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**Analysis of social housing system in Shanghai
Comparison with Europe**

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Abstract

In China, especially in Shanghai, the demand for social housing is increasing. The reasons of this situation are mainly the high price of property, the large amount of immigration, the rapid urbanization and so on. These years, many relevant policies have been come up and implemented to build plenty of social housings in Shanghai. However, as the immature policies for the social housing system and the inadequate experience of the implementation, many sever problems have already been appeared, like the inappropriate distribution, the insufficient infrastructure, the class isolation, the property and the identity.

Compared to the situation in Shanghai (China), European countries have experienced a long term of social housing system development, both in the field of gradually improvement of the policies and the plenty excellent practices.

The aim of writing this thesis is to pinpoint the weakness of the social housing in Shanghai, and give it some inspiration by researching the policies and implementations in European countries. To achieve this aim, the thesis can be divided into four main parts:

Firstly, study the definition of the social housing and the housing situation in Shanghai. Highlight the immediate demand of social housing in Shanghai.

Secondly, research the policies and cases of social housing in Shanghai. Pinpoint the weaknesses of current social housing system of Shanghai.

Thirdly, research the policies and cases of social housing in European countries. Mainly search the inspiring policies and method respected to the pinpointed weaknesses in order to improve the social housing system in Shanghai.

Lastly, make some proposal for the existing social housing cases in Shanghai to make it better to satisfy to the current social housing demand.

Key words

social housing, Shanghai, Europe, policy, implementation

Astratto

In Cina, in particolare a Shanghai, la domanda di social housing è in aumento. Le ragioni di questa situazione sono da individuarsi soprattutto nei prezzi elevati delle abitazioni, nel fenomeno dell'immigrazione e nella rapida urbanizzazione.

In questi anni sono state avviate molte politiche volte alla costruzione di edilizia sociale, ma, a causa dell'assenza di precedenti esperienze, si sono riscontrati diversi problemi, quali una distribuzione inadeguata, infrastrutture insufficienti, isolamento di classe.

Rispetto alla Cina, e a Shanghai in particolare, i Paesi Europei hanno maturato da maggior tempo un sistema di edilizia sociale e si sono distinti per lo sviluppo di alcune best practice.

Lo scopo della presente tesi è di individuare i punti di debolezza dell'edilizia sociale a Shanghai e di trarre ispirazione dalle politiche attuate nel settore in Europa.

La tesi si articola in quattro parti principali:

- 1) Definizione della situazione e della domanda abitativa sociale a Shanghai.
- 2) Politiche ed esempi di social housing a Shanghai: individuazione dei punti di debolezza del sistema attuale.
- 3) Politiche ed esempi di social housing in alcuni Paesi Europei, al fine di individuare spunti di miglioramento per il sistema di edilizia sociale di Shanghai.
- 4) Proposte di miglioramento di alcuni casi di social housing esistenti a Shanghai.

Chapter 1 Introduction

1.1 The interest of the theme

Social housing is a kind of social welfare housing, which mainly sponsored by government and social welfare institutions, aiming to provide a better living conditions for the vulnerable social groups.

Nowadays, China, especially **Shanghai**, which is one of the most important cities in China, is developing in a dramatic speed. Meanwhile, there are also many social problems starting to emerge. One of the biggest issues is the housing problem, both in terms of the quantity demand and the quality demand. The reasons of this situation are mainly the high price of property, the large amount of immigration, the rapid urbanization and so on. However, due to the unbalance development in the latest two decades, there are increasingly vulnerable social groups in Shanghai-a highly competitive city. Therefore, social housing is an immediate demand.

Since the founding of People's Republic China (1949), China has searched many ways to achieve the quantity of living place and improve the quality of living condition. In Shanghai, the government has made and improved many relevant policies, like 7090 policy, limit price housing, 900 billion social housing stimulation program. However, as the unexpected dramatic improvement of Shanghai (China), the welfare housing and social housing policies and the implementations are not mature enough to solve the increasing housing problems. Besides, as the advance of the social housing implementation in Shanghai (China), new problems relative to social housing system have also emerged, like the inappropriate distribution, the insufficient infrastructure, the class isolation, the property, the identity and so on.

Compared to the condition in Shanghai (China), European countries have a long history of the social housing system development, even since the middle of 19th Century. Nowadays, each country has different policies, like the ratio control between the ownership and the rental housing, the anti-speculation rule, the mix of social housing and no-social housing and so on. They also have made many practices, having effectively improved the living conditions of the vulnerable social groups. Therefore, it is necessary to study the social housing policies and implementations in European countries, especially focus on the problems of social housing system in Shanghai (China) to find some way to improve it.

Overall, this thesis weighs on the research of the policies and cases both in Shanghai (China) and Europe, expecting inspirations from the experience of the European countries and making some appropriate proposals to improve the current social housing situation in Shanghai (China).

1.2 Research object

The research mainly focuses on the policies and the implementation in both Shanghai (China) and several European countries those have excellent social housing tradition and practices. As the policies research part, we firstly research the policies development process and the current policies both of China and Shanghai. Then it researches the relevant policies in European, which can improve the insufficient policies of Shanghai. As the implementation research part, this thesis researches several typical cases in Shanghai and also several inspiring cases in Europe, which can improve the insufficient implementations in Shanghai.

1.3 Purpose

The purpose of this thesis is to find some proposals to improve the social housing system of Shanghai. In order to achieve this aim, we should pinpoint the significant problems of Shanghai both in policies and implementations, and then research the respective policies and implementations in Europe.

1.4 Framework of the study

This thesis can be divided into four parts:

Firstly, study the definition of the social housing and the housing situation in Shanghai. Highlight the immediate demand of social housing in Shanghai.

This part includes two chapters: the first chapter is “Definition-categories of social housing”, which mainly definite the object of the research in terms of four features “tenures, providers, beneficiaries and funding arrangement”, meanwhile making a comparison between the social housing definition in Europe and in China. The second chapter is “Background-need of social housing in Shanghai”, which mainly discuss the demand of social housing in Shanghai, in terms of the property price, the housing affordability and the problem of the normal housing system that relevant the vulnerable social groups.

Secondly, research the policies and cases of social housing in Shanghai. Pinpoint the weaknesses of current social housing system of Shanghai.

This part includes three chapters: the first chapter is “Policy-housing policies in China and Shanghai”, which mainly research the development of social housing policy of China and Shanghai and also the current social housing policy of Shanghai. The second chapter is “Case Study-the case studies of social housing in Shanghai”, which in the implementation view to observe the social housing system of Shanghai. The third chapter is “Problem-the problems in the current social housing system of Shanghai”, which mainly conclude the policies and implementations of the social housing system of

Shanghai these years, and pinpoint the problems. There are mainly six problems have been discussed in this chapter:

1) Inappropriate distribution (insufficient infrastructures and community services), which mainly indicates the improper site locations of the current social housings in Shanghai and the incomplete facilities surrounding.

2) In sufficient proportion of public rental housing with improper supply, which mainly indicates the incomplete social housing types (tenures & design) currently provided in Shanghai.

3) Lack of providers, which mainly indicate, the investment and responsibility of social housing are still mainly afforded by the government of Shanghai. This mode accumulates the pressure and could not work effectively.

4) Inequality of beneficiaries, which mainly indicate many immigrant workers from other cities, could not equally enjoy this housing welfare, but they are the major vulnerable groups in Shanghai.

5) Social segregation, which mainly indicates the social housing communities in Shanghai are still constructed isolated from the non-social housing communities and have specific identities.

6) Monotonous design, which mainly indicates the design of social housing in Shanghai does not concern about the demographic characteristics in Shanghai, which have already been an important issue currently.

Thirdly, research the policies and cases of social housing in European countries. Mainly search the inspiring policies and method respected to the pinpointed weaknesses in order to improve the social housing system in Shanghai.

This part includes two chapters: the first chapter is “Policy-housing policies in specific countries in Europe (the Netherland, France, Spain and Italy). The second chapter is “Case Study-the case studies of social housing in Europe”, which mainly concerned the specific cases those could inspire the vulnerable policies and implementations in Shanghai. In this chapter we mainly follow the Shanghai’s problems, which we collected in the previous part, to find the corresponding cases. Besides, all the cases are from the four countries, those we specifically researched.

Lastly, make some proposal for the existing social housing cases in Shanghai to make it better to satisfy to the current social housing demand.

This part includes one chapter: “Proposal-the proposal for the cases of social housing in Shanghai”, which mainly propose some proposals to improve the policies and implementations in Shanghai. In this chapter, we mainly propose seven proposals- the first six proposals are specifically corresponded to the six problems in Shanghai and the last proposal is a currently general international concerned issue- “Sustainable design”.

1.5 Methodology

In this thesis, mainly four methods are adopted, including “Literature Research”, “Policy analysis”, “Case Studies” and “Comparison”.

- **Literature research**

This method is adopted nearly during whole process of research. The aim is to get the general idea of “social housing” in both European system and Shanghai (China) system, and to understand the housing and social housing situation both in European and Shanghai (China).

- **Policy analysis**

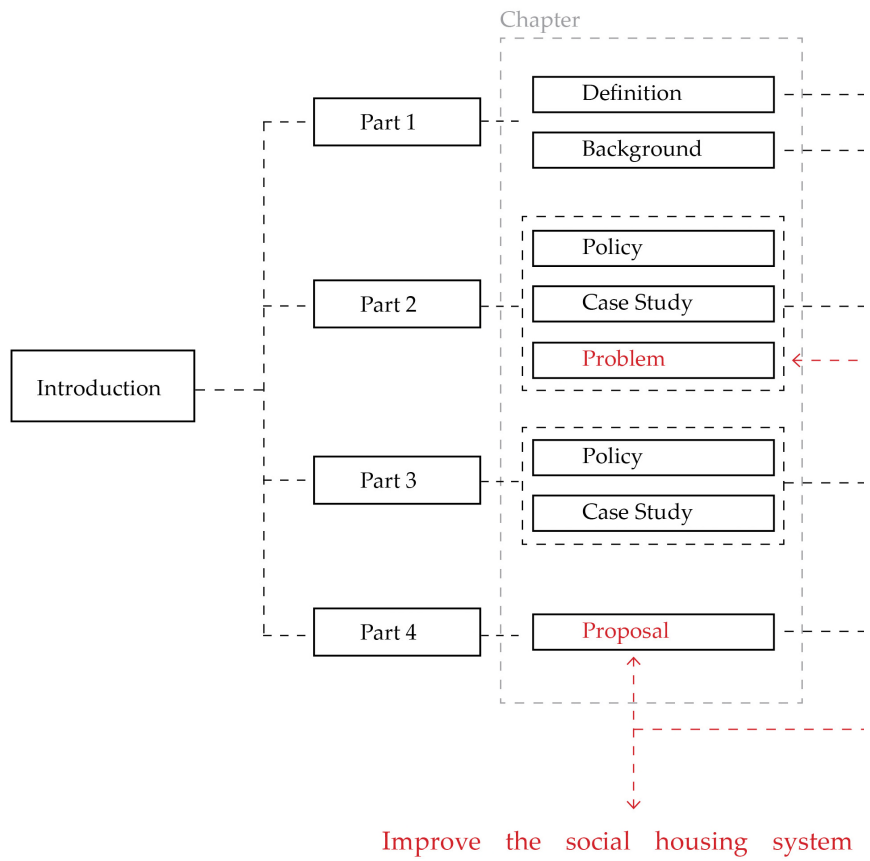
This method is adopted in Chapter 3 and Chapter 6, which mainly related to the policies of Shanghai (China) and European countries. The aim is to understand the root of the different social housing situations and pinpoint the problems and search for solutions.

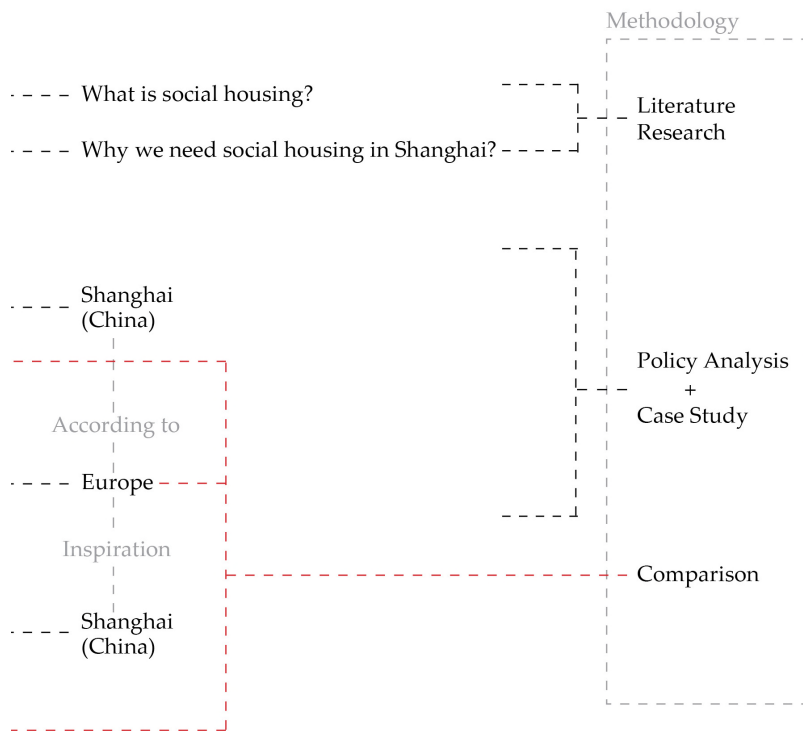
- **Case studies**

This method is mainly adopted in Chapter 4 and Chapter 7, which mainly related to the implementations of social housings in Shanghai (China) and European countries. The aim is to assist the policy analysis and to observe the implementations.

- **Comparison**

This method is mainly adopted in Chapter 7, which assist to select several relative cases in European, inspiring to improve the current situation in Shanghai.





in Shanghai

Figure 1-1: The structure of the thesis (made by authors)

Chapter 2 Definition

-Categories of Social Housing

“What is social housing?” “What are the main characters of social housing?” “What kind of society has the demand of social housing?” These questions should be clarified before the following discussions.

After we observed the world’s social housing system, we found the definition varies between different countries. It varies between China and Europe, and it also varies between the different countries in Europe, such as Netherland, France, Spain and Italy.

Therefore, the first step is to research the general definition and categories of social housing both in Europe and in China and to understand the general background of the social housing systems in the different countries.

Additionally, all the following descriptions in this chapter are the general introduction of the social housing definition and categories. As to the detail policies and implementations, we will discuss in the following chapters.

2.1 Definition of social housing in Europe

2.1.1 Diversity between countries according to four elements

Social housing is a kind of social welfare housing, which mainly sponsored by government and social welfare institutions, aiming to provide a better living conditions for the vulnerable social groups.

The demand of social housing in a society depends on the housing affordability there. Housing affordability depends on how much percentage of the income of a family spent on housing. “On average Europeans spend over a fifth of their income (22.9%) on housing. The share of housing costs out of disposable income for those at risk of poverty is almost double the overall rate (40.4%).” (Laino, 2011) In another word, if a family has to spend a relative high percentage of income on housing is a key judge of if the family belongs to the vulnerable social groups.

Besides, the quality of housing condition is also a key issue, which should be considered in terms of the demand of social housing. Some vulnerable groups live in poor condition, which could not guarantee their basic decent life. The government has the obligations to develop their living conditions by providing some kinds of housing subsidy.

Even though, in terms of the concept of social housing, different countries vary for the detailed definitions. “Many countries have not adopted an official definition of ‘social housing’, and this term is not used everywhere. Instead we find the terms such as ‘Housing at Moderate Rent in France (HLM), ‘Common Housing’ or ‘Not-for-profit housing’ in Denmark, ‘Housing

Promotion’ in Germany, ‘Limited-Profit Housing’ or ‘People’s Housing’ in Austria, ‘Protected Housing’ in Spain, ‘public utility’ housing in Sweden, etc.” (Laino, 2011) “Social housing in the European Union is characterized by the wide diversity of national housing situations, conceptions and policies across member states. A variety of approaches are implemented across the EU, in terms of ‘Tenures’, ‘Providers’, ‘Beneficiaries’ and ‘Funding arrangements’.” (Laino, 2011)

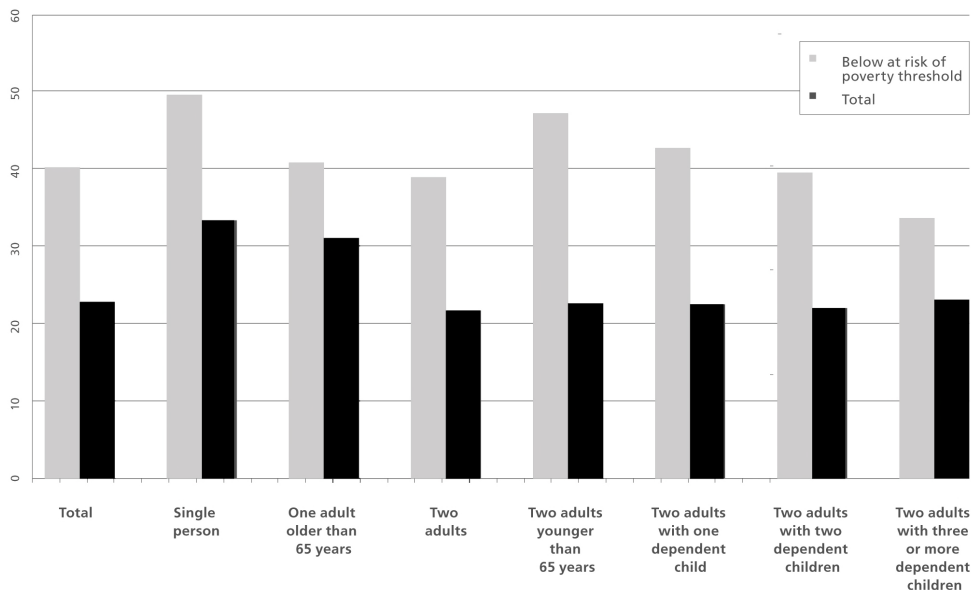


Figure 2-1 Average housing costs as percentage of disposable income in the EU, by household type, for total population and those at risk of poverty (2009) (Source: Eurostat)

- Tenures

In terms of the tenures, social housing in Europe can be divided into three groups: “Rental social housing”, “Shared ownership” (where tenants buy a share in their dwelling and pay the rent on the rest of it), and “low-cost housing for sale”. (Laino, 2011) In most countries, social housing is provided by rent, but recently, the “shared ownership” social housing trends more and more popular, in UK for instants, and also in some countries, especially in the south of Europe, like Greece and Spain, social housing can be only provide as “low-cost housing for sale”.

However, rental housing in more considered as a kind of sustainable social housing type. Partly because it can purely provide convenience to the most vulnerable sectors, with the more appropriate interior layout and normally furnished, and partly because it can avoid speculation (with the right of ownership of social housing, some owners resell the social housing

with a price of non-social housing, which lead to the disappearance of social housing.) to some extent.

Even though, also amount of countries insist on part or whole percentage of “shared ownership housing” or “low-cost housing for sale”, because it could relieve the pressure of housing subsidy. The mainly trend in most EU countries is the increase in the private ownership rate. “This trend has also been greatly boosted on the one hand by policies encouraging home ownership (mainly through tax incentives for home buyers but also schemes encouraging the sale of social housing, such as the introduction of Right to Buy in the UK in the 1980s), and on the other by the sustained low interest rates over recent years as well as by an increasingly competitive mortgage market.” (Laino, 2011)

Now, when we observe the private ownership rate of the housing market. We can see that in some eastern European countries, such as Romania and Estonia, the rate is reaching as high as 90%, while in some southern European countries, such as Spain and Italy, the rates are around 70%-80%, and in some northern European countries, such as Germany, the rate is around 40%-60%. When we count for the percentage of social rental housing in the sector of all rental housing, only a few countries like Germany accounts for more than 50%.

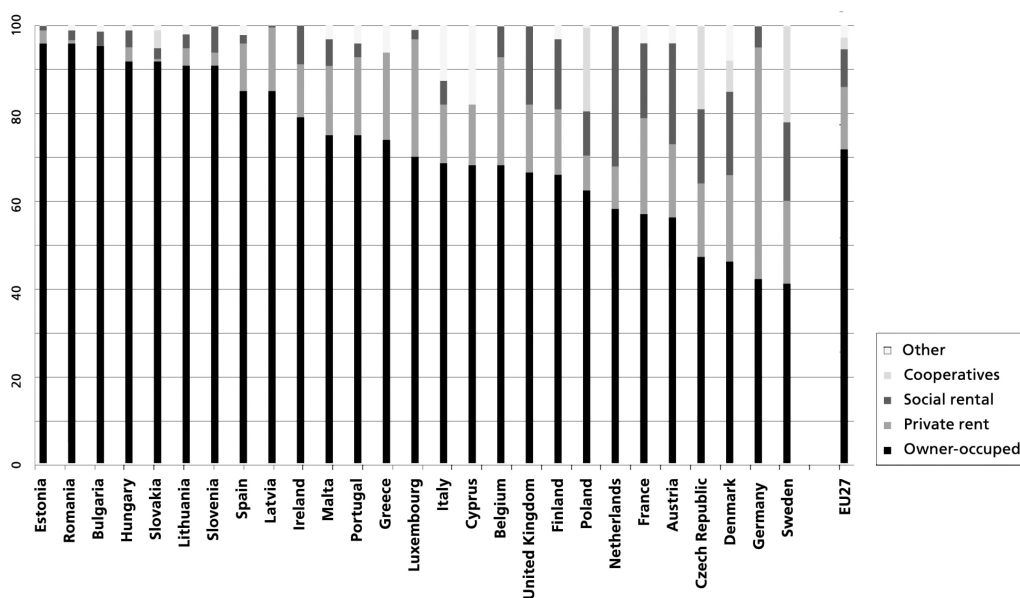


Figure 2-2 Tenure split in the 27 EU member states as a percentage of the total housing stock (source: Housing statistics in the European Union 2010, updated by national correspondents)

- Providers

In terms of providers, social housing in Europe can be divided into four groups, "Local authorities", "public companies", "non-profit or limited-profit associations and companies" and "private for profit developers and investors."

Traditionally, the provider of social housing was only government. However, since 1980s, "responsibility for housing policy shifted away from the central government and municipalities to the federal provinces. (This had relatively little effect on Vienna, however, because it is both a city and a federal province.) Nevertheless, the central government is still responsible for the regulation of home ownership and laws governing the rented sector. Central government also continues to be responsible for raising funds for new construction, although distribution of these funds is through the federal provinces." (J., 2007) As the subsidies of government are limited, the private sector provider for social housing is increasing. "In the Netherlands, for instance, the housing association sector now funds all its own investment; in Sweden the sector actually makes a positive contribution to government; in the transition economies and in Germany there is no longer any appetite for national funding. More generally, EU monetary requirements and other constraints have reduced available funds. In this context, it is hardly surprising that there is growing emphasis on the role of the private sector, not only in undertaking investment but also in funding that investment." (J., 2007)

Today, the main type of provider is a combination of these characters. Its means the providers are always the combination of public providers and private providers, the combination of non-profit organizations and profit organizations. "This is the case for instance in England, where housing associations are nowadays the main providers with 54% of the social housing stock while local authorities still manage 46%. Similarly, out of the total social housing stock, in Austria, 60% of the stock is owned by municipalities and public companies, but municipalities have withdrawn from new construction over the last decade and the main sector is currently the Limited-Profit sector. The past four years have seen this trend increasing, with local authorities in most cases retreating from the production of new social housing and concentrating on the management of the existing stock, leaving the private sector as the main one responsible for new developments." (Laino, 2011) This kind of cooperation normally works like this: the private sectors could get the government subsidies, if they would provide some social projects like low-rent social housing with this subsidies. There are some instances: "in Germany since the institutional non-profit sector was dissolved (in 1989). The German system is currently based on the allocation of public funding especially in the form of tax privileges to any kind of housing provider in exchange for the use of a dwelling for social purposes on a temporary basis. Similarly in Spain all sorts of developers can access preferential loans if the

dwellings qualify as ‘protected dwellings’, and in Italy, private providers can participate to certain social housing schemes upon agreement with their municipality.” (Laino, 2011)

COUNTRY	TYPE OF PROVIDER(S)					
	CENTRAL GOVERNMENT	LOCAL AUTHORITY	INDEPENDENT PUBLIC BODY/ PUBLICLY OWNED COMPANY	CO-OPERATIVE	OTHER PRIVATE NON-PROFIT	PRIVATE FOR-PROFIT
Austria		X	X	X	X	X
Belgium		X	X		X	
Bulgaria		X				
Cyprus	X					
Czech Republic		X		X*	X*	X*
Denmark		X		X	X	
Estonia		X				
Finland			X		X	
France			X	X	X	
Germany						X**
Greece			X			
Hungary		X				
Ireland		X		X	X	
Italy		X	X	X	X	X
Malta	X				X	
Lithuania		X				
Latvia		X				
Luxemburg		X	X			
Netherlands					X	
Poland		X		X***	X	
Portugal		X	X	X	X	
Romania		X				
Slovenia		X			X	
Slovakia		X				
Spain		X	X	X		X
Sweden****						
United Kingdom		X	X	X	X	X*

Figure 2-3 Types of social housing providers in the EU (source from (Laino, 2011))

- Beneficiaries

In terms of the beneficiaries, social housing in Europe can be divided into three groups: -“all citizens”, “means-tested income thresholds”, “the most vulnerable households”

Normally, the target beneficiaries in most countries are decided by the income-level. Social housing is always considered to provide for the vulnerable class. For example, the low-income class, the unemployment, the homeless, single parent family, the elderly and the handicapped. However, the standard vulnerable class varies in different countries. For example, in Austria and France, the standard is suitable for most population.

Besides, there are also some countries provide social housing to all citizens. “This is notably the case in the Netherlands, where up until recently access to social housing was never restricted on the basis of income and was virtually open to all citizens. However the system was recently reformed following a decision by the European Commission in 2010 – so that social housing provision is currently set to target disadvantaged people or socially less advantaged groups, as well as to certain categories of key workers, primarily defined in terms of income.” (J., 2007)

Furthermore, in terms of the allocation of social housing, there is no restriction about the area and construction cost of social housing. All the applicants are suitable for all kinds of communities, no matter their identities, such as unemployed people, elderly, youth, disable people. “This is a consequence of the principle of avoiding social segregation, by providing access to public dwellings to all segments of society.” (Laino, 2011)

COUNTRY	TYPE OF PROVIDER(S)					
	CENTRAL GOVERNMENT	LOCAL AUTHORITY	INDEPENDENT PUBLIC BODY/ PUBLICLY OWNED COMPANY	CO-OPERATIVE	OTHER PRIVATE NON-PROFIT	PRIVATE FOR-PROFIT
Austria		X	X	X	X	X
Belgium		X	X		X	
Bulgaria		X				
Cyprus	X					
Czech Republic		X		X*	X*	X*
Denmark		X		X	X	
Estonia		X				
Finland			X		X	
France			X	X	X	
Germany						X**
Greece			X			
Hungary		X				
Ireland		X		X	X	
Italy		X	X	X	X	X
Malta	X				X	
Lithuania		X				
Latvia		X				
Luxemburg		X	X			
Netherlands					X	
Poland		X		X***	X	
Portugal		X	X	X	X	
Romania		X				
Slovenia		X			X	
Slovakia		X				
Spain		X	X	X		X
Sweden****						
United Kingdom		X	X	X	X	X*

Figure 2-4 Criteria determining access to social housing in the EU 27 (source from (Laino, 2011))

- **Funding arrangements**

In terms of the funding arrangements, social housing in Europe can be divided into two groups: -“100% financed by public money”, “relying heavily on debt raised on the credit market”.

Not all the countries can afford the amount number of social housing subsidies. The public authorities always find assistance from the bank loans, public loans or some private organizations and contributions. “The situation varies according to a number of factors such as the level of maturity of social housing providers, the government’s commitment to support the sector, and conditions on the mortgage market. Also the way rents are determined is key to the financial sustainability of social housing, as well as the existence of demand-side benefits.” (Laino, 2011)

Furthermore, it should also be noted that, the private providers also could get some interest through assisting the social housing system. For example, the providers could get a land with a discount price, such as in Austria and Italy. Besides they can also require for the tax privileges. As well, they could also get the tax rate exemptions or reductions from the capital gain tax and so on.

	DIRECTLY PROVIDED THROUGH MUNICIPAL/ LOCAL AUTHORITY BUDGET	GRANTS	PUBLIC LOANS	INTEREST RATES SUBSIDIES	PUBLIC GUARANTEES
Austria		From housing promotion schemes of Federal Provinces	From housing promotion schemes of Federal Provinces		
Belgium		From the region			From the region
Bulgaria*	x				
Cyprus			From Housing Finance Corporation		
Czech Republic	x	From State Fund for Housing Development but currently suspended			
Denmark			By municipality		By municipality
Finland				From ARA	From ARA
France		From state and/or local authorities	From CDC through Livret A		
Germany				By federal state and/or the Lander	
Greece**		From the government			
Ireland			From local authorities		
Italy		From the region for subsidised housing		From the region, for assisted housing	
Latvia	x				
Lithuania	x	Transfers from State budget			
Luxemburg		From the State			
Malta		From the Housing Authority			
Netherlands					From central government
Portugal		From central government with co-financing from local authorities	From central government with co-financing from local authorities		
Romania	x	Transfers from State budget			
Slovakia		From State Housing Development Fund			
Slovenia	In the case of municipal housing		From the Housing Fund of the Republic of Slovenia		
Spain		Complementary funding from the regional governments		From central government	From central government
Sweden					
United Kingdom		From government			

Figure 2-5 Types of public support to financing social housing (source from (Laino, 2011))

2.1.2 Three traditional models in Europe

Combined with the discussion of the four main elements those influence the definition of social housing system, we could category social housing into three traditional types- (Following the conclusion of Anna Maria Pozzo wrote in an article for the book *Social housing in Europe-Ugo Rivolta Award 2007*) “Nordic model”, “Central European model” and “Southern European model”.

- **Nordic model**

The precondition of this model is the country has a great amount of social housing stock. The authority or public organization has the right to control and allot them.

Therefore, under this model, the tenures could be rent or ownership, with the precondition that they should promise a predominate percentage of rent to sustainably maintain high amount of the social housing stock. The providers mostly are government or public no-profit organizations. The beneficiaries are target to the whole citizens. Normally, there is no income ceiling of applicants in this model. It is suitable for all the citizens who live in a housing condition below national decent housing standards and have the will to enhance the condition to the social housing levels. The funding arrangements are mostly depend on the government grants.

This model is mostly adopted in the high welfare countries, such as Sweden, Denmark, Norway and Finland. It could highly ensure the housing conditions of all the civilians, but also brought a great pressure on the governments’ economy.

- **Central European model**

This kind of model is always adopted with the situation that the country has a relative small amount of social housing stock. The government has not sufficient property to serve for all the citizens, so the target serving groups are the low-income class or vulnerable class (elderly, disable people, single parents family etc.), and the welfare system requires the assistance of the private profit companies or organizations or individuals.

Therefore, under this model, the tenures are combined with rent and ownership. The providers are combined with the public non-profit organizations (government, organizations, companies) and private profit organizations (organizations, companies, individuals). The beneficiaries are mostly lower and middle class and vulnerable groups (defined following each nation’s income standards). The funding arrangements are combined with government grants and private assistance.

This model is mostly adopted in the countries with middle welfare system, such as England, Germany and France. The government could not independently afford the construction of social housing without the assistance of private groups and also could not afford the amount percentage of rental housing. This model could relieve the pressure of governments at some extent,

but also may lead to the highly speed of privatization of the social housing property.

- **Southern European model**

This model is mostly adopted by the countries those has a very small percentage of social housing stock. The target groups are only vulnerable groups, such as homeless, unemployment people, disable people, elderly, single parent families. In some countries, where the economy partly depend on the urban immigrations, also make social housing to ensure the basic decent living conditions for the poor immigration groups.

Therefore, under this model, the tenures are mostly ownership, because their initially high percentage of ownership property and also their weak economy to support much rental social housing stocks. The providers are combined with public providers and private providers. The government always makes relative preferential policies to benefit the private financial investments, like the exemption or reduction of the tax and so on. The beneficiaries are the most vulnerable groups, with very low standards of income-level. The funding arrangements are combined with government grants and private assistance.

This model can highly relieve the pressure of the government invest and efficiently promote the living conditions of the most vulnerable class. But this model is always not sufficient for the societies and the effects are always limited. Besides, the high percentage of ownership housing property is not sustainable to solve insufficient the social housing problems.

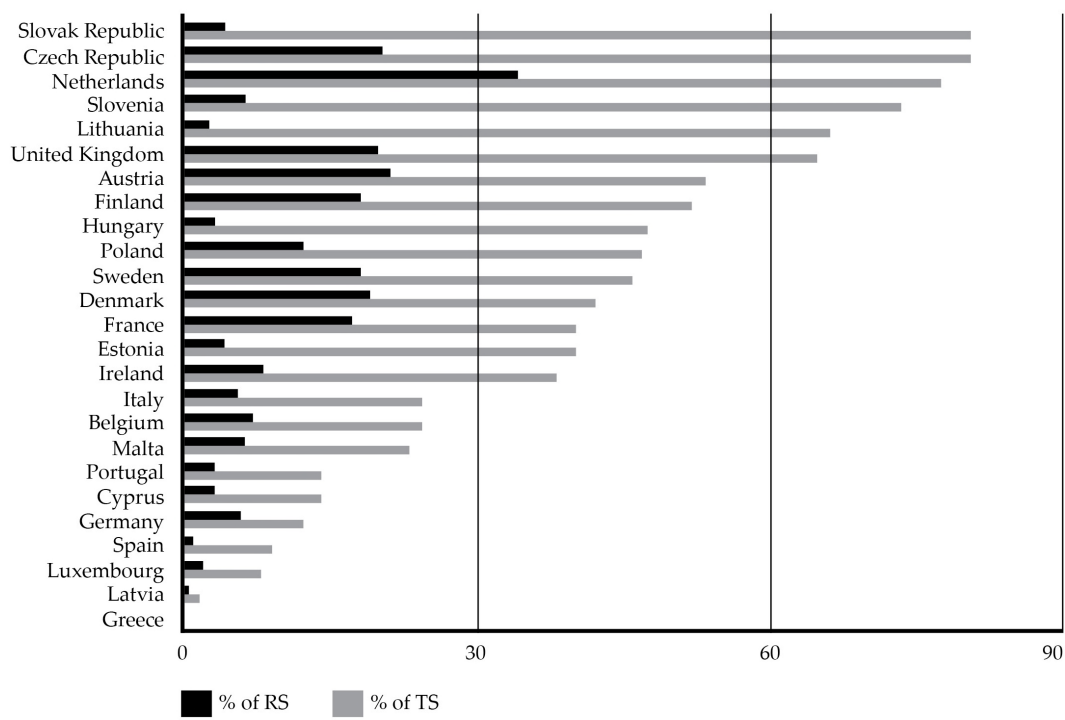


Figure 2-6 Percentage of social housing in Europe out of total housing (TS) and rented housing (RS) (source: based on CECODHAS and Housing statistics Report 2005-06 data)

2.2 Definition of social housing in China

2.2.1 Definition and four elements of China

The concept of social housing is relatively fresh in China. Even as early as 1949 (the founding of the people's republic of China), the government has implemented several kinds of social housing implementation, such like "work-unit" allocated welfare housing, workers' village etc., but as the increasing economy development and the price of property growth, the traditional housing policies is becoming insufficient to solve the unaffordable housing problems in China. Now we will generally discuss the Chinese social housing system in terms of the four elements: "Tenures", "Providers", "Beneficiaries" and "Funding arrangement".

- **Tenures**

The tenures of social housing in China vary among different housing policies. Generally, constituted by ownership social housing and rental social housing. The ownership social housing includes former "work-unit" housing and subsidized housing. Former "work-unit" housing is a kind of Chinese traditional type of social housing and gradually privatized, and subsidized housing is a current type of ownership social housing prevailing in China.

According to the statistics below, we can see that the main type of social housing stock in China now is "Market -rate commercial housing", which occupied 47% in the whole residential housing stock. Besides, the "former-unit" type occupies 40%, the "subsidized housing" occupies 5% and the "rental housing" occupies 8%. These statistics indicates that the ownership housing rate in China is very high (as high as 92%), compared to some develop countries like UK (69.8%) and Germany (45.6%).

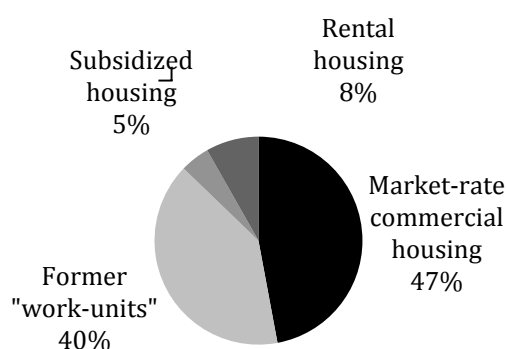


Figure 2-7 The current housing constitution of China's housing stock (source from Ministry of Housing and Urban-Rural Construction, 2007)

- **Providers**

The providers of China's social housing is kind of monotonous compared to the European countries, including only the central government and local government. The central government always takes charge of regulations making, in order to develop the macro-control. The rules includes designing the index of construction of social housing, reducing the land fees in terms of the affordable housing, increasing the private property tax and transaction fees and so on. Then, the local government has to follow the index, which the government set out, and engage to complete this index.

However, on the way of implementation, the centralized management is not working successful. "First, there were strong official objections in some cities to the affordable housing idea, because it reduces municipal income from land and other sources. Local governments in China lack incentives and financial means to provide affordable housing. The fiscal reform in 1994 left municipal governments with the obligation to provide nearly 80 percent of total government expenditures, but received only 47 percent of total government revenues. Such fiscal imbalances have driven many local governments to rely on land leasing fees for revenue to finance infrastructure investment and economic development". (Sun, 2011)

- **Beneficiaries**

There are some strict and precise standards for the beneficiaries of social housing of China. In another word, there are income and identity restrictions and only available for the most vulnerable social groups.

For instants, as the type of "Economical Housing (ECH)", which is the typical type of private ownership subsidized social housing in China, the beneficiaries' standards are:

"-All the household members should be officially registered as local urban residents."

"-The household income should not exceed a certain amount."

"-The housing floor area per person should not exceed a certain level."

"-The household should not own a home and should not be subsidized for housing."

"-The total asset of the household should not exceed a certain amount."

As to the type of "Public Rental Housing", the beneficiaries' standards are:

"-All the household members should be officially registered as local urban residents."

"-The household income should not exceed the local poverty line."

"-The housing floor area per person should not exceed a certain level."

"-The household should not own a home and should not be subsidized for housing."

"-The total asset of the household should not exceed a certain amount."

(Sun, 2011)

Over above, we can see there is a critical issue in the standards of beneficiaries, which is “-All the household members should be officially registered as local urban residents.” This means, if an immigrant, who does not enjoy a membership of the metropolis where he works, he could not enjoy the social housing benefit, regardless how deep he need to improve his living conditions. However, as a city like Shanghai, there are a large number of immigrations from other cities, but the regulation of membership settlement is relatively very strict. Most immigrants would never change their identities and living conditions.

• **Funding arrangement**

In terms of the funding arrangement of China’s social housing, currently, it can be divided into two parts: the government financing and social financing.

The government financing includes: land revenue, central government budget, local government budget, mortgage rates, etc. The social financing includes: bank lending, social security fund. Besides, there are also some gaps need to be filled in in the funding system, such as insurance fund, housing provident fund, policy housing investment center, corporate bond, etc.

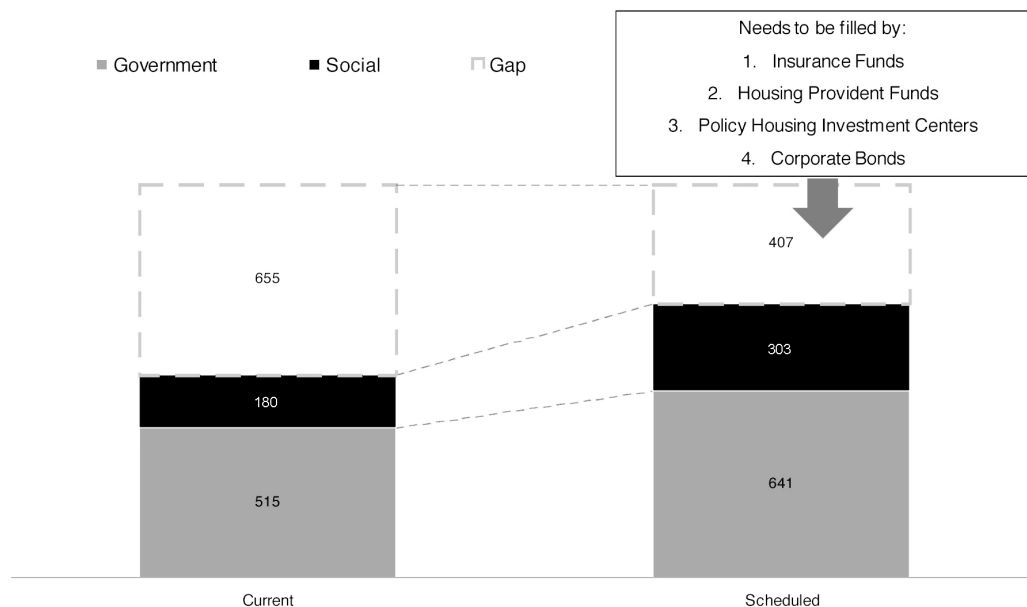


Figure 2-8 Government and social contributions to funding (RMB billions) (source: Factiva, J.P.Morgan does not include local government financing vehicle contributions)

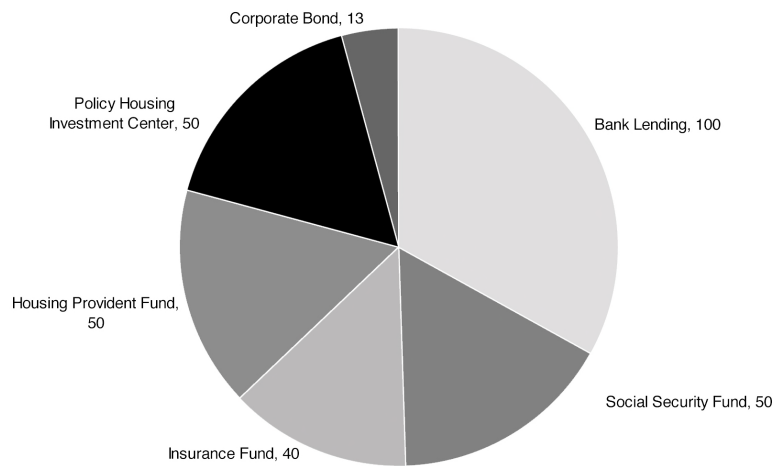


Figure 2-9 Scheduled non-governmental contributions to affordable housing funding (RMB billions) (source: Factiva. J.P.Morgan)

However, in terms of the implementation, the social housing system in China is immature and inefficient.

Firstly, the government financing control is not effective, and not designed as a mature and precise program. For example, in a social housing program, called “the 900 Billion social housing stimulus Program”, the government intended to invest 900 billion from the central budget to stimulate the progress of social housing. But without the regulated investment, construction and allocation system, the program finally did not achieve the original aims.

Secondly, the central government does not fund enough to the local governments and the local government always reject to cooperate the central government to implement the social housing plans because the lack of assistance and investment. For instance, in a social housing program, called “Limit Price housing”, the central government demand the local government to sell the land at a discounted price but only provide limited investment for the local government. In order to set down the sale price, the local government had to set these projects at the sites distant away from the city. Instead of promoting the living conditions, the social housing projects bring the living inconvenient for the groups.

Thirdly, in terms of the social financing programs, there are not appropriate profit policies and projects. The social and private organizations and do not have the initiatives to take part in the social housing investment projects.

2.2.2 Categories of social housing in China

Since the founding of the People's Republic China, China has testified several kinds of welfare housing. Generally, it categories as two major types: the traditional welfare housing type and the current social housing type.

In the traditional welfare housing groups, there are four major housing types: "Parity" housing, "Settle down" housing, "Fundraising" housing and "Anti-poverty" housing.

- **"Parity" housing**

This kind of welfare housing is set from the point of the price. It means to add 3% to the price based on cost management fee. The beneficiaries are most low-income families. The sale price is only the basic cost, including the land compensation fee, exploration costs, preliminary engineering costs, residential areas and infrastructure construction fees, management fees, loan interest and taxes. The providers are governments and the funding arrangement is from governments.

- **"Settle down" housing**

This kind of welfare housing is non-profit housing. The beneficiaries are middle-income or low-income families. The providers are the central and local governments. The funding sources are mostly from the central government loan, encouraging the local governments to invest in the constructions. Besides, this kind of housing are focus on solving the extreme bad living conditions and limited living areas.

- **"Fundraising" housing**

This kind of welfare housing is special about the type of contract. Because the funding of this housing is from the governments, the companies and the individuals, so the contract is constituted from these three groups. The beneficiaries are mostly the low-income workers of the funding companies.

- **"Anti-poverty" housing**

This kind of welfare housing is sold at a cost lower than the cost of construction. It aims to solve the poor living conditions of the extreme vulnerable groups. The providers are governments and the funding arrangement is from governments.

In the current social housing groups, there are two major types: "subsidized" ownership housing and "rental" housing.

As to the "subsidized" ownership housing, there are two types: "Economic" housing and "price controlled housing".

- **Economic housing**

The tenures are ownership. The beneficiaries are low-income families. The providers are both governments and social organizations and the fund is also from governments and social society fund. This kind of housing has the

living area limits- less than 60 square meters and the housing units prices should always be set well below the private market.

- **Removal and relocation housing**

They are specially built by the government for the residents those have to remove from their original living space due to the government’s important city constructions. These original living spaces includes the original city residential areas those have to change to be other functions and the original farmlands those have to transfer to the building sites. As the rapid speed of the urbanization, in Shanghai, there are a great amount of residents and farmers need to be relocated.

As to the “Rental” housing, there are two types: “Low-rent housing” and “Public rent housing”.

- **Low rent housing**

The tenures are rental. The beneficiaries are low-income families and extreme poor families. The providers are governments and the funding is mainly from governments. The area limit of this housing is less than 50 square meters and the rent fees are well below the private market.

- **Public rent housing**

The tenures are rental. The beneficiaries are middle-income families, low-income families and new graduates. The providers are governments and the funding is mainly from governments. The area limit of this housing is less than 60 square meters and the rent fees are well below the private market. Specially, the tenants are allowed to purchase the housings, after a certain period of living and the applicants should satisfy the certain standards.

Category		Character	Rate
Traditional type	Former work unit	“Parity” housing	40%
		“Settle down” housing	

		“Fundraising” housing	Discount ownership housing, oriented to the workers. Provide and fund by governments, companies and individuals.	
		“Anti-poverty” housing	Lower than the construction cost housing oriented to the extreme vulnerable families. Provide and fund by governments.	
Current type	Subsidized housing	Economic housing	Cost lower than the private market housing, with the limit- about 60 square meters. Provide and fund by governments and social groups.	5%
		Removal and relocation housing	Specially built for the compensation of the government important city construction.	
	Rental housing	Low rent housing	The property is owned by governments, and oriented to extremely vulnerable families. The area limit is less than 50 meters. Provide and fund by governments.	8%
		Public rent housing	Owned by the government for a period and can be sold to the tenants, who satisfy a certain standard, after that period. It is oriented to low-income families and new graduates. Provide and fund by governments.	

Figure 2-10 The welfare and social housing category in China (summarize by authors)

Chapter 3 Background

-Need of Social Housing in Shanghai

China has experienced dramatic development since the launch of economic reform in 1978. Housing as one of the main aspect of economic reform, brings real estate boom to China. However, overheated real estate market in this short period under the immature management, supervision and operation of the government hinders its sustainable and stable development, which main manifestation is soaring up housing price.

As an international economic and financial center of China with the large number of population as well as undergoing unprecedented rates of urbanization, this kind of situation is even more serious in Shanghai and attracts far more concern than any other places in China.

Although people's income level gradually growing with Shanghai's economic growth, the increasing gap between income level and housing price as well as income disparity between different income groups results most of people suffering low affordability. Thus, social housing becomes an urgent and important topic in recent years.

This chapter is mainly research and analysis the general background of the real estate market in Shanghai (China) to point out current problems of housing and to emphasize the growing demand of social housing in Shanghai.

3.1 Increasingly high price of property

Shanghai, one of the largest metropolitan areas in the world, is located in the Yangtze River Delta which lies in the east of China.

"Shanghai is the largest comprehensive industrial city as well as the centre of technological development in China. Shanghai stands out among China's major cities by its sheer size - a total land area of 6,340 square kilometer, its population density - in excess of 22,700 persons per square kilometer in the city centre, and its importance in the national economy - 5.5% of the national industrial output in 1995. The metropolitan population is expected to rise to 14.06 million by year 2020." (Anirban Mostafa, unkown)

As an international economic and financial center of China, the property market of Shanghai has continued to facing boom alarmingly in these years with the accelerated progress of urbanization. Increasingly high price of property becomes serious concern that caused people especially who with middle and the low income could not afford it any more. Figure 2-1 shows the increasing of housing price from 1995-2013 in Beijing, Shanghai and also the average housing price in China. In shanghai, the housing price reached around 30,000 RMB (about 4,000 Euro) per square meter in 2013, which is to approach or even over the price level of the developed countries.

In general, fully privatized housing market, high price land cost, and speculation are all contribute to the soaring up housing price in Shanghai.

