differentiation.

The urban renewal projects of two other neighborhoods (Amsterdamse Poort and Kraaiennest) were initiated in 1995. Those two projects started from a large-scale sociological investigation, in particular the face-to-face survey with all residents of the neighborhoods. The results of the survey showed that 25% of the residents strongly opposed the demolition of the high-rise, 25% were certain to leave, and 50%, the biggest group, preferred to stay if their living conditions would be largely improved. Accordingly, the renewal interventions were developed (such as the mixture of the renovation, the replacement of high-rise apartments with the low-rise apartments to maintain the majority of the local community, and a support program for those who left to find new houses) based on the situations and perspectives of the residents:.

In 1999, empowered by the Sociaal Plan, a “half-way” evaluation for the urban renewal of the Bijlmermeer was made by the partners. The evaluation report *De Vernieuwing Halverwege (Halfway of the Renewal)* confirmed the differentiation strategy for the first three “action areas” and concluded that more demolition of the high-rises would be necessary. This conclusion was soon proven true in 2001 by a survey of 4,600 households in high-rise apartments: only 23% of residents were against the demolition of their own high-rise apartments, 60% were for demolition, and 17% were undecided (Kwekkeboom, 2002, p.83). Based on the results of the evaluation and survey, the real master plan of the urban renewal of the Bijlmermeer, called *Finale Plan van Aanpak (Final Plan of Approach)*, was defined in 2002, ten years after the start of the urban renewal (figure 10-26).



Figure 10.26  
*Final plan of the urban renewal of the Bijlmermeer*  
(Source: Kwekkeboom, 2002, p.95)

Besides the evaluation of preceding experiences and the face-to-face survey of residents, the final master plan was decided through many other channels of resident participation. These channels included multilingual information and consultation (such as residents' consultation parties) (figure 10-27), local (multilingual) radio and television broadcasts, informal networking of key people, consumer panels, etc. The research and plans were displayed and opened to the public for inspection. Through wide community participation, the Final Plan was presented and showcased the ultimate vision for the Bijlmermeer in 2010. There would be more demolition of the high-rises (from 2,800 to 6,550 apartments), more new housing constructions (from 4,900 to no less than 8,550 dwellings), more demolition and conversions of parking garages, more road lowering, more rebuilding, extension and new construction of socio-economic facilities, more intensive management, more differentiated housing stock and urban programs, as well as a mixed, integrated local community with its own multicultural identity. The Final Plan was laid out to guide the implementation of the integral urban renewal of the Bijlmermeer.



Figure 10.27  
*Residents' consultation party for urban renewal in the Bijlmermeer*  
(Source: Leferink, 2005)

In principle, the urban renewal of the Bijlmermeer was a process that started without a master plan for the district. It was only after the implementation of several pilot projects that the final plan was developed. This organic, flexible planning, as well as the collaborative organizational framework of urban renewal, ensured the continued effort to create a mixed community through cooperation with the local community.

#### *Intensive housing management*

Apart from the more "radical" renewal interventions, the intensification of housing management was also an effective strategy in the maintenance of local community of the Bijlmermeer. The survey showed that about 20%-25% of the residents opposed demolition of their high-rise apartments. Those opposed were usually members of the White Dutch population who favored the "original" Bijlmermeer. Those "Bijlmermeer Believers" blamed the decline of the district on bad management. In order to retain this group of residents, intensive management of the high-rise residential areas was equally as important as the housing renovation.

In the beginning, it was thought that the tasks of housing management would lessen with the progress of urban renewal. Even then, management interventions, such as more security guards and video surveillance, were intensified in high-rise areas. The experiment was inspired by the idea of true believers in the Bijlmermeer that intensive management would pay for itself (Kwekkeboom, 2002, p.87).

However, the midpoint evaluation revealed that there should have been more management initiatives in the urban renewal because social problems, such as a growing concentration of drug addicts, took up residence in the un-renewed residential areas and shopping areas. There was also viable concern that the concentration of social problems would spread to the renovated or newly-built neighborhoods. Therefore, after 2000 a greater amount of investment, without any direct returns, was input for intensive management in both un-renewed and renewed areas. In the sub-areas that were awaiting renewal, the extra interventions included the intensive

video surveillance and security guards, continuous maintenance and cleaning of the buildings and public spaces, and the establishment of preventative measures to counteract the spread of drug addicts/dealers. In areas that were construction, the interim management schemes, including safe routes through construction sites, temporary accessibility of blocks, and intensive cleaning, were implemented to guarantee security and quality of life. In the areas where the urban renewal had been completed, efforts focused on the maintenance of the quality of living environments. Those efforts included the reorganization of trash collection, welfare policy, and the resident participation; the latter of which highly contributed to the intensification of housing management. In newly-built neighborhoods, new resident organizations, which were usually initiated by the occupied homeowners, were encouraged to develop their own management. The new homeowners were encouraged to take on their responsibilities in housing maintenance and management. In general, the intensive housing management proved to be an effective and efficient strategy to maintain the local community and to improve both the social and ethnic mixture.

### § 10.3.3 Consequences

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Although the progress of urban renewal in the Bijlmermeer was delayed and later scheduled (as of 2010 construction work still had not been completed), this urban renewal project, largest in the Netherlands, successfully achieved its original objective. The integral urban renewal of the Bijlmermeer ultimately benefited about 30,000 residents. The housing stock in the Bijlmermeer was significantly differentiated by taking the will of the residents into consideration. The number of high-rise apartments in the urban renewal area was reduced from 95% to 45%. In the whole of the Bijlmermeer, the proportion of high-rises decreased to no more than 37%; thus the Bijlmermeer was no longer a high-rise district. More than 8,000 new homes, in which 35% were single-family dwellings, were or were going to be built. In total, the housing stock of the Bijlmermeer increased by 2,000 dwellings. After intensive management initiatives the residential areas became much safer and cleaner. At the same time, the proportion of social rented dwellings decreased from 92% to 55% of the total housing stock in the Bijlmermeer. Additionally, social and market housing was evenly distributed amongst the high-rises and low-rises and amongst the retained and new buildings. The original residents, who had to move but would have liked to have stayed in the Bijlmermeer, would receive affordable and suitable dwellings in the district. Less new middle-class households moved on and even more moved in.

The Bijlmermeer was becoming increasingly “urban” in terms of the mixed urban programs. An estimated 100,000 m<sup>2</sup> in extra commercial and office space had been added in the original residential areas, and there are a large number of extra educational, religious, and neighborhood facilities (Kwekkeboom, 2002, p.93). Non-physical, social, and economic programs were also implemented to support residents, especially vulnerable groups. A social, cultural and religious local network was established and strengthened. The Bijlmermeer was characterized as a multicultural community. Furthermore, the development of Centrumgebied Zuidoost carried out a new centrality and revitalized the whole district. The Bijlmermeer developed both physically and psychologically into an integral part of the city (Buurman, 2005, p.110).



Figure 10.28  
*The Bijlmermeer after urban renewal*  
(Source: Buurman, 2005, p.99)

All in all, in accordance with the implemented strategies (including differentiation of the housing stock and urban program, the collaborative framework, organic planning, as well as the intensive housing management) the Bijlmermeer was successfully transformed from a homogeneous, socially excluded housing area to a multicultural and multifunctional district. About 75% of the original residents were willing to stay and chose the Bijlmermeer as their “home”. Moreover, the district’s multicultural identity made it increasingly attractive to the middle class minorities from outside the Bijlmermeers. Urban renewal of the Bijlmermeer did not result in gentrification, but rather created a socially and ethnically mixed community (figures 9-39 and 10-29). It was because of its cultural diversity and social mixture that the new Bijlmermeer shed its stigma as an unwelcome area in the Dutch housing stock. The differentiation finally resulted in integration.



Figure 10.29  
*New local life in the Bijlmermeer*  
(Source: *Buurman, 2005, p.103*)

Actually, as an urban renewal practice for developing mixed communities, the Bijlmermeer project is by no means the only recent case in Europe. Since the 1990s, social mixture and integration has been a crucial theme of urban renewal practices in many European cities. The next case study will concentrate on a comparable project in Berlin, the urban renewal of a large-scale social housing area called Hellersdorf, where the task was not to create but to maintain mixed communities. More importantly, the Hellersdorf case may be more relevant to the situation in Beijing because it was originally a socialistic public housing area that was developed during the period of former East Germany.

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## § 10.4 Stabilizing a Mixed Local Community – The Hellersdorf Project in Berlin

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Like China before 1998, housing policy of the country formerly known as East Germany, namely *Deutsche Demokratische Republik* (DDR), was based on a socialistic public housing system, which meant the housing was centrally developed and distributed to residents with low rents. However, after the DDR's founding in 1949, the housing issue was neglected for a long period of time<sup>5</sup>. Even up until the early 1970s, there had still been a serious problem of housing shortage in the former DDR. Therefore, in 1970 the

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5 Before the 1970s, the priority of the DDR government was to develop heavy industry and large public infrastructure. Housing development was thus neglected for a long period of time.

government started to heavily promote public housing development with the objective of providing an affordable and suitable dwelling to each household.

Under the planned (or centrally commanded) economy, housing was regarded as a basic requirement to the welfare of citizens. The state decided the total amount and locations of dwellings in each of its "5-year" Plans. The Ministry of Housing supervised the realization of those plans, and the planning/design codes were defined by institutes of urban construction under the ministry. The state-owned, large-scale building corporation, KOMBINAT, was responsible for the precise planning, design, and implementation of housing projects. The completed housings were allocated by the housing department of each city to those who needed dwellings. As welfare, the rent was controlled on a rather low level; meaning the rent level only amounted to 2.4% of the average monthly wage.

Many of the new public housing areas were built in the form of large-scale housing areas (Grosssiedlungen) on the urban periphery and included the extension of U-Bohn and S-Bohn lines. Large-scale housing areas were usually developed for 50,000-100,000 residents and included several neighborhoods with a certain amount of public facilities. Representative cases in East Berlin included Marzahn, Hellersdorf, Hohenschönhausen, etc. Standard apartment designs were widely applied and covered building types from mid-rise (4-8 stories) to high-rise (11 stories). Compared to prewar dwellings, each apartment had its own kitchen, bathroom, and toilet, which contributed to the improvement of living quality. More importantly, because the socialistic public housing system widely covered different social groups, the public housing areas were identified by their socially mixed communities.

The technical measure encouraging housing development was the industrialization and standardization of building construction, in which the most famous invention was the "WBS70" series of prefabricated panel construction (figure 10-30). The technology of prefabricated concrete panels in building construction was developed in 1957 in former East Germany. Until the 1970s, the technology had been well-developed so as to support large-scale housing construction (figure 10-31). The series WBS70, as a standard of building design and technology, started to be largely applied in 1973. From 1970 to 1989, about 1 million prefabricated panel apartments were built and accounted for 15% of the total housing stock. In fact, this industrialized, mono-structural design and construction not only accelerated housing production but also erected a model of social equality. According to the Soviet-style socialistic ideology, individuality was subordinate to the collective, so housing planning and design was created accordingly for "average" people in a mechanically-organized urban society. The prefabricated apartments thus became the identity of East Germany's housing. The large-scale housing areas in East Berlin, which were normally built by the application of series WBS70 technical standards, were also called prefabricated housing areas (figure 10-32).



Figure 10.30  
*The "WBS70" prefabricated panel residential building*  
(Source: Flecken, 2005)



Figure 10.31  
*The construction of prefabricated housing in DDR*  
(Source: Rückel, 2008)



Figure 10.32  
*Large-scale prefabricated housing area in DDR*  
(Source: Rückel, 2008)

Due to those efforts, the housing problem of the DDR was more or less solved until the German reunification. The housing stock of East Germany was modernized<sup>6</sup>, and the average housing floor area reached 30 m<sup>2</sup>. However, the reunification of Germany signalled the end of the DDR as well as its socialistic public housing system. With the rapid socio-economic transition in the region of former East Germany, the future of those large-scale prefabricated housing areas became questionable.

In the very beginning, there was a proposal to totally demolish the prefabricated apartments for political consideration. This demolition plan was evidently unrealistic and consequently abandoned. Most of the socialistic public housings were transformed into social housings that were owned and managed by housing associations or housing cooperatives. In addition, some apartments were sold to individuals or private investors. After the reunification, with the new socio-economic situation, new problems were gradually emerging:

- The large-scale former socialistic public housing areas faced the increasing number of residents who chose to move out. This developed as a result of two main reasons. First, the monotonous and uniform living environments were a direct result of the overemphasis of industrialization and standardization and were representative of the ideals of a collectivistic and equalized society. This made the prefabricated housing areas less attractive to the reunited housing stock, which, in contrast, offered more housing choices. Second, the economic downturn of Eastern Germany after the reunification resulted in the constant migration of its population from the northeast to the southwest of Germany. Since 1993, the number of the residents in the large-scale housing areas continuously decreased. Vacancy rates of apartments and unemployment rates among residents who stayed increased.
- There were rising social conflicts in the large-scale prefabricated housing areas. Many of the original residents who stayed were elderly people who enjoyed well-paid pensions (as a result of the high welfare benefits of the former DDR). But since rent levels of former socialistic public housing was still lower than average rent levels of social housing, the majority of those who moved into those housing areas were low-income, young households. Age, habits, and income differences between the original residents and newcomers caused social conflict, which was further enflamed by the outflow of higher income earners. Area decline was a realistic challenge, and the originally mixed community faced the threat of destruction.
- There was simultaneous a "structural" surplus and shortage of public facilities in the large-scale prefabricated housing areas. On the one hand, with the aging

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From 1971 to 1989, the proportion of the dwellings with independent bathroom increased from 39% to 82%, with toilet from 36% to 76%, with modern heating from 11% to 47%, and with telephone from 8% to 16%, in the former DDR.

population, many of primary schools and kindergartens gradually became vacant (figure 10-33); on the other hand, social infrastructures for teenagers and the pensioners (including the disabled) were insufficient.

- Additionally, from an ecological standpoint, prefabricated apartments were incapable of meeting the technical requirements of energy-saving. Their modernization was obviously inevitable.



Figure 10.33  
*An abandoned school in a prefabricated housing area*

But the potential opportunities for large-scale former socialistic public housing areas could not be ignored. Most of the prefabricated apartments were still in good structural condition and far from the expiration date of their designed lives. The U-Bohn and S-Bohn connections to the city center allowed good accessibility of the large-scale prefabricated housing areas. As mixed communities, those housing areas accommodated a large number of the residents from different social strata or groups within Eastern Germany. Last but not least, different from negative criticism from Western experts and media, which portrayed prefabricated housing areas as the embodiment of the “gray” DDR, many residents chose to make them their home.

Therefore, the large-scale urban renewal for the prefabricated housing areas was launched by the government in the early 1990s. In Berlin alone, the urban renewal included 17 large-scale prefabricated housing areas with about 274,000 dwellings. The objective of urban renewal through the rehabilitation, by way of the improvement of housing conditions, living environments and infrastructures, was to halt the continuous moving on of residents thus stabilizing the mixed community. In the beginning, public interventions focused on the modernization of residential buildings and outdoor environments as well as the promotion of local economy and the creation of job opportunities. However, the economic downturn of eastern Germany brought more difficulties. The vacancy rate of the housing stock of the former DDR areas

once reached 15%. As a result, after the year 2000 the government thereby further boosted the urban renewal of prefabricated housing areas. According to the “Urban Reconstruction East” program, which was initiated in a joint effort of the federal and state governments, € 2.5 billion was invested from 2002 to 2009 to demolish vacant buildings and replace them with new public space and landscape. In the meantime, the concept of housing differentiation was introduced in accordance with the differentiated and changing housing demands. The homogenous housing stock and living environments in those large-scale prefabricated housing areas was significantly altered to maintain the mixed communities.

According to the urban renewal policy in Germany, urban renewal projects of social housing areas were usually commissioned to housing organizations. But as for “key” projects for areas with serious social problems, such as the urban renewal projects of the large-scale prefabricated housing areas, project offices called *Neighborhood Management/Intermediation Offices in Urban Development* were established with the support from the municipal government to coordinate different actors. With the exception of self-financing by the housing associations (via rent income and sale of apartments), the investments for those key projects were largely financed by the government. Bank loans were also available for the urban renewal of the prefabricated housing areas. Rent levels of renewed, social rented dwellings inevitably increased. But in terms of the strict rent control in Germany, the rent growth rate was normally less than 30%.

Apart from the social-oriented rehabilitation, in which the majority of housing stock remained social rented, a privatization program for prefabricated apartments was also created. However, efforts at housing privatization were generally unsuccessful. Many tenants did not intend to buy their own dwellings on account of the low rent. Private investors who purchased the prefabricated housing buildings were often unwilling to invest much on the renewal: they only rented the apartments, with few renovations, to lower income households who could just afford lower rents. The privatization therefore did not solve but rather caused social problems.

Among all the urban renewal projects of the large-scale prefabricated housing areas in the former DDR, the Hellersdorf project in Berlin is representative. The following section will focus on the case study of the Hellersdorf in order to examine the renewal strategies for communities that were socially mixed.

## § 10.4.1 Background

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As a typical large-scale prefabricated housing area, the Hellersdorf socialistic public housing area is located at the eastern outskirts of Berlin (figure 10-34). The Hellersdorf was planned in the late 1970s and began construction in 1980. The proposed construction completion date was 1990. In 1986, the residents began moving into the new housing area, and the Hellersdorf, which was still under construction, had become a district of Berlin. The target group of the dwellings in the Hellersdorf was young families with children. The educational facilities, e.g. primary schools and kindergartens, were, in the beginning, well-equipped. But the progress of the construction of other commercial and communal facilities, as well as the outdoor environments, was delayed.

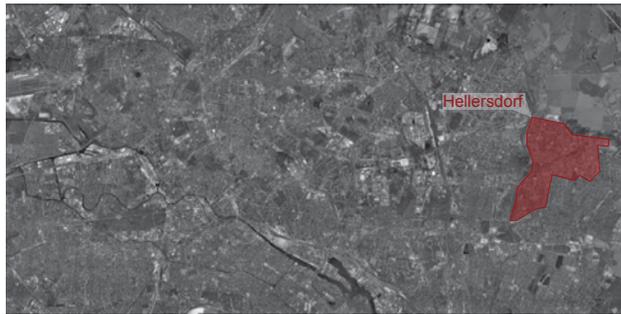


Figure 10.34  
*Hellersdorf in Berlin*

Until the German reunification, the Hellersdorf had been developed as a large-scale socialistic public housing area, with approximately 100,000 residents. All apartments were completed and occupied, but the construction of many public facilities and outdoor environments still had to wait for implementation (for example, 87 of 167 housing clusters had not had any landscape designs implemented). Residential buildings also started to technically age. In addition, the aforementioned outflow of residents and the area decline had both been realistic threats in the economic downturn of Eastern Germany.



Figure 10.35  
*The Hellersdorf residential district in 1993 (before urban renewal)*  
(Source: Klenke, 1996)

Therefore, it was decided that the task of the urban renewal of the Hellersdorf was to concentrate on three aspects: maintaining the confidence of residents living in the district by visible interventions of rehabilitation; the collaboration of all relevant actors, including the housing organizations, the district government of the Hellersdorf, the municipal government of Berlin, and the residents (tenants); and a long-term, sustainable and comprehensive plan to improve living conditions and the quality of life. All of those composed the so-called “Hellersdorf Project”.

## § 10.4.2 Strategies

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The Hellersdorf Project was initiated in the early 1990s by the municipal government of Berlin, the Hellersdorf District Council and “WoGeHe” – the Hellersdorf Housing Corporation (which was the biggest property owner in the Hellersdorf). Other main partners of the urban renewal of the Hellersdorf included “Hellersdorf Kiez” housing cooperative, “Grüne Mitte” (a housing cooperative), “MÜBAU” (a real estate investment fund), “ARWOBAU” (a housing association), and “MEGA AG” Housing development, Construction, and Management Company. According to this public-private partnership framework, in addition to public funding, private investment was also involved in the urban renewal. The participation of residents was also emphasized.

In order to maintain mixed communities, renewal strategies were developed as an approach to urban rehabilitation. Like the urban renewal of the Bijlmermeer in Amsterdam, those strategies included housing differentiation, the mixture of urban programs, and community participation.

### *Differentiation of the housing stock and living environments*

As mentioned above, the homogenous, uniformly built environment of prefabricated housing areas, in which collectiveness and equality were overemphasized, was a key reason behind the outflow of those who had particular housing demands. The continuous outflow of residents would have destroyed the socially mixed community and inevitably result in social exclusion and spatial segregation. The idea of housing differentiation was thus introduced in the Hellersdorf Project in the 1990s. The interventions referred to, among other things, the renovation of existing housing stock and living environments, the new housing construction, as well as the differentiation of housing ownerships.

In order to maintain the original community, renovation of existing residential buildings, of which most had been more or less aged, was indispensable. In 1991, a renovation program for about 42,000 social rented dwellings was launched in the Hellersdorf. The renovation included not only the technical improvement of building structures, amenities, pipelines, and outdoor environments, but in many cases also meant the redesign of the interior spaces of apartments. In order to adapt to the changing structure of households (elderly families, families without children, etc.) as well as the increasingly differentiated requirements of tenants, rooms were repartitioned and balconies were added to many apartments. There was also a scheme to encourage tenants to redesign their dwellings by themselves. Elevators were added to many buildings for the increasing aging population (figure 10-37).



Figure 10.36  
*Housing renovation in the Hellersdorf*  
(Source: Klenke, 2000, p.13)



Figure 10.37  
*New elevators added in the housing renovation of the Hellersdorf*

Apart from “functional” improvements, building façades, outdoor public spaces, and even cityscapes were redesigned or redecorated to create a local identity and sense of belonging. The renovation of different neighborhoods was commissioned to different housing organizations and architects so as to endow the neighborhoods with unique identities. For instance, in the neighborhood between Erich-Kästner-Strasse and Carola-Neher-Strasse, the redesign of building façades was commissioned to a team of Brazilian architects, who redecorated the building with tiles containing a pattern designed by Indian artists from Southeast Brazil (figure 10-38). In some cases, the original colors of building façades remained unaltered to preserve the sense of belonging of residents who felt the original Hellersdorf was their home. Major public spaces, such as plazas or squares, of each neighborhood were also redesigned to establish their unique identities (figure 10-39). Artists were invited to design urban sculptures that were placed at the entrances of neighborhoods or on the tops of buildings, and contributed to the improvement of the district.



Figure 10.38  
*Renovated prefabricated housing designed by Brazilian Architects*



Figure 10.39  
*A redesigned neighborhood square in the Hellersdorf*

During the process of renovation, the inconvenience to the residents was minimized. The construction period was kept as short as possible, and the process and timetable was well organized so that the tenants could stay at their homes while the renovation took place. For instance, while the apartments were still in use, the replacement of the plumbing only took 5 days.

Compared with the renovation of existing housing stock and living environments, the new housing construction was a more “fundamental” way to differentiate housing typology and ownership category. The undeveloped “waste lands” in the Hellersdorf, as a result of the delayed construction of public facilities and outdoor environments many of which still existed in the 1990s, allowed for the development of new housing types to attract potential residents who were looking for high-quality living. In the recent decades, there has been an increase in housing demands from middle-class households eager to move to single-family housing areas on the urban periphery because of their better environmental quality. The Hellersdorf was able to meet this demand. As a built-up housing area with developed public facilities and mixed community, the Hellersdorf was no doubt more competitive than the newly-developed housing areas on the urban periphery. Therefore, with the concept of living in a “mature” community on the urban fringe, a new building project started to develop surrounding Branitzer Platz in the Hellersdorf after 1995. This project successfully mixed different housing types and new ownership, such as single-family houses with gardens and the owner-occupied apartments (figure 10-40) that attracted new middle-class residents. The new constructions also included commercial space and well-designed public squares in order to create an “urban” atmosphere. The new buildings merged into the existing housing areas so precisely that the differentiation and mixture of housing types, ownerships and urban programs was realized.

Another project of housing differentiation by new building construction was the housing program in the new center of the Hellersdorf. To accommodate the housing demands of those who wanted to live in the “central” area with its vibrant “inner-city” atmosphere, about 1,000 high-quality apartments, with inner-court gardens, were built as part of the new construction of commercial center in the Hellersdorf. This also served to attract potential residents of higher income households (figure 10-41). Actually, the new building construction for housing differentiation not only focused on high-grade accommodations. Houses designed for vulnerable groups with specific demands, i.e. the disabled, were also realized. New buildings for the disabled were designed to either make public facilities more accessible, or offered special facilities that were open to other residents in the neighborhood.



Figure 10.40  
Newly-built owner-occupied housing around Branitzer Platz



Figure 10.41  
Newly-built, high-quality apartments near the new commercial center of the Hellersdorf

In general, the housing differentiation played a defining role as a basic principle of renovation and new construction programs in the Hellersdorf Project. Apart from the general improvement of the living conditions of residents, the residential environments of the the Hellersdorf were differentiated to meet different, changing housing demands. As a renewal strategy to maintain the socially mixed community, the differentiation of housing stock and living environments helped to slow the outflow of original residents and attracted the inflow of target groups.

#### *Creating multifunctional community as an integral part of the city*

A serious problem of the Hellersdorf in the 1990s was the delayed construction of public facilities and outdoor environments, which caused a lack of public space, commercial and cultural facilities, as well as other urban programs. In order to maintain and develop an attractive community, a primary task of the Hellersdorf Project was to promote the development of public spaces and facilities and thus transform the district from a mono-functional "dormitory town" to a vital part of the city.

On the neighborhood scale, the intervention concentrated on improving the quality of outdoor environments, public space, and facilities. The high-quality landscape designs, e.g. squares, gardens, greenery, water, pathways, sculptures, and urban furniture, were introduced into the neighborhoods. New public facilities, including sports fields, playgrounds, community centers, family support centers, and youth clubs, were also developed as communal spaces for the residents (figure 10-42). Vacant public buildings (as a result of the changing population structure) were reconditioned to facilitate new community service programs (figure 10-43). Besides the physical interventions, community events, such as open-air cinemas (figure 10-44), were also frequently organized in public spaces of neighborhoods.



Figure 10.42  
Renewed communal space and facilities in prefabricated housing neighborhoods



Figure 10.43  
A community center in the Hellersdorf-Nord transformed from a former day care center  
(Source: Bahrs-Discher, 2007, p.74)



Figure 10.44  
An open-air cinema in the Hellersdorf  
(Source: Klenke, 2000, p.45)

However, creating multifunctional communities by only improving neighborhood living environments was not enough. For the Hellersdorf, as a district of Berlin, more commercial, cultural, and educational programs were introduced with the effort to create new centrality. A significant project was the development of "Helle Mitte", a new district center of the Hellersdorf. 31 hectares of land surrounding the "Hellersdorf" U-Bohn station was reserved for the district center in the urban planning of the former DDR. But, before 1990, this plan was never implemented. After 1990, in collaboration with MEGA Development Company as well as local corporations, institutions and organizations, the Hellersdorf District Council initiated the Helle Mitte project. In keeping with public-private partnership, private investment was also introduced to the development of the center of Hellersdorf. New construction included 70,000 m<sup>2</sup> of commercial space and 50,000 m<sup>2</sup> office buildings surrounding Alice-Salomon Platz. In addition to shopping streets and a shopping center comprising of retail stores, restaurants, cafés and cultural facilities, the building complex contained a cinema, a

clinic, and a technical college as well as the New Town Hall of the Hellersdorf District. In addition, as a public square, Alice-Salomon Platz was a significant place for social, cultural, or recreational events. Through the introduction of different urban programs, the Helle Mitte was developed as the center of the district.



Figure 10.45  
*"Helle Mitte" – the new center of the Hellersdorf*

The Heller Mitte project was, of course, not the only example of the efforts made to mix different functions of formerly residential, large-scale prefabricated housing areas. Similar projects refer to the central park on the other side of the "Hellersdorf" U-Bohn station (figure 10-46), the "second" office of the district council with a "one-stop" service center and the exhibition hall (figure 10-47), the restoration of historical village buildings (which were built long before the housing area was developed and created a cultural identity for the district), and more. More importantly, programs related to natural environments became a major theme of urban renewal in the Hellersdorf.



Figure 10.46  
*The central park of Hellersdorf*



Figure 10.47  
*Second management location of District Council*

As a district at the eastern fringe of Berlin, the Hellersdorf was a housing area next to the pastoral landscape of Brandenburg. The Hellersdorf had the advantage of being a community located next to nature and so similar planning concepts became a part of urban renewal. All new construction was concentrated inside the existing housing area in order to avoid damage to the surrounding natural environments, while natural landscape and biodiversity in and between different neighborhoods were protected as well. The renewal initiatives on the issue of natural environment included two things. The first was a preservation plan for lake areas close to the housing area, in which the accessibility to nature was improved, while consideration was given to the protection of the ecological environment. The second was the “Hellersdorf Park Trilogy” project, which was a plan started from the period of the former DDR, that introduced the green belt from outside to the central area of the Hellersdorf (). A series of physical and non-physical schemes, such as the community educational program on ecological issues and the design to provide private gardens, were also implemented to encourage the involvement of the local community in the protection of natural landscape and biodiversity. The realization of the Hellersdorf Project resulted in not only the mixture of urban programs but also the mixture of the urban and the natural.

Through the creation of new centrality and the mixture of urban and natural programs on different scales of the urban renewal, the Hellersdorf was transformed from a mere residential district to a multifunctional, lively community that was an integral part of the city of Berlin.

#### *Democratization of planning and implementation by community participation*

The last but maybe the most important strategy for maintaining mixed communities in the Hellersdorf Project was community participation in the planning and implementation of urban renewal. Any decision-making in the urban renewal would inevitably impact the life of local residents, so their participation was indispensable. Experience has proven that adequate communication with the public would improve

their understanding of the planning and would accelerate the implementation of urban renewal. Community participation aims to effectively combine residents' daily experiences of community life and the professional knowledge of experts, thereby making urban renewal more democratized and efficient.

As mentioned earlier, in order to change the traditional top-down structure of decision-making in urban renewal, the *Quartiersmanagement/Intermediäre in der Stadtentwicklung* (Neighborhood Management/Intermediation Offices in Urban Development) introduced the urban renewal of large-scale prefabricated housing areas, such as the Hellersdorf Project. This neutral, flexible, and non-profit project office was a non-governmental agency financed by the Municipality of Berlin. A Neighborhood Management/Intermediation Office was responsible for coordinating the planning and realization of an urban renewal project, including the participation of the district council, housing organizations, residents' organizations, and other possible actors, such as local enterprises, small businesses, and legal institutions (figure 10-48). This new organizational framework built a mutual and collaborative model of decision-making in urban renewal and thus balanced the top-down and bottom-up initiatives well.

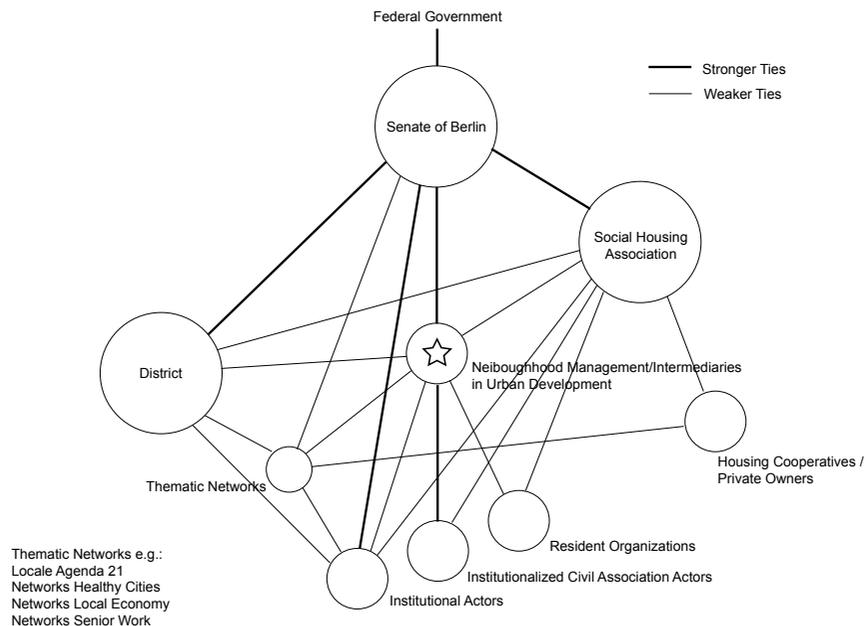


Figure 10.48  
*The structure of actor-network of the urban renewal in Hellers*  
 (Source: Droste and Knorr-Siedow, 2007, p.157; translation and drawing by author)

Besides the institutional transformation, a series of events were held to directly involve the residents in the planning process. In the Hellersdorf, the planning workshops were organized in some neighborhoods through the participation of the tenants, homeowners, enterprises, and local government as well as architects, urban planners, and landscape architects. Through the planning workshop, residents could present their opinions on the improvement of living conditions and further participate in the resulting preparation and implementation of urban renewal. The concept of “Community Planning Process” was meanwhile introduced. For example, the local community was invited to participate in the planning of the Vision of Cecilienplatz, many results of which were later adopted and realized by the implementation plan of the housing corporation. Along with the development of ICT technology, the role of internet started to be emphasized in the community’s participation. Residents could join the discussion on the renewal planning via the internet. From the beginning, all of those measures brought together the local community and professionals to collaborate in the decision-making process of urban renewal planning. The planning result achieved by negotiation and compromise was approved and supported by the residents.



Figure 10.49  
*Resident participation in a planning workshop*  
(Source: Klenke, 1996)

In fact, community participation occurred not only in the process of planning but of the implementation of the Hellersdorf Project. Residents were encouraged to participate in the actions of renewing their living environments, which were sometimes even initiated by the local communities themselves. Those actions mainly focused on the maintenance and improvement of public/private greenery (by gardening and “urban agriculture”) and open public space (such as school playgrounds) as well as the effort to protect biodiversity in the district. The collective participation of the residents in the implementation also effectively strengthened the local community.

### § 10.4.3 Consequences

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As an urban renewal practice to maintain a socially mixed community, the Hellersdorf Project was, by no doubt, successful. While the urban renewal was continuously ongoing, through the top-down interventions in the housing differentiation, the mixture of urban programs, and the bottom-up participation of local community, the intended objective of urban renewal has been, to a large extent, achieved. With the realization of a series of sub-projects, living conditions and public infrastructures of the former DDR prefabricated housing areas were obviously improved and optimized. The outflow of residents from those areas was halted. A survey done after 2000 showed that 80% of the existing residents of the Hellersdorf would like to continue living in this prefabricated housing area. In the mean time, higher-income new residents began to take interest in moving in from the outside. Therefore, area decline was prevented and the mixed community was maintained in the Hellersdorf. The Hellersdorf's new image as a lively, vibrant and vivid urban community in Berlin was established (figure 10-50). As a successful example of urban rehabilitation, the Hellersdorf Project was promoted by the Municipality of Berlin as a pilot project for the former socialistic prefabricated housing areas not only in Germany but in other countries as well.



Figure 10.50  
*Community life in the Hellersdorf today*

Nevertheless, due to time constraints, most of the urban renewal projects of the former DDR prefabricated housing areas in Berlin were actually “tentative”. Unsuccessful practices were unavoidable. For instance, as previously discussed, there were projects to transform prefabricated apartments into privately rented dwellings, even in the Hellersdorf. The for-profit investors who bought those apartments either did not intend to renovate or spent little on housing renovation, which caused vacancy and social problems in the new housing. At the same time, urban renewal constantly faced

new challenges. Presently, the most critical challenge for the urban renewal of the Hellersdorf is the financing problem for further environment-friendly renovation. Due to the low rent policy of the former DDR, the current rental income, though the rent level has almost doubled since the reunification, evidently cannot support further energy-saving modernization for the prefabricated apartments. But the substantial rent increase will be resisted by tenants and will also be legally constrained. In this sense, the balance between social, economic, and ecological benefits has yet to be reached.

To conclude, the Hellersdorf Project in Berlin, like the integral urban renewal of the Bijlmermeer in Amsterdam, presents the current effort in Europe to maintain or develop mixed communities by urban renewal. In the next and the last case study of this chapter, the discussion will turn to the recent urban renewal practice, which can be a reference in the community-placial dimension, in Asia; more precisely, in Hong Kong, a Chinese society. The investigation will focus on an urban redevelopment project of Hong Kong's public housing estate, in which the maintenance of the original community is a basic principle.

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## § 10.5 Rebuilding a Public Housing Neighborhood – The Urban Redevelopment of Ngau Tau Kok Estates in Hong Kong

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As discussed in the preceding chapter, Hong Kong is famous for its dualistic housing stock, of which the public housing sector (including publicly rented housing and subsidized sale housing) still accommodates slightly less than a half of the total population. Both the new construction and the renewal of public housing neighborhoods significantly contribute to resolve the housing problem in Hong Kong.

Large-scale public housing development in Hong Kong was started after the fire of Shek Kip Wei squatter area in 1953, which resulted in a large number of homeless people. In 1954, the so-called resettlement buildings, as the early publicly rented apartments, were largely constructed by the newly-founded Resettlement Department in order to accommodate the homeless and the settlers of other squatter areas. In that same year, a semi-independent Hong Kong Housing Authority was set up to provide low-cost apartments. Later, in 1961, the government started to implement the "Government Low-cost Housing Program" for low-income households. A milestone of Hong Kong public housing development was the announcement of a "Ten-year Housing Program" in 1972, which laid the foundation for a new institutional framework and developmental approach to public housing. Accordingly in 1973, a new Hong Kong Housing Authority (HA) was established to responsible for all development and

management of public housing in Hong Kong except the housing programs of Hong Kong Housing Society. The Resettlement Department and the Building Section of the Urban Services Department were merged into a newly formed Housing Department (HD), and became the executive body of the HA. Both resettlement buildings and low-cost housing programs were merged into a public rental housing (PRH) system, in which the housing standard was improved and the target group was enlarged from the poor to the lower-middle incomes. The PRH at that time still constituted the main body of public housing in Hong Kong.

Along with the economic boom in Hong Kong and demands for home-ownership from the public, in 1976 the government initiated a subsidized sale housing program – the Home Ownership Scheme (HOS). In 1978, the Private Sector Participation Scheme (PSPS) was announced as a supplement to the HOS. According to those schemes, preferential land and tax policies were offered, and the government encouraged the HA as well as private developers to provide owner-occupied dwellings with prices below market value. By 2002, the ratio of HOS to PRH apartments reached 1:2. But, until the 1980s, the former colonial government started to further promote home-ownership in response to the booming real estate economy. The “Long term Housing Strategy” in 1987 actually reduced the direct intervention of the government in the housing stock. As a result, the market housing price was soaring and unaffordable for many mid and higher-income “sandwich class” households. In 1993, the government had to launch the Sandwich Class Housing Scheme (SCHS) to support the Hong Kong Housing Society which provided owner-occupied dwellings to the “sandwich class” at prices that were higher than the HOS but lower than the free market. The existing public housing sector in Hong Kong was therefore mainly composed of PRH, HOS/PSPS and SCHS.

After 1997, the newly-founded Hong Kong SAR Government tried to boost public housing development. Unfortunately, the ambitious public housing plan together with the Asian financial crisis in 1997 resulted in a recession of the real estate market in Hong Kong. There was rising criticism from the property owners as to the government’s public housing policy. In order to revitalize Hong Kong’s economy, which was predominately supported by real estate development, the government ceased the further implementation of all subsidized sale housing programs (including the HOS/PSPS and SCHS) in 2002.

Currently, apart from the Hong Kong Housing Society (HS), a non-governmental housing organization responsible for public housing initiatives (such as the SCHS) to bridge the gap between government-controlled and market housing sectors, the major public housing provider in Hong Kong is the Hong Kong Housing Authority, a statutory body founded in 1973 under the legal framework of the Housing Ordinance. According to the housing policy of the Hong Kong government, the HA is responsible for the planning, development, and management of public housing (including PRH and HOS/PSPS) to provide for those who cannot afford adequate market dwellings.

The executive body of the HA is the Housing Department. As a result of the globally neo-liberalistic trend, the HA has been transformed from a government-financed to a self-financed institution. Traditionally, the government largely supports the financing of public housing by offering land, loans, and capital to the HA. But due to a new financial agreement in 1994, the government has not made financial contributions to the HA since 1994/95 (Hui and Wong, 2003, pp.162-163). Presently, only land at nil premium is still provided to the HA as "indirect" financial support from the government.

In order to guarantee that public housing is provided for families in genuine need, the Hong Kong government set up a comprehensive application system. The applicants of PRH have to register on the Waiting List and their incomes and assets must be evaluated. The well-off tenants whose household incomes exceed the Subsidy Income Limit are asked to pay higher rent to impel them to release the public rented dwellings that they occupy. And the tenants facing financial hardship can apply for rent assistance (rent reduction). So far the average waiting time for PRH has been shortened to around three years. For the HOS/PSPS, for which the buyer obtains "limited" ownership, the regulations on applicant and transaction is also rigid: the incomes and assets of applicants have to strictly evaluated, while subsidized owner-occupied apartments should be only transacted in the housing market after a designated period of time (the HA has pre-emption within the time limit) and a premium should be repaid to the HA.

In Hong Kong, a public housing area developed by the HA is called public housing estate. Those public housing estates are located in Kowloon and the satellite towns as a result of the decentralized urban planning of the 1970s. The public housing estates are usually easily accessible by public transport. They are also well equipped with commercial, educational, cultural and communal facilities. Since the average living floor area per person is low (7 m<sup>2</sup>, equal to the average housing standard of Hong Kong), the outdoor environments in the public housing estates, especially open public space, are often well-designed. Housing maintenance and management is undertaken by the HD.

After more than 50 years of effort, the public housing sector has covered a wide spectrum of groups from the poor to the middle class in Hong Kong. While the public sector has slightly shrunk, in 2010 47.7% of the total population in Hong Kong was still housed by in public permanent housing, in which 30% were housed in public rental apartments and 17.7% in subsidized sale apartments (see table 10-1). Public housing has been employed as a powerful agent of change, economically, socially, and politically. It has been a bedrock, holding labor costs down and stabilizing society, allowing the community to move ahead (Yeung and Wu, 2003, p.4).

1st Quarter	2001	2006	2011
Public Permanent Housing	49.1%	49.0%	47.7%
Public Rental Apartments	31.2%	30.4%	30.0%
Subsidized Sale Apartments	17.9%	18.5%	17.7%
Private Permanent Housing	49.8%	50.5%	51.8%
Public Temporary Housing	<0.05%	-	-
Private Temporary Housing	1.1%	0.6%	0.5%

Table 10.1  
*Distribution of population by type of housing in Hong Kong (2000-2011)*  
 (Source: HA, Hong Kong, 2011)

It was also discussed in the last chapter that the divided Hong Kong housing stock resulted in a dualistic urban renewal approach. In comparison with the market-oriented reconstruction of private housing areas, the renewal of public housing estates is much more welcome by the residents. In fact, the renewal (reconstruction) of the public housing areas built earlier has been a distinctive characteristic of public housing development in Hong Kong. A little appreciated dimension of the public housing program in Hong Kong is that, along with active construction, housing estates are continuously being regenerated through large-scale and continuous redevelopment (Yeung and Wu, 2003, p.5).

In Hong Kong, the public housing renewal concentrates on those public rental housing estates developed between the 1950s and 1970s, when the housing standard was rather low and the buildings are known to be physically or functionally outdated. The major physical approach of urban renewal for the public housing estates is still that of wholesale reconstruction, which is called “redevelopment” in Hong Kong. In fact, large-scale urban renewal in Hong Kong at least partially derives from the reconstruction of public housing blocks. Since the 1970s, the HA has launched a redevelopment program for the PRH estates built earlier as an integral part of “Ten-year Housing Program”. As a result, 290,000 apartments were demolished and reconstructed. In 1987, the “Long Term Housing Strategy” extended the redevelopment program to cover most of the resettlement buildings and Government Low-cost Housing estates that were developed in the 1960s. From 1988 to 1997, 152,000 apartments were demolished via redevelopment, while 241,000 new PRH apartments were built. So far the redevelopment program is still being carried out. According to the present plan, 460 buildings in total would be demolished by 2010, and about 146,000 households would be affected by the redevelopment.

Considering the housing and urban development policy in Hong Kong, in which the high-density construction particularly emphasized, the reconstruction strategy for public housing estates is understandable. For those earlier-built resettlement or low-cost apartments, the housing quality is rather low and outdated in the physical and

functional dimensions<sup>7</sup>. The reconstruction will no doubt largely improve the living conditions of tenants. In the mean time, the reconstruction that will significantly increase the Floor Area Ratio (FAR) offers more available rental dwellings for those on the Waiting List of PRH. The redevelopment hence also contributes to the new construction of public housing.

However, a danger of wholesale urban reconstruction, as in many other cities, is the displacement of the original community, which usually induces resistance from the residents. At the same time, the early-built public housing estates has become a collective memory of the history of the people of Hong Kong. The idea of maintaining local communities (as well as their identities) is therefore increasingly emphasized in the redevelopment of public housing estates in Hong Kong. On the one hand, the public housing system ensures that the HA is responsible for rehousing those who are affected by the reconstruction; on the other hand, many new strategies have been developed to avoid the destruction of the original public housing communities. For instance, a typical resettlement building, Mei Ho House, was protected as a historical monument in the redevelopment of the Shek Kip Wei Estate (figure 10-51). Amongst recent projects, the urban redevelopment of Ngau Tau Kok Estates is a precise representative case of this new trend.



Figure 10.51  
*Mei Ho House in Shek Kip Wei Estate*

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7 The living floor area per person was only 2.23 m<sup>2</sup> according to the public housing design in the 1950s. This ratio was changed over time but just reached 4.25 m<sup>2</sup> per person in the 1980s.

## § 10.5.1 Background

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As an urban area in the Kwun Tong District, an industrial district of Hong Kong, Ngau Tau Kok is where the public housing apartments are concentrated. Before the redevelopment, the PRH estate in Ngau Tau Kok was separated into two adjacent parts: Upper Ngau Tau Kok Estate in the south and Lower Ngau Tau Kok Estate in the north. The Upper Estate was a Government Low-cost Housing estate built from 1967 to 1968, with two sub-areas (Zone A and Zone B) and 9 buildings in total. The Lower Estate was a resettlement housing estate developed from 1967 to 1969, with two sub-areas (Zone 1 and Zone 2) as well and 14 buildings in total. After 1973, the two estates were merged into a PRH housing estate managed by the HA.



Figure 10.52  
*Ngau Tau Kok PRH Estates in Hong Kong*

In the 1990s, the Ngau Tau Kok Estates appeared to have aged. The building quality and housing conditions of those early-built public rented apartments were much lower than the current standard. As an over-congested neighborhood, the living floor area of many apartments was less than 4.5 m<sup>2</sup> per person. Many dwellings did not even have their own toilets. The lack of efficient maintenance also accelerated the deterioration of those old buildings. This PRH estate was thus included in the redevelopment plan of the government. The HA embarked the urban redevelopment of Ngau Tau Kok Estates in 1997.



Figure 10.53  
*Lower Ngau Tau Kok Estate before the reconstruction*

Actually, the redevelopment of Ngau Tau Kok Estates is still in progress. Phase 1 of the redevelopment began with the demolition of Zone B of Upper Ngau Tau Kok Estate in 1997/1998. The demolished buildings were replaced by three high-rise towers built in 2002. Zone A of Upper Estate was demolished in 2003 in accordance with Phase 2 & 3, and reconstruction was completed in 2009. As the last resettlement building estate in the redevelopment plan, the reconstruction of Lower Ngau Tau Kok Estate started in 2004. Zone 1 of Lower Estate will be rebuilt in 2011/2012.

The following investigation will focus on the recently completed renewal practice in Ngau Tau Kok, which refers to Phase 2 & 3 of the redevelopment of Upper Estate. It is not only the first public housing project to apply the “non-standard” design, but also a case that resulted in the successful rebuilding of a neighborhood for a local community.

## § 10.5.2 Strategies

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As mentioned earlier, the maintenance of the original community has been a primary objective of the HA’s redevelopment program. In the redevelopment of Ngau Tau Kok Estates, the HA applied the strategy of phased reconstruction in order to avoid the displacement of local community. The tenants affected by the preceding phase were resettled in the newly-built, nearby PRH estates in Kwun Tong District. The reconstructed apartments provided rehousing for tenants affected by the next phase of redevelopment. The extra PRH dwellings will be available for applicants on the Waiting List. During the process of redevelopment, local community was invited to participate in the planning and design, and the “human-centered” design was also paid attention to in order to retain the original identity.

The Phase 2 & 3 redevelopment of Upper Ngau Tau Kok Estate is a good example of the practice of those new strategies to rebuild public housing neighborhoods. The project includes 6 high-rise PRH buildings (4,584 dwellings) for about 11,000 residents, 2,500 m of commercial space, a senior citizen center, and a children and youth Center. The FAR has been significantly increased and reaches 7.5. The construction was completed in March 2009 and the tenants started moving in the same year. For the purpose of maintaining the local community, the strategies mainly focused on the following three aspects.

*Resettlement in the same estate*

Through the phased redevelopment of Ngau Tau Kok Estates, the blocks reconstructed in the earlier phase were to rehouse tenants affected in the later phase, who will not have to leave their neighborhood even during the period of the construction. This process is called “resettlement in the same estate”. Phase 2 & 3 of Upper Estate primarily affects the resettlement of existing residents of the adjacent Lower Estate, where the reconstruction started later. Amongst the 4,584 apartments within the six high-rise buildings, 34% (1,555 apartments) are 1-2 person apartments, 9.5% (434 apartments) are 2-3 person apartments<sup>8</sup>, 36% (1,648 apartments) are single bedroom apartments, 18% (831 apartments) are 2-bedroom apartments, and 2.5% (116 apartments) are 3-bedroom apartments. Thanks to the “non-standard” housing design, different types of apartments, of which the floor areas range from 18 m<sup>2</sup> (1-2 person apartment) to 49 m<sup>2</sup> (3-bedroom apartment), are mixed within one building (figure 10-55). In comparison to the existing Lower Estate, where the floor area of the biggest apartment is only about 21 m<sup>2</sup> and the smallest dwelling is only 8 m<sup>2</sup>, housing conditions are obviously improved.

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8

The so-called 1-2 person apartments and 2-3 person apartments are, in particular, designed for small-size families. In those designs, with the exception of the independent kitchen and bathroom/toilet, the spaces of living room and bedroom are not separated.



Figure 10.54  
*Different types of apartments mixed in one building*  
 (Source: HA, Hong Kong, 2009b)

In order to maintain the original feeling of the neighborhood, efforts were made regarding tenants who previously lived in the same building or floor to rehouse them in the same newly-built building or even on the same floor. The needs of the elderly, a special group who, more than others, usually relies on the local community, are particularly cared for. In total more than 1,500 elderly tenants are involved in the resettlement program. As a result, 21% of the total population in Phase 2 & 3 of Upper Estate is the elderly whose average age is 85. In terms of the resettlement in the same estate, the local community as well as social network, which has been developing for 40 years, will be moved “from Lower to Upper Ngau Tau Kok Estate” and can be further cultivated in the improved living environments.

According to the phased redevelopment plan, the Lower Ngau Tau Kok Estate will be reconstructed after the residents move to the Upper Estate. The next phase of redevelopment in the Lower Estate will create more PRH apartments in an ideal location within the Kwun Tong District, a new cross-district cultural center for Kwun Tong, and other surrounding districts. The phased redevelopment by resettlement in the same estate thus contributes to the larger-scale social mixture and community cohesion.

#### *Participation of local community in the redevelopment*

In Phase 2 & 3 of the redevelopment of Upper Ngau Tau Kok Estate, community participation is emphasized, particularly in the planning and design process. Community participation is considered as a strategy not only to promote the residents’ understanding of the redevelopment but also to encourage the sustainable development of local community.

As a reconstruction project of “resettlement in the same estate”, future residents of Phase 2 & 3 of Upper Estate will be the tenants who previously lived in the Lower Estate. The local community and its representatives involved in the community

participation are thus defined: they are the tenants and the action groups (whose concerns focus on the redevelopment) of the existing Low Estate as well as community organizations (which are mainly local Christian communities) and the district councilors from the Ngau Tau Kok Estates. In the form of residents meeting/briefing or design workshop, a series of events was held in the planning/design and even construction period to invite the community in the planning and design (see table 10-2).

Year	Phase	Activities
2003-2005	Planning and design phase	Residents' meetings/briefings and consultation with the District Council
2006-2007	Early phase of construction	Residents' meetings/briefings and modeling workshop
2007-2008	Late phase of construction	Community workshop and briefing

Table 10.2  
*Community participation in Phase 2 & 3 of the redevelopment of Upper Ngau Tau Kok Estate*  
 (Source: HA, Hong Kong, 2009b; translation by author)

In the period of urban planning and architectural design, the residents' meetings and briefings were organized by the HA in collaboration with action groups and/or community organizations to consult with the tenants and District Council on the master plan and architectural design of Phase 2 & 3 of Upper Estate. The architects kept in frequent communication with the tenants, especially the elderly and the disabled, in order to improve the design. After the construction work started, residents' meetings/briefings were held to introduce the housing design and community facilities to the tenants and helped them to choose their new apartments. In order to assist the tenants in the visualization of the interior partition and furniture layout of their dwellings<sup>9</sup>, architects, social workers and the tenants worked together in the "modeling workshop" to build interior models of the future living space. Before the construction was totally completed, the HA, community organizations, action groups, and the district councilors jointly organized a community workshop to design a covered communal space and to further introduce the housing design for tenants in choosing their apartment.

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9 For diversified housing demands, the design of PRH apartments is normally flexible in allowing resident to partition the rooms. The tenants therefore can "redesign" the interior space of their dwellings according to their individual requirements.



Figure 10.55  
*Participation of tenants in a community workshop to design a covered communal space for Upper Ngau Tau Kok Estate*  
(Source: HA, Hong Kong, 2009b)

In comparison with the preceding European cases, in which the residents more pro-actively participated in the urban renewal, the community participation in the redevelopment of Ngau Tau Kok Estates was relatively “reactive” and to a large extent relied on the initiation of the HA and existing community organizations. But it has been proven in practice that even in a Chinese society, which is traditionally rather hierarchical and top-down, social diversification and differentiation brings about an increasing demand to involve the bottom-up force in urban renewal. Through the residents’ meetings and workshops, the residents have opportunities to directly present their opinions and learn to collectively negotiate and work. Noticeable result is that the planning and design are optimized and revised through community participation and public consultations. In this case of Hong Kong, community participation contributes not only to maintain but also to further develop the sense and cohesion of community by encouraging residents to create their own community.

#### *Human-centered design of a new neighborhood with local identities*

In comparison with the previous public housing redevelopment project, the planning and design of Phase 2 & 3 of Upper Ngau Tau Kok Estate is more “human-centered” in order to create a new neighborhood environment for the local community. The ecological issue is, in particular, emphasized in the master plan and architectural design. By introducing a computer simulation of microclimate in the planning and design, the indoor and outdoor environmental comfort of the housing estate is optimized, while the energy saving is achieved (figure 10-56). The newly-built Phase 2 & 3 of Upper Estate therefore becomes the first “non-standard” public housing estate in Hong Kong, in which the flexible composition of several apartments replaced the standard design of building floor plans. It also identified as an “ecological” neighborhood.

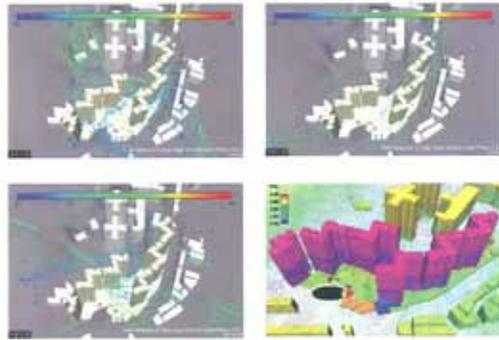


Figure 10.56  
 Computer simulation of microclimate for the planning and design of the redevelopment of Upper Ngau Tau Kok Estate  
 (Source: HA, Hong Kong, 2009b)

Through community participation, the site planning and architectural design, especially the design of public space, was adjusted based on the tenants' opinions. For instance, the aforementioned "covered communal space", where fitness facilities for the elderly, the rest area, and the "heritage exhibition area" were placed, is a result of community design. Other cases of the design envisioned by community participation include the extension of a public elevator to the roof garden, the tent canopy in the neighborhood plaza, the extension of surrounding greenery into the neighborhood, the enlargement of a public lobby in each building, the barrier free design of public space, and the location of drying racks, etc. The design by community participation also helps to establish a local identity within the community.



Figure 10.57  
 Neighborhood plaza of Upper Ngau Tau Kok Estate

More importantly, concern for local identity, in comparison with the previous redevelopment project as well, was unprecedentedly attended to in this project. Recently, the early-built PRH estates are increasingly recognized as an integral part of Hong Kong's history. There is a rising demand to maintain the cultural identity of those estates not only for the local community but also for the public. When the Ngau Tau Kok Estates finally completed reconstruction, some items of value, with regard to heritage, were retained as part of the local identities. In the covered communal space of Upper Estate, a "heritage exhibition area" was built by relocation the interior space of a local restaurant from Lower Estate, which had cultural and historical significance to the local community and thus helped to establish the local identity (figure 10-58). Similarly, the heritage tree for Lower Estate was also transplanted into the neighborhood plaza. Last but not least, the barrier free design is widely introduced in the indoor and outdoor spaces as a characteristic of an elderly community.



Figure 10.58  
*The "heritage exhibition area" with the interior space of a local restaurant brought in from Lower Ngau Tau Kok Estate*

In general, the practice of Phase 2 & 3 of Upper Ngau Tau Kok Estate reconstruction presents a new trend, though it might be only the preliminary attempts, to emphasize a human-centered design in order to maintain or create the identities for the local community.

### § 10.5.3 Consequences

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As a good example of sustainable approach to planning and design, Upper Ngau Tau Kok Estate Phase 2 & 3 received the Hong Kong Institute of Planners annual award in

2003. As of 2009, the construction was completed and tenants from the Lower Estate have moved into the newly-built neighborhood (figure 10-59). At the same time, the reconstruction of the last neighborhood of Ngau Tau Kok Estates, Zone 2 of Lower Estate, began (Zone 1 was demolished in 2004 and the reconstruction is in progress now). Apart from the overall resettlement of the local community “from Lower to Upper Ngau Tau Kok Estate”, the reconstructed Lower Estate will provide more than 5,000 new PRH dwellings in a relatively good location in the city as well as a new cross-district center for the residents of both the surrounding PRH estates and private housing estates. Those renewal interventions further contributed to create a mixed community.