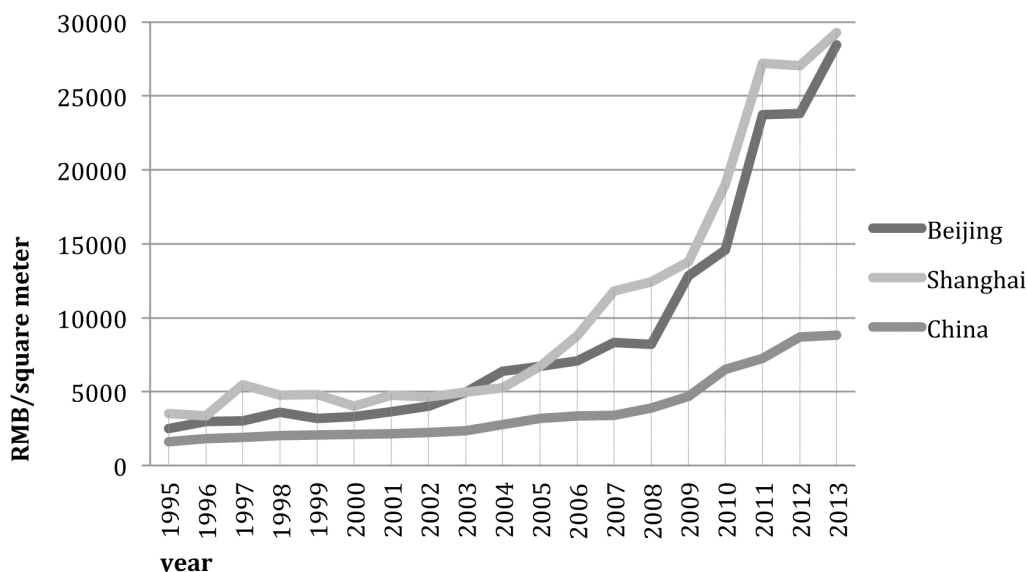


Figure 3-1 Housing price from 1995 to 2013 (source from the Database of Shanghai and made by authors)

3.1.1 Fully privatized housing market

With the large population around 25,000,000 (in 2013) and the large amount of immigrants, the shortage of housing gradually becomes one of the most urgent problems in Shanghai.

In 1949, after the People's Republic of China was founded, the municipal government of Shanghai implemented socialist welfare housing provision which means the government itself adapted series of measures like investment and construction of housing and distributed the housing to the people from employer as welfare according to the standards of government which called work units. Living in these work units, people only need to charge part of the fees of maintenance cost. Most of the housing had been mainly under public ownership. During that period, the government tried to establish comprehensive housing system with this socialist policy to solve the housing problems. However, due to the continuous population growth, natural disasters and the interference of Chinese Cultural Revolution (1966-1976) as well as series of problems, the housing situation had not improved practically, whereas the huge long-term investment and construction costs that beyond the government's capabilities brought a lot of economic pressure to the government. As a result, Shanghai had been through a long term housing shortage, and in the initial stage of Reform and Openness, it became the first major social problem.

In order to change this situation, in 1979, the municipal government of Shanghai proposed the implementation that encourages enterprise's capitals

to participate in housing investment and construction integrated with government. That implementation was also influenced by the economic reform as well as housing reform of Chinese government at that period and Shanghai was selected as one of the main pilot experiments cities of housing reform. Gradually, in Shanghai, the situation of housing construction was improved. In 1985, the area of housing reached 64,443,000 square meters with the increase of over 50% compared to 1978 and the living space per capita for urban residents reached 5.4 square meters compared to 4.5 square meters in 1978. Despite this kind of modest improvement, the housing was still predominated by public ownership and to be seen as welfare instead of commodity.

With the further reformation in the 1990s (Figure 3-2), the government eliminated welfare housing provision (1999) and relevant measures such as increasing original housing rent, providing a variety of subsidies and lowering rate of interest of bank to individual purchasers to be taken for stimulating housing market. At the same time, plenty of investments capitals were into the real estate market of Shanghai, and the housing gradually dominated by the market. Meanwhile, housing privatization has proceeded in an amazingly fast speed to replaced the previous long-term public ownership

year	1992-1994	1995-1996	1997-1999	after 2000
consumer	work unit	work unit/ wealthy household	individual	predominated by individual
funds sources (consumer)	state	state/work unit/individual	individual/bank loans	individual/bank loans
provider	state-owned enterprise	mainly state- owned enterprise	state-owned enterprise /stock enterprise	stock enterprise /mainly private enterprise
funds sources (provider)	state	state/policy- related loans	enterprise/bank loans	enterprise/bank loans
supply/demand mechanism	government arrangement	mainly government arrangement with market adjustment subsiding	mainly market adjustment with government arrangement subsiding	spontaneous market regulation with government indirect control
government role	direct/ predominant	direct	indirect	indirect
development mode	investment	investment	demand	investment/demand

Figure 3-2 Property market evolution process in Shanghai (summarize by authors)

Privatization as the necessary step for the mature market economy had been fully recognized by the government through years of housing reformation. However, the overheating of one-side profit seeking market plus relevant laws immaturity and lack of government control and regulation, caused fully privatized housing market in Shanghai.

“According to the statistics, 81.62% of urban residents owned their own homes by the end of 2005. The statistics only cover cities, as in rural areas, a farm family would normally be allocated a piece of land to build their own home and there is therefore no real estate market in the countryside as such. The Shanghai Securities News, one of China's leading business newspapers published by the state-run Xinhua News Agency, says the private housing ownership rate in Chinese cities is higher than that in many advanced countries. In the United States, the private ownership rate is reported to be 68%, while in the United Kingdom it is 67%. The rate is much lower in Germany, about 42%.” (John, 2006)

Fully privatized housing market in Shanghai has increased the demand for housing which promotes soaring housing prices in turn.

“While hailing the achievement, market analysts note that the high private ownership rate has become a major factor dictating housing supply and demand, which poses a serious challenge to the government's efforts to curb housing prices.” (John, 2006)

3.1.2 High price land cost

Housing, as the main product of the land, the price has a very close relationship with land cost (Figure 3-3). In recent years, the land cost of the main cities in China like Shanghai and Beijing had rose amazingly fast. According to experts' estimation, the land cost of Shanghai increased about 20% for every year, and Beijing is even higher than Shanghai. Experts said that “Increasing land costs will undoubtedly boost housing prices.” (Zheng Juntian, 2014)

In China, the urban land is owned by state and the land users can only possess the right of land use instead of land ownership after 1990. In other words, land price in China is the payment of the land use rent which is the current value for sum of years and it is strictly controlled by country. Generally, in Shanghai, for the residential usage the tenure is 70 years, for industrial usage is 50 years, for education, science & technology, cultural usage is 50 years, for retail, tourism, entertainment usage is 40 years and for mix-used usage is 50 years, according to government regulations.

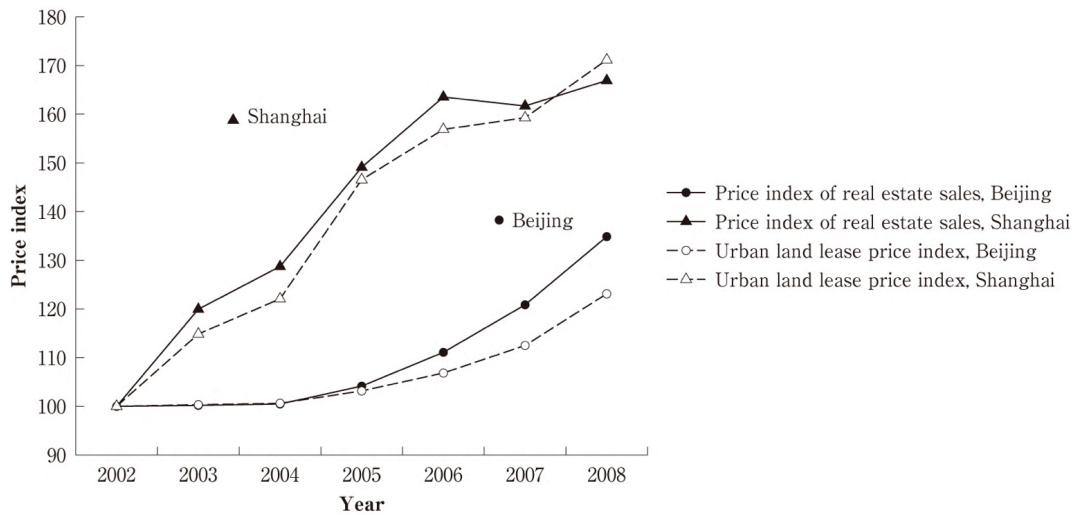


Figure 3-3 Price indices of land and housing in Beijing and Shanghai (source from (Lei Wu, 2011))

“Chinese land market is unique in that it includes a primary market and a secondary market. In the primary market, the state, acting as a land owner, leases land use rights to land users by agreement, listing, auction and bidding. Land users are major players in the secondary market because they develop the land leased from the primary market and build housing on it or re-lease its use rights to other land users. The housing producers in the housing market are those land users who gain land use rights from the secondary land market and use land to produce housing for urban residents. (Figure 3-4)” (Lei Wu, 2011)

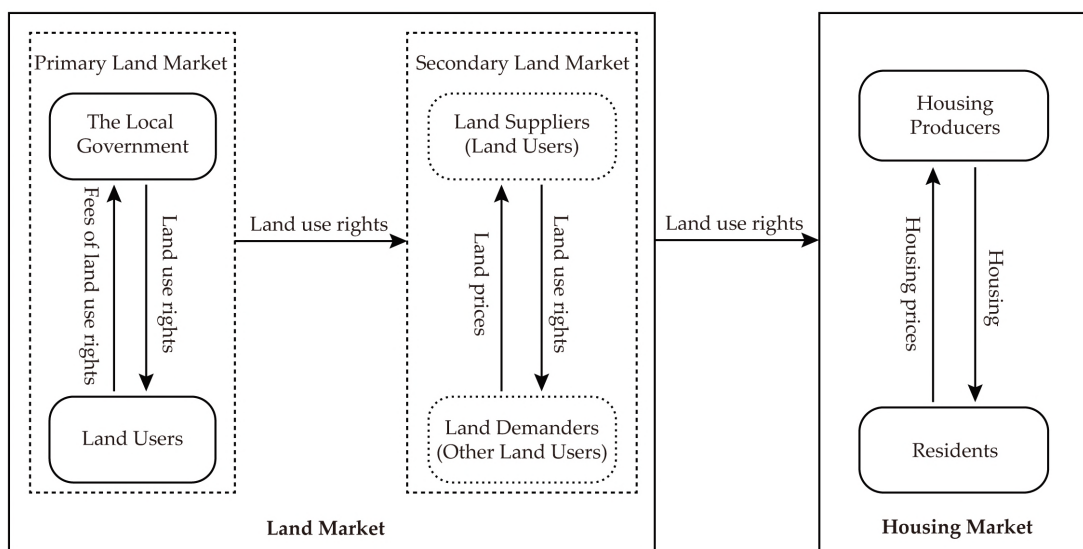


Figure 3-4 The structure of the Chinese urban land and housing market (source from (Lei Wu, 2011))

In the primary market, the government monopoly in this procedure as the only supplier, “the local government leases land use rights to land users by agreement, listing, auction and bidding” (Lei Wu, 2011) and during this competition procedures land price is already raised. Also, in this stage, the land policies of China play the very important role in the land price.

However, series of land policies with macro-control has not been published and implemented until the price of land increasingly quite fast and the situation was a bit out of control in 2003. After 2003, through the macro-control, local government attempts to rectify, standardize the order of the land market, and at the same time to promote reasonable utilization of land.

In terms of residential land, since the effect of policy implementation lags, increasingly demand for residential land and the cyclical real estate development, the price growth of it still has not been effectively controlled until 2005. (Figure 3-5)

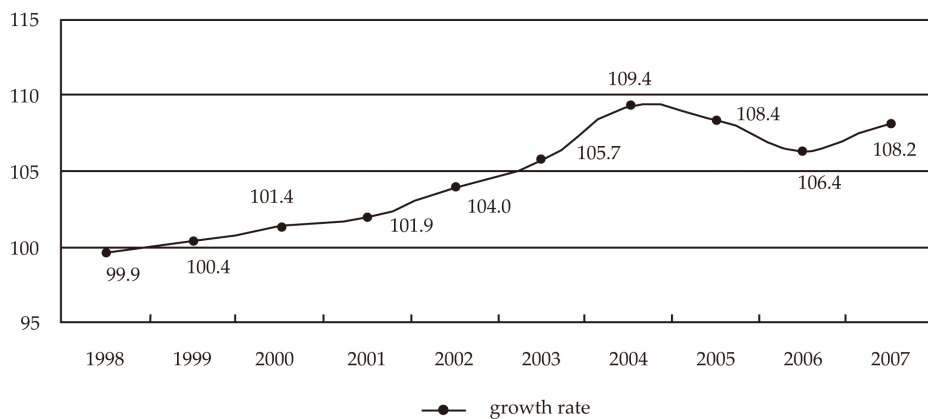


Figure 3-5 The national growth rate of residential land (source from (Wei, 2009))

Shanghai, as one of the biggest cities in China, the land policies of the government directly affect its land price. “Since the land resources in urban area are very limited and government controls the plot ratio strictly to 2.5 for residential developments and 4.0 for commercial developments, the land price has increased rapidly. In base land price system in 2003, the highest base land price for retail, office and residential reached RMB 12,260, RMB 8,200 and RMB 6,200 per sq. m. on buildable area above ground respectively. In 2010, the land base price was re-valued. The draft report showed price was 2 to 4 times of that in 2003 with no change in plot ratio, the highest land price for residential developments reached RMB 15,340 per sq. m. on buildable area above ground. ” (Shanghai property market annual report, 2010)

In addition, increase of urban population with rapid urbanization in this constrain area spontaneously pushes up the demand for its residential use land. Increasingly high demand for the residential use of land with

insufficient supply as well as high cost of removal and relocation all affect the growth of land price.

In terms of land supply structure, in order to satisfy the growing demand for the residential use and promote sustainable development of the real estate market, the government implemented series of land policies like “Mainly increase land supply for the residential, stop land supply for the villas, decrease land supply for the high-grade large residential projects, increase land supply for the affordable and low-rent residential projects, and such kind of land supply should not be lower than 70% of the total residential land supply every year.” (Wei, 2009)

After the implementation, the land supply structure became gradually reasonable. In 2005, among the land for real estate development, commercial and service use accounted for 29.2%, normal commercial housing use accounted for 48.7%, affordable housing use accounted for 9.3%, high-grade housing use accounted for 0.2% and other housing use accounted for 12.6%. (Figure 3-6)

In this sense, the policies are to some extent controlled the rise in land price as well as housing price, but it is still not enough such as relatively low percentage of affordable housing use land, compared with the growing high demand of people.

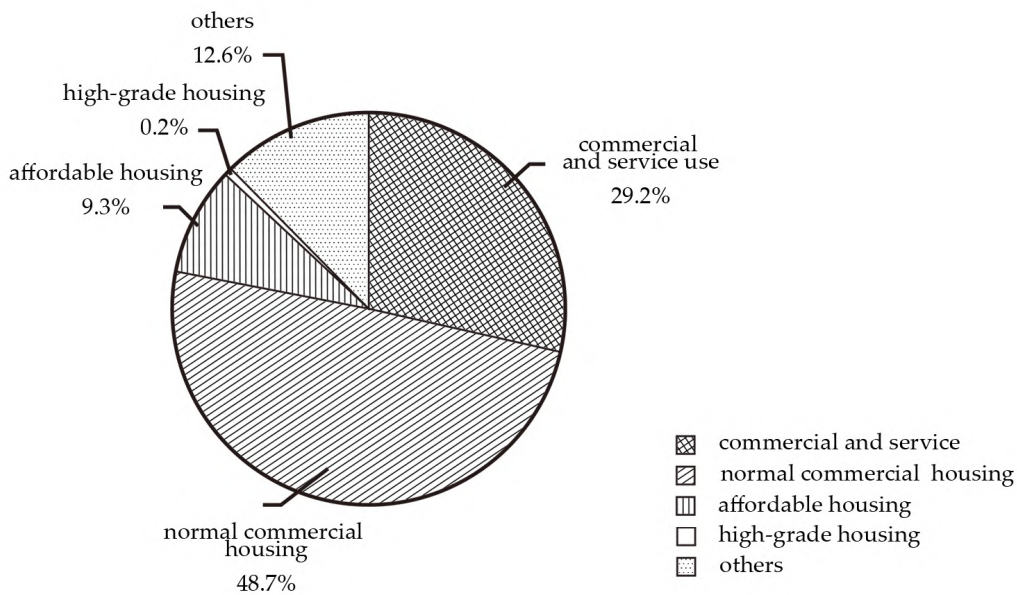


Figure 3-6 Real estate development in 2005 (source from (Wei, 2009))

3.1.3 Speculation

Since the economic reform and housing reform of the Chinese government, the real estate market has been activated and faced an

unprecedented development. Large amount of capital flows into this very potential market with soaring up demand and at the same time, some speculative behavior has appeared in the market inevitably, which contributes to unreasonable housing price, a real estate bubble out of control.

In terms of economic development, the proper real estate bubble could enhance the economic growth to some extent. However, if it goes out of control, then it brings a serious economic crisis. For example, Japanese real estate bubble in 1990s with huge debts made the banking system nearly collapse and fell into the very long period of recession and deflation. In order to avoid excessive real estate bubble and develop the sustainable and balanced real estate market, the speculation behavior should be curbed in time. (Chai Ning, 2012)

“Speculative behavior is defined as an action in trade off only depending upon it that a speculative profit is derived from a fluctuant price of the asset invested in the market rather than the asset’s appreciation based on its fundamental value. Dynamic speculative behaviors mean that such sequent actions are iteratively effective, and the asset prices have a strong upside trend in motion.” (Wang, 2012)

Generally, speculation can be divided into two types, the illegal speculation and the legal but irrational speculation. In the illegal speculation, the main economic activities are the one which forbidden by the government, such as land hoarding. In the legal but irrational speculation, the economic activities are not forbidden by the law, but mostly take advantage of the negligence of government management as well as relatively immature legal system, such as seemingly reasonable tax avoidance behavior in the real estate management.

In China, the real estate market booming overnight hinges upon the infinite demand, inevitably results the series of speculation which is more serious in Shanghai. Followings are the three main speculation behaviors with its factors present in recent years.

The first one is the speculation which caused by the existing period interval in real estate trading market. If the investors expect the housing prices will rise soon, they purchase the certain amount of property with the current market price in advance, and then sell it with the higher price later, to gain benefits through the price disparities. However, if every investor takes this kind of approach, it would cause lack of seller in the real estate market during that period, which breaks the balance of supply and demand at macro level. Under this condition, in order to maximize the profits, the investors raise the housing price privately, and ultimately speculative real estate prices are formed.

The second one is the speculation which caused by the relatively low rates of bank loans compared with the price growth rates of real estate. In this circumstance, investors will use bank loans to buy extra real estate, and sell it

with a high price. However, this speculation behavior possesses uncertainty with the increasing bank loan interest rates and high transaction cost of real estate.

The third one is the speculation which caused by the price rising in high-grade real estate. Over preference in the high-grade real estate among traders breaks the market supply and demand balance, makes the price keep rising. Due to the high-grade real estate generally have good geographical features, which land price will gradually increase with the improvement of environment in multiple aspects. This kind of increase of land price makes the further rising of the real estate price in turn and for this reason they prefer to invest in high-grade real estate. Growing preference among lots of investors undoubtedly affects further growing of real estate price. What's more, since high-grade real estate is not isolated, it would lead to price rise in the normal housing.

As said before, such speculation behaviors make the real estate market unsustainable, unstable and unbalance, that main manifestation is soaring up real estate price. However, besides this, large numbers of vacant homes in China caused by the speculation behaviors also became a serious problem nowadays.

According to the statistics, in China, there are at least 64.5 million vacant houses result from property speculation behavior. The economist with the Chinese Academy of Social Sciences says that "speculation in the real estate market has generated such a high rate of housing vacancy that it could lead to social disorder and financial problems" and also another famous economist wrote in newspaper that "At least 64.5 million houses are lying vacant in China. This is sign that the property market is in for a tough time in the not so distant future. Indeed, the mainland's real estate sector is dangerously overheated, and could threaten the country's financial and social stability". (AsiaNews, 2010)

In this tough situation, the government should make many-sided efforts to curb speculation. In recent years, Chinese government has released series of measures to control it, especially on loans in this sector.

In the January of 2010, the government published the "11 Measures" policy to enhance the supervision and control of the real estate market. Meanwhile, it also aimed to restrain the speculation behavior in the real estate market. "11 Measures" says that "A 40% down payment was required for the purchase of a second home, while the purchase of a first home required a down payment of 20%." (Grace Tian, 2010) However, the result seems not that effective as expected, and the real estate market still possesses full of speculations.

In April of the same year, the government released further measures called "10 Measures" to conduct more effective control. In the "10 Measures", say that "the down payment for purchases of second homes must be at least

50% and that the interest rate for a loan for a second home must be 1.1 times the benchmark interest rate. Banks are asked not to sign loans for third homes.” (Grace Tian, 2010) In the mean time, the Chinese government cooperates with relevant department and commissions to strengthen its supervision and management.

These attempts played positive role in real estate market soon. “On Apr. 19, the indexes of China's two stock markets dropped by 4.79% and 6.22% because people panicked and sold their real estate stocks. The measures also reversed the relationship between demand and supply for houses. In the period from Apr. 15 to Apr. 20, demand for new houses in Beijing dropped by 40%, while the supply of secondhand houses increased by 50%. Over 20% of the secondhand house sellers cut their prices by 5%. Analysts predict that the prices of secondhand houses in Beijing will decrease by 20% within three months.” (Grace Tian, 2010)

Although these measures are effective to some extent, property tax, which will increase the holding real estate property cost, is considered as the most highly effective and significant way to curb speculations. Since 2003, in some cities including Shanghai has already implemented the property tax policy. At the same time, the Chinese government still makes efforts in many aspects to further curb speculations. Because once the speculation behaviors still exist in the real estate market, the property price would remain unreasonably high over control.

3.2 Income level and affordability

In recent years, affordability has become one of the emotive issues in China, particularly in Shanghai. Although income levels are rising along with the economic growth, the price of housing have still surged head of it. Housing affordability is driven by this kind of mismatch and increasing gap between income level and housing price.

3.2.1 Income level

As the consequence of the rapid development of Shanghai’s economy as well as improvement of the consume structure, the people’s income is rising gradually. According to the Municipal Bureau of statistics, in 2014, the GDP (Gross Domestic Product) of Shanghai reached over 2.3 trillion RMB with the growth of 7% compared to the previous year. Meanwhile, the urban annual disposable income per capita of Shanghai reached 47,710 RMB (about 6700 euro) with the increase of 8.8% compared with the year before and if considering price factors, the actual increase is 5.9%.

In fact, according to the classification criteria of the world banks, in 2002, Shanghai has already reached the level income of upper-middle-income countries and regions. However, according to the statics at the end of that year, the average annual income level of nearly 20% of urban households and

22% of people who has the urban residence right of Shanghai (about 360 million) is lower than the national average consumption level of urban residents. It is because of the income gap existing between different social groups and continues increasing in Shanghai. It can be examined by the Oshima Index. ("1/5 Oshima Index=income per capita of 20% of the highest income household/ income per capita of 20% of the lowest income household; 1/10 Oshina Index=income per capita of 10% of the highest income household/ income per capita of 10% of the lowest income household; 1/5 Oshima Index>4, 1/10 Oshima Index>5 means the great income gap exist.") (Peng, 2006) Figure 3-7 shows that after the year of 2000, the income gap of residents in Shanghai presents the obvious increasing trend.

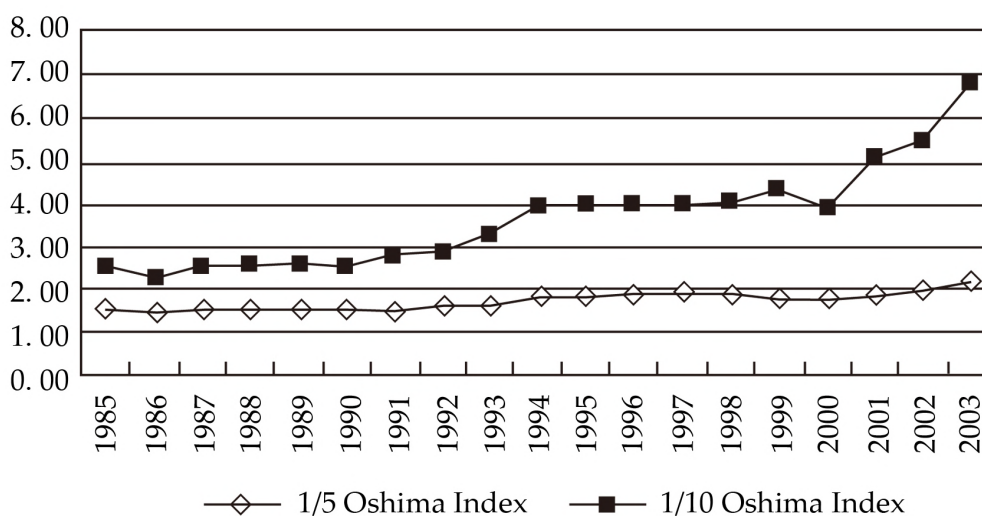


Figure 3-7 Development of Oshima Index in Shanghai (source from (Peng, 2006))

In addition, difference of the family structure also affects the consumption capacity of different income family. Increasing family population and the declining employment is not synchronization, that results huge burden to the urban households. According to statics, the degree of its influence is various with different income level. The average number of people that the employed member should responsible is descending from low income to high income families. In high income family, the average number of people per the employed one should responsible is 0.57, not including himself/ herself, but in the low income family it up to 1.52, which is nearly three times more (Figure 3-8). This kind of huge burden in low income family makes the disposable income that could be used for housing cost greatly reduced. (Peng, 2006)

Index	total average	low income	low-middle income	middle income	middle-high income	high income
number of households	1000	200	200	200	200	200
average number of people per household	3.04	3.28	3.01	3.05	3.00	2.86
average number of employment people per household	1.53	1.30	1.40	1.55	1.58	1.82
average percentage of household employment	50.33	39.63	46.51	50.82	52.67	63.64
average number of people per the employed one should responsible (including himself/ herself)	1.99	2.52	2.15	1.97	1.90	1.57

Figure 3-8 Situation of employment of different income groups in Shanghai (2004) (source from (Peng, 2006))

In terms of assessing housing affordability, standardized and rationalize income level should be introduced that could be used as the criteria of the affordable housing eligibility. In Shanghai (China), “low-income, middle-income, high-income” is generally used to pair with housing affordability. However, in Shanghai (China), there is no specific criteria for classify income level compared to other developed countries like United State.

In United State, generally, there are three standards to assessment housing affordability in terms of income level. The first one is AMI (area median income). “Unit affordability relative to AMI is the percentage of area median income needed to afford the monthly housing cost associated with that unit. A unit is affordable if the household spends no more than 30% of its income on housing.” The income level classified by the AMI percentage can be shown in Figure 3-9 .The second one is FMR (fair market rent). “The FMR is the payment standard for housing assistance programs and is often used as a proxy for the cost of an ‘affordable’ unit in housing literature. Unit

affordability relative to FMR is simply a matter of expressing the monthly housing cost as a percentage of the FMR. Household income is calculated in the relative to FMR to determine the maximum amount the household could afford to spend on housing (30% of monthly income).” The last one is poverty income. “Poverty income is based on official poverty-thresholds, given year, number of persons, number of children, and whether the householder is above age 65. Household income is calculated in relative to poverty income as a multiple of the poverty-threshold. Unit affordability relative to poverty income is the income a household would need in order to afford the monthly housing cost, expressed as a multiple of the poverty income threshold.” (Sun L. , 2011)

Income Group	AMI (%)
Extremely Low-Income	Below 30%
Very Low-Income	30% ~ 50%
Low-Income	50% ~ 80%
Median-Income	80% ~ 100%
Moderate-Income	100% ~ 120%
High-Income	Above 120%

Figure 3-9 Income group and percent of AMI (source from (Sun L. , 2011))

In Shanghai (China), because of no specific standard criteria about income level like United State, the average annual disposable income is widely used both in individual and household terms to judge housing affordability. In 2010, the average annual disposable income per capita in Shanghai is over 31,838 RMB (about USD 4,898), higher than Beijing, and the urban poverty line is around 5,400 per person per year which accounts for nearly 17% of the annual disposable income per capita. (Figure 3-10, Figure 3-11) (Sun L. , 2011)

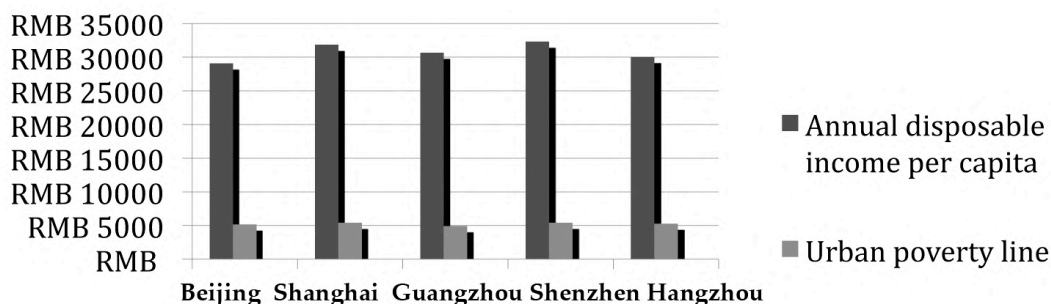


Figure 3-10 Annual disposable income per capita vs. urban poverty line (Five Major Cities in China), (source from (Sun L. , 2011))

City	Annual disposable income per capita ³³	Average household size ³⁴	Annual household disposable income	Urban poverty line
Beijing	RMB 29,073 (approx. USD 4,473)	2.45	RMB 71,229 (approx. USD 10,958)	RMB 5,160 per person per year (approx. USD 794 per person per year)
Shanghai	RMB 31,838 (approx. USD 4,898)	2.49	RMB 79,277 (approx. USD 12,196)	RMB 5,400 per person per year (approx. USD 831 per person per year)
Guangzhou	RMB 30,658 (approx. USD 4,717)	2.73	RMB 83,696 (approx. USD 12,876)	RMB 4,920 per person per year (approx. USD 757 per person per year)
Shenzhen	RMB 32,300 (approx. USD 4,969)	2.11	RMB 68,153 (approx. USD 10,485)	RMB 5,400 per person per year (approx. USD 831 per person per year)
Hangzhou	RMB 30,035 (approx. USD 4,620)	2.59	RMB 77,791 (approx. USD 11,968)	RMB 5,280 per person per year (approx. USD 812 per person per year)

Figure 3-11 Five Major Cities in China—Income Level (source from (Sun L. , 2011))

Figure 2-12 also shows the different income level which eligible for the ownership affordable housing program in China. In Shanghai, the annual household income should be below 82,800 RMB and it is about 86.69% of the annual average household disposable income.

City	Annual Household Income should be below (Ownership Program)	Percent of Annual household disposable income
Beijing	RMB 45,300	51.94
Shanghai	RMB 82,800	86.69
Guangzhou	RMB 55,184	60
Shenzhen	RMB 79,587	82.13
Hangzhou	RMB 72,084	80

Figure 3-12 Eligibility for the Affordable Housing Program in five major cities (source from (Sun L. , 2011))

3.2.2 Price of housing

In these years, China has been through dramatic movement of housing price as the consequence of the market-oriented reform. In particular, the skyrocketing price of housing in Shanghai attracts far more concern than any other places in China.

According to the City Central Construction Committee of the CPPCC (the Chinese People's Political Consultative Conference), the questionnaire survey statistics show that about 14% of the new Shanghai residences going to leave to other places due to high prices and market rents of housing. Further research data reflects that at least 30% of young scientific elites have left Shanghai because of the housing pressure during these two years. Skyrocketing housing price imposed severe threat to everywhere.

The general factors which cause the high price of housing have already explained before. The following parts will mainly introduce the recent prices of ordinary commodity housing and affordable housing in Shanghai. Many studies abroad shows that housing price has close relationship with its spatial distribution. For example, the farther distance from the city center, the lower of the housing price, which is also represents in Shanghai situation.

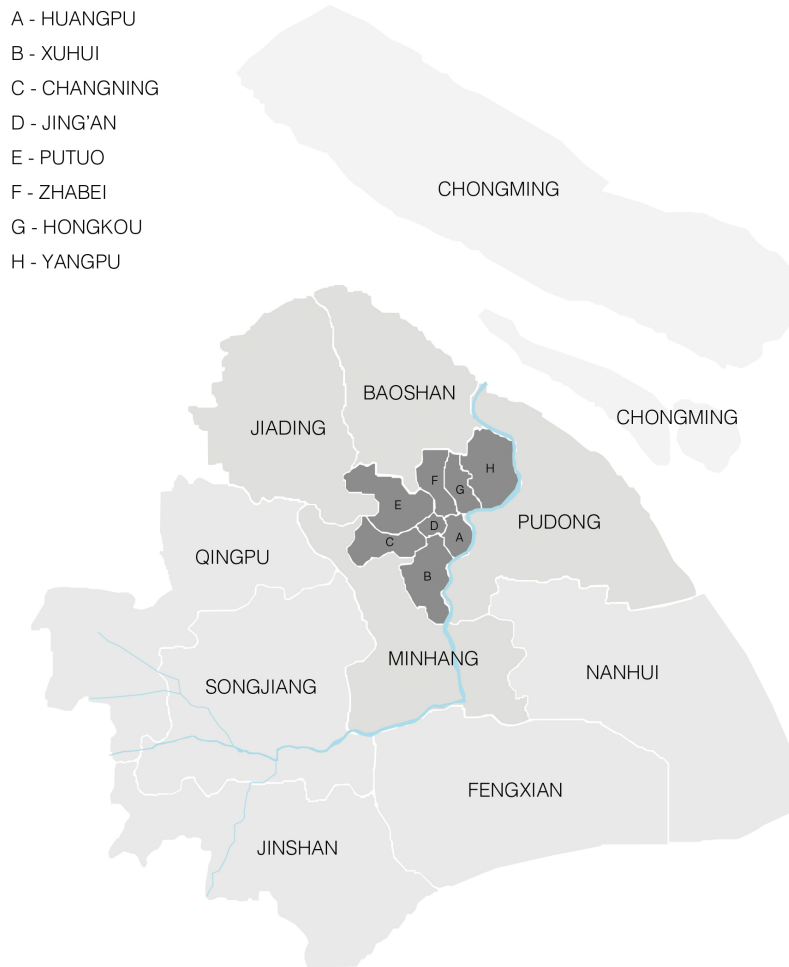


Figure 3-13 Map of administrative divisions of Shanghai (made by authors)

Shanghai is divided into 16 districts and 1 county (Chongming County). In Figure 3-13, the darkest grey color is the city center of Shanghai which is comprised of 8 districts. The city center of Shanghai, possesses the area of 289.44 km² and the population of 6,986,214 (2010) with the density of 24,137 per km².

Figure 3-14 represents the average housing price located in the city center is generally higher than other districts. Because the city center provides much higher quality and comfortable city life nearly in every aspect such as nearby financial, business center and convenient transportation infrastructure relatively compared with other places, that providing an intangible asset to the residence living there.

For example, the housing price range of Xuhui Distric is 4.4~3.9 million RMB per square meter. As the advanced culture and education region in Shanghai, there are many universities and famous education institutions. Meanwhile, it owns various convenient transportation systems and also near to Shanghai South Railway Station. The large sports center (Shanghai Stadium) as well as a number of commercial centers also contribute to the high price of housing here.

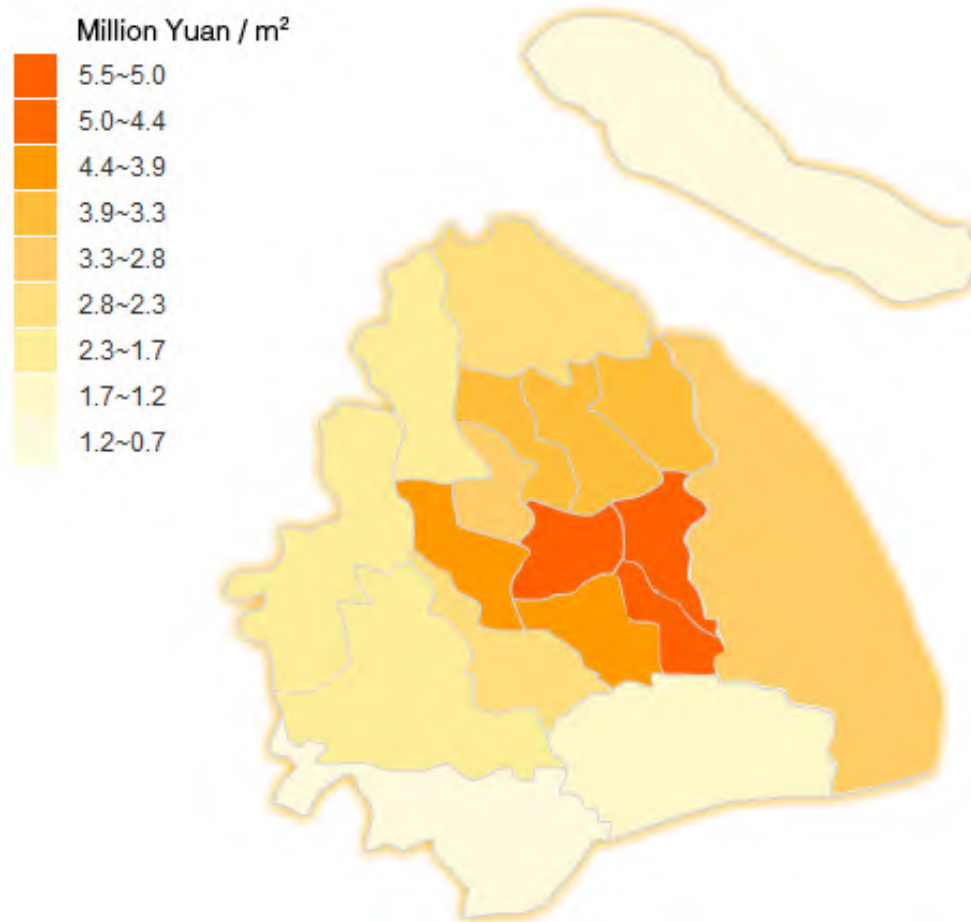


Figure 3-14 Housing price map in Shanghai according to distribution (2014) (source from Fang.com)

However, since Shanghai has multiple center lots also due to the several satellite towns with its urbanization, the housing price also relatively affects by each center lot under general distribution control. That is why some particular houses relatively far from city center also have high price like those in Minhang District.

In terms of affordable housing in Shanghai, the price is fully in accordance with the relevant regulations of the state, in order to effectively implement the price management as well as promote the healthy development system. In the process, the government not only provides the preferential policies, but also offers some capital subsidy for the supporting projects to control its price.

The price of affordable housing that developed and constructed by the real estate enterprises is based on the principle of capital preservation with very tiny profit. The price is mainly composed of three parts: development and construction cost, profits, and taxes. Development and construction cost including land cost, preliminary cost for the project development like engineering investigation and survey fees and planning and design fees, the main project construction cost, supporting public infrastructure construction cost, management cost, the loan interest, maintenance cost, plus the other relevant cost according to related departments of state and municipal government. The profits generally accounted for the 3% of the total sum in development and construction cost, without including management, maintenance cost and loan interest. The taxes strictly according to the state's standard tax rates and relevant preferential tax policies.

The price of affordable housing that directly developed and constructed by the designated authorities of the government is based on the principle of capital preservation. So it is composed of two parts (development and construction cost, taxes) compared with the previous one.

Determination of the settlement price of affordable housing has to go through several steps. For example, relevant affordable housing institutions of one specific project formulate the price evaluation standards for its bidding, and then, it should be approved by the housing management department. Settlement price finally determined by the bidding, meanwhile it will be clearly defined in construction project agreement. Bidding should be executed strictly in accordance with the agreement and regulations, and the housing management department could make appropriate adjustments under some particular situations.

The benchmark price of affordable housing to be sold usually calculated by the price of neighboring houses multiply discount factor. Price of neighboring houses provided by the housing management department of the city, that is the average market transaction price or market assessment price of new ordinary commodity housings in surrounding region in a certain period. Discount factor normally affects by the financial capability of targets

and ordinary commodity housing prices around it, as the basis of development and construction cost of project. The benchmark price of affordable housing that to be sold also further contributes to its ownership percentage. (Ownership percentage= benchmark price of selling affordable housing/ (price of surrounding ordinary commodity housings * 90%)) (Jiwu, 2014)

According to the Lidong who is the director of Shanghai affordable housing authority, the benchmark price of affordable housing generally related to three kinds of ownership percentage of the property and it all under 1 million RMB. Figure 3-15 shows that by 2012, for 70% property ownership affordable housing, the price ranges from 5,000 RMB to 5,800 RMB per square meter, for 65% property ownership affordable housing, the price ranges from 6,700 RMB to 7,000 RMB per square meter, for 60% property ownership affordable housing, the price ranges from 8,000 RMB to 8,500 RMB per square meter. Baoshan Miaohang Gongkang Project is the most expensive one among them, which is 8,500 RMB per square meter.

70% PROPERTY OWNERSHIP	PRICE (RMB/square meter)
Pudong Zhoupu	5600
Pudong Hangtou No.1, No.3	5600
Pudong Hangtou No.4	5300~5600
Minhang Pujiang No.7	5000~5600
Minhang Pujiang No.10	5300~5600
Songjiang Sijing Xinkai Project	5200~5500
Qingpu Huaxin Project	5800
65% PROPERTY OWNERSHIP	PRICE (RMB/square meter)
Qingpu Zhuguang	6700
Jiangqiao	6850
Jiading Nanxiang	7000
Baoshan Gucun	6700~7000
60% PROPERTY OWNERSHIP	PRICE (RMB/square meter)
Pudong Sanlin No.1, No.3	8100
Pudong Sanlin No.2, No.4, No.5, No.6, No.7	8000
Baoshan Miaohang Gongkang Project	8500

Figure 3-15 Affordable housing price in Shanghai with property ownership (2012) (made by authors)

3.2.3 Affordability

Since the gap between populace's income level and housing price is sustained increasing, home purchase affordability has declined correspondingly, especially in middle and low income groups that induce so called housing poverty in Shanghai. According to statistics, "less than 20% Shanghai residents have purchase affordability for a standardized new home." (Chen Jie, unknown)

In terms of housing affordability, the definition has been translated various by many scholars or policymakers in different period. Although there is still no exact theoretic meaning of housing affordability, in general, "many economists prefer defining housing affordability as a household's ability to pay housing costs without imposing constraints on living conditions, and they argue that any definition of housing affordability should implicate the opportunity cost between housing and non-housing consumption, which is one essential aspect of affordability (Hancock, 1993)." (Chen Jie, unknown)

In order to measure housing affordability, many indicators has been applied to this aspect. In general, there are four indicators to be used for assessing it. (Liu, 2010)

The first one is Price Growth to GDP Growth Ratio which is usually used to monitor the degree of real estate bubble. Through comparing the real estate price growth with GDP growth to understand its deviation between virtual economy and real economy, which eventually contributes to the real estate bubble. If the index of ratio is bigger, it reflects the real estate bubble greater.

The second one is Price to Rent Ratio which used to be the criteria for investments to judge its risk. "This index is a universal standard used to determine whether the real estate has investment value or bubble. Normally, if the index value (house unit price divided by monthly rent) is between 1:200 and 1:250, it means regional real estate runs well; if the index value exceeds 1:300, it means the house price deviates the real estate value, therewith investment value decreasing and investment risk increasing."

The third one is Affordability Index which can be calculated by housing mortgage divided by monthly income. This index can reflect the support level of housing need and consumption in terms of capital provided by banks or the other financial institutions. If the index ratio is big, then it tells the support level is high, and more people can afford to buy house.

The fourth one is Price to Income Ratio which directly represents capacity of housing. "The greater the index value, the lower capability to pay. When the index increases continuously, and there is no sign of shrinking market, indicating that the growth of house price surpass the growth of residential income, and the degree of speculative demand is high, so the possibility of real estate bubble is great."

Among these four different indicators of housing affordability, the Price to Income Ratio (PIR) is most popular to evaluate it. “Typically, Price to Income Ratio indicator is the ratio of median/mean market price of a standardized housing unit to median/mean (before-tax or disposable) household/family income.” (Chen Jie, unknown) Figure 3-16 shows the relationship between PIR and housing affordability.

PIR	Category
Equal to or Greater than 5.1	Severely Unaffordable
Between 4.1 and 5.0	Seriously Unaffordable
Between 3.1 and 4.0	Moderately Unaffordable
Equal to or below 3.0	Affordable.

Figure 3-16 Price to Income Ratio (PIR) and housing affordability (source from (Sun L. , 2011))

In Shanghai, if suppose the family would buy the 90 square meter house, then the Price to Income Ratio (PIR) for each income group during 1995 to 2005 is shows like in Figure 3-17. Compared with the upper figure, it is obvious that the housing affordability of Shanghai is severely unaffordable since 1995 generally. Nearly 80% of families in Shanghai never could afford the normal commodity housing in market price from past to present.

Year	Mean	Bottom 10%	10-20%	20-40%	40-60%	60-80%	80-90%	Top 10%
1995	9.99	21.32	16.20	13.73	11.26	9.28	7.41	5.39
1996	10.73	22.36	17.40	14.71	11.90	9.68	8.04	5.73
1997	10.01	21.26	16.15	13.39	10.92	8.98	7.33	5.45
1998	10.05	21.88	16.14	13.47	11.16	9.08	7.49	5.52
1999	8.29	15.72	12.96	11.48	9.01	7.72	6.28	3.96
2000	8.40	14.84	13.76	10.88	9.29	7.64	6.29	4.33
2001	8.52	16.50	14.06	12.60	10.04	7.79	6.23	3.75
2002	9.84	20.21	16.86	14.12	11.06	9.12	7.47	4.28
2003	10.10	24.02	19.16	15.99	11.72	9.30	7.06	4.34
		Bottom 20%	20-40%	40-60%	60-80%		Top 20%	
2004	11.33	24.80	17.90	13.32	9.89		5.84	
2005	10.74	24.45	16.59	12.91	9.56		5.53	

Figure 3-17 Price to Income Ratio (PIR) in Shanghai (1995-2005) by income category (source from (Chen Jie, unknown))

YEAR	COUNTRY/REGION	PIR
1992	Hongkong	5.1
1992	Taiwan	7.6
1992	Australia	5.0
1992	Korea	7.2
1982	France	2.8

1985	India	6.2
2005	Shanghai	10.7

Figure 3-18 Price to Income Ratio (PIR) in different countries (made by authors)

In addition, if this situation compared with the Price to Income Ratio (PIR) in foreign countries (Figure 3-18), the huge disparity further represents the severity of the housing affordability problems in Shanghai.

Since the price of housing in the market is financially infeasible relative to income level in Shanghai, application of mortgage loan is inevitable. In this sense, the percentage of monthly mortgage payment of the income is also an important indicator to evaluate the housing affordability, especially in Shanghai.

“According to the People’s Bank of China, as of April 1, 2011, the market home mortgage rate was 7.48 percent (for maturity longer than 5 years). The down payment is 30 percent and the mortgage maturity is 30 years with equal monthly payment.” (Sun L. , 2011) According to the new property transaction of the Central Government, this kind of down payment and mortgage rate is only applicable for the first time home buyer

Figure 3-19 represents the simulated calculation of monthly mortgage payment under the assumption of the household would buy the 90 square meter normal commodity housing, respectively in five major cities in China, including Shanghai. In Shanghai, relevant data shows that mortgage payment accounts for 138% of the income. However, from the previous introduction (chapter 3.2.1_income level), the FMR standard indicates that “the monthly maximum that the household spends on housing should not exceed 30 percent of the household monthly income.” And if the FMR standard applies here, the monthly mortgage payment of Shanghai should be 1,781 RMB instead of 8,212 RMB. This kind of incredible huge disparity fully reveals the severe housing affordability problem of Shanghai.

Meanwhile, Figure 3-20 also represents the simulated calculation of monthly mortgage payment under the assumption of the household would buy the 70 square meter affordable housing, respectively in three major cities in China, also including Shanghai. The average price of affordable housing in each city is used to simplify analysis.

Compared to normal commodity housing, the mortgage payment is much lower, and in Shanghai, the monthly mortgage payment is 1,597 RMB, which accounts for 24% of the income. It means that for middle and low income group, they have relative purchase capability of affordable housing, which is consistent with the project’s initial intention. (Sun L. , 2011)

	Beijing	Shanghai	Guangzhou	Shenzhen	Hangzhou
Average Housing Price per square meter	RMB 19,994	RMB 20,995	RMB 11,873	RMB 18,908	RMB 19,928
Unit Size (Square meter)	90	90	90	90	90
Average Unit Price	RMB 1,799,460	RMB 1,889,550	RMB 1,068,570	RMB 1,701,720	RMB 1,793,520
Mortgage Principal (30% down pmt)	RMB 1,259,622	RMB 1,322,685	RMB 747,999	RMB 1,191,204	RMB 1,255,464
Average Monthly Household Income	RMB 5,936	RMB 6,606	RMB 6,975	RMB 5,679	RMB 6,483
Monthly Mortgage Payment	RMB 8,212	RMB 8,623	RMB 4,876	RMB 7,766	RMB 8,185
Mortgage Payment as % of Income	138%	131%	70%	137%	126%
FMR Standard in the United States	30%				
Monthly Mortgage Payment	RMB 1,781	RMB 1,982	RMB 2,093	RMB 1,704	RMB 1,945

Figure 3-19 Affordability of normal commodity housing in five cities, China (source from (Sun L. , 2011))

	Beijing	Shanghai	Guangzhou	Shenzhen	Hangzhou
Average Monthly Household Income	RMB 5,936	RMB 6,606	RMB 6,975	RMB 5,679	RMB 6,483
Monthly Mortgage Payment	RMB 1,458	RMB 1,597	RMB 1,278	--	--
Average Housing Price per square meter	RMB 4,500	RMB 5,000	RMB 4,000	--	--
Unit Size (Square meter)	70	70	70	--	--
Average Unit Price	RMB 315,000	RMB 350,000	RMB 280,000	--	--
Mortgage Principal	RMB 220,500	RMB 245,000	RMB 196,000	--	--
Mortgage Payment as percent of Income	25%	24%	18%	--	--

Figure 3-20 Affordability of affordable housing in three cities, China (source from (Sun L. , 2011))

3.3 The current problem of housing in Shanghai

Since the economic reform as well as the housing reform in these years, the government has set and developed series of policies corresponding to overheated and unstable housing market for effectual management and control. Despite constant efforts of the government, the over fast growing market inevitably leads to a lot of problems. Here, the selected current problems of housing in Shanghai are introduced to further emphasize the growing demand of social housing in Shanghai.

3.3.1 Residential property structure: high percentage of private ownership

In 1990s, Chinese government eliminated so called “work unit” welfare public rental housing provision (1999) and the housing market turned to be market oriented with unprecedented housing privatization instead of previous long-term public ownership. During this process, residential property structure transformed gradually which now mainly dominated by the private ownership.

According to the statistics, the main type of housing stock in China now is “Market –rate commercial housing”, which occupied 47% in the whole residential housing stock. Besides, the “former-unit” type occupies 40%, the “subsidized housing” occupies 5% and the “rental housing” occupies 8%. These statistics indicates that the private ownership housing rate in China is very high (as high as 92%).

Housing reform in the past few years encouraged people owned homes which contributed to accelerate the process of property ownership privatization, and as a result, the numbers of homeowners are increasing in China.

“Three-quarters of households in cities/towns (85% of all households nationwide) were homeowners in 2010, compared to about 20% in the 1980s. Even though some apartments are owned with partial property rights due to subsidies, the rate of homeownership in China is much higher than in many developed countries. For example, the comparable figure in the US is just 65%.” (Youqin, 2013)

With the growing of private ownership rate, the living condition of housing has been correspondingly improved substantially. For example, in terms of the average floor area per capita (Figure 3-21), it keeps going up for these years which increases to nearly 31.7 square meters in 2011, compared with only 3.6 square meters in 1978. (Sun L. , 2011)

However, the increasing of private ownership rate stimulates the growing demand of housing, which leads to the housing supply in the market unable to keep up with it, especially in the big cities like Shanghai that with a large population as well as rapid urbanization and massive migration. As a result, the tight housing market eventually contributes to the soaring up housing price. In addition, the really high percentage of private ownership

rate is also hindering the social housing provision of government or other public sectors to some extent.

**Avg. Floor Area
per capita**

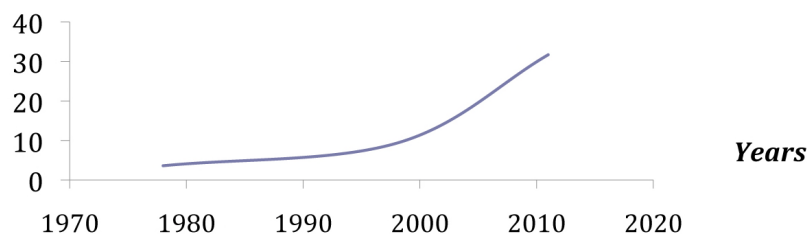


Figure 3-21 Average floor area per capita in the past thirty years in China (source from (Sun L., 2011))

In China, appearance of the massive second home ownership pushes the further increase of private ownership rates in the housing stock with the growing demand. In recent years, the trend of second home ownership is rising. According to the data from National Bureau of Statistics (NBS) of China, the percentage of urban households who own more than one home account for 15% in 2007, that occupy only 6.6% in 2002. Despite the purposes of second home are multiple such as investment, leisure, recreation and also retirement home, in China, the most substantial one is investment which can gain high profit margins from high return in current housing market.

In fact, the occurrence of second home ownership in the beginning in China is due to unintended government housing reform policy during privatization. In order to accelerate the process of privatization, the government sold the previous “work unit” in a very low price as well as heavy subsidies with partial ownership. “If households purchase their houses from the market and pay market prices, they enjoy full property rights or complete property rights, which include right of occupancy, the right to extract financial benefits, the right to dispose through resale and the right to bequeath it to others. If households purchased previously public housing or private housing at subsidized prices such as economic housing, they have only partial property rights, which means homeowners only have the right of occupancy and use-right, and they are not allowed to sell their homes on the market for profit within the first 5 years unless they pay the gap between discounted and market prices.” (Huang Youqin, 2010) In this sense, the premier home was difficult to dispose and the households used the remained money to own the second one at that time.

Although the initial emergence of second home ownership is occurred somehow obliged by the unintended government policy, the current second home ownership is now mostly prevail with speculative intention to gain as

much as profit, especially among the people with high income level. In Shanghai, this kind of phenomenon is more obvious and popular, because the housing price is growing rapidly every year and this kind of price differences can spur much more profit. As a consequence, private home ownership rate keeps rising although the middle and low income groups still not owned home, thus, polarization in housing consumption increased.

In order to control this situation, in recent years, especially from 2010, the government has implemented series of restriction on private home ownership not only for the premier home, but also for the second one.

According to the home purchase restrictions in Shanghai, in terms of non-locals, that account for nearly 40% of the total residents of Shanghai, in order to own the house, they need to consistent with the policy which limits the provisions of house in sale, and must satisfy three conditions. Firstly, they must purchase house with households, which means the non-locals who are unmarried are disallowed to own property. Secondly, the households should do not own the housing in Shanghai. Thirdly, the certificate documents should be provided which can prove more than one year accumulated payment of tax or social security in Shanghai during previous two years of signing the housing purchase contract. If the residence permit is already been three years, then there is no need to provide tax bill like locals of Shanghai, and can purchase house directly. If the non-locals meet all above three conditions, then they could own the home property, but no more than one.

For the locals of Shanghai, the home purchase restrictions also limited home ownership to further soften the severe situation. The locals who already owned premier home in Shanghai, is only allowed to buy another, but no more than one. However, from 2012, for the locals who are unmarried are disallowed for the second home. In addition, for the second home, the buyers should pay higher down-payments, that is accounts for 30% for the first home, but increased to the 60% for the second home in 2010, and the mortgages rate is also much higher than the first one. Also, the government tries to gradually raising the property tax for further control.

Although such restrictions on the home ownership in these years has been cooling the housing price in the market to some extent, the demand for the housing is still continuously high and the housing price in fact just rose by 2.5% less than before in Shanghai. Also, the private ownership rate is not to be effectively controlled from these attempts, which poses challenges to the social housing provision, and at the same time, polarization in housing ownership consumption adding the increasing demand for the social housing.

3.3.2 Low quality of existing living standard of “sandwich class”

After the implementation of the market oriented supply of housing, the general living conditions have improved significantly. However, in Shanghai, existing living standard of so called “sandwich class” still has not improved

correspondingly. "Sandwich class" is present for the groups of people who cannot afford the housing in the market and also not effectively supported by the housing security of government.

In broad terms, the lower income groups as the main component of "sandwich class", still in the backwardness of the living conditions.

Development of housing market contributes to form strong relationship of income level and housing consumption. Different income groups with different consumption ability, that inevitably results diversified demand for housing. However, most of the housing developers invest and develop mainly with high-grade residential housing for the purpose of high profit. As a consequence, the living conditions of lower income groups cannot effectively improved through the development of housing market. Since lower income groups are the main component of the society, which determines a considerable number of people cannot get proper improvement of housing conditions through this kind of market.

	household (ten thousand)	household population (ten thousand)	average per capita living space area (square meter)	population divided into groups by the average per capita living space area (ten thousand)							
				≤8	9~12	13~16	17~19	20~29	30~39	40~49	≥50
whole city	529.91	1478.72	24	229.94	191.94	184.10	108.98	313.19	164.73	100.85	184.99
downtown area	224.26	627.92	15.85	145.99	119.12	101.47	57.89	116.29	46.47	20.91	22.61
new town area	232.9	657.21	27.45	79.52	64.01	70.72	46.86	154.44	86.23	53.96	101.54
suburbs (county)	72.71	193.6	38.73	5.52	9.37	12.47	4.69	42.57	31.65	25.48	59.18

Figure 3-22 Average per capita living space area in Shanghai, 2000 (source from the fifth census results of Shanghai)

	household (ten thousand)	average no. of rooms per household	household divided into groups by the average no. of rooms (ten thousand)						
			1	2	3	4	5	6	7
whole city	529.91	2.1	207.19	196.01	64.91	27.34	12.51	13.35	7.84
downtown area	224.26	1.59	115.52	88.47	17.13	2.00	0.40	0.27	0.22
new town area	232.9	2.25	77.14	88.73	34.68	13.74	8.57	5.89	3.82
suburbs (county)	72.71	3.18	14.51	18.80	13.12	11.62	3.52	7.21	3.80

Figure 3-23 Average No. of rooms per household in Shanghai, 2000 (source from the fifth census results of Shanghai)

According to the fifth census results in 2000 (Figure 3-22, Figure 3-23), the average per capita living space area was less than 8 square meters for the about 2.25 million of the household population in downtown area and new town of Shanghai which accounts for 17.5% of the total household population there. In addition, about 1.93 million households possessed only one room, which accounts for the 42.1% of the whole households in downtown area and new town of Shanghai. Although the overall living conditions in Shanghai have improved, the relevant data reflects that there are still remain distress in terms of living conditions for the lower income groups.

Furthermore, with the growing disparity between different income groups in Shanghai, plus the monetization oriented space resource configurations lead to the occurrence of urban residential space differentiation. In other words, the privileged areas which own convenient traffic, good shopping and entertainment status, comprehensive social service conditions are gradually occupied by the high income groups, and the other social groups with inferior position in terms of economic and social status gradually being isolated in other regions. For example, in 1980s, the waterfront space of Shanghai is mainly occupied by the relatively lower income families, however, due to the urban renewal, the value of the waterfront space upgrade, which now replaced by the concentrated living area of the high income groups, and the original residents with lower income have to move to the urban fringe, which is relatively deteriorated residential area in the city with various inadequate facilities.

More specifically, the existing living conditions for the “sandwich class” such as migrants, low income university graduates and elderly residents are do not get the significantly improve through the housing market.

With fast development of Shanghai as the international city, it attracts large numbers of migrants every year. Before, most of the migrants stayed in the city periodically, however, the tendency has changed to stay more permanently, working and making own family while living in the city.

According to the Shanghai Statistical Yearbook of 2012, by the end of 2011, the resident population of Shanghai has reached about 23 million (23,474,600), with the migrants population of about 9.35 million (9,353,600), which accounts for 39.85%. In addition, the population with household registration of Shanghai (Hukou) has reached about 14 million (14,121,000) and the migrants account for 66.24%, beyond the local population. Compared to the Shanghai Statistical Yearbook of 2011, within one year, the migrants population of Shanghai increased by 374,100, but the population with household registration of Shanghai (Hukou) only increased by 73,900, which means most of the migrants of Shanghai are without household registration of Shanghai (Hukou) currently.

Without household registration of Shanghai (Hukou), these migrants are excluding from government public services such as education, healthcare,

and even housing, and plus the income level of most of the migrants is low due to the factors like low educational level, which result more severe problems in housing.

The housing resource of the migrants can be mainly divided into three categories (Figure 3-24), which is private ownership, rent and provided by the employers. Among them, the percentage of rent accounts for 58% and the private ownership only accounts for 0.9%.

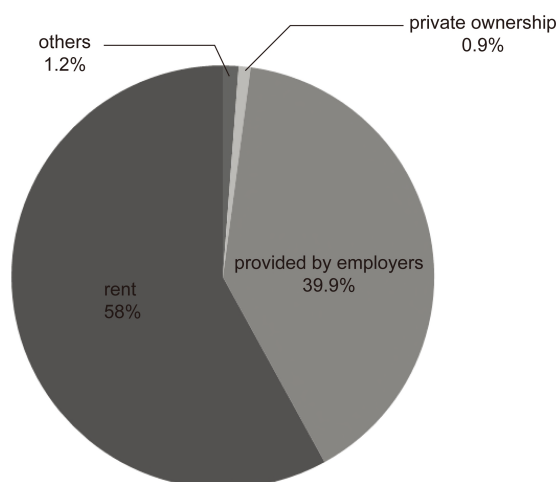
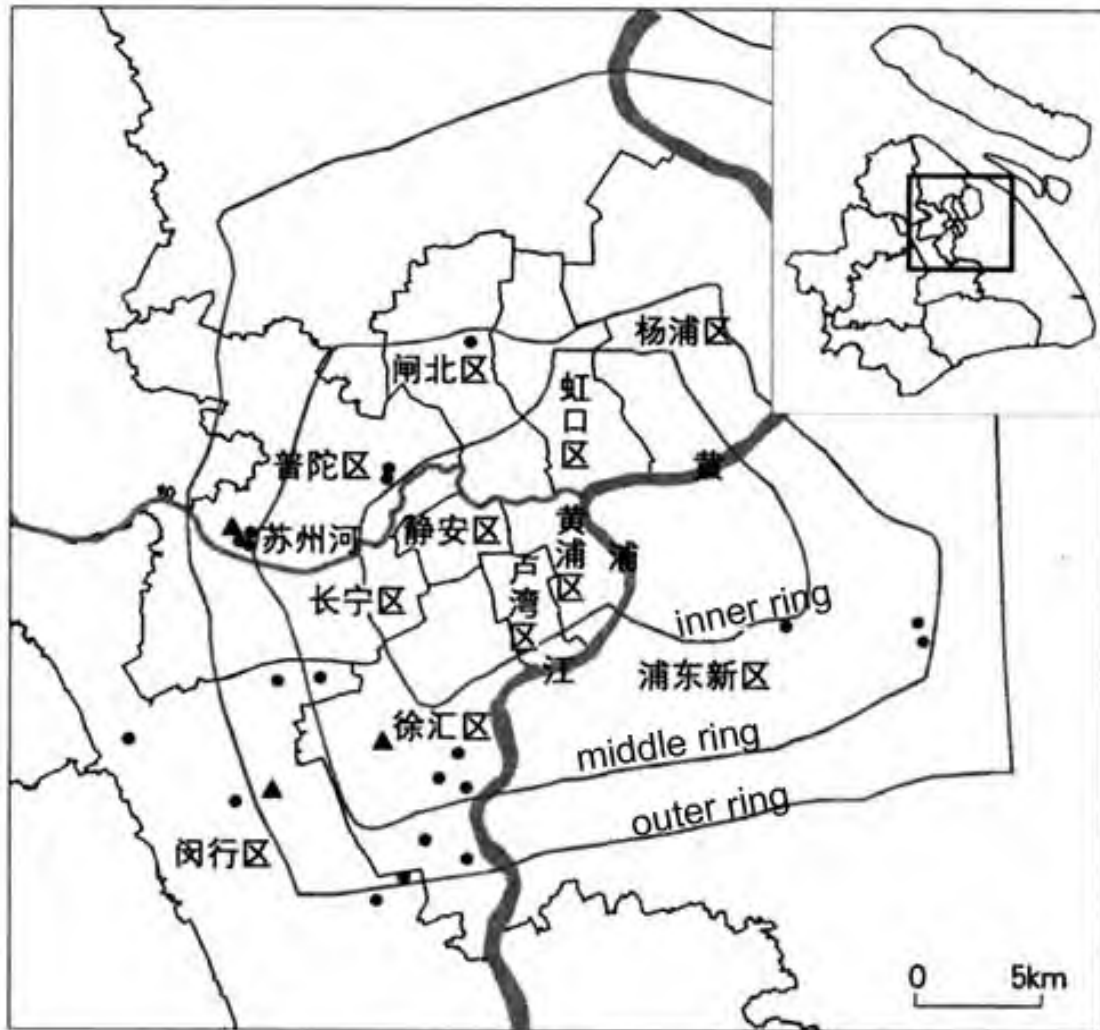


Figure 3-24 Housing resource of migrants (made by authors)

Since the increasingly high price of housing market, the rental cost is also correspondingly growing. Renting the house located in the downtown area of Shanghai is not affordable for the migrants, and they can only choose the housing situated in the urban fringe or living together and sharing limited residential space in the city.

“Villages in the City” emerged as the Chinese characteristic of residential mode for the migrants during the urban renewal and reconstruction. In Shanghai, “Villages in the City” is mainly distributed between the outer ring and inner ring and also surrounding areas of the outer ring, and mostly has convenient traffic system which located near the main highway or main urban road. (Figure 3-25)

Compared with the overall living standard of the city, the living conditions of these villages are much worse with small, narrow and over crowd living space, inadequate housing facilities as well as dilapidated housing itself which mostly built before 1990s. (Figure 3-26) For example, according to the statistics, in 2010, average per capita living area of villages is about 7.9 square meters, whereas the average per capita living area of the whole Shanghai residents is 17.5 square meters. Also, most of them are lack of ventilation, lighting as well as essential facilities such as bath and kitchen. Despite of such poor living conditions, it became the gathering place of the migrants mainly because of affordability.



- normal village
- ▲ key village

Figure 3-26 Location of “Villages in the City” in Shanghai (source from (Wang Mingfeng, 2013))



Figure 3-25 Image of “Villages in the City” in Shanghai (source from <http://szbbs.sznews.com>)

In recent years, these villages have been gradually demolished by the government and migrants living here tend to be driven out to other places which could be affordable with their low income.

In addition, so called “container living” village (Figure 3-27) in the outskirts of Shanghai also has appeared recently, and large numbers of migrants also choose this kind of desperate condition place as their housing due to the low rent cost, that is about 500 RMB (about 70 euro) per month for each container.



Figure 3-27 Image of “container living” in Shanghai (source from <http://www.dailymail.co.uk>)

In terms of low income university graduates, usually called as “ant tribes” in China, also faced with poor living standards in the big cities like Shanghai. Since these big cities have more employment opportunities with good development prospect, many university graduates would like to work and live here. However, the large gap between soaring up housing price and low income especially for those who just graduate from university, inevitably caused serious housing problems. Renting as the main housing resource of them, it is rather difficult to find the house with optimum rent cost as well as not that far from working places in the market. In recent years, the main living tendency of these groups is gregarious living which means many people squeezed in the limited space and sharing the total rent together. For example, in Shanghai, about 20 square meters room is shared by 8 people with only several two-storey beds and basic necessities like desks and chairs, and usually the private living space per person is just about 3 square meters.

For the elderly residents, that account for 23.4% of the residents with household registration of Shanghai (Hukou) in 2010, the living standards is also poor with the lack of appropriate living space, since they have the special requirements for living such as safety, convenient services like healthcare, quiet and good environment. However, the most of the existing housings are without acquiring these demands. In addition, the elderly residents have nearly no income except for the relevant pensions, which means that without the attention and support of the government, these poor existing living standards are difficult to improve.

3.3.3 Contradiction between supply and demand

Since the 1990s, the housing supply of Shanghai has reached high market orientation. Currently, housing supply as well as corresponding improvement of living standards are almost totally relies on the housing market. However, in general, the housing market in Shanghai failed to respond effectively to the actual demand. Contradiction between supply and demand exists in Shanghai and unsuitable housing size and inconsiderate distribution are the best representatives, except for the housing price.

High market orientation means the importance of capital as the main decisive factor in the process of housing supply. Maximizing the surplus value becomes substantial pursuing point in the housing supply which leads to the situation that to seek nothing but the profits. Thus, developers of residential housing are mostly interested in the development of high-grade housing with larger size since it brings more profits in the relatively short period due to the higher income level of the targets. However, the housing standard represents the higher income level groups' requirement does not comply with the demand of most of the residents in Shanghai, particularly in size, in the meantime, these high-grade housings are not affordable for them. Developer's consistent preference of high-grade housing with larger size, which ignoring the main demand gradually leads to unbalance between housing supply and demand in free real estate market.

For the housing size, according to the statistics from Shanghai Academy of Social Sciences Research Center of the Real Estate, in terms of average size per household, 53.6% of the households require 50~88 square meters and 32.1% of the households require 89~113 square meters.

In addition, the household population structure tends to be miniaturization, which contributes a lot to the demand change in housing market. In terms of Shanghai, average population per household has been decreased to 2.7 people per household since 2005 (Figure 3-28). Increasing number of households as well as miniaturization of the each household indicates that the growing demand for housing, especially the growing demand for the relatively small sized one. For example, if considering decent living space as 15 square meters per person, the average living space per

household would be about 42 square meters, and the corresponding average floor area per household would be about 80 square meters.

year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
number of households (ten thousand)	457.49	461.40	465.72	470.11	475.73	478.92	481.77	486.06	490.58	496.69	499.54
average population of each household	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7

Figure 3-28 Households status in Shanghai, 1996-2006 (source from Shanghai Statistical Yearbook of 2007)

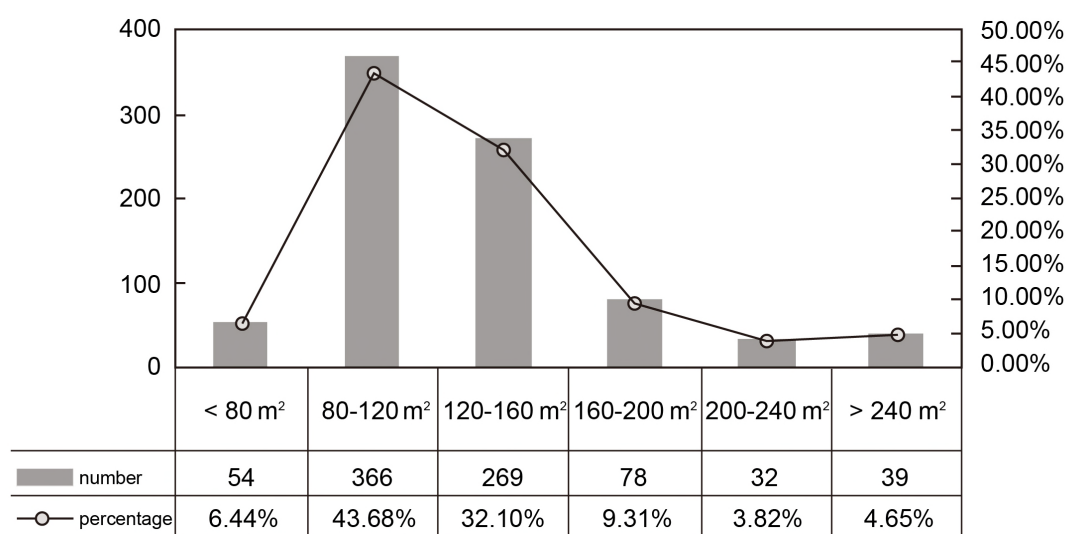


Figure 3-29 Statistics of residential floor area in Shanghai, 2004 (source from the survey of 838 residential samples, (Peng, 2006))

However, in Shanghai, according to the real estate market in 2004 (Figure 3-29), nearly 50% of the residential floor area is over 120 square meters, while those under the 80 square meters just account for 6.44% of the whole housing provision in 2004. (Peng, 2006) It reflects that there is the contradiction between the housing supply and general demand in the market in terms of providing housing size.

In Singapore, at the beginning of the implementation of the new housing policy during the 1950s to 1970s, the residential housings were mainly constructed in the small size with normally 42~70 square meters per household because of the weakness of the national economic strength at that time. After the 1980s, Singapore's GDP (gross domestic product) per capita continued to growing and in 2004 reached \$ 25,000. Although the country becomes rich, the government still insists to build small and medium-sized residential housing considering the actual demand. For example, in 2005, the

constructing average residential floor area is 85~125 square meters, and among them, the one with 85~99 square meters accounts for 70%, the one with 100~125 square meters account for 30%. By comparison, the residential housing market in Shanghai really poses the dilemma for the contradiction between supply and demand.

Besides, the spatial distribution of those residential housings with the relatively optimum residential floor area for the most households (about 80 square meters) also does not meet the requirements of residents generally.

The survey from the magazine of Shanghai property market in 2005 shows that 52% homebuyers selected the traditional downtown area as the most preferred region, of which one third of people said outside of the city center also was considerable. This survey illustrates the consistent demand of the traditional downtown area for the housing.

However, according to the statistics, the percentage of the housing supply with the residential floor area under the 80 square meters in Shanghai in terms of inside of the inner-ring, between the inner-ring and outer-ring and outside of the outer-ring is accounts for 8%, 20% and 72% respectively. It reflects that not only the number of residential housings with the required residential floor area is less, but also in terms of the spatial distribution, those are relatively far from the city center.

Due to the mismatch of housing supply with the demand in terms of spatial distribution, plus the high price of housing situated in the downtown area (mostly in the inner-ring) which beyond the normal residents' purchase capacity, there is no choice but to purchase the one that unexpected.

transactions of total residential floor area according to distribution (ten thousand/m ²)				
	2006.01	2006.02	2006.03	2006.04
inside of the inner-ring	9.7	9.22	22.38	32.55
percentage	10.33 %	10.95 %	12.22 %	13.72 %
between the inner-ring and outer-ring	33.5	26.45	62.59	87.66
percentage	35.68 %	31.41 %	34.19 %	36.95 %
outside of the outer-ring	50.7	48.55	98.10	117.04
percentage	53.99 %	57.65 %	53.59 %	49.33 %

Figure 3-30 Transactions of commercial housing in Shanghai according to distribution (source from Shanghai Real Estate Trade Center)

Figure 3-30 shows that since 2006, more than half of the transactions of commercial housings are those located in the outside of the outer-ring, and the transactions of commercial housings within the inner-ring just accounts for small percentage. So, it is obvious that the gap between the real demand and the actual selection of housing exists in terms of spatial distribution.

In addition, besides the contradiction between supply and demand in the commercial housing market, it also exists in the affordable housing sector. In general, in terms of the number of affordable housing, there is far more demand than the existing supply. Furthermore, the size is also too large, despite of the government regulation named "Approach for Affordable Housing Management" prescribe affordable housing size should be less than 60 square meter. Developers in the market, who acquired the development license and government subsidy in terms of constructing affordable housing, sometimes built it in the larger size without following government rules in order to get more profit. These actions aggravated the contradiction between supply and demand in the affordable housing sector. (Jingchun, 2011)

3.3.4 Problems accompanying urbanization and urban renewal

Accompanied with the economic reform, urbanization in China has been through the astonishing acceleration. Urbanization rate in China jumped from 25.32% in 1987 to 45.68% in 2008, and expected to rise to 59% by 2025. Shanghai, as the most urbanization city in China, also correspondingly in the process of unprecedented pace of urbanization. The figure shows that in 2008, the urbanization rate of Shanghai reached 87.50%. (Figure 3-31, Figure 3-32)

Urbanization rate of Shanghai		
year	urbanization rate of China	urbanization rate of Shanghai
1987	25.32	65.80
1988	25.81	66.50
1989	26.21	67.00
1990	26.41	67.40
1991	26.94	67.60
1992	27.46	67.90
1993	27.99	69.00
1994	28.51	70.10
1995	29.04	70.80
1996	30.48	71.50
1997	31.91	72.20
1998	33.35	73.00
1999	34.78	73.80
2000	36.22	74.60
2001	37.66	75.30
2002	39.09	76.40
2003	40.53	77.60
2004	41.76	81.16
2005	42.99	84.50
2006	43.90	85.80
2007	44.94	86.80
2008	45.68	87.50

Figure 3-31 Statistics of urbanization rate of China with Shanghai (source from (Long Jiali, Unknown))

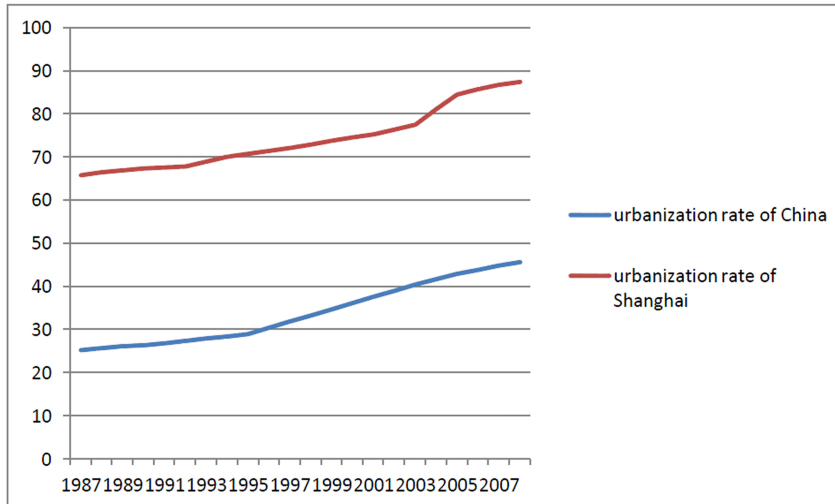


Figure 3-32 Graph of urbanization rate of China with Shanghai (source from (Long Jiali, Unknown))

Urbanization has the close relationship with housing since it is one of the most important functional and essential elements in urban life. Scholars around the world generally believe that urbanization process can be divided into three stages.

At the early stage, along with the agglomeration of the industry in the city, the size of the city as well as its population gradually increasing. Due to the slower growth of urbanization, plus the relatively low urban population, there is not that much pressure on housing. On the other hand, relatively low economic development level and material basis determines the majority of the residents could only live in the poor environment. At the accelerating development stage, when the proportion of urban population reached 30% of the total population, because of the continuously industrialization and economic development, the urbanization has improved rapidly in the short term. Dramatically increasing urban population and sudden expansion of the city, lead to the housing shortage, since the supply lags far behind the growing demand. At the late stage, when the urbanization rate is over 70%, the urban population growth rate has slowed down, and population in the central area of the city gradually spreads to the suburbs, which is the phenomenon of so-called suburbanization. In addition, industry as the leading role to promote the urbanization has been substituted by the tertiary industry, and the urban network becomes more organized. After long-term accumulation of construction as well as high economic level, the housing problems have been transformed that beyond to its insufficiency, but to the social problem as well. (Liming, 2001) Shanghai is the typical case at this stage, that urbanization rate has already reached 87.50% in 2008.

Continuous increase of urbanization rate in Shanghai, in one hand, contributes to the massive economic growth, the increase of income level as well as consume structure improvement, which further promote the progress

of real estate market. However, on the other hand, series of housing problems have arising with it despite of these developments, and become the major challenge also as social problem. Housing problems have generated on various fronts, such as escalating housing price seriously undermined affordability, lower-price housing shortage and housing insecurity especially for migrants and thoughtless removal and relocation during urban renewal.

According to Hope Tisdale, "Urbanization is a process of population concentration. It proceeds in two ways: the multiplication of points of concentration and the increase in the size of individual concentrations." (Tisdale, 1942) Due to population concentration in terms of population increasing as well as growing density accompanying the fast-paced urbanization of Shanghai, the land supply becomes constraint, which in turn pushes up housing prices correspondingly. In addition, enormous demand for housing accelerates the housing price growth further. Escalating housing price which undermined affordability becomes serious problems particularly to the lower income groups, since the huge income gap exists in Shanghai. (Chapter 3.2) Thus, providing decent but affordable living space to the lower income groups becomes big challenge currently.

What's more, rapid urbanization of Shanghai attracts substantial number of people from all over the country for the better life. According to the Shanghai Statistical Yearbook of 2012, by the end of 2011, the resident population of Shanghai has reached about 23 million (23,474,600), with the migrants population of about 9.35 million (9,353,600), which accounts for 39.85%.

Despite of their contributions to the society in various ways, these migrants usually being placeless in Shanghai due to housing shortage with lower price and social exclusion in housing security sectors. As introduced before (Chapter 3.3.2), for migrants without household registration of Shanghai (Hukou), there are many restrictions on housing. For example, in order to purchase their own house, on one hand, they should not be a single and on the other hand, should provide relevant tax certificates. However, rather than own housing purchase restriction, under the soaring up price of housing with generally lower income of migrants, application of social housing exclusion for them becomes the more important problem, and makes them actually placeless.

In this severe situation, "Villages in the City" becomes major shelters for migrants despite of its deteriorating living standards. In fact, "Villages in the City" can be seen as the product in urbanization.

With the urban expansion, the rural villages that used to be located on the fringe of the city have been encircled to the urban areas, and only its agriculture areas were compulsorily purchased by the government to be urban built-up areas. However, the villages themselves were not acquired by the government since the high cost compensation along with relocation of

previous households in every aspect. As a consequent, with the development of urban construction, they are gradually isolated, and become gathering place of migrants due to its relatively low rent.

However, the governments “Seeing ‘urban villages’ as the ‘cancer of cities’ and ‘anomalies of modern society’, local governments are keen to improve the image of the cities. The demolition of ‘urban villages’ has thus become a de facto tactic to modernize Chinese cities, without recognizing that informal housing is the only affordable option for rural migrants.” (Fulong, 2012) Thus, these low rent shelters for migrants gradually demolished by the government currently without providing them replacement units or proper compensation. They have to choose another affordable shelter for living like co-renting in the small room with others in the city.

What’s worse, without the right to apply for the social rental housing for the migrants who do not own the household registration of Shanghai (Hukou), they really become placeless and isolated in Shanghai, which brings many social problems.



Figure 3-33 High density of the city center in Shanghai (source from (Nicolas Gustin, 2014))

In the rapid urbanization process, urban renewal developments are taking place everywhere to reshape urban landscape. Shanghai with the huge number of population makes increasingly high residential density especially in the center of the city, although the nine satellite cities have been built to reduce it. (Figure 3-33) “The most densely populated central city area in China, located in the Huangpu district in Shanghai have a whopping 126,000 people per square kilometer, corresponding to less than 8 meters square for each person.” (Nicolas Gustin, 2014)

Under this kind of pressure, the vertical expansion is implemented such as constructing high rise buildings and multiple road infrastructures instead of the previous traditional villages to adapt to the situation, which have transformed urban landscape dramatically in Shanghai. (Figure 3-34, Figure 3-35)

During the urban renewal, thoughtless removal and relocation in terms of demolition of historical buildings like traditional lanes and also taken away housing resources of lower income people are already underway.

“In Shanghai, between 2000 and 2005, 700 million square meters of house were replaced and 280,000 households were relocated. However, most of the conventional urban renewal projects neglected housing affordability. Developers acquired the land or projects at the market rate and local government generally did not provide developers any financial assistance or incentive to encourage them to include affordable housing in the new projects.” (Sun L. , 2011)

“Today, almost all the new housing developments are sold at market rate. Moreover, the booming real estate market increases the cost of relocating owners who live in old housing units and in turn the overall capital requirement for urban renewal, which makes including affordable housing into the urban renewal process less financially possible. As a matter of fact, in many cases, none of the original residents could afford to return to where they used to live prior to the renewal projects in spite of the substantial relocation compensation that they received.” (Sun L. , 2011)

During urbanization and urban renewal, social housing becomes an essential sector to improve those problems accompanying it. In recent years, the government implemented series of policies to attempt to improve the situation, and pay much more attention to social housing construction with implementation. However, facing with over-heated market as well as relatively immaturity policies all hinder its development to some extent.

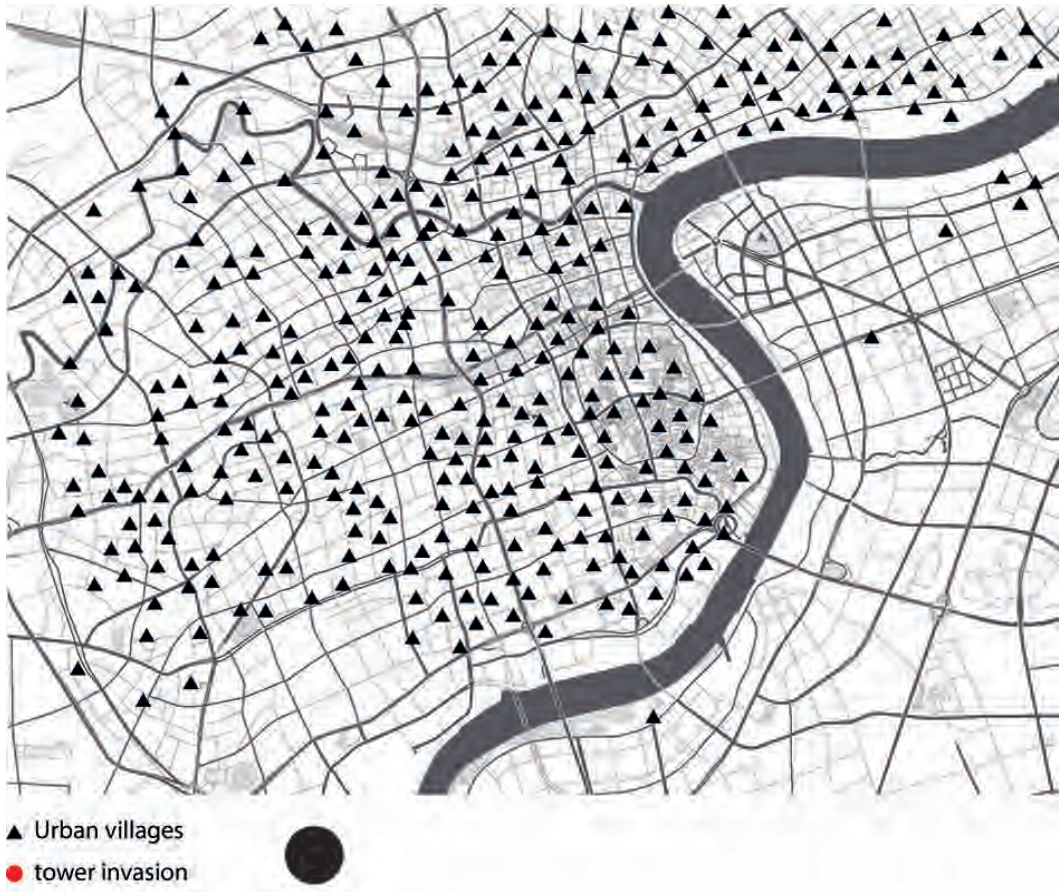


Figure 3-34 Map of urban villages and tower invasion in Shanghai, 1924 (source from (Nicolas Gustin, 2014))



Figure 3-35 Map of urban villages and tower invasion in Shanghai, 2010 (source from (Nicolas Gustin, 2014))

3.3.5 Unreasonable distribution of subsidized housing

In recent years, increasing housing problems of lower income groups in Shanghai brings affordable housing more attention than before. Without the support of affordable housing and relevant policies, the lower income groups would hardly gain the opportunity to improve their living conditions.

During the period from 2008 to 2012, Shanghai plans to increase affordable housing construction efforts, to ensure that new construction area of affordable housing should account for 20% of the total new residential construction area. In 2008, the affordable housing area that in the process of constructing in Shanghai has reached 4 million square meter. In 2009, the government of Shanghai published the plan of big six affordable housing construction sites. In 2011 and 2012, the affordable housing construction area has reached 1500 and 1100 ten thousand square meters respectively, which means about 220,000 and 170,800 affordable housing units were built. (Figure 3-36, Figure 3-37)

AFFORDBALE HOUSING SITE	LAND USE AREA (ten thousand square meter)	GROSS FLOOR AREA (ten thousand square meter)	TIME
JIADING JIANGQIAO 嘉定江桥	50	67	2009.06
BAOSHAN GUCUN 宝山顾村	1000	774	2009
SONGJIANG SIJING 松江泗泾	135.62	114.72	2009.08
MINHANG PUJIANG 闵行浦江	232	218	2009.08
PUDONG CAOLU 浦东曹路	214	222	2009.08
NANHUI ZHOUKANGHANG 南汇周康航	236	150	2009.12

Figure 3-36 Big six affordable housing construction sites (made by author according to data of annual housing construction plan of Shanghai)

PROJECT	YEAR	2008	2009	2010	2011	2012
new residential construction area (ten thousand square meter)		2000	1800	according to the completion situation and market demand to determine the housing construction annual arrangement		
among them	affordable housing (ten thousand square meter)	400	400	≥1200	1500	1100
	land supply for residence (hectare)	800-1000	1000-1200	1100	1200	1000
among them	affordable housing /medium-sized housing (hectare)	≥20%	≥25%	76%	70%	70%

Figure 3-37 Affordable housing annual construction plan of Shanghai (source from (Wang Ai, 2014))

In general, the government has made considerable efforts on affordable housing construction with the quite good construction progress by now. However, the affordable housing plan in Shanghai reflects that in terms of subsidized housing, its distribution tends to be unreasonable.

Firstly, the locations of subsidized housings are remote from the city center. For example, the big six affordable housing construction sites are all situated outside of the outer-ring (periphery of Shanghai), which far from the city center, like BAOSHAN GUCUN(宝山□村) is nearly fifty kilometers away from the city center. In addition, these sites possess underdeveloped infrastructure and insufficient public services that incomparable with the city center. For example, figure 3-38 reflects that, most of the transport infrastructures are mainly concentrated inside of the outer-ring of Shanghai.

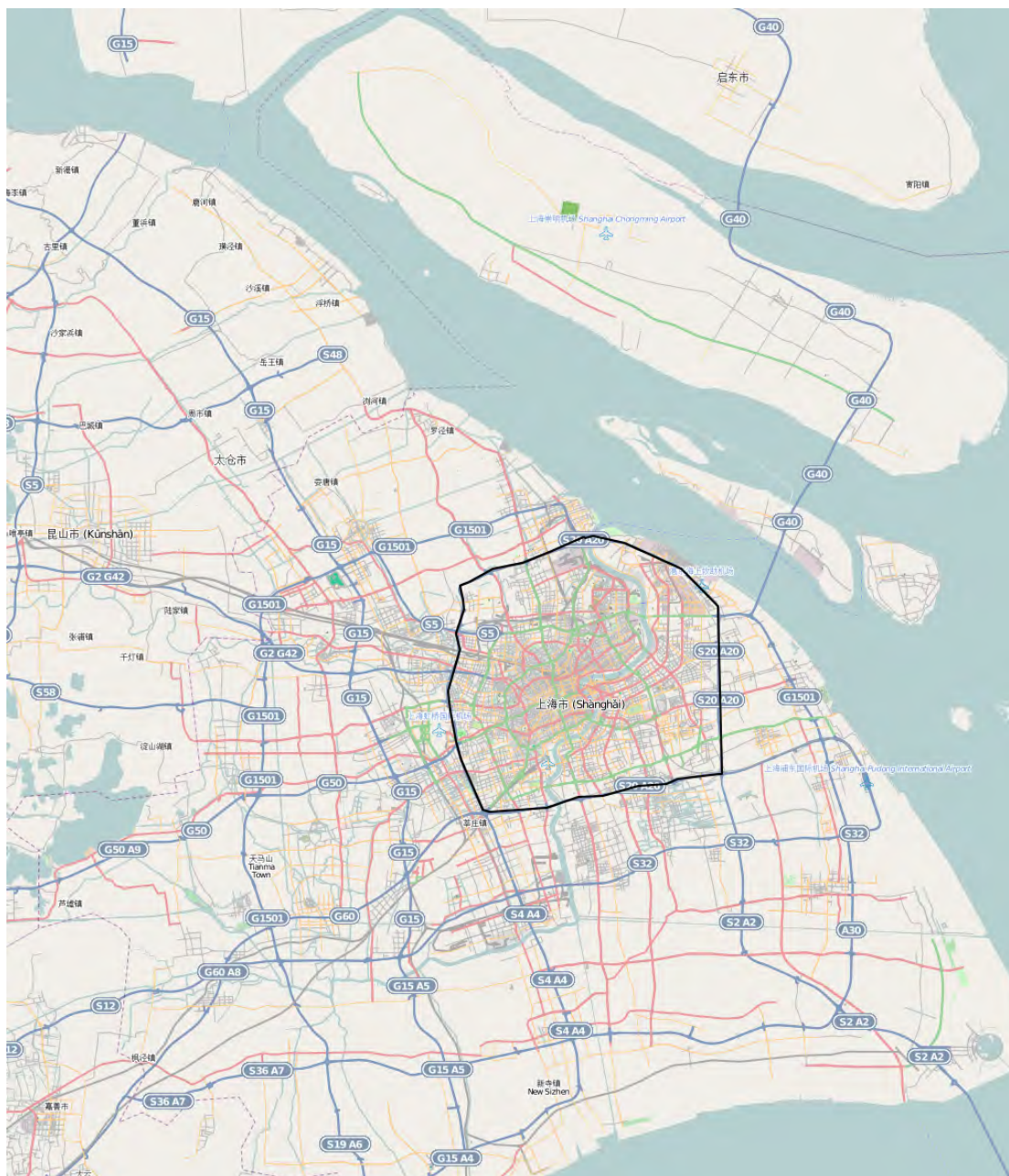


Figure 3-38 Transport infrastructure of Shanghai (source from Wikipedia)

According to the urban benchmark land price of Shanghai in 2003, the land can be divided into eleven grades generally with its current construction level and potentiality of future development. Construction of subsidized housings is mainly concentrated outside of the outer-ring, which basically belongs to grade seven to grade nine. Considering the grade ten and eleven is the island (Chongming) and intertidal zone, the site of subsidized housing is really in the lower grade land, which means the surroundings possess relatively lower construction level and future development potential. (Peng, 2006)

Despite of low prices of subsidized housing, the insufficient infrastructures and services such as education, healthcare and entertainment make lower income groups feel inequality and less willing to purchase, since living in these places brings higher cost for living, including traffic, education, shopping and so on.

Secondly, subsidized housings are in concentrated constructions, that leads to aggregation of lower income groups and highlight the social class differentiation to some extent. If the residential housing distribution pattern once formed, it is difficult to change, especially for lower income groups with lack of affordability. That means once these groups located in the fringe of the city, they would be fixed to live there for a long period. With concentrated subsidized housing construction, it is easy to form so called "geo-culture". Because the concentrative construction gathering the people sharing similarities in terms of economic income, social value, life style, work status and other inhabitants, but that have significant differences from other social groups, and forms own regional culture through accumulation after a certain period. Thus, this difference becomes bigger and easy identification by subsidized housing concentration, which easily leads to regional discrimination as well as group discrimination. Gradually exclusion will force the lower income groups more and more deviated from the mainstream of social values, and even may opposite with it, that contributes to its marginalization or even poverty. In addition, lack of communication with exclusion, will also contribute to intensification of class contradictions in the society.

In general, the unreasonable distribution of subsidized housing that remote from city center and being concentrated pattern is mainly due to the local government manages and plans the urban space in terms of land market principle. The government generally relies on land finance, which means the land leasing is the main source of the finance of the government in big cities like Shanghai. So the existence of the differential land rent, plus the characteristics of the subsidized housing as "lower price" and "meager profit", make the local government reluctant to locate subsidized housing in the high quality location with relative high land price, like city center. In order to reduce the opportunity cost of land transfer, and also to avoid the impact on

the real estate market, which may lead to the surrounding real estate prices down, the local government is not willing to be high quality plots of land for subsidized housing construction. (Weixuan, 2011) (Figure 3-39)

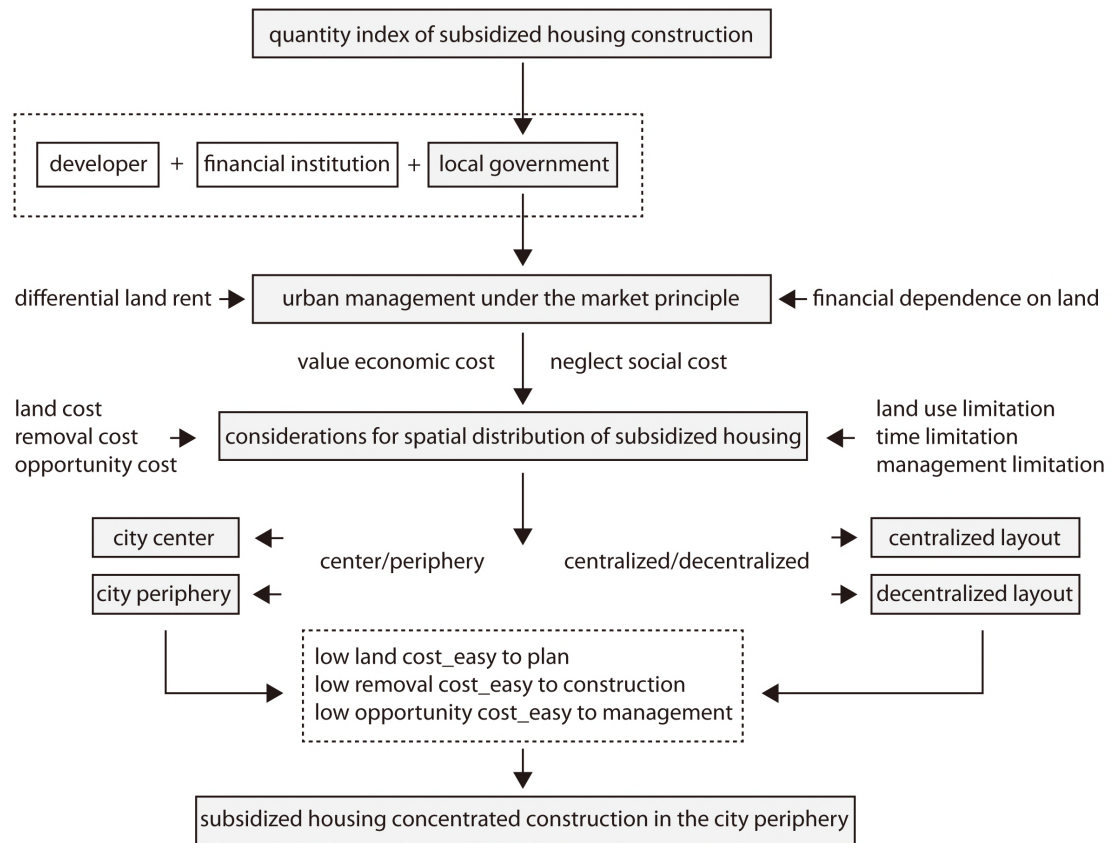


Figure 3-39 Analysis of formation of unreasonable distribution of subsidized housing (source from (Weixuan, 2011))

Chapter 4 Policy (Shanghai)

-The Development and Current Social Housing Policy in Shanghai

“What about the social housing situation in Shanghai?” “Have these policies effectively to improve the housing situation in Shanghai?” As we discussed in the previous chapter that social housing is an emergency issue in Shanghai, now we will start to precisely research the development and current social housing policy Shanghai.