Figure 10.59  
*Phase 2 & 3 of Upper Ngau Tau Kok Estate after the reconstruction*

In Hong Kong’s dualistic urban renewal system, the redevelopment of public housing estates is no doubt much more successful in comparison to the reconstruction projects of private housing stock. The public housing system itself guarantees that the tenants affected by the redevelopment can be rehoused in affordable dwellings. The maintenance or further development of local community is also increasingly a key issue of public housing redevelopment. The urban redevelopment of Ngau Tau Kok Estates, therefore, can be seen as a representative case of how to rebuild a public housing neighborhood for local community. Through phased reconstruction and “resettlement

in the same estate”, the original community, including elderly people, was successfully resettled in the same housing area. People were able to stay in their community even while the new construction was carried out. Thanks to community participation and the design effort to retain or create local identities, the sense of community was not only maintained but also strengthened in the process of redevelopment.

In fact, the redevelopment of Ngau Tau Kok Estates reveals a possible approach to maintain local communities through urban reconstruction. Even in Hong Kong, one of the most populous cities in the world that is famous for its high residential density and liberalistic economic policy, the destruction of local community can be avoided in urban renewal by applying adapted strategies. By rebuilding a public housing neighborhood, the original community was maintained and further developed while a large amount of extra public housing apartments were introduced. In the mean time, community participation in the redevelopment was no doubt a training course for both the authority and the citizen in an originally top-down but increasingly diversified urban society. The urban renewal practice in Ngau Tau Kok Estates actually contributed to the cohesion, integration and sustainability of local and urban communities.

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## § 10.6 Conclusions

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The focus of this chapter is on the case studies that answer research questions about the community-placial dimension; meaning the referable experiences of the urban renewal for mixed local community. The sense of community is something that the residents of old neighborhoods conceive and perceive in their everyday life and therefore should never be ignored in urban renewal. Furthermore, the maintenance and development of a mixed community through urban renewal contributes to the integration and sustainability of urban society. Through the case studies of urban renewal practices in Rotterdam, Amsterdam, Berlin, and Hong Kong, the following top-down as well as bottom-up strategies may be used as reference for the community-oriented urban renewal.

- *Rehousing the existing residents in the same area within the process of urban renewal*

In order to avoid the displacement of local community in urban renewal, housing or rehousing the existing residents in the same area, rather than the preservation of physical environments, must be a primary precondition. On the one hand, the adapted housing renovation will ensure that the residents can stay at home even while the construction is taking place. On the other hand, the practices in Amsterdam and Hong Kong have proven that, even if the demolition is inevitable, it is possible for the residents to stay in their neighborhoods during the process

of urban renewal, according to the phased and step-by-step rehabilitation/reconstruction plans. Thanks to the adapted physical interventions and the guarantee of social housing, housing/rehousing residents in the same area allows for the maintenance and development of local community.

- *Differentiation of the housing stock and living environments for socially mixed community*

The recent experience in Europe proves that housing differentiation is an effective strategy for maintaining and even creating a mixed community in urban renewal. By the differentiation of not only physical housing types and living environments, but also ownership categories, residents from different social strata are living together in the same neighborhoods and sharing the same communal spaces or facilities. Housing differentiation can be realized via both renovation and new construction, while the design can be specialized in order to attract higher income or vulnerable groups. However, it should be noted that social mixture is never unconditional (for example, it is impossible to mix groups that are too different in their incomes and/or interests), and the realization of housing differentiation in a neighborhood, to a large extent, depends on the adapted strategies and existing social structures. Regardless, as a way of facilitating social mixture, integration and sustainability of local and urban communities, housing differentiation is a referable strategy for the urban renewal of former public housing areas in Beijing (where the stabilization or development of originally mixed communities might be a major task).

- *Mixture of urban programs for mixed community as an integral part of the city*

A mixed local community does not just mean a mere residential area where people from different social strata simply live together, but rather is indicative of a neighborhood with mixed programs, in which the residents enjoy vibrant, diversified but cohesive community life. The cases of urban renewal in the Bijlmermeer of Amsterdam and the Hellersdorf of Berlin reveal that it is possible to successfully transform an isolated, mono-functional residential area into a multifunctional community. The mixture of other programs in a residential area will not just facilitate vibrant local life but will also create the possibility of involving “outsiders” in a neighborhood. As a result, the renewed neighborhood will really become an integral part of the city and something of significance on city map. The practice of the strategy to improve the mixture of urban programs is also referable for the urban renewal of former public housing areas in Beijing, which have already been identified as communities with mixed urban programs.

- *Retaining or creating the local identity of neighborhood as a community strategy*

The sense of community as well as the “placial” space, in which the residents perceive and conceive in their everyday life, to large extent derives from the local identity of a housing area. For the purpose of maintaining or developing local community, both the retention of historical heritages and the creation of new identities are emphasized in the study cases of urban renewal in European cities and Hong Kong, no matter the form of renovation, rehabilitation, or reconstruction. In fact, retaining or creating the local identity in urban renewal contributes

not only to the maintenance of the original community but also improves the “attractiveness” of old neighborhoods which promotes social mixture and integration in an increasingly differentiated housing stock.

- *Effective participation of local community in urban renewal*  
In an increasingly diversified and differentiated urban society, the participation of local community is almost inevitable in urban renewal. Without the understanding and support of residents, urban renewal projects would be hardly realized. However, real community participation does not mean the exaggeration of individuality or private benefits but instead means a democratized process to achieve mutual compromise and thus the formation of a collective will. From the “Bouwen voor de Buurt” in Rotterdam and the local mediation of Gebietsbetreuung in Vienna, to the top-down guided tenant participation in the public housing redevelopment of Hong Kong, community participation presents itself in different forms and plays various roles. It is not just an effective strategy to boost the realization of an urban renewal project but, more importantly, is an approach to promote community development in the city.
- *Institutional transformation to establish the collaborative and flexible framework of urban renewal*  
Along with the global trend of socio-economic marketization/liberalization, private actors actively are involved in urban renewal. Apart from local residents and enterprises, private investors are beginning to play an important role in urban renewal. From the community point of view, the traditionally top-down institutional framework of urban renewal has to be changed in order to meet the diversified and varying needs of different actors. The European cases have shown two tendencies: on the one hand, the decision-making structure is decentralized and democratized to set up a collaborative mode between public and private actors (e.g. the government, housing organizations, private investors, residents, small enterprises, etc.); on the other hand, the flexibility of the planning and implementation process is emphasized in response to changing demands.
- *Intensifying housing management as a strategy to maintain local community*  
In comparison to much more “visible” interventions in urban renewal, intensifying the management of a housing area might be an economical strategy for maintaining the local community. Particularly for those who prefer to keep “problematic” old neighborhoods as their own communities, the improvement of housing management can effectively avoid their departure and thus slow down the “downward” social filtering. In the mean time, intensive maintenance/management program, including encouraging the participation of the residents, will efficiently avoid the re-deterioration of housing areas that have been renewed.

In general, as was emphasized in the research question of this chapter, the urban renewal for community means not only top-down intervention to retain the original residents or promote social mixture, but also the wide participation of local communities in urban renewal, through which the sense of community is

strengthened. However, with the exception of case studies in the community-placial dimensions in this chapter and the investigation of the referable renewal strategies in the socio-economic dimension in the preceding chapter, the research question regarding the aesthetic-technical dimension still bears discussion. In the final chapter of Part IV, the research thus will focus on the alternative physical planning/design initiatives.



# 11 Physical Initiatives for Urban Renewal

The large-scale demolition-reconstruction is indubitably a critical problem that caused the present dilemma of urban renewal of former public housing areas in Beijing. While wholesale site reconstruction does not have to lead to the socio-spatial segregation or displacement of existing community, so this unitary approach of urban renewal, which in many cases is manipulated by the capital, evidently cannot deal with the increasing diversified and differentiated demands in urban renewal. The market-oriented reconstruction usually will not only damage the housing right of residents (especially of the low-income earners), local economy and social network, but also bring large extent destruction to historical identities of the city and existing buildings that could be environment-friendly reused.

Actually, the physical space is not just formed by but forms the individual behaviors as well as social activities, simultaneously. Different from arguments of liberalists, the physical planning and design interventions, in most cases collective effort to create urban space, play an important role in this socio-spatial dialectics and thus works as social engineering. From the viewpoint of aesthetic-technical dimension of spatial phenomenon, searching for alternative physical initiatives is also an important research question for the urban renewal of former public housing areas in Beijing. This will comprise alternative strategies for site reconstruction and planning/designs for overall improvement of living environments in the old neighborhoods, instead of the unitary approach of wholesale demolition-reconstruction.

Therefore in this chapter, case studies will focus on successful and referable physical planning or design strategies excluding site reconstruction. The investigation firstly refers to the renewal practices for old housing areas where alternative physical strategies were applied. The cases include urban rehabilitation, which means the combination of renovation and new construction, of the Oude Westen. This is a representative project of the "Bouwen voor de Buurt" in Rotterdam. The cases also include urban renovation of prefabricated housing area in the Hellersdorf, Berlin. Subsequently, the last study case will be a new housing project by restructuring a former industrial land – GWL site in Amsterdam, where the design initiative to promote housing differentiation is introduced.

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## § 11.1 **Combination of Renovation and Reconstruction – The Urban Rehabilitation of the Oude Westen in Rotterdam**

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In the previous two chapters, the “Bouwen voor de Buurt” case in Rotterdam had been analyzed for its successful experiences in the socio-economic and community-placial dimension. In fact, “Bouwen voor de Buurt” was a pioneer practice at the turn of change of urban renewal approaches in Europe. It was triggered by the tenant movement arguing for improvement of living conditions in the old inner-city neighborhoods without wholesale demolition and new construction. From the aesthetic-technical point of view, the “Bouwen voor de Buurt” in Rotterdam marked the change from urban reconstruction to urban rehabilitation, which means the combination of housing renovation and small-scale reconstruction within the original urban fabric as well as overall improvement of living environments in the old neighborhoods for existing residents. The urban rehabilitation of the Oude Westen, the first and the most representative case of the “Bouwen voor de Buurt”, precisely presents the new physical spatial interventions.

### § 11.1.1 **Background**

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As mentioned in the preceding chapters, the formation of many inner-city neighborhoods, including the Oude Westen, is the result of land and housing speculation. The development of the Oude Westen dated back to the end of 19th century, when speculators and contractors started to purchase building sites in the polder directly west of the present city center. Rows of private-rented, side-by-side working-class dwellings were built on the narrow plots of ground between the polder drainage ditches. As a result, a pattern of long north-south streets was created with long, narrow blocks and tiny building lots (Jutten, 2005, p.173) (figure 11-1).

In terms of the originally cheap design/construction and lack of maintenance, the Oude Westen, same as the other inner-city working-class neighborhoods in Rotterdam, had become deteriorated after World War II. Since the 1950s, there were several plans to demolish this old inner-city neighborhood (figure 11-3), which was thought to be an undesired image of the city center. There is no doubt that the threat of demolition has brought on the further physical and social decline in the neighborhood. Until the late 1960s, it was obvious that the housing conditions in the Oude Westen were unfavorable: residential density was high (about 5,000 dwellings and 11,000 residents in an area of 47 hectares), most of the houses were in poor technical condition and 75% of housing stock was small dwellings. The communal open space, facilities and infrastructure were also insufficient in both quantity and quality.

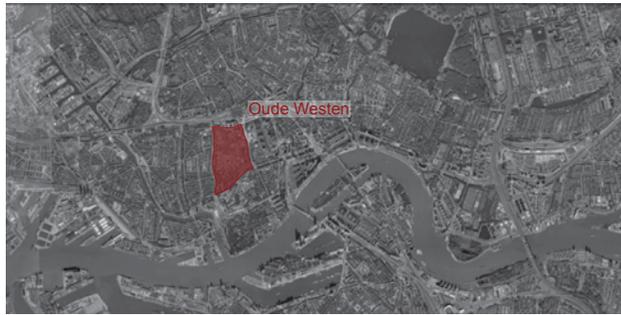


Figure 11.1  
The Oude Westen in Rotterdam



Figure 11.2  
Old situation of the Oude Westen before the urban renewal  
(Source: Jutten, 2005, p.175)



Figure 11.3  
Demolition proposal for the Oude Westen  
(Source: Jutten, 2005, p.174)

Therefore the residents' organization of the Oude Westen was the first and most active action group in the tenant movement in the early 1970s, which eventually changed the approach of urban renewal. In 1970, the Oude Westen Action Group was set up by the active tenants in the neighborhoods. That can be seen as the outburst of a country-wide tenant movement in order to halt the deterioration of inner-city neighborhood and to resist large-scale demolition plan. The Action Group also received the support from some architects. Apart from group meetings and handing in their own proposal on urban renewal, there were demonstrations organized by the residents' action groups in Rotterdam. Some tenants even demolished the old buildings that were about to collapse. The actions of tenant movement ultimately became a great success. After the municipal election in 1974 and following appointment to the Alderman van der Ploeg

responsible for urban renewal, the “Bouwen voor de Buurt” was officially initiated in 1975. The Oude Westen was naturally included in the first 11 urban renewal areas in Rotterdam to practice the new approach renowned not only for its socialized housing and democratized community strategies but also for the physical interventions of small-scale, step-by-step improvement of living conditions for neighborhood residents.

### § 11.1.2 Strategies

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Besides the strategies that we discussed in the preceding chapters, such as housing socialization, local socio-economic revitalization and community participation, the urban renewal of the Oude Westen, as a typical project of the “Bouwen voor de Buurt”, is also characterized by the transformation from wholesale demolition plan to the area-based rehabilitation strategy. In fact, the physical planning and design interventions in the Oude Westen were based on the needs of the neighborhoods in accordance with the socialized housing policy and the democratized organization. 85% of the housing stock in the Oude Westen was purchased and socialized by the municipality. A housing allocation system was set up to make sure that 85% of the dwellings were available for the local residents. According to the decentralization and democratization of the organizational structure of urban renewal, an area-based Project Office was also established in the Oude Westen. Differentiated with the traditionally top-down planning system, the new, area-based urban planning and design of urban renewal were to a large extent determined by the Project Office. The residents, represented by the Action Group, thus could widely participate in the process of planning, design and implementation and even had the majority of the votes in the decision-making framework of the Project Office. Within this structure, a detailed regulatory plan, by which the Oude Westen was still defined as a high-density residential area, was developed as a legally binding contract between the neighborhood and the municipality.

Faced the arguments to improve the living conditions on the one hand and to oppose the large-scale reconstruction plans on the other hand, an ambivalent attitude to urban renewal was developed: the balance between conservation and new construction. High density had to be realized in the low-rise but improved built environments. Without the wholesale demolition-reconstruction, the original urban context of old neighborhoods, including the closed residential blocks and the narrow streets, was essentially preserved. A design strategy was developed by combining renovation, demolition and new-construction piece by piece. In this process, the local residents continued living in the same neighborhood. In addition, new (outdoor) public spaces were created within the historical urban fabric, as well as the communal facilities were introduced in the neighborhood. In general, the urban renewal of the Oude Westen is a representative

project for the application of the area-based, step by step rehabilitation strategy, of which the housing renovation and reconstruction as well as the improvement of overall living environments of the neighborhood are organically combined.

#### *Combination of housing renovation and reconstruction*

According to the regulatory plan of the Oude Westen, its main function was residential. However, dwellings were coupled with local facilities and roofed parking. In order to build sufficient dwellings for an originally high-dense area, the residential density came down to about 90 dwellings per hectare (Jutten, 2005, p.175). By maintaining the original urban fabric of the pre-war neighborhood, the socialized houses in the urban renewal in general faced two types of transformation – renovation and new construction. The dwellings which were able to be reused by adequate maintenance or modernization were listed in the plan of renovation, while the residential buildings that were ready to collapse had to be demolished and reconstructed in their lots. A technical criterion with the consideration of economic feasibility was developed: except for the recognized monuments, buildings would be renovated if the estimated cost of renovation was over 70% of the costs of demolition / new-construction, otherwise it had to be demolished and reconstructed (figure 11-4). Furthermore, according to the “Bouwen voor de Buurt”, residents could participate in and make decisions on the design of each building project, including both the renovation and new construction, under the framework of the project office, especially via the working teams.



Figure 11.4  
*Plan of housing renovation and reconstruction in the Oude Westen*  
(Source: Rosemann, 2005)

The renovation of old houses also included two categories. One was for the dwellings that basically could meet the requirements of modern life, for which only mild renovation was necessary, such as the maintenance and improvement of the interiors, the insulations and the housing amenities. This typology of renovation can be called housing repair. The other category was more radical for those dwellings that needed more “fundamental” transformations. It may be named housing modernization, in which the old building was stripped to the construction structure so that the floor plans could be rearranged. The measures of modernization included the re-division of rooms and even dwelling units (by merging small apartments), the addition and modernization of kitchen and toilet, the addition of balcony, the replacement of dated infrastructures and amenities, etc. A very example of housing modernization is the Joblok in the Oude Westen designed by architect Leo de Jonge in 1985. By keeping the original structure, the congested side-by-side dwellings were transformed into the 3-bedroom modern apartments with independent kitchens, bathrooms and toilets (figure 11-5).

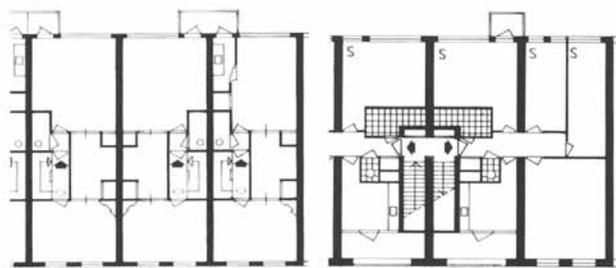


Figure 11.5  
Floor plans of dwellings in the Joblok before (left) and after (right) the renovation  
(Source: Jutten, 2005, p.176)

For the dilapidated houses that were going to collapse, they were at first purchased by the municipality and demolished. Then social rented apartments were newly built in the same lots with the involvement of the residents in programming and design. Actually, the actions of residents themselves to demolish several old houses ready to collapse had occurred along with the demonstration for good and affordable housing. After the urban renewal was formally initiated, the residents could initiate new housing projects and work together with the architects who were involved in urban renewal working teams. The residents might choose the architect and the design that they preferred in each building project. The newly-constructed terraced social housing in Gouvernestraat and Diergaardensingel can be seen as a representative case. Those 4-bedroom dwellings were designed by architect Ben Hook in collaboration with the project office and the Action Group as an experiment project in 1979-80. This project

later became the first residents-initiated case that received the architectural prize in the Netherlands. While the “classical” style of the architectures might be thought abnormal, it showed respect for the residents and their choices, so that it can be considered a significant symbol of the “Bouwen voor de Buurt” (figure 11-6).



Figure 11.6  
*Newly-constructed social housing in Gouverneestraat*

Apart from the congested and deteriorated housing conditions, another critical problem of old neighborhoods was the shortage of local facilities, including schools, kindergartens, medical centers, gymnasiums, elderly centers, etc. But it was difficult to develop separated new buildings for those programs in a neighborhood with high building density. Therefore, besides the “pure” housing buildings, the new constructions in the Oude Westen also included a characteristic strategy to urban renewal of the neighborhood: the stacking of programs. It meant a new typology of buildings/blocks that has public facilities on the ground floor and dwellings above. The facilities on the ground floor stimulate public life at street level, and the dwellings are accessible from an elevated residential deck (Jutten, 2005, p.176). The block in between Gaffelstraat and St. Mariastraat in the Oude Westen is a good example of the new buildings with stacking programs. In this block, designed by Buitier in 1982-83, a residential deck lies over the Medical Center. With front doors to 23 maisonettes and 6 apartments in both sides, a “deck street” is formed. Viewed from the deck, the “rocky” style of maisonettes simulates the image of Mediterranean coastal town, while the façades of the street side keeps the scale of old neighborhood (figure 11-7). Another example is the block designed by Girod and Groeneveld in 1984. The 2-storey Augustinus School, which includes not only a primary school but also a pre-school, a gymnasium and a youth centre, located at a corner of Josephplein. 13 maisonette dwellings was built above the school and connected to a fine roof garden, in which every dwelling has its own kitchen garden (as it were before renewal). The dwellings line up neatly in a row on the edge of the block facing the square, and their pink stucco work are clearly distinguished from the school (Jutten, 2005, p.181). A “gate” was formed at

the point of breakthrough with the alongside south façade of the school perpendicular to the square and the overhead maisonnettes accessible by a gallery (figure 11-8).



Figure 11.7  
*Stacking-program block in between Gaffelstraat and St. Mariastraat*



Figure 11.8  
*Stacking-program block at a corner of Josephplein*

According to the housing allocation plan, the original residents in the old neighborhood had priority to rehouse in the renovated and newly constructed social rented dwellings. The building plan also referred to the procedure of urban rehabilitation, which should ensure that most residents could stay in the neighborhood during the construction. The urban rehabilitation was planned to be carried out phase by phase, street by street, block by block and even building by building. This gave residents the opportunity to resettle in the same neighborhood in case that their original houses needed to be reconstructed or fundamentally renovated. For the tenants who wanted to return to their original home locations, they could temporarily stay in interim apartments, which were transformed from shipping containers and set up in the vacant spaces (such as parking lots) surrounding the neighborhood, while their dwellings were

under the construction. The step-by-step rehabilitation strategy combined housing renovation and new construction, thus, avoiding the forced displacement of residents during the period of construction. However, in order to improve the over-congested housing conditions, the reduction of population density in the old neighborhoods was inevitable. Those who chose to leave the Oude Westen could resettle in the newly-built social housings in the inner city that were developed by reusing the urban wastelands (caused mainly by the war).

*Improvement of living environments within the existing urban fabric*

The physical interventions of the urban renewal in Rotterdam, of course, was not only limited to improvements of housing conditions. Instead and more significantly, it oftentimes included the redesign of physical morphology, particularly the open spaces, of the neighborhoods in order to improve the living environments. In the Oude Westen, without the wholesale demolitions, the characteristic urban fabric of small residential streets running between urban shopping streets was retained in order to serve as a frame of reference and orientation instrument for the coming changes (Rejindorp, 2005, p.264). Building within the original building lines was preferred sometimes also because urban infrastructures had been renewed before. The maintenance of the sizes of residential blocks did not just result from the context of historical conservation but also from a more practical reason – the building had to be low-rise so that elevators were unnecessary, which was argued by the residents in order to keep affordable rents. Similarly, the persistence of closed-block typology can not only be explained by the wish to realize insertions in the old urban fabric, but also to provide more possibilities for social control and environmental preservation (Stouten, 1995, p.37). Several small blocks were merged to create larger inner courts and to insert facilities. Some adaptations to old urban fabric were also made to improve daylight access and profile of the street. Finally, the high building density was realized in a low-rise neighborhood by mixing old and new buildings (figure 11-9). Yet, due to the piece by piece planning and the lack of a “master plan”, certain structural clashes emerged in the new physical urban morphology, particularly during the early years of urban renewal, so that it sometimes looked like patchwork.



Figure 11.9  
*Mixture of old and new buildings in the Oude Westen*

However, in order to improve the living environments of the neighborhood, urban design at the area scale was indispensable. This meant building and structure demolition to engender good public spaces and to accommodate essential local facilities. The new urban planning and design turned away from the urban public spaces, which had always been formed by the two thoroughfares with shops, and sought to create public spaces at the neighborhood level (Rejindorp, 2005, p.265). Within the original morphological structure framed by north-south narrow streets, some openings were made by demolishing parts of blocks. It resulted in the formation of traverse pedestrian routes running east-west, by which a series of squares were created and connected (figure 11-10). Those small squares became the neighborhood public spaces by the introduction of community programs. Two examples of the squares are the Gerrit Sterkmanplein (which was named after one of the first activists in the Oude Westen) and the Josephplein (figure 11-11). Both of them are surrounded by not only housings but also local public facilities, including the medical center or the school mentioned above. Sport courts and playgrounds, which are also used by the school, are located in the squares for the public. The vehicular traffic was interrupted in both squares so as to make sure pedestrians had priority. The Gerrit Sterkmanplein even became a place of staging events – for demonstrations and meetings of residents (Jutten, 2005, p.176). The redesign of neighborhood squares (as well as the new pedestrian routes) successfully created the outdoor public spaces for the local community and thus effectively improved the living environments of the urban renewal area.



Figure 11.10  
*Newly-introduced, east-west pedestrian routes in the Oude Westen*  
 (Source: Jutten, 2005, p.175)



Figure 11.11  
*Current condition of the Gerrit Sterkmanplein (left) and the Josephplein (right)*

But the attempts to insert public spaces inside the residential blocks seemed not really successful. The inner courts of renovated or newly-built residential blocks, including the residential decks of stacking program blocks, were opened and made accessible to the public at the beginning; yet the access was later restricted by gates. They have become “semi-public” spaces for the residents of the block only.

Another urban design element that might be very critical for improving the living environments of the old neighborhoods is car parking. Solving the problem of car parking in a high-dense area is always a challenge. In the early stages of urban renewal, the car parking problem was not really addressed. The early concepts for car parking included integrating parking places and side streets as well as small and separated parking lots sometimes combined with inner courts of residential blocks. The parking problems were even thought to be passed on to adjacent neighborhoods. Nevertheless,

the inconvenience or disturbance due to car parking increasingly became a problem. Car parks eventually were built in order to solve this problem, as well as the parking garages in semi-underground basements beneath the residential blocks (figure 11-12). Private garages were also combined with neighborhood green.



Figure 11.12  
*Car parking garages in the semi-underground basement*

### § 11.1.3 Consequences

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As a result of those planning and design interventions of the step-by-step rehabilitation, the congested and decayed living conditions of the old neighborhoods were significantly improved. In the Oude Westen, 50% of the dwellings (about 2,500 units) were decided to be demolished and reconstructed according to the negotiation between the municipalities and the residents under the framework of the project office. A decrease of 1,850 dwellings was caused by merging small apartments in the housing renovation. The total amount of dwellings was reduced from approximately 5,000 to 3,700, and the population decreased from about 11,000 to about 8,000 people (Kalle, 1980). Besides that, outdoor public spaces, local facilities and neighborhood greens were inserted into the old urban fabric, so that not only housing but also environmental situations were largely optimized.

In general, the urban rehabilitation of the Oude Westen by combining housing renovation and small-scale reconstruction as well as redesign of neighborhood space can be seen as a physical presentation of the “Bouwen voor de Buurt” via the active participation of the residents in the planning and design. For the purpose of improving housing conditions and living environments in the old neighborhoods, renovated and

newly-built social rented dwellings were realized and new public space and communal facilities were inserted, while the original urban fabric was basically retained as well as the local residents and their communities. The ambiguity in between conservation and reconstruction represents the collective and cooperative efforts of the residents, the municipality, the housing organizations and the architects, which do mean the compromise their interests. The “patchworks” within the remained urban fabric of the neighborhoods is just the reflection of the balance between the publicity and the privacy. But it is in this ambiguity or balance that the socio-spatial morphology of old neighborhoods is remained or even reformulated (figure 11-13).



Figure 11.13  
*Bird's view of the Oude Westen today*  
(Source: Jutten, 2005, p.183)

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## § 11.2 Housing Renovation and the Improvement of Living Environments – The Urban Renovation of Prefabricated Housing Neighborhoods in the Hellersdorf of Berlin

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For the housing areas that are not really “dilapidated”, the renovation is a relatively economical and efficient urban renewal approach in comparison with the wholesale reconstruction. In East Berlin and other former DDR cities, the prefabricated, former socialistic public housing apartments, which were developed in the 1970s and identified by the mixed community of their residents, are no doubt far from the collapse and can be still used in their residential function. Although the large-scale prefabricated housing areas were criticized by the western experts and media in the name of political “grayness” and thus proposed to be totally demolished, many local residents still prefer living in those areas as their homes. However, the originally homogeneous and uniform physical planning/design, together with the economic turndown of the eastern Germany after the reunification, made the prefabricated housing areas less attractive in the reunified housing stock and resulted in the moving on of the residents. In order to avoid the neighborhood decline and to maintain the mixed community, the living conditions of prefabricated housing areas had to be improved and renewed. The urban renovation, which meant housing renovation plus the improvement of outdoor environments and communal facilities, was chosen as an effective approach for the renewal of those prefabricated housing areas. The Hellersdorf Project in Berlin, which had a great success in the use of strategies to maintain mixed communities, is also a representative case for the aesthetic-technical interventions of urban renovation.

### § 11.2.1 Background

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As we mentioned in the last chapter, the Hellersdorf is a large-scale prefabricated, former socialistic public housing area at the east fringe of Berlin, which was developed between 1980 and 1990. In comparison with the early planned large-scale prefabricated housing areas of the former DDR, such as the Marzahn, the planning and design of the Hellersdorf was relatively “humanistic”: instead of the high-rises, the neighborhoods were mainly composed of the mid-rise, multi-storey prefabricated blocks with an inner court. However, the original deficits of physical planning and design also made the Hellersdorf become less competitive in the housing stock after the reunification of Germany. Technically, the prefabricated concrete structure without enough thermal insulation was neither cozy nor environment-friendly, but the lack of maintenance made the situation even worse. Along with the socio-demographic transformation, the originally standardized spatial design of apartments, e.g. the mid-

rise building without a lift, the room partition only for a young couple with children, etc, was gradually unsuitable for the new housing demands. The homogeneity and uniformity of the architectural form and neighborhood morphology only brought about monotonous built environments. Furthermore, there were functional deficiencies in the prefabricated neighborhoods: due to the delay of construction progress, the outdoor environments as well as the commercial and the communal facilities were not completed till 1990 (figure 11-14). Under the background of the economic stagnancy of the former DDR after the reunification, the Hellersdorf, same as other large-scale prefabricated housing areas, faced the pressure of the residents' outflow and the threat of area decline.



Figure 11.14  
*Open spaces in Hellersdorf before the urban renewal*  
(Source: Klenke, 1996)

Nevertheless, it is obviously unreasonable to totally demolish this prefabricated housing area, which the residents only moved in for less than 10 years. Many residents, in particular the elderly, still prefer the Hellersdorf as their "home". The intact community with mixed social structure largely can effectively prevent socio-spatial segregation from arising and further contribute to the social integration and sustainability of the city. The easy access to downtown Berlin using public transport also ratified the Hellersdorf as an integral part of the city. In addition, the cost of renovation is evidently much less than the demolition and new construction, while it provides an opportunity to apply the latest ecological designs and building technologies. Therefore in the Hellersdorf Project, renovation strategies were adopted for the renewal of prefabricated housing neighborhoods.

## § 11.2.2 Strategies

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Overall, the Hellersdorf Project is a program of urban rehabilitation. That means renovation and new construction in residential, communal, commercial, administrative and other public service functions plus the improvement of living environments of the district. But for most of the residential sub-areas, which encompass the prefabricated housing neighborhoods themselves, the urban renovation is no doubt the best choice. From the aesthetic-technical point of view, the renovation is the focus of physical strategies for the renewal of prefabricated housing areas.

The main task of the urban renovation of residential areas in the Hellersdorf can be concluded in one sentence: to create differentiated and environment-friendly built environments while improving the living quality of old neighborhoods. Within this process, the retention of existing tenants and the stabilization of mixed communities is a major concern. Public subsidies were available for the measures to reinforce the building substance and to reduce energy consumption. As early as 1991, the immediate measures of building repair had started to stop the construction damage and to make housing improvement visible. From 1994 to 1995, a pilot project of neighborhood renovation was realized in a typical housing block with 196 dwellings of the “Kienberg-Viertel” to test various possibilities for the environment-friendly renovation of prefabricated apartments and their surroundings (figure 11-15). The experiences and lessons from that pilot project after observation and evaluation were learnt and promoted. Subsequently, hundreds of renovation projects were gradually initiated, by applying differentiated and innovative physical interventions, amongst the prefabricated neighborhoods in the Hellersdorf. In principle, the aesthetic-technical strategies on the renovation of prefabricated public housing neighborhoods refer to two categories: the renovation/modernization of housing buildings and the improvement of outdoor environments and communal spaces/facilities.



Figure 11.15  
*Prefabricated housing in Kienberg-Viertel before (left) and after (right) the renovation*  
(Source: Klenke, 1996)

### *Renovating the prefabricated housing apartments*

The housing renovation in the Hellersdorf can be seen at two levels: first, the technical measures to improve the basic housing conditions which required renovation due to the deficiency of original design and the lack of maintenance; second, the spatial and aesthetic interventions to meet the differentiated housing demands.

As the essential measure of housing renovation, the repair of leaking façade joints, roofs, cellar walls, pipework and heating or hot water systems of prefabricated buildings was applied. At the same time, energy saving for environment-friendly building development is an important issue of the renovation. By adding extra thermal insulation on the outer walls (figure 11-16), replacing defective windows and improving heating radiators, the energy consumption of old apartments decreased by about 40% and the heating costs of tenants was significantly reduced. For some most recent prefabricated apartments, a more economical but ecological technical solution was developed. Their latest, three-layered façade panels are proven sufficient for present criteria of energy saving, so that the additional insulation layer is unnecessary. Only by repairing the joints of the façade panels, the environment-friendly task was achieved with savings of both costs and resources.



Figure 11.16  
*Renovated prefabricated housing with the newly-added insulation layers on outer walls*

The “basic” renovation also includes the functional modernization to make up for original design deficiency. For many prefabricated apartments, the balconies were either too small or did not exist. The balconies with insufficient spaces were extended via renovation while the “useless” bow windows were replaced by these balconies. These new balconies supported by the additional structures were also attached to many apartments for the first time (figure 11-17). Whether in the renovated or new balconies, the colorful, metal panels were equipped as parapets to give new images of the buildings. On the other hand, the lack of lifts was a critical problem of those five-or

six-storey prefabricated apartments in the Hellersdorf, in particular when the trend of population aging is increasing. The lifts were added in many neighborhoods as a measure to improve housing conditions. The new lifts that were usually situated in plate glass towers were added to the outside of stairwells and accessible by each floor (figure 11-18). Those interventions of functional modernization evidently improved the quality of life in the prefabricated housing neighborhoods.



Figure 11.17  
*Newly-added balconies*



Figure 11.18  
*A newly-added lift*

The interests of the residents were the uppermost and continuous concern in housing renovation. This meant that the tenants were able to stay in their dwellings despite the progress of the construction. The process and timetable of renovation works was well calculated and tested while the adapted building technologies have been applied in order to reduce the interferences to the tenants. A very example is in the Schleipfuhl neighborhood, where the plumbing system was renewed staircase by staircase and it only took 5 days to complete all the works for the apartments on one side of a staircase. By applying special technology, all the pipes in one plumbing shaft could be replaced within one day (figure 11-19). Another example is about the addition of new lifts: the modern diamond cutting technology, instead of mortising, is used for cutting the stairwell façade panel to create access to the lift; and the manufactured, glass “lift tower” is overall installed for shortening the construction period (figure 11-20).



Figure 11.19  
*Replacing the pipelines when the apartments were still in use*  
 (Source: Klenke, 2000, p.15)



Figure 11.20  
*Installing the new lifts on prefabricated housing*  
 (Source: WoGeHe)

In order to stop the residents from moving out and to stabilize the socially mixed community, as we have mentioned in the preceding chapter, the differentiation of the housing stock is an indispensable theme of the Hellersdorf Project. The originally uniform prefabricated apartments and homogeneous living environments developed under the planned socialistic system, of which the collectiveness was overemphasized, was evidently unable to meet the individualized and differentiated housing demands in the “marketized” housing stock. Therefore, people had more choices after the reunification. Preceding the new situation, the mono-structure of the housing stock in the Hellersdorf had to be changed. Apart from the strategies such as diversity of ownership categories and the new construction of different housing types, the renovation of prefabricated housing apartments, as an efficient physical strategy, also effectively contributed to the housing differentiation there.

For the purpose of meeting new and differentiated housing demands, a fundamental measure of housing renovation was the alternations to the floor plans. Thanks to the prefabricated construction, by which the non-load bearing wall panels could be more easily removed or cut, the re-partition of housing space was made possible. The apartments originally for young couples with children were spatially redesigned for the various sized households. The functional rooms that were unsuitable for the existing requirements were adjusted or enlarged. Figure 11-21 shows an example of the combination of two apartments into one, in which the living room, bedrooms, kitchen and bathroom were enlarged and a storage room and a new balcony were added. And figure 11-22 shows three examples of the spatial redesign of floor plan: some bedrooms were merged and turned into enlarged living rooms to meet the demands of shrunk-sized families for a higher quality of life. A more “fundamental”

case was the renovation of an 11-storey, high-rise apartment building in the Alte Hellersdorfer Strasse neighborhood. In addition to 17 different designs to change the original floor plans, each two apartments on the 10th and the 11th floors were merged and transformed into penthouse dwellings of 152 m<sup>2</sup>, which were soon rented out for affordable prices (figure 11-23). Among the efforts to create a differentiated housing stock by renovation, the housing corporation WoGeHe provided advisory services as professional guidance for the tenants' self-modification of housing space. This cost-effective form of spatial renovation was also financially supported by the government.



Figure 11.21  
A case of the housing renovation by merging two apartments  
(Source: WoGeHe)

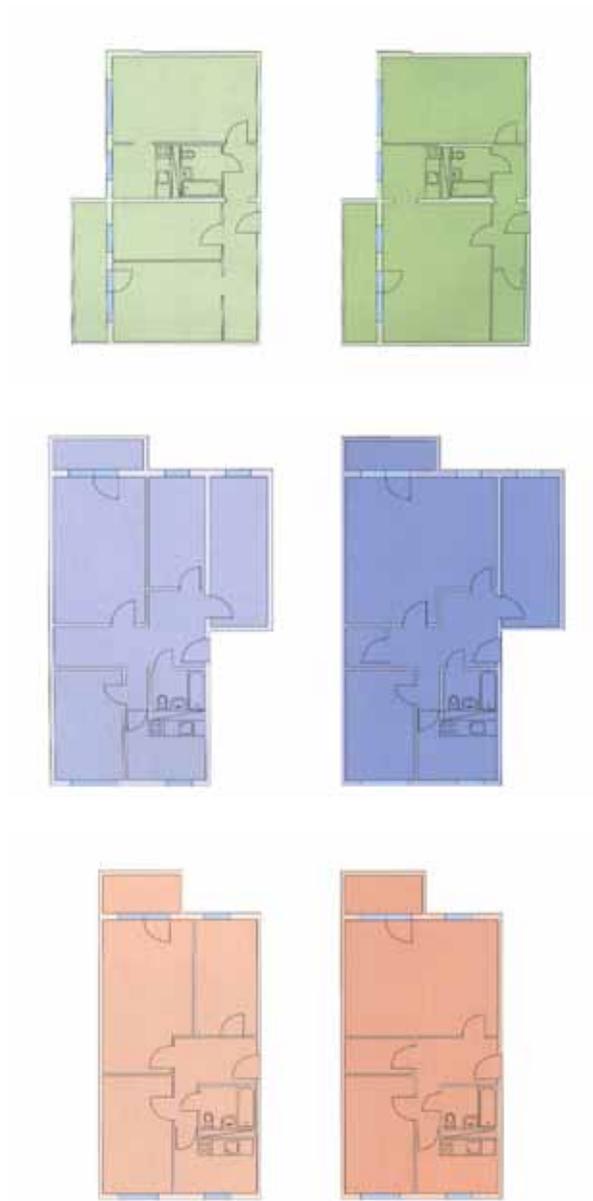


Figure 11.22  
Three different cases of the housing renovation by adjusting the floor plan in each apartment  
(Source: WoGeHe)



Figure 11.23  
*Penthouse apartments created by housing renovation*  
(Source: WoGeHe)

Besides those spatial renovation measures, the redesign of architectural form is also an effective and economical intervention for the housing differentiation. As an urban renewal program that is composed of many sub-projects initiated by different developers, the apartments included in each sub-project actually developed their own images from the designs and strategies adopted. Through different designs on repainting façades, adding new insulation layers, replacing parapets of balconies and installing new lift towers, each neighborhood, block or building was aesthetically given its own identity and orientation. A very example, as we also already mentioned in the last chapter, is the case of redesigning building façades by the firm of architects “Brasil Arquitetura” from Brazil. The design of the tiles in the stairwells and passageways stemmed from the work of art of a Brazilian Indian tribe, the so-called “Mujarabi” wooden trellis in the balconies, entrances and doorways, and the Pan-Iberian colors, e.g. white, blue, yellow and pink, for repainting building façade together created an exotic atmosphere (figure 11-24). On the other hand, the housing differentiation did not just mean creating new identities but retaining original local identities, which might have been a collective memory for many people who regarded the prefabricated apartments as their much-loved “home”. For instance, in some neighborhoods, such as the Branitzer Platz, some building façades were refreshed by taking up and even reinforcing the original colors (figure 11-25).



Figure 11.24  
*"Exotic" design of housing renovation in the neighborhood between Erich-Kästner-Strasse and Carola-Neher-Strasse*



Figure 11.25  
*Housing renovation design retaining and reinforcing the original colors on building façades*

In general, the housing conditions and living quality of the prefabricated housing neighborhoods in the Hellersdorf, through those basic and fundamental renovations, have been significantly improved while the housing types are successfully differentiated. The prefabricated apartments therefore regained the competitiveness in the housing stock of Berlin.

*Improvement of outdoor environments and communal facilities*

As aforementioned, a serious problem of the residential area in the Hellersdorf, before the urban renewal, was the uncompleted outdoor environments and communal spaces or facilities. In 1990, while the construction of apartment buildings had been finished, most of the plans for their surroundings were never implemented. More than 70% of the open spaces had no greenery or landscape design and the social infrastructure in the neighborhoods was far from sufficient. The renovation thereby had not only to be

on the buildings but also at the “urban” level, which meant to improve the overall living environments of prefabricated neighborhoods by upgrading the quality of open space and communal facilities.

A primary task was to redesign the surroundings of existing prefabricated apartment buildings, which was almost “waste land” only composed of bare soil and concrete surface. The horticultural design and landscape architecture, for the first time in many places, were introduced in order to create a healthy, user-friendly and ecological living environment. The DDR’s planning of parkland was continued to be implemented in the name of the “Hellersdorf Park Trilogy”, though it was amended to be step-by-step in terms of the fund shortage, for introducing a green belt from the green edge to the very heart of the residential district (figure 11-26). The green spaces were also widely developed among the neighborhoods, in the courtyards of blocks, and surrounding the buildings (figure 11-27). On the other hand, the pathway was cautiously extended into the area of the Hönower ponds on the edge of the Hellersdorf (figure 11-28). The natural zone was made accessible to people, while the design were minimized the intrusions to it. By linking to one of its major advantages – the proximity to the countryside, the Hellersdorf has been renewed as a “green” community.



Figure 11.26  
Plan of the "Hellersdorf Park Trilogy" project  
(Source: Klenke, 2000, p.56)



Figure 11.27  
Green spaces in and around the housing blocks in  
Hellersdorf



Figure 11.28  
*Hönower ponds next to Hellersdorf*  
(Source: Klenke, 2000, p.54)

Apart from the well planted greenery, the landscape design also refers to the outdoor public spaces and facilities. The squares of the neighborhoods were redesigned as well as the new paths were introduced across the blocks. The concrete surface was largely replaced by stone or brick pavements. In many neighborhoods, play equipment, benches, banisters, street lamps, litter bins and other urban furniture were all sophisticatedly designed to create a feeling of their value and thus to avoid the vandalism (figure 11-29).

Amongst the interventions to design or redesign outdoor environments, two keywords were specified: the differentiated and the ecological. For the differentiation of residential environments, not just the public green but also the private gardens were laid out. The residents were encouraged to create their own neighborhood landscape by the individual gardening and horticulture. At the same time, the local identity was emphasized in the landscape design. The striking design of neighborhood squares and route signs gives orientation. The remarkable urban sculptures were set up not only in the main squares or entrances of the neighborhoods but also on the roofs of the buildings so as to enable identification (figure 11-30).



Figure 11.29  
*Redesigned outdoor environments and facilities in Hellersdorf*



Figure 11.30  
*Urban sculptures and artwork as the identities of neighborhood*  
 (Source: Goldberg and Kohlbrenner, 2007, pp.105-108)

On the other hand, the ecological design is a key issue of landscape architecture in the Hellersdorf Project. Environment-friendly planning, design and technologies are widely applied in the outdoor facilities apart from the well cultivated vegetation in the green areas. For example in the Schweriner Hof, a pond with an underground cistern was built in the courtyard by using rainwater from surrounding roofs (figure 11-31). Rainwater provides pretty landscape and a recreational place as well as water source for the surrounding greenery<sup>1</sup>. It is also in this neighborhood that the tenants used the rubbles of original concrete surface to build the dry walls of their gardens, which helped turn the neighborhood into a “green living room” (figure 11-32). This recycling resource is precisely a showcase for ecologically responsible citizens. For the ecological measures, the biodiversity is also in particular cared for. Nesting boxes for swifts, for example, were installed in the roofs of tower blocks.

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1 The project of using rainwater was realized as part of a research program “Completing the Hellersdorf District on the Basis of Ecological Aspects” funded by the Federal Government.



Figure 11.31  
 A pond in courtyard fed by rainwater from surrounding roof  
 (Source; Klenke, 1996)



Figure 11.32  
 Dry stone walls of tenants' gardens by recycling concrete  
 (Source: Klenke, 1996)

Except the landscape and horticultural interventions to upgrade the outdoor environments, the improvement of communal facilities was also part of the urban renovation of overall living environments of the prefabricated housing neighborhoods in the Hellersdorf. On the one hand, part of public functions, especially the commercial and recreational facilities, were never completed before the end of DDR; on the other hand, along with the change of socio-demographic structure of the Hellersdorf, some facilities that only met the demands from the originally proposed residents – the young families with children, such as kindergartens, were evidently more than enough, while other facilities for the aging population were deficient.

Besides those large-scale, new constructions of social and economic infrastructure for creating new centrality and job opportunities, for the purpose of transforming the Hellersdorf into an integral part of the city, the improvement of communal facilities at the neighborhood level focuses on making use of existing available space. Many kindergartens or day nurseries (daycares) gradually closed when demand declined and thus reserved the available rooms for new social facilities for other groups. In many cases, they were converted into youth facilities, via renovation or extension, for those children who had grown into youngsters. The innovative communal programs, such as the “Creative Center” in Senftenberger Strasse for promoting the cross-generational interaction between young and old, were introduced by reusing the empty space of former kindergartens. In some other cases, the abandoned kindergartens have been transformed into commercial facilities for occupational training.

The vacant apartments on the ground floor and barely used cellars of residential buildings could also be converted into communal facilities with minimum expenditures. In order to deal with the shortage of “weather proof” facilities in particular for youngsters, they were usually turned into neighborhood youth clubs. Those spaces became the leisure meeting places for those who otherwise will typically just “hang around” in the neighborhoods (figure 11-33).

Of course, the reuse of available “spare” space meant not only the interior but also exterior spaces. Sport fields, playgrounds and other leisure facilities for physical exercise were introduced from the originally empty public spaces that spread over the neighborhoods (figure 11-34). The residents sometimes also got involved in this process. For example, the “Liberal Park” with sport facilities was built by a group of youngsters with the support from the government. In the meantime, the redesigned neighborhood squares become the really “public” spaces due to the introduction of facilities for attractive communal events, such as the open air cinema.



Figure 11.33  
A “youth cellar” – the leisure meeting place for youngster  
(Source: Klenke, 1996)



Figure 11.34  
Newly-introduced sport fields in Hellersdorf  
(Source: Klenke, 1996)

Apart from the introduction of new programs, the improvement also referred to the renovation of existing facilities that were still in use. The “bottom-up” participation of the residents was also often encouraged in the renovation projects. An example of this is a primary school in Weissenfelser Strasse. While the fund for improving the quality of buildings, and above all the concrete-covered schoolyard were insufficient, the collectively efforts from schoolchildren, teachers, nursery school staff and parents have turned a schoolyard into a garden.

In general, the improvement of outdoor environments together with the communal spaces or facilities, as a socially, economically and ecologically efficient strategy of urban renovation, significantly contributed to upgrading the quality of living environments of the prefabricated housing neighborhoods in the Hellersdorf.

### § 11.2.3 Consequences

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The renovation has significantly improved the housing conditions as well as the overall living environments of those former DDR prefabricated housing neighborhoods in the Hellersdorf. Through the step-by-step, parallel implementation of sub-projects with individual measures in different neighborhoods during the past 20 years (which in some places is still going on), the quality of living in the old neighborhoods is recognizably upgraded and the residential environments are to a large extent differentiated. Those aesthetic-technical interventions not only physically improved the living conditions but, probably, more importantly, conveyed the message to the residents: it is worth living here. As an integral part of the Hellersdorf Project, the urban renovation of prefabricated housing neighborhoods successfully contributed to avoiding the area decline and maintaining the mixed community. As we have mentioned in the preceding chapter, around 80% of Hellersdorf's residents presented their wills for long-term living when they were surveyed. And the renovated prefabricated housing apartment and their surroundings started to become competitive in the housing stock of Berlin. Here, the urban renovation was again proven as a more social, economic and ecological approach of urban renewal in comparison with the demolition-reconstruction, especially for the "recently" built housing areas that were still "valuable" in use. The strategies, designs and technologies in the Hellersdorf were thus promoted by the government for the international exchange of experiences with other large-scale or prefabricated housing areas in a comparative situation.

Nonetheless, renovation is indeed not the only way to improve the housing conditions in the city. The previous case in Rotterdam has shown a rehabilitation approach by combing renovation and reconstruction. Demolition and new construction in many cases are also inevitable. With the transition of the economic structure from manufacturing to service industry in Europe, the urban restructuring of the former industrial sites increasingly became a solution of new housing construction in recent years, in particular for the city center area where the vacant land lots are rarely available. In those restructuring projects, the innovative physical planning/design initiatives have been developed for improving housing provision or promoting social integration. These latest physical strategies of new housing construction are referable as well. The last section of this chapter is also the last case study among all referable urban renewal practices. The investigation will focus on an urban restructuring project for new housing development – the GWL site in Amsterdam.



Figure 11.35  
*Renewed Hellersdorf*

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### § 11.3 Differentiated Design for an Integrated Eco-Community – The Urban Restructuring of the GWL Site in Amsterdam

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Within the recent process of globalized capitalization, the decentralization, privatization and marketization of the Dutch housing policy and housing stock since the late 1980s, which can be seen as a presentation of neo-liberalistic transformation, significantly shook the foundation of socialized urban renewal. Unlike the expectation of Alderman van der Ploeg, who was looking forward to a more decentralized fiscal system of government to support housing socialization, it actually occurred in a different way. The Dutch government started to revise the housing policy towards privatization/marketization and to cut the budgets for the social-rented sector and urban renewal since the late 1980s. In 1991, VROM defined the end of the support in financial terms to urban renewal in 2005, even though this plan was disputed by the municipal governments of big cities, who argued that the renewal program had only been halfway (Stouten, 1995, p.25). And the continuous rise in the land and housing price according to the housing privatization, especially in the neighborhoods

where housing conditions had started to improve, made it more difficult economically for the large-scale land communalization and housing socialization. The intention tended to stimulate the private investment sector in urban renewal by public-private partnerships. Since the 1990s, the starting viewpoint of urban renewal had enlarged to the urban and regional scale and the promotion of economic redevelopment had gotten a higher priority. In the meantime, same as many Western European countries, many originally industrial areas in Dutch cities gradually became urban “waste lands” along with the shrinking of manufacturing. Therefore in the Netherlands, a focus of urban renewal turned to the restructuring of old ports and industrial sites, which refers to not only business function to improve the economic competitiveness of the city but also the programs of housing development.

Parallel to the process of economic globalization, it is the transformation of the social structure in Dutch cities. The large inflow of immigrants used to provide cheaper labor force for the manufacturing industries and low-end services. However, the transition from the economic structure in the Netherlands generated many “losers” in the traditional manufacturing sector, in which the majority represents immigrant workers and their second generation. The social polarization brings out the threat of spatial segregation, which has been a rising challenge for housing development and urban renewal in Dutch cities since the 1990s. The concept of housing differentiation thus is applied in many cases of either new housing construction or urban renewal (such as the aforementioned case in the Bijlmermeer), to promote social integration by gathering the people from different strata but with common interests on a certain residential environment. This also results in the so-called combination project, by which the social housing is developed together with the market housing in the same neighborhood. It is not just a financing strategy for social housing development under the background of the reduction of public funding, but also a way towards developing a mixed community and avoiding socio-spatial segregation.

Therefore, the concepts of housing differentiation as well as combination project are widely practiced in the urban restructuring for housing development. In practice, the success of those restructuring projects to a certain extent attributes to their physical strategies, which represents innovative planning/design interventions that create differentiated residential environments. The aesthetic-technical initiatives contribute to the residents with different social, economic and ethnic identities living together and sharing the same public space in not only housing renovation or rehabilitation but also in new construction. As a representative case of recent practices on restructuring the former industrial site for new housing construction, the restructuring project of GWL site – a site of former waterworks in Amsterdam – typically presents those new initiatives.

### § 11.3.1 Background

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At the end of the 19th century, a municipal waterworks of the drinking-water company (GWL-terrein), including a pumping station, warehouse and rain water reservoir, was built on a site to the west of the existing city of Amsterdam. However, this waterworks was evidently outdated till the 1980s and the underground reservoir suffered from irreparable leaks. The municipal drinking-water company decided to build a new, hypermodern waterworks on an adjacent industrial site. The old GWL site was planned to be restructured for housing construction after the departure of the water company. In 1994, the new waterworks officially took over the drinking water supply from the old one. The pumping station on the original GWL site was decommissioned almost a hundred years after it was opened in 1899.



Figure 11.36  
GWL site in Amsterdam

After hundred-year urban expansion, the GWL site has been a part of the city at the time and encompassed by urbanized areas. The site is bordered by a 19th century neighborhood, Staatsliedenbuurt, on the east and south, and by an industrial area which separates the old city from its 20th century extensions on the west. On the site itself, in addition to the ground buildings of pumping station and depot, there were four gigantic, largely underground rain water reservoirs, which in the course of time had become overgrown by grass and scrub. The site for decades presented as a largely vacant green wilderness, which was not accessible but still afforded space and light for the narrow streets and urban blocks of the 19th century city, on the edge of the Staatsliedenbuurt. This fact has left its mark in the plans for the site (Venema, 2005, p.197).



Figure 11.37  
*Old municipal waterwork*  
(Source: Venema, 2005, p.198)

In 1992, the City Council of Amsterdam and District Council of Westerpark adopted the idea, originally from a group of residents in the Staatsliedenbuurt, to develop this 6-hectare, industrial site to be a “sustainable” residential neighborhood with 600 dwellings. The ECO-plan Amsterdam Foundation, which was founded by the collaboration of five housing organizations, is the agency responsible for this restructuring project. The physical planning was commissioned to Kees Christiaanse Architects & Planners (KCAP). As a socially and ecologically sustainable housing development by urban restructuring, many new physical planning and design initiatives were developed and tested in the project of the GWL site.

### § 11.3.2 Strategies

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The urban restructuring of the GWL site exactly caught up with the change of housing policy in the Netherlands. It is actually one of the first and most representative cases for the practice of a combination project as well as housing differentiation. Creating a mixed, integrated community is the major task of this project. 50% out of a total of 600 dwellings are social rented apartments, while the other 50% are owner-occupied houses. What was planned to be differentiated is not only ownership categories but physical environments: apart from KCAP, the architectural designs were also commissioned to other 4 architects, including Atelier Zeinstra van de Pol, Neutelings Riedijk Architecten, DKV Architecten and Meyer & Van Schooten, in order to develop

different housing types. The landscape architect of outdoor environments is West 8. On the other hand, KCAP is responsible for drawing up the urban development plan and coordinating the individual building plans, so as to make sure of “the integration by differentiation”.

In the meantime, “ecological sustainability” is another key word of this project. The GWL site was a pilot project of environment-friendly housing development for VROM. Through the pre-research and investigation, the ecological planning, design and technical alternatives were developed and adopted. As an energy-efficient, car-free and green neighborhood, the newly-built GWL site attracted the tenants and homeowners with different social, economic and ethnic background but same interest on ecological living. In one sentence, the objective of the restructuring of the GWL site was to create a socially differentiated but integrated eco-community. In order to achieve this objective, a series of aesthetic-technical initiatives were introduced according to the physical planning/design strategies on housing differentiation, communal space and ecological design.

#### *Design for housing differentiation*

As we have discussed in the preceding chapter, housing differentiation has become a key issue of housing development in the Netherlands since the late 1980s. It was recognized that the urban society is not composed of the “average” people but the minority groups with different housing demands. The main housing problem was not its shortage in quantity any more but in quality, for which the differentiation of residential environments was thought as an effective solution. At the same time, along with the decentralization and privatization of housing policy, the housing differentiation presents in a way of combination project for the mixed development of social and market housing. Therefore, housing differentiation actually indicates the creation of differentiated residential environments, for which the uniqueness lies in their design of residential building and public space, their facilities, their location in the city, their price bracket and their ownership categories, in order to attract different target groups. The planning/design strategy of the GWL site precisely represents this trend.

According to the desired residential density – 100 dwellings per hectare, which is also the average residential density of the blocks in the city area of Amsterdam, approximately 600 dwellings were planned to be built on this former 6 hectare waterworks site. For realizing a socially mixed community (also for the economic self-balance of social housing organization) by housing differentiation, 50% of total dwellings belongs to the category of social rented housing for the low-income groups, 25% belongs to the category of subsidized owner-occupied housing for the middle class, and the rest 25% is owner-occupied houses for the high-income households. All those dwellings were also handed over to a coalition of five different housing organizations, which represented the tenants and homeowners from different social backgrounds. However, how to create an appeal in the residents of different strata for

the same area was a challenge. The strategic and sophisticated physical planning and design were therefore developed.

In fact, the development plan of the GWL site realized the concept of housing differentiation at another level: it was planned as an environment-friendly neighborhood for people who gave special attention to ecological issues, no matter what social or ethnic group they are from. The site was designed as a car-free neighborhood, in which the small gardens for the residents replaced the car parking. A distinctive image of the GWL site, a park-like, "green oasis" in the highly-dense city area, is set up in the housing stock of Amsterdam for a specified group of residents – ecologically responsible citizens.

At the neighborhood level, the housing differentiation meant developing diversified housing types to meet different demands and ownership categories. As aforementioned, the design of individual buildings was commissioned to 5 different architects who could improvise under an urban development plan and the instructions and rules of design from a "master planner" – KCAP in this project (figure 11-38). Apart from two elongated high-rises along the west and north boundaries of the site, 14 newly-built, pavilion-like residential buildings of four to five storeys, in which most dwellings are privately owner-occupied and have their private gardens, stand in the park-like neighborhood. Among those buildings, a great variety of dwelling types and forms of access are laid out. Anyone looking even briefly at the collection of dwelling floor plans had to be impressed by their pluriformity (Venema, 2005, p.205). For example, in the mid-rise buildings designed by Meyer & Van Schooten and KCAP, the front door of the ground floor houses is approached through a front garden, and the dwellings on the upper storeys are accessible by concealed interior corridors or passages. But the housing buildings designed by Atelier Zeinstra van der Pol as well as Neutelings Riedijk both give each dwelling its own front door without the intervention of a shared access space.

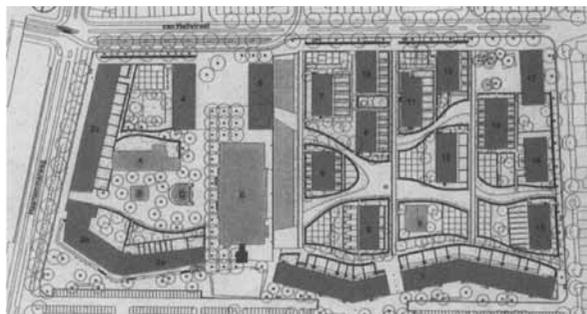


Figure 11.38  
*Master plan of GWL site*  
(Source: Venema, 2005, p.199)

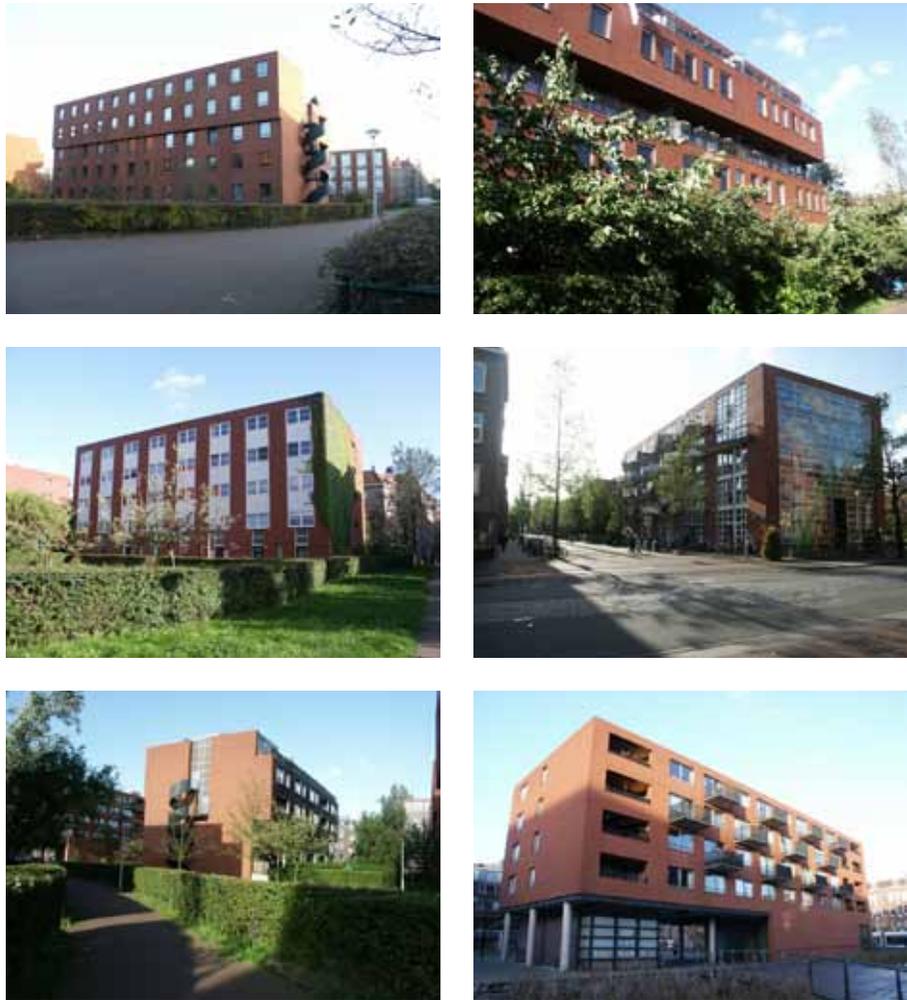


Figure 11.39  
*Mid-rise buildings designed by different architects*

The most interesting architecture might be that high-rise cluster composed of two residential buildings, which were designed by DKV, Neutelings Riedijk and KCAP. Those high-rise buildings contain about 57% (342 units) of the total of dwellings in the neighborhood and successfully realize the mixture of social and market housing in one building. In this cluster of residential buildings that climb from four storeys in the south to nine in the north-east, the dwellings on the ground and top floor are owner-occupied and given their own private gardens (in the form of roof gardens on the top floor) to attract the affluent, for many of whom occupying a house with garden is their dream. The apartments on the middle storeys are designed for social rented, which even included the specified apartments for a group of disabled residents. The tenants

and homeowners from different social groups shared the same staircases, corridors and passages in those buildings, which are well maintained under the intensive management and surveillance.



Figure 11.40  
*High-rise residential buildings in GWL site*

Actually, the combination development of social and market housing guarantees a high quality not just for the building but for the whole area. The social housing dwellings are realized in a better quality than the financing conditions for social housing allowed. The additional costs for these dwellings are financed by the surplus that has been generated by the sale of the owner occupied dwellings (Rosemann, 2006, p.37). And the high quality of living environments also ensures the attractiveness of the GWL site for the higher income earners.

As part of the differentiation of residential environments, it is the mixture of diversified functions or programs in the GWL site. The pumping station and warehouse were retained not only to keep the historical identity but also to house non-residential functions, including shops, offices and cafés. Room for local businesses and facilities were also made on the ground floor of the residential buildings along two squares in the neighborhood (figure 11-41). In total 17 premises for small businesses were reserved. The former warehouse is occupied by a group of artists and their ateliers. And the 19th-century pumping station standing in the middle of the neighborhood is transformed as the space for a café/restaurant, a gym and other businesses or facilities, serving both the local community and the visitors from the outside (figure 11-42). In conclusion, the planning/design initiatives successfully support the realization of housing differentiation and thus brings different social groups as well as various programs into the GWL site.



Figure 11.41  
*Local shops along the neighborhood square*



Figure 11.42  
*19th-century pumping station reused as the space for local businesses and facilities*

### *Creation of communal space and identity for social integration*

While the residents from different social background could be induced to live in one neighborhood by the successful practice of housing differentiation, it does not mean the formation of a mixed, integrated community. The segregation might exist inside the neighborhood. The physically spatial interventions here were implemented to minimize the segregation and to enhance the sense of community. The creation of

communal space is taken into account as an instrument to facilitate social cohesion, integration and sustainability.

From its master plan, the GWL site can be seen as a neighborhood with a spatial “order” of gradual transition from the public domain to the privacy of the dwelling. Next to a cluster of the former pumping station, air-chamber house and warehouse, which have been designated as national monuments, together with a newly-built white water tower, an open-air square is placed. The ground floor of the old and new buildings along this square facilitates the space for local facilities and small businesses, such as the café and restaurant transformed from the pumping station. The buildings and open spaces together composed a “central” ensemble of the neighborhood as main public space to condition community life (figure 11-43). At the south-east corner of the GWL site, a “sub-center” composed of a smaller square and a community center on the ground floor of a residential building along the square (figure 11-44). As the main entrances of the neighborhood, those two community public spaces are both directly accessible from the Van Hallstraat. In particular for the one on the north, a tram terminal, which provides the major public traffic access for the residents, is just adjoining, while the southeast one is close to a bus stop (figure 11-45).



Figure 11.43  
*Main neighborhood square of GWL site*



Figure 11.44  
*Second square at the southeast corner of neighborhood*



Figure 11.45

*Tram terminal adjoining the main square (left) and the bus stop close to the southeast square (right)*

Going further from those community public spaces, especially to the south of a long, narrow pond that divides the neighborhood into two sections, the communal space gradually changes to be semi-public. According to the design by the landscape architect West 8, some building clusters are formed as the “islands” enclosed by interweaving the orthogonal grid paths (which can be seen as the continuity of the adjacent street pattern) and diagonal, curved walkways (figure 11-46). While this transparent spatial structure is given access for the visitors, the well-planted vegetation together with the curved foot paths creates a more residential environment. In each island, there are one or more residential buildings and private gardens, as well as the so-called “public service gardens”, which are small allotments for the residents of the dwellings on the upper floors at their disposal. The low hedges ring the island and are intended to provide a buffer and clear separation between the private area of the islands and the publicly accessible walks (Venema, 2005, p.200) (figure 11-47).

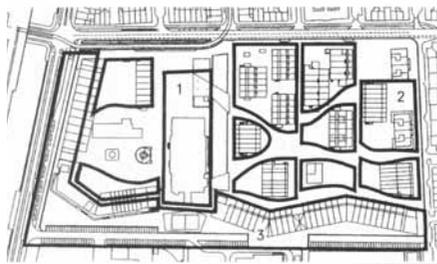


Figure 11.46

*Building clusters in the GWL site, planned by West 8  
(Source: Venema, 2005, p.200)*



Figure 11.47

*Low hedges separating the private areas and the publicly accessible walks*

Further, the “soft edge”, a term from the Danish social scientist Jan Gehl which can be found on the border of the communal and the private space, is emphasized in the design of the GWL site. As the transition between semi-public and semi-private domain, the soft edge provides opportunities for people’s encounters and appropriation. The GWL site is one example of how the soft edges may materialize (Hoogland, 2005, p.193). The most important design rule set out by KCAP is the maximization of the number of front doors from the ground level, which no doubt enhances the opportunities of encounters, stay and communication. At the same time, the surface of both semi-public and semi-private spaces, including the allotted gardens, corridors, patios and bridges, are maximized in order to create more “blurred” zones as soft edges. The surrounding spaces of communal facilities, such as the mailbox and bicycle parking space, were given an attractive design to promote spontaneous encounters. Moreover, the visual “encounters” were also taken into consideration: the visibility of outdoor space from the dwellings is maximized to strengthen the link between private and communal space, by which, for example, children at home are motivated to join in when they see other children playing outside.



Figure 11.48  
*Well-designed “soft edges”*

Besides those spatial interventions to create “communicative” spaces for the residents, the creation of local identity is another key issue for the formation of an integrated community. Apart from the concept of an environment-friendly neighborhood for ecologically responsible residents, the aesthetic design also plays an important role in creating communal identities. The design rule designates the required materials – red brick and wood – for building façades in order to form a recognizable unity. The same red brick is even used for the paving ground of outdoor space. Although the use of brick, together with the layout of residential buildings, can be seen as the respect to the adjacent Staatsliedenbuurt, the high contrast between two main colors of the GWL site – red and green – still distinguishes it from its surroundings (figure 11-49). On the other hand, the diversity of not only floor plan but also architectural form was considered as well. Different designers created a great variety of building forms, with the design on all sides, under the general uniformity. In particular the forms of building access are diversified as much as possible to make the front doors recognizable for the residents. Additionally, the retained, historical industrial building cluster generates another identity of the GWL site. That gleaming white water tower, as a distinctive landmark, passes an explicit message to the residents: this is my neighborhood (figure 11-50).



Figure 11.49  
*Red and green – the aesthetic theme of GWL site*



Figure 11.50  
*Retained water tower as a distinctive landmark of GWL site*

Thanks to all those physical initiatives supporting a diversified but united spatial environment, the residents, whether they are tenants of social housing or homeowners of market-sale dwellings, have the opportunity to share the same communal space and to enjoy the same communal identities. A sense of community can be generated amongst those from different social backgrounds, and thus achieve the objective of social integration and sustainability.

*Planning, design and technical alternatives for an environment-friendly neighborhood*

Apart from the social sustainability, the ecological sustainability is another thesis of the restructuring of the GWL site. The idea of a low auto-traffic, environment-friendly housing development was first raised by a group of residents from the Staatsliedenbuurt and subsequently adopted by the municipal government. The GWL site was also selected by the VROM as a pilot project of ecological neighborhood. Before the urban development plan was drawn up, an integral environmental plan had been compiled, and the requirements proposed by this plan deeply influenced the later physical planning and design.

Like many ecological housing project, the technical alternatives for standard construction methods were applied in the GWL site for the purpose of energy and resource efficiency. The neighborhood has its own combined heat and power plant. An ingenious, closed-loop water management system makes the water supply reliable and self-sufficient. The neighborhood pond is also used for the retention of rainwater (figure 11-51). The sustainable materials and a number of exceptional energy/resource saving measures, e.g. rainwater flushed for toilets and pre-sorted refuse collection in underground containers, were widely applied in building construction.



Figure 11.51  
*Neighborhood pond for the retention of rainwater*

More importantly, the ecological sustainable urban planning and architectural design was inputted. One of the most distinctive characteristics of the GWL site is the restriction on automobile. In order to create a highly-dense but green neighborhood, the planner chose to reduce the parking norm from 1.0 car per household (which is usual for Amsterdam) to 0.3 cars per household. Inside the neighborhood where the car traffic is prohibited, the integral structure of green space, including the allotment gardens for the private use of residents, instead of the usual parking lots, engenders a park-like living environment. The car parking was only placed along two dead-end streets on the west edge of the site and particularly for the visitors. A tram terminal,

as well as bus stops, are just located in the Van Hallstraat immediately east to the neighborhood and facilitates the public transport for the residents. And the parking space for bicycles is abundant.



Figure 11.52  
*GWL site as a car-free neighborhood*



Figure 11.53  
*South-oriented building clusters in GWL site*

While the physical morphology of the GWL site can be partly seen as the extension of the surrounding urban fabric, the ecological dimension was fully taken into account in the urban design and architecture. The high-rise building cluster along the western and northern boundaries protects the site from the westerly wind and from the noise of the busy Haarlemmerweg, and thus encloses a quiet, park-like setting, where 14 mid-rise residential buildings as well as communal spaces and facilities are located. An important consideration to lay out the residential buildings within the matrix of orthogonal and diagonal lines is the exposure to sunlight of all houses. In the subdivision of building clusters, the “passive” solar energy was ensured to benefit most of dwellings. The living spaces of the residential buildings were oriented toward

the south as far as possible (figure 11-53). Meanwhile, all the residential buildings stand on those green “islands”, between which the walkways are to a certain extent the extensions of the surrounding street pattern and accommodate the internal sightlines. And in those islands, the allotment gardens are provided for the residents of the dwellings on both the ground and upper floors. In addition, the conservation and reuse of former industrial buildings is also an ecological intervention. To conclude, all the physical planning, design and technical alternatives prove that the environment-friendly neighborhood is not just a slogan to promote housing differentiation, as well as social integration, but also a serious, actual contribution to ecological preservation.

### § 11.3.3 Consequences

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According to the careful planning, design and preparation, the implementation of the GWL site’s restructuring started in 1995 after the municipal drinking water company moved to its new location nearby. In 1998, the new housing construction was completed and the residents started to move in. The realization of this project has proven how physical initiatives do successfully support the proposed socio-economic as well as community objectives.

As an example of environment-friendly neighborhood, the GWL site is a model project at the city and national levels for the ecological housing development. The implementation of ecological planning, design and technologies not only has created an energy-efficient, green living environment but also helps to build up the attractiveness for a special group with common interest but from different social backgrounds. At the same time, the combination and development of social and market housing has been proven a possible financing strategy for social housing development after the reduction of public funding. The income from the sale of owner-occupied dwellings supports a quality of living that is higher than the usual social housing areas and acceptable by the well-to-do. More important is that, by the differentiation of housing types and ownership categories, as well as by the elaborate designed communal space and local identities, a socially mixed and integrated community has been established. The residents originally from different social or ethnic groups are living in the same neighborhood, enjoying the same identities of community, and sharing the same communal space and facilities (figure 11-54). At an entrance of the neighborhood from the car parking, a conspicuous “stele” is laid down for engraving the concept of planning and the names of contributors. It is a model case of how innovative, aesthetic-technical interventions in the urban restructuring contributing to the social, economic and ecological sustainable housing development.



Figure 11.54  
*People from different groups living in the same neighbor*  
(Source: Rosemann, 2008)



Figure 11.55  
*Bird's eye view of GWL site*  
(Source: Venema, 2005, p.207)

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## § 11.4 Conclusions

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In this chapter, the investigation focused on the more sustainable physical planning/design alternatives for the unitary, wholesale demolition-reconstruction. The case studies above covered the successful urban renewal practices from the renovation or rehabilitation that avoided the large-scale demolition to the innovative physical interventions on new housing construction. The physical interventions in those cases present the efforts not just to improve the housing conditions of residential buildings but to create the high-quality overall living environments of neighborhoods. Within the socio-spatial dialectics, those initiatives in the aesthetic-technical dimension to a large extent supported the realization of sustainable urban renewal. As a conclusion, the successful experiences on physical initiatives can be summarized as the strategies that follow, which might be referable for the urban renewal of former public housing areas in Beijing.

- *Housing renovation as an effective and efficient physical strategy for urban renewal*  
In comparison with site reconstruction, housing renovation is a more effective and efficient physical strategy in particular for improving housing conditions of the old residential buildings still in decent use. By applying the adapted design and technologies of renovation, the residents would stay at their homes, even during the period of construction, and the cost of urban renewal will significantly be reduced. Moreover, housing renovation is also an ecological approach to minimize the negative environmental impact of urban renewal, as well as a way to protect historical identity. The practice of the Hellersdorf Project in Berlin has proven that the renovation is a feasible strategy for the renewal of uniformly designed, former socialistic public housing areas.
- *Urban rehabilitation by the combination of housing renovation and reconstruction*  
In many cases, such as the urban renewal of the Oude Westen and other inner-city old neighborhoods in Rotterdam, the demolition of dilapidated buildings is inevitable. But by combining the housing renovation and demolition-reconstruction within the existing urban fabric, urban rehabilitation, instead of the unitary reconstruction, is a more sustainable strategy for the renewal of a complicated and diversified housing stock. According to their physical situation, historical value and residents' intention, the buildings should be step-by-step renewed with different physical interventions. Through the suitable planning, design and process, the rehabilitation contributes to not only solving the housing problem but also the retention of local community and identity.
- *Upgrading the overall living environments by the improvement of outdoor space and communal facilities*  
Urban renewal of old housing areas means the upgrading of not only housing conditions but also the overall living environments of neighborhoods. Parallel to the housing renovation or new construction, upgrading the living environments indicates the improvement of open space, greenery and indoor or outdoor local

facilities. Particularly in the projects of urban rehabilitation or renovation, the improvement of outdoor environments and communal facilities is an efficient and economical strategy for enhancing the quality of local life, which will pass the confidence to the residents and therefore encourage their participation in the renewal of their own home.

- *Design interventions for the differentiation of residential environments in urban renewal*

The recent experiences in Berlin and Amsterdam have revealed that housing differentiation is a key issue of physical interventions, in whatever renovation or new construction, to meet the increasingly diversified housing demands and to condition social integration. Physically, housing differentiation refers to both architectural and urban design, which means the creation of differentiated residential environments, including diversified but distinctive dwelling types, building forms, landscape architectures and even neighborhood themes. Besides those non-physical strategies such as the differentiation of housing ownerships, the initiatives in aesthetic-technical dimension will also largely support the neighborhood for people from different social backgrounds but with common interests.

- *Creating communal space and identity by physical renewal initiatives*

In order to promote social integration by urban renewal, in particular for the socially mixed and differentiated neighborhoods, the creation and improvement of communal space and identity, on which the physical initiatives might play an important role, is an effective solution. The communal public, semi-public or semi-private spaces provide the communicative places, as social condensers, for the residents. And the design interventions to maintain the historical image or create the new identity for the neighborhood would also support the formation and stabilization of local community.

- *Physical planning, design and technologies for the ecologically sustainable urban renewal*

Last but not least, the ecological sustainability is an increasingly important theme in the recent practice of urban renewal in Europe. Apart from the “basic” measures to fulfill the decent housing conditions, the ecological planning, design and building technologies have been widely developed and applied for whatever the renovation (such as the renovation of prefabricated housing neighborhoods in the Hellersdorf) or new housing development (such as the restructuring of the GWL site). In fact, the reuse and renovation of existing buildings itself is an energy or resource efficient strategy. Faced with the growing, global ecological challenge, the idea of environment-friendly neighborhood has become a trend, as well as fundamental requirement of urban renewal for housing development.

By the case studies of successful urban renewal practices in the aesthetic-technical dimension, some referable strategies of the alternative physical initiatives for the unitary demolition and reconstruction are summarized in this final chapter of Part

IV. In order to answer to the challenges on changing the present market-oriented, unitary and wholesale reconstruction approach for the urban renewal of former public housing areas in Beijing, the research in Part IV focuses on the successful experiences of the comparable cases in European and Asian cities that are related to the research questions in the socio-economic, community-placial and aesthetic-technical dimensions. The case studies in these three chapters respectively resulted in a set of alternative strategies in those three dimensions under the theoretical framework of spatial phenomenon: from the social and economic sustainable strategies to realize the housing affordability and economic feasibility of urban renewal, to the top-down and bottom-up initiatives to stabilize or strengthen the mixed community, and further to the diversely physical alternatives on the renovation, rehabilitation and new housing development. All those socio-economic, community-placial and aesthetic-technical strategies would be the references for improving Beijing's existing urban renewal approach for its former socialistic public housing areas.

Nevertheless, the reference is always something that can not be directly copied. Many lessons have proven that the simple emulation without the consideration of local circumstances will only make things worse. Therefore after the case studies of the referable experiences in Part IV, Part V will turn back to the reality in Beijing for exploring a new approach to renew the former socialistic public housing areas, through the practice-oriented innovations in which those experiences can be referred. The exploration will start from the pilot design researches for the urban renewal of representative former public housing neighborhoods in Beijing.



PART 5 **New Approach and Strategies**



# 12 Urban Rehabilitation of the Sanlihe Neighborhood 1 Block 1

## – A Pilot Design Research of Urban Renewal for a 1950s Housing Area

After the problem statements on the present challenges for the urban renewal of former socialistic public housing areas in Beijing, as well as the analytical research on the successful and referable experiences of comparable cases, the content of Part V will concentrate on the development of an innovative renewal approach to overcome the existing dilemma. However, the exploration of the new approach does not mean the merely metaphysical deduction (while the logic means is a necessary and inevitable tool in the research), which usually leads to a delusive, problematic methodology of simply copying other's experiences without adapting to one's local characteristics. This means that the socio-economic, community-placial and aesthetic-technical strategies that were summarized in Part IV, while responded to the concrete challenges for renewing Beijing's former socialistic public housing areas, can only be the references that indirectly help the development of new strategies in the Chinese urban context. In fact, as Wang Shouren, a famous Confucian philosopher in the 16th century, argued, cognizing and practicing is the same process. In other words, the research can never deviate from the practice. The development of the new approach must be based on the concrete, materialized analysis of local conditions. Therefore for our research topic on urban renewal, the housing problem and social integration in Beijing, which is probably the most challenging themes that presents the current diversity and complexity of Chinese urban society, research by design should be the programmatic research method used. The "pilot design research" on the real and representative sites in Beijing was chosen to develop and test the alternative strategies for the urban renewal of former public housing areas.

In Part V, two pilot design research projects were chosen for the exploration of the new urban renewal strategies<sup>1</sup>. These two projects were set down based on the survey and

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Those two pilot design research projects on Sanlihe Neighborhood 1 in Beijing are carried out during the period from 2008 to 2010 by a research team consisted of the teachers, researchers and students from Beijing University of Technology and Delft University of Technology, in which I played a role as project coordinator, with the support from CPMC, Guojiafagaiwei.

research of two most representative sites of former public housing areas in Beijing. Both of them were located in Sanlihe Neighborhood 1, a typical danwei dayuan community in the central area of Beijing city. From the viewpoint of physical planning and design, they are the housing blocks of two representative typologies, which were developed during the “golden ages” of Chinese socialistic public housing: one is a Soviet-style courtyard housing block built in the 1950s, and the other is a typical linear-arrayed, multi-storey housing cluster that was constructed from the 1970s to 1980s. Through the design by research in each case, the innovative strategies and designs were developed by answering concrete questions. While the strategic solutions are different in each project based on its local conditions, the results of the two pilot research projects will show that urban rehabilitation might be the approach of resolving the present dilemma on the renewal of former public housing areas. Based on the pilot design research, the final chapter of not only Part V but also this dissertation will focus on the general recommendations, which will also be sorted into the socio-economic, community-placial and aesthetic-technical dimensions, for constructing an urban rehabilitation approach for the former socialistic public housing areas in Beijing.

The first pilot design research project is about the urban renewal of the Block 1 in Sanlihe Neighborhood 1 in Beijing. This is a Soviet-style, perimeter courtyard public housing block in a typical danwei dayuan neighborhood, which is located in the urban expansion area of Beijing that was developed in the 1950s. Just like the other 1950s housing blocks in Sanlihe Neighborhood 1, Block 1 was enrolled in the reconstruction plan of “decrepit and old” housing areas in the 1990s. However, due to the disagreement with the residents, so far, Block 1 is one of the only two blocks in the neighborhood that the reconstruction plan has never touched. Thus the Block 1 of Sanlihe Neighborhood 1 is not just a typical early-built public housing block awaiting the renewal, but a precisely representative case of the existing dilemma and challenges in the urban renewal of former public housing areas. As a design research project, the exploration of new renewal strategies has to depend on the concrete site survey and analysis, for which the research should start from the spatial background of this project – Sanlihe Neighborhood 1 and its surroundings.

## § 12.1 Sanlihe Neighborhood 1 in Beijing – History and Existing Conditions

### § 12.1.1 Urban Place and Surroundings of Sanlihe Neighborhood 1

Sanlihe Neighborhood 1 is situated between the West 2nd Ring Road and West 3rd Ring Road of Beijing, an urban area developed in the early 1950s and administratively belonging to Xicheng (West End) District (figure 12-1). This 1950s urban expansion area to the west of the historical city inside the present 2nd Ring Road was originally designed as a functional zone for the office area of the Chinese central government and their housing development. After about 60-years of urban development, the existing Sanlihe Neighborhood 1 located in a good urban place to the north of famous Chang'an Avenue, the east-west main axis of Beijing city, and surrounded by a large number of commercial, cultural, educational and recreational hubs, office centers, as well as traffic infrastructure, on the urban or district level. All of this not only facilitates the life of residents but also provides many job opportunities (figure 12-2).



Figure 12.1  
Location of the Sanlihe Area in Beijing



the later development, more housing and public buildings in different typologies were inserted into the neighborhood in order to meet the growing housing demands. Although some dwellings were occupied by other danwei during the historical transformation, most of buildings in the neighborhood still belonged to the Guojiajiwei till the 1990s (figure 12-4).

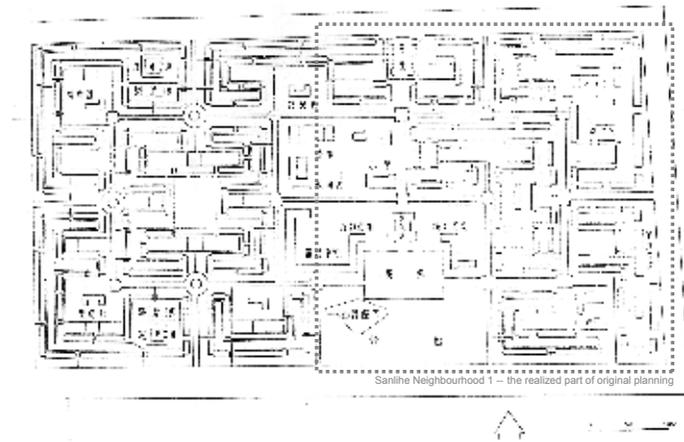


Figure 12.3  
Original master plan of Sanlihe Neighborhood 1 in 1953

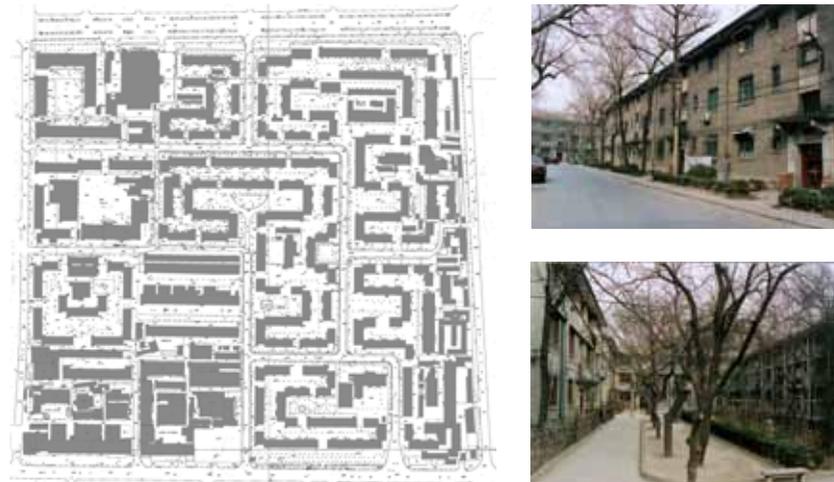


Figure 12.4  
Sanlihe Neighborhood 1 before the reconstruction (1993)  
(Source: CPMC)

Nonetheless, most of public housing blocks built in the 1950s were considered outdated and rundown at the time. Therefore in the early 1990s, the urban renewal of Sanlihe Neighborhood 1 was launched by the Guojiajiwei through its affiliated housing development body, as the urban renewal agency. The major objective of the urban renewal was to improve the living conditions in the neighborhood, as well as develop the additional dwellings for Guojiajiwei increasing the number of staff. All the 1950s public housing and public buildings were planned to be demolished and replaced by the new multi-storey or high-rise residential, office and commercial buildings. The original road system in the neighborhood was preserved, while the public infrastructure and facilities were improved. This reconstruction plan started to be implemented in 1996 (figure 12-5).

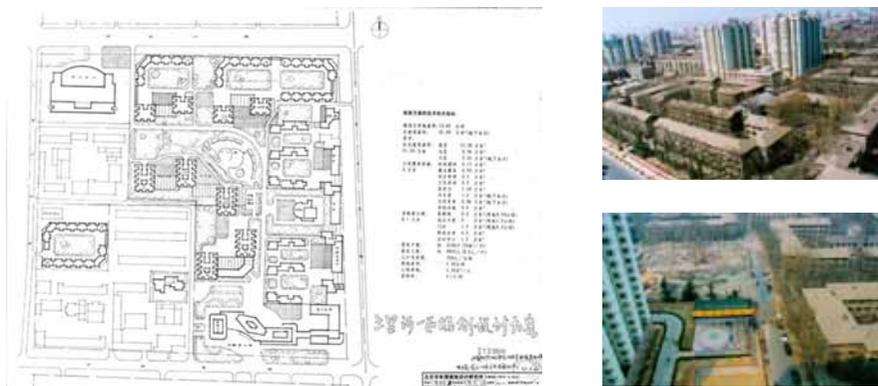


Figure 12.5  
*Reconstruction of Sanlihe Neighborhood 1 – the master plan in 1995 and the process of implementation*  
 (Source: CPMC)

But the implementation of urban reconstruction was not a smooth procedure. The residents and property owners of two blocks disagreed with the reconstruction. Till the end of the first phase of reconstruction in 2000, only the blocks in the middle of the reconstruction area (the present Block 2 and Block 3) were completed. The newly-built, high-rise apartments were planned as public housing for both the residents who were impacted by the reconstruction and the staff of Guojiajiwei who had the housing problem. However, the Chinese housing reform in 1998 significantly changed the strategies of the reconstruction of Sanlihe Neighborhood 1. On the one hand, the newly-built dwellings in the reconstructed Block 2 and Block 3 were sold to the tenants in a short time; on the other hand, the cease of public funding to housing development made the urban renewal agency look for new financing means. A public private partnership mode of combination development was adopted for the second phase of urban reconstruction. In the later reconstructed Block 5, six multi-storey, high-grade

apartment buildings were sold in the real estate market while three high-rise towers accommodated the socio-oriented resettlement housing and the affordable housing for the new staff of Guojiajiwei. Office and commercial buildings for sale or rent were also developed along the south and east edges of the neighborhood. Except for two blocks, 5/6 of the reconstruction project of the Sanlihe Neighborhood 1 was finally completed in 2004 (figure 12-6).

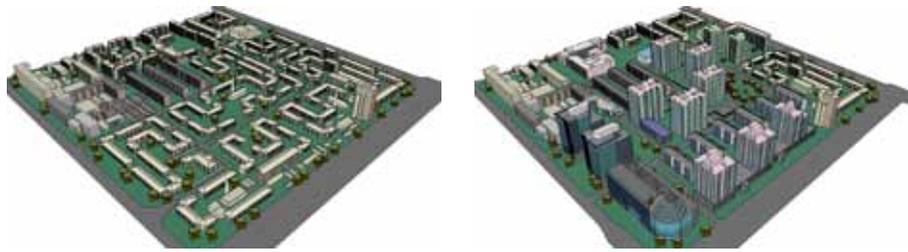


Figure 12.6  
Sanlihe Neighborhood 1 before (left) and after (right) the urban reconstruction  
(Drawing by Hu Si and Ren Lei)

Due to the increasing building density and social-oriented rehousing policy, most of the original residents resettled in the same neighborhood. The additional social-oriented dwellings were used to solve the housing problem of Guojiajiwei's growing number of employees. The market housing, as well as the office and commercial buildings, was developed for balancing investment and gaining profit. But thanks to the original planning for dayuan community and the combination development of social and market housing in the urban reconstruction, the socially-mixed, local community in the neighborhood was stabilized and even strengthened after the reconstruction. Developed from the original socio-spatial structure of a dayuan, the existing Sanlihe Neighborhood 1 is a very good example of a former public housing area in Beijing (figure 12-7).



Figure 12.7  
Present appearance of Sanlihe Neighborhood 1

### § 12.1.3 Socio-Demographic Structure of Sanlihe Neighborhood 1

As a typical community derived from a danwei dayuan, the current population of Sanlihe Neighborhood 1 is composed of 9,540 “permanent” residents (3,020 households) with hukou registration in this neighborhood and about 1,000 “temporary” (without hukou registration) residents (who are usually the tenants of private rented dwellings). As is the same with many other former public housing areas, the residents cover different social groups from those with high-income (such as the ministers and CEOs living in high-grade market housing) to those with low-income (such as the tenants in the retained tongzilou and single-storey, temporary dwellings). But the majority of the residents consist of the presently employed or retired employees of government (especially the staff of Guojiafagaiwei) and their family members, who usually belong to the middle income group in Beijing.

The population density in this neighborhood is 23,287persons/km<sup>2</sup>, which is higher than the average level of Beijing’s central urban area. The average family size is also bigger (figure 12-8). Both indexes probably indicate the higher demand to improve the housing condition.

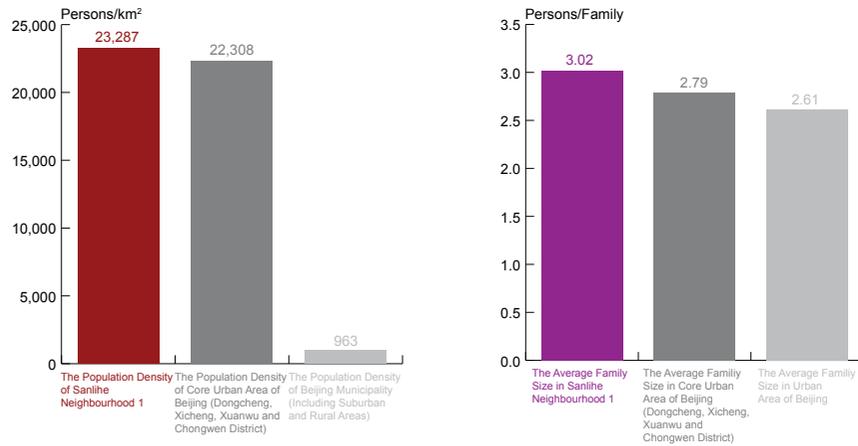


Figure 12.8  
Population density (left) and the average family size (right) of Sanlihe Neighborhood 1 in comparison with the average data of Beijing

In the mean time, the proportion of the elderly (60-year-olds and above is 2,028 people in total) in the neighborhood is higher than the average level of the city (figure 12-9). But the educational level of local residents largely exceeds the average level as well (figure 12-10): the residents who have the diploma of higher education are over 5,000. Additionally, there are approximately 90 disabled living in this community.

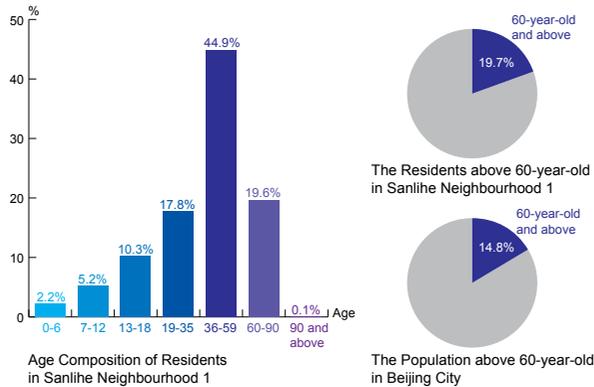


Figure 12.9  
Population age structure of Sanlihe Neighborhood 1  
(Source: Shequ Committee of Sanlihe Neighborhood 1; charts by author)

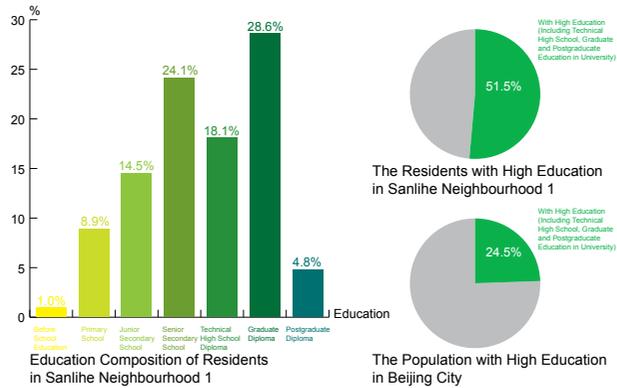


Figure 12.10  
 Population educational structure of Sanlihe Neighborhood 1  
 (Source: Shequ Committee of Sanlihe Neighborhood 1; charts by author)

#### § 12.1.4 Shequ (Community) Management in Sanlihe Neighborhood 1

The original dayuan community has been retained and transformed into a shequ in the reform of urban governance system. Sanlihe Neighborhood 1 Shequ, which is famous for its well-organized shequ management and service, is entitled by the government as a representative case of shequ development (the “Exemplified Civilized Shequ”) in Beijing. The shequ communal facilities include the community library, gym, clinic, club, daytime care for the elderly, home appliances repair, housing and infrastructure maintenance, police station and sports fields, in which the service to the elderly and the disabled is particularly emphasized. The irregular community events and training courses are also often organized by the shequ committee (figure 12-11). In addition, the community development starts to be emphasized in the “virtual reality” – Shanlihe Neighborhood 1 is one of the first shequ to establish their own website for the residents.



Figure 12.11  
*Main office of Sanlihe Neighborhood 1 Shequ Committee (left) and community events (open-air cinema, right)*

### § 12.1.5 Public Space/Facilities and Accessibility of Sanlihe Neighborhood 1

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As an urban area originally planned for the central government offices and housing development, abundant and diversified public space/facilities were set up in the Sanlihe area after about 60-years of urban development. There are a great number of places for public use in and surrounding Sanlihe Neighborhood 1. They cover different scales: from the places on the national or urban scale (central governmental offices, department stores, hypermarkets, famous restaurants, etc) to those on the district, neighborhood or block scale (schools, kindergartens, community centers and parks, sports fields and playgrounds, as well as many small businesses – local shops, restaurants, cafés, tea houses, barbershops, foot massages and roadside stalls) (figure 12-12). Yuetan Nanjie, a street to the south of the neighborhood, has been developed as a commercial sub-centre of the Xicheng district. Many commercial and recreational facilities have also been developed along the Sanlihe Donglu to the east. In contrast to those two busy streets, the Yuetan Beijie to the north of the neighborhood is rather local and quiet (figure 12-13). All those public space and facilities facilitate the social life and daily round for the local community.



Figure 12.12  
Public spaces and facilities in and surrounding Sanlihe Neighborhood 1



Figure 12.13  
Yuetan Nanjie (left), Sanlihe Donglu (middle) and Yuetan Beijie (right)

As a neighborhood located in the central area of the city, Sanlihe Neighborhood 1 is well accessible by both public transport and private car. More than 10 bus lines pass by the neighborhood next to three main urban streets – Sanlihe Donglu, Yuetan Nanjie and Yuetan Beijie. Thanks to the original “Neighborhood” planning concept, the road system inside the neighborhood was designed to avoid passing-by car traffic. However,

while the roadsides of many urban streets and neighborhood roads are all occupied for car parking and the underground parking has been introduced through the urban reconstruction, the shortage of parking spaces is still growing due to the increasing amount of private cars in this neighborhood which originally was only designed for pedestrians and cyclers. The illegal parking is thus common along the neighborhood roads, as well as in the not-yet-renewed blocks (figure 12-14).

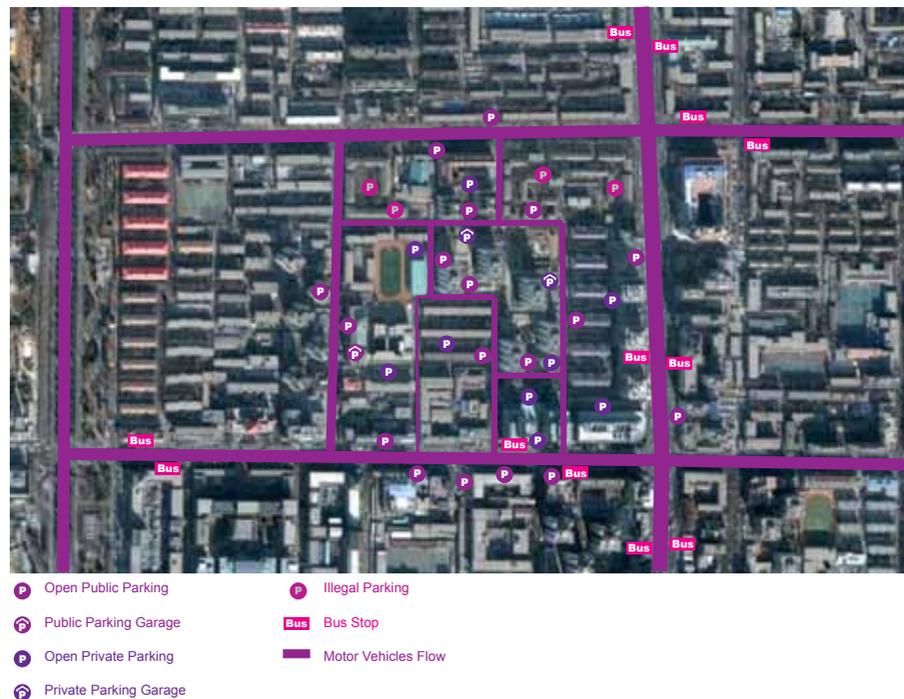


Figure 12.14  
High-speed (motor vehicle) traffic and car parking in and surrounding Sanlihe Neighborhood 1

On the other hand, the commercial space along Yuetan Nanjie and Sanlihe Donglu also brings a huge pedestrian flow along the south and east edges of the neighborhood. In terms of the originally planning and the new interventions (such as road bumps) to slow down the car traffic, the road system within the neighborhood is friendly for walking and cycling. For the local residents, there are also many low-speed shortcuts within the blocks (figure 12-15).



— Pedestrian and Cycling Flow

Figure 12.15  
*Low-speed (pedestrian and cycling) flow in and surrounding Sanlihe Neighborhood 1*

### § 12.1.6 Housing Stock in Sanlihe Neighborhood 1

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Along with the 60-year neighborhood development, the current housing typologies in Sanlihe Neighborhood 1 are so multifarious that include the multi-storey and high-rise residential buildings developed from the 1950s to the 2000s, which are composed of different dwelling types (figure 12-16). Those dwellings meanwhile cover different categories, including the former public housing, the subsidized owner-occupied housing (resettlement housing and affordable housing) and the market housing. In addition, it is estimated that about 10% of privatized public housing has been rented out by the owners. As a result, a certain differentiation of housing stock and the mixture of different social groups have become possible.



## § 12.1.7 Existing Physical Morphology of Sanlihe Neighborhood 1

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The housing and public buildings that were developed in different periods are also present in different physical morphologies. The analysis of building heights and urban street façade reveals a hybrid situation (figure 12-18). From the overview of the physical urban morphology of the neighborhood, we can easily observe its diversity as well as its fragmentation, which implies the insufficient count on urban design in particular in the urban reconstruction.

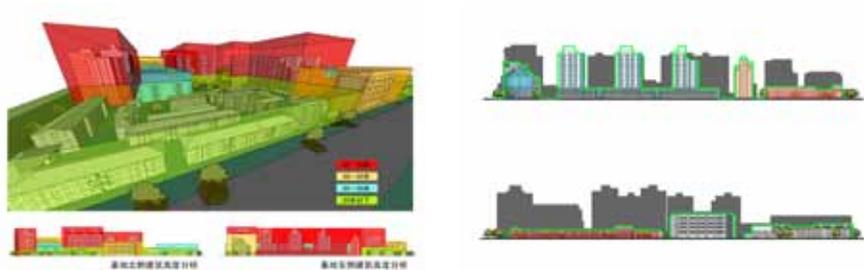


Figure 12.18  
*Analysis of building heights (left) and major urban street façades (right) in Sanlihe Neighborhood 1 (Drawing by Ren Lei)*

However, in comparison with the disconnected design of building forms, the outdoor environments, especially the green landscape, in Sanlihe Neighborhood 1 was well designed and organized, regardless of the original or reconstruction planning. Different from a fragment overall panorama, the street view and living environment inside the neighborhood is rather quiet, harmonized and user-friendly (figure 12-19).



Figure 12.19  
*Outdoor environments and street view inside Sanlihe Neighborhood 1*

In all, as a typical neighborhood stemming in a dayuan community, Sanlihe Neighborhood 1 in many aspects is a representative case of existing former public housing areas in Beijing, with their general characteristics, advantages and problems. Under this characterized urban context, it is reasonable to choose the still retained former public housing blocks, which are usually a result of the present dilemma of urban renewal, in this neighborhood as the pilot research projects.

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## § 12.2 Site Research of Block 1

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As aforementioned, Block 1 is one of two retained housing blocks that were built in the 1950s in Sanlihe Neighborhood 1<sup>2</sup>. This Soviet-style courtyard housing block is situated in the northeast corner of the neighborhood. The Sanlihe Donglu is adjacent to the east edge of the block and the Yuetan Beijie is on the north edge. To the west and to the south, Block 1 is enclosed by the housing blocks reconstructed during the period of 1996 to 2004 (figure 12-20). Apart from the courtyard, dwelling-unit apartments and a tongzilou dormitory building built in the early 1950s, the residential buildings inside the block include two multi-storey apartment buildings inserted at the end of the 1970s, a tongzilou transformed from a 1970s office building and some single-storey temporary houses.

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The other block in Sanlihe Neighborhood 1 retained from the 1950s is the so-called "Beijianwei Block" at the northwest corner of the neighborhood.



Figure 12.20  
Block 1 in Sanlihe Neighborhood 1

Actually, Block 1 was first included in the reconstruction plan at the beginning of the 1990s. But due to the complicated property ownerships and tenant composition (buildings belong to several different danwei), the agreement on officially starting the reconstruction were never reached between the urban renewal agency, danwei and the residents. Although the reconstruction was never implemented, the threat of demolition meant the buildings out of maintenance and the continual moving on of the well-off. The existing Block 1 is facing the realistic problem of deterioration and decline. The living conditions evidently have to be improved.

### § 12.2.1 Socio-Demographic Structure, Housing ownerships and Management

Officially, there are 379 registered households (according the hukou registration) of the residents in Block 1. But in comparison with other blocks in Sanlihe Neighborhood 1, the social composition, as well as housing ownerships, in this block is rather complicated. Even before the housing reform, the dwellings in the block accommodated the tenants from five different danwei. After the housing reform, most of the apartments were sold except the non-apartment dwellings which were still kept in publicly rented. Presently, the officially registered 379 households include:

- 157 households whose dwellings used to belong to Guojiajiwei (the present Guojiafagaiwei), which has been privatized;
- 70 households whose dwellings used to belong to Sino-maps Press but has been privatized, which concentrate in Building 1, 2 and 4;
- 69 households in the dwellings of Building 8 (a tongzilou) belonging to State Bureau of Radio, Film and Television, which are still public rented;

- 68 households in the dwellings of Building 16 (a tongzilou) belonged to Beijing NO.1 Building Maintenance Company, which are still public rented;
- 15 households in the single-storey, temporary houses belonging to Beijing NO.1 Building Management Company, which are still public-rented (figure 12-21).

In addition, in order to prepare for the renewal, the 25 public housing apartments, of which the tenants have surrendered, are taken over and still owned by the Guojiafagaiwei.

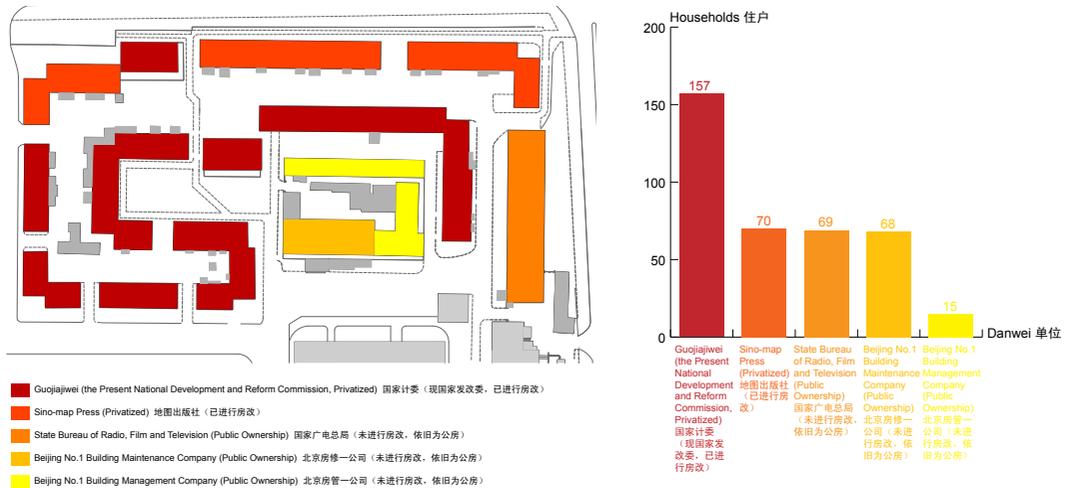


Figure 12.21  
Resident composition and housing ownerships in Block 1  
(Source, CPMC; drawing and chart by author)

At the same time, the dwellings of Block 1 include different types, which mean that they were designed and allocated to the tenants from different political ranks or social background. For instance, the 4-or 3-bedroom apartments was allocated for the senior and the tongzilou dormitory for the junior. Even inside a block of less than 400 households, there is the mixed social structure of the people not only from various danwei but from different strata.

Nevertheless, as a characteristic of former public housing, the ambiguity of ownership and tenure of the dwellings also exists in Block 1. In this listed urban renewal area, the retained public rented dwellings actually have been “pre-privatized” according to the policy of “Urban Renewal by Housing Reform”, while the privatized apartments are prohibited to be transacted in the real estate market. The tenure of land, outdoor space and public parts of the buildings is the property of Guojiafagaiwei. Additionally, the actual resident composition is also, to a certain extent, different with the official data. Some homeowners or tenants, who have other housing choices, have moved on

terms of the poor housing conditions, and the vacancy, illegal renting and subletting are popular, especially in those tongzilou dormitory buildings. It is estimated that the non-occupied dwellings have reached about 30% of the housing stock in Block 1, which is a proportion significantly higher the average of Sanlihe Neighborhood 1. The moving on of the well-off brings out the threat of further decline.



Figure 12.22  
*Deficiencies of public maintenance (upper) and the effort of private housing improvement (lower) in Block 1*

As it is with many other former public housing areas, housing management is a critical problem of Block 1. There is not a clarified body which takes charge of the public maintenance and management of the block after the housing reformation. While legally, as an originally “commissioned managed” housing area, the housing management should be still responsible for the task of Beijing Building Management Company, this responsibility has been increasingly blurred. The danwei are also unwilling and unable to pay much attention to taking care of this “decrepit and old” housing block, which should have been demolished based on the reconstruction plan. Thus, it is evident that the lack of maintenance on the outdoor environments and the public parts of the buildings. The privatization of public space clearly presents the deficient public management. However, the private effort to maintain and improve of housing conditions by the residents, especially the residents of occupied apartments,

is still continuous. It can be recognized from the interior redecoration of apartments, the replacement of windows, the private gardening and even the extension of private housing space via the illegal additional structure, showing that though those private behaviors partly destroyed the landscape. The insufficiency of public intervention on housing management and the private effort to improve the housing conditions are juxtaposed in one block (figure 12-22).

In 2008, as an urban beautification project for the preparation of the Beijing Olympics, the district government invested for repainting the residential buildings and rebuilding the pavements in Block (figure 12-23). After that, the leaking roofs of some buildings were repaired by their original danwei (since it was recognized that those buildings would be not demolished in a short time). Those works partly improved the outdoor public environment, and even further boosted the activities of the private housing improvement and illegal construction. But they are actually only the temporary solutions, which did not fundamentally improve the living conditions of the block.



Figure 12.23  
*Rebuilding of the block pavement before the Olympics*

## § 12.2.2 Existing Living Conditions and Socio-Spatial Morphology

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While some temporary measures to improve the living conditions have been implemented, the Block 1 of Sanlihe Neighborhood 1 is in general deteriorated. The block is still used for residential function, but the housing conditions of those former public rented dwellings are evidently outdated. Amongst all the existing houses, the apartment buildings are in the better condition. Those old apartment dwellings have relatively big living space<sup>3</sup> and their own kitchen and bathroom, which still can meet the modernized demands on the basic residential condition (figure 12-24).



Figure 12.24  
*Interior of an 1950s apartment in Block 1*

The living conditions of those non-apartment residential buildings, including tongzilou and single-storey houses, are over-congested and poor: many families of several generations have to live in a 1-or 2-room dormitory which was originally designed for young couple; some dwellings, of which the original tenants have other residences, have been sublet to the lower income “floating” population, and the residents have to share a public kitchen, toilet and water taps, as well as cook and set up storage in

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3 The apartment buildings developed in the early 1950s was designed in accordance with the Soviet housing standard – 9 m<sup>2</sup> per person, which is equal to the average housing criterion in Beijing that can be only reached in the 1990s.

the public corridor, which even increases fire risks (figure 12-25). At the same time, as the legacy of the so-called “rational design and irrational use”, a few apartment dwellings built in the 1950s so far are still shared by two households. However, the coexistence of the dwellings of different types and housing conditions also brings out a great potential: it means the mixture of the residents from different strata and actually results in a socially mixed sub-community.



Figure 12.25  
*Housing conditions of the tongzilou and single-storey houses*

On the block level, while some legally or illegally additional buildings were inserted, Block 1 is one of a few cases in Beijing that the original “double-perimeter courtyard block” morphology is retained<sup>4</sup>. The double-perimeter courtyard housing block is identified by its well-organized, communal open space system. The entrances of all residential buildings were placed on the perimeter of the block facing to the urban streets or neighborhood roads as well as the “central” inner court, which compose the major public space and “front side” of the block. The back doors and “service” colonies attached to the kitchens of the dwellings face the “second-layer” court that is the quiet “back side” containing semi-public spaces and private gardens (figure 12-26).

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The most representative case of double-perimeter courtyard housing areas in Beijing is the famous Baiwanzhuang Neighborhood (see chapter 5).



Figure 12.26  
Open space system in Block 1

In fact, the well-organized, communal open space system created the communicative places for the residents from different social backgrounds, regardless of their age, senior officers from the Guojiajiwei or the younger, junior workers from the Housing Maintenance Company, and thus promoting the social integration even inside the block. Apart from the communicative activities of the residents, this open space system also facilitated the high ratio of green space in the block, especially the arboreal vegetation.

On the other hand, the lifestyle of the users also continually reformed the block space. The flows of pedestrians and cyclers mainly come from the urban streets to the east and the neighborhood roads to the south and west, the latter of which has a major entrance of Sanlihe Neighborhood 1 for both cars, cyclers and pedestrians. The low-speed shortcuts of the neighborhood go through the gaps between buildings at the northeast and southeast corners of the block. There is also passing-by pedestrian and

cyclers flow inside the block. At the main entrances and along those flows, the local shops, which are usually transformed from the dwellings on the ground floor, and the fixed or temporary, roadside stalls have emerged. In addition, several vacant, ground-floor dwellings that are owned by the Guojiajiwei have been rented out and reused for communal facilities (figure 12-27).



A local shop transformed from an apartment



A local stall in the street



Figure 12.27  
Existing pedestrian flow, local businesses and facilities in Block 1

However, like many other former public housing areas, the outdoor living environments of Block 1 are largely destroyed by the uncontrolled activities of privatizing public space. The illegal constructions by the residents themselves, including the additional or independent structures and the extensions of private gardens, are very popular in the block (figure 12-28). Another serious problem for Block 1 is illegal car parking. The original planning in the 1950s never expected to see or have to reserve specialized spaces for parking lots. Without any public intervention, open public or semi-public spaces of Block 1 have been to a large extent occupied by the illegal and free parking from not only the locals but residents from the surrounding blocks and neighborhoods (figure 12-29). The privatization of public space has significantly damaged the originally well-designed landscape in the block.