We can see from a historical overview of the development of welfare housing in Shanghai that its' development is not always continuous. In the middle, the policies and implementation have experienced several great changes and adjustments. Generally, the history of these changes can be divided into four main stages - “The early stage of the welfare housing (1928-1949)”, “The development stage of the welfare housing (1950-1983)”, “The reconstruction stage of the welfare housing (1984-1999)” and “the new stage of the welfare housing (2000-2010)”

Currently (Since 2010), the government of China and Shanghai also has made several new policies and implementations, like (7090 policies, limit price housing, 900 billion social housing stimulation program etc.) and many social housing communities.

In this chapter will research the development of social housing policy in Shanghai following the four historical stages and then research the current policy and the general implementations of social housing in Shanghai.

4.1 Development of social housing policy of Shanghai (1928-2010)

4.1.1 The early stage of the welfare housing (social housing) in Shanghai (1928-1949)

During this period, the government of Shanghai focusing on the civilians living in shantytowns, organized and constructed a series of “Civilian residences” and “Civilian communities”. These residences were fund by the governments and the social funding organizations, and mainly as operated though the rental mode, having the typical feature of welfare housing. Due to the influence of the war and funding, these attempts soon failed. However they marked the start of welfare housing in Shanghai.

- **Background**

After the port opening in the 1843, the economy of Shanghai had a rapid speed of increasing period. During this period, Shanghai had many concessions and the living situation had gradually become the mainly rental type. These rental housing is mainly the combined line type- which has a special name in Shanghai “Li Nong”. In the Chinese traditional communities, except for the traditional type of housing, they also imitated the constructions

of the concessions to build many “Li Nong” housing. Due to the land tension, there was limit of the constructions and brought the raise of the rental fees. These “Li Nonh” housings, those initially designed for single families have gradually become the share housings for multiple families. Even though, the sharing families were still middle-income classes, and as to the low-income classes, they could not afford to rent a house. Except for the small factories and docks have simple new workshops to provide, this vulnerable groups has to live near the urban fringe mainly in the self-built huts. These shantytowns brought many problems, such as the spreading of diseases, the destruction of the urban appearance, the easy to cause a fire, the trouble to control and so on. Facing this sever situation, both the foreign and Chinese district authorities hoped to solve the problem. However, due to the high settlement fee, usually they only adopt the expelling method never really concerned the life of the poverty groups. As the repeatedly ban of these shantytowns, more and more sever social conflicts appeared. (Shenglei, 2005)

At the beginning of the 20th Century, due to the European war, China got a brief peace and prosperity. Shanghai was founded in 1927. The government had formulated a large Shanghai construction planning, hoping through the construction to improve the city’s appearance. Among these construction plans, the plan of reformation of the shantytowns was included. On the other hand, several social charity organizations also involve in this plan. With the social financing supporting, the Chinese communities of Shanghai began to try to build some welfare housing to settle the vulnerable civilians.

- **Types**

During the Republic of China period, the government of Shanghai had two times spreading constructions, respectively in 1928 and 1935. In terms of the construction scale and funding arrangement, these constructions can be divided into two types- “Civilian residences” and “ Civilian communities”. Although there was a 7-years gap between them, they had a clear continuity between them. They also adopted the similar apartment types and management types.

- “Civilian residences” (1928-1931)

- Management**

In the October of 1928, the government of Shanghai held the 19th town hall meeting. It approved the proposal of the settlement residences to settle the vulnerable civilians. They found the Shanghai civilian residence committee. They commissioned the “Society agency” to mange the daily routines, such as charging the rent and commissioned the “Construction agency” to mange the constructions.

- Beneficiaries**

These civilian residences are initially set to solve the problem of Shantytown. Therefore, the locations are mainly closed to areas where

shantytowns concentrated. After the completion, the civilians those were living near the fire burned shantytown became the first residents. Besides, there were also some relocation residents. Because these moves were forced, some no income families tried to escape the rents. Therefore, the civilian residences gradually became the residences of the middle or low-income groups, instead of the most vulnerable groups. Besides, some standards of the tenants are compulsory, such as the residences had to satisfy that they were not having other places to live. However, with the rise of Shanghai's ordinary residential rent, more and more ordinary citizens tried to move in due to the relative lower rent price here. Even more, during the late period, many lower level government staff and policemen also tried to move in.

-Funding arrangement and fees

During the initial period, the funding of "Civilian residence" mostly came from the government finance. Since 1930, this funding officially belonged to the annual budget (120,000 Yuan per year). However, due to the large amount of constructions, the budget became not enough to support them. The government started to borrow the bank loan, hoping to repay the loan by gradually getting the rent. Finally, after the Anti-Japan War in 1935, the government totally lost the financing ability to afford "Civilian residence".

As to the normal operation period of "Civilian residence", the rent fee of the normal apartment there was 2 Yuan per month and 2.5 Yuan per month. But this rental system did not operate well, because of the ceaselessly escape of the rent. These escape events led to the government's fiscal deterioration.

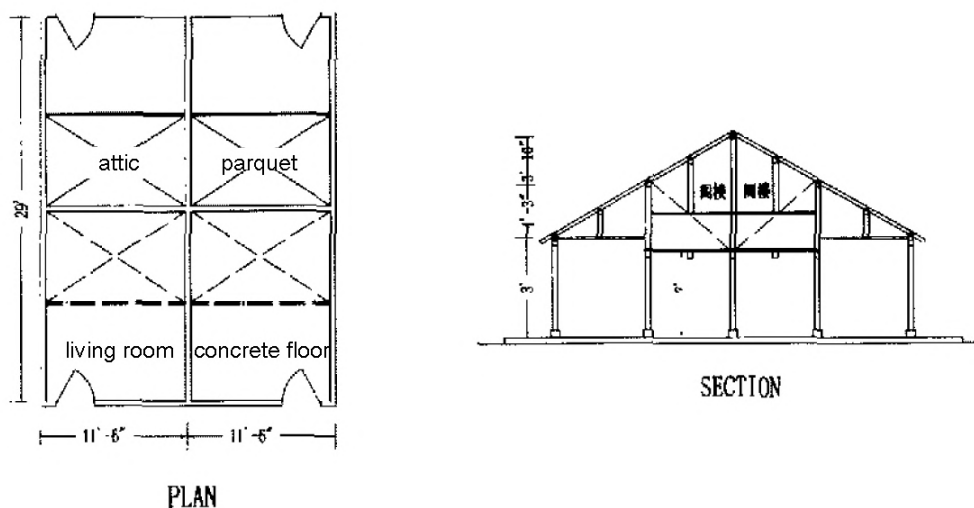


Figure 4-1 Typical plan & section of "Civilian residence" (source from (Shenglei, 2005))

-Construction process

In 1929, the first "Civilian residence" (Yangpu family temple road) started construction, completing in the same year. The second civilian

residence (Luwan xietu road) and the third one (Zhabei road) started in the second year and then completed. During this period, the totally built were 614 units, and the main type was combined line type. 6-10 units constituted one building. The main structure was brick and wood.

In 1935, the Society agency started to take charge of "Civilian residence". They continued to finance the consequence construction of "Civilian residence", until Shanghai was occupied by the Japanese military during the Second World War. After that, many "Civilian residence" were destroyed during the war.

-“Civilian communities” (1935-1931)

-Management

In 1935, the government of Shanghai enacted "22L announcement", announcing that they would collect 10 acres land for the construction of civilian residences, in order to apply for the citizens to rent. Soon after that, they found "Shanghai civilian welfare management committee", specially taking charge for the management of the construction of "Civilian communities". All the selected sites were closed to the original shantytowns.

-Beneficiaries

The built of "Civilian communities" was still serving for solving the housing problems of the shantytowns. After the completion, the main beneficiaries were the residents in the shantytowns. Due to the escape of the rent in the previous stage, in this period, the beneficiaries had to find rich families to be their guarantors. Besides, the beneficiaries had to be verified that they were not having other living places to be the precondition to live in. As the raise of the rent of the ordinary houses, some low-come officers and policemen also applied to live in.

-Funding arrangement and fees

The funding of "Civilian communities" was mainly from the social organizations. 100 million Yuan were collected during the first stage of "Civilian communities" construction. The daily repair was mainly fund by governments. After the Second World War, the government allocated 2 billions to repair parts of "Civilian communities". Besides, parts of them were fund by bank loans.

"Civilian communities" still adopted the rent mode to pay back the loans. Initially in 1935, the average rent fee was around 4.8 Yuan per month per apartment. However, during 1945-1949, there was a sever inflation in Shanghai. The price of the rent was raising dramatically during this period. Until 1946, the price had raised to 450 Yuan, compared to the initial price 4.8 Yuan, the amount of the increase was nearly 100 times. However even though, the price was still relative low compared to the ordinary houses. Due to the Civil War and some disasters, more and more refugees emerged in Shanghai. There occurred a sever shortage of the housing stocks. It appeared that, the

citizens, the officers and the refugees scrambled the residences of “Civilian communities.”



Figure 4-2 "Civilian community" in Qimei road in Shanghai (source from internet)

-Construction process

In 1935, with the collected funds, “Shanghai civilian welfare management committee” bought 163.207 acres land near “Zhongshan road”, “Qimei road”, “Damuqiao road” and “Pushan road”, those near the shantytown areas to build several “Civilian communities”. It commissioned “Xingye” Agency of Shanghai to manage all construction works. In the same year, they completed four “Civilian communities”, totally 165 buildings with 1000 units. There were 3 major types of the apartments, mostly combined line arranged. Inside the communities, there were also supporting functions like dormitories, auditorium, tearoom, bathroom, school and shops. Besides, these community functions also could serve the “Civilian residences”, those were built in the previous period.

In 1937, due to the Anti-Japan War, many “Civilian communities” were destroyed. During that period, the repair fees were mostly collected from the residents, although the governments funded some but not enough money.

Only until 1945, with the victory of the war, the government of the Republic of China started to take over Shanghai. They sent inspectors to investigate the loss of “Civilian communities” during the war. The second year, the government financed about 20 billion Yuan to repair and build more units. In the late construction period, because of the shortage of budget, the funds mostly came from the bank loans. In order to relief the financial pressure, the bank decided to sell the properties. Therefore, the Chinese welfare housing stepped into the partial ownership period, compared to the pure rental period in the previous time. Besides, in this period, the quality of the living conditions also enhanced.

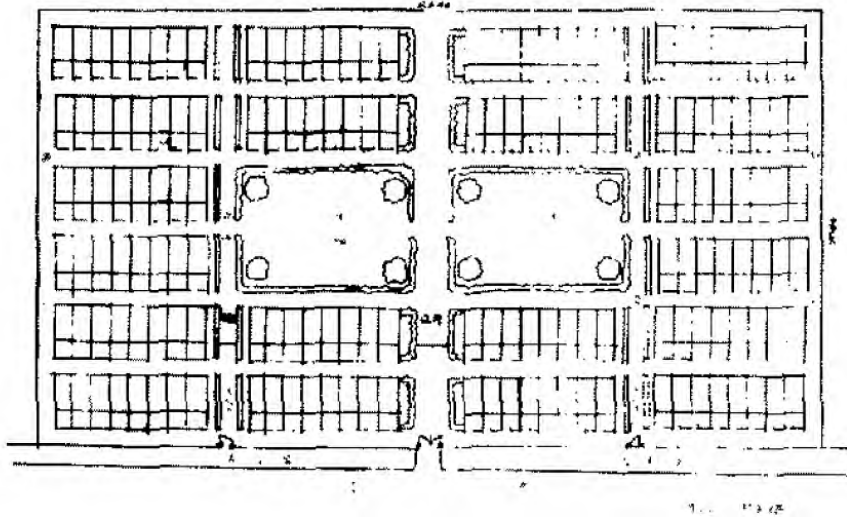


Figure 4-3 Typical master plan of "Civilian community" in Shanghai (source from (Shenglei, 2005)

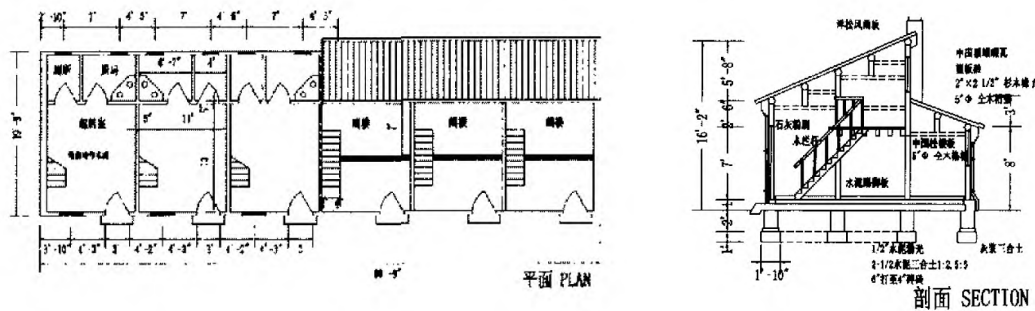


Figure 4-4 Typical plan & section of "Civilian community" in Shanghai (source from (Shenglei, 2005)

- **Effects and meanings**

Firstly, the start of the welfare housing in Shanghai is relatively late, compared to some European countries, such as Germany, which started their welfare housing as early as the middle of 18th Century. As to Shanghai, it made the first attempt in 1929. This due to its long term separated authorities. But finally, they had to take this action, because of the sever problems of the shortage of housing stocks.

But because this attempt was to serve for the emergency, without appropriate plans and precise policies, the result could not effectively to solve the chronically housing problems in Shanghai. However, this attempt achieved a great social significance, and marked the beginning of the welfare housing in Shanghai.

Besides, this attempt set the necessary agencies of the welfare housing in Shanghai. Even though at that time, these agencies could not work efficiently, but to some extent, they started to set the initial management rules and guaranteed the quality of these welfare housings.

However, the funding arrangement finally limited the progress, mainly because the funds mostly came from the government budget and the social charity donations. There was not a sustainable way to guarantee the whole system work effectively. For instants, the government and the organizations tried to get the invest money back from the rent charging, in order to make the following welfare housings. But the management system could not effectively to collect the every month's rent and lead to the chronically government deficit. Even worse is that, in the late period, more and more low-income officers and policemen tried to occupy these welfare housings, and the right of the vulnerable groups could not be guaranteed. This phenomenon intensified the social conflicts.

- **Plan and design characters**

“Civilian residence” and “Civilian communities” can be seen as the sprouts of the welfare housing in Shanghai. As to the first attempt, it was not mature enough. But we could see it as the inevitable result of the development of the city. Besides, this attempt also developed some new housing types for Shanghai.

1) The housing types of “Civilian residence” and “Civilian communities” were referenced from the public housing in Europe, and also based on the low cost factory housing technologies. The plans mainly adopted small-size type housing, which precisely adapted the city and housing situations in Shanghai at that time. These made a good starting and example for the following welfare constructions in Shanghai.

2) In order to solve the housing problems for as more as possible families, “Civilian residence” and “Civilian communities” adopted the small-size type housing. Mostly of them were one-room apartment, with the area around 5 square meters. In case there were some big families, they could apply for the consequence apartments. There were mainly three types of the welfare apartments- “A”, “B” and “C”. Initially, most apartments adopted type “C”, which relatively simple. In the later period, more and more type “A” and type “B” were adopted. The main structures of the housings were timber and bricks, with the tile-roofs. The arrangements of these apartments were mostly combined line, and single side open. But generally, the quality of these buildings was not good enough, due to the low cost building materials. Especially after the wars, most of these housings could not use for a long time.

3) The interior arrangement of these apartments was monotonous, and the separation for different functional areas was not clear enough. Except for the basic bedroom space, other ordinary living spaces were all mixed together. But at least, each of the apartment type “A” and “B” were equipped with the kitchen space and toilet space. As to the type “C”, only the kitchen space was equipped and several families had to share a public bathroom. As to the “Civilian communities”, big toilet spaces, bath spaces and laundry spaces were equipped inside the communities. In the late period, more and more

duplex apartments appeared. The bedroom was normally set on the attic, which effectively separated the sleeping space and other functional spaces. But because most Shanghai's families were big families, the attic spaces were not big enough for the number of people in families, so they normally also used the ground floor to sleep as well.

4) As to the outdoor public spaces of "Civilian residences" and "Civilian communities", were mostly the spaces between buildings, with some public buildings and green areas. Technically, it could be a bit boring. But compared to the shantytown, they were really clean and ordinary. Especially as to the "Civilian communities", the servant functions were equipped and gradually progressed, such as the auditorium, the school, the tea room, the bathroom and so on. In the later period, the communities were even equipped with the street lamp and reformed the traffic system inside.

- **Summarize**

In general, we can say that either "Civilian residences" or "Civilian communities" were standard and professional as a welfare housing. It highly enhanced the living quality of the vulnerable groups in Shanghai. Especially, in terms of the management, they made a good example and basement for the further welfare plans and constructions. But due to the limit budget, they could only satisfied the most basic living needs of the poverty families. Besides, the infrastructure and the service buildings could not achieve the standard.

4.1.2 The development stage of the welfare housing (social housing) in Shanghai (1950-1983)

During this period, the welfare housing in Shanghai entered the steady development stage. Since the found of People's Republic China, the central government and local government take charge of all areas' the constructions. The authorities confiscated all kinds of former private properties, and reformed the former public rental welfare housings. Besides, they also financed to build more welfare communities, named like "Workers' village", in order to guarantee the decent living conditions for the ordinary workers. Further more, authorities also tried to gradually perfect the welfare housing system comprehensively. However, due to the chronic historical debt, the limit strength of economy and some man-made disaster, these welfare measures did not totally solve the shortage of housing stocks in Shanghai. But at least, the welfare housing system had a great progress in this period.

- **Background**

In 1949, it was just the time of Shanghai's liberation. Due to the chronic wars, the whole society was in a great depression. There were many refugees and low-income workers became homeless.

Since the sever shortage of housing stocks, the per capita residential area is only 3.9 square meters. The government adopted many measures, like

“confiscating the former concession properties”, “confiscating the former authorities properties” and “reform the former welfare rental housings”, in order to offer as more as possible low cost rental housings for the citizens. Although through these methods could relieve some housing pressure at some extent, but the shortage of the total housing amount was still a sever problem. Therefore, the government proposed to build more welfare housings, especially to promote the low-income workers’ living conditions.

The whole construction and development process can be summarized as 3 stages:

1) The first stage-1951-1961, the socialism “Workers village”

As one of the most important industrial city in China, after the war, the new government of Shanghai took the housing issue as one of the first priority. The government offered the public property housings for workers, and only charged for a low cost rental fee. In order to solve the problem for as more as possible workers, in 1950, the government decided to construct more welfare housings for workers. From then on, many socialism “Workers village” started the construction process.

From 1951-1957, was the recovery of the economy and the “first five plan” period. The government of Shanghai focused on the constructions of “Workers village”. They expropriate 84 square kilometers land near the industrial and living area to start the construction. After that, the construction committee built other 9 residential areas in Putuo, Yangpu, Changning, Xuhui and some other industrial districts. After the year 1935, the construction projects expended to the outskirts industrial areas, like Hudong, Huxi, Hunan, Hubei and Pudong. From 1953-1956, the government had totally built 44 “Workers’ village”, 40451 units, with the building areas 3,280,000 square meters.

2) The second stage-1961-1979, the stagnation period

This period was the Chinese “second five plan” and “third five plan” period. The government only took the industrial produce as the first priority, ignored the construction of the residence and welfare residence. Also because of the three years of nature disaster, the national economy went to a very depressed period and the residence construction nearly went to stagnation. Until the end of 1963, the national economy appeared a bit recovery. Shanghai made some actions like reformation the welfare housing and promote the living conditions of the Shantytowns. However, since 1967, the “Cultural Revolution” started, the construction of Shanghai went to a comprehensive stagnation. Even though, there were a slight amount residences completed during this period, but the qualities and support service significantly decreased.

3) The third stage-1980-1986, the large-scale construction period

With the end of “Culture Revolution”, a large number of youth returned to the city to take part in the production and construction. However,

these citizens had to face a severe truth, that the living conditions in Shanghai was very bad. The per capita residential area was only 2 square meters, and the deterioration reached the lowest point during the history. The government decided to take the enhancement of the quality of the living conditions to the first priority. They adopted many measures to increase the number of the constructions and solve the prices problems. In 1980, the central government allowed the government and companies to cooperate to build the welfare housing projects. They expropriate many lands near the outskirts and near the industries. In the 1980s, there were totally 74 residence areas had been built, with the site areas 2892.36 acres. In the beginning of 1990s, 25 residential communities have been built, with the site areas 150,000 acres. These large-scale constructions have relieved the housing pressure at some extent, but the government had to face the economy pressure. Most of the investment was from the government financial budget and the pay back only came from the rental fees, which was too low to cover the financial budget. Therefore, the authorities had to decide to loose up the property, and allowed the privatization of the welfare housings.

- **Types**

During this period, there were mainly 4 types of welfare housing in Shanghai- "Workers' village" in suburb, "Workers' village" near industrial area, "Workers' village" near satellite cities and "Large-scale residential area".

- "Workers' village" in suburb (1952-1957)**

In the early period, the government of Shanghai mostly built the "Workers' village" near the urban edge. It was an attempt to solve the housing problems, especially for the workers. Besides these areas were mostly set beside the industrial area, and also provided some necessary infrastructures and service systems for the industrial area. These areas also near the downtown of Shanghai, which means they were set between the industrial area and downtown. This could both provide convenience for the residential area and also could save to budget of the construction cost.

- Funding arrangement**

For instance, in the project "one thousand and two families dwelling" workers village, the building construction cost, including the relative construction of basic infrastructure, was around 3,250,000 Yuan. All the building construction cost was afforded by the government finance budget. As to the cost of the infrastructure, was afforded by the relative industrial companies.

For instance, in the project "twenty thousand families dwelling" workers village: all the construction cost was afforded by the government finance budget.

- Beneficiaries**

As to "one thousand and two families dwelling workers village", the first beneficiaries were the workers with special technology skills, the model

workers and some mostly vulnerable families. As to “Two thousand families dwelling workers village”, the first beneficiaries were the workers working for the sponsoring industrial companies.

-Construction process

In 1951, after a series investigation, the government of Shanghai found “Putuo district construction executive committee”, which was especially responsible for the construction of the “1000 workers housing”. In 1952, these housings were completed. These housings were simple but practical, with all the necessary facilities. This project occupied 225 acres land, and built 49 two stories buildings, totally for 1002 units. Then the project changed name as “Caoyang first village”, and it was the first welfare housing after the founding of People’s Republic China.

In 1952, the government of Shanghai decided to build “two thousand families dwelling”, especially found “Shanghai workers’ residential building committee”, and approved “the plan of Shanghai workers’ residential building”. The projects developed the design of “Caoyang first village”, and perfected the public facilities. This project included 9 construction sites. In 1953, all these sites were completed. These communities included 12 schools, 7 health clinics, 15 markets and 10 public baths.

From 1953-1957, the government enlarged the scale of constructions. They opened 25 more new sites, for the workers worked in public institutions.

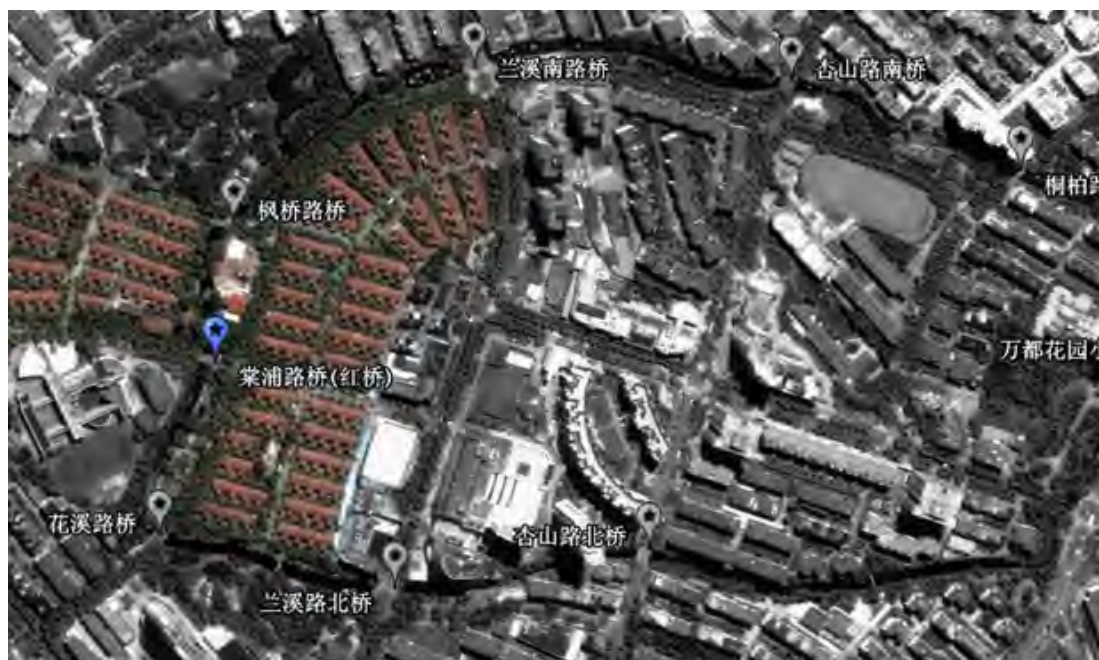


Figure 4-5 Master plan of "Caoyang first village" (source from internet)



Figure 4-6 Over view of "Caoyang first village" (source from internet)

-“Workers’ village” near industrial area (1956-1990)

This type initially emerged with the “two five plan” of China. The location was a special character of this kind of welfare housing. Because they mostly located near the industrial area, aiming to provide a short distance for the workers from the work place to their homes.

-Management

These housing projects were mostly under the government’s unified construction plans, because they belonged to the industrial areas. The scale of each community was decided by the number of workers, those needed help.

-Construction process

The governments gradually constructed the projects under the “two five plan”. There were totally 10 selected industrial areas - “Taopu”, “Pengpu”, “Caohejing”, “Beixinjing”, “Wujiaochang”, “Changqiao”, “Zhoujiadu”, “Qingningsi”, “Gaoqiao” and “Wusong”. These projects greatly enhanced the living conditions of the workers and also brought convenience for them to come to the work places.

However, most of these projects located far from the downtown. In order to satisfy the ordinary life, the government also had to invest a large number of money to build the infrastructures and the servicing facilities. These constructions cost the times and the budgets. It slowed down the development of these areas.

-“Workers’ village” near satellite cities

Since 1957, the government of Shanghai to open up several satellite towns and construct several new large-scale industrial bases. The actions were domestically first, in order to make an attempt to adapt the

development of the new technology industry and control the populations in the downtown area. In the 1960s, Shanghai gradually set "Minhang", "Wujing", "Jiading", "Anting" and "Songjiang", 6 satellite cities. These satellite cities normally had around 30 miles far from city center. Meanwhile, these cities had a good municipal and population basis. These characters were good for the development of the city construction. In order to attract the people and industrial companies to settle in these satellite cities, the quality of the public facilities and environment had enhanced, compared to the welfare housing settled near the downtown area.

-Construction process

From 1959 to 1961, Shanghai has built 8 satellite cities and their matched residential communities. Minhang Town as the first satellite city, created "a main street" mode. It means the culture institutions, the commerce, the government buildings were all set around a main street, and then, made this street a basis to expend the residential communities. These constructions adopted the neighborhood mode, and the general scale of each area was around 100,000 square meters. Besides, in each satellite cities, high quality street, transports, telecommunications and other necessary facilities were settled. There were also founded main entertainment facilities, such as sports field and museum. After that, many other satellite cities also followed this way. Until the year 1995, Shanghai had built 162 welfare residential communities in these satellite cities.



Figure 4-7 "A main street" of Minhang workers' village in Minhang satellite city (source from internet)

-“Large scale residential area” (1980-1992)

In the end of 1970s, with many educated youth returning to cities, the population of Shanghai increased dramatically. Because during the “Culture Revolution”, the building constructions left behind, the living situation in Shanghai seriously deteriorated. The government of Shanghai had to search ways to increase the living units to satisfy the living requirements of the civilians. In 1980, the government called for building residential communities with the funds from the government budget and the companies’ budget. From then on, 74 large-scale residential areas have been built and 23 old residential areas have been transformed.

There was not a unit scale of these residential areas. The scales were all decided by the amount of available lands and the requirements of the housings. Among them, the relative big area occupied around 80 acres land, with the building areas more than 1,000,000 square meters, suitable for more than 70,000 people to live in. The relative small area occupied around 30 acres land, with the building areas around 300,000 square meters, suitable for around 10,000 people to live in. Because these residential communities were much larger than the previous communities those were built in the 1960s, these communities should be divided into many sub-levels. Besides, the type of the apartments dramatically changed. Many modern types, such as strip type, spot type emerged. The stories of these buildings also increased, from 2 stories increased to 6 stories.



Figure 4-9 "Quyong New Village" residential building (source from internet)

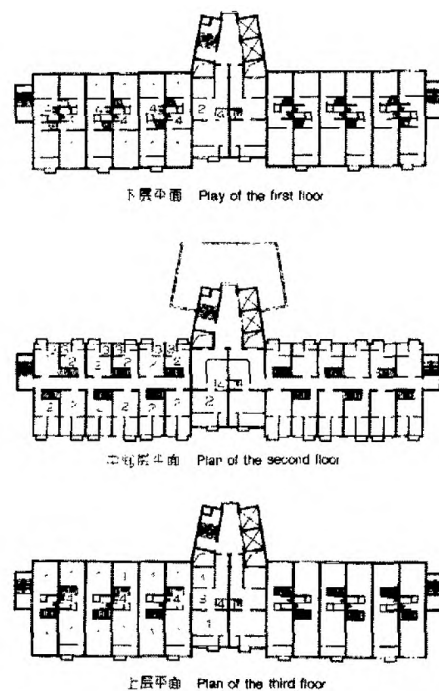


Figure 4-8 the plan of "Quyong New Village" residential building (source from (Shenglei, 2005))

-Construction process

In 1980, the government of Shanghai implemented the massive expropriation of spare lands. In the “seven five plan” period, they expropriated around 4200 acres farmland. Most of the new expropriated residential areas were on the outskirts of the city. Besides, these new large-scale residential areas tried to connect with the existing “Workers’ village”, in order to share the infrastructures and public facilities.

- **Effects and meanings**

During this period, the welfare housing in Shanghai mainly aimed to adapt to the development of the city industrial layout. They continuously expanded the industrial area and supporting residential communities, in order to seek the development space. The central area of the city continuously expanded, and relived the population pressure in the city center.

During this period, the public ownership housing system had developed a comprehensive welfare system. The public ownership housing occupied nearly 90% of the total housing stocks. Most of these were welfare housings, in order to solve the basic housing problem for the no property workers. However, due to the insufficient housing stocks, the families could not develop their living conditions after they already enjoyed a welfare housing. The entire housing system over pursuit of egalitarianism, and the individual enthusiasm could not be active. The individuals and the enterprises saw the housing construction only the responsibility of the government, and extremely lagged the economic development.

With the practices in these years, the residential construction obtained a certain progress. There were constantly new apartment types emerged. The design standards continuously improved. The space division became more clear and reasonable, and the unit areas also increased. However, compared to the international level, the apartment types still remained in a relatively low level.

- **Plan and design characters**

During these 30 years practices, the design of welfare housing have progressed in both plan arrangement and technology.

- 1) The new apartment types highlighted the economic and practical characters. They increased the unit areas compared to the previous apartment types. The spaces were divided more reasonable, and the servant spaces like bathroom and kitchen were more sufficient divided. Also, the combining design of the plan space started to emerge.

- 2) The standard plan of buildings also developed. From the public kitchen and bathroom to the private ones. Also they were better to satisfy the ventilation and sunshine requirements.

- 3) Large welfare housings promoted Shanghai’s residential constructions and technology. Welfare housings became a practice place of the new material and technologies. The stories of the buildings increased and

more and more new housing types emerged, like the strip housing, the pot housing and etc.

4) However, with these improvements, the government and planners ignored the importance of the environment. In the previous practices, there were many types of community plans to satisfy the residents' ordinary life and also paid attention to the green spaces. But since the starting of the large-scale residential communities, the government and the planners only focused on the quantities and the efficiency, and ignored the humanity design.

5) The government did not pay much attention on the municipal facilities of the welfare housing communities. These led to the existing municipal network overloaded, could not satisfy the construction speed. Especially behaved on the water supply, power supply and the garbage dealing capacity.

- **Summarize**

In this period, all the welfare-housing types were under the control of the government, through a unified investment, unified planning, unified design, unified construction, unified distribution and unified management. This mode was good adapt the weak economic situation in China at that time, and obtained some achievements. These welfare housing guaranteed the civilians' living rights and living conditions, solved the basic housing problems at some extent.

However, due to the chronic single government investment and low rent recovery, the profit abilities of the real estate market had been seriously influenced. Also the highly centralized management and highly public of the properties lagged the activity of the individuals. Then it essentially slowed down the economic development of China and also slowed down the improvement of the individual living conditions.

4.1.3 The reconstruction stage of the welfare housing (social housing) in Shanghai (1984-1999)

During this period, the Shanghai's welfare housing policy was in an adjustment and reformation stage. Due to the sever shortage of the total amount of housing stocks, the government finance could not support the large investment. The government gradually abandoned the original public ownership housing system and turned to the market-leading mode. The residential constructions gradually relied on the property developers. After then, the commodity residences developed in Shanghai. Meanwhile, the welfare housing system constantly remained on the adjustment period, developed slowly.

- **Background**

In the beginning of 1980s, due to the lack of construction funds and the huge housing maintenance costs, the government of Shanghai started to adjust the housing finance system and the corresponding allocation

mechanism. Firstly, the government encouraged the enterprises to participate in the residential construction. They opened the limitation and allowed the enterprises to collect money to solve the housing problems of their own employees. So, the enterprises and the individuals could enjoy parts of the properties. From 1982 to 1986, there appeared a variety of cooperative housing projects, including the transformation of some old residential communities. Besides, the individuals were allowed to purchase some cooperative apartments from the enterprises and governments with a discount price. Although, in this period, the main projects were still large-scale welfare housings, but the commercial housing started to be accepted by the civilians and be welcomed. In order to improve the living conditions, some high-income social groups started to purchase the commercial housings and also took part in the investment.

In the middle of 1980s, Shanghai started to vigorously promote the construction of commercial residences, and gradually formed the market. This was Shanghai's first time of residential reform. They converted the originally government financed large-scale residential communities to the commerce, and encouraged the individuals to purchase them, in order to relieve the government finance pressure. Meanwhile, the welfare housing started to focus on the extreme vulnerable social groups inside of the ordinary workers in the previous periods. For example, the new marriage couples without living places and the low-income workers could not afford the commercial housings.

In 1992, the government of Shanghai started the second time of reformation of housing system. The government gradually abandoned the original management and allocation system, and left the market to solve the housing shortage problem. The implementation of "The reformation of Shanghai's housing system" was a sign that the welfare housing started to convert to the market from the government. The new type of welfare housing construction was halted and the government rapid the speed of property privatization. The civilians could buy the welfare housings those they have already rented for many years in a price much lower than the commercial price. Even though, in this period, some welfare housing projects were also built, but due to the small scale, they made little effects. Until 1990, the new residential areas in Shanghai were 15,320,000 square meters, including 12,290,000 square meters were commercial housings, accounting for 80.2%. This indicated that the proportion of the welfare residences in Shanghai dramatically decreased and did not play a leading role any more. (Linlin, 2006)

- **Types**

In the housing system reformation period, Shanghai also launched a lot of experimental welfare housing policies and measures. These policies and measures were focusing on the social issues at that time and targeted to launch the corresponding solutions, such as "Cooperative residences",

“Yuanyang residences”, “settle down residences”, “Parity residences” and “Old residences transformation”.

Besides, in this period, the welfare housings were target to the most vulnerable and removal and relocation families. Even though the welfare housing only guaranteed much smaller groups compared with the previous periods, but the welfare housings were designed more targeted.

-“Cooperative residences” (1983-1989)

In 1980, after the residential construction work conference, the government of Shanghai speeded up the transformation of the shanty, simple and crude residences. They also tried to absorb some social financial supporting. In 1982, the construction office of Putuo district cooperated with Road and Traffic Authorities to remove and relocate 5 families in the poor areas, dismantling 186 square meters simple and crude housings. Based on the dismantled site, they financed to rebuilt more than 780 square meters residences.

-Management

Under the organization and leadership of the district construction departments, financing by enterprises, Shanghai transformed many shantytowns and old residences. Then sold to individuals as private residence in a subsidies price.

-Beneficiaries

The beneficiaries were the original owners, and the employees those working in the financing enterprises.

-Funding arrangement

The government invested to build the public spaces, the public green spaces, the serving facilities and the basic infrastructures of “Cooperative residences”. The enterprises invested to build the buildings, including the fee of the constructions and the materials. After the completion, these buildings were sold according to the actual construction cost price. They were sold to the employees of the invested enterprises, and the individuals only had to afford 60% of the price. The rest fees were afforded by the enterprises. As to the fees those the individuals should pay, they could be paid by stages and the period could last for 5 years. After the purchase, the ownership of the residences belonged to private individuals. Besides, three years property taxes were exempt by this welfare.

-“Yuanyang residences” (1982-1985)

“Yuanyang residences” were rental apartments for new married couples. Because during the year 1983-1985, the governments concerned the new marriage couples could not afford new wedding apartments and in order to relieve the social conflicts, they decide to build some residences specially provide for the new wedding couples to temporally solve the housing problems. Once the couples could get the welfare housings from their

enterprises, they should move out and the apartment would turn to the new wedding couples.

Mostly the government financed this kind of welfare housing. The rent was a bit higher than the normal welfare housing. The rent period for the new couple was 1 or 2 years. If exceed this period, the rent had to increase 50%.

In 1983, Putuo district completed 132 apartments in “Yuanyang residences”. The area of each apartment was 23.87 square meters.

This implementation initially solved a part of the new couples the urgent need of wedding housing problems. However, due to the shortage of housing stocks in Shanghai, some enterprises did not allocate the new welfare housings to the couple those already lived in “Yuanyang residence”. This led to the result that there were not return back of the apartments. The circulation could not be continuous. Besides, the apartments were to small to sell as commercial apartments. So from then on, the government did not continue to build this kind of residence.



Figure 4-10 Exterior scene of "Yuanyang residence" (source from internet)

-“Settle down residences”(1995-1999)

This type residence is a kind of commercial housing with the welfare characters. The funds of the housings were from the central government, the local government and the bank loans. After completion, the housings were

sold at the construction cost price. The target families were the low-income families without housings. The high-income families could not participate in.

-Funding arrangement

The funds were from government, enterprises and individuals. In other word is the government and enterprises invest to construct the residences and the individuals pay the construction cost to buy them, without profit. Besides, there were also some exemptions of the taxes. After the purchase, the individuals could resale them.

-Beneficiaries

The beneficiaries should be the employees in the financed enterprises. Besides, they should be the low-income employees without other properties.

-Construction process

In Shanghai, "settle down residences" should consistent with the "residential construction design standards". The area of each apartment should be controlled below 55 square meters. The arrangement should be mostly 2 bedrooms, and the percentage of 2 bedroom apartments should be more then 60%. The others could be one bedroom apartments and 3 bedroom apartments. The original plan of the construction aimed to arrange 74,600 people those living situations were below per capita areas under 4 square meters. Then, only from 1995 to 1997, they nearly achieved this goal, and gradually combined with the ordinary commercial residences.

In 1995, the central government invested 3 hundred million Yuan. The government of Shanghai invested 4.5 hundred million Yuan and allocated some sites to construct "Settle down residences". During this period, 550,000 square meters "Settle down residences" were built. "Luoshan", "Gumei", "Meilong", "Sanquan", "Zhenguang", "Yongqing", "Xiangshan", "Qihe" and "Qingjian", these 9 sites were "Settle down residences" centralized areas.

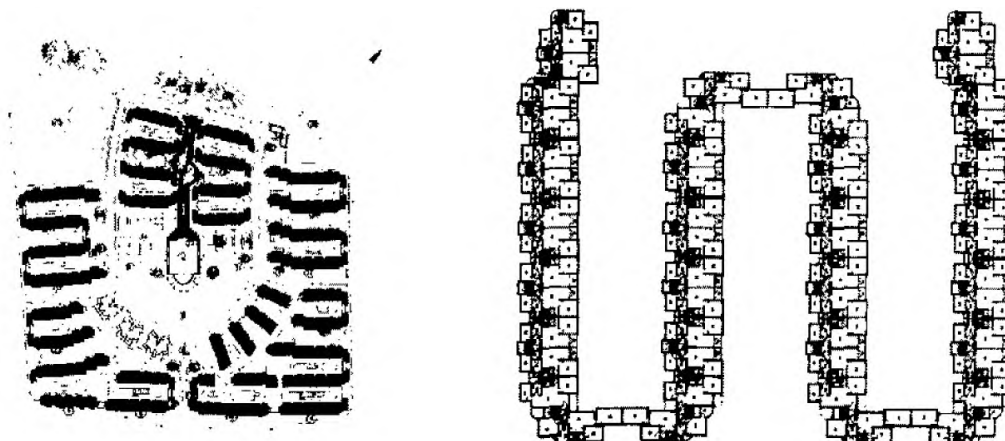


Figure 4-11 "Sanlinyuan" master plan and standard plan (source from (Shenglei, 2005))

-“Parity residences” (1995-1999)

According to the “nine five plan”, the welfare housings in this period were aim to solve the housing problems of the middle and low-income families. The central and local governments were responsible of construction. The housings could only be sold to the middle and low-income families those satisfied a certain standard, and the price were only the construction cost price.

-Beneficiaries

Initially, the authorities set a standard to sell the housings to middle and low-income families those could achieve this standard. Later, due to the difficulty of selling, they enlarged the target groups to the ordinary civilians.

-Construction process

In 1995, the government of Shanghai started to build “Parity residences”. They cooperated with real estate development companies to progress these constructions.

In 1996, the parity housing sales center was established, responsible for the unified sales of “Parity residences”.

In 1997, 250,000 square meters’ “Parity residences” were completed.

However, the extension of “Parity residences” was not successful. Because during that period, the commercial residences were constructed following a relative lower standard, they were sold at a relative lower price. Compared to that, the “Parity residences” had a relative higher standard, which led to the higher construction cost prices. These prices sometimes were even higher than the commercial residences. Besides, the location of “Parity residences” were always more remote to the city center, which were not acceptable for the ordinary civilians. So, since 1999, the government of Shanghai stopped the implementation of “Parity residences”.

• Effects and meanings

During this period, as the socialist economic system reformation gradually proceeding, the residences gradually opened to the commercial market. The Chinese housing system dramatically privatized. The government’s responsibility of the welfare housing gradually fade out. Their focus turned to the vulnerable groups instead of the ordinary workers as before. These actions solved the economy shortage in a short period, and stimulated the economic growth.

The government’s action of selling the public housing at a discount price, on one hand, it seeped the withdraw from circulation of funds, which could promote the city development, on the other hand, it solved the chronic public housings’ low rent, which had led to the government deficit. After the economic relief, the government could invest more money to the extreme vulnerable families. The apartment types of the welfare housing became more targeted.

The management roles separated between the government and the enterprises. The government did not take charge of the construction of the welfare housings. Meanwhile, the commercial residences increased dramatically and obtained excellent economic profits. But, there also emerged a series of cutthroat competitions, like Jerry-built, duplication of investment, serious waste of resources and so on. These could be seen as an inevitable phenomenon under the profit stimulation. Especially, during the Asian financial crisis hit, the overheating housing market stagnation appeared, and this led to related industries backward, seriously affecting the city's healthy development. Meanwhile, the welfare housing in this period, all had some characters of commercial housings, so they could not truly solve the housing problem of the low-income families. These shortages of the market regulated welfare housing policies and implementations made the government realized that the welfare housing policies and implementations could not mostly rely on the market regulation.

- **Plan and design characters**

1) With the development of commercial residences, the design standards of welfare housings also greatly changed. Because, at that time, many commercial housings and welfare housings were built on the same site and were constructed by the same property developers (because some welfare housings were the commercial housings bought by the government), the qualities of welfare housing also increased with the commercial housings. These increase could specifically performed from the layout of the units. The areas of the units were increased and the separations of the living space give more consideration to the need of people. The new welfare housing still gave priority to the 2 bedrooms apartment type, the area of the unit was normally 50-70 square meters. In the later period, the living room gradually became the major space instead of the bedroom. Besides, the servant spaces also progressed, such as kitchen and bathroom.

2) After the residential space independent division, the space combination between different spaces, such as the bedroom, living room, kitchen and bathroom became the important issue in Shanghai's welfare housing design. The government of Shanghai organized many competitions to stimulation the innovation of the apartment types. Also as the development of the technology, more and more standards of high-rise residences emerged.

3) Following the steps of the commercial residences, the welfare housings in Shanghai also started to pay attention to the constructions of the public facilities and the infrastructures. The commercial network's layout became more reasonable. The numbers of other facilities such as health, education, culture and sports were also decided depend on the number of population and the surrounding demands. The layout of the residential communities also achieved some innovation. They no longer only followed

the traditional type, and some high-rise buildings emerged. Besides, the green spaces' design was more concerned.

- **Summarize**

During this period, the government of Shanghai paid more attention on the economic development and speeded the housing privatization. Instead of large-scale constructions of welfare housings, they built more commercial housings. So, the housing policies, implementations, housing design and technology development in this period were more based on the demand of the commercial housings' design. The welfare housing system nearly had no progress. However, as the dramatically development of the commercial housings, the design and practice of residences in Shanghai achieved a big improvement. This could be seen as a solid base of the progress of social housing in the following period.

Besides, the beneficiaries of welfare housings in Shanghai dramatically changed. Before, the welfare housing mostly target on the ordinary workers, those got low payment every moth. However with the economic reformation, the economy of Shanghai soared, so that the ordinary workers started to get better payment. They could afford the commercial housings. So the beneficiaries of welfare housings turned to the extremely vulnerable groups. With this change, the welfare housing system could concerned more about the demand of the vulnerable groups and design more reasonable types of apartments.

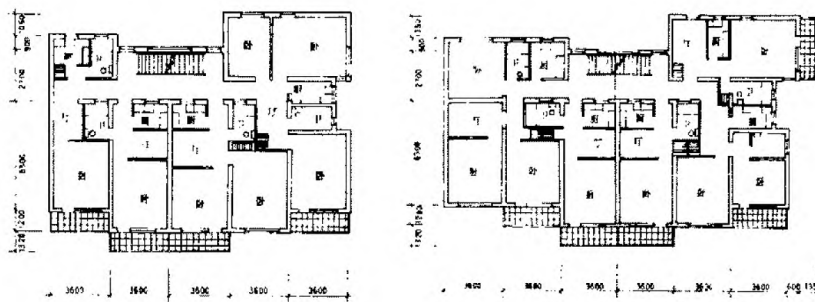


Figure 4-12 Typical parity residences standard floor-1 (source from (Shenglei, 2005))

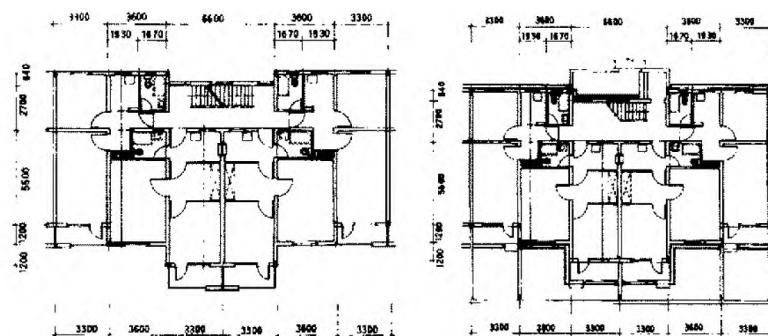


Figure 4-13 Typical parity residences standard floor-2 (source from (Shenglei, 2005))

4.1.4 The new stage of the welfare housing (social housing) in Shanghai (2000-2005)

During this period, the welfare housing in Shanghai gained new opportunities of development. With the free housing market economy, the living conditions in low-income families could not develop because of the housing structure and the distribution of wealth. In order to solve this problem, the government of Shanghai made many policies and implementations, hoping to testify and development the welfare housing system.

- **Background**

Since 2000, the housing market of Shanghai gradually got rid of the shadow of Asian financial crisis of 1998-2000. Residential construction investment, the amount of commercial housing construction, the amount of housing transaction and the housing prices were beginning to rebound quickly. So far, the second time reformation of the Shanghai's housing system had nearly completed, and the most of the public housings had privatized. But after this financial crisis, many new social housing problems started being exposed.

The most obvious problem was the housing prices increased too fast. Previously, Shanghai insisted the low-rent public housing mode, which led to the sever shortage of the construction fees. As the housing market opening, the housing price gradually regressed according to the market demand. However, because the civilians in Shanghai had a great need to develop their living conditions and also because there were more and more immigrants from countryside and other cities coming to Shanghai to search job opportunities, the housing demand in Shanghai dramatically increased. As the demand far greater than the supply situation, accompanying with some speculations, the housing prices increased rapidly to the highest of China. According to the Shanghai's property market statistics, Shanghai's average housing prices from 3082 Yuan per square meter in 2000, raises to 6385 Yuan per square meter in 2004. The balance between the property prices and the ordinary Shanghai citizens' monthly income were broken. The prices increasing also drove up the prices of the low-end housing and rental housing. This phenomenon led to the commercial housings in Shanghai more and more unaffordable. Meanwhile, the construction cost of the welfare housing also had increased. This made more pressure on the government budget.

Secondly, the constitution of the market-oriented housing was not appropriate. Affected by market factors, the new commercial housings gradually gave priority to the large-scale apartment and luxury residential. The apartments and residences those more suitable to the ordinary and low-income families only took a small proportion on the residential market. The market supply could not meet the market supply.