■ The Illegal Additional Structures/Buildings in Block 1 一号院内违章加建扩建状况



Figure 12.28  
*Illegal constructions in Block 1*



● Illegal Parking in Block 1 一号院内机动车违停停放状况



Figure 12.29  
*Illegal car parking in Block 1*

In the mean time, the seemingly flourishing greenery is the result of “natural” growth rather than horticultural gardening. The public green clearly lacks in maintenance, and many private gardens have been abandoned or occupied by illegal structures. The local facilities on the block level, such as sports field and playground, are either never introduced or abandoned (figure 12-30).



Figure 12.30  
*Abandoned private garden (left) and local sports facility (right)*

### § 12.2.3 Physically Built Environment at Present

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As aforementioned, the originally designed double-perimeter courtyard block is retained in Block 1, though some “self-constructed” buildings (Building 3, 11 and 16) were inserted into the block in the 1970s. This double-perimeter courtyard design emphasized physical urban morphology as well as the quality of outdoor environment. The buildings and open space were considered as a whole, for which the double-layered buildings were placed along the perimeter of the block, and the central court and second-layer court in between two layers of buildings were preserved. The axis and symmetry were also important for the spatial layout of building cluster, which can be easily observed from the figure-ground. However, this physical morphology that overemphasized the formalistic urban design also produced some east-west oriented dwellings and corner shadows which are less adaptable to the local climate.

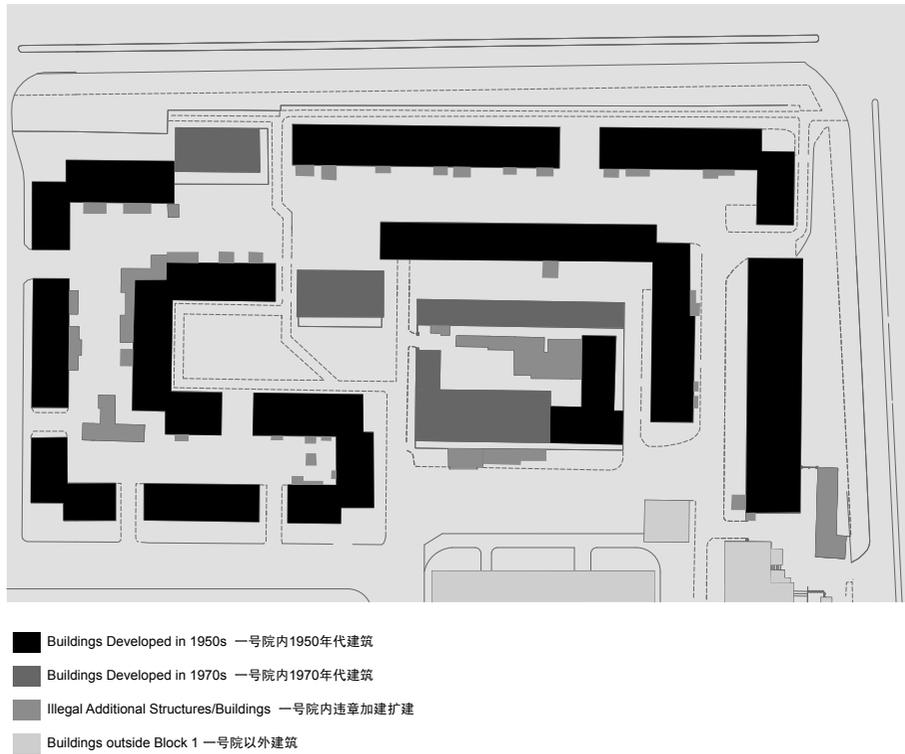


Figure 12.31  
Footprint of Block 1

Although the total floor area and rooms of each dwelling were strictly controlled under the socialistic public housing system, the “dwelling unit” housing design in Block 1 guaranteed the balance between housing diversification and standardization. In order to meet the housing demands of different families, the multiple dwelling types, including 4-bedroom, 3-bedroom and 2-bedroom apartments as well as the tongzilou dormitory, were mixed in this block (figure 12-32). The residents from different danwei, political ranks and social backgrounds share the same communal space.



Figure 12.32  
Diversified dwelling types in Block 1

Regardless of whether the apartment buildings were developed in the 1950s or the 1970s, the design of the dwellings tried to create a modern and comfortable living space under the limit of floor area, which even meet the present demands of decent houses, especially the standard of social housing, with the background of the shrinking of the family size. Access to the sun and the natural ventilation was also emphasized in those multi-storey apartments. Amongst all apartment buildings, the majority is those 3-storey, brick-concrete structures and dwelling unit apartments with slope roofs. All the 35 dwelling units of buildings contain five different dwelling types, including one type of 3-bedroom (about 70 m<sup>2</sup> per dwelling) and four types of 2-bedroom apartments (about 50 m<sup>2</sup> per dwelling) (figure 12-33). These wide-bay but short-depth floor plans combined with a high storey height (3.3 m). In comparison with the later designed public housing, the kitchens and bathrooms of those 1950s apartments are considerably larger. The service balcony attached to the kitchen is almost an obligatory design, and the apartments on the ground floor all have their spaces for private gardens. However, the problems of the 1950s design are also evident: the formalistic layout results in many east-west oriented dwellings and overshadowed corners, which no doubt reduced the interior comfort, and the independent living room is never there inside the apartments (while the bedrooms are comparatively spacious).



Figure 12.33  
*Dwelling types of the residential buildings developed in 1953*

Two 6-storey apartment buildings that were built in the late 1970s adopted the same design. In each of those brick-concrete, flat-roof buildings, three apartments on every floor can be accessed by one staircase through a short external corridor. As a kind of linear-arrayed housing design, each dwelling has a south-north orientation. In these buildings originally designed for the senior officers, there are “luxury” dwelling types (one type of 4-bedroom and two types of 3-bedroom apartments) with their own spacious living rooms (averagely about 12 m<sup>2</sup>), which were quite unique for that time period. The apartments on the upper floors all have their own balconies, and the ones on the ground floor have private gardens to the south (figure 12-34).

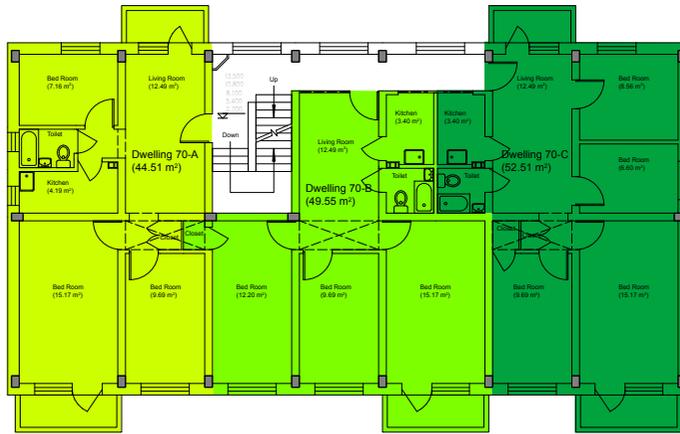


Figure 12.34  
Standard floor plan of the apartment building developed in 1979

In comparison with the apartment buildings, the tongzilou dormitories and single-storey houses are much more unwelcome. While the tongzilou built in the 1950s was proposed for the residential function, the dormitories of less than 20m<sup>2</sup> per unit and share public kitchens, toilets and water-supply no doubt cannot meet the contemporary housing demands (figure 12-35). But the housing conditions in the tongzilou built in the 1970s is even worse: in this original office that was reused as a residential building, the tenants indeed do not have public kitchen and have to cook in the internal public corridor (figure 12-36). The worst conditions are in those single-storey houses. Most of them have to share public toilets and water taps in that 1970s tongzilou within the same, walled “court inside court” at the center of Block 1 (which is the property of the former Beijing Housing Management Bureau) (figure 12-37). In those highly-dense residential environments, where the public area has been largely occupied by the private storages and kitchens, the housing problems refer not only to basic amenities but even to safety risks such as fire.

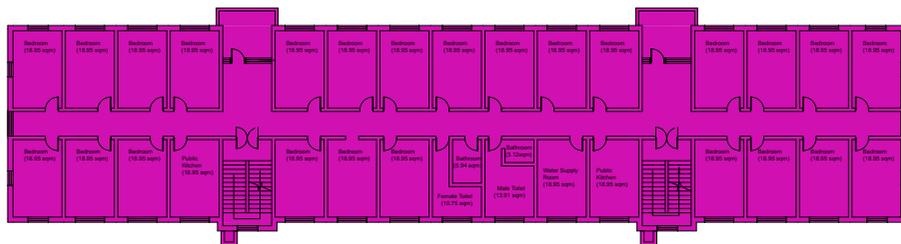


Figure 12.35  
Floor plan of the tongzilou dormitory building developed in 1953

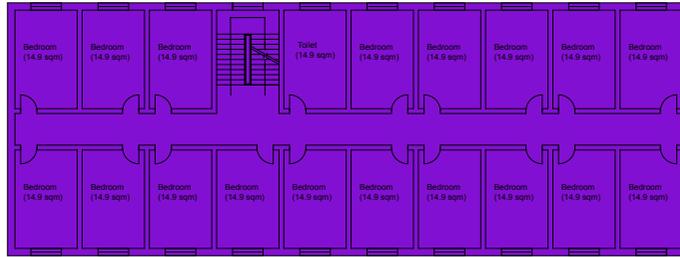


Figure 12.36  
*Floor plan of the tongzilou dormitory transformed from an office building in the 1970s*



Figure 12.37  
*The "court inside court" of tongzilou and single-storey houses in Block 1*

The architectural design of the 1950s buildings was highly influenced by the style of the Soviet "Socialistic Realism". The neo-classic formalistic design focused on the proportion and the scale of the façade, e.g. the balconies on the front side of the buildings were added for aesthetic needs and had no functional purpose. The detail ornaments in cornice, stairwells, front door, windows and balcony were well-designed with Chinese national characteristic, while the general form is western-styled. As a building cluster in the typical early-1950s style, we can see an early attempt to combine modern architectural design with local identity (figure 12-38). Meanwhile, the housing designed in 1970s also reflected the architectural identity of the time—simple, standardized and functional but with design details (figure 12-39).



Figure 12.38  
*The 1950s architecture in Block 1*

As for the technical dimension, the 1950s residential buildings in Block 1 applied the typical masonry structure system, in which the brick walls bear the loads, the building floors were made of prefabricated concrete slabs, and the slope roofs are supported by the wooden beams. A serious problem of the early structure design is the insufficiency of anti-seismic measures. Some buildings were thus partly damaged by the earthquake in 1976. Through the post-quake building repair in the 1980s, those housings have been structurally reinforced by the additional concrete pillars and beams outside the building (figure 12-40). The structural safety of the 1950s buildings, however, still needs to be scientifically tested.



Figure 12.39  
*The 1970s architecture in Block 1*



Figure 12.40  
*Additional structure for reinforcing the 1950s buildings in Block 1*

The structure design of two residential buildings developed in the 1970s after the earthquake, in comparison with their 1950s neighbors, is much improved. According to the updated building code, in which the anti-seismic measures was in particularly emphasized, the concrete structural pillars and ring beams were inserted into the brick load-bearing walls. The buildings were predicted to be structurally safe enough within their 50-year designed life.

Other building technologies are also dated, and all old buildings obviously lack maintenance. Although the housing design emphasizing the sunlight and ventilation is de facto beneficial to reduce the energy consumption, the effect of the 240mm brick wall and wooden windows on thermal insulation is still questionable. The leaking roof is another problem, while the water proof at the basement seems still fine. The old wooden elements, including doors and windows, have evident signs of decay, so that some of them have been replaced by the residents. Moreover, the aged pipework, installations and amenities of buildings and the block, such as the plumbing, heating and electricity system, are also waiting to be repaired or renewed to meet the existing requirements, in which the ecological effect is particularly emphasized. Anyhow, in the technical dimension the residential environment in Block 1 undoubtedly has to be improved (figure 12-41).



Figure 12.41  
*The external wall without a thermal-insulation layer (left) and the aged pipework (right)*

In fact, what have been outdated and deteriorated are not only the residential buildings but also the physical outdoor environments. The visitors will be first surprised by the well planted vegetation, especially the tall and flourishing arboreal trees on the open space enclosed by the buildings. The open space system in Block 1 actually supported an environment for a high ratio of greenery, including the public green and private gardens (figure 12-42). But like the buildings, the green space also lacks maintenance. As

mentioned above, a lot of public green and private gardens have been abandoned or replaced by illegal construction and car parking. Hence in many places the soil is bare without any grass or paving covers. The well-designed playground, urban furniture and other outdoor facilities are almost completely missing. Except the high-ratio green, it is a rather messy landscape in between the buildings as a result of the uncontrolled privatization of public space (figure 12-43).



Figure 12.42  
*Green space in Block 1 as it is today*



Figure 12.43  
*Messy landscape inside Block 1*

In general, the physically built environment of Block 1, either the residential buildings or outdoor environments, may be in dire need of improvement and renewal.

## § 12.2.4 Existing Dilemma of the Urban Renewal for Block 1

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As a housing block waiting for urban renewal, Block 1 has been listed in the reconstruction plan since the early 1990s. But in terms of the continual disagreement and debates between the urban renewal agency, danwei and residents, the urban renewal has never been realized.

Block 1 was for the first time designated as part of the first phase reconstruction of Sanlihe Neighborhood 1 almost 20 years ago. The urban reconstruction was commissioned as the “Construction and Property Management Center” (CPMC) under the Guojiajiwei, the biggest property owner of the neighborhood at that time. This Construction and Property Management Center is in many aspects similar to a housing corporation rather than a real estate developer. It is, on the one hand, a non-profit institution under the Guojiajiwei at the time or present Guojiafagaiwei, while on the other hand is the only stakeholder of a real estate development company, which constructed its other status. The double status of the institution founded in 1988 facilitates its dual tasks: it is responsible for the development and management of all properties under the Guojiafagaiwei, including the affordable houses for its employees; at the same time, it can earn from the real estate development to balance its investments. It is just this double status that guaranteed this institution to continue the social-oriented housing (affordable housing for civil servants) development after the radical housing reform and realize the urban renewal by the combination development of social and market housing after the stop of public funding. However, the reconstruction strategy proposed for Block 1 by CPMC, as the urban renewal agency, seems to have not been so successful.

At the beginning (before the housing reform), the site of the present Block 1 was proposed to resettle the original residents from both Block 1 and “Beijianwei” Block, the latter of which was proposed to be demolished for the extension of the auditorium of the Guojiajiwei. Nonetheless, the agreement on reconstruction was not reached between the urban renewal agency and other danwei property owners of Block 1 at that time, who often argued for a certain monetary compensation apart from the requirement to rehouse the existing tenants of their public rented dwellings in the same neighborhood. The project thus came to a halt.

Almost 10 years later after the first attempt, the reconstruction project tried to start again in 2005. Block 1 was still planned as a site for the resettlement housing development, but the proposed program of Beijianwei site was changed for the construction of civil servant housing, an affordable housing category specialized for the government employees (in this case mainly for the staff of Guojiafagaiwei) who became unable to afford the soaring price of market housing. Even the vacant apartments in the adjoining, reconstructed Block 5 were available for rehousing the residents who

would be impacted by the urban renewal. The plan for the reconstruction of Block 1 was also to combine a certain amount of market housing and commercial space in order to balance the investment. Due to the policy of Urban Renewal by Housing Reform, the party with which CPMC should directly negotiate changed to be the local residents, regardless of whether their dwellings were privatized or not. The proposal of housing removal laid down a precondition that to the living floor area of each household would be averagely increased by 50%, and of course the residents should pay for their extra living space with the price of affordable housing. However, the reconstruction met resistance again, from the residents in both blocks.

In Block 1, the difficulty was primarily from the residents' demands on rehousing. People having severe housing problems, especially the residents of tongzilou dormitories and single-storey houses, expected to largely improve their housing conditions through the renewal. As figure 12-44 presents, within the total amount of 153 households with poor housing conditions, 112 households raised so-called "excessive demands" that were unacceptable by the urban renewal agency. Many residents who originally only occupied a one-room dormitory asked for new 2- or 3-bedroom apartments or even two dwellings, as their proposals on housing removal. But for at least some of them, the housing space of the new, in situ resettlement dwellings that they should buy, even with the price of affordable housing, was an unaffordable payment. While for those who have other housing choices, the housing removal was an opportunity of housing speculation. Those "excessive demands" for bigger houses with lower payments engendered a domino effect that the residents of better housing conditions even started to request much more spacious resettlement dwellings.

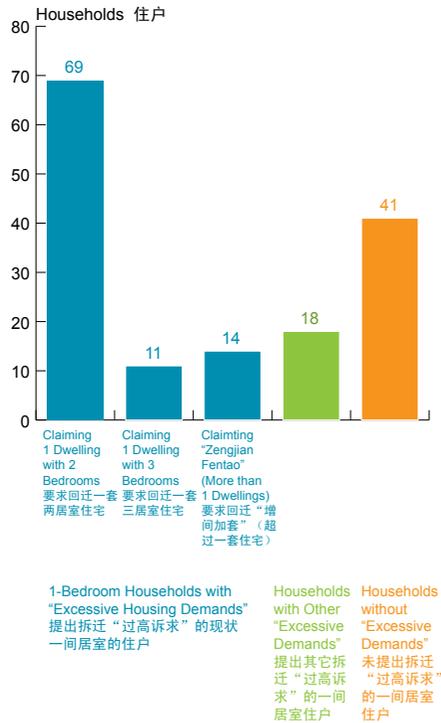


Figure 12.44  
Rehousing demands from 153 households having severe housing problems in Block 1  
(Source: CPMC; chart by author)

The enhancing demands for better rehousing consequentially led to the problem of economic imbalance. A balance estimated by the urban renewal agency in 2007 revealed that the deficit of the project would have reached 100 million to CNY 250 million if all the existing “excessive demands” were met. It is evidently impossible to ask the residents to pay for this deficit, which for them was both unaffordable and unacceptable. Therefore, the reconstruction plan for Block 1 had to be suspended once more. Here we see, as a representative case, the imbalance of housing affordability and economic feasibility of urban renewal caused by the housing privatization.

Besides the major debates on rehousing and economic balance, other arguments from the residents were rather diversified. For example, the living comfort of the newly-built high-rise apartments was questioned by some people, it is difficult for the elderly to leave their familiar living environments, the owners of local small businesses started to worry about their future and for some others this double-perimeter courtyard block had been a historical monument.

In fact, the difficulties to reconstruct Block 1 typically present the current dilemma in the urban renewal of former public housing areas. The core issue is always the conflicts between different actors. In this case, the urban renewal agency, as a “private” but not-for-profit investor without direct public funding from the government, evidently has to take economic feasibility into account as well as a more social objective – to produce additional affordable housing. The danwei, as the former or existing property owners, would like to protect their own benefits and the benefits of their employees in the game. The local residents are also certainly eager to improve their living conditions through the urban renewal, but they actually should not be regarded as one group: for many of them, especially the poor with housing problems, the improved housing conditions should be not only decent but affordable, but for some others such as the homeowners or originally public contract tenants of non-occupied dwellings, the reconstruction, as well as the housing removal, is a good opportunity for realizing their speculative benefits. Other issues including small business, historical conservation and environmental effect also start to be the rising topics in the public. The conflicts between all those very different interests in the unsuccessful attempts to reconstruct Block 1 indeed cannot be resolved according to the present housing policy, institutional framework and physical strategy of urban renewal. Within an increasingly diversified and differentiated urban society, the conventionally unitary site demolition and reconstruction indubitably ignored any other possibilities of urban renewal. Furthermore, apart from the undistinguished occupied and non-occupied housing demands, the housing right of those “floating” tenants or second tenants was never protected or even mentioned in the whole process. The non-occupied owners inevitably would like to largely increase the rate for either sale or rent if the living conditions of their properties will be improved. Thus, even if this site reconstruction by the housing privatization can be implemented, there would be an actual threat of the displacement of the low-income residents and the destruction of an originally mixed community.

### § 12.2.5 SWOT Analysis and Planning Question

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Based on the detailed site research about the existing socio-economic, community and physical conditions of the urban renewal that Block 1 of Sanlihe Neighborhood 1 has to cope with, we can summarize its strengths, weaknesses, opportunities and threats through the following table.

Analysis: Internal/external advantages and disadvantages		
	Advantages	Disadvantages
Internal	<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>- Good place of residence (the central location and well-accessible public transport)</li> <li>- Well-developed public space, communal facilities and infrastructure (in and surrounding the neighborhood)</li> <li>- Vibrant local businesses in the neighborhood</li> <li>- Mixture of different housing ownerships</li> <li>- A certain proportion of public rented dwellings and affordable rents (of both publicly and privately rented dwellings) for lower-income tenants</li> <li>- A neighborhood for the elderly</li> <li>- Well-organized, socially mixed local community and well-educated residents</li> <li>- Local (danwei and individual) will and efforts to improve living conditions</li> <li>- A typical double-perimeter courtyard housing block (with the emphasis of physical urban morphology)</li> <li>- Diversified dwelling types</li> <li>- Apartment designs adaptable to the current criteria of social housing</li> <li>- Housing designs adaptable to the current requirements on energy-saving</li> <li>- Structure reinforcement of early developed buildings</li> <li>- Well-planned and livable outdoor environments</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>- High price of market housing and speculative housing stock</li> <li>- Relatively high proportion of non-occupied dwellings</li> <li>- Poor living condition particularly in the non-apartment dwellings (tongzilou dormitories and single-storey houses)</li> <li>- Deficiency of housing management and maintenance</li> <li>- Moving on of the well-off and the threat of further decline</li> <li>- Interest conflict between different actors or groups</li> <li>- Difficulties (in terms of economic unbalance and residents' resistance) of urban renewal/reconstruction</li> <li>- Dated housing designs (especially in structure design) and aged residential buildings (expiry of designed life)</li> <li>- Physical deterioration of outdoor environments and the illegal privatization of public space (e.g. illegal construction, illegal car parking, etc.)</li> <li>- Dated and insufficient local facilities in the block (e.g. lack of parking lots, lack of playgrounds and urban furniture, etc.)</li> </ul>
External	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>- Reemphasis of social housing and interventions to restrain speculation</li> <li>- Promotion of urban renewal as an important social housing intervention</li> <li>- Promotion of shequ development</li> <li>- Increasing (both top-down and bottom-up) request to improve the living conditions of old housing areas</li> <li>- Housing maintenance and improvement as a means of resource-saving and recycling</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>- Generally capitalized and speculative urban housing stock</li> <li>- Insufficiency of social housing provision (especially in the central area of the city)</li> <li>- Deterioration of early-built and old housing areas in the city</li> <li>- Mechanisms of socio-spatial filtering and neighborhood decline</li> <li>- Threat of socio-spatial segregation</li> <li>- Aging population in general</li> <li>- Population displacement and (mixed) community destruction caused by neighborhood decline or urban reconstruction</li> <li>- Increasing interest conflicts between different actors in the urban renewal</li> </ul>

Table 12.1  
SWOT analysis for Block 1 of Sanlihe Neighborhood 1

Confrontation: Existing challenges		
	Opportunities	Threats
Strengths	<b>Offensive</b> - Social-oriented urban renewal to redevelop social housing, stabilize the local community and strengthen the local identity	<b>Defensive</b> - The stabilization of mixed community (including vulnerable groups such as those of low-income and the elderly), the provision of affordable and decent housing and the development of the concrete local economy
Weaknesses	<b>Cleanup</b> - The improvement of living conditions for the residents and the intervention to the local housing stock	<b>Survival</b> - Prevention of further decline, community destruction and socio-spatial segregation

Table 12.1  
 SWOT analysis for Block 1 of Sanlihe Neighborhood 1

For urban renewal, the concrete *issue* that we are studying, the existing challenges for Block 1 of Sanlihe Neighborhood 1 can be expressed as a planning question: *How to improve the living conditions for the local community, as well as promote social housing development, through the urban renewal of a diversified former public housing block?*

## § 12.3 Strategies and Designs for the Urban Rehabilitation of Block 1

In order to answer the planning question for the urban renewal of Block 1, the innovative, adapted and feasible strategies have to be explored according to comprehensively considering the site conditions and referable experiences. By setting up the prerequisites of social housing development, community stabilization and housing improvement, I and my colleagues in the research team are trying to develop an urban rehabilitation approach, that can replace the wholesale site reconstruction of the block, as a pilot design research for the urban renewal of those “decrepit and old” former public socialistic housing estates in Beijing.

### § 12.3.1 Objective and Principles

Preceding the existing dilemma, we propose a realistic objective for the urban rehabilitation of the Block 1 of Sanlihe Neighborhood 1: *under the precondition of guaranteeing the housing rights of the residents, to effectively and efficiently balance the public interests (including social housing development and economic feasibility)*

*and different private interests in the urban renewal.* Therefore, in order to meet this objective, the rehabilitation has to accord with the following principles:

- Improving the housing conditions as well as the living environments of the block;
- Maintaining the socially mixed community, small businesses and local identity;
- Housing socialization by the purchase of old dwellings and new housing development;
- Providing differentiated residential environments and promoting social integration;
- Realizing the economic balance by the combination development of social housing and market housing;
- Encouraging the participation of local community in the urban renewal;
- Avoiding the wholesale demolition-reconstruction by combining renovation and new construction; and
- Creating an environment-friendly residential area.

For the purpose of achieving the objective of the rehabilitation and practicing these principles, a series of physical, housing, financing and organizational strategies have been developed.

### § 12.3.2 Physical Planning and Design Strategies

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Thanks to the existing regulatory plan, in which the regulatory standards for building such as Floor Area Ratio (FAR) were developed according to the concept of site reconstruction, there is more “free space” for the rehabilitation<sup>5</sup>. Based on the results of the site research, the physical planning and design for the urban rehabilitation of Block 1 are developed according to four basic strategies.

- Combination of housing renovation and reconstruction within the existing urban fabric

In accordance with the present housing conditions of the block, the site will be divided into two parts – the renovation area and reconstruction area. Most of the apartment buildings will be retained and renovated, but the dilapidated tongzilou and single-storey houses will be demolished and replaced by new construction, which will create additional dwellings for the development of both social housing and market housing. The original double-perimeter courtyard fabric of the block should be maintained (figure 12-45).

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5 In Chinese cities, the regulatory plan has the legal status, by which any developments are regulated. The change of the regulatory plan will often result in a long and complicated administrative process.

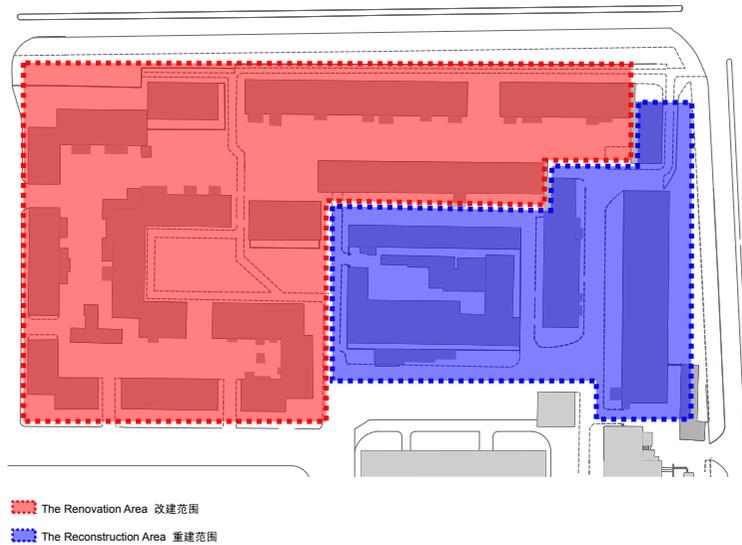


Figure 12.45  
Proposed renovation and reconstruction areas of Block 1

- Differentiation of the housing stock in the block  
For the rehabilitation of Block 1, the housing differentiation refers to dwelling types as well as ownership categories, through both housing renovation and new construction. The differentiated housing stock will not only meet the diversified rehousing demands but also attract new tenants and homeowners from different social backgrounds. A mixed community in good urban place is proposed as the identity of this block in the urban housing stock of Beijing.
- Improvement of the overall living environments of the block  
Apart from the renewal of housing stock, the improvement of the living environment of Block 1 also means the upgrading of outdoor environment and local facilities. The physical interventions will include designating new car parking and routes, renovating block landscape and greenery, introducing additional space for local facilities and small businesses, as well as retaining and strengthening the existing well-planned communal open space system.
- Application of ecological design  
Besides those “basic” initiatives for improving the housing conditions and living environments of the block, the application of an ecological and energy-efficient design and building technologies will be obligatory in the physical interventions for the urban rehabilitation. The aim is to create an environmental-friendly housing block.

A master plan, as well as the designs for the buildings and outdoor environment, is therefore laid out by applying these strategies for the urban rehabilitation of Block 1 (figure 12-46). In the following text, we will illustrate all innovative design interventions in detail.

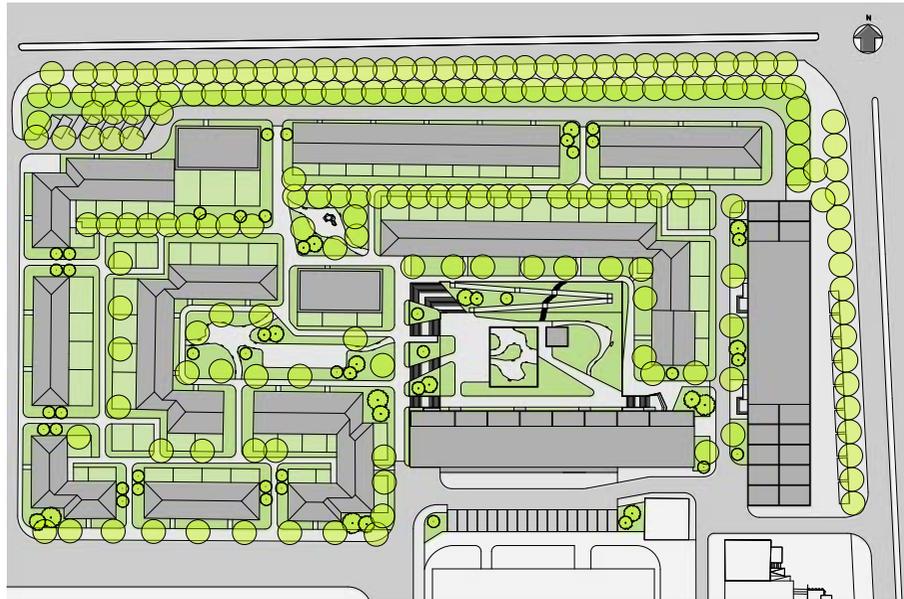


Figure 12.46  
*Master plan for the urban rehabilitation*

#### § 12.3.2.1 Renovation of Existing Apartment Buildings

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Since most of apartment dwellings can basically meet the modern housing demands, it is proposed to retain and renovate them. However, the apartments designed in the 1950s are unsatisfactory due to their dated room partitions, i.e. the lack of an independent living room. The living space of those old apartments also is too congested for some families. The illegal housing extensions have largely destroyed the overall living environment, while it contributed to the improvement of private housing conditions. But the housing demands of various residents and owners are undoubtedly differentiated. In addition, those apartment buildings evidently have gotten technically outdated and deteriorated. Therefore, a design concept of “selectable menus” is

defined for the renovation of the 1950s apartment buildings in order to technically improve the building conditions, optimize the housing space and functions, and meet the differentiated housing demands.

What is meant by “selectable menus” renovation is to separate the responsibilities of public and private actors in the housing renewal. The urban renewal agency and danwei will be responsible for renovation of the public parts of the old buildings. For facilitating the potential demands of housing extension, the additional, load-bearing structural frame will be first and uniformly attached to the existing buildings (figure 12-47). Those structures will be also used for the building reinforcement. By considering the impact to sunlight and ventilation and the conservation of historical urban form (for which the “front sides” of existing apartment buildings should be protected), the “red lines” are drawn up for controlling the additional structures (figure 12-48). In this process, the illegal structures will be cleaned up and the air conditioners, which are presently irregularly scattered on the building façades, will be reset on the settings that should be specified for each apartment by the additional structural frame.

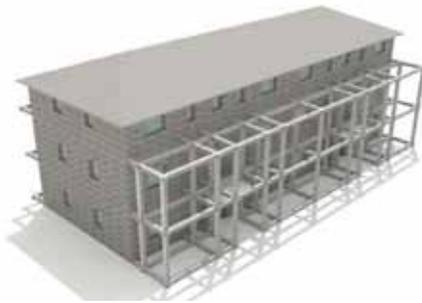


Figure 12.47  
Additional structural frame for the housing renovation  
(Drawing by Guo Xinyi)

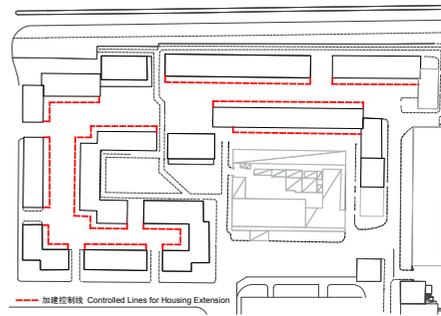


Figure 12.48  
The “red lines” for controlling the additional structures in Block 1

The urban renewal agency will also invest in the public parts of the existing 1950s buildings for technical upgrading. The aged building structures, including the roofs, walls, floor slabs, and staircases, have to be renewed or modernized. The decayed front doors and windows, as well as water-supply, drainage, heating or electricity pipelines and installations, must be repaired or replaced by applying the adapted technologies to shorten the construction period. Safety equipment, such as access controls, intercom and electronic surveillance systems, should be added. The main building façade will be cleaned and restored according to its historical image, and the interior of stairwell will be repainted. In all these technical improvements, the ecological design and technologies will be obligatory. The renewed roofs, walls, doors, windows and pipework

should achieve the present standard on energy saving. The environment-friendly building materials must be adapted, the closed-loop water management system would be introduced and solar panels could be set down on the sunny side of slope roof in order to supply warm water for the dwellings.

In the mean time, the “selectable menus” renovation will provide the homeowners an opportunity to improve their housing conditions in accordance with their individual housing demands and economic capacities. Within the uniformly constructed additional structural frame, the owners of privatized apartments will be able to optimize and enlarge their own living spaces. In order to meet the possibly differentiated demands, multiple sets of “menus” of spatial renovation will be provided for the originally five apartment types. Those “menus” in general, include two categories: the functional adjustment and the simplified extension of home space.

As more “intensive” renovation measures, the menus of the functional adjustment of home space will provide choices for both the spatial extension and room repartition of the existing 1950s apartment dwellings. Those interventions will optimize the functionally spatial layout in the apartments so as to meet the present requirement. Each type of dwelling will acquire its own additional living room after the renovation, and the living floor area will be increased by 8-13 m<sup>2</sup>. In order to effectively reduce the construction costs and period as well as the interference to the residents, the original building structure will be retained as much as possible (figure 12-49).

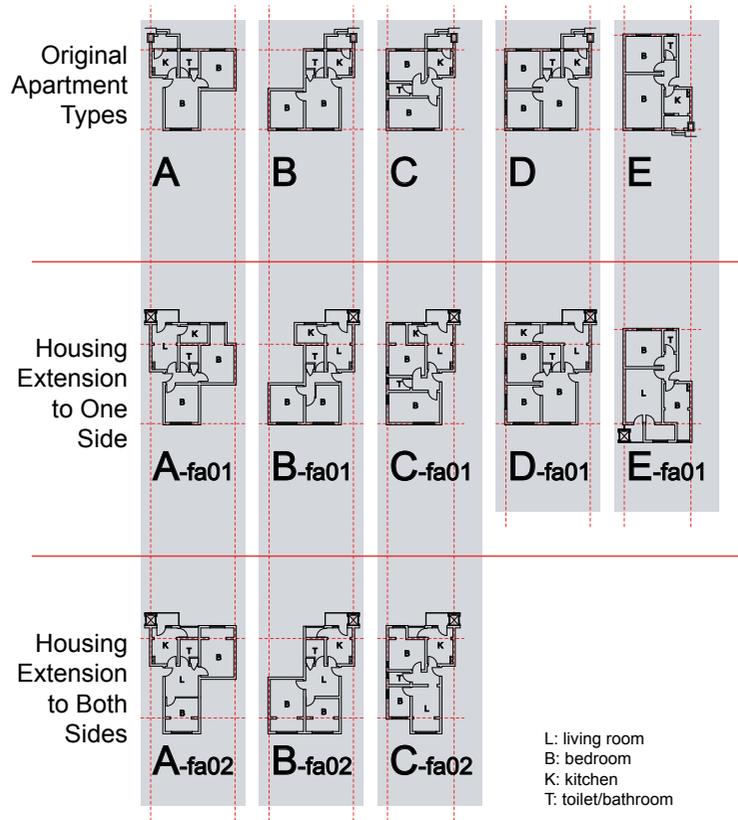


Figure 12.49  
The “selected menus” for the “functional adjustment of home space  
(Design and drawings by Hui Xiaoxi and Song Xiaoyu)

The simplified extension of home space indicates the “slighter” interventions to improve private living conditions. According to the different menus, the living floor area of existing apartments will be extended for 7-15 m<sup>2</sup>, but the original room partitions inside them will not be touched<sup>6</sup>. Most of construction will focus on the outside of the existing buildings, so that the apartments can be still occupied during the construction period (figure 12-50).

6

Although the room partitions inside the existing apartments will not be changed in the renovation menus of the simplified extension of home space, the residents, according to their actual living demands, might reuse the rooms with new functions, such as transforming one of original bedrooms into an independent living room.

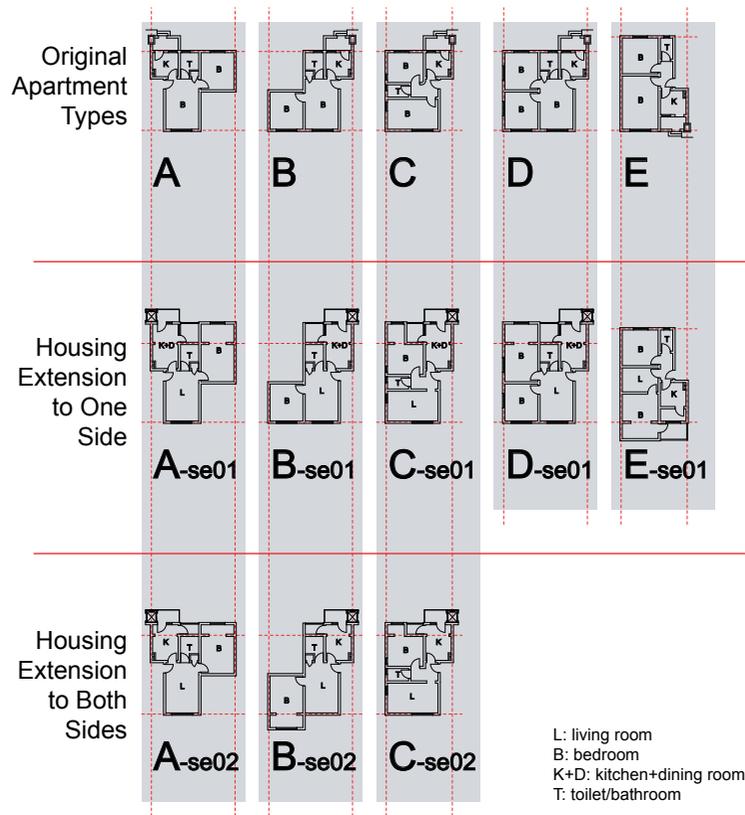


Figure 12.50  
The “selected menus” for the “simplified extension of home space  
(Design and drawings by Hui Xiaoxi and Song Xiaoyu)

Those “selectable menus” will give the residents different possibilities to improve their housing conditions. A homeowner could choose a set of menus according to his/her demands and should pay for this renovation of his/her private home space. In order to avoid the uncontrolled building damages in the “private” renovation, the urban renewal agency will provide technical advice and candidate contractors for the private owners. The façade and materials of building extensions will be also decided by the urban renewal agency. While the homeowners could renovate the interior space of their dwellings (e.g. room refurbishment and replacing amenities) based on their own wills, the menus actually will define the rules of construction. Furthermore, the homeowners will be able to select not to make any spatial adjustments or extensions of their apartments.

The renovation inevitably will refer to some constructions that have to be shared by the public and private owners. A very good example of those “shared” constructions

is the addition of new elevators. While the additional elevators are desired for some residents, especially the elderly, it might be considered by some others (such as the residents on the ground floor) as a disturbance. The construction of new elevators could be only realized with the support from the urban renewal agency and danwei, who are the owners of the public parts of building. In the “selectable menus”, the addition of new elevators, which should apply the adapted designs and technologies in particular for the renovation, will be set as an optional choice that would be implemented if the agreement can be reached between the homeowners.

Besides those design or technical measures, the “selectable menus” renovation might also set up a platform to deal with the conflict between the neighbors, which is usually caused by the private extension of home space. The urban renewal agency will create an open forum and give guidance for the negotiation of the neighbors to decide the designs of renovation. In fact, the “selectable menus” approach creates the possibility of starting “pilot projects” for the home renovation. After the establishment of the additional structural frame, the urban renewal agency could, at first, start the renovation, including the functional adjustment and the simplified extension of home space, for the retained, vacant former public housing apartments and any old dwellings that would be purchased and re-socialized by the agency. Those “pilot projects” of home renovation will be the most vivid and convinced examples to encourage the participation of private owners in the renovation.

In general, the “selectable menus” renovation of the 1950s apartments will result in the phenomenon of changed dwellings in an integrated building cluster, from the angle of both physical morphology and community life (figure 12-51).



Figure 12.51  
*Perspective of the renovated 1950s apartment building*  
(Drawing by Song Xiaoyu)

In comparison with the renovation to those early-developed, Soviet-style buildings, it will be less complicated to renovate the apartment buildings built in the 1970s. Due to the still applicable design of the dwelling types, the spatial extension or adjustment for the apartments in these two buildings is almost not a necessity. The measures of renovation will focus on the technical improvement, including the interventions for promoting energy efficiency. Apart from the repair of building façades, the most significant intervention will be the new addition of slope roofs that are composed of solar panels. This new, ecological roof will not just improve the roof insulation but also produce new source of warm water for the old buildings. In addition, the external public corridor actually facilitates a suitable place for the addition of new elevators, without the inference to the residents (figure 12-52).

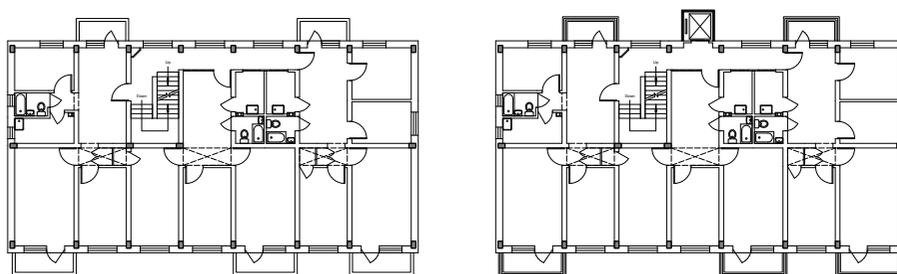


Figure 12.52  
Standard floor plan of the 1970s apartment building before (left) and after (right) the renovation

### § 12.3.2.2 New Buildings on the Site of Reconstruction

The site of reconstruction will include two tongzilou dormitory buildings, the single-storey houses and some apartment buildings which will be impacted by the new construction. The existing over-deteriorated tongzilou buildings and single-storey houses are planned to be totally demolished and replaced by a high-rise building and a mid-rise building on their original site. The shadows of the new buildings will highly impact the access by the sun of four dwelling units of the east-west oriented apartments developed in the 1950s, so that they would not be used as permanent residence any more. Two dwelling units will be demolished as well to spare space for new buildings whilst the other two are proposed to be transformed into short-stay or guest houses. All the existing residents of the buildings planned to be demolished will be rehoused in the same block.

The new construction of a high-rise apartment building will be placed on the site of the existing 1950s tongzilou. This high-rise could be considered as the extension of the present high-rise building cluster on the east edge of Sanlihe Neighborhood 1, and a completed “neighborhood façade” thus would be formed along the Sanlihe Donglu. This new building is planned to rehouse the households currently having housing problems in the block. Most of them presently live in the tongzilou and single-storey houses that are designated to be demolished. According to their demands for rehousing, including those “excessive demands”, and the requirement to rehouse the residents in those four dwelling units of apartments (including 15 units of 2-bedroom apartments and 9 units of 3-bedroom apartments), the high-rise have to contain at least 191 dwellings as resettlement social housing<sup>7</sup>, which should include 20 units of 3-bedroom apartments, 116 units of 2-bedroom apartments and 55 units of 1-bedroom apartments. In addition, the requested building programs also include the additional social housing and market housing as well as the commercial space along the Sanlihe Donglu.

Preceding this complicated and diversified brief, the design of a high-rise slab is developed. The 60-meter-high building is the result of the stacking of programs: the two floors immediately above the ground level and two-storey-high basement are mainly designated as commercial or office space and the upper 17 floors are proposed to be residential, in which the dwellings on the top and to the south will be developed as owner-occupied market housing (figure 12-53).

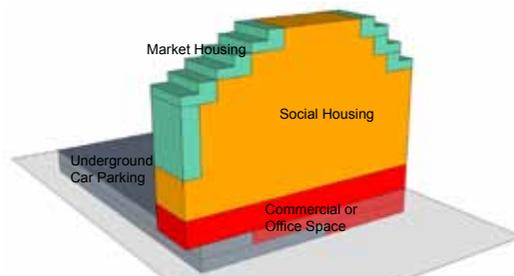


Figure 12.53  
*Programmatic scheme of the new high-rise building*  
(Design and drawing by Hui Xiaoxi and Song Xiaoyu)

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7

According to the social-oriented rehousing strategy developed by the research team, the non-occupied homeowners and tenants will not enjoy the resettlement social housing. Therefore a certain proportion of those among the total number of 191 dwellings might be used as additional public rented housing.

For the housing design, the concept again is the housing differentiation within an integrated plan. A basic building “module” of 5.1 m x 6.9 m is set up for housing development, and the multiple compositions of this module will result in different types of dwellings. Two “vertical traffic cores” with two elevators and a stairwell in each will compose the “backbone” of the building. The dwellings derived from the same module will be laid out along this backbone and connected by internal public corridors to two traffic cores (figure 12-54). Thanks to the modular design, which can be referred to the design of former public housing that emphasized the balance between housing standardization and diversification, the residents, especially those who will be rehoused in this building, may choose their dwellings on their preferable floors and locations. The final design will be the balance of the opinions of the rehoused residents for their future homes.

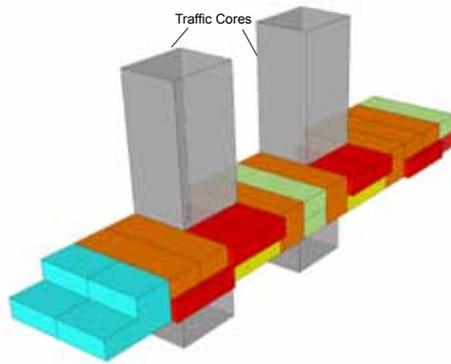


Figure 12.54  
 Composition of different types of dwellings along the traffic “backbone” of the new high-rise building  
 (Design and drawing by Hui Xiaoxi and Song Xiaoyu)

As same as the “selectable menus” renovation, the modular design for the new housing construction will also provide different “menus” for the residents. Developed from the same basic module and considering the present design standard of social housing, the dwellings mainly designed for resettlement housing and new social housing include four types: a 1-bedroom apartment of 40m<sup>2</sup>, a 2-bedroom apartment of 71m<sup>2</sup>, a 2-bedroom apartment of 80m<sup>2</sup> and a 3-bedroom penthouse of 97m<sup>2</sup> (figure 12-55). The latter two types might also be developed as market housing for sale. In order to avoid the excessive sunshine, the foldable sun blinds will be set on the façades of those east and/or west oriented dwellings.

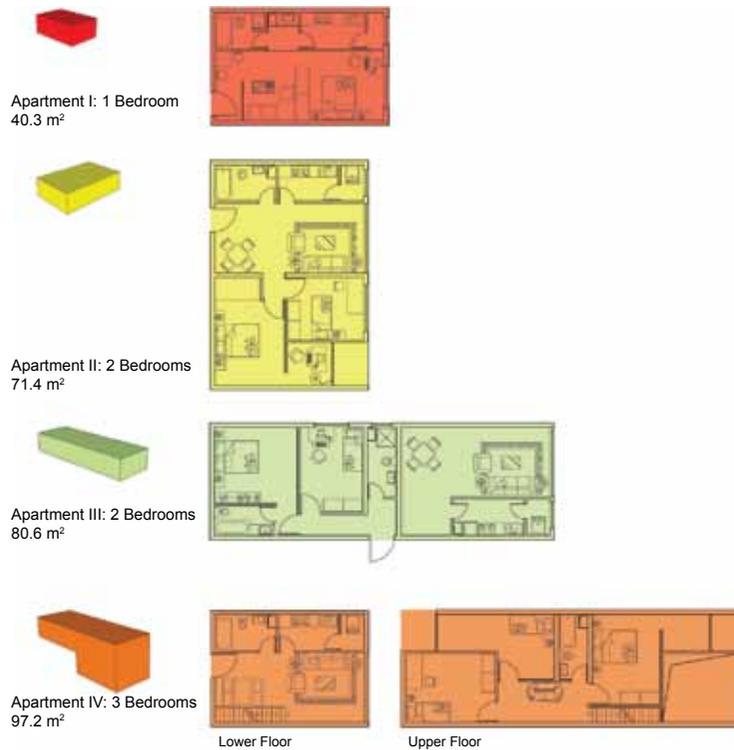


Figure 12.55  
*Designs of the dwelling types for the resettlement housing and new social housing in the new high-rise building*  
 (Design and drawings by Hui Xiaoxi and Song Xiaoyu)

Besides those “ordinary” dwelling types, a unique design of step-like, penthouse dwellings is developed and proposed to be placed on the top floors of the high-riser (figure 12-56). Apart from the more spacious living floor area (112 m<sup>2</sup>) and a roof garden, the uniqueness of this type of 4-bedroom dwelling, in comparison with other dwelling types that are mostly east-west oriented, derives from its “third” orientation to the south or north, which will lead to the better access to sunlight or ventilation and also means the competitiveness in the housing market of Beijing. Those penthouses are particularly planned to be developed for market housing, of which the target group will be the well-off residents.

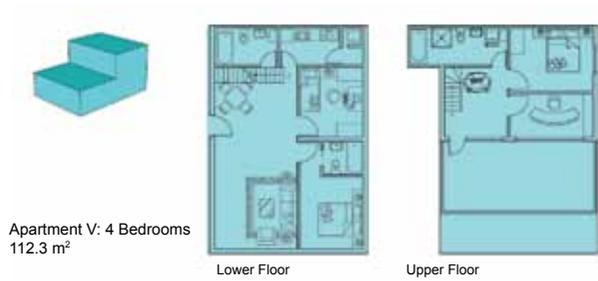


Figure 12.56  
 Design of the penthouse dwelling in the new high-rise building  
 (Design and drawings by Hui Xiaoxi and Song Xiaoyu)

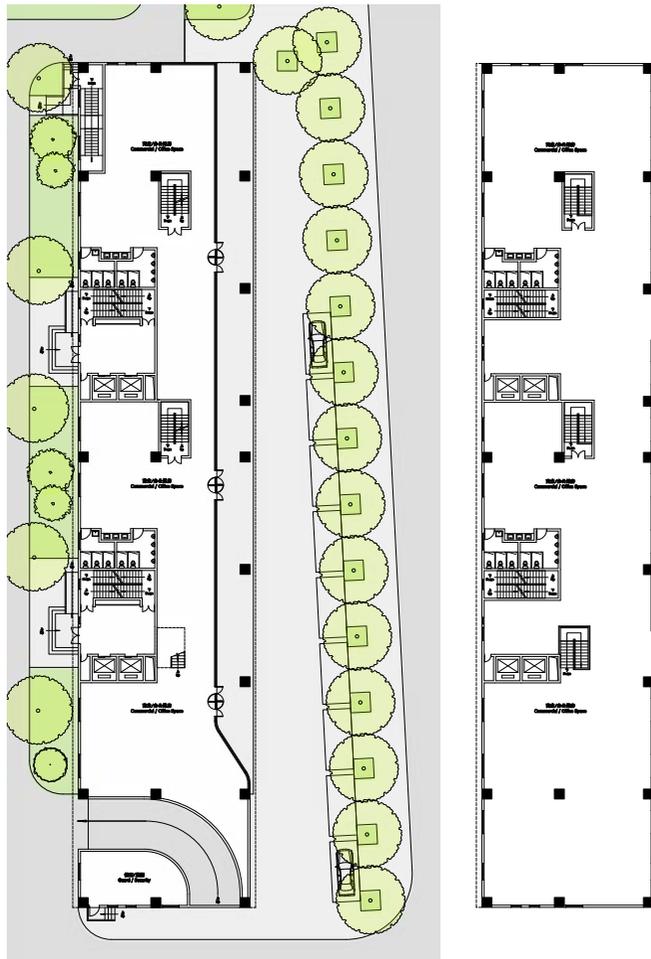


Figure 12.57  
 Ground floor plan (left) and first floor plan (right) of the new high-rise building  
 (Design and drawings by Hui Xiaoxi and Song Xiaoyu)

On the ground floor and first floor of the high-rise slab, there will be the space for commercial or office function. This space facing the main street via a porch is actually the extension of the existing commercial area along the Sanlihe Donglu. The commercial space can be partitioned according to the demands of renters, and extended to the basement through three independent staircases. At the south end of the ground floor space, a specified area is designed to build the exit of underground parking garage and a room for security surveillance (figure 12-57).

Adjacent to the high-rise building, a multi-storey building, also with the stacking of programs, will be constructed on the site of present the 1970s tongzilou and single-storey houses. The ground level of this building complex will facilitate the space for communal facilities and small businesses, and the two floors of basement will be utilized for underground car parking. The upper floors are proposed to accommodate the homeowners of newly-developed market housing (figure 12-58).

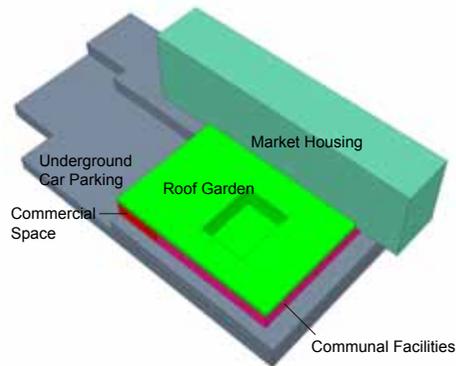


Figure 12.58  
*Programmatic scheme of the new multi-storey building*  
(Design and drawing by Hui Xiaoxi and Song Xiaoyu)

The dwellings in this multi-storey building include two types of apartments: a 2-bedroom apartment of 106m<sup>2</sup> and a 3-bedroom apartment of 147m<sup>2</sup>, the latter of which will be placed at the east and west ends on each floor (figure 12-59). As the “extension” of six high-grade, multi-storey apartment buildings in the adjoining Block 5, those spacious, south-north oriented dwellings, which will situate in a desired place of residence in the city, would be rather competitive in the real estate market.

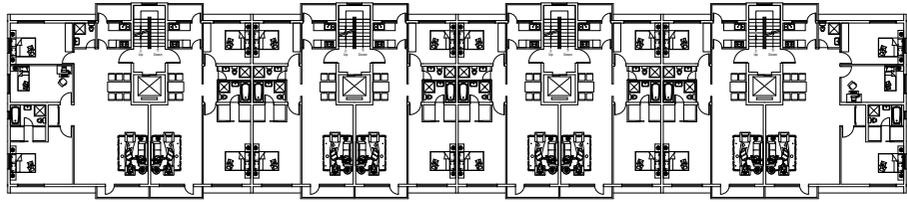
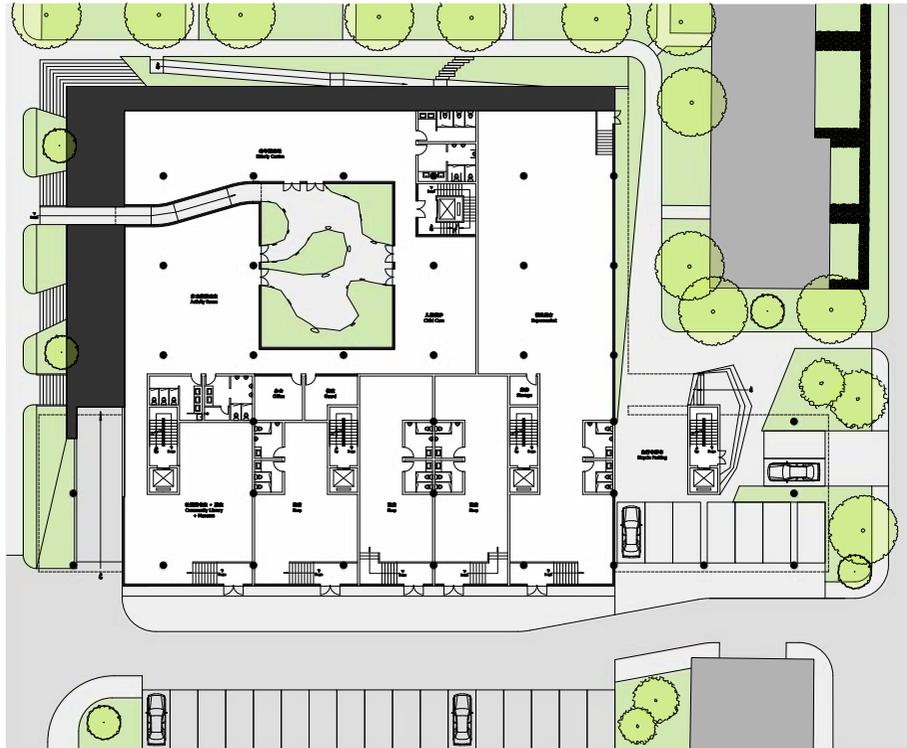


Figure 12.59  
Standard floor plan of two dwelling units of the new multi-storey building  
(Design and drawing by Hui Xiaoxi and Song Xiaoyu)



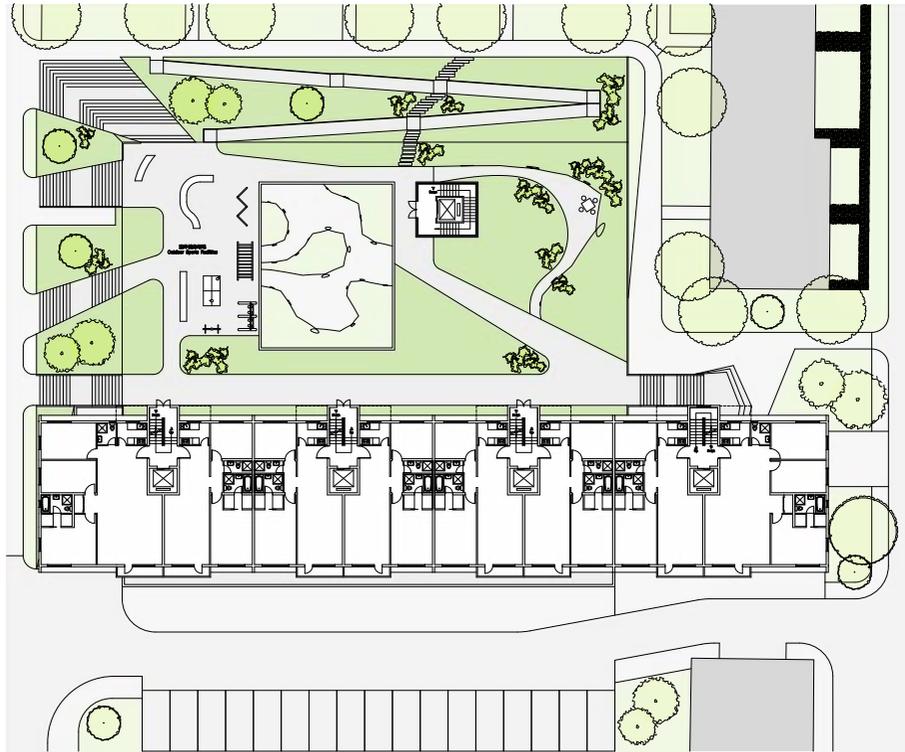


Figure 12.60  
 Ground floor plan (opposite) and first floor plan (above) of the new multi-storey building  
 (Design and drawings by Hui Xiaoxi and Song Xiaoyu)

Beneath the high-grade apartments, the semi-underground, ground floor of the building is designed as the space for the local community. The south area along a major neighborhood, pedestrian and cyclist route will mainly contain the space for local commercial and service businesses. A community library plus tea house, which will also work as a small “museum” to exhibit the history of the neighborhood, is placed at the south-east corner of the ground floor. Next to this community library, there will be the covered entrance of underground parking at the west end. At the east end of the ground floor, opposite to the existing garbage station and thus not a suitable place for local businesses, a covered exterior space is designed for the ground parking of cars and bicycles. This exterior space beneath the cantilever-like upper storeys will also provide a sight access to the inner court of the block. Apart from those functional areas almost on existing location the 1970s tongzilou, the ground floor space of the planned multi-storey building complex will deeply extend to the north and cover the present “court inside court”. In this north area of the ground floor under a roof garden, a new “communal house” of local facilities, including a community meeting room (which can be seen as the extension of the community library), an elderly center and a youth

and child care centre, are laid out by enclosing a patio in the centre, which will form a closed, outdoor leisure space or playground (figure 12-60).

A public roof garden above the communal house will provide an open public space with green landscape, a small square and sports facilities. Thanks to the pyramid-like design, the slopes in the west and the north will extend the inner court of the block to the elevated roof garden. Most of the entrances to the residential area of the new multi-storey will access to the roof garden. This elevated platform will condition a communicative place for the people living in both the renovated old houses and the newly-developed market housing apartments (figure 12-61).



Figure 12.61  
*Roof garden of the new multi-storey building*  
(Drawing by Song Xiaoyu)

In order to solve the problem of car parking, the underground space of reconstruction area should be efficiently used. The multi-storey and the high-rise are actually designed as two buildings on one basement. The two-storey basement will together provide an underground parking garage for 204 cars. Apart from the commercial space, the underground space of the high-rise building will also facilitate a bicycle parking lot (figure 12-62).

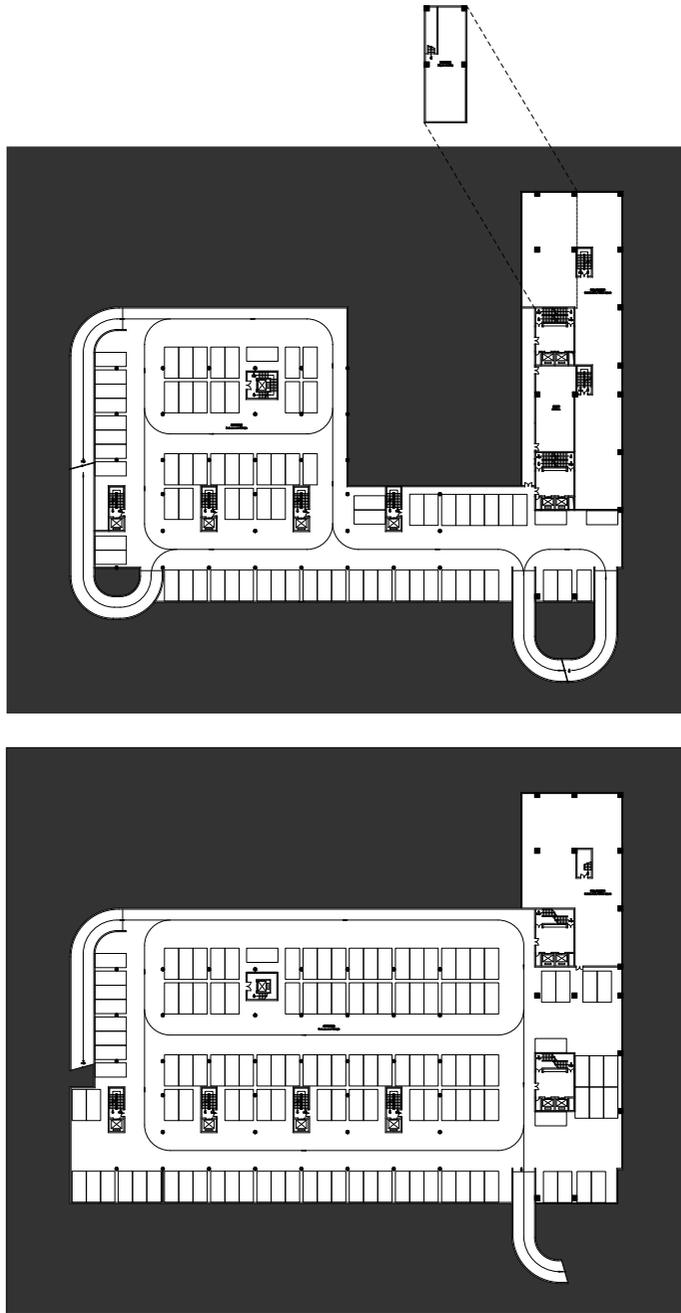


Figure 12.62  
Floor plans of basement 1 (upper) and basement 2 (lower) of the newly constructed buildings  
(Design and drawings by Hui Xiaoxi and Song Xiaoyu)

Different from the building renovation, in which the historical form is particularly emphasized, the architectural design of the new buildings is identified by their striking image. As a kind of “Form Follows Function”, different dwelling types are given their own “identity colors”. The identifying color will be shown on the façade of each dwelling, especially on the protruded frame, balcony and foldable sun blinder. The assembling of different dwelling types in one building, which can be seen as a “collective” design process of the residents together, will result in a colorful and impressive building façade. This façade will be temporally changed along with the daily use of foldable sun blinders (figure 12-63).



Figure 12.63  
*Impressive building façade of the new high-rise building*  
(Drawing by Song Xiaoyu)

On the other hand, the design of new building forms also shows a certain respect to the existing Block 1 and its surroundings. The new buildings are actually proposed to be precisely set up on the sites of demolished buildings in order to maintain the existing urban fabric. The high-rise slab is designed for the completion of the “neighborhood façade” along the Sanlihe Donglu whilst the multi-storey building will play a role as a morphological “interface” between Block 1 and the linear-arrayed, mid-rise apartment buildings in the adjacent Block 5. Except those colorful elements, the façades of new buildings is designed to be mainly covered by the gray brick tiles, which will be harmonized with the retained buildings in the block. The only exclusion will be the commercial space in the new high-rise: its façade design and materials would help everyone remember the demolished tongzilou building made of red bricks (figure 12-64).



Figure 12.64  
*Building façade of the commercial space of the new high-rise building*  
(Drawing by Song Xiaoyu)

As with the spatial and programmatic layout, the design of architectural image for those new buildings also presents the harmonization of differentiation and integration. The differentiated color units will be inlaid in a morphological frame that is integrated into its surroundings, but this striking building form would construct an exclusively identity for the block (figure 12-65).



Figure 12.65  
*Perspective of the newly constructed buildings in the block*  
(Drawing by Song Xiaoyu)

Last but not least, the ecological designs and technologies are also planned to be widely applied in the new construction. There will be the specified parking space for bicycles to promote the “green” traffic. The enlargement of south-oriented façades and the setting of sun blinders can be seen as the design efforts for energy saving, the solar panels will ornament the roofs of new buildings and also produce the energy, the water management system will supply “gray” water for toilet flushing, and the building materials are obligated to be environmental-friendly.

§ 12.3.2.3 **Redesign of Outdoor environments of the Block**  
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Besides the building renovation and new construction, the physical interventions for urban rehabilitation also include the improvement of the quality of outdoor environment. After the cleaning up of the illegal construction and car parking in Block 1, the redesign of outdoor space is an inevitable step for improving the overall living environments of the block. The interventions will focus on the car control, the redesign of green landscape and the optimization of communal space system.

Preceding the challenge from the increasing private cars in the former public housing neighborhoods, a new traffic control system is planned for Block 1 to avoid the interference from car traffic and parking. The only ring route for auto vehicles will be placed on the perimeter of the block, with the entrance at the northwest corner and the exits in the southeast. This car route will also access to the underground parking garage. Some ground parking lots are planned nearby the car entrance/exit of the block. In front of the new high-rise building, there will be the parking lots particularly for the visitor (figure 12-66). The inside of the block, including the inner court and the second-layer court, is planned to be only accessed by the pedestrians and cyclers. The movable car barriers will fill in the gaps between buildings so as to guarantee a car-free inside environment of the block. But the accessibility of the pathways and small squares to the elderly and the disabled is fully considered.

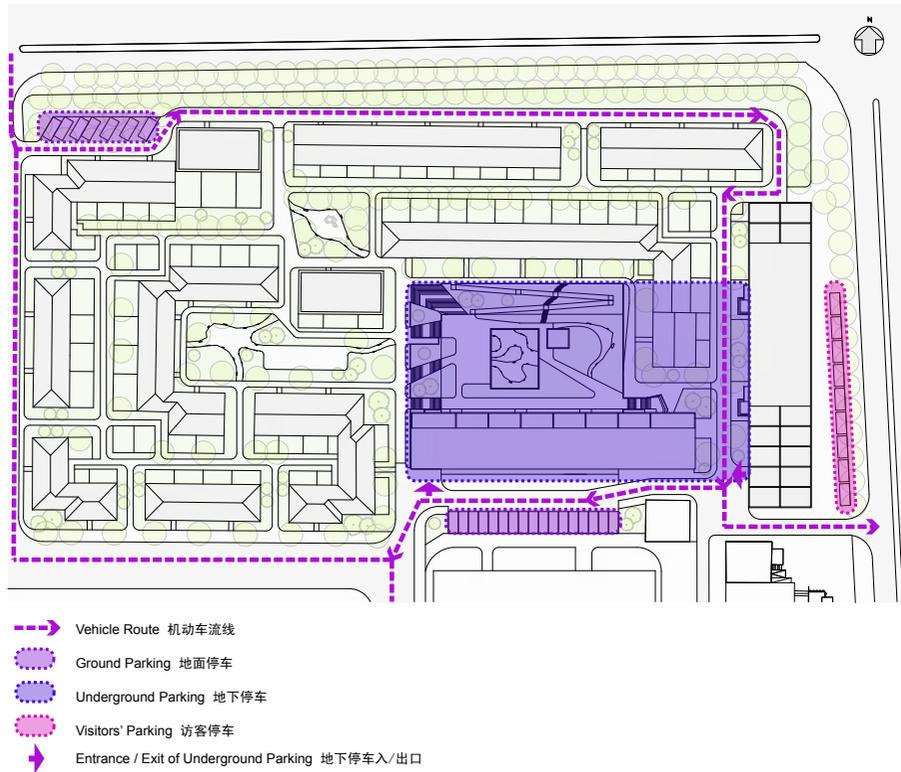


Figure 12.66  
Proposed car routes and parking of Block 1

As a block identified by its greenness, the green landscape of Block 1 is planned to be restored and improved. Most of the existing arbores will be retained, and a new "green system" will be in the block introduced by separating the public and "private" green space. The public green of the block will be concentrated in the inner court (including the public roof garden above the communal house) and an area in between two 1970s apartment buildings. Apart from the well-planted vegetation, the block public green will include pavement, small squares, urban furniture and other outdoor local facilities. Its landscape architecture to a large extent will present the spirit of traditional Chinese gardens. On the east and north edges of the block, the public green will be restored for not only the block but the city. In particular along the north edge, the arborous greenery will provide a buffer for the block, instead of the usual setting of wall or fence, from the urban street.

In the second-layer court, the original concept of "private gardens for the residents" is proposed to be recovered and even strengthened. Besides to restore the gardens in front of the back doors of the ground floor apartments, some "public service", small

allotment gardens are lined out on the existing spare land for the residents from the upper floors who would like to have a piece of their own green. The residents will enjoy gardening and “urban agriculture” inside their gardens at their disposal, while the uniformly planted hedges enclosing all those gardens and keeping them from presenting a disorganized picture. The residents, therefore, will be involved in the collective effort to improve their own living environments as well as green landscape.

Together with the distinctive architectural design, the redeveloped green landscape will result in a series of what is termed, “landscape theatres”. Apart from the distinctive image of the building cluster from the street corner, the landscape theatres and communal spaces in the block public green normally overlap. Those “open-air” theatres will reestablish the enjoyable sights for the residents and visitors in this green block (figure 12-67).

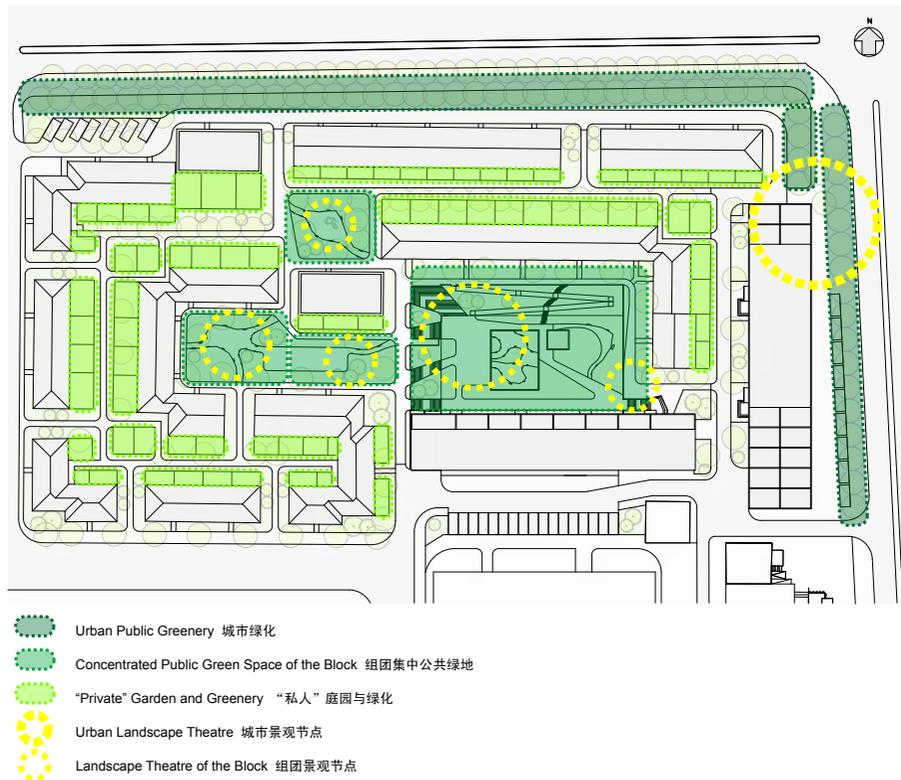


Figure 12.67  
Proposed green space and landscape system of Block 1

Another emphasis in the redesign of outdoor environments is to optimize the communal space. The existing open space system of the double-perimeter courtyard block will be retained, and new public spaces linking to the neighborhood and the city are planned to be introduced. The commercial space on the ground level of the new high-rise building will extend the urban space along the Sanlihe Donglu to the east edge of Block 1. The communal facilities and commercial space on the ground floor of the new multi-storey building will serve the residents from not only the block but also the neighborhood, so that a neighborhood public space, as well as a local “commercial street”, would form along the alley in between Block 1 and Block 5. In the mean time, the inner court will be restored and extended (to include the public roof garden), as the communal public space of the block, and the design interventions will strengthen the public spaces around the main entrances on the perimeter of the block. The quality of the semi-public space in the restored, car-free second-layer court will be improved, and those private allotment gardens will in fact redefine the semi-private space of the local community. Different with those walled and gated communities, Block 1 of Sanlihe Neighborhood 1 will be still accessed by the public after the rehabilitation. More important is that the well-organized system of communal space will enhance the integration of the socially mixed community in a block of differentiated housing stock (figure 12-68).

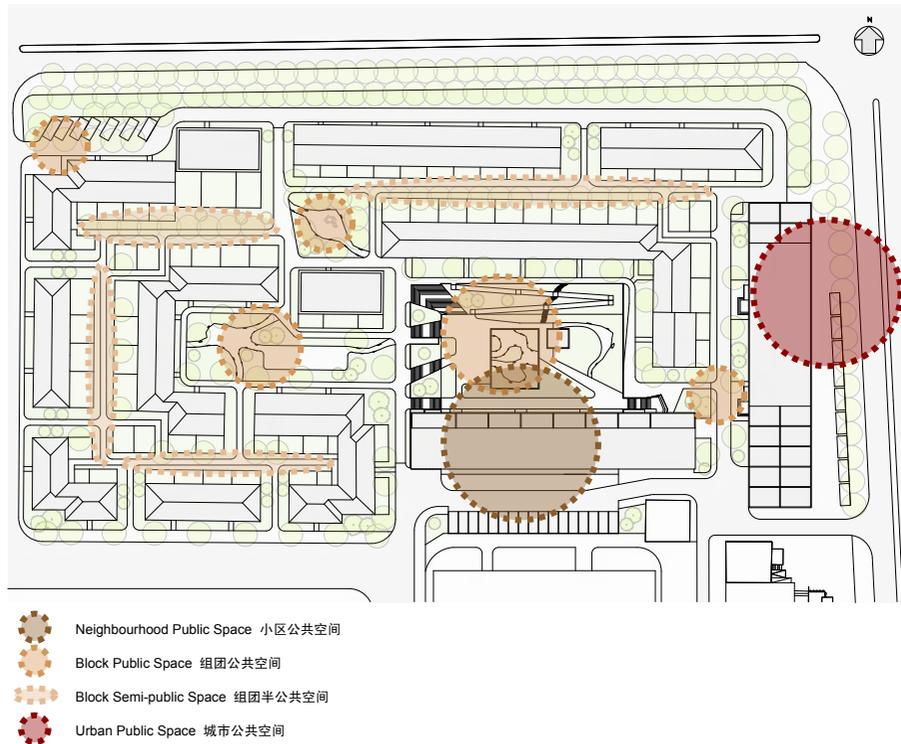


Figure 12.68  
Proposed public space system of Block 1

In addition, the concept of ecological design is also adopted for the redesign of outdoor environments. Apart from those visible interventions such as the high ratio of greenery and the car-free block, the environment-friendly and energy-efficient technologies are proposed to be widely applied not only in the individual buildings but in the whole block. An underground container will be built in the courtyard for collecting rain water and watering the public green and private gardens. The closed-loop water management and solar energy supply system will be planned on the block level, so that different dwellings and buildings could share the resource or energy that they will produce collectively. The ecological design and technologies for both the buildings and outdoor environments will result in an environment-friendly housing block.

In general, all these redesign interventions aim to create a pretty, comfortable and user-friendly outdoor environment of the block (figure 12-69). As the efforts to overall improve the housing conditions and living environments of Block 1, the physical planning and design of the urban rehabilitation, including the building renovation and new construction as well as the redesign of outdoor environments, is developed in

order to rebuild a green, differentiated but integrated housing block, as a pilot project for the urban renewal of former public housing areas in Beijing (figure 12-70).

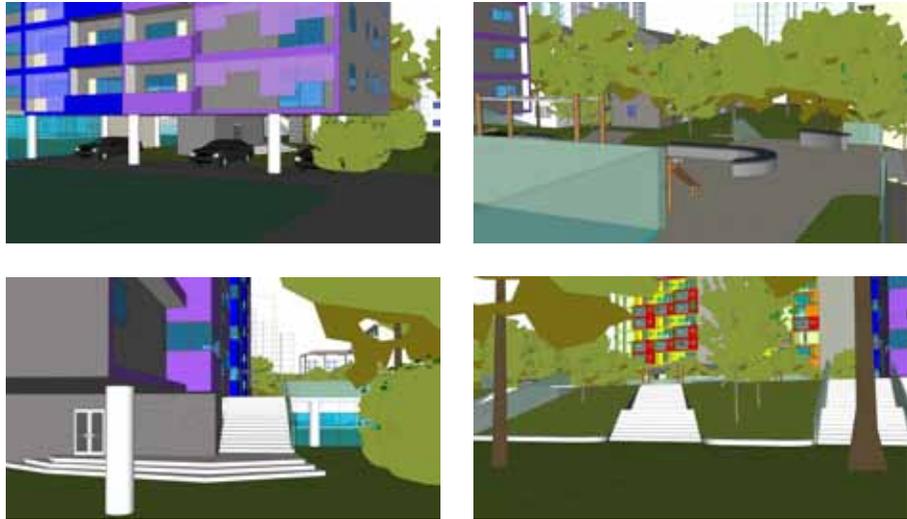


Figure 12.69  
*New living environment of Block 1*  
(Drawings by Song Xiaoyu)



Figure 12.70  
*Perspective of Block 1 after the urban rehabilitation*  
(Drawing by Song Xiaoyu)

### § 12.3.3 Housing/Rehousing Strategies and the Process of Project Implementation

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In fact, the design initiatives can be seen, to a large extent, as the physical presentation of the practice of innovative housing and rehousing strategies for the urban rehabilitation of Block 1. The existing unitary renewal approach based on the policy of housing privatization and monetized rehousing have been proven not to resolve the problems but to cause more conflicts. Under the background of the reemphasis of social housing development and the social objective of urban renewal, this project is also a pilot research for developing the socialized housing and differentiated rehousing strategies in the urban renewal of former public housing areas.

In Beijing, the market-oriented reconstruction of former public housing areas often lead to an unbalanced result: the higher-income, non-occupied homeowners or tenants will acquire the excess property through the public subsidy, but the lower-income, occupied residents have to move to the urban periphery. In order to solve this problem of inequity, urban rehabilitation, instead of the wholesale demolition-reconstruction, is an effectively alternative approach. By avoiding the evitable building reconstruction, the amount of the residents who have to be rehoused will be significantly reduced. However, for those highly decrepit buildings, the demolition and rehousing will still be inevitable. In the pilot research for the rehabilitation of Block 1, the innovative and social-oriented strategies, in which the significance is to clearly distinguish the occupied and non-occupied dwellings, are developed for rehousing the residents of those buildings that have to be demolished:

- For the occupied homeowners or tenants who can afford the price of affordable housing, they can choose to rehouse in the publicly-subsidized, owner-occupied resettlement dwellings, which will be produced by the new housing construction, in the same block;
- For the low-income, occupied former public housing tenants, they can enjoy the new public rented social housing developed by the housing renovation or new construction in the same block, as their resettlement dwellings;
- For the non-occupied homeowners, the urban renewal agency will purchase their existing houses according to the actual housing values, and those homeowners will have priority to buy the newly-built marking housing in the block; and
- The non-occupied, retained public housing will be evicted.

Thanks to the present policy to “freeze” property transactions in Block 1, which avoids the speculation from the outside, the public purchase of old dwellings will become economically feasible.

The social-oriented rehousing strategies will be undoubtedly based on the combination of urban renewal and social housing development. The urban renewal agency – CPMC, is proposed to be transformed as a profitable, non-profit housing corporation of Guojiafagaiwei, for which the major task is the social housing development and

management. In the urban rehabilitation of Block 1, the building reconstruction will be combined with the socialization of housing stock. A certain proportion of new dwellings will be developed as new public-rented social housing which will be owned by the investors – the new housing corporation of Guojiafagaiwei. The target tenants of those public-rented dwellings will include the employees of Guojiafagaiwei who have the housing problem and other qualified social housing applicants, especially the applicants amongst the existing tenants or second tenants of the private-rented apartments in the block.

The housing socialization strategy will be also applied in the renovation of the old apartment buildings in Block 1. The owners of non-occupied houses have to choose to either pay for the renovation or sell their properties to the housing corporation. Those apartments purchased by the housing corporation, together with the still retained, vacant socialistic public housing apartments, will be renovated and transformed to be new public-rented dwellings. Even for the private-rented apartments, which will indubitably be beneficial from the subsidized housing renovation and overall improvement of living environments, the rent regulation has to be adopted: the rent should be preset in accordance with the rent standards of public-rented housing. Besides the housing socialization, the public subsidies for home renovation will be available for the occupied homeowners in the old buildings. For the homeowners of those illegal constructions which should be demolished, the “selectable menus” renovation will help them to “legalize” their home extension, and the cost of extension will be fully subsidized. However, in order to restrain the speculation, the transaction of all the renovated, private-owned apartments should be controlled: the owners will be prohibited to sell those apartments within the coming 5 years, and the housing corporation always has the priority to purchase. In addition, the retained four dwelling-units in the reconstruction area will be transformed into short-stay houses as the guest houses or youth dormitories for the Guojiafagaiwei.

Furthermore, the retention of the existing small businesses is particularly emphasized in the rehabilitation. The local shops that were transformed from the ground floor apartments will be well maintained and restored in the building renovation. The space for local businesses on the ground floor of the new multi-storey building, including a community supermarket supported by the Shequ, will also be available for rehousing the existing shops and stalls in and surrounding the block. A certain public allowance will also be provided for the business owners to compensate their possible “losses” during the implementation of the rehabilitation project. All those adapted strategies to maintain and promote the local businesses will not only facilitate the community life but also create more job opportunities.

According to a series of socialized housing/rehousing strategies, the urban rehabilitation of Block 1 of Sanlihe Neighborhood 1 is predicted to meet the following results:

- Total building floor area of the new construction: 37,353 m<sup>2</sup>
- Total building floor area of the renovation: 16,600 m<sup>2</sup> (15,800 m<sup>2</sup> of permanent housing and 800 m<sup>2</sup> of short-stay houses)
- Social housing by the new construction: 191 dwellings (138 dwellings of resettlement affordable housing and 53 public-rented housing)<sup>8</sup>
- Market housing by the new construction: 75 dwellings
- Public-rented housing by the renovation: 78 dwellings<sup>9</sup>
- Retained and renovated privatized former public housing: 124 dwellings
- Short-stay houses: 12 dwellings
- Space for communal facilities: 1,300 m<sup>2</sup>
- Commercial space: 3,700 m<sup>2</sup>
- Car parking spaces: 230 (204 underground and 26 ground parking spaces)

In total, the housing stock of 468 dwellings in Block 1 after the rehabilitation will be composed of:

- Public-rented housing: 131 dwellings (28% of the total housing stock)
- Subsidized owner-occupied housing (affordable housing): 262 dwellings (56%)<sup>10</sup>
- Owner-occupied market housing: 75 dwellings (16%)

The urban rehabilitation of Block 1 will actually lead to a condominium with different categories of housing ownerships in the block. This differentiated housing stock with the sufficient local socio-economic facilities no doubt will contribute to the stabilization of the socially and programmatically mixed community and promote social integration.

Application of socialized housing/rehousing strategies helps to define the process of the implementation of the urban rehabilitation, in which most of the residents will be guaranteed to stay in the block even during the period of construction. The rehabilitation is planned to start from the renovation of apartment buildings, as the first phase of implementation. The first step of the renovation will be the cleaning up of illegal construction and the construction of additional structural frames

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|----|--|
| 8  | 53 dwellings of public-rented housing by the new construction are estimated according to the prediction that 30% of the households presently having the housing problems (176 households in total) might be the low-income earners and eligible for applying the public-rented housing in the newly-constructed buildings. |
| 9  | 78 dwellings of public-rented housing by the renovation are estimated by including the existing vacant public housing apartments (25 dwellings) and non-occupied privatized former public housing apartments that should be socialized (53 dwellings, 30% of the privatized public housing stock in Block 1).              |
| 10 | Subsidized owner-occupied housing or new affordable housing will cover both the newly-constructed resettlement housing and the renovated, privatized former public housing. Those publicly subsidized dwellings will be limited to be freely transacted in the housing market.   |

(including the reinforcement of building structure). The “outside” construction can be implemented when the residents stay in their homes. The second step will focus on the home renovation, including the adjustment or extension of home space, the repair or replacement of pipework and the home interior renovation. The renovation of re-socialized, public-rented dwellings will be implemented at first and hence serve as “pilot projects” to encourage the participation of occupied homeowners. By applying the adapted technologies, the construction such as spatial extension and the pipework replacement can be done while the dwellings are still occupied. Only for those who would like to adjust their home spaces or fundamentally renovate their home interiors, the renovated public-rented dwellings will provide for them interim homes. During this process, even the housing exchange will be admitted. In the last step of the renovation, the construction will turn back to the “public works”, including the restoration of building façades and stairwells, as well as the installation of new elevators and safeguard system.

The building reconstruction will constitute the second phase of implementation. In this phase, the renovated public-rented housing in the old buildings will be used as available interim houses for those impacted by the housing demolition and new construction. Those public-rented dwellings can also be chosen as the resettlement housing by the low-income residents. The available public-owned dwellings in the same block will effectively help to reduce the cost on the individual aids for interim houses.

After the completion of building renovation and reconstruction, the last phase of the urban rehabilitation will be the renewal of outdoor environments. Since all the renovated or newly-built dwellings will have been available, the rehoused original residents, as well as the new tenants or homeowners, could start to move in during the implementation of outdoor environments.

As part of the social-oriented housing/rehousing strategies, the elaborately organized, phase by phase implementation process of the urban rehabilitation will also successfully avoid the displacement of existing residents in Block 1 and thus support the stabilization of the mixed community.

#### § 12.3.4 **Financing Strategies and Economic Balance**

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After the radical housing reform in 1998, the government significantly reduced the public funding to the social housing development. Many originally social-oriented urban renewal projects had to be stopped. But the popularity of the market-oriented urban renewal, which to a large extent relies on the private investment, usually led to

the displacement of local residents and therefore caused serious social conflicts. For the urban renewal of Block 1, as aforementioned, the economic feasibility is also a presently critical challenge. To cope with this challenge, the following financing means are developed in the pilot research:

- Reducing the cost by housing renovation  
In comparison with the site demolition and reconstruction, the housing renovation is an effective measure to reduce the cost of urban renewal. Apart from the lower construction cost by applying the adapted designs and technologies, the renovation avoids the expenditure for resident rehousing, which often accounts for a relatively high percentage of the total cost in terms of the popularity of the housing speculation. For the rehabilitation of Block 1, most of the apartment buildings are proposed to be retained and renovated. The so-called “domino effect” of the speculative demands on rehousing will be restrained.
- Combination development of social housing and market housing  
The combination project of social housing and market housing development is not just a strategy to promote social integration but also a financing means for the social-oriented urban renewal. As a desired urban place of residence, the owner-occupied housing price of Sanlihe area has reached about CNY 35,000-40,000 /m<sup>2</sup> in the housing market. The development of a certain proportion of market housing, as well as commercial space, in Block 1 will to a large extent balance the investment to housing socialization and urban rehabilitation.
- Distinguishing the responsibilities of the public and the private actors  
Preceding the presently mixed and ambiguous housing stock, the responsibilities of urban renewal must be clarified between the public and private actors in order to avoid the speculation and the abuse of public funding. In the rehabilitation proposal of Block 1, the financing obligation will be fairly distributed between the housing corporation, danwei and homeowners according to the housing categories. For the housing renovation, the owners should pay for the renovation of their own private space while the housing corporation and danwei will invest for the renewal of the public parts of the buildings. The non-occupied housing owners of the demolished dwellings should not enjoy the subsidized resettlement housing. In this way we will avoid the situation that they take advantage and get “double” benefits from the urban renewal.
- Available public subsidies for urban renewal and social housing  
With the reemphasis of social housing policy by the government, some potential public subsidies will be available for the urban rehabilitation of Block 1. Due to the development of social housing, especially the public-rented housing, in the rehabilitation, the reduction of land lease and the tax exemption will be applicable. The public fund for the renovation of old former public housing, e.g. the ecological upgrading, barrier-free transformation and environment improvement, might be also available. Another presumption is the individual allowances (such as the Housing Accumulation Fund) for occupied homeowners to improve their housing conditions will be adaptable to the housing renovation or reconstruction.

Based on those financing strategies, the economic balance of the urban rehabilitation of Block 1 is estimated as table 12-2.

Expenditure <sup>a</sup>	Income <sup>a</sup>
Land lease (paid): CNY 70,000,000	Land lease reduction (60% of total floor area counted as social housing): CNY 42,000,000
Construction cost for the building new construction: CNY 95,352,500	Rent/sale income of the social housing Sale income of the subsidized owner-occupied housing (resettlement housing, CNY 5,500 / m <sup>2</sup> only for additional floor area of each household): CNY 29,645,000 Rent income of the public-rented housing (counted by the cost price, including the subject subsidies from the government): CNY 35,420,000
Construction cost of the building renovation (the repair or renewal of public parts of old buildings, the additional structural frames, the ecological modernization, the interior renovation for the re-socialized public-rented housing and short-stay houses, etc.): CNY 14,244,000	Rent income of the short-stay houses (counted by the cost price): CNY 2,970,000
Construction cost of the improvement of outdoor environments (public green, pavement, playground, sports field, urban furniture, sculpture and other facilities) and civil infrastructure in the block: CNY 8,476,000	Sale income of owner-occupied market housing (CNY 40,000 / m <sup>2</sup> ): CNY 372,000,000
Cost of pre-construction works (building/site survey and measuring, building demolition, site preparation, planning and design, etc., counted by 10% of the sum of above three items): CNY 11,732,850	Rent/sale income of commercial space (CNY 50,000 / m <sup>2</sup> ): CNY 85,000,000
Cost of housing expropriation (the expense to purchase the non-occupied dwellings in both the building renovation and reconstruction): CNY 77,115,000	Rent/sale income of car parking spaces (CNY 380 / month per underground space and CNY 150 / month per ground space): CNY 48,852,000
Reward for early-bird moving in the building reconstruction (100,000 per household): CNY 23,000,000	Applicable public subsidies for the renovation of old former public housing (the ecological upgrading, barrier-free transformation, environment improvement, etc., counted by 1/3 of the total cost of building renovation and improvement of outdoor environments): CNY 13,625,300
Grant for interim housing (CNY 7,5000 per household only for those who have to find the interim dwellings out of the block): CNY 6,600,000	Initiation funding from the government for the public-rented housing development (counted by 35% of the cost price of public-rented housing) <sup>b</sup> : CNY 12,397,000

Table 12.2  
*Estimation of the balance for the urban rehabilitation of Block 1*

Expenditure <sup>a</sup>	Income <sup>a</sup>
Compensation to the local businesses (counted by 10% of the sum of the above three items): CNY 10,071,500	Property management fee (including the public subsidies for the maintenance/management of social housing): CNY 82,175,400
Individual renovation allowance for the residents of occupied dwellings in the old buildings (counted by CNY 15,000 per dwelling): CNY 1,860,000	
Cost of project management (counted by 5% of the sum of the above items): CNY 15,922,600	
Unpredictable costs (counted by 11% of the sum of the above items): CNY 36,781,200	
Loan interest (65% of the total cost covered by the 3-year public loan, with the nominal interest rate of 4.5%): CNY 34,056,500	
Taxes for rent/sale of market housing and commercial space (counted by 10% of the total rent/sale income): CNY 49,040,000	
Cost of daily maintenance and management (counted by averagely CNY 3 /m <sup>2</sup> per month): CNY 82,175,400	
One-off cost in total: CNY 454,252,150	One-off income in total (50% of the commercial space for sale): CNY 562,167,300 (CNY 26,022,300 by the public subsidies)
Long-term cost in total: CNY 82,175,400	Long-term income in total: CNY 261,917,400
Total life expenditure: CNY 536,427,550	Total life income: CNY 824,084,700
Total life balance: CNY 287,657,150	

<sup>a</sup> The predicted lives of newly-constructed buildings and renovated buildings are 50 years and 25 years, respectively.

<sup>b</sup> In China, the developer's own fund for the housing development usually has to account for 35% of the total cost in order to apply for the bank loan. For the public-rented housing development in the rehabilitation of Block 1, it is predicted that this own fund will be subsidized by the government.

Table 12.2  
Estimation of the balance for the urban rehabilitation of Block 1

The estimated balance proves the economic feasibility of the urban rehabilitation of Block 1. The innovative financing strategies are actually developed according to the concept of public-private participation (PPP). In a mixed housing stock, the public and private actors should share their responsibilities on urban renewal. Due to the application of those strategies, the pilot research for the rehabilitation reveals the possibility to develop high-quality social housing in a desired urban place. In comparison with the existing proposal of site reconstruction, the rehabilitation project will even produce a certain surplus. For the housing corporation, as a profitable non-profit body, the "profit" produced by the rehabilitation of Block 1 will be the funds for the future urban renewal or social housing projects.

### § 12.3.5 Democratization of the Project Organization

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An intractable existing difficulty for the urban renewal of Block 1, as same as many similar urban renewal projects in Beijing, is the agreement between different, increasingly individualized and privatized actors or stakeholders. In an increasingly diversified, differentiated and even hybrid urban society, the traditionally top-down mode of project organization and management has been proven not adaptable to balance the rising interest conflicts in urban renewal. Therefore, more bottom-up organizational strategies, which could adapt to this trend of diversification and differentiation, should be introduced for the rehabilitation of Block 1.

In this pilot research of urban rehabilitation, the public private participation is not only a financing approach but also a concept to reform the project organization. A democratized organizational framework, in which the community participation in the decision-making is particularly emphasized, should be established. Apart from the regular strategies such public informing or consultation, a revolutionary strategy for the democratization of urban renewal that we proposed is to set up an institutionalized platform, which could be termed as “project board”, for the open negotiation between different actors or interest groups. The project board will include the representatives from the following parties:

- Municipal, District and Sub-district (Jiedao) governments
- Housing corporation / urban renewal agency
- Local residents of Block 1

In order to avoid speculation, the representatives of local residents must be only nominated and elected by the existing occupied homeowners and tenants in Block 1<sup>11</sup>. The number of residents’ representatives should be equal to the representatives from the government as well as from the housing corporation. The external experts and social workers will be invited as the professional consultants for the residents, and a “neutral” coordinator of the project board is indeed necessary: the Shequ Committee of Sanlihe Neighborhood 1, as a “resident autonomy” organization and the interface between the government and the residents, is proposed to send a coordinator and to provide the meeting place and administrative support for the projects board. In addition, the project board, as a financially independent body, has to be totally funded by the government.

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The residents also have the right to change their representatives who are either incompetent or incapable to present their wills.

The project board will be founded not to replace but coincide with the housing corporation of Guojiafagaiwei, which will be still the officially commissioned urban renewal agency of Block 1. It is planned to play a role of supervisory and coordination board of the whole process of urban rehabilitation, including the project preparation, planning/design and implementation. The important proposals raised by the urban renewal agency should be agreed by the project board before they will be executed. This board will be a shortcut to communicate with the government for any potential supports on the one hand, and the residents could participate in the decision-making process of the urban renewal via their representatives on the other. In particular for those crucial decision-makings, such as the decision on the scheme of physical planning/design or rehousing criteria, the resident meeting or workshop, which should be open to all the residents and small business owners in the block, will be initiated by the project board, so that the agreements acceptable by different groups could be finally reached through the public consultancy and open discussion (figure 12-71). Beside those traditionally face-to-face methods, the “new medium” is proposed to be applied for the community participation: a special internet domain, which could be established under the existing Shequ website, might be to collect the public opinions on the rehabilitation<sup>12</sup>. Thanks to this democratized framework, the local community might start to involve in the rehabilitation from the very early stage.

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However, the internet should be used as a measure for the public consultancy rather than the discussion or decision-making. On the one hand, many elderly in the old neighborhood are not familiar to this new medium; and on the other hand, the existing means of internet communication less or more function as a “one-way” approach of expressing but not listening, so that it will be easy to be manipulated.

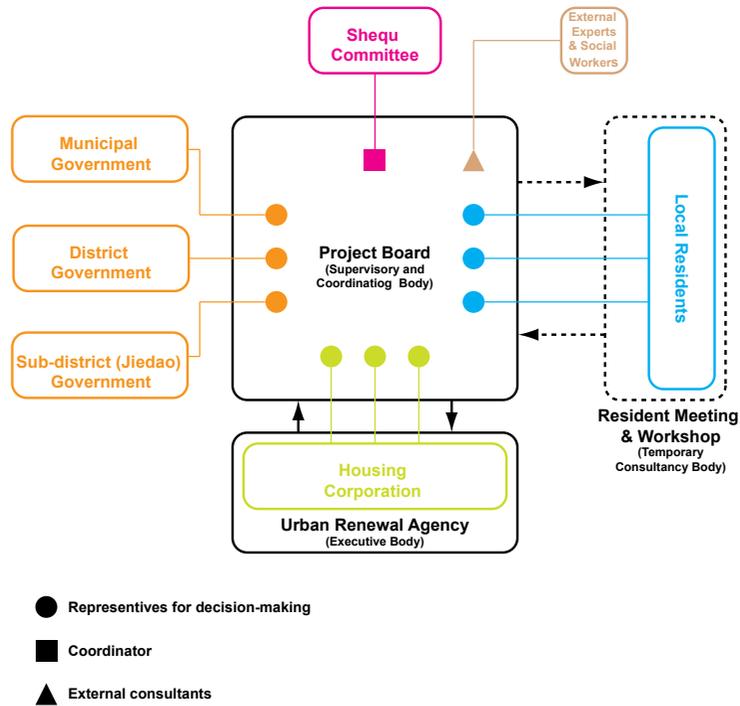


Figure 12.71  
Proposed organizational framework of the urban rehabilitation of Block 1

Furthermore, the project board of urban rehabilitation will be the “predecessor” of the future housing management board. Different from the merely private housing estates, of which the owners committees is responsible for housing management, Block 1 with a housing stock of condominium will need a new type of management institution. While the daily management and maintenance could be commissioned to the housing corporation, the decision-maker and supervisor will be the housing management board of the representatives from the housing corporation, homeowners and tenants (figure 12-72).

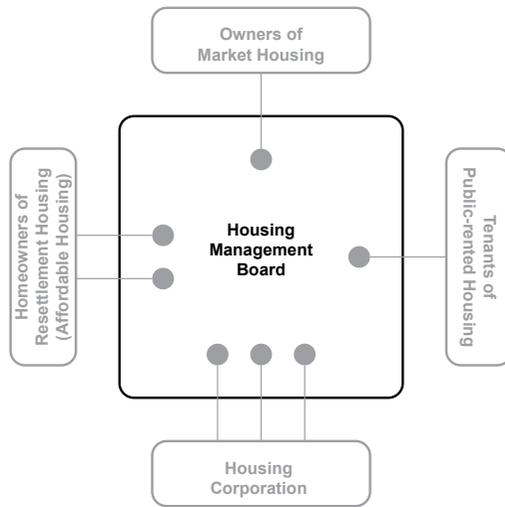


Figure 12.72  
Proposed organizational structure of housing management board after the urban rehabilitation

However, the democratization of the project organization actually results in an ironic consequence: the aforementioned proposals of physical, housing and financing strategies may not be totally realized. The final decisions will always be made according to the negotiation between different actors and the participation of local community. Those proposed strategies will only become the schemes for discussion and revision. But whatever the outcome will be, the organizational democratization, as well as the community participation, will be an inevitable step to realize the urban rehabilitation.

According to the strategy of democratization, an open and transparent organizational framework will be established for the urban rehabilitation, instead of the conventional one-way informing and “black-box” consultation. In this new framework, the project board will serve for supervision and decision-making, whilst the housing corporation will still be the initiator and executor of urban renewal. As a PPP strategy trying to balance the long-term and short-term interests, this seemingly time-consumption mode, which might spend much time on the communication and negotiation, will actually accelerate the implementation of the project. More importantly, the residents will be encouraged to collectively participate in the urban rehabilitation and thus stabilize their own community. Different from the “radical” democratization of urban renewal in the western “civil society” (such as “Bouwen voor de Buurt” in Rotterdam), the democratized strategy for the urban rehabilitation of the Block 1 of Sanlihe Neighborhood 1 can in fact be seen as an effort to guide the bottom-up reformation of local community, in a traditionally top-down but still transitional urban society. In other words, it is a micro-attempt on the local scale for the mildly political democratization with Chinese characteristics to promote social integration.

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## § 12.4 Conclusions

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In order to explore the alternative strategies for the urban renewal the former public housing areas in Beijing, the pilot design research in this chapter focused on Block 1 of Sanlihe Neighborhood 1, a double-perimeter courtyard housing block in a typically former danwei dayuan neighborhood. As a housing block that has been enrolled in the plan of urban renewal since the 1990s, the block reconstruction was never implemented due to the disagreement from the residents.

According to the methodology of design by research, the design research for Block 1 started from the detailed site survey and analysis covering the socio-economic, community-placial and aesthetic-technical dimensions, including the surroundings, social structure, housing stock, community life and built environment of the block, as well as the existing dilemma of urban renewal. For the urban renewal of this socially diversified and mixed block with an ambiguous housing stock, the general but critical challenge is how to balance the two major tasks – to improve the living conditions of the existing residents and promote social housing development.

Therefore instead of the wholesale demolition-reconstruction, an alternative approach of urban rehabilitation, which means the combination of renovation with reconstruction, was proposed to answer the present challenge of the urban renewal of Block 1. Based on the site research and referable experiences, a series of physical, housing, financing and organizational strategies of urban rehabilitation have been “designed”. Through the differentiated and ecological physical interventions, the socialized housing strategies, the financing means by public private participation and the democratization of project organization, the rehabilitation is expected to balance the interests of different actors. As a pilot research, the case of Block 1 of Sanlihe Neighborhood 1 reveals the possibility to promote social housing development and social integration by urban renewal. Albeit the proposed strategies should be tested in practice and further developed, as proposed, via the negotiation between different groups, the pilot design research project of the urban rehabilitation at least has indicated a potential approach for the urban renewal of former public housing areas in Beijing.

But apart from those “decrepit and old” areas such as Block 1, many former socialistic public housing buildings in Beijing were developed since the 1970s and are still far from the “end” of their designed lives. While those “later” developed housing areas are not officially planned to be reconstructed, many of them have been evidently outdated and aged. The renewal of the “old but non-decrepit” former public housing areas, which otherwise will fall into the decline, is a new question. Thus in the next chapter, the second pilot design research will focus on a housing block developed from the 1970s to the 1980s, which is also located in Sanlihe Neighborhood 1.



# 13 Urban Renovation of the Sanlihe Neighborhood 1 Building 50-52 Block – A Pilot Design Research of Urban Renewal for a 1970s-1980s Housing Area

In this chapter, the pilot design research will focus on another category of typical former socialistic public housing estates in Beijing – the linear-arrayed, parallel multi-storey row – housing areas which were used to be largely developed in the 1970s and 1980s.

Most of the former public housing buildings that were built since the 1970s are not enrolled in the plan of demolition and reconstruction since their designed lives have not officially expired. However, many of the residential areas of those buildings have started to face the problem of deterioration. The housing standards and original designs of the 1970s and the 1980s residential buildings are obviously outdated, and many buildings are already technically worn out due to the lack of housing maintenance and management. In some housing areas developed in the 1970s or early 1980s, the outdoor environments, as well as the communal facilities, are even not well planned and designed due to the lack of integral planning. As a result of the deterioration of the physically built environment, some residents having other housing choices have gradually moved out. Neighborhood decline is also a realistic threat.

In order to improve the housing conditions of urban residents, the renewal of the “later” developed but old former public housing areas started to be emphasized in recent years. According to the proposal of the central government, the renovation of those old housing areas out of the reconstruction plan is listed as an important principle in the new social housing policy. But while some renovation measures, such as the so-called “Pinggaipo” projects, have been widely applied, these measures are often just “temporary”. They simply refurbished the appearances but did not fundamentally improve the living conditions of old housing areas.

In the Sanlihe Neighborhood 1, there are several former public housing “patches” developed since the 1970s, which can be seen as examples of those housing areas that are waiting for renovation. Therefore, a typical linear-arrayed, parallel row-housing blocks developed from the 1970s to the 1980s, the Building 50-52 Block of Sanlihe Neighborhood 1, was chosen by our research team as the pilot research project to

explore an effective approach for the urban renewal of those later developed former public housing areas.

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### § 13.1 Site Research of the Building 50-52 Block

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The Building 50-52 Block is located in the “center” of the Sanlihe Neighborhood 1 (figure 13-1), and contains a total of five residential buildings: Buildings 50, 51, 52, 52A and 52B. The block is enclosed by the neighborhood roads along its north, east and west edges. On the other sides of the neighborhood roads, Block 3 is to the north and the east and a “mixed” block including a primary school, a sports center, a mosque and a residential building. And immediately adjacent to the south of the Building 50-52 Block, there is a kindergarten and next to it is an office area of the Municipal Housing Management Company.



Figure 13.1  
*The Building 50-52 Block in Sanlihe Neighborhood 1*

However, different from Block 1, which is part of a well-planned housing development in the 1950s, the Building 50-52 Block is the result of some individual housing constructions without a master plan. In the existing block, three multi-storey apartment buildings (50, 51 and 52) were built together in 1979 by demolishing a cluster of temporary, single-storey buildings. The ground floor of Building 51 was designed for the local commercial facilities. Another two multi-storey apartments, Buildings 52A and 52B, were developed in 1986 as a housing development together

with the reconstruction of a village in the city. In Building 52B, the ground floor and the basement were designed as the offices and storehouse of the former Municipal Housing Management Bureau. During the same period, a row of garages and offices, as the property of the logistic and service sector of the Guojiajiwei, was built along the north edge of the block. The Building 50-52 Block was finally formed as a patchwork of those different housing developments from the late 1970s to the middle 1980s (figure 13-2). In order to guarantee the desired sunlight and ventilation for the dwellings, most of the residential buildings were designed as the linear-arrayed, south-north oriented multi-storey row-housing, which was the most popular layout in Beijing at that time. But the quality of the outdoor environments was not well considered in the original design.

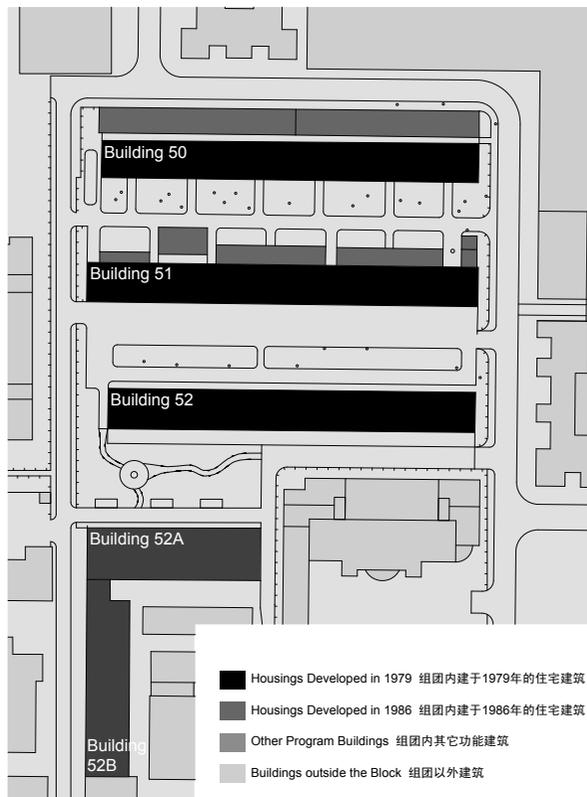


Figure 13.2  
The existing Building 50-52 Block

Through the urban renewal of Sanlihe Neighborhood 1, the living environments of this linear-arrayed row-housing block developed from the 1970s-1980s were partly improved, along with the reconstruction of the adjacent 1950s blocks. The remaining temporary buildings in the block were demolished, and some landscape designs and greenery were introduced. The building cluster was enclosed by the fence so that finally the block was “officially” defined.

### § 13.1.1 Socio-Demographic Structure and Housing Stock

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As a housing block on the scale of “residential cluster”, the Building 50-52 Block presently provides in total 425 dwellings for about 1,500 residents. Before the housing reform, most of the apartments in Buildings 50, 51, 52 and 52A, except for two dwelling units in the Building 52A that were the property of the State Earthquake Administration, were the public housing of the Guojiajiwei. The only east-west oriented apartment building in the block, Building 52B was used as a resettlement housing solution for the residents of an original small village in the same location. But in terms of the radical housing reform in 1998, more than 90% of all those former public-rented apartments have been privatized and sold to their original tenants. The land tenure and the outdoor space, as well as the public part of the residential buildings, are still publicly owned by the danwei.

Similar to other privatized public housing stocks, some higher income residents, as well as those who have other better housing choices, have started to move out. In some instances, other residents have also sold or rented out their apartments in the block. Without current official statistics available (because of the popularity of unregistered housing rent), the shequ office estimated that about 15% of the privatized dwellings in the block has been rented out by the owners. Moreover, a certain percentage of the remaining homeowners still living in these residences are the elderly. The estimated proportion of the 60-year and older population in the Building 50-52 Block is over 20%.

The existing housing stock in this building block is also mixed by various dwelling types. In total, the 425 apartments range in structure from 1-bedroom to 4-bedroom (figure 13-3). The mixed dwelling types actually indicate, according to the socialistic public housing system, the mixture of the residents with different longevities and political ranking in their danwei, from the junior to the senior, in one housing block.



Figure 13.3  
*Existing apartment buildings in the Building 50-52 Block*

Therefore, same as other blocks in the Sanlihe Neighborhood 1, the Building 50-52 Block is a relatively multiple and mixed sub-community of people from different social backgrounds, including social status, income levels, danwei, jobs and age. However, as an aged housing block developed more than 20 years ago, both property prices and housing rent levels are lower than those of surrounding later-built dwellings. Along with the resident mobility, this privatized housing block is thus more “attractive” for lower-income earners. Therefore, social filtering and decline are the rising threats.

On the other hand, the Building 50-52 Block is not a merely residential area but a housing block mixed with other programs. Apart from the property of a pastry company that occupied almost 1/4 of the space, 3/4 of the commercial space on the ground floor of Building 51, which is owned by the Guojiafagaiwei, was originally designed to house the local staple and non-staple stores for the neighborhood. But along with the transition to the market economy, those state-owned stores gradually disappeared. That Guojiafagaiwei-owned commercial space is presently rented for a sub-district government service hall and for small enterprises’ offices (figure 13-4). Building 52B ground floor, as originally planned, is still the office space owned by the Municipal Housing Management Company. And some ground-floor apartments in the block have also been transformed into local shops (figure 13-5).



Figure 13.4  
Communal facilities and small enterprises on the ground floor of Building 51



Figure 13.5  
Housing apartments transformed into local shops

As a former public housing area owned by the central government, housing management and maintenance are still commissioned to the Municipal Housing Management Company. Different from the market housing estates, the housing management fee of this block is not paid by the residents but by the housing maintenance fund of the original danwei. However, this commissioned housing management has been proven inefficient. With limited funds, the Municipal Housing Management Company is not able or willing to undertake any fundamental repairs or renovations.

In contrast to the inefficiency of public intervention on housing management, the private improvement of the housing conditions, including the illegal extension of home space (figure 13-6), is rather popular in the Building 50-52 Block, same as in Block 1. But those illegal constructions inevitably damaged the public environments. The original danwei, especially the Guojiafagaiwei and its Construction and Property Management Center (CPMC), has to take certain responsibilities for housing maintenance. Before the 2008 Beijing Olympics, a Pinggaipo renovation project for this block, including interventions such as adding slope roofs, reprinting building façades, demolishing some illegal structures and restoring the pavement, was implemented by CPMC with a special funding from the central government (figure 13-7). The living environments of the block were repaired and beautified in appearance. But for a privatized housing block, the top-down measures of housing renovation that only relies on limited public funding were not able to fundamentally upgrade its living conditions.



Figure 13.6  
*Private home extension in the Building 50-52 Block*



Figure 13.7  
*Implementation of the "Pinggaipo" project in the Building 50-52 Block before the 2008 Olympics*

### § 13.1.2 Existing Living Conditions and Socio-Spatial Morphology

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According to the original design and later transformation, the Building 50-52 Block has been given its own identities of living environment as well as of socio-spatial morphology. In some aspects, the housing conditions of the 1970s and 1980s, linear-arrayed residential buildings were more desired in comparison with those that were developed in the 1950s. The ideas of the tongzilou dormitory and the "reasonable design, unreasonable use" had disappeared, and each household acquired its own apartment. Except for Building 52B, the linear-arrayed multi-storey buildings guaranteed the south access of sunlight for most dwellings. And the home space was more "domestic". Every apartment had its own living room or lobby. Nevertheless, many apartments that were designed based on the housing standards of the 1970s or 1980s are obviously not spacious enough. Private extensions of home space were materialized through illegal structures. Without efficient housing management, the residential buildings have been apparently worn out (figure 13-8).