Thirdly, from the view of the profit and the sales, the commercial housing always occupied the areas near the convenient infrastructures and public facilities. This led to the over centralized of the residential development. Furthermore, this enhanced of the construction costs, broke the balance of the development of urban area and suburb area, and piled the pressure on the city development. Due to some historical reasons, the vulnerable groups in Shanghai mostly lived in the old town in the city center. These areas were the blond spots of the city development and the gold spots of the city. The development of Shanghai had to remove these social groups to the further areas. The original living areas of these families would eventually disappeared and they would face sever living challenges and problems.

Fourthly, it was very hard to carry on the welfare housing implementations. Even though in the history, the government of Shanghai had implemented many kinds of temporary policies and projects to relieve the housing pressure, but without an appropriate welfare housing system, these implementations always could not gain an effective result.

- **Types**

During this period, the welfare housing policies in Shanghai included 5 types: "Low-cost rental housing policy", "Rent discount or exemption public housing policy", "Removal and relocation guarantee policy", "The purchase loan for middle and low-income families policy" and "Transformation of old housings policy". These new measures were aimed to different housing difficult families. For the low per capita housing area and low-income families, the government mainly implemented the "Low-cost rental housing policy"; for the still renting the public housing families, mainly implemented the "Rent discount or exemption public housing policy"; for the family with some economic basis and would like to improve their living situations, mainly implemented "The purchase loan for middle and low-income families policy", for the families living had to move due to the city constructions, mainly implemented "Removal and relocation policy"; for the low-income families living in the old residences, mainly implemented "Transformation of old housings policy".

So, following these five policies, during this period, there were mainly five types of welfare housings respectively: "Low-rental housing", "Low-rental public housing", "Removal and relocation assuring housing", "Loan subsidize housing" and "Transformed old housing".

- "Low-rental housing" (1998-now)**

With the Chinese economic reform, there emerged some extreme vulnerable groups with difficult living conditions. The per capita housing spaces were much below the Shanghai's lowest per capita standards. They could not take part in the public housing allocations the Shanghai's

government implemented in the previous period, and as the economic soar of Shanghai, their situations were becoming even worse.

According to this special phenomenon, and referencing to related practices all over the world, especially the Hong Kong region, in 1998, the government of Shanghai started to research on the new welfare housing system. After a series study, finally they carried out the proposal of “Low-rental housing”.

-Funding arrangement

The funds were mainly from the government, and the implementation followed the principle- “Mainly rental housing financial subsidies, assisting material subsidies.” This means the government financially subsidized the tenants, and encouraged them to find the housing suitable for them in the private rental market. The government stopped investing money to construct housings. They also set some standards of the subsidized rental apartments, in terms of the rental fees and rental areas, and if the tenants would like to choose apartments those exceeding the standards, they should pay the money of the exceeding parts. As assisting, the government also allocated some housings as “low-rental housing” welfare housings. The beneficiaries could choose the housings from these specified housings.

-Beneficiaries

The Shanghai’s local families (which means the families should be the Shanghai’s registered permanent residence) satisfied “Double idle”: The families income should below the guarantee line and had accepted the government’s subsidy for more than 6 months; the average per capita living areas were below 5 square meters; at least one people in this family obtained the registered permanent residence for more than 5 years; the family members had the legal relationships.

-Implementation

The “low-rental housing” adopted an open system, including all the progress of the project: the target beneficiaries, the financial statements and the results. In the specific operating process, “Low-rental housing” learned from the previous welfare housing problems- “covering too wide groups”, so started to shrink the benefiting groups. The applicants had to satisfied a series of standards, with the public supervision. If the family per capita income during two consecutive years exceeded the minimum living guarantee standards, the government had to stop the rental subsidies.

-“Rent discount or exemption public housing policy” (1993-2005)

Rent reduction and rent exemption were actually started from 1993. For the still rent public housing families, the government of Shanghai gradually improve the rent policies.

-Beneficiaries

There four types families could enjoy this policy: 1) the public housing rent expenditures exceed 9% of monthly family income. The exceeding part

could enjoy the reduction or exemption. 2) The retired high level officers, and the spouses of the passed retired high level officers could enjoy this benefit; 3) The martyr's family member, sacrificed for military families and etc. could enjoy this benefit; 4) the government confirmed extreme vulnerable families could enjoy this benefit.

-Implementation process

1) For the families those still living in the original public housings and should spend more than 9% of their monthly income for the rent fees, they have to take the residence booklet to apply for the benefit. Then applicants had to be the registered permanent citizens of Shanghai. They had to fill in the "Public housing rent relief of the examination table". After the submission, they had to wait until the relevant department approved their applications.

2) For the retired high-level officers, and the spouses of the passed retired high-level officers, they had to apply for this benefit with their residence booklet. They had to fill in the form "the application table of the retired cadres", and wait until the relevant department approved their applications.

3) For the martyr's family member and the sacrificed for military's family member. They had to apply for this benefit with their residence booklet and fill in the form "the application table for the martyrs" and apply with their residence booklet. They had to wait until the relevant department approved their applications.

-The low cost commercial housings in the large-scale constructions (2002-Now)

From 1997 to 1999, influenced by the Asian economic crisis, the Shanghai's property market generally downturned. In order to increase the market demand and promote the healthy development of the property market, the government of Shanghai decided to adopt the financing support of removal and relocation projects. This means, in order to construct some large-scale construction projects in the city center, the government had to remove and rearrange the original residents in these areas. Normally, they financially subsidized these citizens with the prices equal the commercial market prices. The removal residents could use the money to relocate themselves in the free property markets. This policy left the free spaces for the residents to freely choose the place they would like to live and also encouraged the development of the property markets. However, since 2000, for the innovation of the old city center of Shanghai and for the development of the city, the government of Shanghai processed a large amount of big-scale constructions. Each projects needed to remove a great number of residents. As the increasing prices of the property, more and more families could not find suitable places after their removal with the government's subsidies.

According to his situation, the government of Shanghai launched a supporting commercial housing policy. This policy aimed to construct some

residences as constructing the large-scale projects, in order to solve the housing problems of the removal and relation families.



Figure 4-14 The master plan of "Minhang Pujiang" large-scale project supporting residence (source from internet)

-Funding arrangement

The priority of this policy is to control the construction cost. In order to achieve this, the government had to take a series methods, like to control the land prices, partly reduce the administrative costs, and to control the residential developers profit.

The first step was to control the land cost. The prices among different lands were very obvious in Shanghai. The lands in the suburb area were much lower than the city center. Therefore, most welfare housings in Shanghai were located in the suburb areas. Besides, the government also offered some benefit to the lands in this areas, like discounts of the transfer fees with 30%-100% off.

The second step was to control the construction cost. When the governments made public project bidding, they set a limit of the maximum price. Meanwhile, the governments also offered some benefits to the developers, such as the reduction and exemption of the taxes. Besides, they also promised a purchase supporting for the developers. These measures on one hand guaranteed the citizens' living conditions and on the other hand, helped the developers to reduce the risk.

The third step was to control the sale price of the commercial housings. Considering the constitution of the low-income families and their purchase

abilities, the apartment types were better to be small or middle types. The areas were better to be controlled like 50, 70, 90 square meters. Besides, the construction speed also should be enhanced. The completion time should be under 12-15 months.



Figure 4-15 The bird view of "Minhang Pujiang" large-scale project supporting residence (source from internet)

Lastly was to control the profit of the developers. The profits of the developers were better to be under 200 Yuan. But the government would offer some benefits like pre-sale, helping developers to speed the funding rotation rates.

-Beneficiaries

The residents those lived in the site of the important construction projects had the priority to get the relocated welfare housings. Besides, these residents should not have other housings.

-Implementation process

The number of welfare housings with the large-scale projects should be calculated precisely before the construction. The calculation should be based on the proportion of the relocated residents. All the residents those satisfied to require for the welfare housings could apply for the relation departments. After the approval, the residents could purchase the welfare housings with the permission.

With the purchase permission, each family could only buy one set of commercial housing. All the supporting apartments should be strictly controlled to be small and middle size apartments. Besides, according to the number of the family members, the types of purchase were also limited. For instants, if the family members were 2, the apartment areas should be below

50 square meters; if the family members were 3-4, the apartment areas should be below 70 square meters; only if the family members were 5 or more than 5, the apartment areas could be 90 square meters. Furthermore, after the purchases, the residents should not resale them within 5 years.

- **Policy characters**

1) The new policies like “low-rent housing” changed the traditional welfare housings’ limitation. There remained only a little amount of physical housings, and others nearly all changed to the financial supporting. This provided the opportunities for different vulnerable families to develop their living conditions. Meanwhile, these measures greatly relieved the pressure of government.

2) The new policies relieved the pressure of the enterprises, in order to make the welfare housing system more clear and transparent. The welfare housing policies and implementations more relied on the free housing market.

3) The new types of the welfare housings mainly followed the arrangement of commercial housings. But they had an area limitation, like most of the apartments were designed as small or middle size. Mostly were controlled under 50, 70, 90 square meters, depending on the size of the family.

4) The new welfare measures, started to solve the housing problem not only from the building point of view, but more relying on the market. But the government used some macroeconomic regulations to adjust the balance between supply and demand. For instance, the supporting residences with the large-scale constructions were high standards, less profit, strict, high competitive. So most developers would not like to take part in the constructions. Due to these situations, the government provide some benefits on these project, such as giving reductions on the taxes, declining the land prices and so on, in order to stimulate the developers to take part in.

- **Summarize**

During this period, the government of Shanghai started to concern again about the construction of welfare housings, compared to the initial stage of the Chinese economic reformation. But they stopped to allocate a great amount of the financial budget on welfare housings, and still gave the first priority on the economic development, in another word- the commercial housing market. In order to make a balance between the citizens’ living conditions and the demand of developing the economy, the government of Shanghai started to reform the welfare policies and implementations to satisfy the welfare need and relieve the social conflict. They tried to use the free commercial market to support the welfare housings, and made welfare housings to follow the developing steps of the commercial housings. Besides, they hoped to only through the macro-control to develop the welfare housings supporting by the commercial housing profit. These measures could not effectively stimulate the developers to invest money on the welfare housings and could not encourage the society to pay enough attention on it.

Even though, as the concept of design of welfare housings had developed following the commercial housings, but as an independent concept and type of housings, especially as a part of social welfare, the welfare housings still remain on an immature level.

4.2 The current social housing policy of Shanghai (2006-Now)

4.2.1 The category of current social housing in Shanghai

Nowadays, the welfare housing system in Shanghai mainly includes four types of welfare housing: “Low-rental housing”, “Public-rental housing”, “Economic housing” and “Removal and relocation housing”. Among these, the “Low-rental housing” and “Public-rental housing” belong to the rental housing area, which means, the properties of these housings are public; the “Economic housing” and “Removal and relocation housing” belong to ownership subsidized housing, which means the properties of these housings are private.

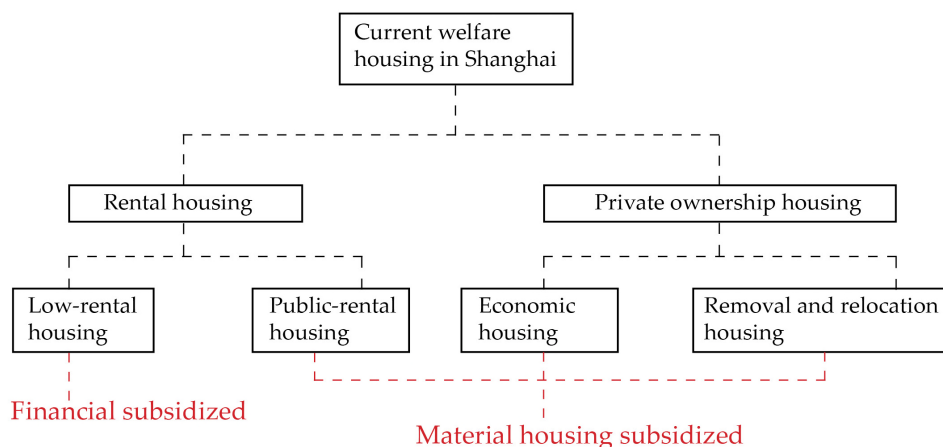


Figure 4-16 Current welfare housing system structure (made by authors)

- **“Low-rental housing”**

“Low-rental housing” is a new concept welfare housing. Most of the “rental-housing” do not have the real physical housings, instead, it is a kind of social subsidize. The government offers subsidize for the low-income families and encourage them to find rental housing in the free market. Beside, there are amount of physical housings provider by the government for the low-income families. Most of them are from the old public housings in the previous welfare-housing period (1980s).

-Tenures

The tenures of “Low-rental housing” are private or public ownership. If the rental housing is from the free market, the tenure belongs to the owner. If the rental housing is from the government rental housing, the tenure belongs to government.

-Providers

The financial provider of “Low-rental housing” is the government of Shanghai. The physical housings are partly from the free market, and partly from the original public housings.

-Beneficiaries

The applicants of “Low-rental housing” should satisfy these conditions:

1) The applicants should have the resident accounts of Shanghai for at least 3 years, and have to actually live in Shanghai for at least 1 year.

2) The family members should have the legal relationships, and have to live together.

3) The per capita living area of the applicants’ families should below 7 square meters.

4) The family with 3 members or above, the per capita annual disposable income should be below 25200 Yuan (3670Euro), and the per capita property should be below 80000 Yuan (11650Euro); the family with 2 members or below, the per capita annual disposable income should be below 27720 Yuan (4036Euro), and the per capita property should be below 88000 Yuan (12815Euro).

-Funding arrangement

1) Financial subsidy

There are three kinds of financial subsidy: 100% subsidized rental housing, 70% subsidized rental housing and 50% subsidized rental housing. They vary due to the economic situation of the low-income families.

For instance, the family with the members 3 or above, per capita annual disposable income lower than 14400 Yuan (2097Euro), or the family with the members 2 or below, per capita annual disposable income lower than 15840 Yuan (2305Euro), the subsidy would be 86 Yuan (12.5Euro) per area per month in the inner city districts, and 46 Yuan (6.7Euro) in the outer city districts. This kind of subsidy is 100% subsidized rental housing. Consequently, the applicants with better economic situations could get 70% subsidized rental housing and 50% subsidized rental housing.

2) Physical housings subsidy

The applicants could also choose the original public welfare housings as the low-rental housings. The areas of the apartments vary due to the economic situation of the low-income families. The applicants could buy the property of the public housings after renting for at least one year. The property of these housings will be the same as “Economic housing”, which means the property is private ownership but with some limitations.

- **“Public rental housing”**

The “Public rental housing” is a kind of welfare housing, aiming to solve the temporary housing problems of the young people and special contribution populations. The welfare type of this kind of housing is rental. The sources of this housing include the public housing of government and the public housing of enterprises.

-Tenures

The tenures of “Public rental housing” belong to the governments or enterprises. It is public ownership housing.

-Providers

The providers of “Public rental housing” is government or enterprises. They invested money on the construction of these housings.

-Beneficiaries

The applicants of “Public rental housing” could be single persons or families, and should satisfy these conditions:

- 1) The applicants should have the resident accounts and have paid the social insurance for 1 year.
- 2) The applicants should be employees in Shanghai and have the official contracts.
- 3) The applicants should not have other housing properties in Shanghai or have the housings per capita living areas less than 15 square meters.
- 4) The applicants could not enjoy other type of welfare housings at the same time.

-Funding management

In general, the longest public rental housing lease for a period of 5 years. When arriving at the expiration of the contract, the family should withdraw from housing. If the family needs to renew the contract, they have to apply for it in 3 month in advance. The agent of the property should recheck their qualification and then renew the contract. If the contract expired but the families could not withdraw immediately, there would be additional two months for them to withdraw. If after the two months, they still could not withdraw, they have to pay the rent as the free market price, and be recorded in the archive. This record will influence the future application of the welfare housings.

• **“Economic housing”**

Economic housing is a kind of ordinary housing specially constructed for the low-income families. These housings are organized and constructed by the government and reduced parts of the taxes, so the costs of construction are always lower than the ordinary commercial housings. The properties of these housings are belonged to the buyers. But due to these housings are also belonged to the welfare housings, so the properties of these housings have some limitation. For instants, these housings have a restricted trading period, which means the owners could not resale them during a limited period.

Besides, they have to pay a land revenue payment when they trade them. Additionally, these housings could not be used for rent and could not be used as mortgage.

-Tenures

The tenures of “Economic housing” are private ownership. The property belongs to the buyer but with some limitations:

- 1) It has a restricted trading period (5-10 years).
- 2) The owner has to pay a land revenue payment when they resale it.
- 3) It could not be used for rent.
- 4) It could not be used for mortgage.

-Providers

The providers are mainly the central and local governments, assisted by some giant developers.

-Beneficiaries

The applicants for “Economic housing” should satisfy these conditions:

- 1) The applicants have to have the Shanghai’s resident accounts for over 3 years, and actually live in Shanghai.
- 2) The per capita of the family members should below 15 square meters.
- 3) The families with 3 or above members, the family average annual disposable income has to below 60000 Yuan (8680Euro), the per capita property is less than 150,000 Yuan (21,843Euro); the families with 2 or less members, the family average annual disposable income has to below 72000 Yuan (10485Euro), the per capita property is less than (26,212Euro).
- 4) The family members, 5 years before applying “Economic housing” had not occurred housing sale and gift. But the gifting behavior between family members is not included.
- 5) If the applicants are single, they should be above 28 years old (for men) and above 25 years old (for women).

-Funding arrangement

Normally, the “Economic housing” is funded by government, and assisted by the private developers.

For the “Economic housing” constructed by the real estate developers, the government exempts the land transferring fees and related ancillary costs (only these two items account for 13% of the prices). For the other fees, there are also some discounts and exemptions. Meanwhile, for the sale process, there are limitation of the sale price, purchase qualifications and profit of developers.

The price of “Economic housing” constitutes four parts:

- 1) The land cost and the removal compensation cost
- 2) Review and preliminary engineering design fees
- 3) Residential areas of infrastructure construction fees
- 4) Construction costs
- 5) Management fees

- 6) Loan interest
- 7) Taxes
- 8) Profit (below 3%)

- **“Removal and relocation housing”**

“Removal and relocation housing” is specially built by the government for the residents those have to remove from their original living space due to the government’s important city constructions. These original living spaces includes the original city residential areas those have to change to be other functions and the original farmlands those have to transfer to the building sites. As the rapid speed of the urbanization, in Shanghai, there are a great amount of residents and farmers need to be relocated.

There are two types of “Removal and relocation housing”:

1) The first type is the low price commercial housing, constructing for the removal residents or famers due to the government’s important city constructions. For instance, the expo sites on the both sites of “Huangpu River”.

2) The second type is the low price commercial housing, constructing for the removal residents due to the private real estate providers.

-Tenures

The tenures of “Removal and relocation housing” belong to private ownership. The buyers have the property of the housings. However, in terms of the two types of “Removal and relocation housing”, the tenures are a bit different:

1) For the first type, because the provider is the government, the housing has the welfare feature. Even though the property belongs to the buyers but the owners could not trade them within 5 years.

2) For the second type, because the provider is the private real estate developers. The relocation housings have the same feature of the removal housings, so the property belongs to the original residents.

-Providers

The providers could be the government or the private real estate developers, depends on the reason of the removal of the original residents.

-Beneficiaries

The beneficiaries of “Removal an relocation housing” should satisfy these conditions:

1) The applicants should have the resident accounts of Shanghai and should achieve the age of 18.

2) The applicants could not have other housing properties.

3) The applicants should have the property of the removal housings.

-Funding arrangement

The funds of “Removal and relocation housing” could be from government and enterprises. It depends on who is responsible for this movement.

Type	Area (Hectare)	Sub-types	Area (Hectare)
Total land supply	1000	Stocking	500
		Increasing	500
Economic housing land supply	50	Middle and small size	50
		Big size	0
Removal and relocation land supply (Mainly shantytown)	300	Middle and small size	300
		Big size	0
Public rental housing land supply	50	Distributed	30
		Social supply	20
Commercial housing land supply	600	Middle and small size	300
		Big size	300

Figure 4-17 The residences land supply in Shanghai (2013, source from the Database of Shanghai)

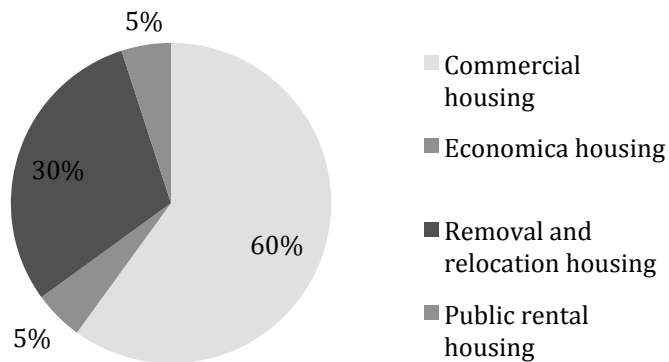


Figure 4-18 The residences land supply in Shanghai (2013 made by authors)

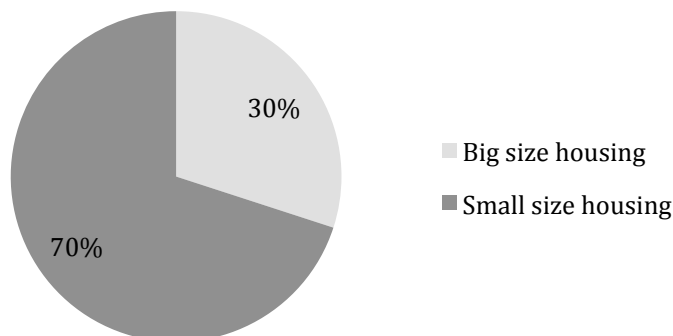


Figure 4-19 The housing size proportion of the residences land supply in Shanghai (2013 made by authors)

4.2.2 The distribution of current social housing in Shanghai

SOCIAL HOUSING DISTRIBUTION IN SHANGHAI

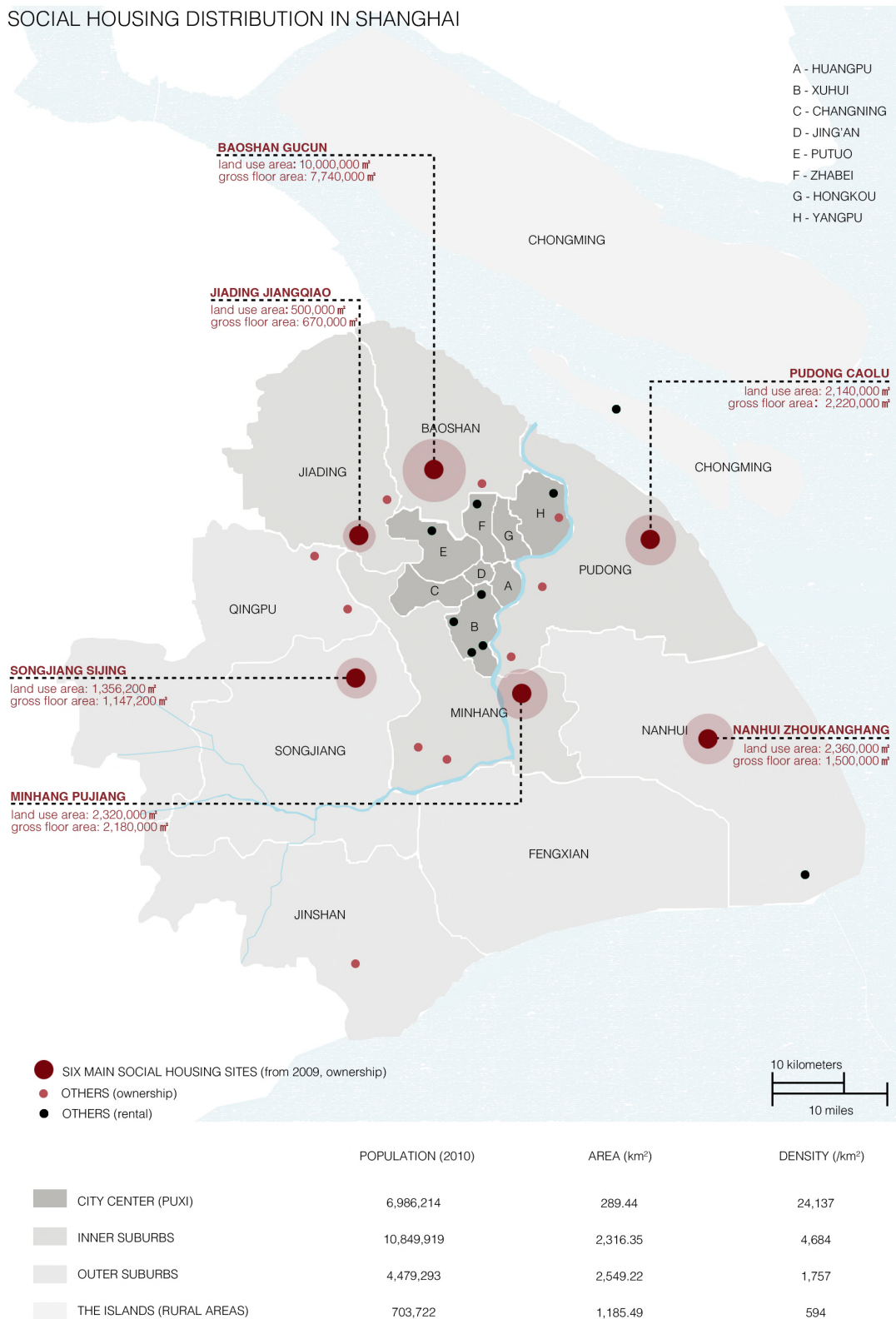
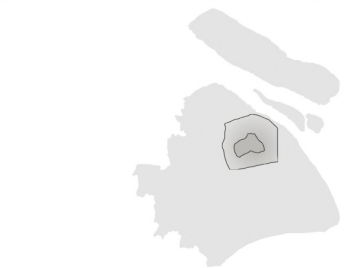
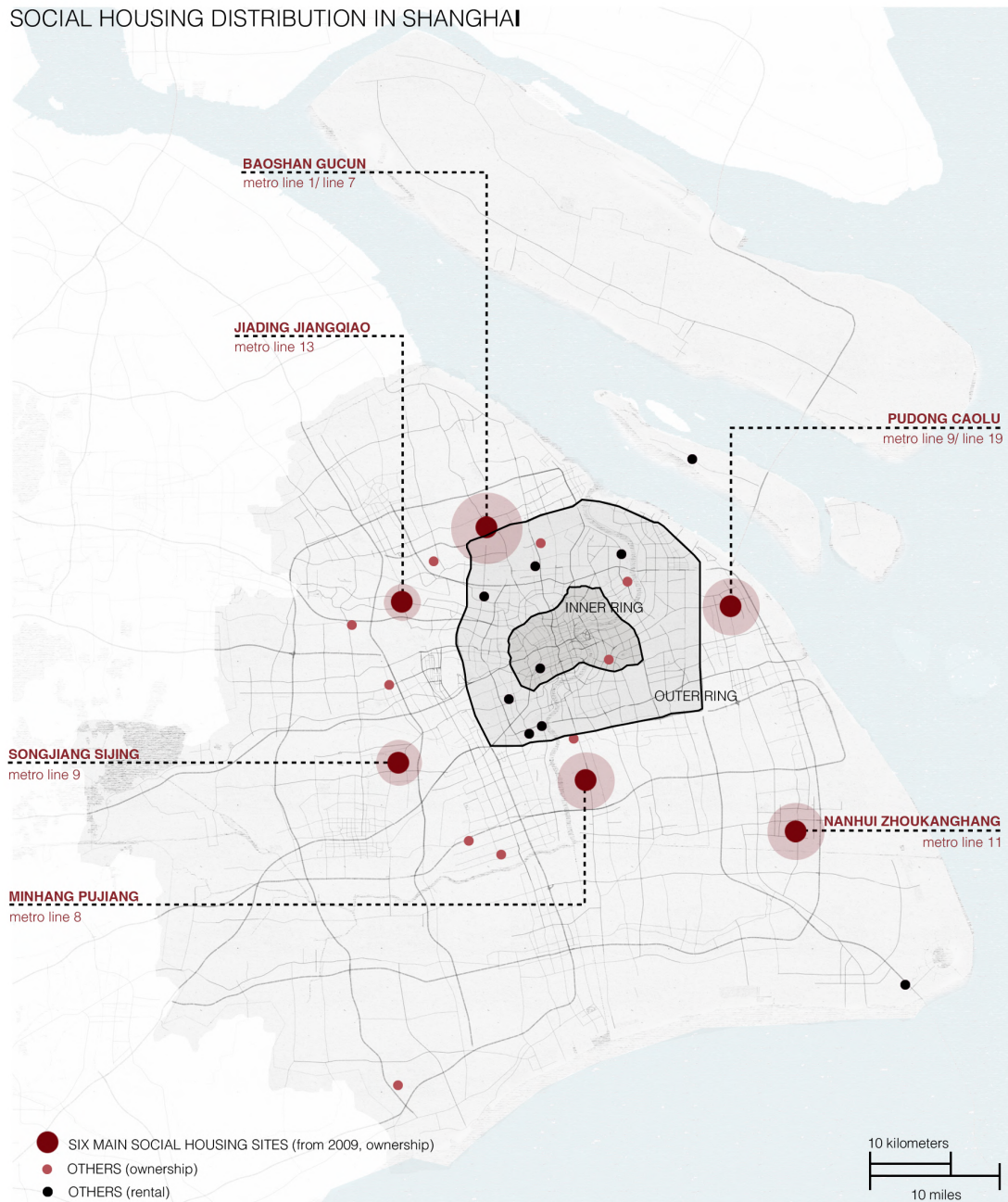


Figure 4-20 Social housing distribution in Shanghai (source collected by authors and made by authors)

SOCIAL HOUSING DISTRIBUTION IN SHANGHAI



PLOT RATIO FOR SOCIAL HOUSING

- ≤3.0 (max 3.5 for special condition)
- ≤2.5 (max 3.0 for special condition)

Figure 4-21 Social housing distribution in Shanghai (source collected by authors and made by authors)

From the two diagrams above, we could get a general idea of where the current social housing groups are located in Shanghai.

Shanghai is the largest city in China and it is one of the most important cities in China. As the statistics showed in the year 2013, the area of Shanghai is 6340.5 SQKM (including the city center area 289.44 SQKM, inner suburbs area 2316.35 SQKM, outer suburbs area 2549.22SQKM and the islands and rural areas 1185.49SQKM) and the population is 23019.148 (including the city center population 6986.214, the inner suburbs population 10849.919, the outer suburbs population 4479.293 and the islands rural areas 703.722).

The city center includes 8 districts: “Huangpu”, “Xuhui”, “Changning”, “Jing’an”, “Putuo”, “Zhabei”, “Hongkou” and “Tangpu”. The inner suburbs includes 4 districts: “Baoshan”, “Pudong”, “Minhang” and “Jiading”. The outer suburbs includes 5 districts: “Qingpu”, “Songjiang”, “Jinshan” and “Fengxian”. The islands (rural areas) is an island beside Shanghai city, the name is “Chongming”.

We could see from the diagrams above that most of the rental housings are located in the districts in the city center; as the ownership housings are mostly located in the districts in the inner suburbs areas; as to the large-scale social housing communities are mostly located in the inner suburbs and outer suburbs. The well-known large-scale social housing communities are “Baoshan gucun”, “Jiading jiangqiao”, “Pudong caolu”, “Songjiang sijing”, “Minhang pujiang” and “Nanhui zhokanghang”.

In terms of the infrastructure, the rental housings in the inner ring and outer ring have a good connection to the city center; the private ownership housings isolated located outside the outer ring could not ensure a good connection; the large-scale social communities referred above all have a relative convenient way to connect with the city center (each of them have one or two subway line to the city center).

4.2.3 Recent development of social housing policies and implementation in Shanghai

During this current period (from 2006-now), the price of the commercial housing increased dramatically. The government started to concerned more about the construction of the welfare housings, in order to relieve the social conflicts.

As the following table, we can see the recent policies: (James R.Barth)

Year	Policies
2006	“Opinions of the Ministry of Construction and Other Departments on Adjusting the Housing Supply. Structure as Well as Stabilizing Housing Prices” requests municipal governments to produce detailed development plans on residential housing. It is required that 70% of homes should be smaller than 90 sqm.

2007	<p>The government says it will increase taxes to discourage sales of large homes and start taxing the appreciation of property values based on actual market prices.</p> <p>“Certain Opinions About Solving the Housing Hardships of Urban Low-Income Households” confirms that affordable urban housing is a top policy priority.</p> <p>The down payment requirement for first-time homeowners is increased to 20%. Required down payments for second homes are raised to 40% from 30%, and requirements for commercial properties increase to 50% from 40%.</p> <p>The government bans foreign investors in Chinese real estate from borrowing offshore.</p> <p>Monthly payment-to-income ratio is capped at 50%.</p> <p>Property Right Law is enacted.</p>
2009	<p>A series of policy changes is announced to support the property markets: lower mortgage rates, reduced down payments, lower transaction taxes.</p> <p>In December, further measures are announced to support the property market, including cuts in business and transaction taxes for real estate sales and policies to make it easier for developers to obtain credit.</p> <p>Also in December, China announces that individuals must own their homes for five years to be eligible for sales tax exemption, up from the previous minimum of two years. It also says it will increase the supply of lower-cost housing.</p>
2010	<p>In March, China orders 78 state companies whose core business is not property to submit plans to divest from the sector within 15 working days.</p> <p>In April, “Notice of the State Council on Resolutely Curbing the Soaring of Housing Prices in Some Cities” is issued. China announces a rise in down payments required on second homes to 50% from 40%.</p> <p>The government says banks must charge a minimum mortgage rate on second homes of 1.1 times the benchmark interest rate and increases down payments on first homes larger than 90 square meters to 30% from 20%.</p> <p>In August, regulators order lenders to test the impact of a fall in house prices of up to 60% in key cities and instruct banks to stop extending mortgages to people buying their third homes in some cities.</p>
2011	<p>In January, “National Eight” regulations increase minimum down payment for second mortgages to 60%. Some cities, including Beijing, put new restrictions on home purchases by non-residents. Other tightening measures involving taxes and land transactions are enacted throughout the year.</p>

2012	Provident funds in some regions ease loan policies for first-time home buyers.
2013	<p>“National Five” - Levy taxes for the second-hand housings, in order to inhibit the investment demands.</p> <p>Expanding the circumference of the estate taxes.</p> <p>“House-for-pension scheme”, encouraging the elderly people to use the housing property to guarantee and enhance their living conditions.</p> <p>“Reform and perfect the farmland property” -helping the farmers to guarantee their farmland properties.</p>
2014	<p>“The registration of real estate”.</p> <p>Decline the land loan rates, especially for the first personal property</p>

Figure 4-22 The timeline of key housing policies in the current period (from 2006-2012, source from (James R.Barth))

Now, we discuss deeply about some policies to encourage the construction of social housings and inhibit the increasing of the estate prices.

- **The 70/90 Policy**

The government issued in 2006 that for the newly constructed housing, at least 70% should be smaller than 90 square meters. “However, this new policy has never been fully implemented at the local level. As a matter of fact, this policy was meant to be a failure from the beginning. Many developers acquired the land and financed their projects prior to the new regulation. In order to follow the new regulation, developers had to change their entire underwriting, design, and construction schedule. Without any incentives from the government, many projects would end up not profitable.” (Sun, 2011)

- **Limit Price Housing**

This policy started to be made in 2008. In this year, despite the global economic depression, the commercial housing prices in Shanghai kept increasing. The government planed to construct some lower price housings, through designating some lands in a discount price, and requiring the developers to sell the housings with a capped profit (3%). However, “Similar to other affordable housing programs, this program also required local residency of applicants. Due to the unfavorable location and inconvenient commute to work, many local residents did not apply for the program.” (Sun, 2011)

- **The 900 Billion Social housing Stimulus Program**

In 2009, the central government planned to invest 900 billion Yuan in the social housing stimulus program. These included “215 Yuan for public rental housing, 101.5 billion Yuan for slum redevelopment, and 600 Yuan for economic housing”. With these investments, the local governments started

the constructions of social housings, and achieved a great achievement. However, with the inadequate social housing system, these housings have not effectively solved the housing shortage problems.

- **“National eight”, “National five” and “Registration of real estate”**

These three policies were issued in 2011, 2013 and 2014 respectively. These three policies are not directly servicing for social housing system, but they are all related to control the over buying of housing properties and housing market speculation. “National eight” aims to enhance the second housing property loan rates, in order to inhibit the over buying of housing properties. “National five” aims to levying taxes for the second housing properties, in order to enhance the cost of personal housing storage. “Registration of real estate” aims to build a data system to monitor the property holders and the number of housing property they have. The aim of this policy is not clear yet, but as the analyst analyzed, it aims to assist the government to make a standard of levying property taxes and anti-corruption. However, these policies have not yet exerted enough to control the personal housing storage and speculations.

Chapter 5 Case Study (Shanghai)

-Social housing cases in Shanghai

After researching the current policies and social housing types in Shanghai, we could see that, the prevailing social housing types here are “Low rental housing”, “Public rental housing”, “Economic housing” and “Removal and relocation housing”. Since the “Low-rental housing” is only a conceptual social housing type, being implemented by the government financial subsidies, there are only three types of material social housing types currently in Shanghai:

- 1) Public rental housing
- 2) Economic housing
- 3) Removal and relocation housing

“In which background these social housings are constructed?” “How about the community plans and the individual building design?” “How about the implementations?” In this chapter, we will do three case studies of social housings in Shanghai, according to the three types of social housings.

5.1 Public rental housing-Xin Yue Gong Yu (馨越公寓)



Figure 5-1 Bird view of "Xin Yue Gong Yu" (source from internet)

5.1.1 Background analysis

-General introduction

Xin Yue Gong Yu is the first public housing project in Shanghai. It was funded by Shanghai real estate (group) Co. Ltd, a wholly owned subsidiary of Shanghai real estate investment guarantee housing construction investment management Co. Ltd. It aims to satisfy the housing demands of the low-income families and the “sandwich” class. The units are around 4000, and most of them are small type apartments, including young graduates’ dormitories.

-Location and site plan

The project is located in Shanghai city, Putuo District. It is on the north side of “Suzhou river”, on the west side of “Qianyang south road”, on the east side of “Qilianshan south road”, and on the south side of “Yunling west road”. The nearby subway stations are “Songhong Road” of the M2, and “Zhenbe road” of M13, with the walking distance within 20 minutes. Besides, there are also several bus lines nearby.



Figure 5-2 (Location of "Xin Yue Gong Yu" (made by authors))

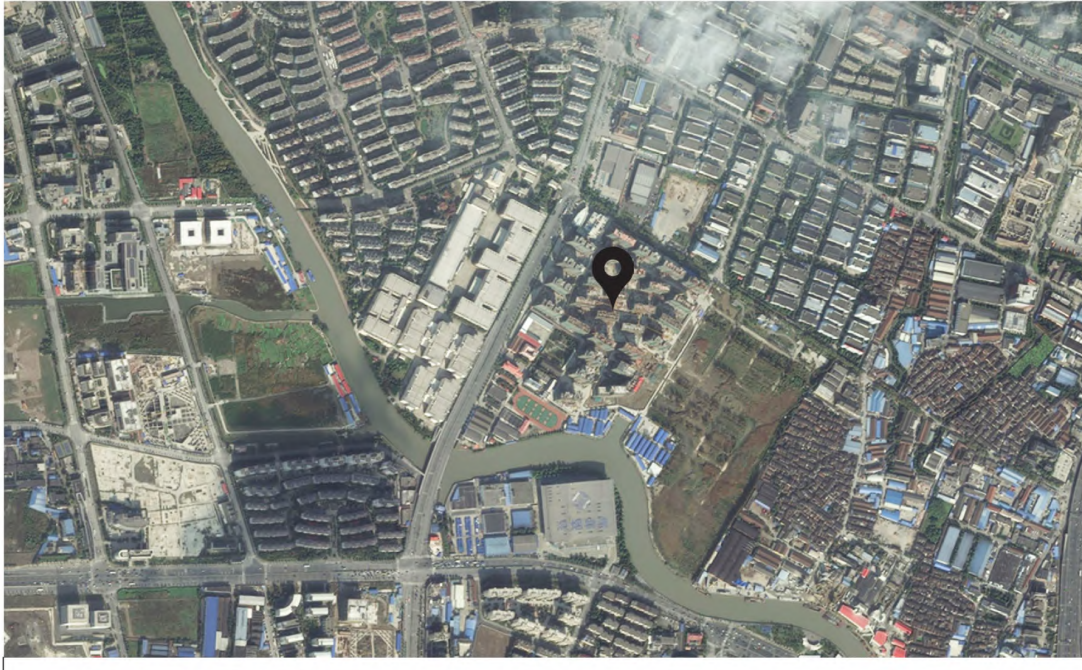


Figure 5-3 Location of "Xin Yue Gong Yu" (source from google map and edited by authors)

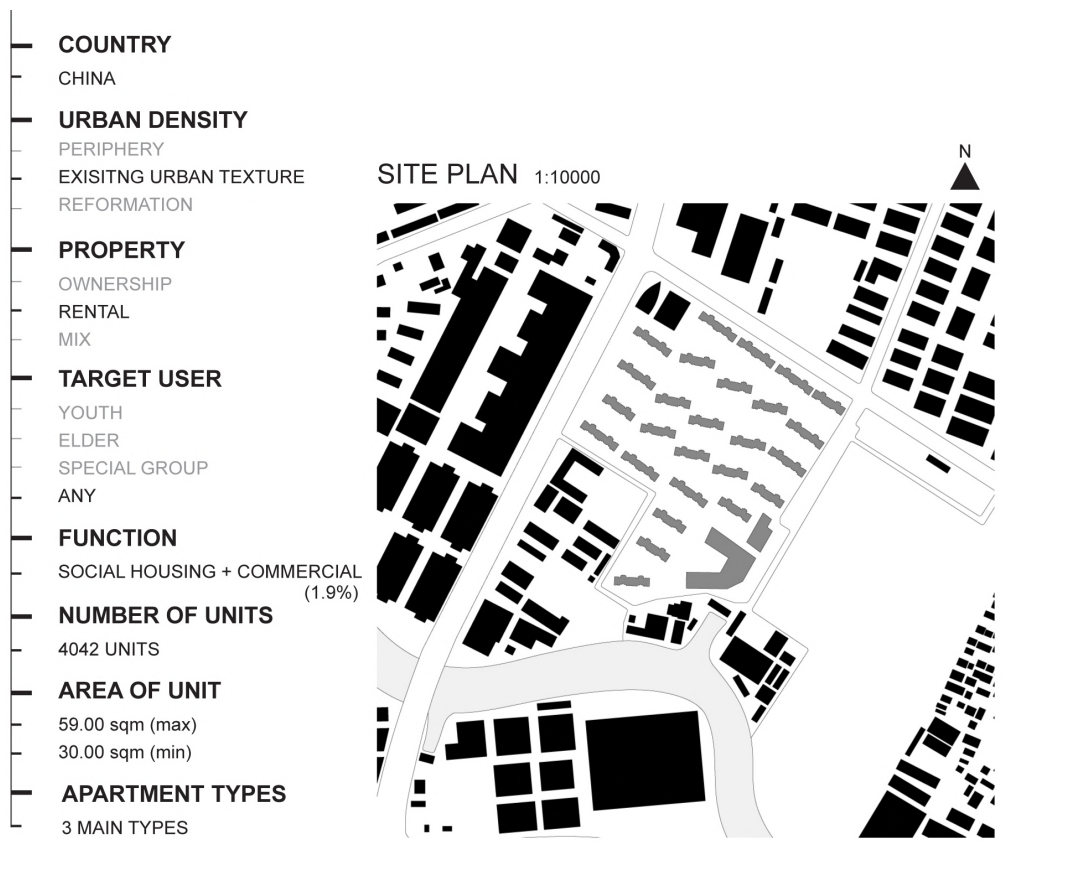


Figure 5-4 Site plan and basic data of "Xin Yue Gong Yu" (edited by authors)

-Data

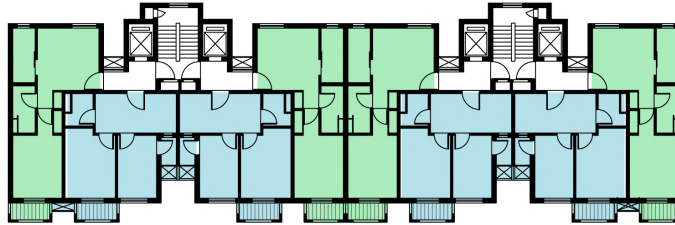
The property of "Xin Yue Gong Yu" is rental property. The target users are no identity and age limitations. The functions are mostly social housing, with a slight amount of commerce and service functions (1.9%). The land use area is 89,621 SQM and the gross floor area is 223,991 SQM, including Residence area 192,076 SQM, Dormitory area 23,357 SQM, Commerce area 5,336 SQM and service area 3,222 SQM. The number of units is 4042, and there are mainly three types of units- "one bedroom apartment", "two bedroom apartment and single dormitory". The unit area of "one bedroom apartment" is 40-50 SQM, the unit area of "two bedroom apartment" is around 60 SQM and the unit area of "single dormitory" is around 34 SQM. All the rental units are furnished, and be basically equipped.

5.1.2 Design analysis

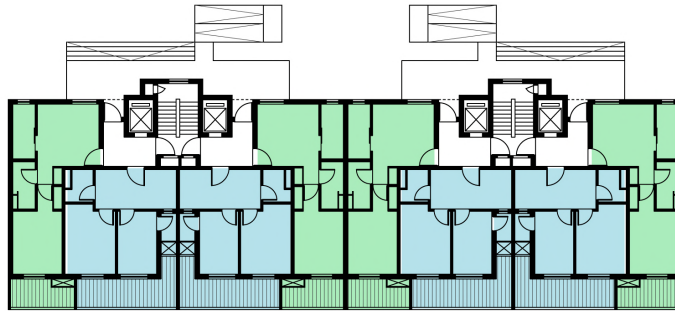


Figure 5-5 Master plan of "Xin Yue Gong Yu" (edited by authors)

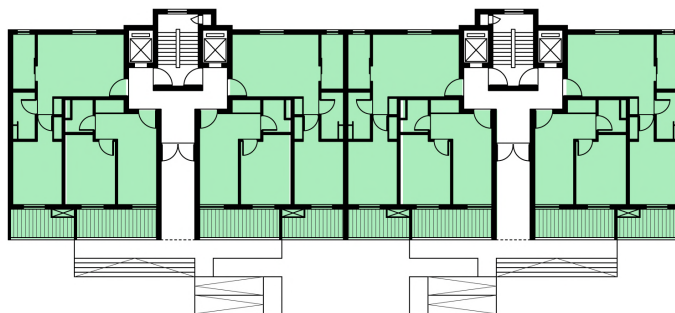
The functions of "Xin Yue Gong Yu" are housing and commerce. There are two types of the housing part- "Apartment type" and "Dormitory type". "Apartment type" also includes two apartment-types- "One bed room apartment" and "Two bed room apartment".



Apartment type- standard floor



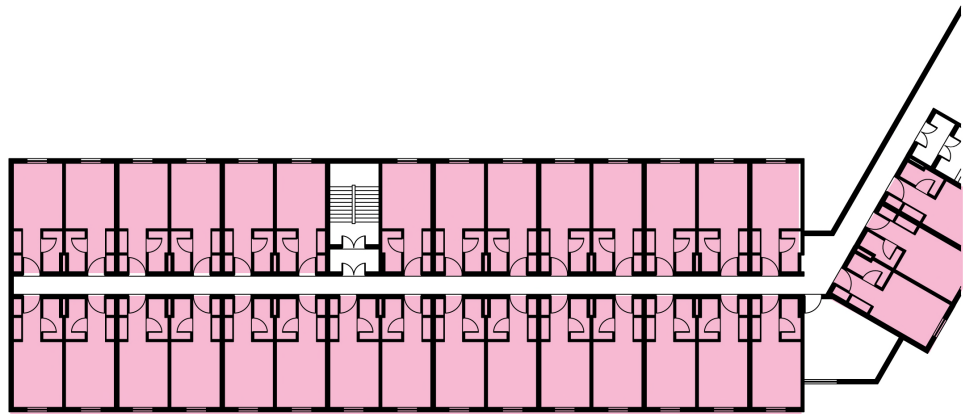
Apartment type- ground floor plan B



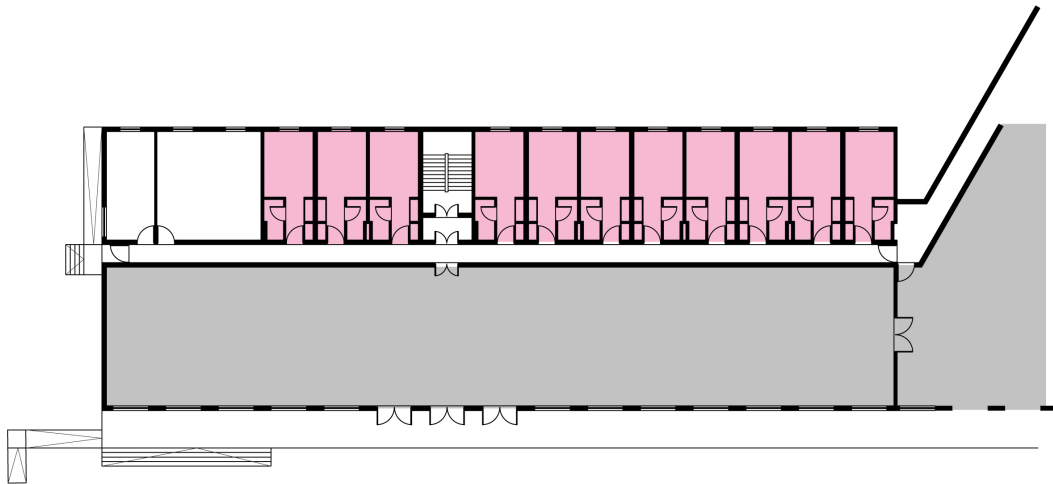
Apartment type- ground floor plan A

one bedroom apartment
 two bedroom apartment

Figure 5-6 Standard floor and ground floor of "Xin Yue Gong Yu" (edited by authors)



Dormitory&Commerce type- standard floor plan (part)



Dormitory&Commerce type- ground floor plan (part)

- dormitory
- commerce

Figure 5-7 Standard floor and ground floor of "Xin Yue Gong Yu" (edited by authors)

From the design plans (the ground floor plans and the standard floor plans) above, we could see that "Apartment type" housings are combined together following the "one staircase four families" rule, and up to two staircases and eight families constitute a individual building. While, as to the "Dormitory type", many single dormitories share a staircase, and the corridor locates in the middle and two lines of dormitories are arranged on the both sides. All the dormitories constitute one big size building, and also combined with the commerce on the ground floor.



Figure 5-8 Apartment plan of "Xin Yue Gong Yu" (edited by authors)



Figure 5-9 Interior photo of the apartment "Xin Yue Gong Yu" (source from internet)



Figure 5-10 Interior photo of the dormitory "Xin Yue Gong Yu" (source from internet)

5.1.3 Implementation analysis

-Publicity and promotion

The city real estate group was associated with the relevant public rental operators, relying on all levels of media platform, published and promoted "Xin Yue Gong Yu". The publicity and promotion conference started in the middle of May, 2013.

-Application and audition

The day after the publicity and promotion conference, the relevant public housing institutes started to receive the application and audit the applicants. All the information of the housing types and available numbers could be seen on the government's social housing website.

-The registration and the selection lottery

Due to the first batch of "Xin Yue Gong Yu" did not have sufficient housings to satisfy all the eligible applicants, after the application deadline, there was a concentrated lottery to select the first batch of beneficiaries. The other eligible applicants should wait until the following batches of public rental housings.

-The rental price

The rental price of "Xin Yue Gong Yu" followed the principles of "the market assessment" and "slightly lower than the market rental price", and the basic price has been set as 40 Yuan (6 Euro) per SQM per month. The actual prices were also adjusted by the floor, location and orientation of the apartments. The rental prices of the dormitories are from 1200 Yuan (182 Euro) to 1500 Yuan (228 Euro); the rental prices of the one-bedroom apartments are from 1500 (228 Euro) Yuan to 2300 Yuan (350 Euro); the rental prices of the two-bedroom apartments are from 2100 Yuan (319 Euro) to 2600 Yuan (395 Euro).



Figure 5-11 outdoor view of "Xin Yue Gong Yu" (photo by authors)

5.2 Economic housing- Hui Fu Jia Yuan (汇福家园)

Since the scale of social housing community "Hui Fu Jia Yuan" is very large (the land use is 23600 SQKM), and the gross floor area is 12700 SQM, and could content about 51000 populations, in this case study, we only analyze a small part of this community- the first period of construction. This case is showed as the image below:



Figure 5-12 Bird view of "Hu Fu Jia Yuan" (source from internet)



Figure 5-13 Bird view of "Hu Fu Jia Yuan" (research part) (source from internet)

5.2.1 Background analysis
-General introduction

Hui Fu Jia Yuan is an Economic housing project in Shanghai. It was developed and funded by Shanghai Jiangong Co. Ltd. It is fully ownership property social housing, and aims to satisfy the housing demands of the low-income families and “sandwich” class, those would like to have their private fully property housings, instead of rental housings. The units of the research area are around 1334, and the main housing types are small apartments.

-Location and site plan

The project is located in “Zhoupu town”, “Zhoukanghang” residence community. On the south side of “Zhouzhu motorway”, on the west side of “Luonan road S3”, on the east road of “Zhouyuan road” and on the north side of “Airplan motorway S32”.

The distance of base line from this project to people’s square is about 18.8 KM, to Shanghai Railway Station is about 21.2 KM, to Pudong airport is about 21.6 KM, to EXPO PARK is about 12.9 KM and to Jinqiao industrial area is about 17 KM. It enjoys a very advantage location.



Figure 5-14 Location of "Hu Fu Jia Yuan" (made by authors)

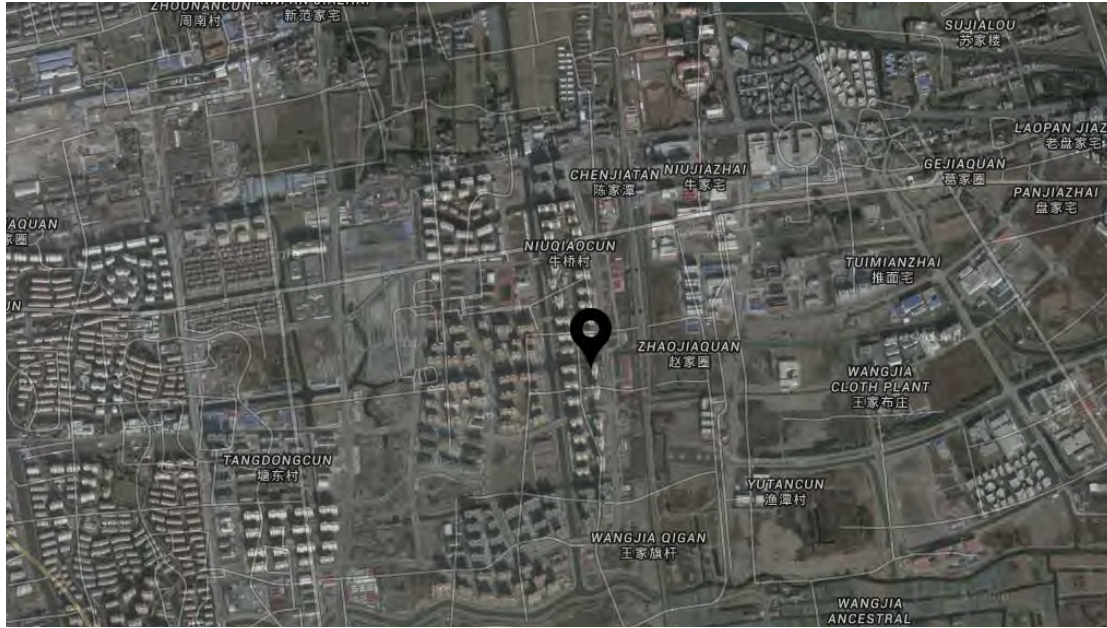


Figure 5-15 Location of "Hu Fu Jia Yuan" (source from baidu map and edited by authors)

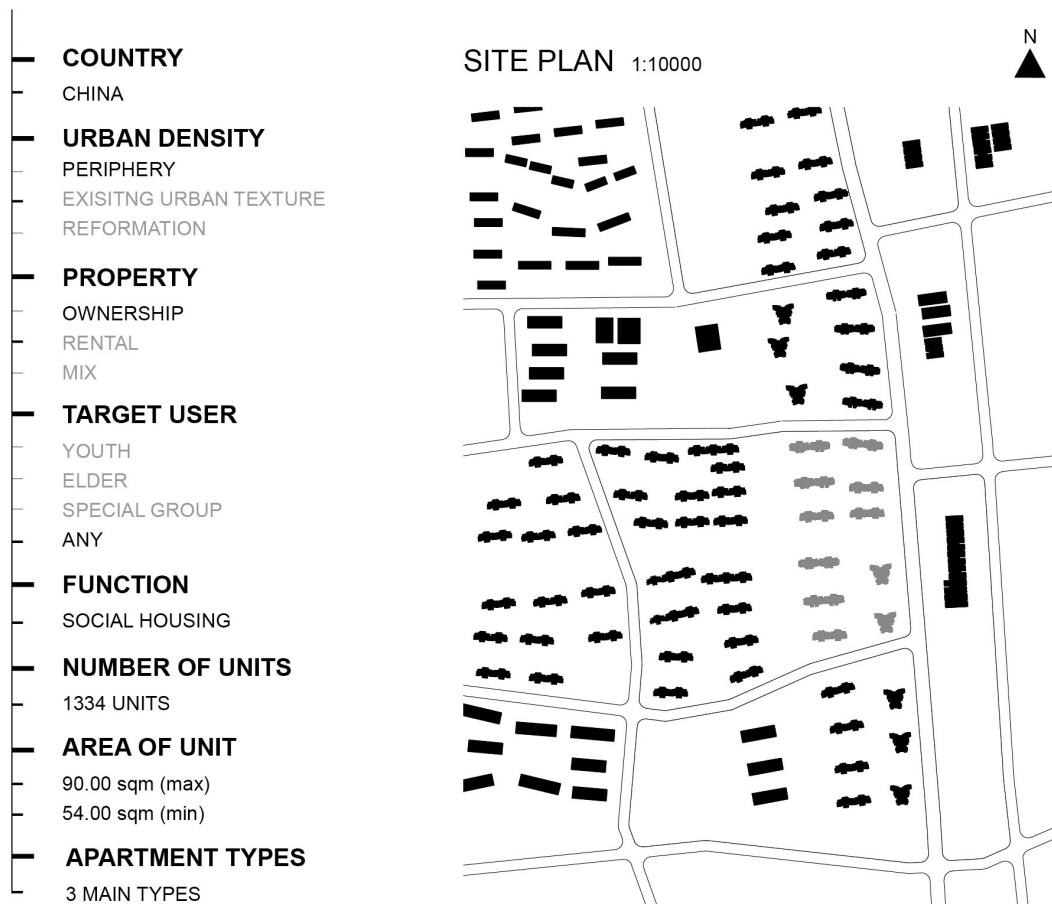


Figure 5-16 Site plan and basic data of "Hu Fu Jia Yuan" (edited by authors)

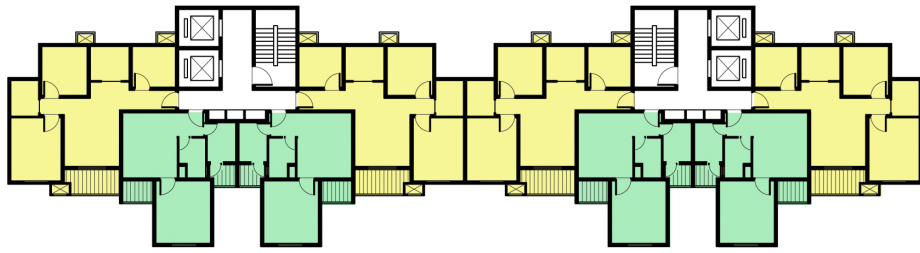
-Data

The property of "Hu Fu Jia Yuan" is ownership property. The target users are no identity and age limitations. The functions are totally social housing. The land use area is 56,468 SQM and the gross floor area is 98,260 SQM. The number of units is 1334, and there are mainly three types of units-"one bedroom apartment", "two bedroom apartment" and "three bedroom dormitory". The majority type is "two bedroom apartment". The unit area of "one bedroom apartment" is around 55 SQM, the unit area of "two bedroom apartment" is around 75 SQM and the unit area of "three bedroom apartment" is around 90 SQM. All the apartments are sold without furnishing.

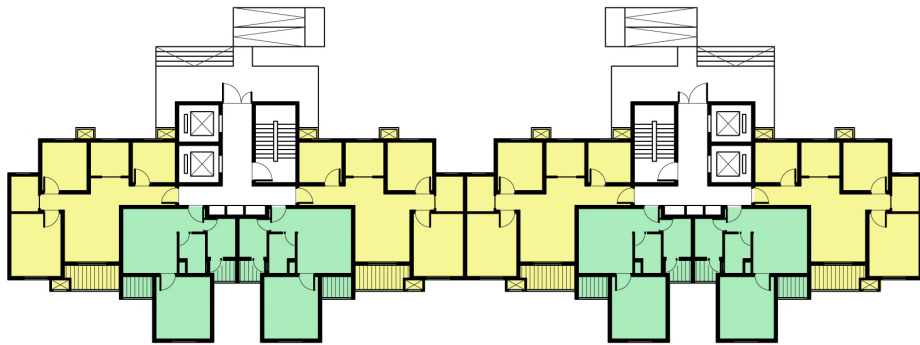
5.2.2 Design analysis



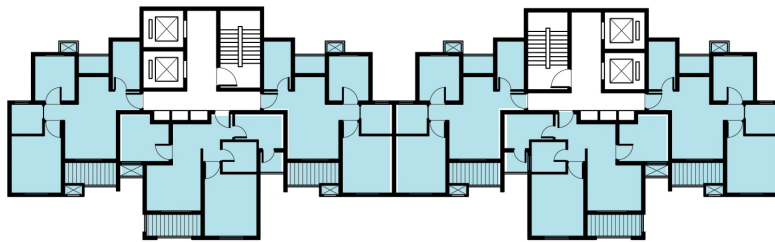
Figure 5-17 Master plan of "Hu Fu Jia Yuan" (edited by authors)



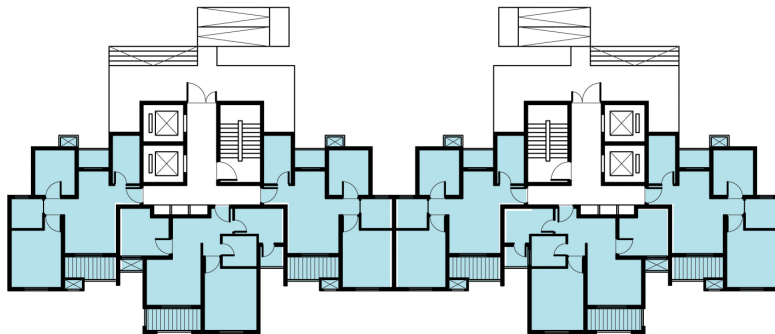
Apartment type 1- standard floor plan



Apartment type 1- ground floor plan



Apartment type 2- standard floor plan

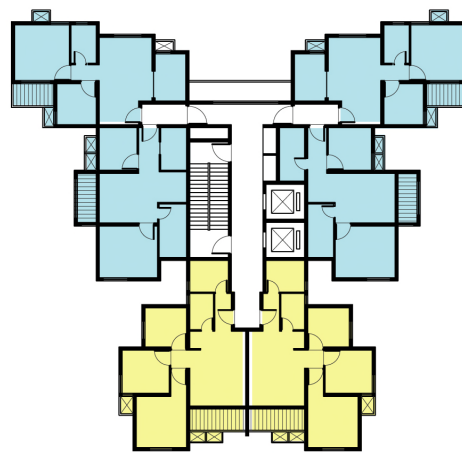


Apartment type 2- ground floor plan

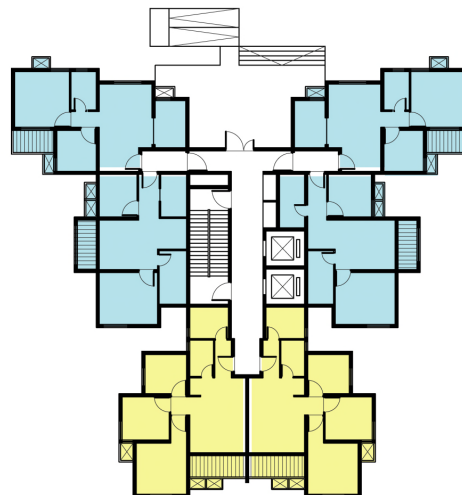
- one bedroom apartment
- two bedroom apartment
- three bedroom apartment

Figure 5-18 Standard floor and ground floor of “Hu Fu Jia Yuan” (edited by authors)

From the design plans (the ground floor plans and the standard floor plans) above, we could see that "Apartment type 1" housings are combined together following the "one staircase four families" rule, and up to two staircases and eight families constitute a individual building. While, as to the "Apartment type 2" housings are combined together following the "one staircase three families" rule, and up to two staircases and six families constitute a individual building. As to the "Apartment type 3" housings are combined together following the "one staircase (scissors staircase) six families" rule, each one staircase group individually constitute a tower building.



Apartment type 1- standard floor plan

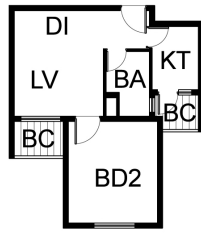


Apartment type 1- ground floor plan

- one bedroom apartment
- two bedroom apartment
- three bedroom apartment

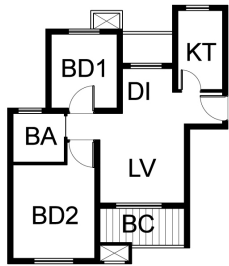
Figure 5-19 Standard floor and ground floor of "Hu Fu Jia Yuan" (edited by authors)

one bedroom apartment

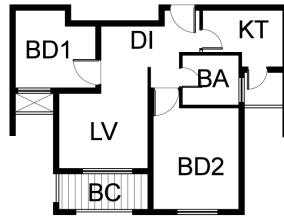


54 SQM

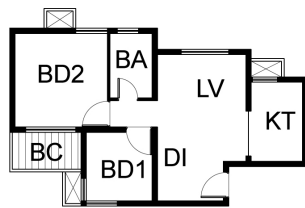
two bedroom apartment



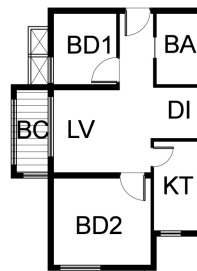
78 SQM



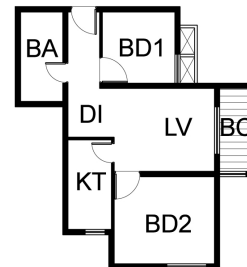
78 SQM



74 SQM

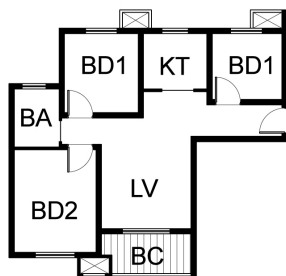


75 SQM

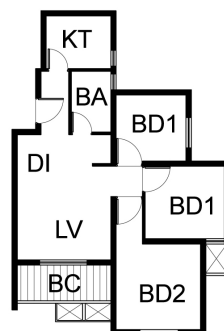


77 SQM

three bedroom apartment



90 SQM



90 SQM

Figure 5-20 Apartment plan of "Hu Fu Jia Yuan" (edited by authors)

5.2.3 Implementation analysis

-Publicity and promotion

The city real estate group was associated with the relevant public rental operators, relying on all levels of media platform, published and promoted “Hu Fu Jia Yuan”. The publicity and promotion conference started in the middle of October, 2012.

-Application and audition

The day after the publicity and promotion conference, the relevant public housing institutes started to receive the application and audit the applicants. All the information of the housing types and available numbers could be seen on the government’s social housing website.

-Apartment tour and signing a contract

All the eligible applicants could accept an apartment tour arranged by the developers and choose the apartment types and the floors. After decision, they should pay the initial payment and sign the bank loans. After that, the process could be finished.

-The selling price

The selling price of “Hu Fu Jia Yuan” followed the principles of “the market assessment” and “slightly lower than the market selling price”. It locates in “Nanhui” district, belongs to “Pudong” area. The average selling price in “Pudong” area is around 30000 Yuan (4536 Euro) per SQM, and the average selling price in the “Nanhui” surround area is around 22000 (3326 Euro) per SQM. The selling price of “Hu Fu Jia Yuan” is around 16000 (2419 Euro).



Figure 5-21 Out view of "Hu Fu Jia Yuan" (source from internet)

5.3 Removal and relocation housing-C3 Block in Pujiang Town, Minhang District (闵行区浦江镇 C3 地块项目)



Figure 5-22 Bird view of “C3 Block in Pujiang Town” (source from (China Architectural, 2011))



Figure 5-23 Out view of “C3 Block in Pujiang Town” (source from (China Architectural, 2011))

5.3.1 Background analysis

-General introduction

C3 block in Pujiang town, Minhang District is the removal and relocation social housing, which is provided by the Minhang District government. It aims to offer a decent living space to the farmers who have to be relocated because of constructions of major project. The project made the efforts to optimize the residential structure, improve the living environment of residents, to reach the harmonized combination of environment benefits, economic benefits as well as social benefits.

-Location and site plan

The project is located in Shanghai city, Minhang District, Pujiang Town. Minhang Pujiang is one of the well-known large scale social housing communities (Big six social housing communities), that mainly constructed removal and relocation social housing, including the Expo removal and relocation social housings. The project is on the north side of “highway s32”, which connects the Pudong airport, on the west side of “Xiangyang river”, on the east side of “Sanlu road”, and on the south side of “Jiangwei road”. The nearby subway station is “Shendu road” which is the final station of M8, with the walking distance within 30 minutes. Besides, there are also several bus lines nearby.



Figure 5-24 Location of “C3 Block in Pujiang Town” (made by authors)



Figure 5-25 Location of “C3 Block in Pujiang Town” (source from google map and edited by authors)

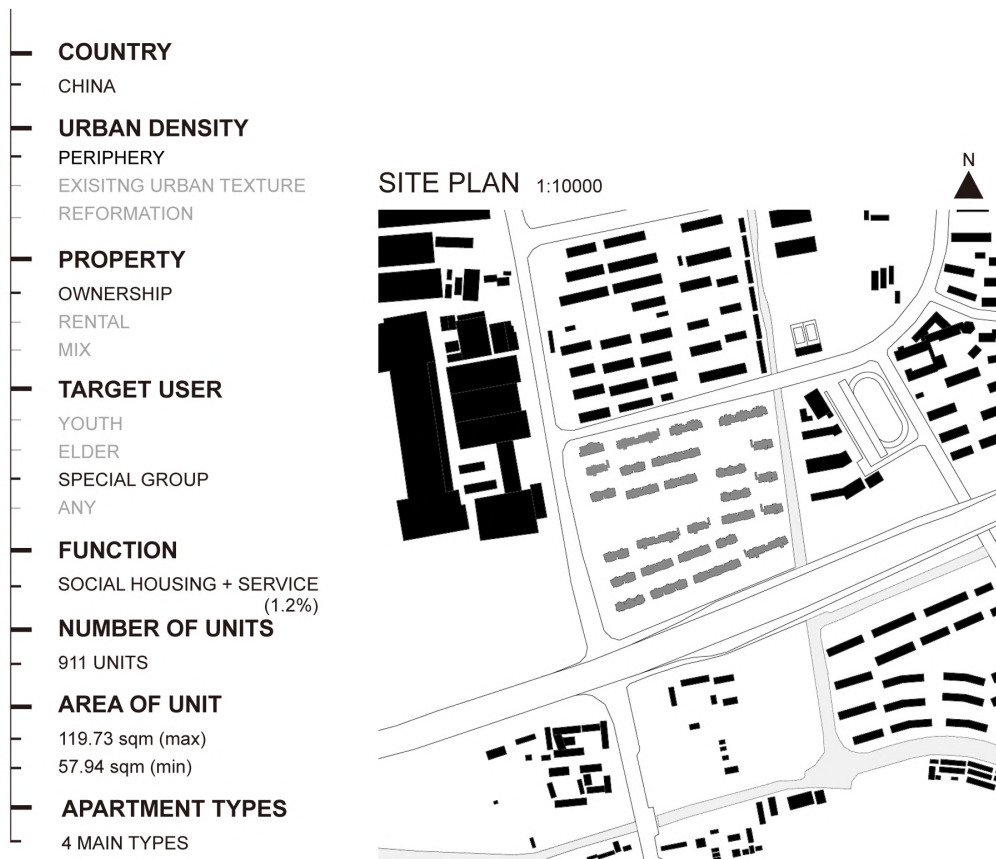


Figure 5-26 Site plan and basic data of “C3 Block in Pujiang Town” (edited by authors)

-Data

The property of “C3 block in Pujiang Town” is ownership property for the special groups, who have to be relocated because of the constructions of major project. The functions are mostly social housing, with 1.2% of the service functions (1,274 SQM), including estate management and community activities. The land use area is 63,702 SQM and the gross floor area is 104,019 SQM, including aboveground area 90,882 SQM and underground area 13,137 SQM. Residence area is 89,608 SQM, including high-rise residential 47,424 SQM and multi-storey residential 42,184 SQM. The number of units is 911, with 473 high-rise residential units and 438 multi-storey residential units. There are mainly four types of units-“one bedroom one living room”, “two bedroom one living room”, “two bedroom two living room” and “three bedroom two living room”. Each of the unit area is around 58 SQM, 69-74 SQM, 92 SQM and 113-120 SQM respectively

5.3.2 Design analysis

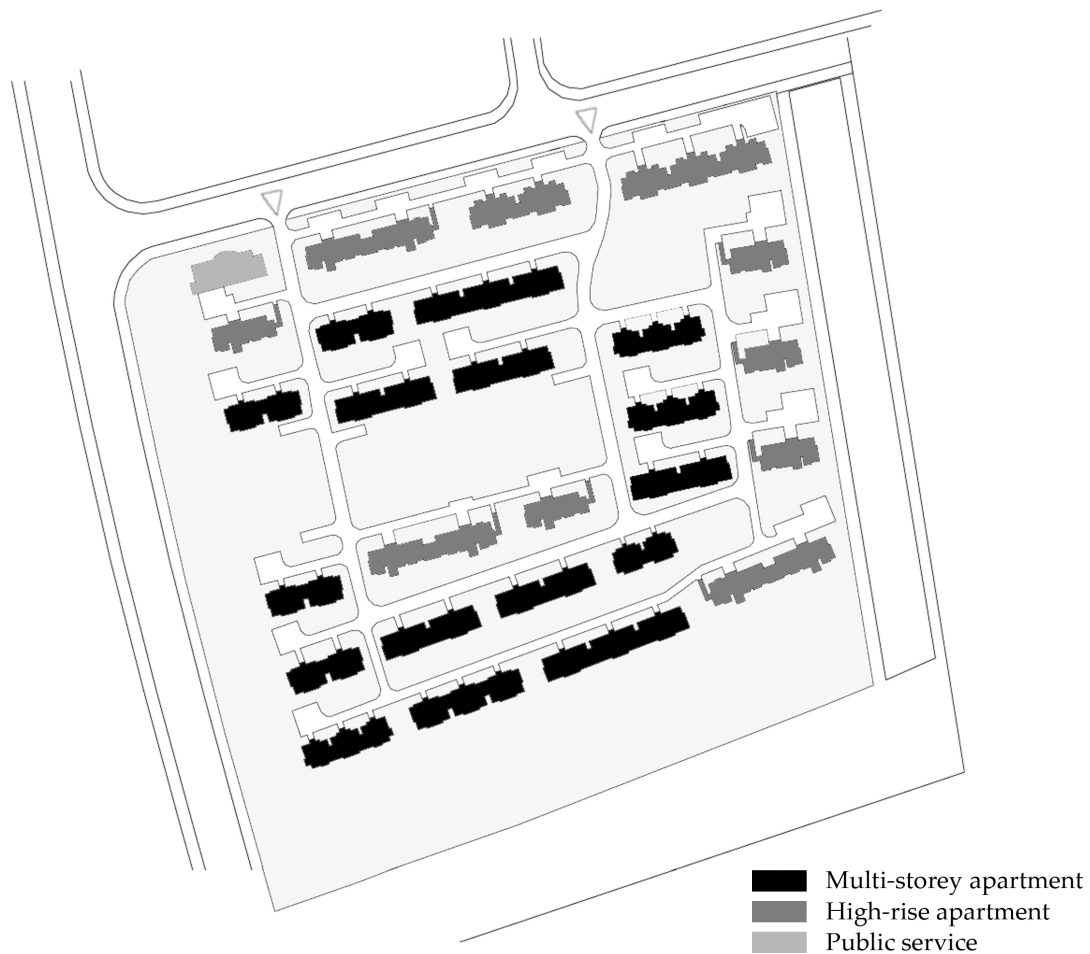
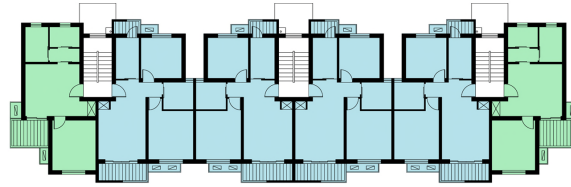
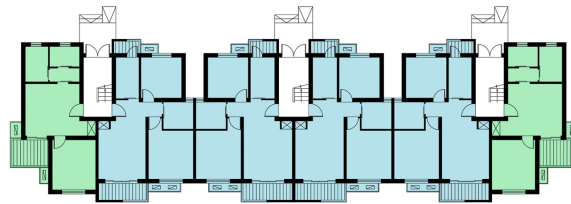


Figure 5-27 Master plan of “C3 Block in Pujiang Town” (edited by authors)

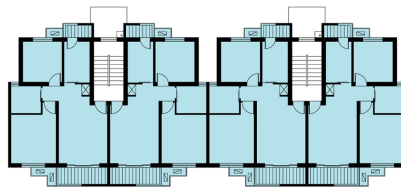
The functions of “C3 block in Pujiang Town” are mainly residences with a small part of public service. There are generally two types in the residence part- “Multi-storey apartment” and “High-rise apartment”. Each of them also includes various unite types with different unit compositions.



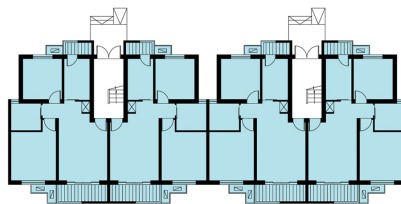
Multi-storey apartment type 1 - standard floor plan



Multi-storey apartment type 1 - ground floor plan



Multi-storey apartment type 2 - standard floor plan



Multi-storey apartment type 2 - ground floor plan

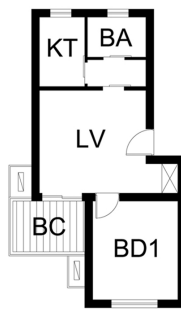
- one bedroom apartment
- two bedroom apartment

Figure 5-28 Standard floor and ground floor of “C3 Block in Pujiang Town” (edited by authors)

From the design plans (the ground floor plans and the standard floor plans) above, we could see that “Multi-storey apartment” types are combined together following the “one staircase two families” rule, and up to three staircases and six families, two staircases and four families constitute a individual building.

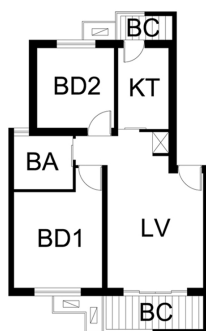
From the apartment plans (one bedroom apartment and two bedroom apartment) bellow, we could see that functions of static and dynamic are separated and utmost ensure the independence of each function. The living room and the main bedroom (BD1) are on the south side, with good natural lighting. Auxiliary room such as kitchen, bathroom and the second bedroom (BD2) are on the north side.

one bedroom apartment

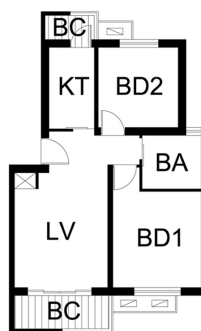


58 SQM

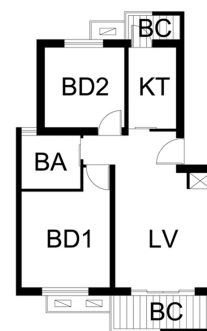
two bedroom apartment



75 SQM



73 SQM



74 SQM

Figure 5-29 Apartment plan of “C3 Block in Pujiang Town” (edited by authors)

5.3.3 Implementation analysis

-Allocation

The relevant department of the government sorted out the relocating households' data, such as name, the number of family members, and the removal floor area, and made the further confirmation and classification. The households who meet the all requirements of removal and relocation social housing could get the removal and relocation housing. The allocation mainly based on the number of family members and the removal floor area, and provided the optimum area for family members or equivalent valued floor area with the previous one. In general, it followed "First remove, first choice" principle.

-The trading principle

"C3 block in Pujiang Town" belongs to the low price commercial housing constructing for the removal residents due to government's important city construction. In this situation, even though the property belongs to the buyers but the owners could not trade (sell/rent) them within 5 years.



Figure 5-30 Out view of "C3 Block in Pujiang Town" (source from internet)

Chapter 6 Problem (Shanghai)

- Conclusion of Current Social Housing Problems in Shanghai in terms of Policies and Cases

Social housing is an emergency issue in Shanghai nowadays, which has been through continuous development following four historical stages and constantly improvement in policies and constructions. As a result, the housing problems of lower income groups have been improved to some extent these years.

However, from the actual situation, although the constant efforts of government at all levels in terms of social housing, its policy and construction has exposed many defects, since the government has no experience in this field plus the very urgent and great need of social housing nowadays.

This chapter is mainly sum up current problems of social housing in Shanghai, in terms of policies and cases, which have introduced in the previous chapters. Generally, the current social housing problems in Shanghai include inappropriate distribution, insufficient proportion of public rental housing, lack of providers, inequality of beneficiaries, social segregation, and generally monotonous design regardless of demographic characteristics.

6.1 Inappropriate distribution (insufficient infrastructures and community services)

In general, social housing policy is set up to meet the housing demand of lower income groups, that construction and implementation also combines closely with the development of urban space. Urban space, as a public resource, that appropriate distribution is directly related to the stability and development of society.

However, the current social housing distribution represents inappropriate trends, that most of large scale subsidized housing communities are centrally disposed in the outside of the outer ring of Shanghai, which possesses relatively insufficient infrastructures and community services compared to the city center. In Shanghai, internal infrastructures and community services varied widely, that generally represents obvious decreasing trend from the outside of the city center. In addition, parts of small scale subsidized housings, that are also located in the outside of the outer ring dispersed, even have no convenient connection with city center and seriously lack of relevant community services.

Thus, the good urban space resources gradually allocated more to higher income groups who living in the city center, and lower income groups who situated in the urban periphery hardly to obtain it. This kind of unbalance and inequality distribution would contribute to deepen the

contradictions between different social classes which is not conducive to social stability and development.

In government's or developers' point of view, it is to some extent understandable since high land cost and housing prices of city center make them difficult to construct social housing there. However, these social housings in the urban fringe, without proper support of sufficient infrastructures and community services, caused the increasingly complain of residents and also affects low housing occupancy rate, since the lower income groups have strong reliance on them. (Figure 6-1)

requirements	social housing	normal commodity housing	premium apartment
public transport dependence	very high	very high	low
environmental noise adaptability	very high	high	low
air quality requirement	low	not high	high
community market requirement	high	high	not high
community healthcare requirement	high	high	not high
property management requirement	very low	not high	very high
plot ratio requirement	can be high	can be high	very low
building density requirement	can be high	can be high	very low
landscape requirement	not high	not high	very high
leisure space requirement	low	not high	very high

Figure 6-1 Different requirements of various types of housing users in Shanghai (source form the survey of (Sihan, 2007))

One possible reason is that the majority of social housings construction completion time is not that long, which means the surrounding environment of urban fringe needs the further development in the future. Another one is that the internal facilities and services are not synchronized with social housing construction, which caused lack of necessary service such as banks, post offices and other institutions. So the social housings in the urban periphery could not satisfy the minimum living requirements of residents, and sometimes results more unexpected life expenditure living in the social

housing. As a consequence, some lower income groups even reluctant to buy it despite of its affordable housing price.

In this sense, in terms of social housing construction, the government should not only pay attention to the numbers of supply, but also should ensure its effective supply. That is to say, the social housing construction should be integrated with surrounding infrastructure construction, and also coordinated with the internal community services planning.

6.2 Insufficient proportion of public rental housing with improper supply

Currently, compared to the huge increasingly potential demand for public rental housing in Shanghai among the lower income groups, its supply proportion represents still really low compared to other social housings and its existing supply presents improper condition which contradicts to the real demand of targets.

According to the statistics of residential land use planning of Shanghai in 2010, the public rental housing only accounts for 1.8% of the total social housing provision in Shanghai. Although its proportion is in increasing trend, it still could not satisfy the large potential demand in Shanghai.

High percentage of private ownership in the residential property structure makes government's difficulty of large supply of public rental housing. In addition, due to the nearly zero profit in this sector, most of local governments put the public rental housing construction as the auxiliary construction of economic housing, and leave just a small set aside part as the public rental housing supply. Besides, some local governments rely on government funded acquisition housings as the public rental housing. However, the increasing housing prices with the limited government financial capability, the number of these houses are also not that much, which could not meet the high potential demand of public rental housing.

In the meantime, the lack of attention and encouragement in public rental housing construction of society makes less incentives of social investment in public rental housing construction. In order to construct the public rental housing, the construction company should provide many relevant certificates and qualifications to the government, and its procedures are also very complicated. So, coupled with no profit figure in this sector, most of the real estate companies and developers are unwilling to construct public rental housing.

In terms of existing public rental housing supply, its improper condition both with the size and rent makes the original target groups unwillingly to apply for it. For example, the first public rental housing, called XinNingGongYu(馨宁公寓) and ShangJingYuan (尚景园) in 2012, which totally provided about 5000 units, the application rate is less than 40%. The main reason for this low application rate is relatively high rent compared to

the rent they expected mainly due to the improper supplying size, which more or less equivalent to the 80% of the market rent price. Under this situation, the original target groups of public rental housing prefer co-renting the housing in the market which also near from the working places instead of applying the public rental housing.

6.3 Lack of providers

At present, the providers of social housing in Shanghai is kind of monotonous, mainly including only the central government and local government. The central government always takes charge of regulations making, in order to develop the macro-control. The rules includes designing the index of construction of social housing, reducing the land fees in terms of the social housing, increasing the private property tax and transaction fees and so on. Then, the local government has to follow the index, which the government set out, and engage to complete this index. This kind of mono provision mode in social housing construction results high financial expenditure which aggravated the burden of government.

However, unlike monotonous provider in Shanghai(China), in terms social housing in Europe, it exists various of providers, such as “Local authorities”, “public companies”, “non-profit or limited-profit associations and companies” and “private for profit developers and investors.” This kind of multi-providers mode undoubtedly plays a positive role in social housing construction and development.

In addition, although in the current situation, the main social housing providers is the government, which can be divided into the central and local, there still exist inconsistency between them in social housing construction, which further hinders its development.

For example, in social housing construction, the central government does not fund enough to the local governments and the local government always reject to cooperate the central government to implement the social housing plans because the lack of assistance and investment. According to the social housing construction plan of China in 2009, the planned amount of the investment is 167.6 billion RMB, and the central government invested 49.3 billion RMB, which only accounts for 29.4%. The rest amount of investment which accounts for 70.6% (118.3 billion RMB) then relied on local government. What's more, social housing construction means “hidden” capital expenditure of local government, since the local government will lose a lot of land leasing through social housing construction. On the other hand, the growing cost of high demolition and relocation fees further increase the cost of social housing construction, and add the great pressure to the local government.

Since in the social housing construction system, there is lack of necessary supervision between central and local government, plus the

unwillingness of the local government greatly increased the difficulty of effective implementation of the social housing construction of central government.

In this kind of situation, the social financing programs and encouragement of multi-providers are necessary. However, the lack of appropriate profit policies and projects, plus the less profitable characteristics of social housing construction, the social and private organizations do not have the initiatives to take part in the social housing investment projects.

6.4 Inequality of beneficiaries

For the social housing beneficiaries, there are strict and precise standards such as applicant's disposable income and per capita living area. Among them, all the social housings (low rental housing, public rental housing, economic housing, removal and relocation housing) require the beneficiaries should have the resident accounts of Shanghai (Hukou). It means the lower income groups without resident accounts of Shanghai (Hukou) will be excluded from social housing provisions, which results the inequality of beneficiaries in social housing system.

With the fast development of Shanghai, it attracts large numbers of migrants every year, and most of them tend to stay in Shanghai permanently. However, since the majority of migrants in Shanghai do not have resident accounts of Shanghai (Hukou), they could not apply for the social housing even though their income level is really low in Shanghai generally. Also, nearly 80% of the university graduates (2012) who decided to stay in Shanghai mainly due to their good prospects also do not possess the resident accounts of Shanghai (Hukou), thus could not benefit from social housing policy, despite of their low income situation.

However, the Shanghai resident account (Hukou) is really difficult to obtain, since the application system is really strict and complicated, plus it generally takes a long time. "Obtaining a Shanghai Hukou is generally a long way to go for most immigrant workers. According to Circular [2009] No.7 issued by the Shanghai Municipal Government, most immigrants need to hold a 'Shanghai Residence Permit' for seven years and meet other standards before becoming qualified Shanghai Hukou applicants." (Briefing, 2011) In addition, the process of applying for the Shanghai resident account (Hukou) is also have many classifications and requirements which further add the application difficulty.

Under this situation, the lower income groups in Shanghai without resident account (Hukou) like most of migrant workers and university graduates are certainly excluded from beneficiaries of social housing, and this kind of inequality would increase the widespread discontent of the society and increase the social contradictions, that all hinder social stability and harmonious development.

6.5 Social segregation

The current social housing construction is mainly provided by the local government, and in order to save the cost under the high financial pressure, the social housing construction site is mostly situated at urban fringe which is far from city center. In the meantime, the increasing demand of social housing plus the requirements of central government to speed up the social housing construction pace, the social housings are also mostly concentrated constructed in large scale.

However, this kind of large scale as well as concentrated construction mode of social housing results the gathering of the lower income groups. Also, the lack of surrounding infrastructures and community services around the social housing in the urban fringe makes the residents far from the work place, extremely inconvenient in their social life, which would further limit their participation and improvement.

Since the large scaled gathering groups generally sharing similarities in terms of economic income, social value, life style, work status and other inhabitants, plus the lack of social interaction and social involvement, that generally forms own regional culture through accumulation during a certain period. Thus, the gap between other social groups becomes bigger, and these gradually more and more deviated from the mainstream of social values which would further contribute to the social segregation. The expansion of social segregation will bring a variety of harms to the society, such as increasing class differentiation, unfair social distribution, growing difficulty in social governance, decreasing social integration, that all seriously affect the social stability and harmony.

Similar situation occurred in the France after the World War II. Under the urgent housing crisis, in the early 1950's to the mid 1970's, government constructed the social housing with industrialization and standardized mode to speed up its construction, in order to quickly fill a large number of housing gap. In terms of urban planning, affected by the "Charte d'Athènes" (Le Corbusier) of functional city and mechanical rational modern architecture concept, constructing new, independent, single function of large scale social housing area in the outskirts of the city has become the core concept in guiding the France government social housing construction. In the mid 1970's, the social housing was saturated, and the housing problems were basically solved. However, the residential segregation as well as the social segregation along with increasing race and wealth differences brought serious social problems, which negative influence continues today, like the "2005 French riots".

Social housing construction mode of Shanghai, that is large scale, concentrated construction in the urban fringe isolated, without sufficient infrastructures and community services supported, undoubtedly results the social segregation, which could result into serious of social problems in the

future despite of its current transient advantage of fast, economic and could solve the urgent housing crisis immediately.

6.6 Monotonous design (regardless of demographic characteristics)

In general, social housings in Shanghai present monotonous design in terms of planning as well as unit design, regardless of its different categories like public rental housing, economic housing and removal and relocation housing. More importantly, social housing design in Shanghai lack of concerning of demographic characteristics.

However, in Europe, the particular demographic profile of social tenants usually becomes one of the important considerable factors in social housing construction, since demographic changes will undoubtedly bring different housing demand that have close relationship with the social housing design. (Figure 6-2)

	Age/household type	Income
Austria	Young families (on new estates) older people/singles (on older estates)	Municipalities: working class/ disadvantaged. HA: middle class
Denmark	Children and young people, households with one adult	Low-income and households receiving transfers
England	Young and old; single parents, single persons	Low incomes - <half owner-occupier income
France	Single-parent families and couples with children	Average household income 74% of national average
Germany	Older people	Lower income
Hungary		Low income and social status
Ireland	Single parent families and couples with children	62% have incomes <60% of median (vs 22% overall)
Netherlands	Older/smaller than average	Lower than average and falling
Sweden	Single parents, elderly single	Lower than average

Figure 6-2 Demographics of social housing (source from (J., 2007))

For example, in Madrid (Spain), the new formed demographic structure in 1990s, such as late of marriage age of young people, increasing ratio of unmarried mother and growing number of DINK (double income no kids) families gradually reflected in the social housing constructions and make its design become more rational.

“The shift in population and demographic change surely indicates the need for a comprehensive inclusion of all groups such as older single adults, multi-generational kinfolk living together, young single professionals, and single-parent families. The change in family formation should be adequately addressed through social housing by means of architecture design and construction.” (Hadzic, 2013)

In shanghai, the large numbers of particular groups along with increasing demand of specific social housing category exist nowadays, like young people who just graduated from university and the growing numbers of elderly people who are usually belong to the social housing benefit targets. However, in Shanghai, there is no specific youth apartment or elderly apartment in social housing constructions by now. Instead, the government still constructs the social housing with its general term defining its benefit target as lower income groups, regardless of demographic characteristics, which leads to its monotonous design and does not satisfy the real need, especially the need of the special groups.

Chapter 7 Policy (Europe)

- Social housing policies in Europe

Under the very urgent and great need of social housing nowadays in Shanghai, the government makes constant efforts in social housing construction, and has achieved some progress in this sector. However, lack of experience in social housing construction, with the immature policies and implementations, which lead to many social housing problems currently as we introduced in previous chapter.

By contrast, social housing in Europe has more than 100 years of history among different countries under their specific backgrounds and conditions in each different period, which now forms relatively mature policies with advanced experiences in social housing construction.

This chapter introduces the social housing policies of four selected countries in Europe, Netherland, France, Spain and Italy, that mainly in terms of four aspects, tenures, providers, beneficiaries, and funding arrangement. By further understanding of the policies in these four countries, ultimately summarize the relevant inspiring points within the current social housing problems in Shanghai.

7.1 Netherland

7.1.1 General introduction

- Tenures

Netherland owns the dominated proportion of the social housing stock in Europe, especially in the rental social housing stock, which is the main tenure status of its social housing. According to the statistics, in 2008, rental social housing stock accounts for about 32% of whole housing stock, and about 75% of the total rental housing stock in Netherland. In addition, in Netherland, the number of social rental dwellings per 1000 inhabitants reached 138 inhabitants (13.8%) in 2008.

In terms of tenure status proportion out of total housing stock in 2008, owner occupied dwelling accounts for 58%, private rent dwelling accounts for 10%, and the social rent dwelling accounts for 32%. (Figure 7-1) (Laino, 2011)

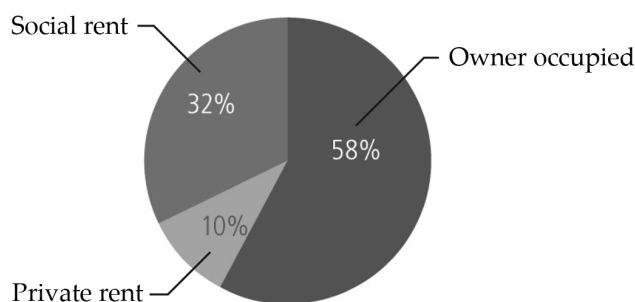


Figure 7-1 Tenure status (%) out of total dwelling stock, 2008 (source from (Laino, 2011))

In Netherland, almost all social housing is owned by the registered social housing organizations, with only a little number of municipally-owned housings. Currently, the number of registered social housing organizations is about 425.

Although the tenure status of social housing in Netherland mainly dominated by the rental social housing in general, there is also called social owner occupation which is usually for the first time buyers. "This is popular with major centre and left-wing political parties, who see it as a means to fill the gap between cheap social renting and expensive owner occupation. The dwellings are built by both housing associations and private investors, for whom they are sometimes part of a 'package deal' with market housing. Prices can be low because local authorities offer the land at below-market prices. Sometimes the purchase contract contains conditions limiting resale in an attempt to prevent speculation, but the many exceptions have made enforcement difficult." (J., 2007)

- Providers

Registered social housing organizations are the main social housing providers in Netherland, which are the "private non-profit organizations (associations and foundations) with a legal task to give priority to housing households on lower incomes". (Laino, 2011)

According to the Social Rented Sector Management Order, the registered social housing organizations have six duties such as "to house those people who are not able to find an appropriate dwelling themselves; to maintain decent-quality dwellings; to consult with their tenants; to run their financial affairs responsibly; to contribute to livable neighborhoods (added in 1997); to provide housing (but not care) for the elderly and handicapped (added in 2001)" (J., 2007) In exchange for these duties, the registered social organizations get the various subsidies in social housing construction, like purchase the council land with lower price and tax incentives.

"They operate on the basis of a registration and are supervised by the national government. Although housing associations work within a legal framework set up by the State, they are independent organizations, setting their own objectives and bearing their own financial responsibilities. Social housing organizations are the most important agents on the Dutch housing market and their task is not only to build, maintain, sell and rent social housing stock but also to provide other kinds of services, directly related to the use of the dwellings, to the occupants." (Laino, 2011)

- Beneficiaries

Before, the Netherland provide social housing to all citizens, and now the beneficiaries are restricted to some extent. "Mechanisms for allocation and criteria vary according to the local/regional situation. In general, up until recently, access to social housing in the Netherlands was never restricted on the basis of income and was virtually open to all citizens. However the recent

decision by the European Commission (in 2010) mentioned above challenged this universal approach by targeting social housing provision to a limited group of people (disadvantaged people or socially less advantaged groups, as well as to certain categories of key workers), primarily defined in terms of income.” (Laino, 2011)

- Funding arrangement

As the main social housing provider in Netherland, the registered social housing organizations have been financially independent from the central government, since the event called the grossing and balancing operation (‘Brutering’) in 1993. Although, the registered social housing organizations are act as the relatively independent role in the social housing funding arrangement, they are still in a well guaranteed funding condition with multiple levels. (Figure 7-2)

“More precisely, registered social housing organizations can benefit from a three-level security structure: the first element is the Central Fund of Social Housing (CFV), an independent public body that acts as a supervisor of the organization’s financial situation and intervenes to give support to the organization incurring financial difficulties. The second security instrument is the Guarantee Fund for Social Housing (WSW), a private organization created by housing organizations themselves that acts as solidarity fund among them. The mutual guarantee this Fund enables social housing organizations to benefit from favorable conditions and interest rates when financing their activities on the open capital market. In case these two instruments are not sufficient to overcome organizations’ economic problems, the State and the local authorities can intervene by acting as a last resort.” (Laino, 2011)

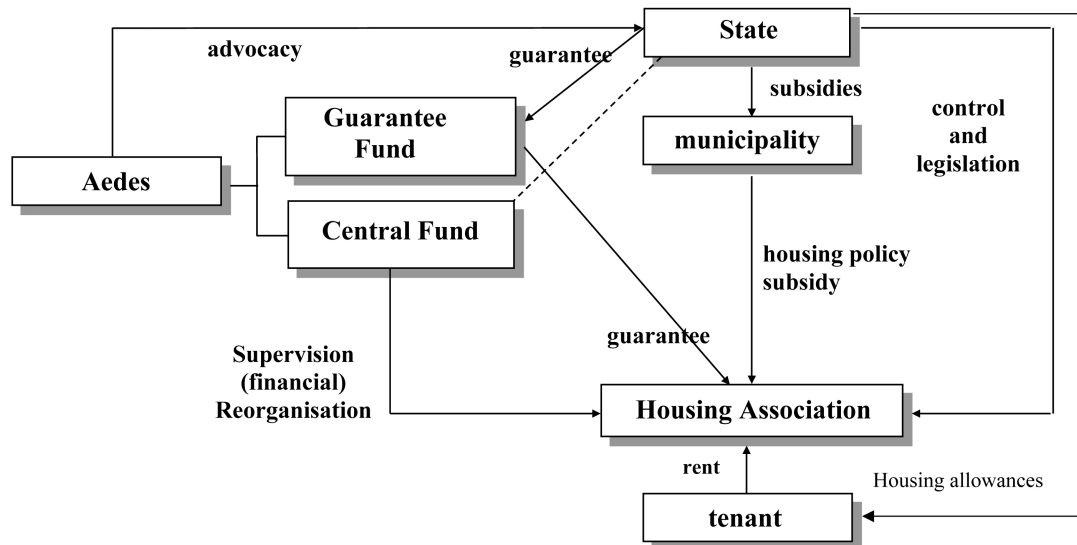


Figure 7-2 Funding condition of rental social housing (source from (Elbers, 2003))

7.1.2 Inspiration in terms of social housing problems of Shanghai

Netherlands plays the leading role in social housing construction to solve its housing problems, whose advanced experiences also could give some inspirations in terms of social housing problems of Shanghai.