Figure 13.8  
*An aged residential building in the Building 50-52 Block*



Figure 13.9  
*Busy neighborhood road along the west edge of the Building 50-52 Block*

In comparison with the well-organized open space system of the courtyard block, which had been defined in the original physical planning, the formation of the existing communal space of the Building 50-52 Block much more present the dialectically spatial dialogue between designers and users. As an original shortcut to the shopping center in the Yuetan Nanjie, the pathway along the west edge of the block was finally “legalized” as a paved neighborhood road. So far this road, which is apparently narrower than other neighborhood roads and confused by the mixture of walking, cycling and car traffic, is still playing the role of a pedestrians’ and cyclers’ main entrance for the neighborhood. And some important neighborhood facilities, including a sports center, a primary school and a mosque, are also located on the west side of this road. Many local shops as well as legal and illegal roadside stalls have emerged along this busy access of low-speed flow. Most of those shops resulted from the transformation of ground floor apartments (figure 13-9). Another major pedestrian route was formed in between Buildings 51 and 52 and across the block. This shortcut is no doubt a result of placing communal facilities and commercial space on the ground floor of Building 51, which inevitably brought many “visitors” and passing-by flows. On the other hand, the neighborhood roads along the north and east edges of the block are comparatively “quiet” and mainly serve for car traffic. All those spatial interventions and reflections reveal how place and flow dialectically create each other (figure 13-10).

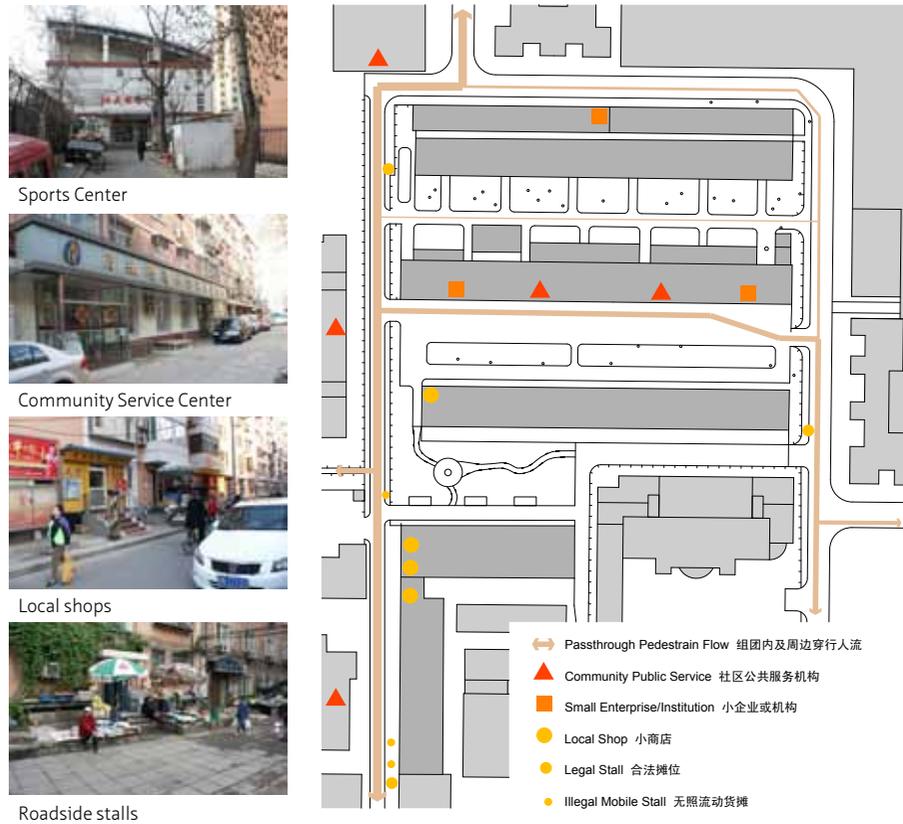


Figure 13.10 Existing pedestrian flow, local businesses and facilities in and surrounding the Building 50-52 Block

The efforts of both the designers and users together resulted in the existing communal open space system of the Building 50-52 Block. Three courts were enclosed by four south-north oriented, linear-arrayed apartment buildings and the fences along the east and west edges of the block. With the entrances of the residential buildings, the communal public space of the block was formed in the “north” court between Buildings 50 and 51 and the “south” court between Buildings 52 and 52A. The latter even extended into the court in the middle of the block. This “middle” court between Buildings 51 and 52 is divided into two parts by a long, narrow green. To the south of this public green, there is an open space in front of the entrances of Building 52 that is connected to the south court and actually formed one communal space. In particular nearby a local shop at the west corner of Building 52, a meeting place for the elderly was “self-organized” by the residents (figure 13-11). But in the north part of the middle court, a public space of the neighborhood in front of the communal facilities and commercial space on the ground floor of Building 51. In addition, as a major low-speed access of Sanlihe Neighborhood 1 to the busy Yuetan Nanjie, the neighborhood

road to the west of the block, along which there are many local businesses, also fostered a encountering and communicative space of the neighborhood. In particular during the rush hours in the morning and evening, this access is quite busy with not only the flows of going to or coming from work but also with many temporary businesses. While it was not the result of an integral planning, the communal space in the Building 50-52 Block still provides the communicative places for the residents from different social backgrounds and thus contributes to the social integration in a mixed community (figure 13-12).



Figure 13.11  
*Self-organized meeting place for the elderly*

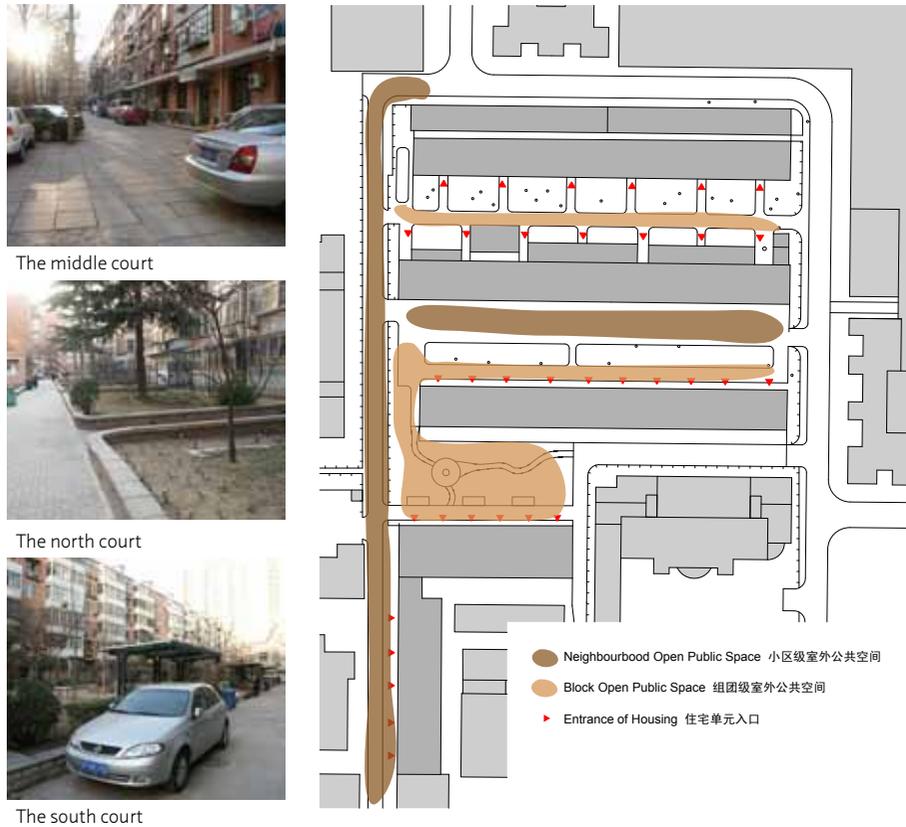


Figure 13.12  
Existing open space system in the Building 50-52 Block

Due to recent public interventions such as the implementation of the Pinggaipo project, the living environments of the block have been partly beautified and improved. The public-owned illegal structures were demolished, and some public greens, pavements and outdoor facilities were restored or redesigned. A relatively close, green and quiet living environment has been established (figure 13-13). However, those piecemeal measures without an integral planning could not fundamentally upgrade the quality of outdoor environments. Some communal facilities on the block scale, such as the sports field, the playground and the elderly facilities, are still missing. Many pathways or pavements also lack maintenance (figure 13-14).



Figure 13.13  
*Closed living environment of the block*



Figure 13.14  
*Lack of maintenance for this pathway*

A more serious problem, same as in most former public housing areas, is the privatization of public space. As a result of the uncontrolled private extension of home space, illegal structures, which include not only the self-construction and private occupation of public green on the ground level but also the additional “bay windows” on the upper floors, is very popular in the Building 50-52 Block. Most balconies have been closed by the additional windows and become part of interior space. The anti-theft cages, as well as the air conditioners, irregularly cover the building façades and destroy the original image (figure 13-15).



Figure 13.15  
*Illegal structures in the Building 50-52 Block*

Apart from those illegal constructions, illegal car parking is another critical problem. In fact, a certain regulation on car traffic and parking has been executed in the Building 50-52 Block. The north and south courts were set as the car-free areas, and the ground parking lots have been introduced along the neighborhood roads to the north and to the east, as well as in the middle court. But along with the increasing amount of private

cars in the neighborhood, illegal car parking is still quite popular in and surrounding the block. In particular in the neighborhood road to the west of the block, which is also a main pedestrian route, illegal parking has almost fully occupied the sidewalks. Pedestrians have to share the originally narrow roadway with cars and bicycles (figure 13-16). The uncontrolled privatization of public space leads to not only a chaotic cityscape but also to much interference with the residents.



Figure 13.16  
Existing car parking in the Building 50-52 Block

### § 13.1.3 Physically Built Environment at Present

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The existing built environment of the Building 50-52 Block, as a typical linear-arrayed, multi-storey row-housing block, is still identified by its original design concept – emphasizing the residential quality of individual buildings rather than the overall physical morphology and closed outdoor environments of housing area. Thanks to the linear-arrayed layout of the residential buildings, most of the dwellings (except for the dwellings in Building 52B) were guaranteed the desirable orientation that allows them to have enough sunlight and ventilation, while they are not really spacious. Even though these buildings were constructed before ecological measures were enforced, their housing design is adaptable to the local climate and therefore, beneficial to reduce energy consumption. But without a master plan at first, the outdoor environments and overall morphology of the block are inevitably monotonous and fragmented. While Building 50, with entrances on the south side, and Building 51, with accesses to the apartments from the north side, actually enclosed their own “building cluster”, Buildings 52A and 52B are just the result of “jianfeng-chazheng” housing development in the 1980s. At the time, harmonization with the surroundings was rarely considered. However, those patchworks precisely conducted to the diversification of housing typologies in the block: five different designs of residential buildings were applied.

Building 50 is a non-standard designed, 6-storey apartment building that was built in 1979. The building includes six dwelling units (stairwells), and the standard floor plan of each unit contains three apartments. Since the entrance of the stairwell was placed to the south, there are only two apartments on the ground floor of each unit. In total, Building 50 contains 108 dwellings, including 72 2-bedroom apartments, 30 3-bedroom apartments and 24 4-bedroom apartments. As a typical housing design of the 1970s, which has been obviously dated today, the bedrooms of each apartment are relatively spacious, while the small inner living room usually has no direct exposure to sunlight and the kitchen and bathroom are often narrow (figure 13-17). In addition, an “advanced” structural design at that time was applied for the construction of this building: the load-bearing inner wall was cast in situ by concrete and the outer wall was masoned by brick.

Parallel to Building 50, the 5-storey Building 51 is actually a structure of the stacking of programs. The ground floor was designed for the communal facilities and local businesses and the upper floors for dwelling. The front doors for communal and commercial spaces were placed on the south side of the building, but the entrances to the stairwells of seven dwelling units are on the north (the back side). Except for two units with 2-apartment floor plan, the standard floor plan of each unit contains three apartments. Among the total 76 dwellings, there are 16 1-bedroom apartments, 40 2-bedroom apartments, 16 3-bedroom apartments and 4 4-bedroom apartments.

As with Building 50, the apartment design of Building 51 also adopted the concept of large bedroom, inner living room (lobby) and small kitchen/bathroom (figure 13-18). In order to facilitate the non-residential space for the communal and commercial activities on the ground floor, the design of Building 51 applied the reinforced-concrete frame bearing structure, which was unusual for a multi-storey residential building. The walls are not load-bearing and composed of prefabricated panels.

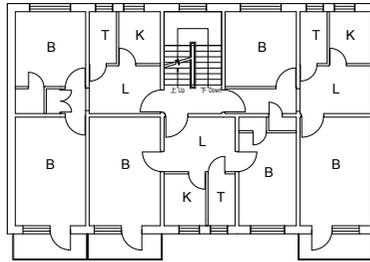


Figure 13.17  
Standard floor plan of a dwelling unit in Building 50  
(Drawing by Song Xiaoyu)

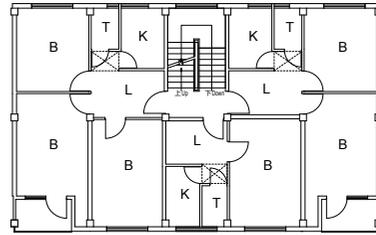


Figure 13.18  
Standard floor plan of a dwelling unit of Building 51  
(Drawing by Song Xiaoyu)

In comparison with the former two buildings, the design of Building 52, built in the same year, is comparatively standardized. It is a 6-storey residential building that adopted the 79-Housing-1 standard design. In total, 10 dwelling units, each of which has a standard floor plan of two apartments, accommodated 120 dwellings, including 6 1-bedroom apartments, 72 2-bedroom apartments and 42 3-bedroom apartments. All dwelling types also followed the design tradition of “large bedroom, small lobby” of the 1970s (figure 13-19). The building structure also applied the regular brick-concrete system, but as a building designed after the 1976 earthquake, the concrete structural pillars and ring beams were added.

Buildings 52A and 52B were built together in 1986 and perpendicular to each other. This L-shape building cluster actually composed the “boundary” between the housing block and the adjacent office area to the south. Building 52A is a 6-storey apartment building of 80-005 standard housing design. Six dwelling units with a 2-apartment standard floor plan provided 72 2-bedroom apartments. As a standard design that was widely applied in the 1980s, the 80-005 floor plan is famous for its small inner-patio. The depth of building was significantly enlarged in order to increase housing density, the living room and kitchen in each apartment enjoyed direct exposure to sunlight through the small patio (figure 13-20). This “classic” standard design also applied the traditional brick-concrete structure.

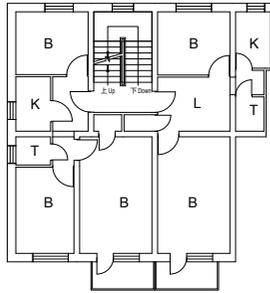


Figure 13.19  
Standard floor plan of a dwelling unit of Building 52  
(Drawing by Song Xiaoyu)

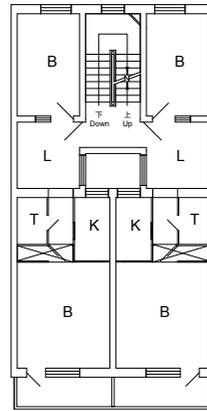


Figure 13.20  
Standard floor plan of a dwelling unit of Building 52A  
(Drawing by Song Xiaoyu)

As the only east-west oriented residential building in the block, Building 52B is also unique in terms of its special, non-standard design. In this 6-storey building of stacking programs, the space of ground floor and basement is occupied by the Municipal Housing Management Company for their offices and storehouse. Those ground-floor offices and the underground storehouse have their own entrances through an inner yard adjacent to the office, which actually became an integral part of it (figure 13-21). The boundary between the housing block and the office area is in fact inside the building. On the other side of the building, the stairwells of the apartments on the upper floors have access along the neighborhood road. This non-standard designed, brick-concrete building has five dwelling units. Four of them are 2-apartment dwelling units and one is 3-apartment. The total of 55 dwellings includes 30 1-bedroom apartments and 25 2-bedroom apartments. As the resettlement housing, most of those apartments are less spacious, and some of them even only have small lobbies (figure 13-22).



Figure 13.21  
 Entrance on the “back side” of Building 52B to the office area

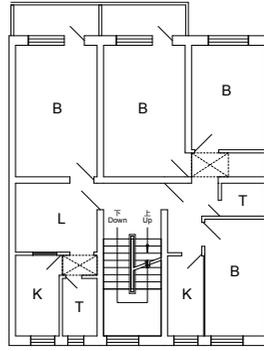


Figure 13.22  
 Standard floor plan of a dwelling unit of Building 52B  
 (Drawing by Song Xiaoyu)

The architectural design of all those five buildings covered by red bricks or prefabricated panels typically presents the functionalistic style of the residential architecture in the 1970s and the 1980s – simple, standardized but with proper proportion and well-designed façade details. But same as other former public housing areas, the façades of the residential buildings in the block has had a significant change invented by the residents in use: almost all balconies have been enclosed by additional windows. And the most recent change on the architectural form was introduced with the Pinggaipo project. While the façades were repainted conforming to their original colors, the gray roofs with dormer windows (which are actually the decorated vents) have added on the top of the linear-arrayed apartment buildings (figure 13-23).



Figure 13.23  
 Existing apartment building after the “Pinggaipo” project

In the technical dimension, all the existing buildings were designed after the 1976 earthquake and are thus still structurally safe enough. The Pinggaipo project has indeed improved the roof insulation of old buildings. The safeguard system such as the entrance with intercom has also been added. However, in many aspects the old residential buildings are outdated. The renovation of building interior is mainly focused on the residents' private housing improvement on their own home space (e.g. replacement of door and windows). Public elements such as the pipework and installations are aged and waiting for repair or replacement. Along with the aging population, the argument to add elevators to those 5-or 6-storey apartments is rising. More importantly, considering the ecological sustainability and environmental effect, those old residential buildings have to be critically questioned: the originally energy-inefficient designs, including the outer wall without thermal insulation layer and steel framed windows, no doubt, have to be improved.

Besides the residential buildings, the quality of outdoor environments is also a physical challenge for the Building 50-52 Block. In the original design of this linear-arrayed row-housing block, the landscape architecture was missing. The surrounding space of the buildings used to be rather monotonous and homogenous. But due to public interventions in recent years, the outdoor environments of the block have partly improved. Enclosed by the newly additional fences, some public green, pavement, urban furniture and other facilities have been restored or newly introduced. The interventions mainly focused on the north court between the Buildings 50 and 51 and the south court between the Buildings 52 and 52A. In the north court, the illegal structures attached to the commercial space on the ground floor of Building 51 were demolished, and the public green and pavement have been restored (figure 13-24); and in the south court, the garden-like public green, as well as the parking facilities for bicycles, were introduced (figure 13-25). The block, as same as many other former public housing areas, is identified by the arborous vegetation (figure 13-26).



Figure 13.24  
*Restored public green and pavement in the north court*



Figure 13.25  
*Garden-like public green in the south court*



Figure 13.26  
Existing green space in the Building 50-52 Block

However, in comparison with the reconstructed blocks in the Sanlihe Neighborhood 1, the quality of outdoor environments of the Building 50-52 Block undoubtedly needs to be improved. The illegal construction and car parking, as well as the messy anti-theft cages, air conditioners and overhead electrical wires, are still popular. The public green and the concrete pavement especially in the middle court between Buildings 51 and 52 have not been restored and obviously aged (figure 13-27). Even some restored or newly introduced green spaces and outdoor facilities are out of effective maintenance. The insufficiency of local communal facilities, such as meeting spaces with urban furniture, playgrounds and sports facilities, is still a realistic problem. In particular, taking into account the aging population, the local facilities for the elderly are obviously missing.



Figure 13.27  
*Aged public green and pavement in the middle court of the Building 50-52 Block*

In general, the physically built environment of the Building 50-52 Block, as a linear-arrayed row-housing block developed from the 1970s to the 1980s, is better maintained than those early built, “decrepit and old” housing areas such as Block 1. But in comparison with the present residential quality, either the housing conditions or living environments of the block have been outdated and indubitably need to be improved.

#### § 13.1.4 SWOT Analysis and Planning Question

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Based on the site research on the existing social structure, housing stock, community life and physical environments of the Building 50-52 Block of Sanlihe Neighborhood 1, we made the following SWOT analysis in order to summarize the existing challenges(see table 13-1).

Analysis: Internal/external advantages and disadvantages		
	Advantages	Disadvantages
Internal	<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>- Good place of residence (the central location and well-accessible public transport)</li> <li>- Well-developed public space, communal facilities and infrastructure (in and surrounding the neighborhood)</li> <li>- Mixed programs and the vibrant local businesses</li> <li>- Majority of owner-occupation in the housing stock of the block</li> <li>- Relatively affordable (in comparison with newly built market housing estates) housing rents/prices</li> <li>- A neighborhood for the elderly</li> <li>- Well-organized, socially mixed local community and well-educated residents</li> <li>- Private housing improvement by the residents</li> <li>- A typical linear-arrayed row-housing block with diversified types of apartments</li> <li>- Desired apartment designs adaptable to the local climate and beneficial to reducing energy consumption</li> <li>- Designed building life unexpired</li> <li>- Partly improved living environments and arborous greenery</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>- High price of market housing and speculative housing stock</li> <li>- Deficiency of housing management and maintenance</li> <li>- Threat of social filtering and decline due to the well-off have moved out</li> <li>- A housing block without integral planning and well-designed outdoor environments;</li> <li>- Less spacious apartments with deficient design for the elderly</li> <li>- Old and technically energy-inefficient buildings</li> <li>- Popularity of illegal privatization of public space (e.g. illegal construction, illegal car parking, etc.)</li> <li>- Dated and insufficient local facilities in the block (e.g. lack of parking lots, playgrounds and urban furniture, etc.)</li> </ul>
External	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>- Reemphasis of social housing and interventions to restrain speculation</li> <li>- Promotion of urban renewal (including housing renovation) as an important social housing intervention</li> <li>- Promotion of shequ development</li> <li>- Increasing (both top-down and bottom-up) request to improve the living conditions of old housing areas</li> <li>- Promotion of energy-saving improvement for old buildings</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>- Generally capitalized and speculative urban housing stock</li> <li>- Insufficiency of affordable and decent housing for the lower-income groups in the central area of the city</li> <li>- Deterioration of early-built and old housing areas in the city</li> <li>- Mechanisms of socio-spatial filtering and neighborhood decline</li> <li>- Threat of socio-spatial segregation</li> <li>- Aging population in general</li> <li>- Population displacement and (mixed) community destruction caused by neighborhood decline or urban reconstruction</li> </ul>
Confrontation: Existing challenges		
	Opportunities	Threats
Strengths	<p><b>Offensive</b></p> <ul style="list-style-type: none"> <li>- Social-oriented urban renewal to renovate housing stock, to stabilize the local community and to strengthen the local identity</li> </ul>	<p><b>Defensive</b></p> <ul style="list-style-type: none"> <li>- Stabilization of mixed community, the provision of affordable and decent housing and the development of concrete local economy</li> </ul>
Weaknesses	<p><b>Cleanup</b></p> <ul style="list-style-type: none"> <li>- Improvement of living conditions for the residents and the intervention to the local housing stock</li> </ul>	<p><b>Survival</b></p> <ul style="list-style-type: none"> <li>- Prevention of neighborhood decline, community destruction and socio-spatial segregation</li> </ul>

Table 13.1  
SWOT analysis for the Building 50-52 Block of Sanlihe Neighborhood 1

While some measures of housing renovation have been implemented, the housing conditions and living environments of the Building 50-52 Block are, according to the SWOT analysis, still generally outdated and aged. The living conditions of the block, in which a majority of apartments are still occupied by the original residents, indeed have to be fundamentally improved. The physically aging built-environments bring on the threat of social decline and destruction of the existing mixed local community. Therefore, with respect to the *issue* of urban renewal, the major challenges for the Building 50-52 Block of Sanlihe Neighborhood 1 focus on a planning question: *How to fundamentally improve the living conditions of the block on the one hand, and to prevent the destruction of the existing mixed community on the other hand?*

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## § 13.2 Strategies and Designs for the Urban Renovation of the Building 50-52 Block

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For a privatized, former socialistic public housing block which was developed about 30 years ago and is still mostly occupied by the original residents, demolition and reconstruction is indubitably an unreasonable choice. Even according to the existing social housing policy of the Chinese government, the renovation of old former public housing areas is promoted as a strategy to improve the housing conditions for the urban residents. We therefore try to develop a new approach to not only housing but urban renovation for the Building 50-52 Block of Sanlihe Neighborhood 1, as a pilot design research project to explore the urban renewal alternatives for those later developed former housing areas in Beijing.

### § 13.2.1 Objective and Principles

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As a pilot design research project, the objective of the urban renovation of the Building 50-52 Block is proposed as: *to improve the housing conditions and living environments for the local community so as to prevent the decline of the block*. Therefore, the urban renovation has to be in accord with the following principles:

- Improving the housing conditions for the existing residents by housing renovation;
- Enhancing the quality of overall living environments of the block;
- Stabilizing and strengthening the socially and programmatically mixed local community;
- Developing an economical approach for urban renovation;

- Establishing a collaborative mode to guide the participation of the residents in the urban renovation; and
- Creating an environment-friendly housing block.

Based on the objective and principles of urban renovation, a series of adapted strategies on physical planning and design, housing policy, financing means and project organization have been developed.

### § 13.2.2 Physical Planning and Design Strategies

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As physical interventions, the planning and design for the urban renovation of the Building 50-52 Block are developed according to the following strategies:

- Defragmentation of the spatial structure of the block by integral planning  
As a result of “patchworks”, the linear-arrayed Building 50-52 Block is still confused by its fragmented spatial morphology as well as disconnected outdoor space. In order to overall upgrade the quality of living, an integral spatial planning is for the first time introduced to defragment and to optimize the spatial structure of the block. According to the new “master plan”, which is developed based on the analysis on the existing use of the space, the block is proposed to be divided into two “sub-blocks” or building clusters that will be assembled by the existing north and south courts. Along the major neighborhood routes in between and surrounding those two sub-blocks, the “neighborhood streets” are defined as the communal space not just for the block but for the Sanlihe Neighborhood 1 (figure 13-28). The integral spatial planning will help to improve the living conditions and to stabilize the local community.
- Housing renovation without the evacuation of the residents  
For improving the housing conditions of the existing residential buildings in the block, which have only been built up for about 30 years and are still mostly occupied by the original residents, the housing renovation is the most preferable choice. The renovation of those former public housing buildings means not only the repair or replacement of aged building components and pipework but also the enlargement of the existing less spacious apartments. Moreover, in order to avoid the destruction of the local community, the existing residents have to be guaranteed to stay at home within the process of construction and the interference of housing renovation should be minimized.
- Improvement of the overall living environments of the block  
Apart from the renovation of old residential buildings, the urban renovation also means the improvement of the overall living environments of the Building 50-52 Block. Based on the newly planned spatial structure of the block, the outdoor environments are redesigned and the communal facilities will be upgraded. The

physical interventions will include new car parking and traffic system, new local facilities, redesigned landscape and greenery, and an optimized communal public space system.

- Application of an ecological design  
Although the linear-arrayed, south-north oriented apartment buildings can be seen as an “ecological” design adaptable to the local climate, the environmental issue was technically not the emphasis of original physical planning and design of this former public housing block. In order to create an environment-friendly housing area, the application of ecological and energy-efficient design and building technologies will be obligatory in the physical interventions for urban renovation.

According to those strategies of physical initiatives, a master plan of urban development, as well as the designs for the buildings and outdoor environments, is developed for the urban renovation of the Building 50-52 Block of Sanlihe Neighborhood 1 (figure 13-29). All the physical design interventions will be elaborated in detail in the following text.

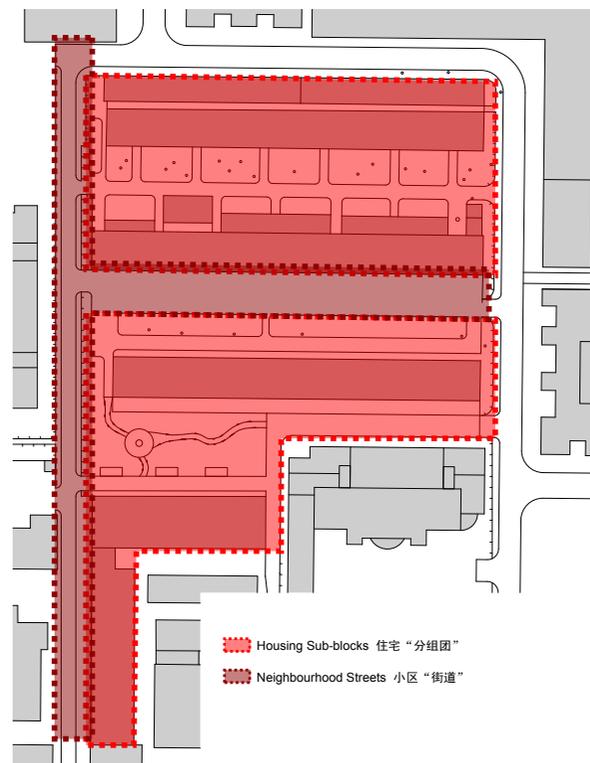


Figure 13.28  
Proposed new spatial structure of the Building 50-52 Block



Figure 13.29  
*Master plan for the urban renovation*

### § 13.2.2.1 Renovation of Existing Apartment Buildings

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In comparison with the current housing standards, the design of the apartments in the Building 50-52 Block, which were developed in the 1970s and the 1980s, is apparently dated. Not only is the home space less spacious (which often results in the construction of illegal structures), but also the functionally spatial layout is unreasonable: the space of the kitchen and the bathroom is too limited, and the living room is also small and

often without the direct exposure to sunlight. At the same time, the functional lack of an elevator is increasingly a critical problem for those who are gradually aging but still living in these 5- or 6-storey buildings. But on the other hand, the south-north oriented dwellings in those linear-arrayed and structurally safe apartment buildings are still the desired housing choice for many residents.

Therefore, in order to fundamentally improve the housing conditions, a primary task to housing renovation will be the spatial and functional upgrading of the old apartments, for which many successful experiences can be learnt. The interventions will include the extension and readjustment of home space, as well as the addition of a new elevator. For different existing buildings, the adapted designs have been developed, minimizing possible interference with the residents normal living.

The extension of Building 50 will concentrate on the south side of the building. The existing balconies, most of which have been enclosed by the residents, are planned to be structurally reinforced and “legalized” as interior home spaces. The south-oriented rooms, including kitchens and bathrooms, will be also extended through the additional structure out of the existing building. A uniformly designed, new façade will cover all the additional structures. On the north side of the building, the gap between the residential building and the garage gives space for adding the elevators outside the stairwells (figures 13-30, 13-31). The non-load-bearing outer wall of the existing building, which might be structurally changed or even taken off, will facilitate the spatial extensions.

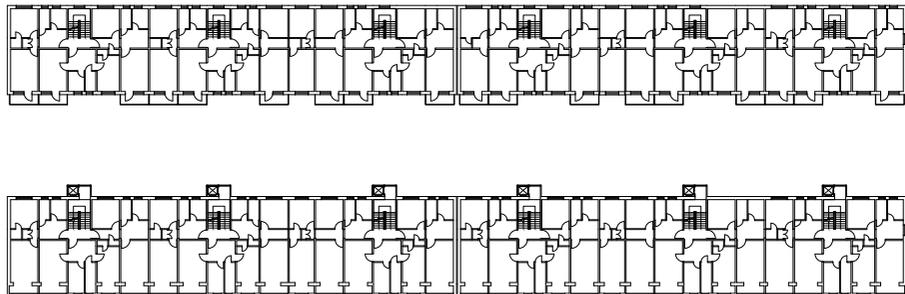


Figure 13.30  
Standard floor plan of Building 50 before (upper) and after (lower) the renovation  
(Design and drawings by Hui Xiaoxi and Song Xiaoyu)

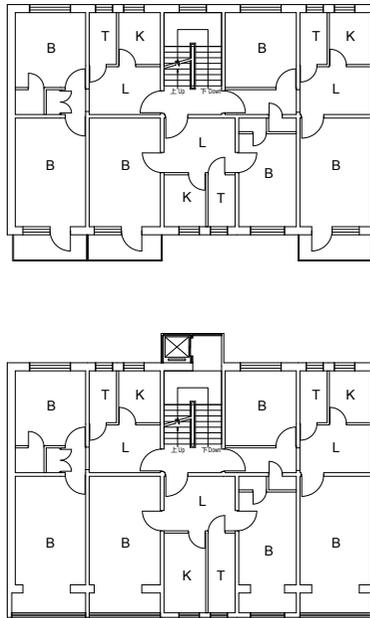


Figure 13.31  
 Standard floor plan of a dwelling unit of Building 50 before (upper) and after (lower) the renovation  
 (Design and drawings by Hui Xiaoxi and Song Xiaoyu)

Thanks to its concrete frame structure, the renovation of Building 51 would be easier. For this building of stacking programs, the extension will focus on the residential area on the upper floors. The outer wall that is composed of prefabricated concrete panels can be taken off for the extension. The renovation will result not just in the enlargement of home space, especially for the kitchen and bathroom, but also in the extended stairwells with new elevators. The most significant transformation will be at the west end of the building: a new 1-bedroom apartment, as public-rented social housing, is planned to be added on each floor of this originally “irregular” dwelling unit (figure 13-32, 13-33).

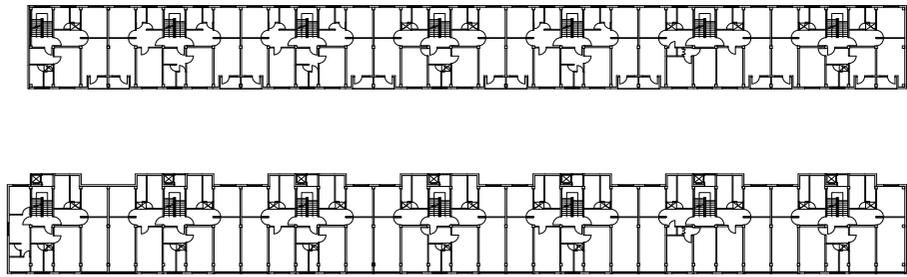


Figure 13.32  
Standard floor plan of Building 51 before (upper) and after (lower) the renovation  
(Design and drawings by Hui Xiaoxi and Song Xiaoyu)

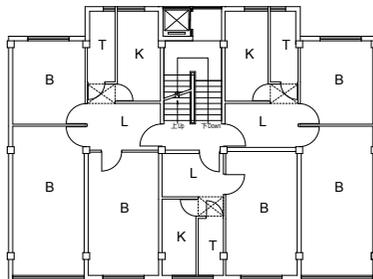
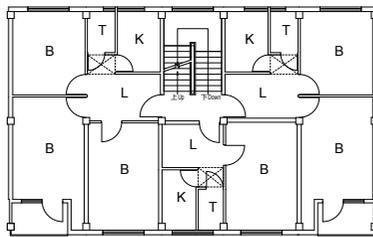


Figure 13.33  
Standard floor plan of a dwelling unit of Building 51 before (upper) and after (lower) the renovation  
(Design and drawings by Hui Xiaoxi and Song Xiaoyu)

For the rest three apartment buildings in the block, the traditional brick-concrete structure inevitably leads to more difficulties for the adjustment of floor plans. Both the inner and outer walls of this structural system are load-bearing. In order to reduce the interference with the residents, as well as the cost of the renovation, the construction works are planned to focus on the additional structures for room extension outside the existing buildings. Different design schemes adapted to the existing building conditions have thus been developed.

The renovation of Building 52 will refer to the extensions on both the north and the south sides of the building. Apart from those additional structures for the enlargement of apartments and for the new elevators, the design scheme provides a free choice for internally optimizing home space, in which the major adjustment is to enlarge the space of the bathroom that is evidently too limited at present (figure 13-34, 14-35).

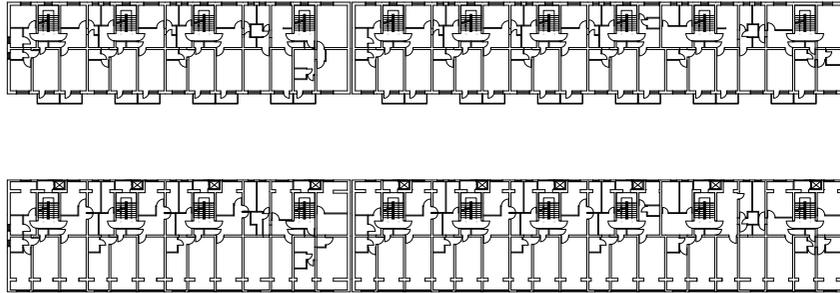


Figure 13.34  
Standard floor plan of Building 52 before (upper) and after (lower) the renovation  
(Design and drawings by Hui Xiaoxi and Song Xiaoyu)



Figure 13.35  
Standard floor plan of a dwelling unit of Building 52 before (left) and after (right) the renovation  
(Design and drawings by Hui Xiaoxi and Song Xiaoyu)

But for Building 52A, the long depth of the existing inner-patio design does not facilitate much extension of home space. The additional structure is mainly proposed on the north side of the building, and on the south side, the rooms will be only slightly extended based on the existing balconies. The small inner-patios, which were designed as the ways for sunlight and ventilation to access the living rooms and kitchens but often complained by the residents in terms of the visual insecurity or kitchen smoke, provide proper places for installing the elevators. Made of translucent glass, these

elevators will blind the visual interference while still ensuring sunlight. In addition, the enlarged apartment will condition the second, but more “intensive” choice of home renovation: homeowners could choose to move their kitchens to the extended “balconies” and thus gain some extra space for their living rooms (figure 13-36, 13-37).

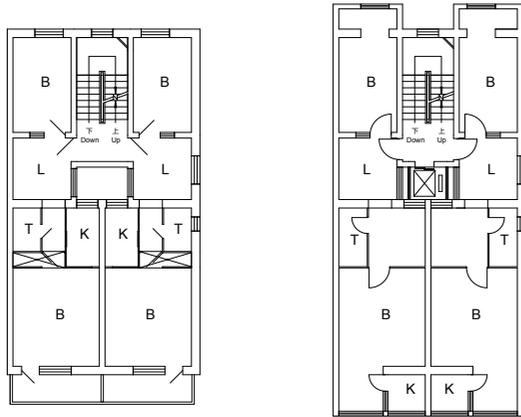


Figure 13.36  
Standard floor plan of a dwelling unit of Building 52A before (left) and after (right) the renovation  
(Design and drawings by Hui Xiaoxi and Song Xiaoyu)

The extension of Building 52B will also concentrate on the upper residential floors. On the east side of the building, the room extension will be based on the existing balconies. But on the west side along the neighborhood road, the additional structures are planned to be controlled to a limited extent in order to minimize the marginal invasion of open public space (figure 13-37).

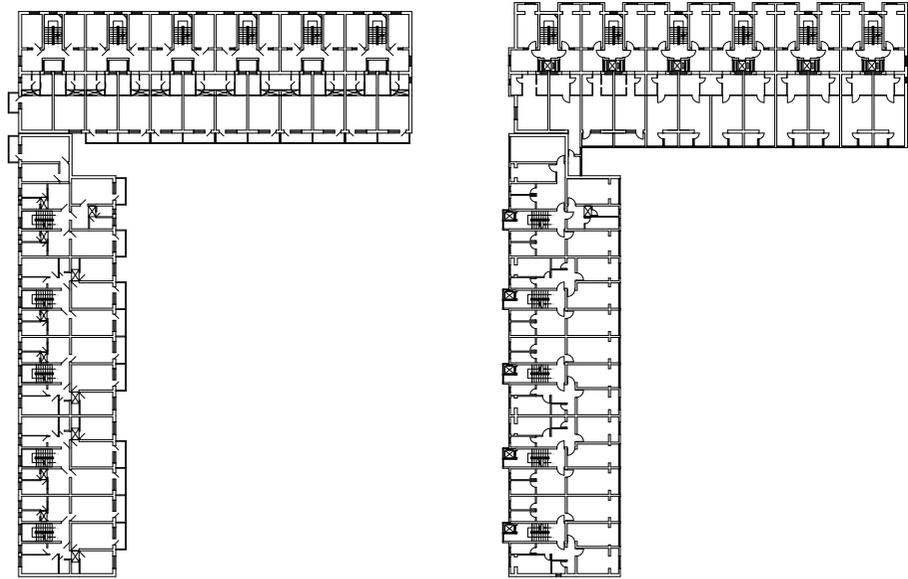


Figure 13.37  
 Standard floor plan of Buildings 52A and 52B before (upper) and after (lower) the renovation  
 (Design and drawings by Hui Xiaoxi and Song Xiaoyu)

For the purpose of avoiding the evacuation of the residents, alterations to the existing building structures will be minimized in all the renovation measures on the spatial extension or functional optimization. Most of the new constructions are designed on the outside of the existing buildings, so that the residents can be guaranteed to stay at home even when the renovation is implemented. The adapted designs therefore will contribute to the stabilization of the existing mixed local community.

On the other hand, the identity of the local community will also remain through the design of architectural form. The “classic” image of the typical former public housing block that was developed from the 1970s to the 1980s, which means the building façades of plain red bricks, is proposed to be maintained. The new façades of the renovated buildings will mainly be covered by red-brick tiles. The new elevators usually attached to the stairwells will intensify the identity of the entrances to the apartments. The fixed settings on the building façades are designed for the air conditioners and, along with the intensification of housing management, the anti-theft cages and other illegal structures that could deteriorate the building façade should be strictly prohibited.

Besides those spatial and aesthetic interventions, the housing renovation will undoubtedly include the technical improvement. The aged or decayed building components, pipework and installations are planned to be repaired or replaced.

Furthermore, the ecological upgrading will be obligatory. The renovation will maximally retain the existing spatial layout that facilitates the natural sunlight and ventilation. And the extended room spaces can be also used as the interior gardens to create “vertical” green. In the technical dimension, the environment-friendly materials will be widely used in the building renovation. The new thermal insulation layer will be added on the outer wall, and the steel framed windows that are no doubt energy-consumptive should be replaced. Solar panels are proposed to be added on the roofs of the existing buildings, and a water recycling system will be introduced.

#### § 13.2.2.2 Improvement of Living Environments of the Block

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Urban renovation does not just mean the renovation of aged residential buildings, but also refers to the overall improvement of living environments in old housing areas. Apart from the housing renovation, the following measures for improving the quality of outdoor environments and communal facilities are proposed in the renovation plan for the Building 50-52 Block of Sanlihe Neighborhood 1.

According to the new spatial planning, car traffic will be only permitted but reorganized in the surrounding neighborhood roads and a specified car access in between two car-free sub-blocks. All those roads will be defined as one-way routes in order to change the existing disordered situation. The narrow road along the west edge of the block is in particular redesigned. Presently, there is confusion there due to illegal car parking, plus the irregular traffic of cars, cyclers and pedestrians. The sidewalk will be kept on the east side of the roadway, while the new street parking is planned on the other side. The roadway itself will be curved in order to slow down the traffic. The existing legal parking lots will be retained and restored. All the parking spaces are proposed to be only available for the residents, small businesses and communal facilities in the block in order to reduce car traffic in the neighborhood (figure 13-38).

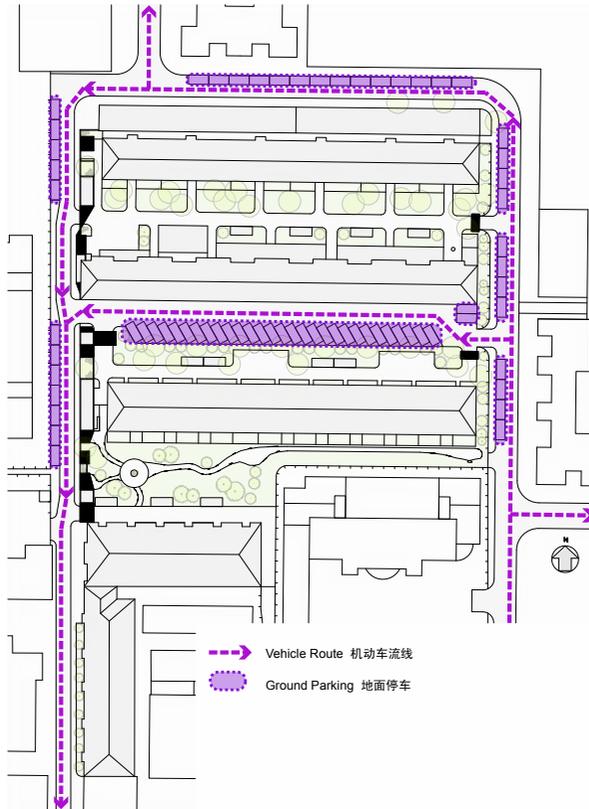


Figure 13.38  
Proposed car routes and parking of the Building 50-52 Block

The problem of insufficient local facilities is planned to be solved by urban renovation. The building renovation will incorporate the maintenance of existing communal facilities and local shops as well. But the most significant new physical intervention is a “soft boundary” that will be introduced along the west edge of the block. A continual but tortuous “fence” is laid out to enclose a series of spaces for the elderly meeting room, local shop, safeguard room, sports facilities, pergola, parterre, small square and even for the temporary roadside stalls, on its both sides. The sightline access between the courts and the neighborhood road is also fully considered. Besides, this road will also be redesigned. The soft boundary will not only define the border of the block but help to recreate communicative spaces along the west edge of the block. Here, the boundary will not mean the end but the start of the community life (figure 13-39). In the meantime, the playground and sports field, as well as the new parking shed for bicycles and urban furniture will be set up in the courts.



Figure 13.39  
 Design of the "soft boundary"  
 (Design and drawings by Hui Xiaoxi and Song Xiaoyu)

The green landscape in the Building 50-52 Block will be further improved. The existing public green in between Buildings 51 and 52, which lacks maintenance, will be restored. Under the present arbores, dense shrubberies will be planted to clarify a “natural” border in the middle court in the block (figure 13-40) between its south side (which will be enclosed to the new sub-block in the south) and its north side (which will be confirmed as the communal space of the neighborhood). The new public green is proposed to be introduced on the presently bare land in front of Building 52. And the horticultural design of the existing public greens in the south and north courts of the block will be upgraded. Besides the improvement of public green, the private allotment gardens are planned along the south sides of Buildings 50 and 52. On the upper floors, the extended space by housing renovation will also facilitate the “interior gardens”. Those allotments or interior gardens will stimulate the residents to work together to redecorate their own community.



Figure 13.40  
New “border” in the middle court  
(Drawing by Song Xiaoyu)

The design of new outdoor facilities is also combined with the landscape architecture. The aforementioned “soft boundary” will include pergolas, parterres and small open squares. An impressive design is the sculpture-like gateways that will be set up by the entrances of two sub-blocks to give the residents the orientation to their homes (figure 13-41). The design of all new constructions will continue the original building style of the block, which means the color of plain red brick, for repeating the local identity. Thanks to the renovated buildings, well-designed new constructions and improved greenery, the local landscape theaters will be established at the “front doors” of the block (figure 13-42).



Figure 13.41  
New "gates" of the sub-blocks  
(Drawings by Song Xiaoyu)

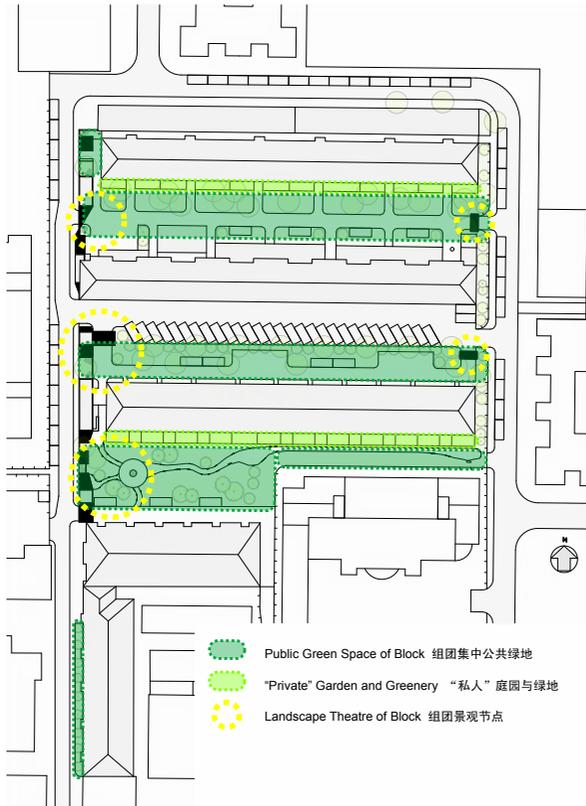


Figure 13.42  
Proposed green space and landscape system of the Building 50-52 Block

All physical designs to improve the living environments will contribute to realizing the communal open space system that is proposed according the new spatial structure of the block. The originally disconnected open spaces will be defragmented. In

the two sub-blocks that will be enclosed by those new “borders” (tortuous fences, gateways, shrubberies, etc.), the block public space will be assembled around the existing or newly introduced local facilities. On the other hand, the not only block but neighborhood public space will be confirmed along the communal and commercial space on the ground floor of Building 51 and the new soft boundary on the west edge of the block (figure 13-43).

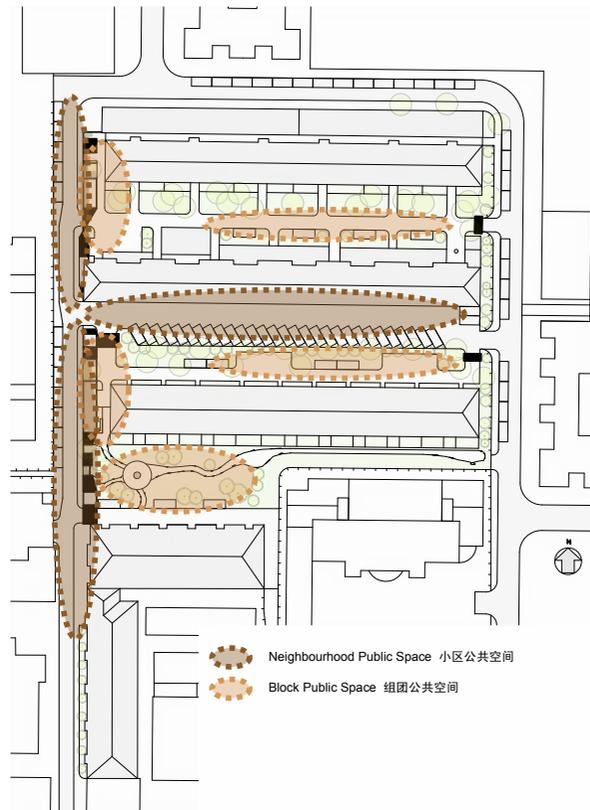


Figure 13.43  
Proposed public space system of the Building 50-52 Block

Additionally, same as in the rehabilitation proposal for Block 1, the ecological concept will be adopted in the not just building but urban renovation of the Building 50-52 Block of Sanlihe Neighborhood 1. Apart from the design measures such as to introduce more greeneries, to increase the number of bicycle parking sheds, or to reduce the car traffic, the environment-friendly technologies will be systematically applied for the whole block. A closed-loop water management system, including an

underground container to collect rain water, will be built at the block level not only for lavatory flushing but also for watering the green areas. The supply of solar energy is also planned to be shared by different buildings. And all the new constructions for communal facilities and outdoor space will totally apply the “green” building materials. A major purpose of the overall improvement of the living environments is to create an environment-friendly and energy-efficient housing block.

In general, the physical planning/design for the improvement of living environments, together with the housing renovation, will significantly upgrade the quality of living in this block. Urban renovation is aim not only to fundamentally improve the housing conditions, but also to defragment the urban morphology, as well as the outdoor environments, of this linear-arrayed row-housing block which was never integrally planned. An integrated, green and user-friendly residential environment is planned to be realized according to this pilot design research (figure 13-44).



Figure 13.44  
*Perspective of the Building 50-52 Block after the urban renovation*  
(Drawing by Song Xiaoyu)

### § 13.2.3 Housing Strategies and the Process of Project Implementation

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Different from Block 1, the Building 50-52 Block of Sanlihe Neighborhood 1 is comparatively “new” and still to a large extent occupied by the homeowners. Preceding

the high “market price” of the later developed, privatized former public housing, the large-scale housing socialization by the government purchase is not economically feasible. The adapted housing strategy for the renovation will focus on the public subsidies to encourage private participation.

Public subsidies for the urban renovation will include two categories: the object subsidies and the subject subsidies. Object subsidies are proposed to cover the cost for the improvement of outdoor environments and local facilities and the renovation of the public part of the existing buildings, the latter will include repairing or replacing aged building components, pipework and installations, additional structure for home extension, renewing the building façade and ecological upgrading. The subject subsidies represent the individual allowances for the homeowners to support the private renovation of their homes or the “additional” upgrade (the cost of which usually need be partly afforded by the homeowners), such as adding an elevator. Same as in Block 1, the initiator and operator of the urban renovation will be the new housing corporation transformed from the existing Construction and Property Management Office of Guojiafagaiwei, which will also partly finance the renovation. Thanks to the adapted designs and process of renovation, the evacuation and rehousing of the residents will be avoided so as to effectively reduce the cost and the time of implementation.

The housing strategies will also refer to the measures to efficiently restrain the predictable speculation and gentrification. Urban renovation will indubitably increase property values, but the public subsidies should be ensured to primarily improve the housing conditions for the residents rather than to impel the for-profit housing transaction or rental. At the same time, the publicly subsidized renovation, especially the additional structure for home extension, actually means that the housing corporation will enhance its share in the joint ownership (while it is often ignored by the current homeowners) of the privatized former public housing apartments. Thereby, the agreement on the post-renovation housing transaction must be signed between the housing corporation and the residents: all the renovated apartments will be prohibited to be sold in the housing market within the coming five years, and those who will sell their houses after the 5-year ban should pay a certain percentage of their incomes to the housing corporation<sup>1</sup>. Furthermore, as for the private-rented apartments that received the public subsidies for the renovation, the rent regulation must be applied: their owners have to agree to preset the rents for a period of 25 years

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1 The percentage for the payment will depend on the subject subsidies. For instance, if the homeowners receive the allowance, they might be asked to pay 30% of the income; while the one who would like to afford his/her own private renovation will only pay 20%.

(which means a half of the expected building life after the renovation), according to the rent standards of public-rented housing. The forced eviction of existing tenants will be prohibited as well. The housing right of the tenants should strictly be protected.

For the purpose of housing differentiation, the newly additional apartments, as a result of the renovation of Building 51, are planned to be the new public-rented social housing, which will be owned and managed by the housing corporation. In the meantime, the communal and commercial space on the ground floor of the same building, which is still mostly owned by the housing corporation, will also be renovated. The existing local shops resulting from transformed apartment dwellings will be retained, and the potential losses of the shop owners will be compensated through the subject subsidies of renovation. The existing socially and programmatically mixed local community therefore will be further strengthened. To conclude, the housing stock of the Building 50-52 Block will be maintained and optimized by the urban renovation measures (see table 13-2).

	Number of Apartments	Building Floor Area before the Renovation	Building Floor Area after the Renovation
Building 50	102	6,686 m <sup>2</sup>	7,046 m <sup>2</sup>
Building 51	76	4,212 m <sup>2</sup>	4,776 m <sup>2</sup>
Building 52	120	6,978 m <sup>2</sup>	8,328 m <sup>2</sup>
Building 52A	72	4,488 m <sup>2</sup>	4,860 m <sup>2</sup>
Building 52B	55	3,220 m <sup>2</sup>	3,550 m <sup>2</sup>
New Public-rented Housing (only in Building 51)	4		120 m <sup>2</sup>
Newly Constructed Buildings for Communal Facilities <sup>a</sup>			144 m <sup>2</sup>
Communal/commercial space in the Building 51		1,650 m <sup>2</sup> (1,250 m <sup>2</sup> belong to the housing corporation)	1,650 m <sup>2</sup> (1,250 m <sup>2</sup> belong to the housing corporation)
<b>Total Building Floor Area in the Block</b>		<b>27,234 m<sup>2</sup></b>	<b>30,474 m<sup>2</sup></b>

<sup>a</sup> The newly constructed communal facilities, including the elderly meeting rooms, local shops and the safe-guard rooms, will be concentrated in the "soft boundary" along the west edge of the block.

Table 13.2  
Housing stock of the Building 50-52 Block before and after the urban renovation

According to the housing strategies for the publicly subsidized renovation, most of the dwellings in the Building 50-52 Block will be kept as privately owned (while it is legally a kind of joint ownership). The implementation process of housing renovation is hence

subtly laid out in order to minimize the impact to the residents and to guarantee their stay at home during the construction period. In principle, the housing renovation will include three phases:

- a Phase 1 of housing renovation will focus on the outside of the existing buildings. This comprises the construction of the additional structures for the extension of home space, the transformation of the existing balconies, as well as the addition of new elevators. In this phase, the interference to the residents will be minimized.
- b Phase 2 will be the renovation of the existing building structure and pipework. The barriers between the existing and additional spaces, the existing outer walls and windows, will be cut or taken off so that the extension of home space will be finalized. The aged pipework and installations will also be repaired or replaced in this phase. The interference to the residents will be inevitable, but previous experiences have proven that the residents can still occupy their houses when those interior works are implemented. The construction period will be minimized as short as possible (in principle no more than one week). And the temporary amenities, including the temporary water supply, toilet and bathroom, will be facilitated by the government and housing corporation.
- c The last phase will be the phase of “beautification”. The new building façades and the restoration of the stairwells will be done by the housing corporation. And the homeowners will “recover” their private housing spaces.

Since it is usually difficult for all the residents in the block to reach a consensus, the housing renovation is planned to be implemented building by building or even dwelling unit by dwelling unit (stairwell by stairwell). The addition of a new elevator will be a *free choice* because its cost will be partly afforded by the homeowners. As “pilot projects”, the first renovated buildings or dwelling units will play the role of the evidences of convincing the benefits and promoting the renovation process among the residents of other buildings in order to motivate them to participate in it.

The improvement of outdoor environments and local communal facilities is planned to be implemented parallel to the renovation of residential buildings. Thanks to the industrialized and adapted building technologies for the housing renovation, the outdoor space that will be occupied by the construction site can be largely reduced. The existing public green will be mostly retained and the new greenery and local facilities could be introduced during the construction period of the housing renovation. The residents will be able to start to enjoy the newly upgraded living environments of the block under the urban renovation.

According to the adapted housing strategies and the well-planned process of project implementation, the existing residents, as well as the mixed local community, of the Building 50-52 Block will be mostly retained through urban renovation. While the housing conditions and living environments will be improved, the gentrification and the eviction of the low-income earners will be controlled to a large extent. Urban

renewal is proposed to be turned back to its origin – to solve the housing problem for those who are the real residents.