Firstly, in Shanghai, the providers of social housing are kind of monotonous, mainly including only the central government and local government and without the specialized associations in social housing sector like the registered social housing organizations in Netherlands, which always leads to the problems such as social housing supply shortage, low quality of social housing and lack of maintenance after construction. In Netherlands, registered social housing organizations as the specialized association that responsible for the social housing construction, leasing, management and maintenance, have the right to allocation and management the social housing by themselves. With the existing of registered social housing organizations, not only ensure the sustained and stable social housing supply, but also improve the social housing quality and surrounding environment conditions. For example, "at the neighborhood level, housing associations often provide play facilities for children, neighborhood wardens, environmental maintenance and neighborhood centers, particularly where local authorities can't afford or don't want to do so. Housing associations justify these investments as a way to improve the quality of life in their neighborhoods and maintain the value of their property." (J., 2007)

Secondly, compared to the lower proportion of public rental housing with improper supply in Shanghai, the social housing of Netherlands predominated by the rental social housing with a good condition and proper design which mainly due to the sustained and stable housing resources of registered social housing organizations.

Thirdly, the financial independence from the central government in social housing construction of the Netherlands eased the financial burden of government budget. In Shanghai, heavy reliance on the central and local governments, gradually shrink governmental budget, which brings severe economic pressure to government. Before, the government of Netherlands also played dominated role through social housing construction subsidies, government loans, lower cost land transfer and other means to support the registered social housing organizations to construct social housings. However, it gradually replaced by the establishment of multiple levels guaranteed funding (Central Fund of Social Housing (CFV), Guarantee Fund for Social Housing (WSW), Involvement of the State and the Local authorities) not only broaden the funding resources, but also ensures low interest construction funds. Thus, the government guarantees to raise construction funds, which reduced the government financial burden as well as further ensuring of the stable source in social housing fund.

7.2 France

7.2.1 General introduction

- Tenures

France owns the large numbers of rental social housing stock, which is the main tenure status of its social housing. According to the statistics, in 2008, rental social housing stock accounts for about 17% of whole housing stock, and about 44% of the total rental housing stock in France. In addition, in France, the number of social rental dwellings per 1000 inhabitants reached 86.5 inhabitants (8.65%) in 2005, which plays an intermediate position in rental social housing sector, compared to other European countries, between Netherland and Italy.

In terms of tenure status proportion out of total housing stock in 2008, owner occupied dwelling accounts for 57%, private rent dwelling accounts for 22%, social rent dwelling accounts for 17%, and other which includes 'tenancy of a furnished unit, sub tenancy and free housing' accounts for 4%. (Figure 7-3) (Laino, 2011)

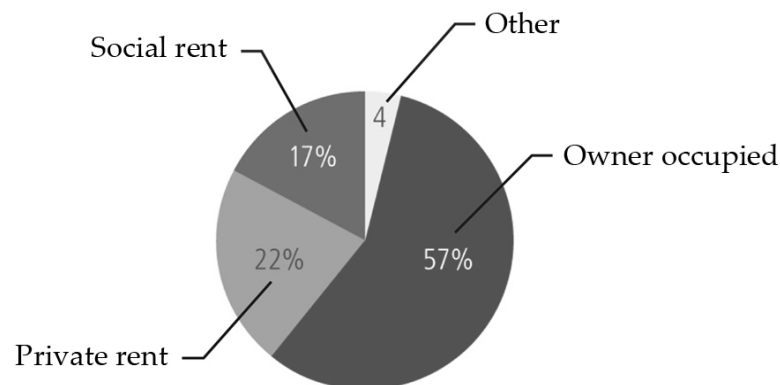


Figure 7-3 Tenure status (%) out of total dwelling stock, 2008 (source from (Laino, 2011))

In France, the social housings are mainly owned and managed by HLM (Habitation à Loyer Modéré) organizations, including "both publicly and privately owned companies acting on a non-profit basis and under the control of the Ministry of Housing and Finance." (Laino, 2011)

Although the tenure status of social housing in France mainly dominated by the rental social housing by HLM organizations provided in general, there is also called social owner occupation to encourage households to become homeowners for the first time. "Since 1977, many attempts have been made to develop social home ownership. One home-ownership loan program collapsed in 1995 (the PAP system), and was replaced by the PTZ, or 'zero-interest loan.' After its extension in 2004, it was expected to increase the number of subsidized new homeowners from 100,000 to 200,000. The

objective is to enlarge freedom of choice between old and new construction, and guarantee to low-income households a better benefit than the original PZT of 1995. The goal to encourage families to become homeowners for the first time; the outcome is not yet clear.” (J., 2007)

- Providers

The main providers of social housing in France are the HLM (Habitation à Loyer Modéré) organizations “which are specific actors entrusted by the state to fulfill a mission of general interest”. “It is a specific sector of the housing market, which is governed by legislative and regulatory provisions, separate from common law and regulated by the Construction and Housing Code (Code de la Construction et de l’Habitation, CCH). The provision of social housing includes construction, development, allocation, and management of rented social housing as well as of dwellings for social home ownership.” (Laino, 2011)

“French social housing is built and managed by HLM organizations, as well as to a lesser extent by semi-public enterprises (Société d’économie mixte, SEM) and some non-profit associations. Providing the biggest part of the social housing stock, HLM organizations include both publicly and privately owned companies acting on a non-profit basis and under the control of the Ministry of Housing and Finance.” (Laino, 2011)

- Beneficiaries

The beneficiaries of the social housing in France are restricted by the income levels with providing some priority access for specific groups to ensure their application for the social accommodation.

“Access to social housing is limited by income ceilings, which are set at the national level by specific regulation and vary according to the area where the dwelling is located as well as the number of household’s components. Income ceilings are set at a level which virtually includes a large proportion of the population to be accommodated in social housing allowing for a certain degree of socio-economic mix. Nevertheless, over the past three decades the sectors has seen a constant increase in the proportion of poor households, with currently 35% of all HLM households on incomes below the poverty line. Furthermore, the Law on the Right to Housing (commonly referred to as DALO) introduced in 2007, establishes priority access for bona fide applicants in the following 6 categories: homeless; people at risk of eviction who don’t have the possibility of finding another accommodation; people with temporary accommodation; persons in unhealthy or unfit accommodation; households with children in overcrowded or indecent dwellings; disabled. The law allows for people to seek for legal redress vis-a-vis the local authority in case their request for an accommodation is not answered.” (Laino, 2011)

- Funding arrangement

The distinctive characteristic of funding arrangement in social housing construction of France is the participation of household savings, which as a

consequence becomes the main funding resources of social housing construction.

Every household in France has the right to open the called 'Livret A' account, and the interest of that is tax free. Promoted by the tax relief, French households put their savings in these accounts (there is a limit on the amount for each household) offered by their local banks and a substantial proportion (about 65%) of savings are allocated to the State-owned bank, Caisse des Depots et Consignations (CDC), which is the main finance resource of social housing construction. "Their savings are pooled by the CDC, which pays a fee to the banks for collecting the funds and a defined interest rate."

"Other sources of financing include employers' grants and discounted loans (the so called '1% Logement', which was designed to promote housing for employees), and guarantees from local authorities or the HLM guarantee fund (CGLLS)." (Laino, 2011)

The statistics of the social housing construction operation in 2009 in terms of funding arrangement (Figure 7-4) represent that the CDC loan which from the 'Livret A' accounts for 76.5%, equity capital accounts for 10%, local authorities' subsidies and state subsidies account for 8% and 3% respectively, and employer's grants account for 2.5%. (Laino, 2011)

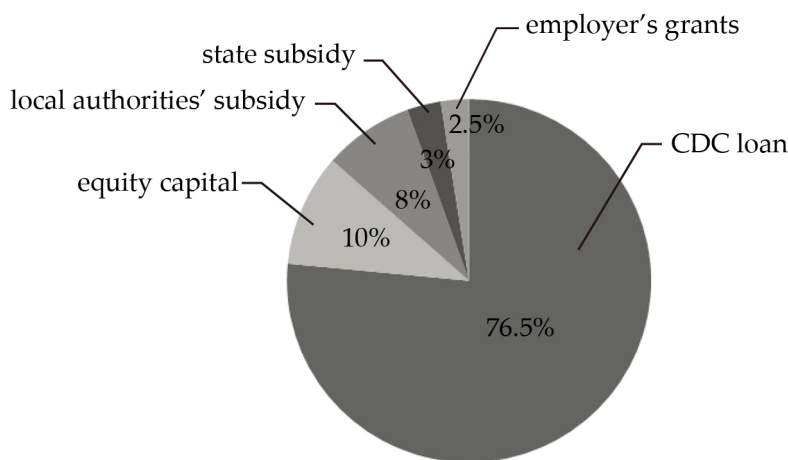


Figure 7-4 Funding proportion of social housing construction in 2009 (source from the Database of shanghai and summarized by authors)

7.2.2 Inspiration in terms of social housing problems of Shanghai

France has the advanced experience in social housing construction with its comprehensive social housing system which could give some inspirations in terms of social housing problems of Shanghai.

Firstly, the existence of specialized social housing organizations, called HLM (Habitation à Loyer Modéré) organizations entrusted by the state, that are responsible for social housing construction, development, allocation, and management, could further ensure the sustained and stable social housing supply as well as the construction quality.

Secondly, high percentage of rental social housing in France with its proper design according to demographic changes could not only provide sufficient supply in rental social housing sector, but also meet the demand in various levels.

“Demographic changes will obviously have a big impact on housing demand. The number of households will continue to grow faster than the population as a whole. The number of households is forecast by INSEE (the National Institute for Statistics and Economic Studies) to increase by 275,000 annually, and possibly more. Divorces imply a requirement for two housing units instead of one - and in addition, both must be large enough to accommodate children. Half of the new households will be single people, elderly persons and students. These latter categories need specific types of housing: small units that are well located, with good services close by. With this idea, we are back to the importance of local markets. As the pressure on dynamic areas will increase, there is a need to ensure territorial equity.” (J., 2007)

Thirdly, the funding arrangement of the social housing in France advocates the households' initiative through CDC loan which from the 'Livret A' by tax relief to obtain large amount of social housing construction funds. Also, the government guarantees to raise construction funds, which reduced the government financial burden (provide relatively small amount of subsidies) as well as further ensuring of the stable and variety sources in social housing fund.

Fourthly, involvement of 'mixité' in 2000 through the SRU Act (section 55), which rules that required towns with more than 3,500 residents to have 20% social housing. This kind of social mix requirement aims to avoid the spatial segregation due to social housing construction, and the local housing program (PLH) in 1991 also introduced local responsibility in social housing planning with ensuring diverse distribution in different levels like in city center, towns and district. Before, especially after the World War II, construction of many large peripheral estates in France results in serious social segregation and its negative influence still continues today.

Fifthly, recent development of social housing construction in France pays more attention to the sustainable development. According to the recent development of social housing in France, “under the so called 'Grenelle de l'Environnement', HLMs are engaged in a plan to renovate (by 2020) 800,000 social housing units in order to improve their energy efficiency.” (Laino, 2011) In addition, the social housing constructions in France tend to be with good environment quality and sustainability. “The government has recently introduced incentives for the construction of sustainable dwellings, and some social developers are focusing on using sustainable materials and innovative energy systems, but momentum is just beginning to grow.” (J., 2007)

7.3 Spain

7.3.1 General introduction

- Tenures

The tenures of social housing in Spain are quite different from the situations in the Netherlands and France, furthermore, the most social housing situations in European countries. The most social housings are owner-occupied, instead of public rental properties. Even though, the public rental social housings are keeping increase during the current years, still only a small proportion of social housings are offered by rent by now.

By the statistics of 2008, we could see that “The entire home-ownership sector represent 85% of the total housing stock in Spain, while the rental sector is the smallest in Europe, corresponding to 11% of the total housing stock, and it is concentrated quite exclusively in few main cities such as Barcelona and Madrid. Just about 2% of the stock is social rental housing.” (Laino, 2011)

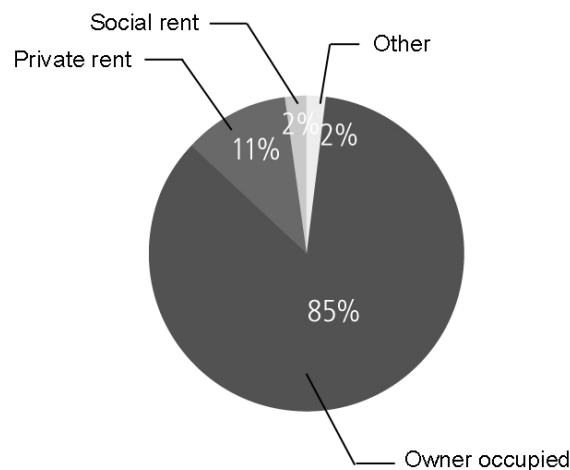


Figure 7-5 Tenure status (%) out of total dwelling stock, 2008 (source from (Laino, 2011))

“The right to housing is guaranteed by the Spanish Constitution. Social housing in Spain consists of the so-called Vivienda de Protección Pública (publicly protected housing). The main characteristic of protected housing is that construction, renovation and buying are subsidized by the State through reduced interest loans to providers. In exchange for this, dwellings complying with a number of conditions concerning size and quality are sold or let at prices below market to people with revenues below certain income ceilings.” (Laino, 2011)

- Providers

“Public support for protected housing is dwelling-based, and open to all sorts of providers: public developers, commercial developers as well as not for profit organizations and cooperatives, as well as individuals who alone or collectively want to buy or rehabilitate a home.” (Laino, 2011)

The public developers play the dominating role of the social housing constructions in Spain. These projects are called officially protected housing (VPO). “Once the VPO houses are built they are sold, making the property and its management the private responsibility of the owners. Dwellings maintain their social character for a limited period of time (20 years) after which they can be traded at market prices. Within the 20-year period, re-sale prices are controlled and owners who sell must repay subsidies. Despite this requirement, owners can make substantial capital gains in the long run.

Only a small percentage of the social VPO houses built are rented and those are owned and managed by specialized institutions. Since the 1980s, most regional governments and municipalities have created public housing corporations to deal with this rented stock.

Professionalism varies greatly among different companies and most providers administer, maintain and repair existing stock; select its beneficiaries; enforce eligibility conditions including the possible rotation of tenants. Also are fully or partially responsible for developing the land (normally supplied free by the municipality), and engaging a private contractor to construct the dwelling.” (Alberdi, 2014)

- Beneficiaries

The beneficiaries of social housing in Spain are mostly vulnerable social groups, such as unemployment, and low-income families. The beneficiaries should achieve these conditions:” The person who buys / is allocated / builds for personal use the dwelling: must not own or have a permanent right to use another dwelling, must not have obtained financing from the Housing Plan over the previous 10 years, and must have an income below certain levels. Disabled people and depended persons have the priority, and the regional governments can establish other types of requirements.” (Laino, 2011)

- Funding arrangement

There are three types of funding subsidy in the Spanish social housing system: “the land provision”, “the public budget subsidy” and “the bank system”.

“The main form of subsidy is through the provision of free or cheap land (the cost of land cannot make up more than 15% of the final price of the unit) for construction by municipal landowners.

The additional costs of VPO social housing are financed through two avenues: the public budget and the banking system.

Some of the social housing built during the 1960s, through to the 80s was partially funded through the public budget. It also provided funds for

upfront subsidies to lower income households. The public budget also funded the interest rates subsidies embedded in VPO loans. The fall in interest rates has reduced the importance of such subsidies and state funds for housing go now mainly to demand side subsidies, which had been increasingly eliminated since 2010.

The other major source of funding is the banking system. Since the mid-1970s, mortgage funding was the responsibility of banks and savings banks, including mortgages for VPO dwellings. The state contracts with these private credit institutions, those in turn provide loans on favorable conditions.

VPO social housing also benefits from a range of upfront subsidies and grants. They vary by regions but are minor compared to the mortgage tax deductions. “ (Alberdi, 2014)

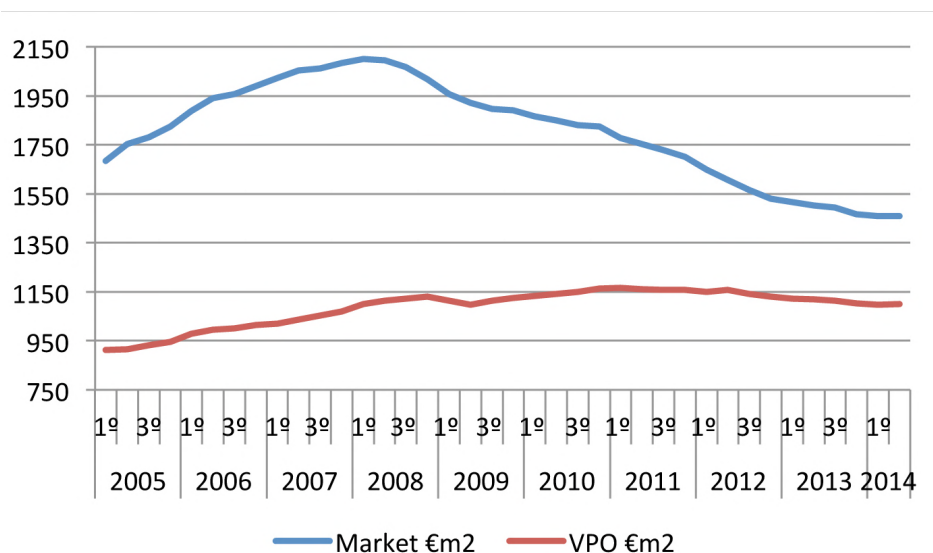


Figure 7-6 The price compared between VPO and market houses. in 2014 (source from Ministry of Public Works)

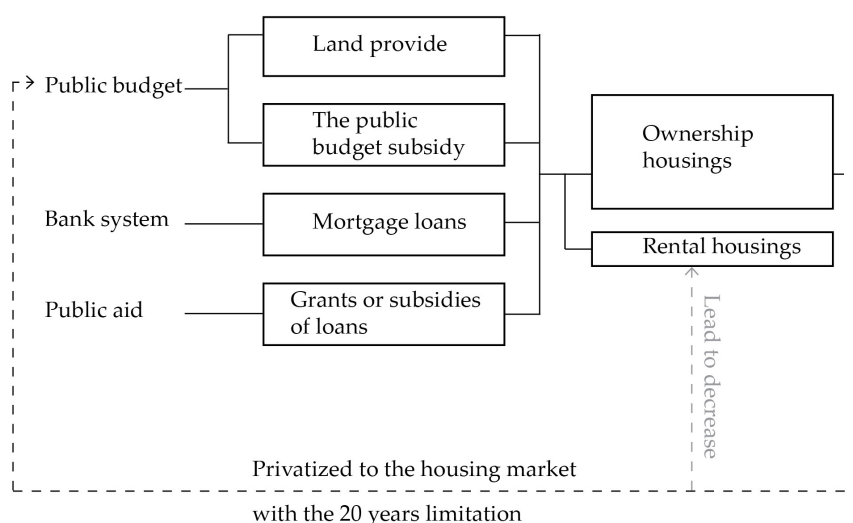


Figure 7-7 The founding arrangement structure (made by authors)

7.3.2 Inspiration in terms of social housing problems of Shanghai

Spain has a relative high comprehensive social housing system and has implemented many well-known social housing projects, which could give some inspirations in terms of social housing problems of Shanghai.

Firstly, the social welfare budget takes a great percentage of the government financial budget, which accounts for 21.8%. It is even higher than other developed countries. This great budget has been used for many social housing construction projects and took benefits for a great number of vulnerable families.

Secondly, the target beneficiaries in the Spanish social housing system are very comprehensive, including low-income families, unemployed, immigrants and disabled people. These people have registered under an impeccable information management system, and each people could only enjoy one type of social housing subsidized mode.

Thirdly, the social housing developer, the EMVS (Empresa Municipal de la Vivienda y Suelo) has launched a series of social housing projects, and invited many well-known architecture companies to construct many well-designed social housing projects in the periphery of Madrid, such as Carabanchel. These projects not only provide more comfortable residences for the vulnerable social groups, but also bring the fame to this originally isolated areas, in order to enhance the conditions of these areas and promote the urban services system and infrastructures.

Fourthly, the social housing projects concerned the apartment types. Many apartment designs are innovating and flexible. These creative apartment arrangement could greatly satisfy the varies housing demands.

7.4 Italy

7.4.1 General introduction

- Tenures

The tenures of social housing in Italy are mainly public ownership. "An official definition of social housing in Italy has been provided for the first time in 2008. Social housing consists 'mainly of dwellings rented on a permanent basis; also to be considered as social housing are dwellings built or rehabilitated through public and private contribution or the use of public funding, rented for at least eight years and also sold at affordable price, with the goal of achieving social mix.'" (Laino, 2011)

We could see from the chart below which shows the tenure status out of total dwelling stock in Italy in 2008: 68.5% housings are owner occupied, 13.6% housings are private rent, 5.3% are social rent housings and 12.6% are others.

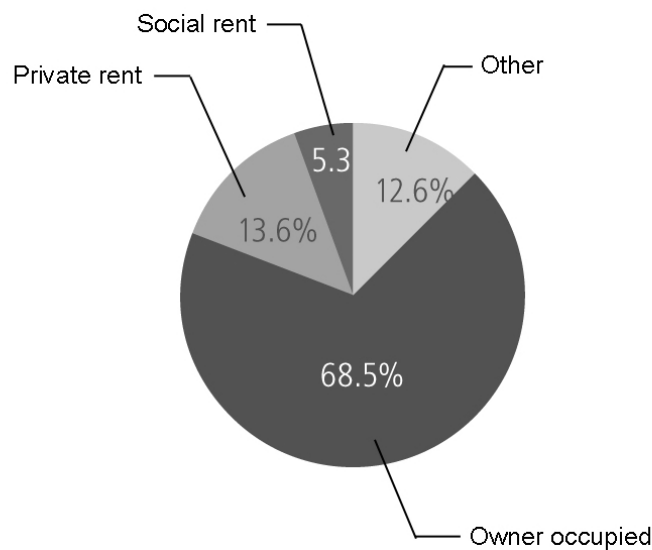


Figure 7-8 Tenure status (%) out of total dwelling stock, 2008 (source from (Laino, 2011))

- Providers

There are mainly three social housing types in Italy: “Subsidized housing” (*edilizia sovvenzionata*), “Assisted housing” (*edilizia agevolata*) and “Agreed housing” (*edilizia convenzionata*). According to these three types, there are mainly three different providers: “The public sector (IACP)”, “Housing cooperatives” and “Private providers”.

1) “The public sector (IACP)” mainly provides the “Subsidized housing”. These housings are rental housings owned by the public sector with the lowest income groups as the target beneficiaries. “The public sector is mainly represented by the former IACP, created in the 1903 as public bodies and now transformed into autonomous public agencies with different legal statutes. They own and/or manage public housing stock, and their activities are targeted to low-income households. Municipalities own social rental dwellings, and in some cases they also manage them directly (limited phenomenon). In terms of the size of the public sector, although over a million dwellings were built in the post war period, the public social rented sector never grew significantly larger, because large segments of the stock are continuously being sold off.” (Laino, 2011)

2) “Housing cooperatives” mainly provide the “Assisted housing”. These housings could be both for rent and for sale, with the low to middle income groups as the target beneficiaries. These housing cooperatives mainly started to involve in the provision of social housing since 1978.

3) “Private providers” mainly provide the “Agreed housing”. These housings could be both for rent and for sale, “whose transfer costs or rents are

regulated by a specific agreement drawn up between the Municipality and the housing provider.” (Laino, 2011)

- Beneficiaries

The target beneficiaries in the Italian social housing system are mainly vulnerable social groups, such as low-income families, families having bad living conditions and families with many children. “Regions have the responsibility to define the requirements for access to social housing, as well as rules for setting rents. In the case of public social housing, the eligibility is based on a set of criteria for registration in waiting lists in all Italian regions. These are: income of the applicants; address (whether there is an occupational or residential link with the municipality), and nationality.” (Laino, 2011)

- Funding arrangement

“Financing is provided by the Regions. Municipalities together with the Regions co-finance personal aids for the rental sector, and allocate land to providers. The central government is responsible for macro programming and co-financing of projects through housing allowances, co-funding of urban renewal programmes and programmes to support social rental housing. Most recently, the National Housing Plan, set the basis for new forms of public/private partnerships, through the creation of an integrated real estate fund consisting of a national fund and a network of local revolving funds dedicated primarily to financing social housing. Few such funds have been so far implemented but this financing modality represents a real revolution but also a challenge, particularly for the public sector.” (Laino, 2011)

The subsidized methods for the three social housing types are different.

1) For “Subsidized housing”, the subsidies covered from 60% to 100% of the rental cost. The rental fees are only $\frac{1}{4}$ of the market rents.

2) For “Assisted housing”, the subsidies covered from 20% to 60% of the rental or purchase fees. The rental or purchase fees are only $\frac{2}{3}$ of the market fees.

3) For “Agreed housing”, the private providers could enjoy “a discount on the local tax for building permission and a lease on the land for 99 years.” (Laino, 2011)

“Fondazione Housing Sociale” is responsible for most social housing constructions in Italy. “Fondazione Housing Sociale was created in 2004 to develop the Social Housing Programme, conceived by Fondazione Cariplo to carry out real estate projects of a social nature. Among the founders were also Regione Lombardia and ANCI Lombardia, underlying the public - private partnership that characterizes the project. In 2008, in response to the positive feedback of the first initiatives, the operation of FHS has been extended to the national territory. Its mission is to experiment innovative solutions for structuring, financing, construction and management of social housing initiatives economically sustainable, not based on the logic of free grants.” (Sociale, 2014)

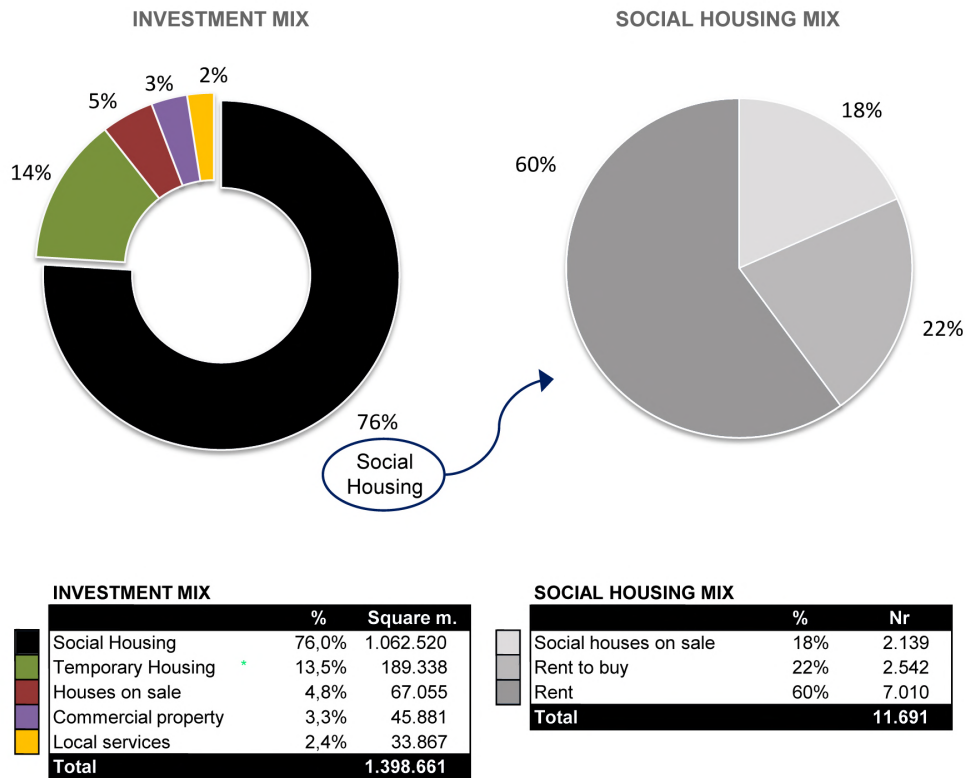


Figure 7-9 The current social housing situation in Italy (source from (Sociale, 2014))

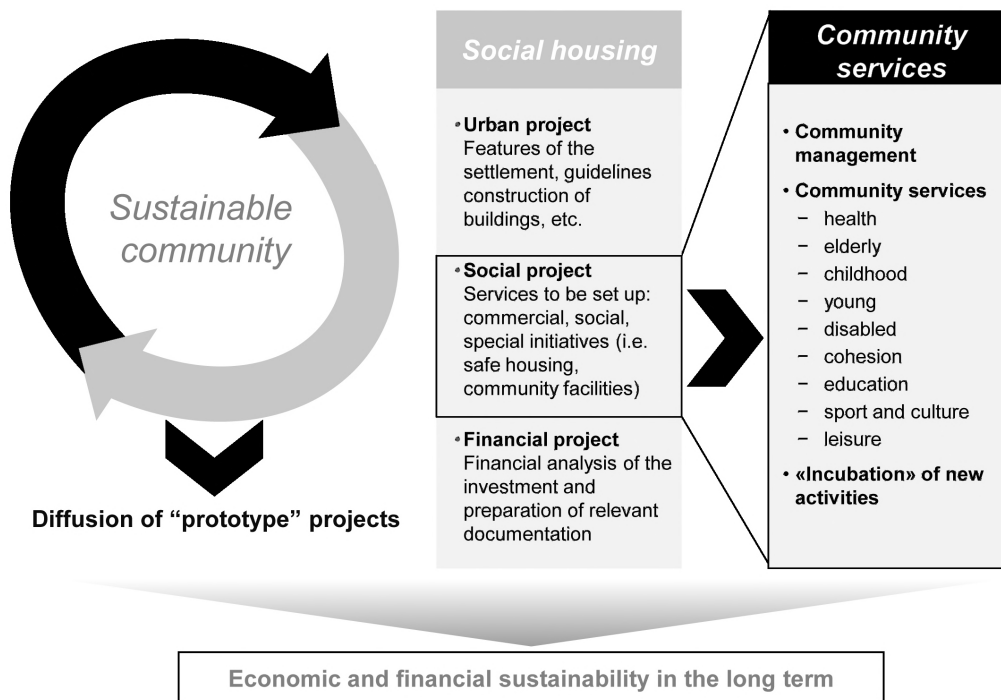


Figure 7-10 Sustainability, social housing and community services in Italy (source from (Sociale, 2014))

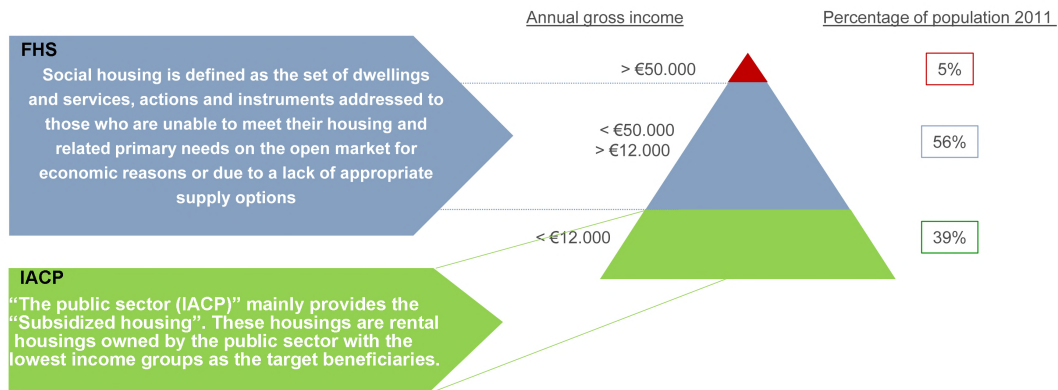


Figure 7-11 Founding arrangement of Italian social housing system (source from (Sociale, 2014) and edited by authors)

7.4.2 Inspiration in terms of social housing problems of Shanghai

Italy has a relative high comprehensive social housing system, has a well operated social housing funding system and concerned about the communication and environment sustainability, which could give some inspirations in terms of social housing problems of Shanghai.

Firstly, even though, the most social housing in Italy have to locate in less favorable locations, such as the periphery areas due to the land price issues, the design of social housing communities concern about the inner communication and activities. For example, the “Fondazione Housing Sociale” has recently constructed several projects in the periphery of Milan, where the service facilities and infrastructures are not currently mature enough. They allocated many community service facilities, such as the sport field, commerce and galleries, to compensate the lack of activities in these areas.

Secondly, most of social housings in Italy are rental housings. The large amount of public rental housings could largely relieve the housing pressures of the low-income families, those could not afford the purchase of an apartment, even there are offered with subsidies.

Thirdly, there are three kinds of social housing types and be provided by different providers, from the central government to the private providers. Besides, the founding arrangement institution “Fondazione Housing Sociale” also test and develop some experimental funding models to attempt more housing provision and funding methods. These could relieve the financial pressure of the central and local governments.

Fourthly, the social housing system in Italy concerns about the demographic characteristics. There are many social housings specially target for young and aged social groups. Besides, sustainable issues are becoming more and more concerned in Italy. Many social housings are following the sustainable concept and constructed and arranged in a sustainable way.

Chapter 8 Case Study (Europe)

-Social housing cases in Europe

After researching the relevant social housing policies in Europe countries (the Netherland, France, Spain and Italy), we could see that, in terms of the problems in Shanghai, these countries have some efficient policies and implementations to improve the similar situations.

However, “are these policies and implementations in Europe are suitable for the particular situation in Shanghai?” “How the social housing projects would be, following the guidance of these policies and implementations?” In this chapter, we will research six social housing cases in Europe, in terms of the current social housing problems in Shanghai, in order to get some inspirations.

Now, we generally introduce the intensions of these selections:

1) “Rivp Louis Blanc, Paris” is a small-scale social housing that intervenes in the Paris old city and be well settled and designed. The selection aims to inspire the proposal to the Shanghai’s social housing problem- “Inappropriate distribution”.

2) “Social housing in Carabanchel, Madrid” is a social housing project with the flexible designed apartment types. The apartment types of this social housing can be flexibly divided and be adopted for varies demands. The selection aims to inspire the proposal to the Shanghai’s social housing problem- “Insufficient proportion of public rental housing with improper supply”.

3) “Vignoles Gymnasium and Garden” is a social housing project combined with a sport field and a public garden. The selection aims to inspire the proposal to the Shanghai’s social housing problem- “Lack of providers”.

4) “Parkrand, Amsterdam” is a social housing project combined with a part of “non-social housing” project. The selection aims to inspire the proposal to the Shanghai’s social housing problem- “Social segregation”.

5) “Social housing in via Cenni, Milan” is a social housing project mainly oriented the young people, with some complex functions (commerce, office etc.) The selection aims to inspire the proposal to the Shanghai’s social housing problem- “Monotonous design”.

6) “Il Borgo Sostenibile, Milan” is a social housing project with complex using, being located on the boundary of the city and connecting with the farmland area. This project mainly intents to develop this special situation and focus on the relationship of the city and farmland area. Besides, the sustainable design is an important issue of this project. The selection aims to further inspire the social housing policies and implementations in Shanghai in a sustainable way.

8.1 Rivp Louis Blanc, Paris, France 2007

“Rivp Louis Blanc, Paris” is a small-scale social housing that intervenes in the Paris old city and be well settled and designed. The selection aims to inspire the proposal to the Shanghai’s social housing problem- “Inappropriate distribution”. The social housing projects should not only focus on a new isolated and empty site, but also considered the mature community in the city center. Besides, instead of a large-scale community with thousands of units, the rental social housing could also be a small-scale building with dozens of units.



Figure 8-1 The street view of Rivp Louis Blanc (source from archdaily)

8.1.1 Background analysis

-General introduction

“The construction of the housing project located 45 Louis Blanc Street in the 10th arrondissement of Paris is the result of a project launched in 1998 by the Paris city real-estate authority. The property developer was expected to take a piece of land measuring 550 SQM and replace an abandoned squat there which had been slotted for demolition with a low-cost building proposing 13 apartments, that adhered to the HQE (High Quality Environmental) standards still being determined at the time. The project is sculpted like a piece of a puzzle, responding exactly to the urban constrains and solicitations of the context. It proposes an unusual typology for the Parisian standards, which frees the ground floor to propose on the ground level a landscaped parking, adequate with a small plot, above which 17 apartments seem to float.” (Aurora Fernandez Per, 2009)

-Location

The project is located in 45 Louis Blanc Street, the 10th district of Paris. The distance to the city center is around 3.3 kilometers. It locates in the old city context, among a series of old buildings.

-Data

The plot area of this project is 550 SQM, the gross floor area is 1,537 SQM, the covered area rate is 68.2%, and the floor area ratio is 2.79. This project is 100% use for living and all the apartments are rental housing, without orienting for a special group. This project contains 17 units and mainly 8 types. The areas of apartments are from 50 SQM to 111 SQM.



Figure 8-2 The street view of Rivp Louis Blanc (source from archdaily)

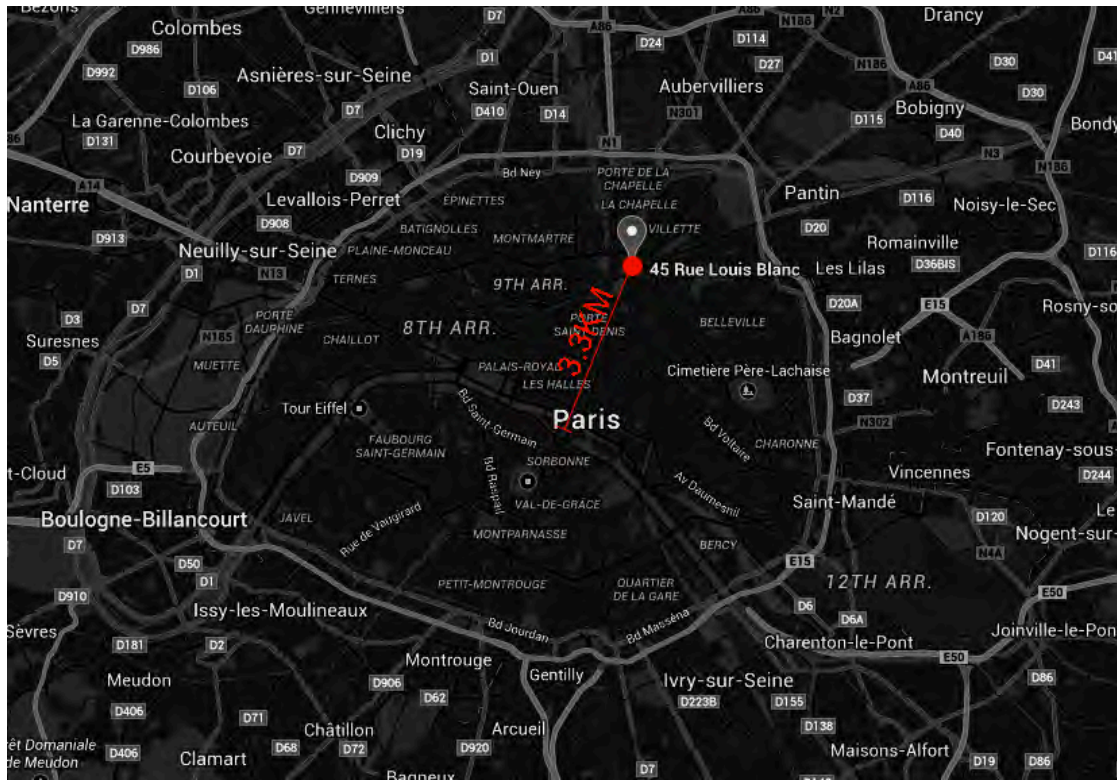


Figure 8-3 The location of Rivp Louis Blanc (source from google map and edited by authors)

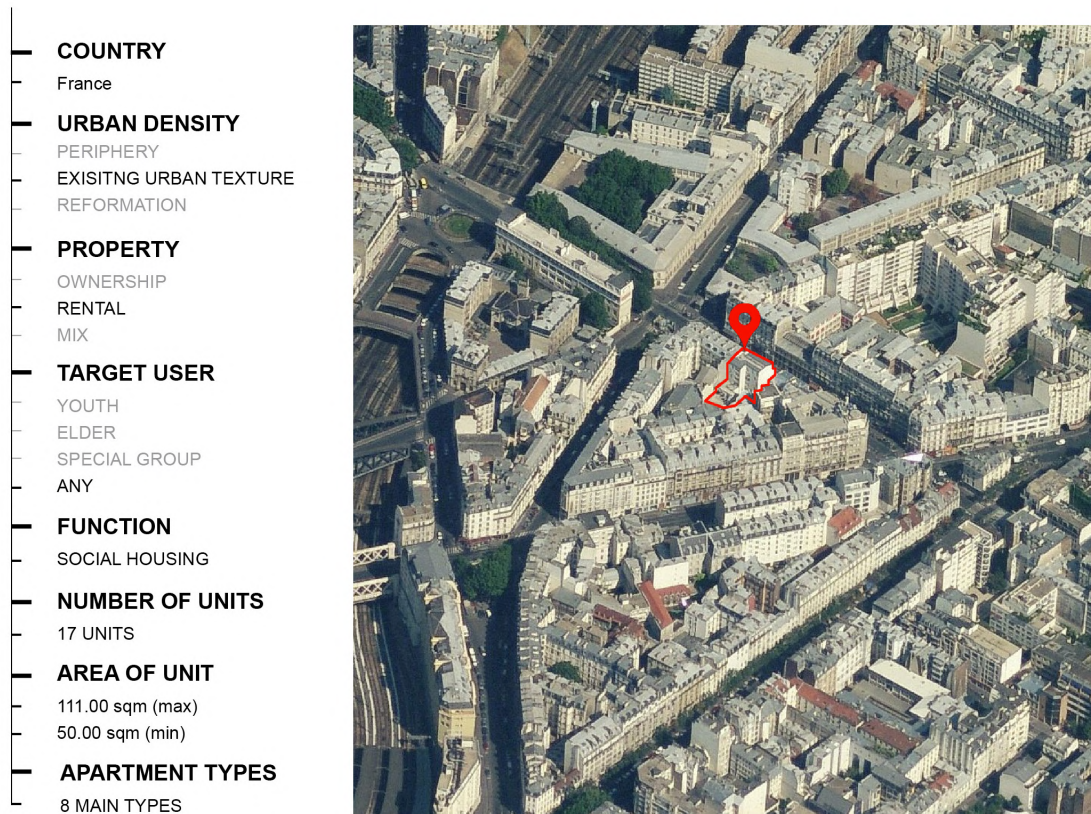


Figure 8-4 The location data of Rivp Louis Blanc (source from bing map and edited by authors)

8.1.2 Inspiring design points analysis

We could see from the site plan of this project. It locates in the traditional old city of Paris. The urban texture of this area is very completed and adhesive. Originally, the target site is an apartment building, which was demolished in 1998. This project is built to substitute the former building, both in terms of the function and the form (protection of the urban texture). The building part, which faces to the street, aims to keep the adhesive of the street façade. As to the part faces to the interior garden, the building adopts the dropping in steps terraces, in order to make the interior garden atmosphere.



Figure 8-5 The diagram of site plan of Rivp Louis Blanc (source from archdaily and edited by authors)

This project inspired us to think about the social housing problem in Shanghai-“Inappropriate distribution”. The site chosen of social housing projects in Shanghai also concentrate in the outskirts of the city, where the service system and infrastructures are not sufficient to satisfy the normal living demands. Besides, the distance from the city center also brings the trouble of the people who work in the downtown area. From this project, we can see that it is not necessary to find a big area in the outskirts city area, due to the cheap land cost, it is also possible to drop some rental housings (with the policy support) in the downtown areas, with the some scale constructions.

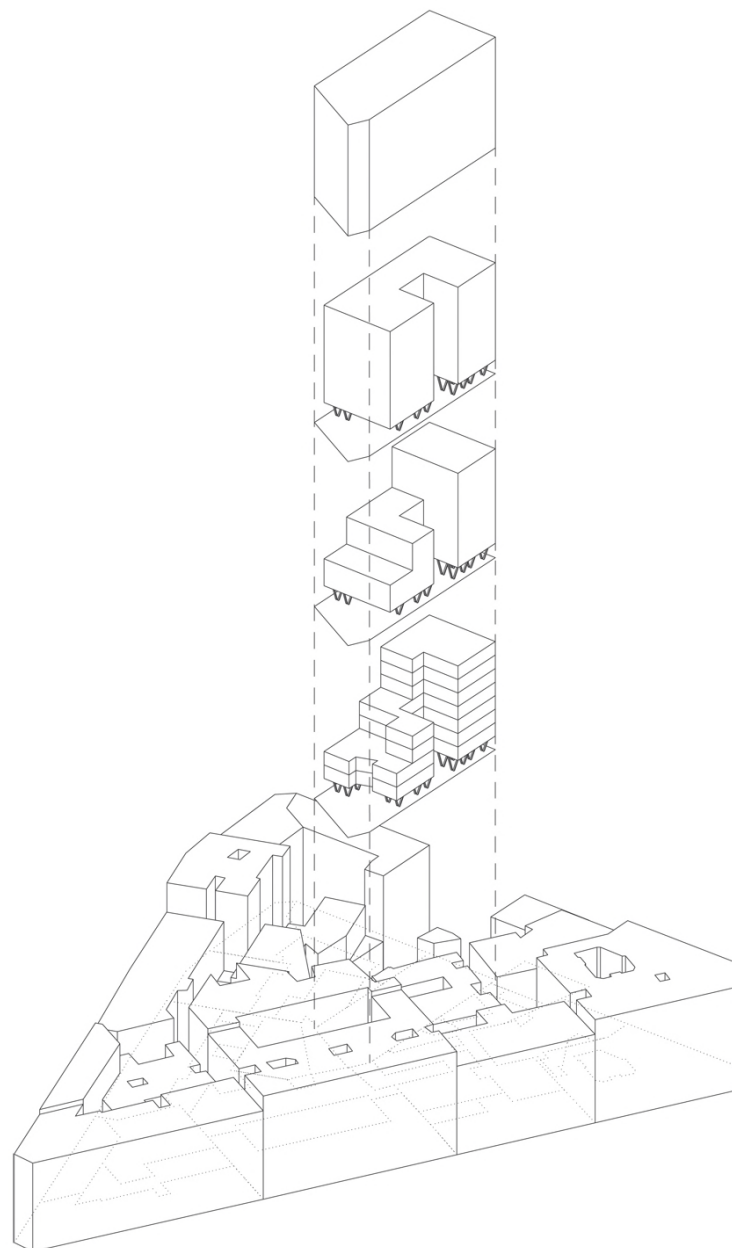


Figure 8-6 The diagram of Rive Louis Blanc (source from archdaily)

8.1.3 Auxiliary analysis

The ground floor is lifted and can be used as the assisting functions, such as the bicycles and cars parking and letter boxes and so on. From the first floor, the areas are used for social housing apartments. The standard floor (the first and the second) contains four apartments, and as to the higher floors, they contain less apartments by step, in order to provide the terraces.