#### § 13.2.4 Financing Strategies and Economic Balance

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In comparison with the wholesale reconstruction, the renovation is no doubt an economical approach to urban renewal. However, the economic feasibility of urban renovation is still a challenge, especially in a capitalized housing stock. For the urban renovation of the Building 50-52 Block, as a privatized former public housing estate of the actual joint ownership, a financing mode of public private partnership (PPP) was developed. Homeowners, housing corporations (and danwei) and government are planned to fairly share the cost of the renovation. The economic feasibility will depend on the following financing strategies:

- Distinguishing the financing responsibilities of the renovation  
According to the existing ambiguous and joint housing ownership and the land tenure of the Building 50-52 Block, the responsibilities of renovation should be distinguished between the private (homeowners) and public actors (housing corporation and danwei). In principle, homeowners will pay for the renovation of their private housing spaces, and the housing corporation, with the support from the danwei, will be responsible for renewing the outdoor environments, local facilities and public part of the residential buildings (including the additional structures). A certain percentage of subject and object subsidies will be available for the homeowners, but, in terms of the principle of rights corresponding to obligations, the housing corporation will hold a larger share in the joint ownership of privatized former public housing apartments. Except for its own financial means, such as rental income of commercial space or parking lots in the block and the profit of its profitable projects, the housing corporation will apply the government subsidies.
- Available public subsidies for urban renovation  
The increase of public funding for social housing development and urban renewal provides new opportunities for the application of government subsidies for urban renovation. The potential public funding includes government subsidies for the former public housing renovation, ecological upgrading and the barrier-free transformation (such as adding new elevators), as well as the exemption/reduction of land lease or tax for social housing development. The predictable public subsidies from the government are expected to cover 1/3 of the total cost of urban renovation.
- Reducing the cost by the adapted designs, technologies and process of renovation  
By applying the adapted designs, technologies and process, the cost of urban renovation can be significantly reduced. The “expensive” measures such as the

great change of existing building structure are not included in the renovation plan. The expenditure for rehusing or interim houses will be dispensable. The extra costs caused by the housing pre-empty, which usually will lead to additional damages to the building, will also be avoided. And the ecological upgrading will reduce the energy consumption as well as the cost of housing maintenance in the future.

According to those financing strategies, the economic balance of the urban renovation of the Building 50-52 Block is estimated in the following table.

Expenditure <sup>a</sup>	Income <sup>a</sup>
Construction cost of the renovation of the existing apartments (the repair or renewal of public parts of old buildings, the additional structure, the ecological modernization, etc.): CNY 5,534,400	Rent income of the new public-rented housing (counted by the cost price): CNY 660,000
Construction cost of the new public-rented housing: CNY 240,000	Rent/sale income of car parking spaces (CNY 150 / month per car): CNY 6,210,000
Construction cost of the renovation of the existing communal/commercial building: CNY 1,250,000	Rent income of commercial space (CNY 2 /m <sup>2</sup> per day): CNY 45,625,000
Construction cost of the new buildings for communal facilities (including local shops): CNY 172,800	Applicable public subsidies for the renovation of old former public housing (the ecological upgrading, barrier-free transformation, environment improvement, etc., counted by 1/3 of the total cost of building renovation and improvement of outdoor environments): CNY 12,100,900
Construction cost of the improvement of outdoor environments (public green, pavement, playground, sports field, urban furniture, sculpture and other facilities) and civil infrastructure in the block: CNY 6,080,000	Property management fee (including the public subsidies for the maintenance/management of social housing): CNY 54,853,200
Cost of pre-construction works (building/site survey and measuring, building demolition, site preparation, planning and design, etc., counted by 5% of the sum of above four items): CNY 663,860	
Individual renovation allowance for the homeowners (counted by CNY 10,000 per dwelling): CNY 4,250,000	

Table 13.3  
Estimation of the balance for the urban renovation of the Building 50-52 Block

Expenditure <sup>a</sup>	Income <sup>a</sup>
Cost of project management (counted by 5% of the sum of the above items): CNY 909,600	
Unpredictable costs (counted by 11% of the sum of the above items): CNY 2,101,100	
Taxes for the rent of commercial space (counted by 10% of the total rent income): CNY 4,562,500	
Cost of daily maintenance and management (counted by averagely CNY 3 /m <sup>2</sup> per month): CNY 54,853,200	
One-off cost in total: CNY 21,201,760	One-off income in total: CNY 12,100,900
Long-term cost in total: CNY 59,415,700	Long-term income in total: CNY 107,348,200
Total life expenditure: CNY 80,617,460	Total life income: CNY 119,449,100
Total life balance: CNY 287,657,150	

<sup>a</sup> The predicted lives of both newly-constructed buildings and renovated buildings are 50 years.

Table 13.3  
*Estimation of the balance for the urban renovation of the Building 50-52 Block*

As a social-oriented urban renewal project, the initiation of urban renovation of the Building 50-52 Block of Sanlihe Neighborhood 1 will largely rely on public funding. While a certain proportion of the cost is predicted to be covered by government subsidies, and the homeowners will pay for the renovation of their private housing spaces, the housing corporation still has to eliminate the deficit of one-time investment through its own financial means. The profitable developments of the housing corporation, as a profitable non-profit institution, will facilitate a reliable financing source. For example, the balance in the Block 1 urban rehabilitation project can be the start-up fund for the renovation of the Building 50-52 Block, so that at the neighborhood level, the urban renewal of the Sanlihe Neighborhood 1 might be economically self-sustained.

On the other hand, the estimation reveals that the renovation project can be profitable in the long term due to the rental income of commercial space and parking lots. A financing alternative might be the long-term public loan to support urban renewal, which will be repaid by the rental income. In fact, the long-term income even can support the urban renovation in the case that the direct public subsidies will not be available. Therefore, the urban renovation of the Building 50-52 Block would be self-financed.

## § 13.2.5 Community Participation in the Project Organization

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Unlike the urban rehabilitation of Block 1, which will concern with property expropriation and rehousing, the urban renovation of the Building 50-52 Block may be organizationally “less complicated”. However, a critical challenge for urban renovation, as same as for any other urban renewal projects in Beijing, is still to balance the increasingly diversified private interests, for which the traditionally top-down mode of urban renewal has been proven inadaptably in many cases. Previous experiences have revealed that some “simple” renovation projects, such as the addition of new elevators for old multi-storey residential buildings, even had to cease due to the disagreement of the residents – for the supporters (especially the elderly) it is a necessary modernization, but for some others it will be an intervention to invade their private benefits. The democratization of the project organization will thus be an effective solution.

Different from the proposal for the urban rehabilitation of Block 1, of which an independent “project board” will be established, the democratization of the urban renovation of the Building 50-52 Block is proposed to focus on the reform of the existing organizational framework. The housing corporation is still to be responsible for the project organization and coordination, but the local community, as an actor of urban renovation, will be involved in the process of decision-making. The reform will accord with two principles:

- To change the one-way informing or consultancy to the open discussion with the residents; and
- The community participation in the decision-making process of not only implementation but also planning and design.

The community participation is proposed to be in the form of “resident meetings” or “design workshops”. Both of them will be organized and guided by the housing corporation in collaboration with the shequ (community) Committee. The resident meetings, to which all the homeowners and tenants in the block will be invited, will consist not only on briefing meetings to introduce the planning schemes, such as the programming and funding, and to collect the residents’ reflections, but also on forums to encourage the residents to present their own, and sometimes divergent opinions. Those resident meetings are planned to be regularly held in the phases of project preparation and planning and will be combined with the survey of the residents’ opinions on urban renovation. The reflections from the residents will be taken into consideration of the decision-making, and the open debates will be helpful to reach a consensus, which is the “key” to facilitate the project implementation.

The design workshop will provide an opportunity for the direct communication between the planner/designer and the residents who will be the final users. The

architects and residents, as well as the representatives from the housing corporation, will sit down together to discuss the physical planning/design proposal. The architects will be able to revise their design according to the reflections from the users on the one hand, and to give the professional advice or technical support to the homeowners for their home renovations on the other.

Considering the possibility of the difficulty to reach a consensus with all the residents, the renovation might be realized piece by piece. Thanks to the originally design of “dwelling unit” residential building, the housing renovation can be implemented building by building or even stairwell by stairwell. The first implementations will also be “pilot projects” to get the support of other homeowners. In the process of implementation, resident meetings in the form of “resident teams” will be encouraged to be organized by the residents themselves to resolve any possible difficulties or conflicts (figure 13-45). In addition, the internet will be also adopted as a complementary means to collect the residents’ opinions on the urban renovation.

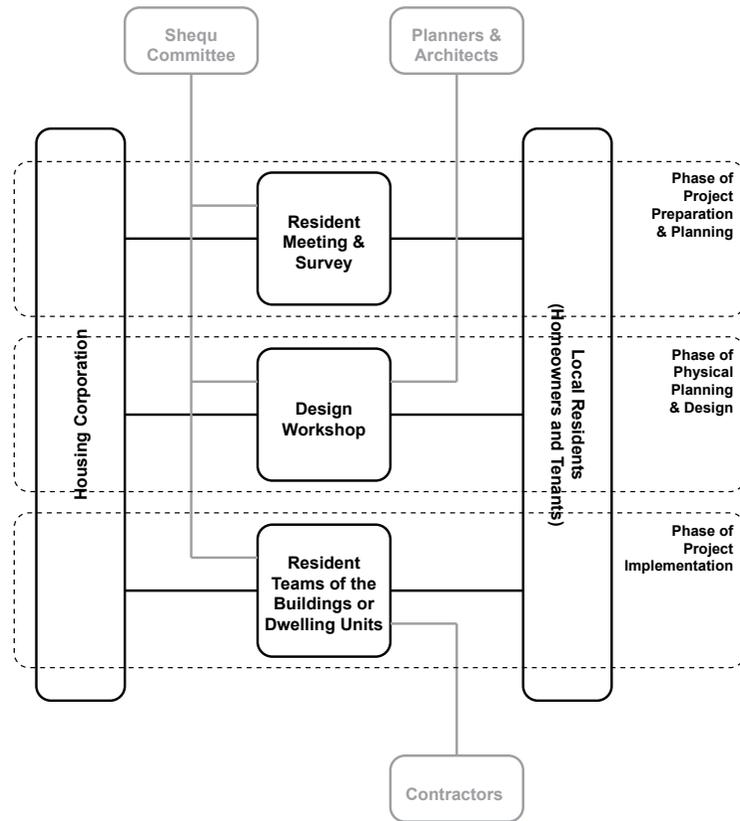


Figure 13.45  
Organizational framework of the community participation in the urban renovation of the Building 50-52 Block

Same as in the urban rehabilitation proposal for Block 1, community participation is planned to be “passed on” from the renovation to the housing management of the Building 50-52 Block. The housing management board will be established after the urban renovation and include the representatives from the homeowners, tenants and housing corporation.

In general, the democratization of project organization by the community participation, in the form of resident meeting or design workshop, will significantly contribute to facilitating the urban renovation of the Building 50-52 Block. A PPP mode in fact should be set up not only for financing but also for decision-making. The opinions of the homeowners, as a group of actors who will also partly afford the cost of the housing renovation, have to be included in the process of decision-making. More important is that the housing right of the residents, including the tenants, must be fully respected. The democratized and transparent discussion will be an effectively bottom-up strategy to balance the conflict of interest and thus to accelerate implementation. Residents will be involved in the renewal and management of their own community, so that privatization of public space (such as illegal structure and illegal car parking, which is one of the most critical problems that affect the old housing block) and vandalism might be effectively avoided. Through the community participation in the urban renovation, which for many individuals is a learning experience to equally and democratically negotiate with others, the mixed local community should be further stabilized.

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### § 13.3 Conclusions

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In this chapter, the pilot design research focused on the renovation of the Building 50-52 Block of Sanlihe Neighborhood 1, a typical linear-arrayed, multi-storey former socialistic public housing block that was developed from the 1970s to the 1980s. This “later” developed housing block which is characterized by the south-north oriented apartment design adapted to the local climate, the privatized apartments are still mainly occupied by the original homeowners. As a socially mixed sub-community, the block is also mixed with non-residential programs. But as a result of a series of “patchworks” without an integral planning, the urban morphology, as well as the outdoor space, of the block is fragmented. And in comparison with the current criteria, the housing conditions and living environments of this old housing block have been obviously outdated and aged, while some renovation measures (such as the “Pinggaipo” projects) have been implemented. A trend of moving out among those who have other housing choices has emerged, so that the decline and destruction of the existing socially mixed community is increasingly a realistic threat. According to

the detailed site research and analysis, the Building 50-52 Block undoubtedly has to be renewed, and the major challenge of urban renewal is to fundamentally improve the living conditions of the block, as well as to prevent the destruction of the existing mixed local community.

For a former public housing block developed only about 30 years ago, but in which most of apartments have been privatized, the wholesale demolition-reconstruction is, by no doubt, not the best choice. Even the government is encouraging the renovation of those old housing areas that are out of the reconstruction plan, as a social housing strategy. An approach of urban renovation is therefore chosen for the renewal of the Building 50-52 Block of Sanlihe Neighborhood 1. In order to improve the living conditions for the residents and to stabilize the mixed local community, a series of physical, socio-economic and community strategies have been developed. Physically, the urban renovation means the renovation of not only residential buildings but also of overall living environments of the block. According to the proposed housing strategies, the public subsidies will be available to support the private homeowners to participate in the renovation, and the adapted designs and process will guarantee that the residents would even stay at their homes during the period of construction. For a privatized housing stock of joint ownership, the financing strategies are laid down based on the concept of public private partnership. And the measures to promote community participation, e.g. resident meetings or design workshops, are also proposed for the democratization of urban renovation. As a pilot design research project, the urban renovation of the Building 50-52 Block actually reveals a new approach to improve the living conditions for those who are living in the former public housing areas, which might be an effective and efficient way to resolve the urban housing problem and to promote social integration.

In these two chapters, two pilot research projects on a representative dayuan community in Beijing, the Sanlihe Neighborhood 1, have opened new possibilities for the urban renewal of former public housing areas. The strategies developed in those two pilot researches revealed the alternatives instead of the presently market-oriented and unitary urban reconstruction. In the next chapter, which is also the last chapter of this book, the innovative strategies will be summarized for exploring a new approach of urban renewal in Beijing.

# 14 An Integrated Plural Approach – Recommended Strategies for the Urban Rehabilitation of the Former Public Housing Areas in Beijing

Two pilot design research projects, which were elaborated in the previous chapters of Part V, have in fact revealed the possibility to explore new approaches towards the urban renewal of former socialistic public housing areas in Beijing. Through the pragmatic design of researches on the typical former public housing blocks, many initiatives have indicated common alternatives to solve the existing dilemma of urban renewal. Those innovative strategies can be summarized as the recommended answers to our research questions.

In the transition not only from a planned economic system to “the socialistic market economic system”, but also from a traditional eastern agricultural society to a modernized (which to a certain extent means westernized), commercialized and globalized society, the Chinese cities, represented by Beijing, are undergoing an unprecedented restructuring. It is the radical societal diversification, stratification and polarization on the one hand, but the ethical hybrid or even crisis on the other hand. The conventional *top-down* and *pro-growth* mode of urban development has gradually been proven inadaptable to the increasing diversified and differentiated urban society. The radical housing privatization and marketization has not solved but intensified the housing problem in the city. The existing dilemma of urban renewal precisely presents this inadaptability: the market-oriented, unitary reconstruction has evidently been unable to balance the rising conflict of interests in urban renewal. Therefore, as we have discussed in Part III, presently there are several concrete challenges to change the approach of renewing the former public housing areas in Beijing. Under the theoretical framework of thinking of spatial phenomenon, these challenges focus on the balance of housing affordability and economic feasibility in the socio-economic dimension, the stabilization of mixed local communities in the community-placial dimension, and the alternative physical initiatives instead of the wholesale reconstruction in an aesthetic-technical dimension.

According to the referable case studies of successful urban renewal practices in European and Asian cities and the pilot design research projects about representative former public housing blocks in Beijing, the applicable answers to those research questions in the socio-economic, community-placial and aesthetic-technical dimensions are discovered. The proposals of rehabilitating a courtyard housing block

built in the 1950s and of renovating a linear-arrayed housing block developed from the 1970s to the 1980s have tested the feasibility of many innovative strategies. In general, instead of the present approach of market-oriented reconstruction, the pilot researches actually reveal that urban rehabilitation can be an alternative approach to the urban renewal of former public housing areas. This approach of rehabilitation emphasizes on the importance of social-oriented housing interventions, the benefits of local communities, as well as the piece-by-piece improvement of living conditions. This chapter presents and discusses the new strategies of this alternative approach as *proposal*.

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## § 14.1 Strategies in the Socio-Economic Dimension – The Housing Re-Socialization and the Economic Sustainability of Urban Rehabilitation

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The existing dilemma of urban renewal can be seen to a large extent as a result of the strategy of stimulating urban renewal through housing privatization, which was termed as the policy of “Urban Renewal by Housing Reform”. Although the housing privatization seemingly solved the financing problem and activated the enthusiasm on urban reconstruction in the short term, this market-oriented urban renewal strategy, of which the housing right is alienated as private property, caused a series of socio-economic problems. On the one hand, low-income residents could not afford the expenditure on rehousing in situ; but on the other hand, housing speculation became a serious problem in the urban renewal. The popularity of speculation further resulted in the new financing problem of urban renewal. Many urban renewal projects, especially the social-oriented housing reconstruction projects, had to be suspended. Considering that urban renewal had been “simplified” as the exchange or transaction of properties, the urban reconstruction of those “decrepit and old” former public housing areas indubitably intensified the social polarization and spatial segregation: the low-income residents were displaced from the reconstructed areas; the public subsidies were largely beneficial to the speculators; the reconstructed neighborhoods tended to be gentrified, while the areas that were “economically unfeasible” for renewal are further deteriorating and declining...

In the meantime, the vibrancy of local businesses and small enterprises in the former public housing areas, which in fact provide the socio-economic vitality, as well as plenty of job opportunities in those old neighborhoods, is still not fully paid attention to in the urban renewal. On the contrary, the current approach of reconstruction often induced the destruction of the presently vibrant formal or informal local economy in former public housing areas. But in comparison with the improvement of physically built environment, the enhancement of the economic capacity of local residents should be

a more fundamental way of urban renewal. The existing “economic” challenges hence not only include economic feasibility to realize urban renewal projects, but also refer to the economic vitality of urban renewal areas.

Therefore, based on the experiences of pilot design research, the recommended strategies in the socio-economic dimension for urban rehabilitation of former public housing areas will focus on two aspects –housing re-socialization and economic sustainability.

### § 14.1.1 Urban Rehabilitation by Housing Re-Socialization

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Preceding the serious housing problems in Chinese cities, the Chinese government started to reemphasize social housing development and other public interventions to the housing stock in recent years. In “the Twelfth 5-year Plan” (2011-2015) that was newly proposed by the central government, social housing is expected to cover 20% of the total housing stock in the coming five years. In Beijing, according to the social housing policy of “the Twelfth 5-year Plan” which was announced in January 2012, 1 million dwellings of social housing have been planned to be developed (or purchased) from 2011 to 2015<sup>1</sup>, and 50% of new land leases will become social housing developments. Urban renewal (including housing renovation) has also been announced as an important means of social housing intervention and is therefore encouraged by both the central and municipal governments. Under this circumstance, the combination of urban rehabilitation and housing re-socialization in former socialistic public housing areas will be an efficient strategy to solve the urban housing problem, as well as to cope with the existing dilemma of urban renewal in Beijing.

However, the social-oriented housing interventions at present are still uncompleted and to a large extent ineffective. On the one hand, the current social housing system has to be improved. Social housing supply is still far from meeting the demand of decent and affordable housing by lower income residents. While it has been recognized that public rented dwellings should be the mainstream of social housing, the regulations on ownership, distribution and eviction, as well as the financing strategies of social housing still need to be clarified. The concentrated social housing

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<sup>1</sup> Among a total of 1 million dwellings of newly-planned social housing, 50% will be rented or sold to social housing applicants and another 50% will be the resettlement houses for the residents of urban renewal areas.

developments in the urban periphery also caused a threat of socio-spatial segregation. On the other hand, the efforts to regulate the housing market are still inefficient. Although a series of new policies to restrain speculation, including the tightening of mortgage lending, pilot projects to levy property tax in some Chinese cities (such as Shanghai and Chongqing) and even administrative orders to ban the purchase of non-occupied dwellings, has been announced since 2010, the continual increase of market housing prices is not effectively controlled. Meanwhile, the restraint of speculative housing transactions leads to the significant rent increase in the private rented sector.

In fact, urban rehabilitation is not only an opportunity for the housing re-socialization but essential to the reformation of the housing policy. As the precondition to the urban rehabilitation of former public housing areas in Beijing, the social housing interventions have to be improved and optimized by a “new housing reform”.

#### § 14.1.1.1.1 **New Housing Reform**

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It has been proven that the housing problem at the time of fast urbanization cannot be solved by the free market. An emphasis of the “new housing reform” thus must be the optimization of new social housing system. Due to previous lessons on owner-occupied affordable housing, the public rented housing has been recognized as a more reasonable and sustainable approach of social housing development. For instance in Beijing, the municipal government has announced that the public rented housing will account for 60% of the new social housing that will be developed and available for the applicants from 2011 to 2015. But the complete social housing system, including its ownership categories, target groups, financing means and planning strategies, is still underdeveloped. As an integral part of the research recommendations, the basic principles of the new social housing system are proposed, based on the existing trend of social housing development in Beijing, also to support the housing re-socialization in the urban rehabilitation:

- *Social housing system widely covering different social strata*  
The presently over-complicated and ambiguous “social security” housing system, which has increasingly been criticized by both experts and the public, undoubtedly should be revised and simplified. A legal framework must be set up to clarify the social responsibility of the government to guarantee decent and affordable housing

for each member of the Chinese society<sup>2</sup>. A new social housing system is thereby proposed to widely cover different social groups from the lowest income residents up to middle class.

The proposed new social housing system should be only composed of two main sectors: the public rented housing and the owner-occupied social housing (new affordable housing). As the main body of future social housing provision, public rented housing is predicted to account for 30-40% of the total housing stock in Beijing and will widely cover lower-income households. The target groups should include not only the “permanent” residents with hukou registration, but also the new immigrants who will have to be taxpayers in the city for a certain period (over five years). The existing low-rent housing will be merged into the public rented housing sector, and the lowest-income groups will receive subjective subsidies for rent<sup>3</sup>. The retained, not-yet-privatized socialistic public housing should also be included in the public rented housing system. But subletting has to be strictly prohibited to ensure that the public rented social housing only benefits its target groups.

At the same time, the new affordable housing system, as the owner-occupied social housing sector, would be established to replace all the existing subsidized owner-occupied housing categories (affordable housing, limited-price housing, resettlement housing, civil servant house, etc.). The target group of new affordable housing, which would be publicly subsidized and sold at cost price, will be the middle income households. This owner-occupied social housing section is predicted to cover 20-30% of the total housing stock. As a social housing category of joint ownership, the transaction of new affordable housing in the housing market should be restricted in order to avoid speculations and “housing privilege”: the homeowners can only sell their dwellings to the housing organization at the cost price or repay the difference between the market price and cost price to the government. In order to guarantee the owner-occupied social housing to be only occupied by the target groups, private rental of new affordable housing should be banned and the homeowners should be prohibited to buy market housing except their social dwellings will have been returned.

- *Specialized housing organization for the social housing development and management*

The establishment of a social housing sector that will widely cover different strata

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2 In fact, the “Social Housing Act” has been listed in the legislative plan of the National Parliament.

3 In March 2012, Beijing Municipality announced a proposal to establish a subjective subsidy system for the low-income tenants of public rented housing.

also means the introduction of a new system of social housing development and management, which will be the task of the not-for-profit housing organization. Although the municipal government has started to encourage public-or private-owned enterprises and institutions to invest in social housing development, it is problematic to confuse social housing developers/managers and for-profit real estate companies. Thus in the new social housing system, the development and management of social housing (including both public-rented housing and new affordable housing) has to be the commission of specialized, non-profit housing organizations, of which the social task is prior to all others. The housing organizations can appear in different forms such as the municipal or district housing institution, the public-owned housing corporation (which might be transformed from the existing government or danwei owned real estate development company), and even the housing association/cooperative. They must act under legal framework and government supervision to ensure their social task, but will be financially supported and guaranteed by the government. In order to promote the combination development of social housing and market housing, as well as the residential and non-residential programs, those non-profit housing organizations actually can be profitable. But different from real estate developers, the profits of the housing organizations should only be used for the social housing development, renewal and management.

- *Sustainable financing means of social housing development*

In the new social housing system, the new affordable housing will be economically more self-sustained. Thanks to the existing financing means for affordable housing or limited-price housing, the public subsidies for this category of owner-occupied social housing will include land lease and tax exemption/deduction as well as public funding for urban infrastructure. Other costs will be paid by the homeowners, who will acquire a joint ownership of their dwellings. However, while some public subsidies from the central government have been available to the publicly rented sector<sup>4</sup>, as for the public rented housing, of which investment in housing development cannot be repaid within a short time, new financing means have to be explored.

As a social housing sector that will largely cover the lower income groups, the rent

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Different from the owner-occupied, social-oriented housing sector, the public subsidies directly from the central government have been made available for the publicly rented housing categories. But their amounts of subsidies are still limited.

of public rented housing has to be kept at a reasonable level<sup>5</sup> to guarantee a large-scale development of high-quality social housing. The long-term public loan, as well as objective and subjective subsidies, should be available for the development of public rented housing. The possible sources of public loan include the low-interest loan of the Housing Accumulation Fund or China Development Bank. The municipal government of Beijing also has set up its own fund for social housing<sup>6</sup>. But different from the current public loan that only supports 3-to 5-year housing developments or renewal, the new 50-year (term designed to be the life of residential building), low-interest (the interest will be counted according to the expected inflation rate) public loan for the public rented housing development, renewal and management should be available for housing organizations. The loan will be repaid by the rental income. Meanwhile, the objective subsidies for public rented housing will also cover the difference between the asking rent and cost rent, apart from the land lease and tax exemption/deduction. The subjective subsidies, in form of individual rent allowances, should be provided for the lowest income tenants to ensure the housing affordability. The public subsidies should be fairly shared between central and local governments.

Another financing means might be the combination development. In order to avoid spatial segregation, the housing organizations will be encouraged to develop social housing and market housing, as well as commercial facilities, in the same project. In this kind of self-financed project, the income comes from the market housing development and commercial buildings, instead of the public loan and subjective subsidies, which can support the development, renewal and management of social housing. Except the exploration of new financing means, the “economical” measures to accelerate the social housing development will also be applied. Apart from the new social housing construction, the socialization of the existing housing stock, in which the urban rehabilitation might play an important role, can be an efficient approach. Besides the one-off purchase of presently non-occupied dwellings, another possible measure of housing socialization might be the combination of housing purchase and annuity: house owners, especially elderly owners, can choose to receive the extra annuity from the housing organization, and their dwellings will be finally socialized. In addition, a new “standard-rent” private housing system could be introduced: according to long-term rental contracts (of

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5 According to existing regulation, the rent level of public rented housing in Beijing should be controlled to be 20-30% lower than the average rent of its surrounding private rented dwellings.

6 In 2011, a municipally-owned enterprise for funding social housing developments – “The Centre for the Investment of Social Housing Development” – was founded in Beijing. As the biggest financing enterprise for social housing in China, its start-up capital of this fund reached CNY 10 billion, which was totally financed by the municipal government.

which the rates will be preset based on the rent standards of public-rented housing) with the private owners who received public subsidies for housing renovation or maintenance, the housing organization will be responsible for the daily maintenance and management and “sub-let” these private owned dwellings to the eligible tenants with affordable rents<sup>7</sup>.

Last but not least, social housing, as a public intervention to solve the housing problem and to achieve social justice, cannot be absolutely “self-financed”. The public investment for social housing development and management is inevitable. At the municipal level, the revenue of land lease should be a sustainable means of social housing investment<sup>8</sup>.

In general, this new financing means is proposed to balance the housing affordability and economic feasibility of social housing development. The cost of social housing will be fairly shared by the government, housing organizations and tenants/homeowners, so that the large-scale, sustainable social housing development can be realized.

- *Social housing development to promote social integration*

A critical challenge for the social housing development is the threat of socio-spatial segregation. However, the adapted social housing strategies will not cause but avoid spatial segregation and thus promote social integration. First, a social housing system that will widely cover different strata from the lowest income group to the middle class will to a large extent avoid residential differentiation of different social groups. The sustainable financing means will also guarantee the living quality of the new social housing areas so that they will not become the new slums. Second, the spatial location of social housing areas must be taken into consideration in the urban planning. Instead of the present plan that social housing was proposed to be concentrated in the urban periphery, the new social housing areas should be more evenly distributed in the city, for which the urban renewal might be an efficient approach. Third, the combination development of social housing and market housing should be encouraged. In fact, the newly announced social housing policy has increased the proportion of social housing that will be mixed in the market

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7 In fact, the previous experiences of the 1950s have proven that public-rental private housing is an effective means to solve the problem of social housing shortage. In some recent attempts in Beijing, the public rent of private housing has been readopted for the social housing development.

8 In Beijing’s social housing policy of “the Twelfth 5-year Plan”, no less than 10% of total land lease revenue has been planned to be invested for social housing.

housing developments<sup>9</sup>. In addition, housing organizations will be admitted to mix market housing developments in the social housing areas, which is not only a financing means for social housing development but an effective measure to promote social integration.

Apart from establishing the new social housing system, interventions to the current speculative housing market should be an integral part of the new housing reform. The emphases of the interventions should focus on two aspects: the restraint of non-occupied housing demands and the regulation of the private rented housing sector.

- *Restraint of non-occupied housing demands*

In order to restrain serious housing speculation, the present administrative approach to ban the purchase of non-occupied housing is by no doubt only a temporary measure. Apart from the differentiated mortgage policy for occupied and non-occupied housing, the long-term and sustainable means to limit speculation will be property tax. But different from current pilot projects in Shanghai and Chongqing, where tax rates are rather low and the amount of taxed houses is limited, the proposed property tax in Beijing should cover all non-occupied dwellings. The “redline” between the occupied and non-occupied housing can be defined based on the average living space per capita in Beijing. The floor areas exceeding this redline will be taxed and, similar to personal income tax, the rate of property tax should be increased according to the non-occupied housing area. The property tax for private rented dwellings will be exempted since the owners have to pay rental income tax. In fact, as an effective means to restrain housing vacancy and speculation, property tax for non-occupied housing will also provide sustainable revenue for the municipal government.

In addition, the property tax might be combined with a reform of the existing land lease system. The present one-off payment for land leases could be divided into a certain percentage of “down payment” and the annually paid land value-added tax (LAT), the latter of which could be levied together with the property tax. In general, the aim of a new property tax and land lease system will be to efficiently restrain speculative housing demands, without additional tax for the owners of occupied homes.

Besides the “marketized” intervention by tax means, a legal mandatory measure to restrain housing speculation will be inevitable. As a final solution to control the non-occupied housing demands, the government can be empowered to expropriate

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According to Beijing’s social housing policy of “the Twelfth 5-year Plan”, any new market housing developments will have to mix, not less than 30% of social housing.

the dwellings that have been non-occupied for certain years (more than two years, for instance) or evidently lack of maintenance. The expropriated dwellings could be a source of new public rented housing.

- *Regulation of the private rented housing sector*

Along with public interventions to control the housing price, the speculation in the private rented housing market has become an emerging problem. The European experiences have shown that a regulation of the private rented sector is also necessary. The housing rights of tenants, as the real residents, must be well protected. In order to limit speculative rent increase, the rate of rental income tax should be increased according to the actual rental income. After a certain period of tenancy, the rental contract will become permanent. An eviction by for-profit rent increase must be banned, and unreasonable rent increase (higher than the inflation rate) should also be prohibited. And, as aforementioned, the private-owned, standard-rent houses, with public subsidies and controlled rents, can be reintroduced.

On the other hand, the responsibility of the owners should be legalized to guarantee the living quality of private rented dwellings. A supervision system to check regularly the living conditions of private rented housing needs to be established. Profit-driven rental that results in poor living quality (such as the “group renting”) has to be prohibited. The owners should pay for the maintenance of their houses; otherwise the houses could be expropriated by the government if their housing conditions cannot meet the basic criteria on the quality of living. The regulation in the private rented housing sector actually gives priority to housing rights over ownership of private property.

In general, the new housing reform aims to fundamentally change the existing capitalized and unbalanced housing stock and thus to solve the serious housing problem in Beijing and other Chinese cities. Different from the current policy overemphasizing housing privatization and marketization, the new housing policy will reemphasize public interventions to the housing stock. It must be recognized and legalized so that it can guarantee housing rights – that is to say, the provision of decent, affordable dwelling to each citizen. Preceding the serious housing speculation within the process of high-speed urbanization, the focus of new interventions has to be the distinction between occupied and non-occupied housing demands, the former of which should be supported while the latter has to be restrained. A sustainable social housing system that will widely cover different strata needs to be established, and the effective and efficient means to control speculation in housing transactions and rental market should be introduced. As the expected result of the new housing reform, there will be a much more balanced housing stock in Beijing: 60-70% of the housing stock will be covered by social housing (including public rented housing for the lower income groups and the new affordable housing for the middle class) while the market housing sector will only account for 30-40% of the housing stock, of which the mainly focused

target group will be the higher income earners<sup>10</sup>. In fact, the new housing reform is not just an ideal concept but, as many recent changes of housing policies have revealed, an inevitable trend that should have started to proceed.

The new housing reform will indubitably change the current market-oriented approach of urban renewal. These new social housing policies and the measures to restrain housing speculation will support the social-oriented urban rehabilitation. On the other hand, the urban rehabilitation is able to be an effective way to promote social housing development. Instead of the "Urban Renewal by Housing Reform", which actually means an urban reconstruction by housing privatization, "urban rehabilitation by housing re-socialization" might be the alternative housing strategy for the urban renewal of former public housing areas in Beijing.

#### § 14.1.1.2 Combining Urban Rehabilitation with Housing Re-Socialization

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The approach of urban renewal is to a large extent determined by the housing policy. The current housing privatization/marketization policy in urban renewal resulted in displacement of the low-income residents on the one hand and the popularity of housing speculation on the other, and therefore led to the existing dilemma of the urban renewal of former public housing areas. In order to overcome the existing dilemma, the new housing policy that we propose, in which the citizens' right to housing will be primarily respected, might provide an effective solution. In fact, the developments of new social housing and housing renewal, at least in Beijing, have simultaneously been promoted, and will therefore condition the socialized urban renewal. The housing re-socialization of former public housing areas would contribute to the urban rehabilitation.

In order to guarantee the social task of urban renewal, urban rehabilitation of former public housing areas must be involved in the new social housing system. This means that, different from the present policy of commissioning the urban renewal to for-profit real estate developers, the urban renewal agencies of urban rehabilitation should be ensured as non-profit housing organizations. In comparison with the government, the housing organization may more flexibly react to the housing market;

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In a sense, the balanced structure of housing stock after the new housing reform will accord with the original object of housing reform that was proposed in 1994.

and as a not-for-profit organization, its primary mission must be to fulfill social tasks. In practice, the urban rehabilitation projects will be commissioned not only to the government-owned housing institutions or corporations but also, as we proposed in pilot design research projects of the Sanlihe Neighbourhood 1 in Beijing, to the housing corporations of danwei which still largely own the land tenures and housing properties in those particular dayuan areas. As organizations for both housing development and management, those housing organizations will also be the preferable choices for daily maintenance and management of the old neighborhoods after the rehabilitation.

More importantly, the “re-socialized” housing strategy clearly distinguishes between occupied and non-occupied housing demands in urban rehabilitation according to the new housing reform. The housing re-socialization does not just mean to socialize non-occupied dwellings but also to improve the occupied housing conditions, as well as to effectively restrain speculation. Urban rehabilitation can be an efficient approach to change the current ambiguous but speculative housing stock of former public housing areas.

In urban rehabilitation, housing re-socialization will guarantee the priority of existing residents to be accommodated in the same neighborhood. Whether it is an instance of housing renovation or reconstruction, the differentiated housing/rehousing strategies are proposed in accordance with the ownership and occupancy categories (figure 14-1). The owners of occupied homes of privatized former public housing can choose either to acquire the full ownership of their private dwellings (as market housing) by paying the cost price of housing renovation or reconstruction (including the renovation/reconstruction cost of the public part of building and the land lease) or to only pay the subsidized price (which only means the renovation/reconstruction cost of the private home space) for joint ownership (as new affordable housing)<sup>11</sup>. The newly increased floor areas, as public rented housing spaces, will be available for the eligible low-income homeowners, while their original home space will still be counted as owner-occupied new affordable housing. But the owners of non-occupied houses, who have already had other dwellings, will not enjoy the public subsidies in the urban rehabilitation: they have to pay the market price for the renovated or reconstructed houses (which should be evaluated based on the market housing price of the surroundings, including all the relevant taxes), or sell (or rent) their houses at the cost

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In order to encourage the social housing development, new affordable housing to resettle existing residents can only be sold to the housing organization, and those publicly purchased dwellings will be transformed into public rented housing.

price to the housing organization responsible for the urban rehabilitation<sup>12</sup>, unless they agree to rent out their apartments as new standard-rent houses.

The housing/rehousing strategies for the renovation or reconstruction of retained socialistic public housing are similar to the strategies for the privatized former public housing. It will be possible for the officially registered tenants to buy renovated or reconstructed market housing or new affordable housing. The dwellings of lower income tenants will be included in the new public rented housing system. But non-occupied public housing will be evicted, and a certain amount of compensation might be available for those non-occupied tenants. In addition, the rehousing strategies for illegal constructions are different in order to control speculation: existing illegal constructions will be demolished and compensated for their construction costs, and eligible households will be rehoused in public rented housing of the same neighborhood.

The housing strategies for tenants of existing private rented dwellings, apart from those officially registered "residents" of the old neighborhoods, will be for the first time introduced in the urban rehabilitation. The eligible existing tenants of privatized former public housing or sub-tenants of retained public housing will have priority to apply for the new public rented housing, which will be developed through the housing renovation or reconstruction in the same neighborhood.

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As aforementioned, the socialization of non-occupied private housing comprises two possible means: the one-off purchase by the housing organization and the payment of an annuity.

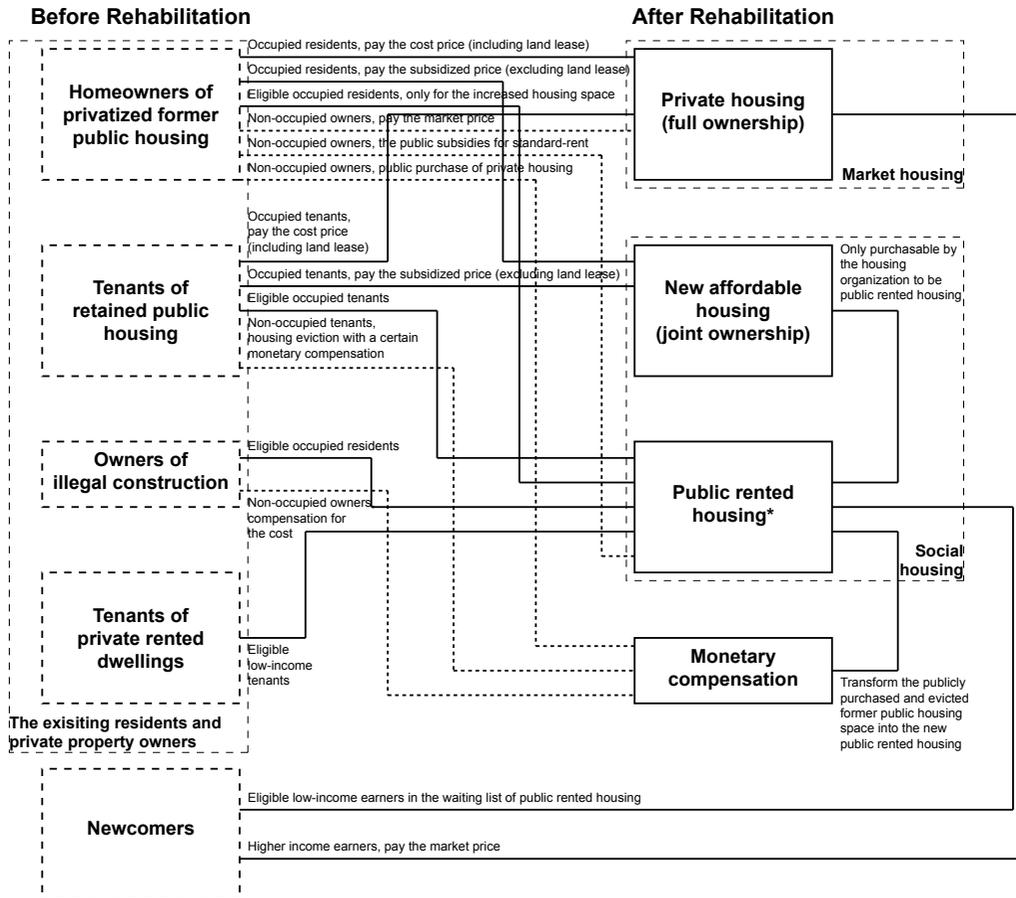


Figure 14.1  
Housing/rehousing strategy for the urban rehabilitation of former public housing areas in Beijing

For residents who decide to move out, the new “relocated” housing strategies will be applicable. The housing organization will purchase the privatized former public housing with the price of new affordable housing from the homeowners who would like to move. The new affordable housing or public rented housing in other locations will be available for those eligible households.

Furthermore, additional grants to support the urban rehabilitation and housing re-socialization will be indispensable. The “early bird” award for homeowners will still be an effective strategy for accelerating public purchase of privatized former public housing. And the individual allowances for the residents for their interim houses, moving, resettlement or refurbishing should be available.

As a result of the combination of urban rehabilitation with housing re-socialization, a differentiated but balanced housing stock will be established in the former public housing areas. The non-occupied former public housing dwellings will largely be purchased, rented or evicted by the housing organizations in order to develop public rented housing. The still retained, occupied former socialistic public housing will be included in the new public rented housing system. The existing owner-occupied dwellings will be subsidized for renovation or reconstruction and thus re-socialized. The new social housing (including new affordable housing and public rented housing) developed through housing renovation or new construction will be primarily available for the existing residents. The residents will also have the opportunity to buy their fully-owned, private dwellings in rehabilitated neighborhoods. Moreover, apart from the improvement of housing conditions for the existing residents, the urban rehabilitation will usually result in a certain amount of available dwellings for new residents (because of the increased floor area of housing renovation or reconstruction and the moving out of some existing residents). The majority of these newly available dwellings will be public rented housing so as to solve the problem of the social housing shortage in “good” urban places. At the same time, in order to finance the housing re-socialization, as well as to avoid the spatial segregation, a certain percentage of newly available dwellings can be sold in the housing market as private owned housing (as the pilot research project for the Block 1 in Sanlihe Neighbourhood 1 has revealed)<sup>13</sup>. Therefore, a re-socialized but “mixed” housing stock, which is composed of public rented housing, new affordable housing (owner-occupied social housing) and market housing, will be formed after the urban rehabilitation. The housing maintenance and management will be taken over by the housing organizations, which will also be the largest property owner of the rehabilitated and re-socialized neighborhoods, to ensure the quality of living.

After all, by clarifying the occupied and non-occupied housing demands and introducing the new social housing system, the urban rehabilitation by housing re-socialization will be an effective strategy to realize the social task of urban renewal of former public housing areas in Beijing. Here the term “re-socialization” does not merely indicate the socialization of (at least a certain part of) the privatized housing stock but the social-oriented interventions to in deed improve the housing conditions for people in actual need of housing. The living conditions of existing residents, especially the lower income and middle class homeowners or tenants, will be really improved, and speculation can be effectively restrained. In the meantime, the combination of urban rehabilitation with housing re-socialization is an efficient way

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According to the proposed composition of urban housing stock, the maximum percentage of private-owned market housing in the newly available dwellings should be designated to be no more than 40%.

for social housing development in the existing *built-up* city area. The newcomers, not just the higher-income, but especially the lower-income earners, will be not excluded but included in existing socially mixed neighborhoods. In nature, the housing re-socialization means to recover the essence of housing as *housing*, rather than a kind of properties for speculation. The urban rehabilitation by housing re-socialization will contribute to the formation of a socially balanced and spatially mixed urban housing stock in Beijing, and therefore promote the socio-spatial integration.

## § 14.1.2 Economic Sustainability of Urban Rehabilitation

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In the materialized, modern society, social tasks can never be realized without consideration of its economic feasibility and sustainability. From the economic point of view, the social-oriented urban renewal often faces two aspects of challenge: the economic feasibility of the urban renewal project, which has to be balanced against the housing affordability, and the economically sustainable means to support the local development of this urban renewal area. The economic strategies for urban rehabilitation of former public housing areas thus focus on these two aspects, which imply the collaborative financing means of urban rehabilitation on the one hand and the development of local economy on the other.

### § 14.1.2.1 Collaborative Financing Strategy of Urban Rehabilitation

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The urban renewal of old housing areas in Beijing has been suffering for a long time by financing problems. The urban renewal that totally relied on public funding has been proven economically unsustainable, while the market-oriented financing strategy eventually caused the popularity of speculation and thus led to new financing problem. In order to overcome the existing dilemma, a collaborative financing strategy to balance the housing affordability and economic feasibility, of which the responsibilities of public and private actors will be fairly distributed, is developed for the urban rehabilitation of former public housing areas. Preceding the existing mixed and ambiguous housing stock, collaborative financing strategy means to link the financing responsibilities with the rights of property owners. Developed together with the strategy of housing re-socialization, this collaborative financing means is actually set down for establishing a new mode of public private partnership. For whatever housing renovation, new construction, maintenance and management, the costs should be fairly shared by public and private actors according to their obligations which are equal to their rights. The renovation or reconstruction of private housing should be financed

by their owners; the public rented housing, as well as public spaces and facilities of the neighborhood will be renewed by the housing organization; and the cost of owner-occupied social housing (new affordable housing) will be shared by the homeowners and the housing organization.

Meanwhile, the financial support from the government for social housing development or urban renewal is indispensable. Thanks to the proposal of urban rehabilitation by housing re-socialization, the public funding for social housing development, including land lease and tax exemption/deduction, objective subsidies and subjective subsidies, as well as long-term and low-interest public loans, will be available. The public subsidies for urban renewal, such as subsidies for housing renovation or for the improvement of living environment, are also applicable. On the other hand, the commercialized financing measures can also be introduced to partly cover the public subsidies: the aforementioned strategy of combination development of social housing and market housing might provide new financing means. By partly developing market housing and commercial space in the urban rehabilitation, the income of the market sector can be used to subsidize the investment for housing re-socialization. The remaining profit, as capital of the housing organization, will support to launch new projects of urban rehabilitation. Not just as a strategy to promote social integration, the combination development will also be a measure, contributing to the economically “self-sustained” urban rehabilitation. But in order to guarantee the social task of urban rehabilitation, the percentage of market housing and commercial space should be preset and the combination development must be planned and implemented under strict internal and external supervision.

Apart from the exploration of new financing means, the urban rehabilitation itself will actually facilitate an “economical” solution for urban renewal. Different from the wholesale demolition and reconstruction of urban renewal areas, the urban rehabilitation indicates a new approach of combining housing renovation with reconstruction based on quality, renewal cost and the will of residents of each building. In comparison with reconstruction, the building renovation will be, by applying the adapted design, technologies and process, a more “reasonable” measure to improve the housing conditions. The socialization and renovation of old dwellings might also be an economical strategy for the social housing development. Hence, the urban rehabilitation will be an approach not only to “recycle” existing housing stock but to effectively reduce the cost of urban renewal.

In general, the collaborative financing strategy, together with adapted interventions to reasonably reduce the cost of housing renewal, will give an effective answer to ensure the economic feasibility of the urban rehabilitation of former public housing areas. Tables 14-1 and 14-2 present the proposed financing programs for housing renovation and reconstruction in urban rehabilitation in accordance with the distribution of responsibilities between the government, housing organization, owners and tenants.

	"Ordinary" Housing Renovation (without the Change of Existing Building Structure)	"Additional" Measures of Housing Extension and Modernization
Government	<ul style="list-style-type: none"> <li>- Land lease exemption or deduction</li> <li>- Tax exemption or deduction</li> <li>- Renewal or new construction of urban civil infrastructure</li> <li>- Objective subsidies for public rented housing<sup>a</sup></li> <li>- Subjective subsidies(individual allowances) for low-income tenants</li> <li>- Long-term and low-interest public loan for social housing development (from the Housing Accumulation Fund or China Development Bank)</li> <li>- Applicable public subsidies for the improvement of living environments or communal facilities<sup>a</sup></li> <li>- Applicable public subsidies for project organization and community participation</li> <li>- Individual grant or loan from the Housing Accumulation Fund</li> </ul>	<ul style="list-style-type: none"> <li>- Applicable public subsidies for housing renovation by ecological upgrades or barrier-free transformation<sup>a</sup></li> </ul>
Housing Organization <sup>b</sup>	<ul style="list-style-type: none"> <li>- Renewal of outdoor environments and public spaces</li> <li>- New communal facilities</li> <li>- Upgrading of civil infrastructure in the neighborhood</li> <li>- Restoration/repair of the public part (roof, outer wall, public corridor, stairwell, etc.) of old buildings</li> <li>- Repair/replacement of public pipe work and installations in old buildings (including other relevant construction work)</li> <li>- Addition of thermal insulation layer on the roof and outer wall of old building and the redecoration of building façades</li> <li>- Replacement of aged public windows and doors</li> <li>- Addition of barrier-free facilities in the public space</li> <li>- Addition of safeguard system (intercom, surveillance camera, etc.)</li> <li>- Addition of the uniform settings for air conditioners on the building façade (including to move the air conditioners onto the new settings)</li> <li>- Necessary structural reinforcement of old building</li> <li>- Housing purchase (or rent) for the benefit of developing public rented housing<sup>c</sup></li> <li>- Renewal and redecoration of internal home spaces of public rented housing dwellings (including both the newly-socialized, public rented housing and retained former socialistic public housing)<sup>c</sup></li> <li>- Project management, relevant taxes and loan interest</li> <li>- Technical support for homeowners during the housing renovation</li> <li>- Daily maintenance and management of public rented housing<sup>c</sup></li> <li>- Subsidies for the maintenance and management of new affordable housing (existing owner-occupied former socialistic public housing)</li> </ul>	<ul style="list-style-type: none"> <li>- New load-bearing structure for housing extension</li> <li>- New pipe work and installations for the housing extension</li> <li>- Addition of new lifts in the existing multi-storey housing (according to the share of public rented dwellings in the building)</li> <li>- New environment-friendly equipment (solar heating system, closed-loop water management, rainwater collection, etc.) (according to the share of public rented dwellings in the building)</li> <li>- Extension of public rented housing dwellings (including both the newly-socialized, public rented housing and the retained former socialistic public housing)<sup>c</sup></li> </ul>

Table 14.1  
Proposed financing program of housing renovation in the urban rehabilitation of former public housing areas

Homeowners of New Affordable Housing (Owner-occupied Social Housing) <sup>d</sup>	<ul style="list-style-type: none"> <li>- Renewal and redecoration of the internal home space of private dwellings</li> <li>- Replacement of aged windows and front doors of private dwellings (in accordance with the uniform style)</li> <li>- Property management fee</li> <li>- Purchase of existing dwellings with the cost price (only for the existing occupied tenants of retained, not-yet-privatized former public housing who are eligible and willing to buy their dwellings)</li> </ul>	<ul style="list-style-type: none"> <li>- Addition of new lifts in the existing multi-storey housing (according to the share of private dwellings in the building)</li> <li>- New environment-friendly equipment (solar heating system, closed-loop water management, rainwater collection, etc.) (according to the share of private dwellings in the building)</li> <li>- New non-load-bearing structure (including a new façade in accordance with the uniform style) for the extension of private dwellings</li> <li>- New windows and doors (in accordance with the uniform style) for the extension of private dwellings</li> <li>- Renewal and redecoration of internal home space for the extension of private dwellings</li> </ul>
Tenants of Public Rented Housing	- Rent of public rented housing (calculated according to the cost of housing renovation) <sup>e</sup>	- Rent of public rented housing (calculated according to the cost of housing extension) <sup>e</sup>
Others	The unexpected expenditures will fairly be shared by the government, housing organization, homeowners and tenants according to their agreements.	

a The objective subsidies for public rented housing, as well as public subsidies for urban environment improvement, ecological upgrading or barrier-free transformation, can also be covered by the housing organization through the profitable market housing development in the urban rehabilitation.

b The housing organizations that will be responsible for the urban rehabilitation can be the municipal/district housing institution/corporation or the housing corporation owned by the original danwei of urban renewal area.

c The cost of housing purchase/rent and renovation for the development of public rented housing, as well as the maintenance/management of public rented housing, will be covered by the rent income and public subsidies.

d The homeowners of new affordable housing (owner-occupied social housing) will include existing occupied homeowners of privatized former public housing and existing occupied tenants of retained socialistic public housing who are willing to buy their dwellings in the housing renovation.

e According to the agreement between the tenants and housing organization, the rent will gradually be increased from the rate of former socialistic housing to the asking rate of new public rented housing.

Table 14.1

*Proposed financing program of housing renovation in the urban rehabilitation of former public housing areas*

	Social Housing		Market Housing (Full Ownership)
	Public Rented Housing	New Affordable Housing (Owner-occupied Social Housing)	
Government	<ul style="list-style-type: none"> <li>- Land lease exemption or deduction</li> <li>- Tax exemption or deduction</li> <li>- Renewal or new construction of urban civil infrastructure</li> <li>- Objective subsidies for the public rented housing<sup>a</sup></li> <li>- Subjective subsidies (individual allowances) for low-income tenants</li> <li>- Long-term and low-interest public loan for social housing development (from the Housing Accumulation Fund or China Development Bank)</li> <li>- Applicable public subsidies for project organization and community participation</li> <li>- Individual grant or loan from the Housing Accumulation Fund</li> <li>- Public subsidies for relocating residents who are willing to move on</li> </ul>	<ul style="list-style-type: none"> <li>- Land lease exemption or deduction</li> <li>- Tax exemption or deduction</li> <li>- Renewal or new construction of urban civil infrastructure</li> <li>- Low-interest public loan for social housing development (from the Housing Accumulation Fund or China Development Bank)</li> <li>- Applicable public subsidies for project organization and community participation</li> <li>- Individual grant or loan from the Housing Accumulation Fund</li> <li>- Public subsidies for relocating residents who are willing to move on</li> </ul>	<ul style="list-style-type: none"> <li>- Tax exemption or deduction (only for the occupied homeowners)</li> <li>- Low-interest public loan (from the Housing Accumulation Fund or China Development Bank)</li> <li>- Applicable public subsidies for the project organization and community participation</li> <li>- Individual grant or loan from the Housing Accumulation Fund</li> <li>- Public subsidies for relocating residents who are willing to move on (only for the occupied homeowners)</li> </ul>
Housing Organization <sup>b</sup>	<ul style="list-style-type: none"> <li>- Purchase of privatized former public housing (to be demolished)<sup>c</sup></li> <li>- Compensation for the eviction from retained socialistic public housing (to be demolished)<sup>c</sup></li> <li>- Construction of outdoor environment, communal facilities and public parts of residential buildings (according to the share of public rented housing)</li> <li>- Project management, relevant taxes and loan interest</li> <li>- Awards for an "early-bird move"</li> <li>- Subsidies for interim housing and move</li> </ul>	<ul style="list-style-type: none"> <li>- Reconstruction of the existing floor area of each dwelling</li> <li>- Construction of outdoor environments, communal facilities and public parts of residential buildings (according to the share of new affordable housing)</li> <li>- Awards for an "early-bird move"</li> <li>- Subsidies for interim housing and move</li> </ul>	<ul style="list-style-type: none"> <li>- Reconstruction of the existing floor area of each dwelling (only for occupied homeowners)</li> <li>- Purchase of privatized former public housing (to be demolished) (only for the non-occupied owners)<sup>c</sup></li> <li>- Awards for an "early-bird move"</li> <li>- Subsidies for interim housing and move</li> </ul>

Table 14.2

*Proposed financing program of housing reconstruction in the urban rehabilitation of former public housing areas*

Homeowners of New Affordable Housing (Owner-occupied Social Housing) <sup>d</sup>	- Rent of public rented housing (calculated according to the construction and management costs) <sup>e</sup>	- Purchase of existing housing floor area at the cost price (only for existing occupied tenants who are eligible and willing to buy their dwellings) - Purchase of newly-increased housing floor area at the cost price (including the cost of project management, relevant tax and loan interest) - Property management fee	- Purchase of existing housing floor area at the cost price (only for existing occupied tenants who are eligible and willing to buy their dwellings) - land lease and other shared costs (civil infrastructure, project management, etc.) for existing housing floor area - Purchase of newly-increased housing floor area (including the shared space) - Property management fee
Tenants of Public Rented Housing			- Purchase of new housing at market price (including the shared space) - Property management fee
Others	The unexpected expenditures will fairly be shared by the government, housing organization, homeowners and tenants according to their agreements.		

a The objective subsidies for public rented housing can also be covered by the housing organization through profitable market housing development in the urban rehabilitation.

b The housing organizations that will be responsible for the urban rehabilitation can be the municipal/district housing institution/corporation or the housing corporation owned by the original danwei of urban renewal area.

c The non-occupied, privatized former public housing will be purchased at existing price of new affordable housing (the cost price), whilst the occupied privatized dwellings should be purchased at the price referable to the market housing of the surroundings (market price). The compensation to existing tenants for the eviction of retained former socialistic public housing is calculated according to the difference between the rent of socialistic public housing and the asking rent of new public rented housing.

d Occupied homeowners or tenants refer to registered households who do not have other dwellings or those whose per capita living space is not higher than the average in Beijing; non-occupied owners or tenants mean registered households who have other dwellings and those whose per capita living space is higher than average.

e The cost rent is estimated based on the total cost of housing construction, management, designed building life (50 years in principle), and the cost is also increased according to the inflation rate. The difference between the asking rent and cost rent will be merged by objective subsidies.

Table 14.2

*Proposed financing program of housing reconstruction in the urban rehabilitation of former public housing areas*

Different from the financing models of either totally relying on public funding or largely determined by the market force, the proposed collaborative financing strategy actually reveals a new mode of public private partnership: on the one hand, public intervention is reemphasized to guarantee the social task and long-term balance of urban renewal, but on the other hand, the private owners have to take on their responsibilities to maintain or improve the living conditions of old neighborhoods and the commercialized financing measures (such as the development of a certain proportion of market housing and commercial space) are also combined. In fact, the collaborative financing mode will also be applicable for post-renewal housing management, of which the government, housing organizations and private house owners might share their responsibilities. This new financing mode, which is developed together with the strategy of housing re-socialization that distinguishes between occupied and non-occupied housing demands, is aiming to balance the social task and

economic feasibility and, therefore, will help to realize economic sustainability of urban rehabilitation.

#### § 14.1.2.2 Sustainability of Local Economy

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The economic sustainability of urban rehabilitation means not just economic feasibility of urban rehabilitation projects but also the economical sustainable development of urban renewal areas. Besides the improvement of physically built environment, the recovery, maintenance or promotion of socio-economic vitality is a major task of urban renewal. In order to improve the living conditions of old neighborhoods, the enhancement of the economic capacities of the residents will be an important result. A vibrant local economy will – to a large extent – drive social integration and continuity. The sustainable development of local economy is thus an indispensable aspect of urban rehabilitation.

For the sustainability of a local economy, a key issue is the maintenance and development of local businesses and small enterprises. Most of the former socialistic public housing areas, from the very beginning, were planned as “mixed” neighborhoods of housing, public facilities and working places rather than purely residential areas. Within the transition from the planned economy to the market economy, many formal or informal local businesses have been popularly developed in those areas. The available non-residential buildings also provided affordable offices for small enterprises. These local businesses and enterprises not only facilitated the community life, but also created plenty of job opportunities for both existing residents and newcomers. The programmatically mixed neighborhoods in fact benefit the local but urban economy.

However, the small businesses and enterprises so far have not been considered as an important actor in the urban renewal. Even the latest legislation only refers to the compensations for expropriation (purchase) of non-residential buildings and the possible losses of businesses. The resettlement or compensation of local businesses and small enterprises in many cases was regarded as a problem on property transaction, but not on locally socio-economic sustainability. On the other hand, the informal businesses, as well as formal enterprises which illegally “upgraded” their commercial or office spaces, indeed largely damaged the original built environment and caused security problems. Thus even for some residents, those businesses or enterprises are a disturbance of their “quiet” neighborhood life and thereby have to be taken away.

Maintenance of small businesses and enterprises therefore should be an unavoidable challenge in urban rehabilitation. The building renovation will give local enterprises opportunity to run their businesses during the construction period. The cost of renovation will be covered by the owners. They can also choose to sell their not-self-occupied commercial spaces to the housing corporation who will take over the renovation. The public subsidies will be available, but illegal structures must be demolished. For the buildings that have to be demolished and reconstructed in the urban rehabilitation, the resettlement of existing small businesses and enterprises need to be emphasized. The newly constructed (or renovated) commercial spaces in the same neighborhood will be available to resettle those businesses and enterprises. Their existing occupied owners and landlords, as either private owners or danwei, should pay the construction cost; and the tenant businesses will have priority to rent these newly available commercial spaces. In addition, public subsidies will also be applicable for compensation of the losses of small businesses and enterprises in both renovation and reconstruction. But the neighborhood management, which will be under the charge of the housing organization, will be intensified after the rehabilitation so as to avoid the interference of local businesses with the residents.

In fact, the urban rehabilitation should contribute to not only the maintenance, but also the further development of small enterprises as well as local economy in the former public housing areas. As the pilot design research projects in the Sanlihe Neighborhood 1 have presented, more commercial or office space (which is also a financing means to balance the investment of urban rehabilitation) can be introduced through the new building construction in the old neighborhoods. Except for resettling existing businesses, the new commercial space will also be available for newcomers. It will indeed facilitate more start-up and job opportunities, as well as the more vibrant local life, and the programmatically mixed structure of the former public housing neighborhoods will thus be further stabilized. Meanwhile, apart from the construction of "hardware", the "soft" programs to enhance economic capacities of residents, such as professional education/training courses and programs to support new-starters or reemployment of the residents, need to be introduced as an integral part of urban rehabilitation. As the result of intensifying the housing management, housing organizations will also primarily provide job opportunities for low-income residents during and after the urban rehabilitation.

Other than those measures to maintain local businesses and to enhance the economic capacity of the residents, the urban rehabilitation, by combining building renovation with reconstruction, will be an effective means to promote economic development. In comparison with the wholesale demolition and reconstruction, the renovation is indubitably a labor-intensive construction industry. In Hong Kong and many European cities, urban renovation or rehabilitation has been thought as an important economic strategy to create more job opportunities and to revitalize the urban economy. In

Beijing, urban rehabilitation of former public housing areas might also be an approach for the sustainability of not only local but also urban economy.

Furthermore, the influence of urban rehabilitation to the macro economy may not be underestimated. On the one hand, the rehabilitation and re-socialization will facilitate an affordable housing stock for the lower-income groups in the central areas of the city. Those people are actually the mainstay workforce of the low-end services (cleaning, restaurant/hotel service, security guard, printing, retail, etc.), which can be considered as one of economic engines of a global city. On the other hand, the affordable housing stock, convenience facilities and vibrant local life will make the rehabilitated neighborhoods attractive for, in addition to the lower-income groups, Richard Florida's (2002) "creative class". For these *newcomers* who prefer their flexible and *creative* life styles (while often come along with a certain degree of gentrification), the mixed communities provide good places not only for living but also for working (by establishing their own small enterprises). Therefore, in the context of the increasingly global competition on the capital-intensive and knowledge-based economy, the rehabilitation and revitalization of socially and programmatically mixed neighborhoods would contribute to diminishing the economic virtualization that largely relies on real estate bubble (which could be replaced by the more concrete service industries) and realizing, as the Chinese government proposed, the optimization of economic structure and the change of economic development mode.

In general, the strategy for economic sustainability of urban rehabilitation will focus on two aspects: the collaborative financing means to ensure the economic feasibility of urban rehabilitation projects and the effort to support the sustainability of local economy in urban rehabilitation areas. In the socio-economic dimension, urban rehabilitation of former public housing areas is aiming to realize social and economic objectives of urban renewal at the same time. The economically sustainable strategy is actually developed together with the social strategy of housing re-socialization, in order to well balance the housing affordability and economic feasibility. Those social and economic strategies will therefore contribute to the socio-economic sustainability of urban rehabilitation of former public housing areas, as an effective and efficient way to solve the urban housing problem in Beijing, as well as to sustain the vitality of urban economy.

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## § 14.2 Strategies in the Community-Placial dimension – The Housing Differentiation and the Community Participation

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Besides those strategies from the socio-economic angle, as structuralistic interventions to the housing stock and local economy, the urban rehabilitation of former public housing areas also has to be devised from the viewpoint of community. Existing former public housing areas in Beijing are often identified by their socially mixed communities. But those mixed communities are increasingly facing the threat of destruction. This is primarily due to either the community displacement driven by wholesale reconstruction or the social filtering according to the “free” housing market. On the other hand, for the residents of those former public housing areas, urban renewal is actually not an abstract concept but a concrete action that is highly related to the everyday life of not only the individuals but also the local community. Particularly in Chinese tradition, it is the community, rather than individual, that plays an important role as a social unit. The inadaptable approach of urban renewal usually resulted in resistance from residents and followed by social conflicts. Hence in the community-placial dimension, the stabilization of mixed local community, where the will of residents should be respected and included, is the most crucial task of urban rehabilitation of former public housing areas in Beijing.

According to experiences of referable case studies and pilot design research projects, the recommended approach to realize this community-placial task of urban rehabilitation will discuss two strategies: the housing differentiation, as a relatively top-down strategy to stabilize the existing mixed communities, and the community participation, through which residents can democratically take part in the process of renewal of their own community.

### § 14.2.1 Housing Differentiation for Mixed Communities

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The successful experiences in European cities have revealed that the housing differentiation is an effective strategy to not just maintain but create mixed communities and therefore to promote social integration. For the urban rehabilitation of former public housing areas, the housing differentiation is actually meaningful from two perspectives: firstly, it means to provide differentiated and differentiating housing choices in one neighborhood for people from different social backgrounds with different income, and secondly, the housing differentiation implies to generate (or keep) the local identity, as well as a sense of community, for different former public housing neighborhoods in the urban housing stock.

Thanks to the former socialistic public housing system, those old neighborhoods used to be and are to a large extent still famous for the mixed social structure of residents from different strata, which are usually bound by their danwei community. But since the economic marketization and housing privatization, the socially mixed community originally based on danwei has gradually faced the threat of destruction. In order to maintain a mixed social structure of the local community, differentiated housing provision for different social groups, which is able to adapt to the commercialized housing stock, will be an important step for the urban rehabilitation.

The measures to facilitate the differentiated housing provision will include two aspects: the mixed housing stock of different ownership categories (with different prices) and the differentiated housing design in the same neighborhood. In order to maintain the existing mixed social structure of local communities, the strategy of housing re-socialization (of which the combination development of social housing and market housing is encouraged) is also a solution for establishing a housing stock of different categories in a former public housing neighborhood. The mixture of public rented housing, new affordable housing (owner-occupied social housing) and market housing by the urban rehabilitation will provide differentiated housing choices for not only existing residents but also for newcomers (figure 14-2). As mixed communities, those rehabilitated neighborhoods in good urban locations will not only facilitate affordable daily round for low income residents but also be attractive for higher income earners.

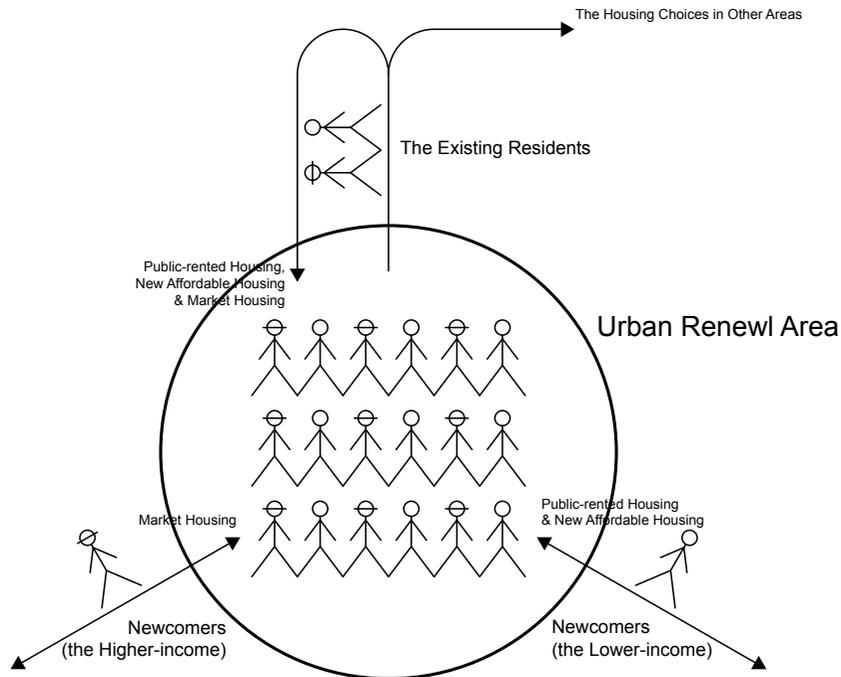


Figure 14.2  
*Socially mixed community conditioned by differentiated housing stock*

Apart from the mixture of different housing ownership categories, the differentiated housing designs and dwelling types will also bring together residents with various housing demands. The existing former public housing areas are usually presented as neighborhoods of standardized but diversified housing typologies, as the results of planned or non-planned building construction. One purpose of urban rehabilitation should be to retain this diversification and to promote the differentiation of dwelling types. Residents having different housing demands will find their preferable kind of dwellings, from renovated housing apartments to different types of apartments and penthouses in newly-built mid- or high-rise buildings. The mixture of different dwelling types will also support the differentiation of the housing ownership categories, for which the design will create a special appeal (for instance, the south-oriented dwelling in the mid-rise building is rather attractive for higher income homeowners). A differentiated but mixed housing stock, of both ownership categories and housing designs, for residents from different social backgrounds will support the stabilization of a socially mixed community.

Another task of housing differentiation, for urban rehabilitation of former public housing areas in Beijing, is to intensify the local identity and sense of community. Different from the urban housing stock under the former socialistic public housing

system, housing demands in the commercialized housing stock today have been unprecedentedly diversified and individualized. In order to avoid deconstruction of mixed communities, the local identity should be particularly emphasized to set up a “common interest” for residents from different social groups. Apart from functional attractiveness, including good accessibility and local facilities, both the existing characteristics and the new images can qualify as identities of former public housing neighborhoods by the planning and architectural interventions. Specialized “themes”, such as “green” neighborhood, “red” architecture or an identified new landmark, will be given to different old neighborhoods in the urban rehabilitation.

In fact, the intensification of local identity not only aims to bring together a “minority” from different social backgrounds, but also means to integrate them into a local community. In other words, the housing differentiation will contribute to regenerate a sense of community through urban rehabilitation. The measures to keep or generate this sense of local communities will include physical interventions to create public spaces and architectural identity as well as the non-physical means such as the social programs and community events. Those measures will result in the formation of communally placial space, which serves as a *condenser* to transform an individual into the individual of community. A *tradition* of former public housing areas, which originally derives from danwei communities, will therefore be continued in terms of the housing differentiation: residents from different strata will be conditioned to build up their sense of belongingness. The residents will settle down and dwell in their *places* in a community.

In conclusion, the housing differentiation will be an effective community-placial strategy to stabilize mixed communities in the urban rehabilitation of former public housing areas. The existing mixed social structures of old neighborhoods can be continued via the differentiation of housing, ownership categories and dwelling types. And through regenerating local identity and a sense of community, residents from different social backgrounds, as either existing residents or newcomers, may be brought together to form their own community. Actually, as a proposed result of urban rehabilitation, socially mixed and integrated communities will be established as the most recognizable identity of former public housing areas in Beijing. By living together in the same neighborhood, people of different strata can learn the meaning of equality from their daily life and communication.

#### § 14.2.2 Community Participation in the Urban Rehabilitation

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Except for housing differentiation, the wide participation of residents is also inevitable for stabilizing local communities in the urban rehabilitation of former public

housing areas. In a transitional society of *the hybridity of ethos*, the complexity and uncertainty of urban renewal most evidently revealed the dialectics between individuality and collectivity. The increasingly individualized and differentiated actors, as well as their privatized and capitalized interests, called on the flexibility of not just physical planning but management and process, by which the interests of different actors can be balanced and the public interests can be carried out. This means that, besides the traditional top-down approach, bottom-up strategies have to be introduced. As a *bottom-up* strategy, community participation is a measure to avoid the displacement of residents in urban rehabilitation and even to strengthen the sense of local community. Nevertheless, for the Chinese urban society, which is traditionally unitary and hierarchical but in transition of diversification and differentiation, the resident participation in urban renewal is still a new topic. While public participation has been increasingly emphasized in urban renewal of Beijing and other Chinese cities, in most cases it only focused on one-way informing or consultation, which can be described as a kind of “tokenism”, to speak in the words of Sherry Arnstein. But preceding risen conflicts between those diversified and differentiated interest groups in urban renewal, the community participation, by which residents can reach their consensus and fairly involve in the decision-making process, has become an indispensable solution to not only stabilize the local communities but also facilitate the realization of urban renewal. The planning and organization of urban renewal therefore should be further democratized so as to transform resident participation from existing “tokenism” to “citizen power” (referring to the terms of Sherry Arnstein as well)<sup>14</sup>, of which a partnership between different actors has to be built up for urban rehabilitation.

Different from the western “civil society” where citizens are used to actively participate in public events, the community participation in the urban rehabilitation of former public housing areas in Beijing might be a gradual and guided process. A basic approach, as some recent attempts in Beijing and other Chinese cities have revealed, will be the improvement of transparency of urban renewal. The decision-making in the urban rehabilitation, including programming, physical planning, financing solutions and rehousing strategies should be announced to the residents and implemented under public supervision. However, the community participation should not be a unilateral but bilateral process. In comparison with current “reactive” approaches such as publicly informing or consultation, a more “proactive” strategy should be introduced to initiate and guide actively as well as early participation of residents, so that the urban rehabilitation of former public housing areas can be largely democratized.

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On different levels of public participation, including tokenism and citizen power, please see the classic writing of Sherry Arnstein (2007), *A Ladder of Citizen Participation*.

As foundation of community participation, public survey or consultation needs to be institutionalized. With the support from the local government and shequ committee, public surveys should be delivered before the rehabilitation project is officially launched: opinions of existing residents will be considered as a basis of decision-making. And within the process of urban rehabilitation, an “information center” should be established by the housing organization (as the urban renewal agency) in the old neighborhood for the announcement of official information as well as for daily consultation from residents.

More importantly, residents will be actively involved into the process of decision-making, planning and implementation. Under the guidance of the housing organization, shequ committee and local government, a new form of resident participation – such as residents’ meetings or design workshops – will be introduced to support the planning and decision-making, which may even include the development or revision of the regulatory plans. Instead of the conventionally “black-box”, household-by-household negotiation, residents, together as a local community, can join open discussions and present their own opinions on strategies of housing/rehousing, financing or physical planning/design. The residents’ team of each building will also be organized to supervise the implementation. In the neighborhoods where the residents show more willingness to participate in the rehabilitation (such as the pilot research for the Block 1 of Sanlihe Neighbourhood 1), the “Project Board” including representatives of housing organization, government and residents can be set up as a new form of organization for coordinating and supervising the planning and implementation of urban rehabilitation. In order to guarantee the housing right of residents and to avoid speculation, only occupied homeowners and tenants will be acknowledged as *residents* to select their own representatives. In addition, residents will be motivated to participate not just in the rehabilitation but also in housing management afterwards. The representatives of the residents (either homeowners or tenants) will also be included in the housing management board, together with the representatives of the housing organization, in neighborhoods with mixed ownerships. All those regular or irregular and institutionalized interventions might ensure the local community to widely participate in decision-making of urban rehabilitation (figure 14-3).

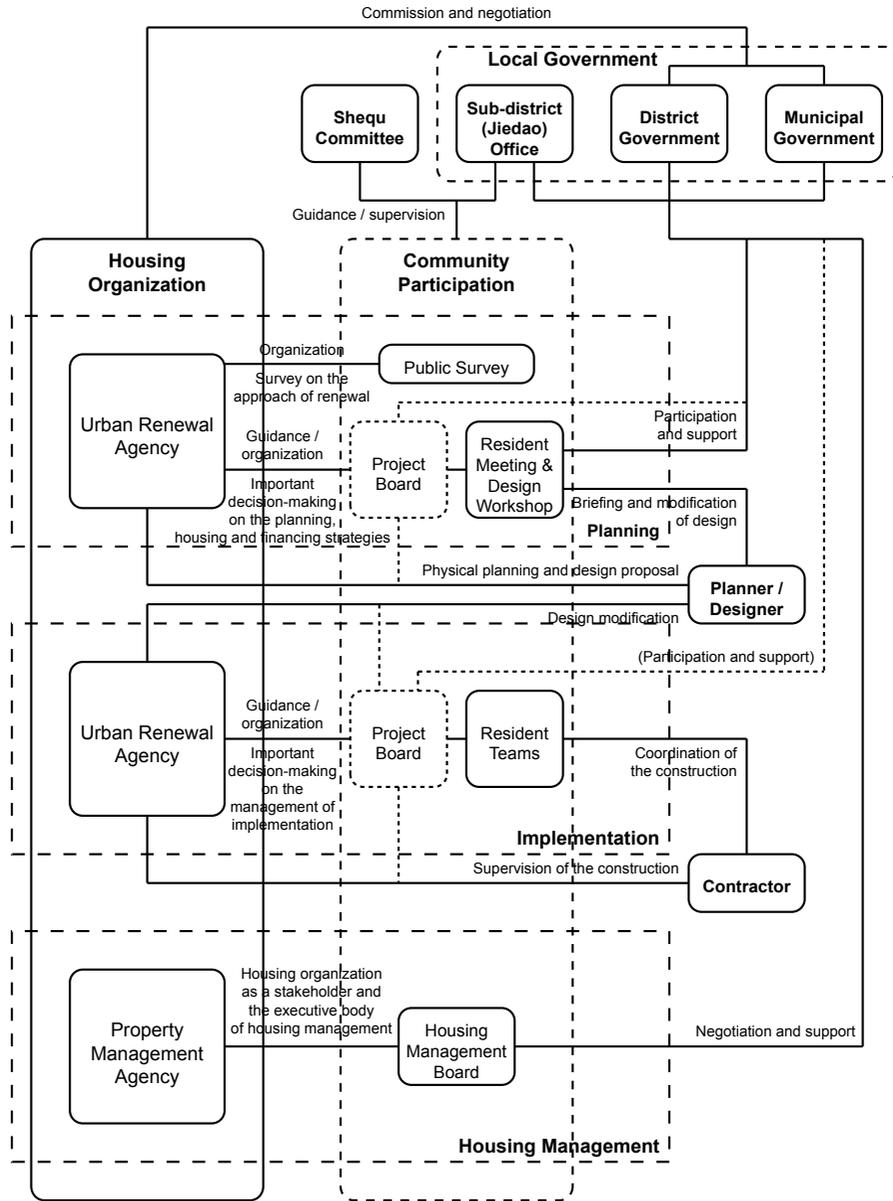


Figure 14.3  
 Community participation in urban rehabilitation of former public housing areas in Beijing

Except for the traditional “face-to-face” communication, the internet platform will be also introduced as a means of community participation. For the Chinese people who usually are used to anonymously or individually present their opinions rather than through argumentation in public, the internet will be a more acceptable

channel. The discussion or debate in the “virtual reality” that will be set up by the housing organization and shequ committee can be an efficient domain for collecting public opinions on urban rehabilitation. In fact, as many neighborhoods in Beijing have already practiced, the internet forum can also be of significant benefit to foster resident participation in the housing management. However, although the internet has been increasingly indispensable to facilitate community participation in the urban rehabilitation, it should not replace the face-to-face communication and discussion. Many elderly in the old neighborhoods are not familiar with this new medium; on the other hand, the existing means of internet communication function more as a *one-way* communicative approach to expressing ideas but not to interact in real time. It can thus be easily manipulated.

As a bottom-up strategy, the community participation for the urban rehabilitation of former public housing areas in Beijing represents the organizational and institutional democratization of urban renewal. Guided by the housing organization, shequ committee and local government, residents will be encouraged to widely participate in the decision-making, planning, implementation and housing management. Instead of individualized argumentation, which often represents many speculative demands, residents will learn to articulate their common interest via collective discussions. That actually reveals a democratized approach of “community participation” by breaking the absolute top-down and hierarchical structure of decision-making but avoiding uncontrolled individualism. The community participation, as an indispensable strategy for the urban rehabilitation in a diversified and differentiated urban society, therefore will not just contribute to the stabilization of local communities but also serve as a learning experience of local democratization.

In the community-placial dimension, a top-down intervention of housing differentiation and community participation, as a bottom-up strategy, will together support the stabilization of mixed local communities in the urban rehabilitation program. Under the background of social diversification and differentiation, these community-placial strategies will facilitate the formation of publicity and collectiveness, which is still a critical challenge for not only urban renewal, but also other public affairs in Chinese cities on the one hand and the respect of individuality of the residents on the other. In fact, the urban rehabilitation will help residents in former public housing areas to reestablish their own communities by exploring and experiencing equality, democracy and integration in a new Chinese way.

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## § 14.3 Strategies in the Aesthetic-Technical Dimension – The Combination of Housing Renovation and Reconstruction and the Integral Physical Planning/Design to Overall Improve the Living Environments

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Besides socio-economic and community-placial strategies, the innovative strategy in the aesthetic-technical dimension, under the framework of thinking of spatial phenomenon, is also inevitable for the urban renewal of former public housing areas. Many successful experiences have revealed that, opposite to neo-liberalistic criticism that denies the effectiveness of physical public interventions and usually leads to new chaos and inequity, the adaptability of physical planning/design will still to a large extent determine the result of urban renewal. However, the existing strategy of wholesale demolition and reconstruction, which evidently ignored the social diversification and differentiation, has been increasingly inadaptable to the transitional urban society and thus met growing resistance. The aesthetic-technical strategy of urban renewal must be changed to be flexible and diversified so as to cope with new challenges. In the meantime, according to recent trends on economical sustainable and environment-friendly development, the reuse and “recycle” of existing buildings has also been emphasized. Therefore, the transformation from conventionally unitary wholesale reconstruction to the “urban rehabilitation”, which physically means a combination of housing renovation and reconstruction as well as the integral physical planning and design to overall improve the living environments of a former public housing neighborhood, will be an inevitable development of urban renewal in the aesthetic-technical dimension.

### § 14.3.1 Combination of Housing Renovation and Reconstruction

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Different from the wholesale demolition and reconstruction, physical planning and design of urban rehabilitation have to be adapted to the local situation. Physically, the urban rehabilitation primarily indicates a combination of housing renovation with reconstruction in order to improve the housing conditions in former public housing neighborhoods. As precondition, evaluation criteria to decide whether the building should be renovated or reconstructed ought to be set up. These criteria will include: building quality, cost, ownership, residents’ opinion and historical value. Those low-quality and dilapidated buildings, for which a renovation will be either meaningless or too costly, such as the tongzilou dormitory, simple housing and single-storey temporary houses, still have to be demolished and replaced by new dwellings. But for existing buildings of better quality or the qualified “modern architectural monuments”, e.g. multi-storey or high-rise apartments that were developed since the 1970s and the early-built, Soviet-style apartment buildings, renovation or modernization is, by no

doubt, the better choice. Except for the listed monuments, the cost will be a decisive criterion to determine the housing renewal in the form of renovation or reconstruction: regarding the different life expectancy of renovated and newly-constructed buildings, the economic “deadline” of housing renovation might be 70% of the estimated cost of new building construction with the same size<sup>15</sup>.

Apart from the quality of existing housing and estimated renewal cost, the opinion of residents of the old buildings will be an indispensable factor to decide the form of housing renewal. In many former public housing areas, not only the housing conditions of different residential buildings, but also the housing ownerships and the willingness of existing residents are diversified and differentiated. The speculative demands increasingly become an obstacle to urban renewal, especially for those buildings that have to be demolished and reconstructed. Urban rehabilitation hence may provide an alternative solution: the form and sequence of housing renewal will to a large extent depend on the consensus of residents from each building (or block). Renovation or reconstruction of existing buildings upon the residents’ agreement on the housing renewal can be implemented in advance with the participation of the community. But for those residents who still disagree, the housing renewal of their dwellings will be paused. In comparison with the improved housing conditions of adjacent buildings, the continual decrease of living quality, as well as the market value, will foster the need of seeking consensus on building renovation or reconstruction.

Based on those criteria, adapted planning, design, technologies and process of implementation should be developed for the urban rehabilitation. Different from existing strategies of wholesale demolition and reconstruction of a neighborhood, the physical planning and implementation of urban rehabilitation will be a piece by piece process. The renovation or reconstruction of a building or block which are socially, economically and technically “ready” for the renewal may be started first. The spatially and temporally phase-by-phase rehabilitation will actually accelerate the implementation. At the same time, the earlier renewed buildings or blocks can facilitate the resettlement or interim housing for residents of later implemented ones. The adapted planning of urban rehabilitation will avoid the displacement of existing residents.

On the “micro” scale, adapted housing design and building technologies will be effective means to realize the socio-economic and community-placial objectives

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Based on the experiences of the Dutch “Bouwen voor de Buurt”, 70% of the new construction cost is a reasonable criterion for the decision-making of building renovation or reconstruction.

of urban rehabilitation. As the pilot studies have revealed, the design and technical interventions in the housing renovation and reconstruction may largely support the housing re-socialization and stabilization of mixed local communities. On the one hand, by applying adapted design and technologies, the combination of housing renovation with reconstruction will be an economical solution to re-socialize the housing stock, where the housing affordability and economic feasibility can be well balanced. On the other hand, the combination of housing renovation and reconstruction in the same block or neighborhood can guarantee more available resettlements or interim housing for existing residents. According to the adapted design, technologies and implementation process, residents will be able to stay in their building or even existing homes during the construction period of their housing renovation. In the meantime, the flexibility and differentiation should also be emphasized in the housing design. The design needs to be flexible and “redundant” enough, and the designers will have the opportunity to communicate with the local community so as to take into account the residents’ opinions in their designs. More importantly, the housing differentiation will be adopted as a major design principle for both housing renovation and reconstruction: the differentiated design interventions will condition the mixed housing stock of different ownership categories and dwelling types for the residents from different social backgrounds, and therefore attract them to dwell in the same neighborhood, same block or even same building. The adapted housing design can thus help to stabilize the mixed local communities and to promote social integration.

In addition, the combination of housing renovation with reconstruction is also an ecological design strategy. As a physical intervention, building renovation, in comparison with reconstruction, is indubitably an environment-friendly means which also has a lower ecological impact. And the ecological upgrading and modernization will also be an integral part of the renovation of existing residential buildings. Even for the housing reconstruction, a wide application of energy/resource saving design and technologies will be a compulsory mission as well. The ecological sustainability will be an emphasis of all those physical interventions in both housing renovation and reconstruction.

### § 14.3.2 Integral Physical Planning and Design to Improve the Overall Living Environments

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Nonetheless, urban rehabilitation should not only focus on renovation or reconstruction of residential buildings but also indicate the overall improvement of living environments of old neighborhoods. The multiple but integral physical planning/

design will be a necessity for the enhancement of living conditions of former public housing areas.

Besides upgrading the housing conditions, the renewal of physical space for non-residential programs must also be taken into account in the urban rehabilitation. The communal facilities should be modernized or newly constructed in order to improve the quality of living and to support the sustainability of each local community. And as programmatically mixed neighborhoods, urban functions other than the residential have to be retained but optimized in the new physical planning. The renewal and new construction of commercial and working space will contribute to the vitality of the local economy and will create new job opportunities; but adaptable design interventions should be introduced to avoid interference of those non-residential programs with residents.

On the other hand, aesthetic-technical interventions to improve living environments will cover the outdoor space of old neighborhoods, in addition to the building "objects". The aged open public spaces and outdoor environments have to be restored and upgraded. In particular those former public housing neighborhoods developed in the 1970s and early 1980s, of which the design of outdoor environments often was often neglected, the redesign of open public spaces, facilities and greenery should be emphasized. Design interventions for the outdoor space will aim not just to renew the landscape of old neighborhoods but also to physically back up recreating communal public space for residents.

However, the improvement of the living environment in those old neighborhoods should not only be limited to the modernization of local facilities or redesign of outdoor space. On the urban scale, the overall improvement of living environments also means the introduction of physical integral planning and urban design. In many former public housing areas, decades of legal or illegal constructions without integral planning have resulted in the existing chaotic urban form. In fact, the rehabilitation strategy by combining housing renovation and reconstruction brings about the new threat of urban "patchworks". The integral physical planning, by which the urban fabric will be kept and optimized, is therefore indispensable for urban rehabilitation. The role of urban design has to be emphasized. Within the existing urban fabric, old and new buildings, as well as the outdoor space, should be harmonized and integrated. Not only the building renovation, but also the new construction and redesign of outdoor environments have to respect the historical image and morphology of old neighborhoods. According to adapted architectural, landscape and urban design, the old neighborhoods will be refreshed and be endowed with new identity, which will help to strengthen the sense of community. Moreover, ecological design interventions will be applied not only for individual buildings but also for the area: the development of environment-friendly neighborhoods will be another task for the integral physical planning and design of urban rehabilitation. Hence, the integral planning, of which

buildings and outdoor environments as well as residential and non-residential programs are considered simultaneously, will contribute to the optimization of urban morphologies in former public housing areas and help improving the quality of living environments in those old neighborhoods.

In general, urban rehabilitation, as the strategy in the aesthetic-technical dimension, presents a conception of finding balance between flexibility and integrality in the physical interventions of the urban renewal. Instead of wholesale demolition and reconstruction, the phase by phase rehabilitation by combining housing renovation with reconstruction is aiming to provide a much more flexible and differentiated physical solution in order to deal with the increasing diversified and complicated local situation of urban renewal areas. Meanwhile the integral planning and design of optimizing physical urban morphology, which includes not just residential buildings but also non-residential and outdoor spaces, will contribute to an overall improvement of living environments in old neighborhoods. The adapted, flexible but integral physical planning/design of urban rehabilitation will support the realization of a seemingly contradictory but actually harmonized task in the urban renewal of former public housing areas in Beijing: to promote socially integrated developments by respecting diversified and differentiated interests. At the same time, it also facilitates a relatively economical and ecological solution to improve housing conditions and living environments of former public housing areas.

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## § 14.4 **Conclusions: Urban Rehabilitation – An Integrated Plural Approach for Renewing the Former Public Housing Areas in Beijing**

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In this chapter, we summarized recommended strategies for urban rehabilitation of former socialistic public housing areas in Beijing, which indeed can be seen as finalized result of the research based on previous historical review, problem statements, referable case studies and pilot design research projects. Preceding the not only social, economic, political but also ethical hybrid and transition, the present approach of urban renewal, which is still too unitary and unilateral in form of housing privatization, top-down organization or wholesale reconstruction, inevitably has to change and adapt to the new situation. The urban renewal increasingly becomes a capitalized and speculative “game” between different interest groups, and its originally social objective has been missed to a large extent. It is just because of this ethically hybrid and socially transitional situation that the new approach has to be a nonexclusive but an inclusive solution; this approach is a *proposal*, which represents a pragmatic and phenomenal spatial answer to the challenges in the socio-economic, community-placial and aesthetic-technical dimensions. To summarize these recommended

strategies for urban rehabilitation, the proposal can be named an **integrated plural approach**: it is *plural* in terms of its flexibility and diversity adaptable to the existing hybrid and transitional situation but *integrated* for the purpose of seeking socio-spatial integration – a spatial approach toward the good society. Those strategies for rehabilitating Beijing’s former socialistic public housing areas, under the framework of this *integrated plural approach*, therefore can be concluded as the following six items in three dimensions:

- Socio-economic dimension: In order to balance the housing affordability and economic feasibility, urban rehabilitation of former public housing areas will rely on **housing re-socialization** based on a social-oriented *new housing reform* to solve the existing housing problem in the city, as well as the realization of **economic sustainability** by introducing collaborative financing strategies for rehabilitation projects and the measures to promote the sustainable local economy of urban renewal area.
- Community-placial dimension: Urban rehabilitation will refer to the top-down intervention of **housing differentiation** for the mixture of residents from different social groups in one neighborhood, keeping its own identity. In the meantime, the bottom-up strategy of **community participation** will strengthen the local community by democratization of urban renewal in order to stabilize mixed local communities.
- Aesthetic-technical dimension: Urban rehabilitation is physically spatial intervention to balance the flexibility and integrality of urban renewal. Thus, rehabilitation encompasses **a combination of housing renovation and reconstruction** to efficiently upgrade housing conditions and **an integral physical planning/design** to achieve an overall improvement of the living environments of former public housing areas.

The afore-cited strategies, which are categorized under the theoretical framework of spatial phenomenon, will compose an integrated plural approach of urban rehabilitation. But those new strategies actually should be regarded as suggested guidelines rather than compulsory measures. Any recommended strategy must be adapted to the local situation, and thus develop their “local forms”. For instance, the housing re-socialization will mean socialization of existing housing stock in some cases, but in some others it will indicate public subsidies for private homeowners to renew their dwellings; community participation can be largely guided by the government and housing organization, or given a more democratized form in neighborhoods where residents are well organized, and wholesale site reconstruction might be an inevitable choice under a certain circumstance. On the other hand, while the proposed strategies were developed based on the practical analysis and research by design, they are still exploratory in the sense that they have not been actually implemented. Their feasibility and effectiveness need to be tested in practice, and applicable strategies have to be finalized through implementation.

Nonetheless, the proposal of urban rehabilitation in fact has revealed an alternative approach for urban renewal of former public housing areas. By including innovative strategies in the socio-economic, community-placial and aesthetic-technical dimensions, the integrated plural approach of urban rehabilitation, as social and phenomenal spatial solution, is at least possible to be an effective way to overcome the existing dilemma and to realize the original objective of urban renewal – to solve the housing problem and to promote integrated urban development. In its ethical sense, this approach aims to fulfill the *ethical task* of Chinese urban rehabilitation, which means *socio-spatial integration* – approaching to the spatial being of the good society by thinking of spatial phenomenon. My research, hopefully, will contribute not just to exploring a new approach to the urban renewal of former public housing areas in Beijing, which may often become the exemplified cases for other Chinese cities, but also to opening a new access that is able to promote socio-spatial integration for the spatial interventions in a hybrid and transitional urban society of contemporary China.



# 15 Towards a Socio-Spatial Integration – General Conclusions and Reflections

Today, the housing problem and the urban renewal are two of the most critical challenges in Chinese urban transformation. China's market-oriented reform and the following economic boom, which have to be taken into account within the context of the historical, long-term transition of the Chinese society from the traditional to the modern, significantly boosted the urbanization and urban development in China but also brought on a series of new urban questions. Along with the housing privatization and marketization in high-speed urbanization came the speculative housing market and a capitalized and unbalanced housing stock, which considerably intensified urban problems such as social polarization, spatial segregation, the economic bubble and urban sprawl. The former socialistic public housing areas in Beijing and other Chinese cities, which were largely developed under the planned economy and still accommodate the majority of urban residents, were mostly privatized, but, owing to the marketization of the housing stock, those housing areas identified by their preferable locations and mixed communities are confronted with the problem of physical deterioration and the threat of social decline. Meanwhile, the urban renewal of former public housing areas is facing a dilemma: the sharp increase of social diversification and differentiation, capitalized and speculative housing stock and the inadapted urban renewal policy together resulted in the increasing conflicts of different interests in the urban renewal, so that many urban renewal projects came to a standstill. All those phenomena can actually be seen as spatial manifestation of the dramatically social but ethical transition in contemporary China, which means *the hybridity of ethos*. Different from the globally predominant ideology of the West, which should be named as *the hybrid ethos* based on a common respect to individualism, liberalism and consumerism, the hybridity of ethos is present in the current Chineseness in a transitional society: it is a hybridity of the hybridity and indicates the continuous collision between different ethos (including the Chinese traditional thinking and the Western hybrid ethos). There is an unprecedented tension between individuality and collectivity. Hence, what the adapted approach for renewing former socialistic public housing areas, as a solution to improve local living conditions and to deal with the existing urban housing problem, has, not only socially but also ethically, become an important urban question in Beijing and other Chinese cities.

My research to answer this question is based on the hypothesis that urban rehabilitation, as a relatively gentle, balanced and social-oriented solution instead of the current prevailing approach of urban reconstruction, can be an adapted and feasible approach. However, in the context of *the hybridity of ethos*, the existing dilemma of Chinese urban renewal does not only root in the conflict of interests

between different actors, behind which there is the tension between individuality and collectivity. More fundamentally, it stems from the collision between different ethos, which determined the theoretical confusion on urban renewal. The development of adapted strategies of Chinese urban rehabilitation ought to be much more integrated and inclusive. Those strategies enriched by diverse points of view will help to avoid the issue of disciplinary or one-sided theory and methodology. The research was hence addressed under a new theoretical framework – thinking of spatial phenomenon – that I introduced in response to this hybrid ethical situation. Thinking of spatial phenomenon, which theoretically means to regard space as *phenomenon* in our living world, stems from the phenomenalization and pragmatization of spatiality in modern Western philosophy and from the pragmatic tradition of Chinese thinking; it aims to set up a modern and Chinese understanding of urban rehabilitation. It is characterized by three ethical dimensions of spatial phenomenon – the socio-economic dimension (a structuralistic point of view for the modern society), the community-placial dimension (a humanistic point of view for everyday life) and the aesthetic-technical dimension (a positivistic point of view for physical environments), as well as the historicity and practicality of thinking. More important is that there is an establishment of the primary thesis about *socio-spatial integration*, which does not just mean, as usual, the spatial integration of different social groups but connotes the meaning of bringing people together for *approaching to the spatial being of the good society*. Socio-spatial integration will thus play a role as the ethical task in Chinese urban rehabilitation. Thinking spatial phenomenon, serving not just for ontology or epistemology but also for methodology of research, is precisely applicable to the research on the urban renewal of former public housing areas. My research therefore is methodologically *problem-driven* and *purpose-driven* and thus follows an analytical matrix that composed of *the historical axis* and *the dimensional axis*. On the one hand, the research question revealed the current urban housing problem and the dilemma of urban renewal; and on the other hand, socio-spatial integration is the purpose to guide the research and links to the hypothesis of urban rehabilitation. Driven by the problems on housing and urban renewal and the purpose of socio-spatial integration, the study is enframed by a historical axis from the history of former socialistic public housing areas in Beijing to their status quo and renewal challenges, and from the study of the successful experiences of urban renewal in the comparable context to the pilot design research projects in Beijing for developing rehabilitation strategies, together with a dimensional axis of the socio-economic, community-placial and aesthetic-technical dimensions.

The historical review of the development of (former) socialistic public housing in Beijing revealed that the evolution of socialistic public housing system, as the major system of housing provision under the planned economy, was to a large extent determined by the transformation of its socio-economic context. It was along with this evolution that different types of socially and programmatically mixed communities came into being in public housing areas, according to the danwei-based socio-spatial morphologies. At the same time, many different physical planning, design

and technological interventions for socialistic public housing were developed: some of them really established the models and standards of Chinese modern housing design but some were low-quality and outdated in comparison with the existing criteria. The existing characters and problems of former public housing areas in Beijing largely root in those historical practices. On the other hand, apart from those general housing problems in Chinese cities, the housing privatization and marketization that was directly launched by the radical housing reform in 1998 led to a speculative and ambiguous housing stock and confused housing management in the mostly privatized, former socialistic public housing areas in Beijing. While these areas still house the majority of urban residents and are identified by their relatively good spatial locations, mixed housing stock, programs and population structure, and lively communities, they are certainly undergoing the deterioration of living conditions and facing the threat of neighborhood decline as well as social segregation. Urban renewal was thus called on. The urban renewal of former public housing areas, as a part of the effort to improve the local living conditions and to solve the urban housing problem by overall renewing the old housing areas in Beijing, officially started in the early 1990s in the form of large-scale demolition and reconstruction. The reconstruction was further boosted by the policy of "Urban Renewal by Housing Reform" after the radical housing reform. However, existing urban renewal strategies, including housing privatization and marketization, market-oriented financing, top-down organization and wholesale reconstruction, have increasingly been inadaptable to the currently diversified, differentiated and complicated situation in former public housing areas, and therefore caused resistance and many new difficulties or problems related to the re-housing, financing, segregation, historical conservation and environmental issues. There are intensified conflicts between public interests and private interests, and between private interests of different groups or actors. The implementation of many urban renewal projects thus had to be stopped or suspended in Beijing. Doubtlessly, a new approach of urban renewal, as alternative, has to be explored. At present, the reemphasis of social housing, of which the housing renewal is particularly included, provides an opportunity to reestablish the social objective of urban renewal. But the establishment of an alternative approach still has to cope with a series of *challenges*. These challenges, if we categorize them in the socio-economic, community-placial and aesthetic-technical dimensions, would comprise the balance of housing affordability and economic feasibility, a stabilization of existing mixed communities and alternative physical initiatives instead of the wholesale reconstruction, respectively. They also constituted concrete and explicit research questions of this dissertation.

In order to answer these research questions, a study of the successful cases under comparable background, as reference, should be helpful. I chose referable cases of successful urban renewal practices in cities that are famous for their tradition of social housing and social-oriented urban renewal. These cities include Amsterdam, Berlin, Rotterdam, Hong Kong and Vienna. According to the research questions, the case studies were also sorted out by the socio-economic, community-placial and aesthetic-

technical dimensions. In the socio-economic dimension, successful strategies refer to those which ensured social and economic sustainability of urban renewal, such as housing socialization, public subsidies to owners or residents, renovation/rehabilitation (as an economic strategy), revitalization of local economy and social facilities, etc.; in the community-placial dimension, the efforts focus on avoiding population displacement and achieving active community participation to stabilize socially mixed communities; and in the aesthetic-technical dimension, the measures are about the planning/design interventions to avoid wholesale demolition and reconstruction. Those referable experiences brought to light a potential approach of urban rehabilitation for renewing the former socialistic public housing areas in Beijing.

In a practice-oriented research, the approach of urban rehabilitation is not an abstract concept but contains a set of feasible strategies that are adapted to local conditions. The exploration of localized rehabilitation strategies has no better way than the method of research by design. The design research studies were addressed for representative cases of former public housing areas in Beijing, as the so-called pilot design research projects. Two pilot design research projects were made for the urban rehabilitation of the Block 1 and of the Building 50-52 Block in Sanlihe Neighborhood 1, a typical dayuan neighborhood in Beijing. The former, as a representative of socialistic public housing blocks developed in the 1950s, has been planned to be reconstructed, but the reconstruction plan could not be implemented due to disagreement of the residents; and the latter is a public housing block built from the late 1970s to the mid-1980s, of which the built environment are also aged and outdated. Each pilot project applied to the method of design by research. Based on a detailed analysis of local conditions and reference to successful experiences, the design for urban rehabilitation was developed not just on physical interventions but also on housing strategy, financing solution, project organization and management.

The pilot design research proved that urban rehabilitation can be an adapted and feasible approach for renewing former socialistic public housing areas in Beijing. This localized and innovative rehabilitation approach can be termed as an *integral plural approach*. As a *proposal* in order to overcome the existing dilemma in urban renewal, the integral plural approach aims to resolve serious conflicts of interest in the housing area renewal and to revive its social objective through urban rehabilitation; the approach itself integrates the recommended strategies in all three dimensions of spatial phenomenon. Those strategies comprise *housing re-socialization* and *economic sustainability* in the socio-economic dimension, *housing differentiation* and *community participation* in the community-placial dimension, as well as a *combination of housing renovation and reconstruction* and an *integral physical planning/design* in the aesthetic-technical dimension. What are respected in the urban rehabilitation are not only the interests of different actors but also different ethos, while these differences should be framed by a common approaching to the good society. In essence, the integral plural approach means to balance the unbalanced

and to harmonize (not to erase) the differentiated. In the contemporary Chinese context, standing for the hybridity of ethos, this *integral* but *plural* approach of urban rehabilitation respects the differences and pursues integration. It might be the most effective way to truly realize the social/ethical task of renewing former socialistic public housing areas, improving local living conditions and solving the urban housing problem. In addition, it is the mirror of practicing the ethical task of Chinese urban rehabilitation, which means the *socio-spatial integration*.

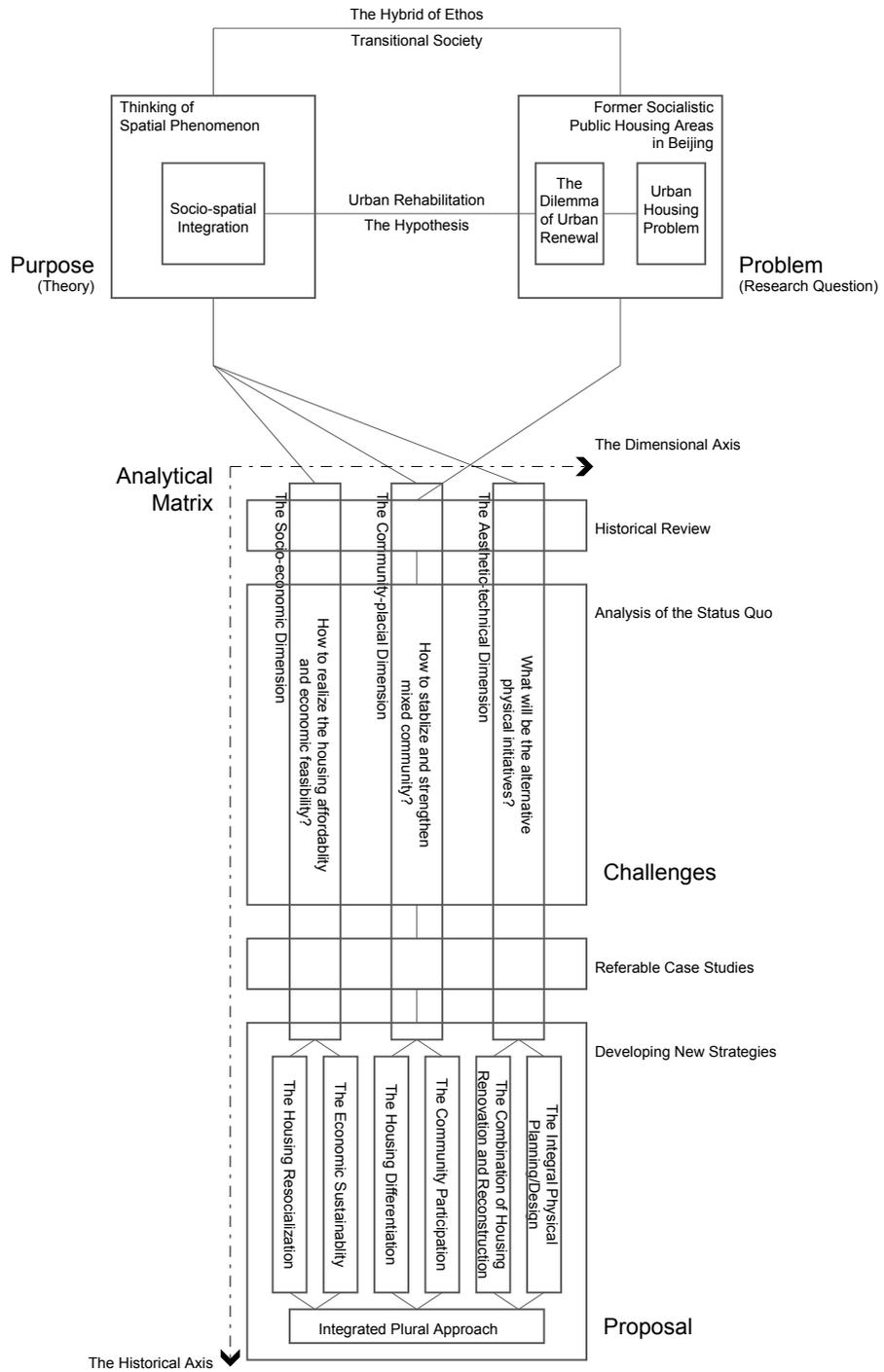


Figure 15.1  
Concluding diagram of the research

Although it seems that there has been a conclusion, the research itself, as *theoretical practice*, can never really be concluded but normally will induce new thinking. As for the research on urban rehabilitation of former socialistic public housing areas, the conclusions inescapably evoked reflections, which mainly focus on two points:

The first point of reflection is the practicality of this new approach to urban rehabilitation. While the strategies of the integral plural approach were inducted through pilot design research and only serve as recommended principles, the effectiveness of the approach, as well as the feasibility of each strategy, *must* be tested in practice. But the implementation of those rehabilitation strategies in practice is still confronted with unpredictable and uncertain challenges. For example, the strategy of housing re-socialization, which means to recover the essence of housing as *housing* (more than simply real estate or property) and to restraint speculation, might meet the resistances from property owners, speculators, developers or other vested interests, who are rather influential in decision-making; the economic sustainability of urban rehabilitation will largely be determined by the continuity of public finance policies and the general economic situation of city and state; and a feasible way of community participation, which should not result in manipulation nor inefficiency, is still a critical challenge in a traditionally top-down and hierarchical society. In addition, the transitionality of the Chinese society brings about the uncertainties not just for the practice but for the research of urban rehabilitation. Under the background of constant, sometimes radical changes of urban situations, housing system and urban renewal policy, even the research in itself becomes so limited: it will be "outdated" within a short time and has to be continually updated. As a result, it can be estimated, in many cases, that the realization of only one or a few strategies could mean a considerable achievement. Some of the strategies might be proven absolutely unfeasible in practice, but most of them will for sure be revised and improved through practice. In fact, both the pragmatization of modern Western thinking and the Chinese tradition of unity of knowing and doing, as analyzed in my theoretical discussion, have revealed the necessity to combine research with practice. Thus, the key point is not just doing research by practice or practice by research, but *practice as research*. The existing work of my research, therefore, should be regarded not as an end but as the *start* of the research on urban rehabilitation of former socialistic public housing areas.

The second point is the reflection on the theory and methodology. This research on urban rehabilitation may in itself be regarded as a tentative test to the theoretical establishment of thinking of spatial phenomenon, as both ontology and methodology. The historical transformation of Chinese urban housing policy, public housing communities and the physical built environments in public housing areas vividly portrayed an urban society in transition, and the existing dilemma in the urban renewal of former public housing areas precisely present the situation of the hybridity of ethos. The pilot design research projects contribute to developing new strategies of Chinese urban rehabilitation. And the investigation, analysis and design related

to all three dimensions of spatial phenomenon resulted in the development of an integral but plural approach that is adaptable to the contemporary Chinese situation. All those researches along the historical axis and dimensional axis were integrated by the general theme of *socio-spatial integration*, which is not only the ethical task of Chinese urban rehabilitation, but also plays a role as the primary thesis under the theoretical framework of thinking of spatial phenomenon. Tentatively, thinking of spatial phenomenon during the research on Chinese urban rehabilitation actually revealed the potential to adopt this ontology and methodology in other research studies in a comparable context. What can be recommended is not just the new approach of urban rehabilitation but also an innovative theory. While the rehabilitation strategies resulted from research on the situation in Beijing, it might be exemplified for urban rehabilitation of former socialistic public housing areas in other Chinese cities. Thinking of spatial phenomenon can be employed, as it was proposed, as the ontology and methodology for research not to be limited in the issues of urban renewal but about other spatial interventions in the Chinese context of the hybridity of ethos. Developing a scheme of the unprecedentedly complicated and hybrid urbanism has to be an effort toward the establishment of what Wu Liangyong (2001, p.152) called “the integral attitude in a complicated system”.

Furthermore, thinking of spatial phenomenon, as a practical philosophy, implies not only a Chinese, but de facto a “universal” approach for research on space and spatiality. The research on Chinese urban rehabilitation can be seen as an example to explore new thinking of spatial questions in the era of globalization. The hybridity of ethos is a hidden but major rhythm of globalization, for China and the rest of the world, in comparison with the apparent predominance of the hybrid ethos of the West, in the forms of individualism, liberalism or capitalism. The contemporary global crisis, presented as economic recession, ecological challenge or terrorism, deeply stems from dogmatic promotion of Western thinking. Urban questions, in many cases, are confused by the rising collision, mixture and hybrid between the westernization and the local traditions. The effectiveness of exclusive, unconditional application of Western thinking has to be doubted, in the research of spatial questions in global context, for which a much more open and pragmatic ontology or methodology is required. In his comparative study of Confucian philosophy and John Dewey’s (who was called a “Second Confucius”) pragmatism, Joseph Grange argued that “There is nothing ethically ultimate about the free market system and its insistence upon the primacy of individualism, private property, and the continuous growth of profit. Economics is not a theological system... The normative thinking... is based on helping human beings gain a feel for what fits in a particular situation. The ‘fitting’ is the fair and the just. No one set of principles can determine for all time what is appropriate in a given set of relationships... Learning... would have to shift its main aim toward making us sensitive to the width of circumstances that human beings are likely to meet in the course of their lives” (Grange, 2004, pp.110-111). Liang Shuming compared the Western and Chinese philosophies in the early 1920s, and he did believe that the world culture in

the future, after westernization based on modern, positivistic ethos (which for him means “the first way”), would turn to the pragmatic but positive way of Confucius (“the second way”) (Liang Shuming, 2010). The post-metaphysicalization of Western thinking in the recent century seems to have proven his prediction. Stemming from the phenomenalization and pragmatization of Western philosophy and the pragmatic tradition of Chinese thinking, thinking of spatial phenomenon in itself can be regarded as a theoretical practice of developing a “normative” thinking fitting in a global society. It has to keep its openness for different ethos, its unity of thinking and doing, and its primary thesis of *socio-spatial integration* against the phenomenal world. The primary thesis of *socio-spatial integration*, as both a status and an instrument of spatially approaching-to-the-good that was proposed by thinking of spatial phenomenon, indeed inherited Confucius’ concept of *Ren*, which is often literally translated as “humanity” or “benevolence” but philosophically denotes “authoritative conduct, to act authoritatively, and authoritative person” towards the construction of a good society. Here is not so much the modernization of the Chinese tradition as the “sinification” of the West-originated global thinking. This pragmatic attitude will open a new way that echoes the faith of those social reformers who stood up for the contribution of spatial intervention to social progress, while it was often criticized as utopia. However, as Jean Baudrillard pointed out, it is only through dialectical utopia that we can elaborate, outside and within the present system, an urban thought (Baudrillard, 2006, p.52). In fact, the research on urban rehabilitation of former socialistic public housing areas in Beijing conditioned a creative thinking, as well as doing, of a utopia on *housing, urban renewal and socio-spatial integration*.

In the end, one of the words of Confucius may conclude my research:

“The Master said: ‘It is Man who is capable of broadening the Way. It is not the Way that is capable of broadening Man.’”<sup>1</sup>

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*The Analects of Confucius*, 15.29 (Yang Bojun and D. C. Lau, 2008, p.291)



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# Curriculum Vitae

Xiaoxi Hui was born on the 3rd March, 1976 in Beijing, the People's Republic of China. From 1991 to 1994, he went to Beijing No.161 Middle School and received his high school diploma. He, then, studied at Beijing University of Technology from 1994 to 1999 where he earned a BArch degree. In 2002, he came to the Netherlands and continued his graduate studies at Delft University of Technology. Thus, he obtained his second diploma as MSc in Architecture in 2004. From 2007 to 2012, he chose to continue on for his doctorate degree in urbanism also at Delft University of Technology, under the supervision of Prof. dr. -ing. H. J. Rosemann. His research aims to develop a new approach for rehabilitating the former socialistic public housing areas in Beijing, driven by the problems of housing and urban renewal and the purpose of socio-spatial integration. The implications of his study are presented in this thesis. Xiaoxi Hui used to work as an architect at Hexi Architects in Beijing from 1999 to 2002 and as a department manager at Beijing Guoyue Real Estate Development Ltd. Co. from 2004 to 2006. Currently, he is a coordinator for the International Forum on Urbanism (IFoU) and teaching at College of Architecture and Urban Planning, Beijing University of Technology.