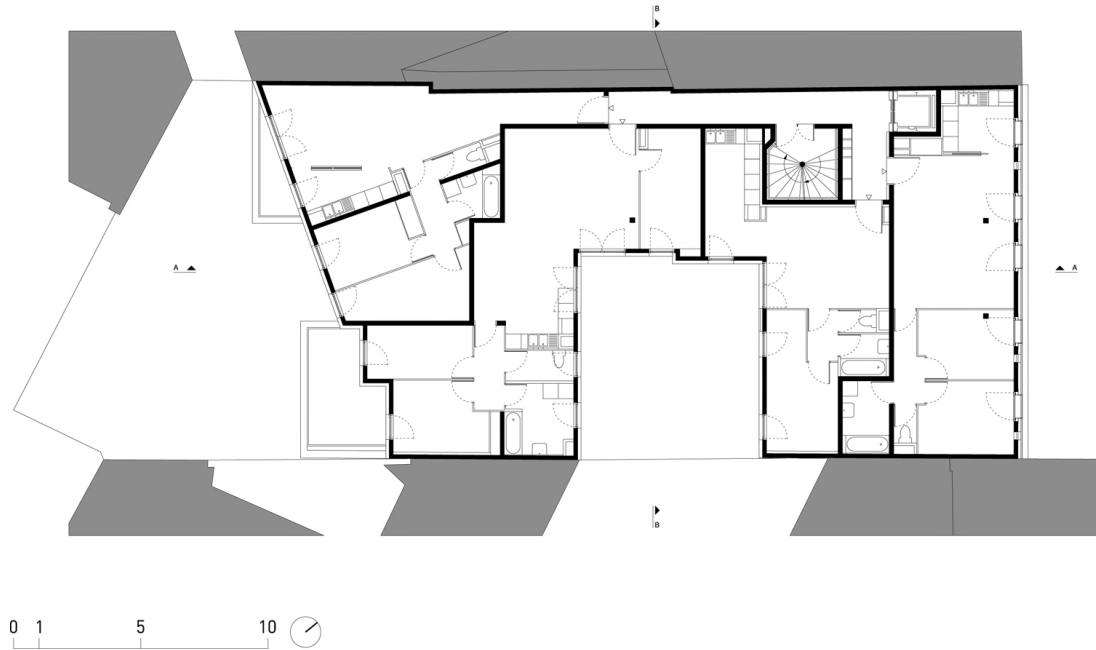


Figure 8-7 The first floor plan of Rivp Louis Blanc (source from archdaily)

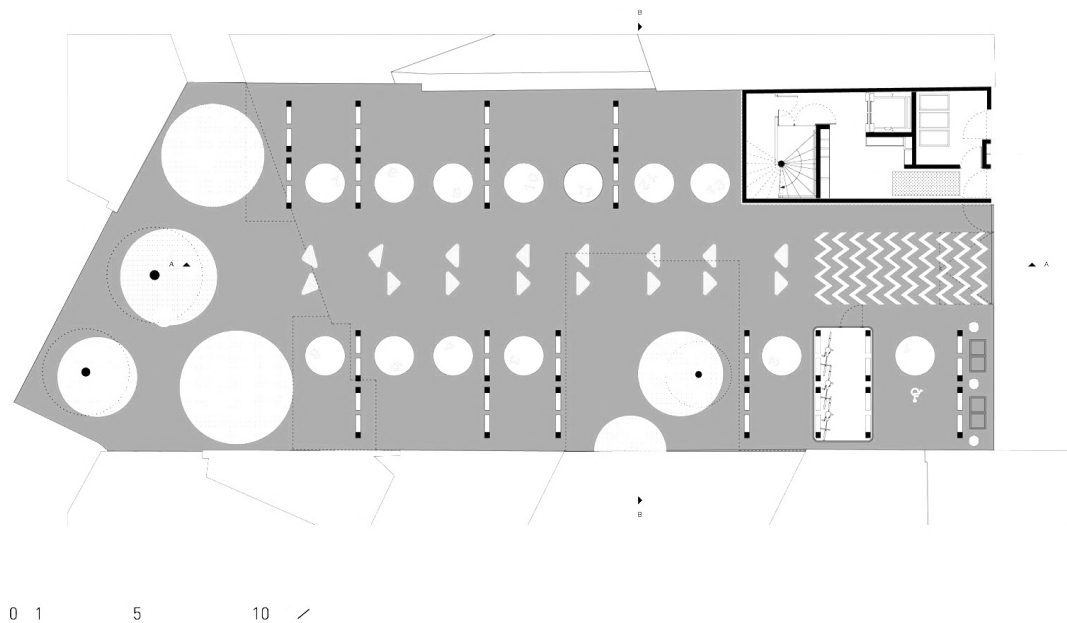


Figure 8-8 The ground floor plan of Rivp Louis Blanc (source from archdaily)

Even though this project only contains 17 units, the apartments are mostly different. There are mainly 8 types of these 17 units. The area of most of these apartments is around 50 or 60 SQM, with two bedrooms. The area of three bedroom apartments is around 80-90 SQM, and the area of four bedroom apartments is around 110 SQM.

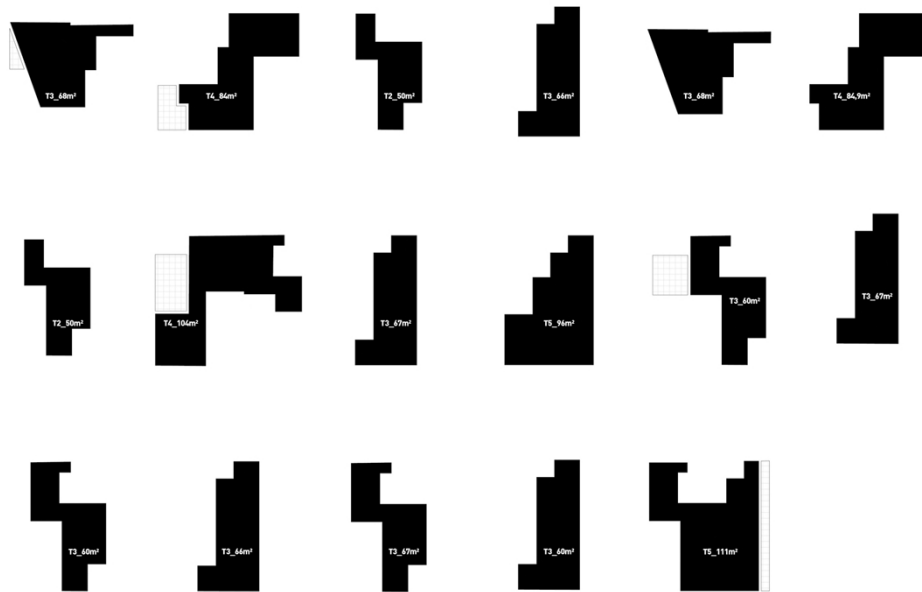


Figure 8-9 The apartment plan of Rivp Louis Blanc (source from archdaily)

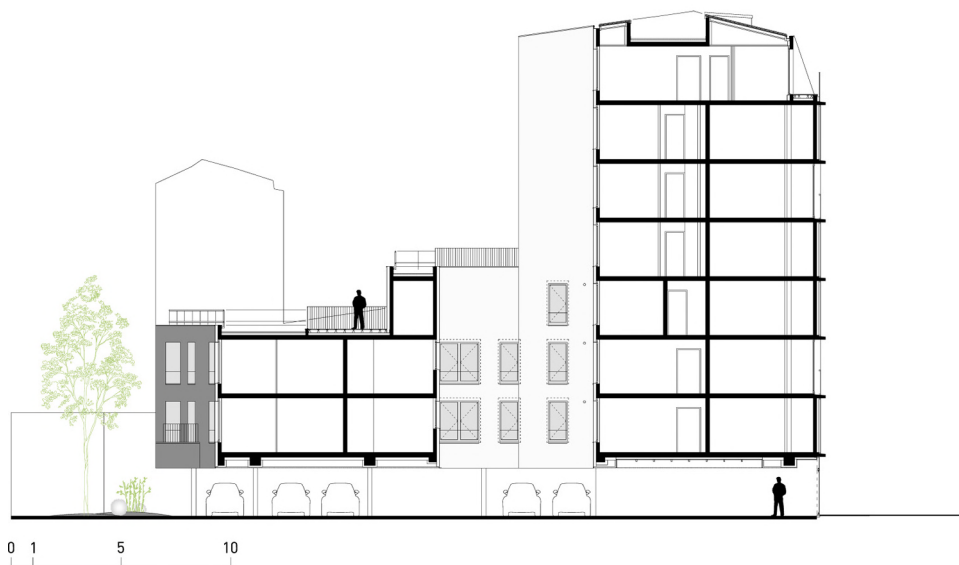


Figure 8-10 The section of Rivp Louis Blanc (source from archdaily)



Figure 8-11 The view from the courtyard of Rivp Louis Blanc (source from archdaily)



Figure 8-12 The view from the ground floor of Rivp Louis Blanc (source from archdaily)

This project also provides a comfortable courtyard and terraces, those faces in the courtyard of this building block. The provision of these common spaces could make the residents in this building avoid the noise of the outer street and enjoy a small community living.

8.2 Social housing in Carabanchel, Madrid, Spain 2003

“Social housing in Carabanchel, Madrid” is a social housing project with the flexible designed apartment types. The apartment types of this social housing can be flexibly divided and be adopted for varies demands. The selection aims to inspire the proposal to the Shanghai’s social housing problem- “Insufficient proportion of public rental housing with improper supply”. After several years social housing practice in Shanghai, the government gradually realized that the public rental housing is the future trend to solve the social housing problems. However, the apartment types of rental housing could not satisfy the applicants’ demands. Rental sharing types and apartment areas severely influence the rental prices. This case triggers a flexible sharing way to think about the division of rental housing apartments.



Figure 8-13 Outside view of Social housing in Carabanchel (source from <http://www.arangurengallegos.com>)

8.2.1 Background analysis

-General introduction

The urban area “Carabanchel” is a social housing concentrating area in Madrid. Since 1981, the EMVS (Empresa Municipal de la Vivienda y Suelo) has launched a series of social housing projects, and invited many well-known architecture companies, such as David Chipperfield, the FOA Foreign Office Architects, Peter Cook with Gavin Robotham, Sheppard Robson (Pavesi, 2012) Arata Isozaki. “The EMVS launched the ambitious project to create housing in the urban depressed area of Carabanchel through great architectures that create a sense of community among residents and the pride of a new beginning. The selected project is deliberately by two architects from Spain, Jose Maria Lopez and Jose Gonzalez Aranguren Gallegos, who are the winners of a design competition organized by EMVS in 2000 and built between 2001 and 2003 over an area of 10,165.71 SQM at a cost of 4,652,904 Euro for a building housing 67 apartments.” (Pavesi, 2012)

-Location

The project is located in “Carabanchel”, a district in the south-west suburbs of Madrid, Spain. This area is a well-known social housing concentrated area. Many of the projects were developed by EMVS and designed by famous architects over the world.

-Data

The plot area of this project is 4349 SQM, the gross floor area is 10,165 SQM, the covered area rate is 79.3%, and the floor area ratio is 2.34. This project is 100% use for living and all the apartments are rental housing, without orienting for a special group (after a certain period, the tenant could purchase the property). This project contains 67 units and mainly 3 types. The areas of apartments are from 45 SQM to 70 SQM.

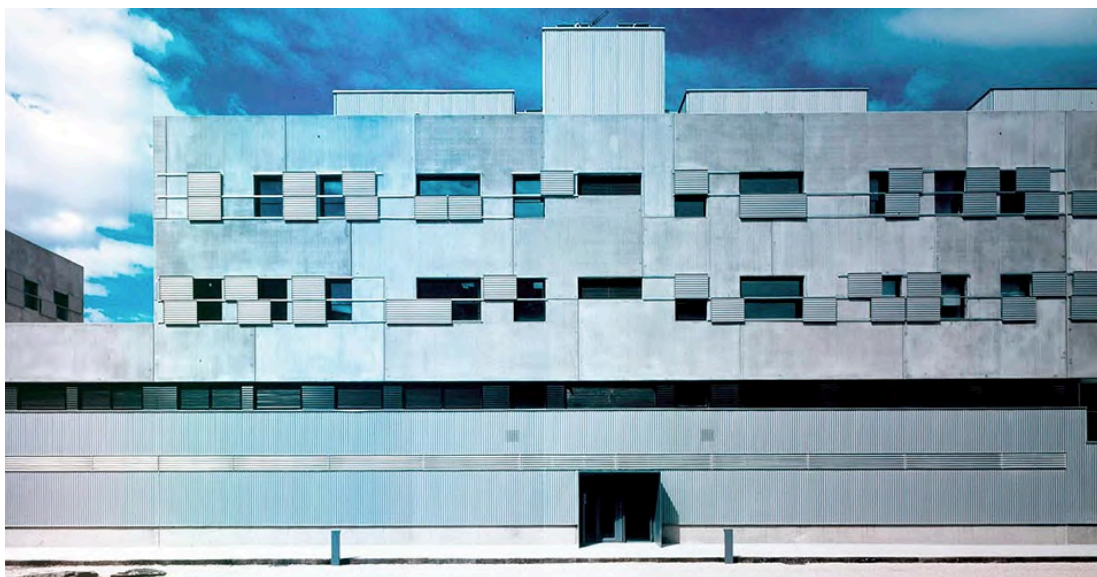


Figure 8-14 Outside view of Social housing in Carabanchel (source from <http://www.arangurengallegos.com>)

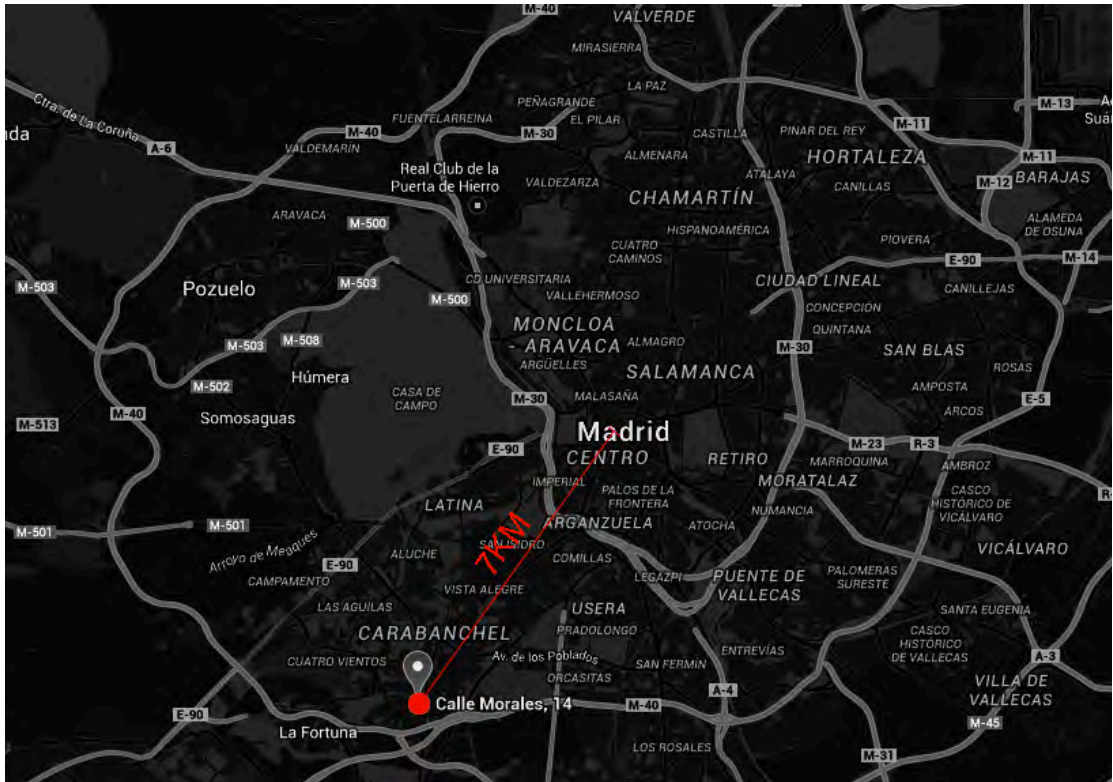


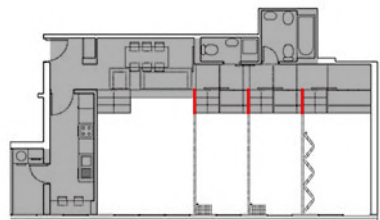
Figure 8-15 The location of Social housing in Carabanchel (source from google map and edited by authors)

<ul style="list-style-type: none"> — COUNTRY SPAIN — URBAN DENSITY PERIPHERY EXISTING URBAN TEXTURE REFORMATION — PROPERTY OWNERSHIP RENTAL MIX — TARGET USER YOUTH ELDER SPECIAL GROUP ANY — FUNCTION SOCIAL HOUSING — NUMBER OF UNITS 67 UNITS — AREA OF UNIT 70.00 sqm (max) 45.00 sqm (min) — APARTMENT TYPES 3 MAIN TYPES 	
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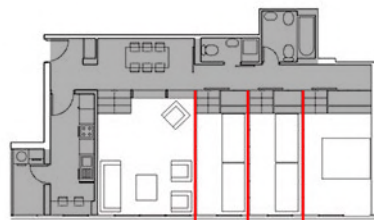
Figure 8-16 The location and data of social housing in Carabanchel (source from bing map and edited by authors)

8.2.2 Inspiring design points analysis

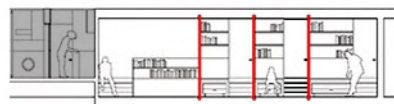
“Currently, the economic factor requires the rationalization and standardization of the production process in order to generate affordable housing. On the other hand, the complexity of the requirements related to the function of living requires flexibility.The kitchens and bathrooms are set in the plant, while the rest of the housing unit changes its shape tanks to movable walls, so you can transform the space for needs of the day or night. During the day the beds are stowed under the floor of the hall floor, raised above the floor of the living room, which distributes the toilets and roms, optimizing the reduction in height of the local service. This will completely free the area for other activities.” (Pavesi, 2012)



Standard apartment-before divided



Standard apartment-after divided



Standard apartment-section




-  fixed part
-  flexible part
-  flexible walls

Figure 8-17 The diagram of apartment plan of social housing in Carabanchel (source from internet and edited by authors)

“The units consist of kitchen, dining room, living room, two bathrooms and three bedrooms. The three bedrooms are small and can be used individually by opening and closing the paneled walls packed. Each group of stairs distributes four housing units oriented in opposite directions, with the exception of the head unit that faces on three sides.” (Pavesi, 2012) This innovating arrangement of apartment could inspire the sharing public rental groups in Shanghai. With movable walls, the spaces could flexibly divided, which could adapt different numbers of tenants’ demands.



Figure 8-18 The interior view (use as rooms) of apartment of social housing in Carabanchel (source from <http://www.arangurengallegos.com>)



Figure 8-19 The interior view (use as public activities) of apartment of social housing in Carabanchel (source from <http://www.arangurengallegos.com>)

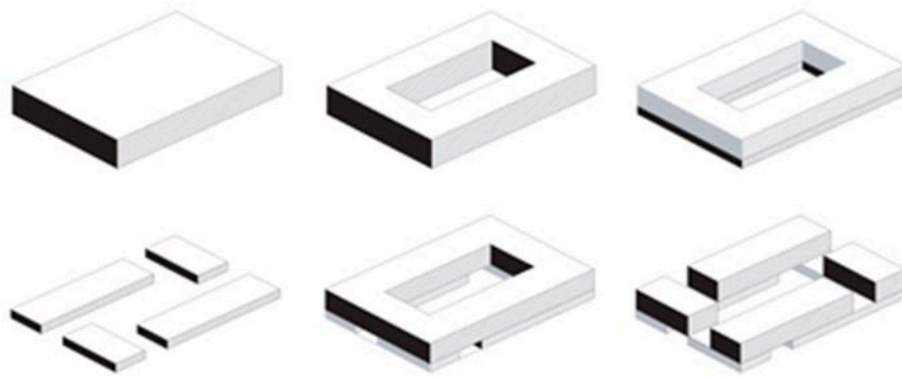


Figure 8-20 The diagram of composition of social housing in Carabanchel (source from <http://www.arangurengallegos.com>)

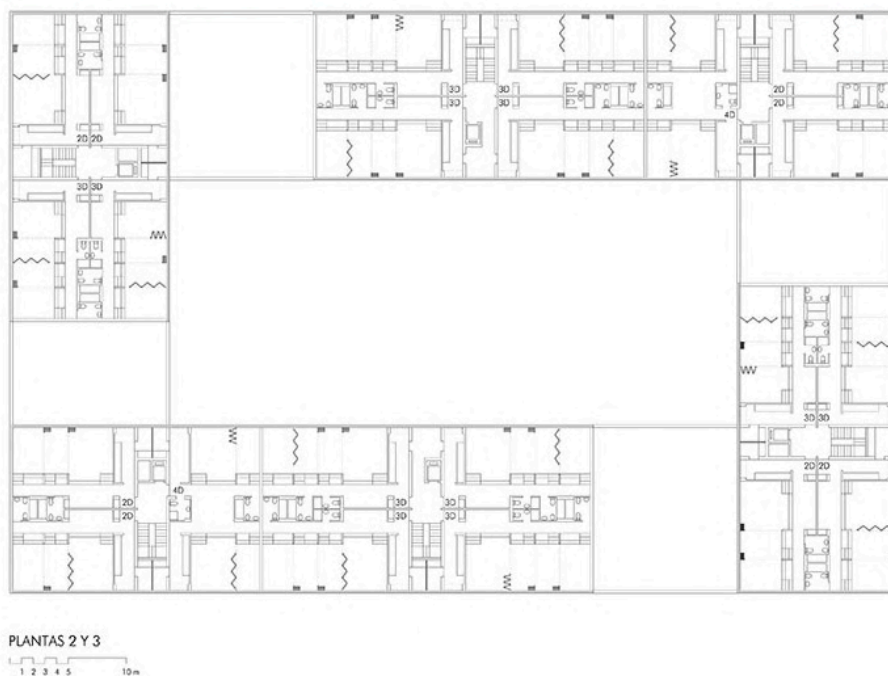


Figure 8-21 The standard floor plan of social housing in Carabanchel (source from <http://www.arangurengallegos.com>)

“Virtually at the same cost of an accommodation with fixed rooms, the house gains a greater range of uses, with the peculiarity to be able to use most of the living space as a single space in which it’s possible to carry out multiple activities (work, leisure, games, receipt, etc..) which may vary depending on both the needs and lifestyles of individual households, both depending on the composition of the nuclei themselves. The three bedrooms are aligned along a ridge made of container and the night space disappears during the day. This is made possible by the fact that the plan of the apartment spread along a single face that opens outward with a system of sliding windows along the entire length.” (Pavesi, 2012)

8.3 Vignoles Gymnasium and Garden, Paris, France 2008

“Vignoles Gymnasium and Garden” is a social housing project combined with a sport field and some other public activity functions. The selection aims to inspire the proposal to the Shanghai’s social housing problem- “Lack of providers”. The construction of social housing could not only the responsibility of the governments. If there are some systems to stimulate the assistances of other social resources, the construction and funding of social housing could gain more providers. In this case, the social housing is not only serve for the low-income citizens to inhabit, but also serve the other isolated or distressed people, such as the football field and the roof garden. This can inspire the social housing projects in Shanghai to provide some additional social profit of non-profit functions to absorb more social resources to assist the construction and operation of social housings.



Figure 8-22 Bird view of Vignoles Gymnasium and Garden (source from http://www.ryerson.ca/carrotcity/board_pages/rooftops/gymnase_vignoles.html)

8.3.1 Background analysis

-General introduction

“In the 20th arrondissement of Paris a community garden of about 800 SQM has been constructed on the rooftop of the Gymnase Vignoles. The project was envisioned as a “Hanging garden” on top of the new building, which also includes housing.”

“The roof structure of the gymnasium consists of pre-stressed concrete beams, which support rectangular wooden containers, filled with 30cm deep soil. Auxiliary spaces and storage are located at the edge of the garden.”

“Supported by the City of Paris and the local government of the 20th Arrondissement, the project brought together the social housing association Paris Habitat, TOA Associated Architects and the La Fayette Accueil Association, the nursing home and rehabilitation center that manages the garden. The association uses the garden as part of its strategy to support isolated or distressed people. Their work favors social and professional integration of these people. A local residents’ association called “Le Fardin Perche” also has plots in the garden.” (source from http://www.ryerson.ca/carrotcity/board_pages/rooftops/gymnase_vignoles.html)

-Location

The project is located in the 20th district of Paris. The distance to the city center of Paris is around 4 km.

-Data

The plot area of this project is 2320 SQM, the gross floor area is 4720 SQM, the covered area rate is 100%, and the floor area ratio is 2.03. This project is 68.5% use for living and all the apartments are rental housing, and 31.5% is used for gym. This project contains 47 units and mainly 3 types. The areas of apartments are from 45 SQM to 70 SQM.



Figure 8-23 The view from the roof garden (source from http://www.ryerson.ca/carrotcity/board_pages/rooftops/gymnase_vignoles.html)

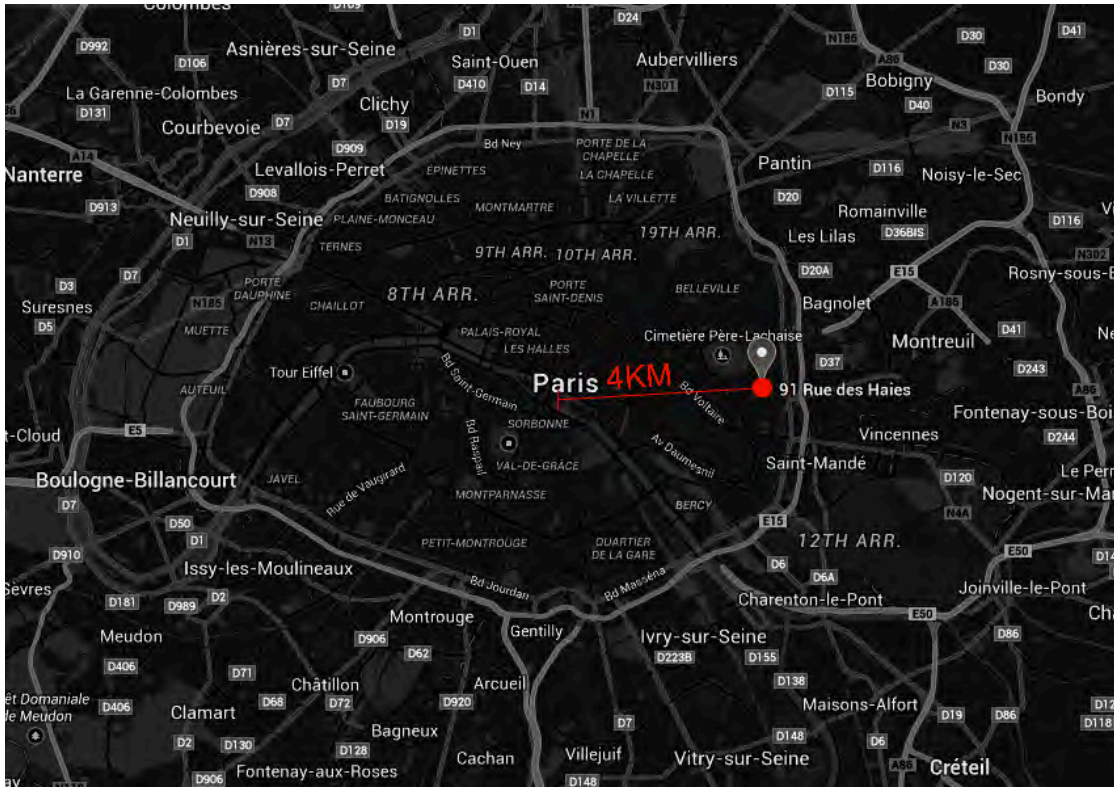


Figure 8-24 The location of Vignoles Gymnasium and Garden (source from google map and edited by authors)

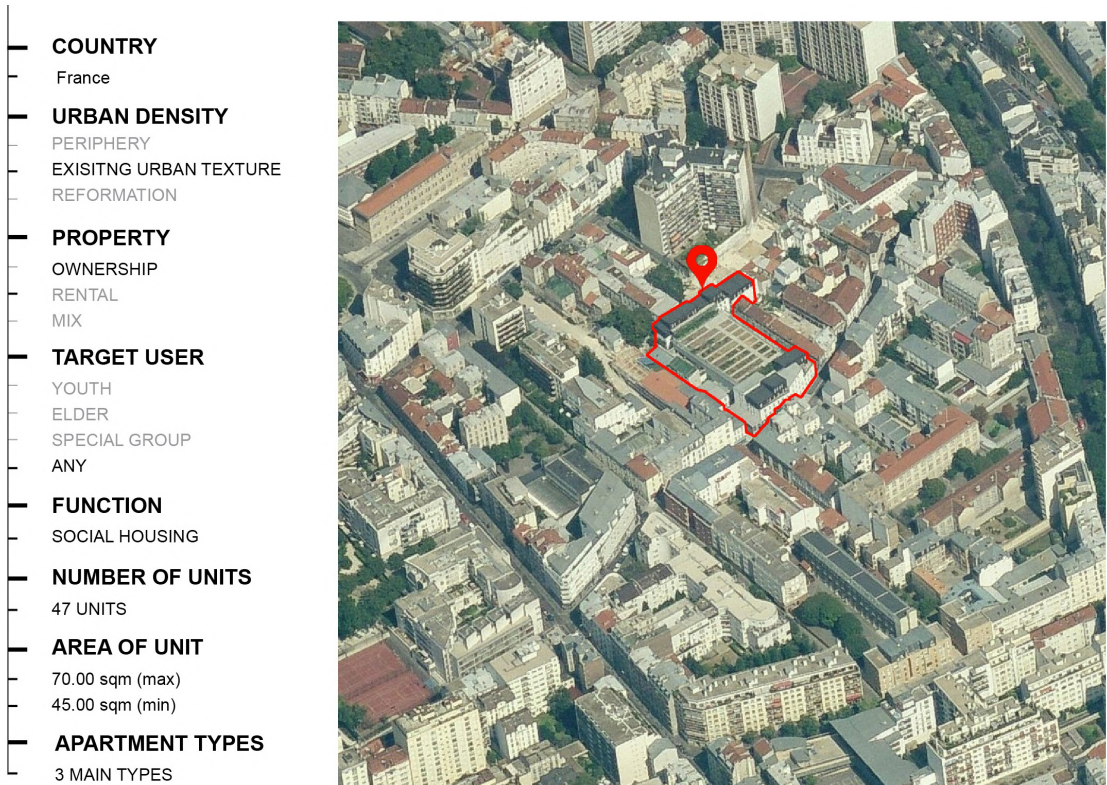


Figure 8-25 The site plan and data of Vignoles Gymnasium and Garden (source from bing map and edited by authors)

8.3.2 Inspiring design points analysis

“A dedicated place for environmental education, the rooftop garden of the Gymnase Vignoles also includes a space for local elementary and secondary schools, local recreation centres and social organizations. The Rue des Pyrenees School has a plot reserved where students work on ongoing educational projects each week. The Gymnase Vignoles rooftop is host to a wide variety of vegetables, wild herbs and flowers. Organic gardening is practiced in accordance with the Charte Main Verte of the City of Paris, which the various gardeners are committed to respect.” (source from http://www.ryerson.ca/carrotcity/board_pages/rooftops/gymnase_vignoles.html)

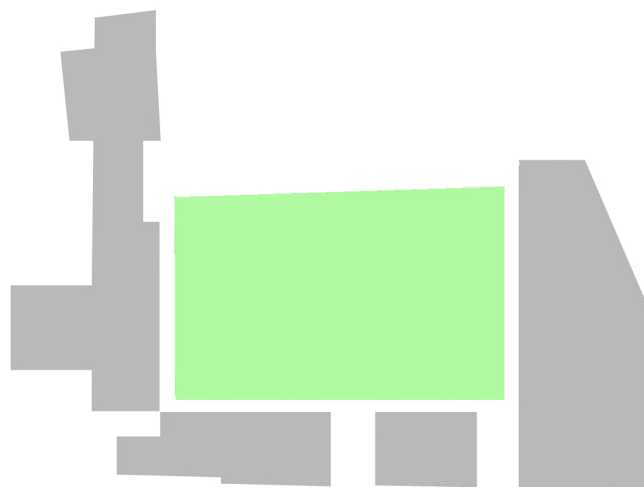


Figure 8-26 The diagram of Vignoles Gymnasium and Garden (source from internet and edit by authors)

This project is no more a pure social housing for living, but has a more comprehensive meaning- provide the social activities for the more social groups. The stadium and the roof garden both open to the society and could connect the distressed people surrounding. This innovation of functions of social housing could inspire the social housing of Shanghai both in terms of the providers and also in terms of the social beneficiaries.

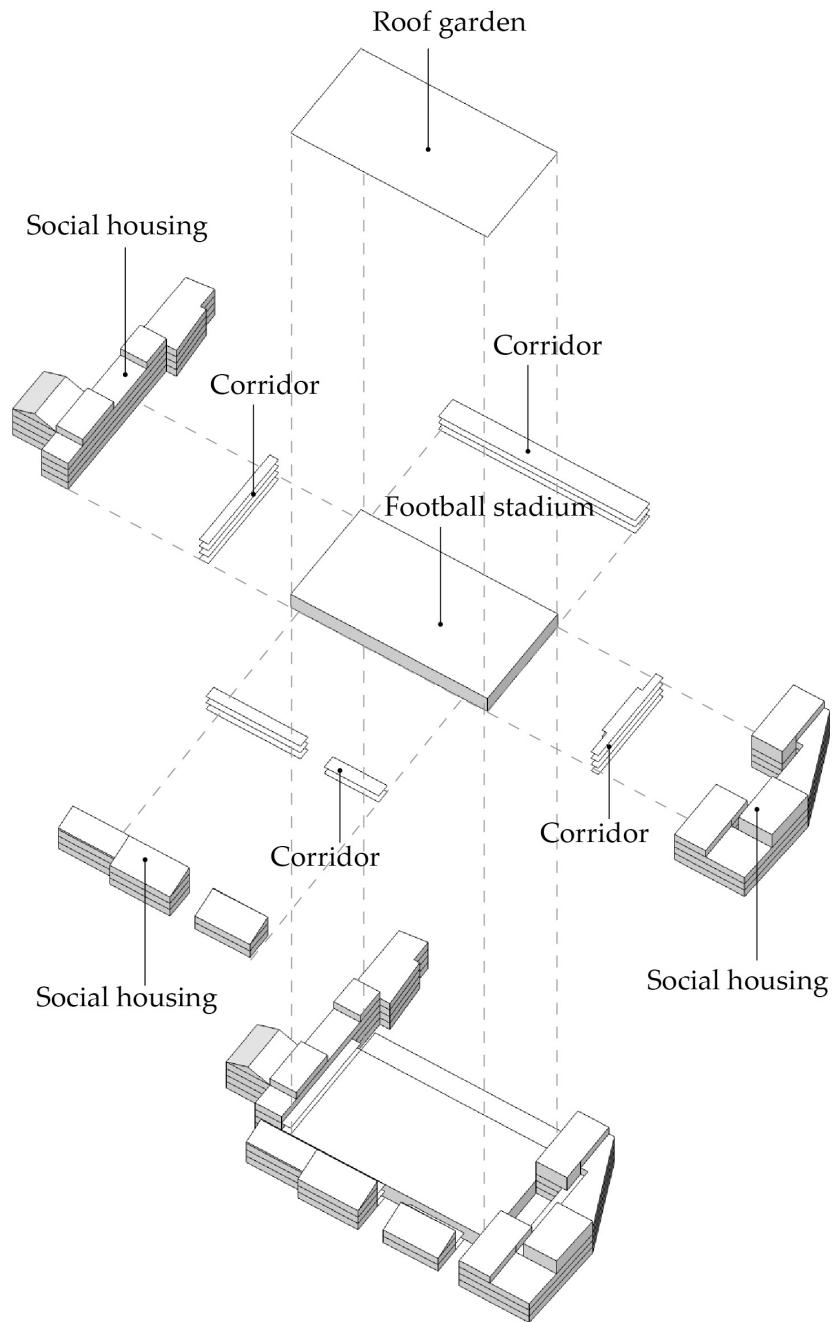


Figure 8-27 The diagram of Vignoles Gymnasium and Garden (made by authors)

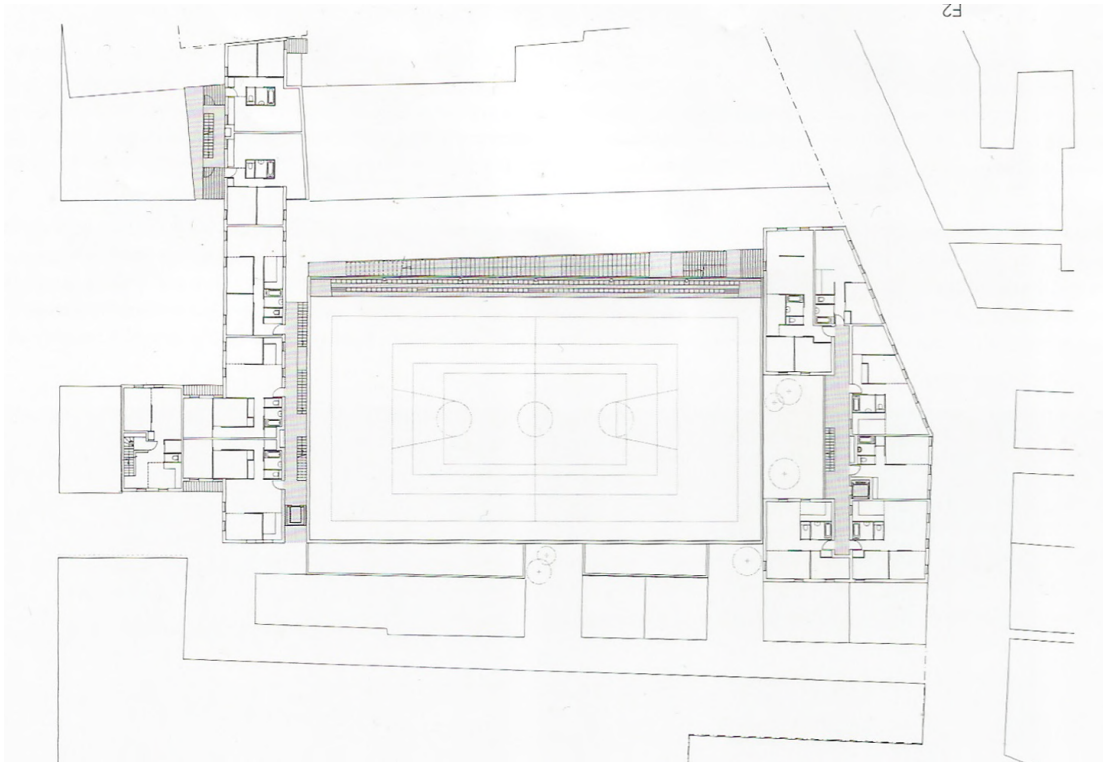


Figure 8-28 The standard floor plan of Vignoles Gymnasium and Garden (source from (Aurora Fernandez Per, Density is Home, 2011)

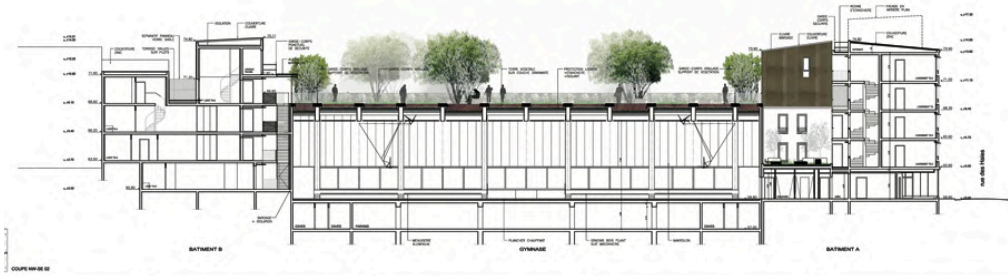


Figure 8-29 The section of Vignoles Gymnasium and Garden (source from (Aurora Fernandez Per, Density is Home, 2011)

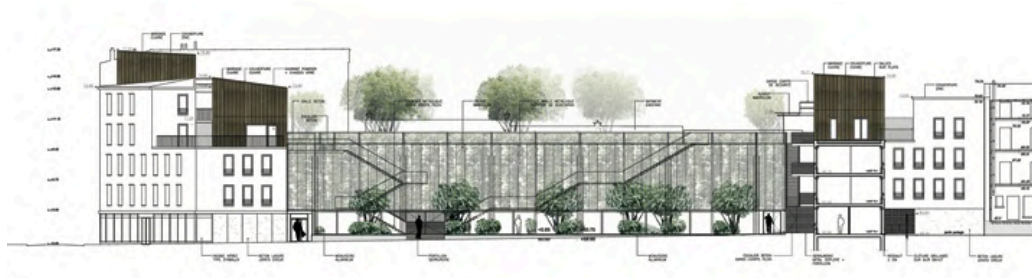


Figure 8-30 The section of Vignoles Gymnasium and Garden (source from (Aurora Fernandez Per, Density is Home, 2011)

“This garden offers its users and all local residents a quiet and green space as well as an exceptional view of Paris. In this particularly dense neighborhood, the rooftop of a new building has permitted the creation of a multifunctional and, to date, unique space in the capital. The Biodiversity Plan of the City of Paris, introduced in 2011, calls for the creation of at least 15 similar rooftop gardens by 2020.” (source from http://www.ryerson.ca/carrotcity/board_pages/rooftops/gymnase_vignoles.html)



Figure 8-31 The view from corridor (source from (Aurora Fernandez Per, Density is Home, 2011)



Figure 8-32 Outside view from Vignoles Gymnasium and Garden (source from (Aurora Fernandez Per, Density is Home, 2011))

For distinguishing the two totally different function part- housing and public activities, the corridors are involved in this project as buffer zones. They are set in the middle of these two parts to isolate both of them for having an individual entrances and exits. Meanwhile, they also make the chances for the residents in the social housing for accessing in the public parts.

8.4 Parkrand, Amsterdam, the Netherland, 2007

“Parkrand, Amsterdam” is a social housing project combined with a part of “non-social housing” project. The selection aims to inspire the proposal to the Shanghai’s social housing problem- “Social segregation”. One of the characteristics of current social housing construction in Shanghai is concentrated construction without mixing in tenant types, which could lead to clustering specific groups, and further to the social segregation. Unlike these kinds of social housing construction in Shanghai, Parkrand project in Amsterdam completely mix the social and non-social housing without any identification.

“The absorption of social houses in a larger housing complex by making both classifications of units nearly formally identical avoids clustering, and can also be seen as a different type of disappearance of social houses. They simply become invisible. This invisibility of the social increases the overall value of the building. Only insiders can spot the differences between an affordable and a more expensive apartment.” (Jacob van Rijs)



Figure 8-33 The street view of Parkrand (source from <http://www.mvrdiv.nl>)

8.4.1 Background analysis

-General introduction

All the apartments of Parkrand project are for rent. According to the architect (MVRDV), “‘Buurt 9’ (Neighbourhood 9) forms part of the garden cities west of Amsterdam. It consists of 174 standard small housing units, located in three L-shaped buildings and positioned next to a small park. The new design relocates the housing into one compact but impressive volume thereby conserving more space for the park. The proportions of the outline for the block, 135 m long by 34 m high and 34 m deep, could be considered as mansion-like in relation to the even more spacious park. A new ‘country estate’ arises that adds character to the park.”

-Location

The project is located in Dr. Colijnstraat 260, which belongs to the Geuzenveld-Slotermeer suburbs situated in the west of Amsterdam. The distance to the city center is around 6.2 kilometers. The existing neighborhoods are typical small houses and minimalist four story slabs, and its location also overlooks Eendrachts Park.

-Data

The gross floor area of this project is 35,000 SQM, and contains 174 standard small housing units, which are all for rent, including social and non-social. The project is 12 floors high and 135 m long by 34 m high and 34 m deep. It contains mainly 5 apartment types, more specifically, one-bedroom flats, two-bedroom flats, three-bedroom flats, four-bedroom flats, and three-bedroom maisonettes.



Figure 8-34 The street view of Parkrand (source from <http://www.mvrdv.nl>)

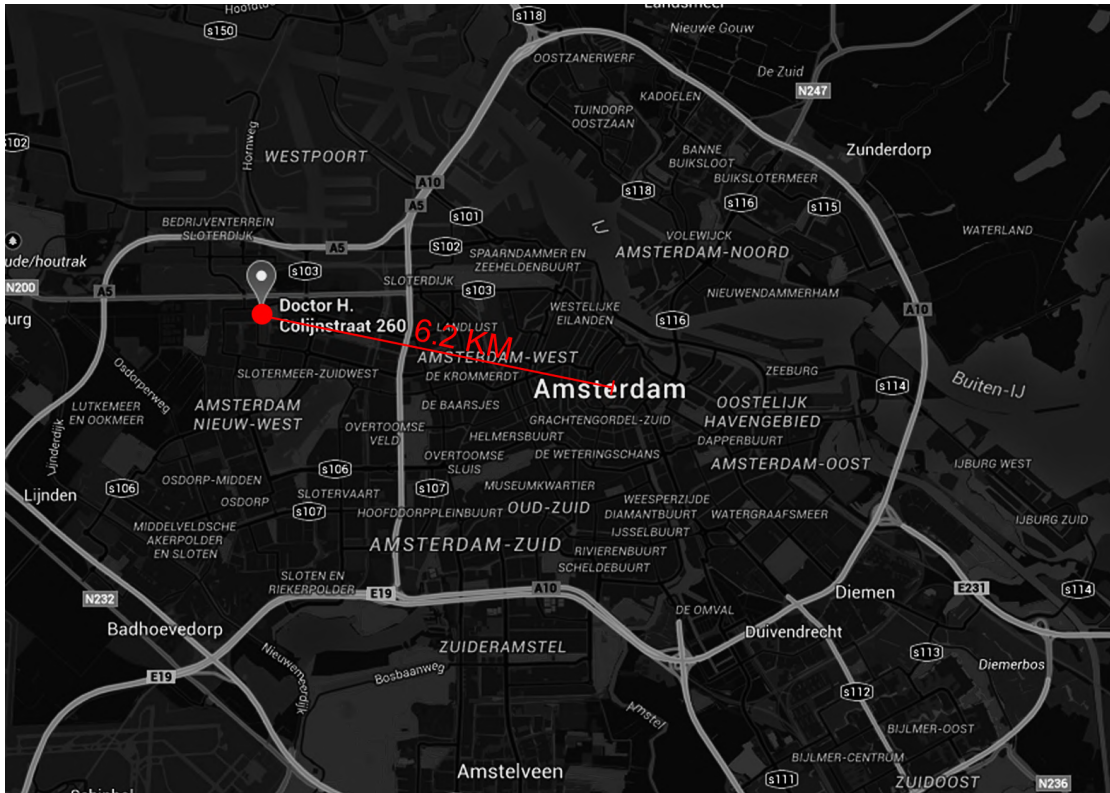


Figure 8-35 The location of Parkrand (source from google map and edited by authors)

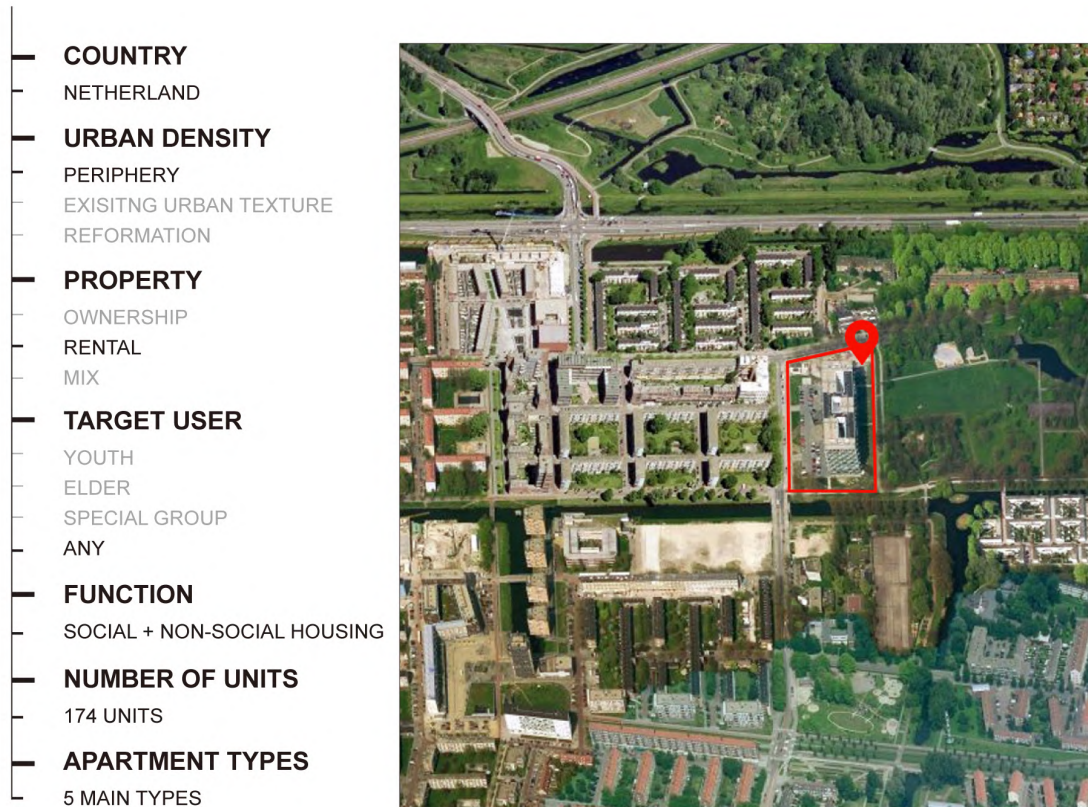


Figure 8-36 The location data of Parkrand (source from google map and edited by authors)

8.4.2 Inspiring design points analysis

Since the government stopped social housing subsidies because of the prohibitively expenditure at the end of the 1990s, social housing organizations were allowed to construction non-social housing along with social housing as the compensation. It not only could make profits from these non social housings, which would counterbalance deficits on the social housing projects, but also could avoid social segregation from mixing in tenant types. The Wozoco (1997), the Silodam (2001) and the Parkrand (2007) in Amsterdam by MVRDV could reflect the process of this change.

The Wozoco (1997) in Amsterdam is totally 100% social rental housing for the elderly, that located in the neighborhood consists of low income housings, and could be seen as “classic social housing”. (Jacob van Rijs)



Figure 8-37 The street view of Wozoco (source from <http://www.mvrdiv.nl>)

The Silodam (2001) in prime location of Amsterdam contains 20% of social rental housings, which could be obviously recognizable. “In the Silodam, the social houses were, according to the developers specifications, carefully and subtly isolated from the free-market houses through two distinct and separated access systems. Although understandable from a developer’s point of view, such a solution seems somewhat schizophrenic as well.” (Jacob van Rijs)



Figure 8-38 The street view of Silodam (source from <http://www.mvrdv.nl>)

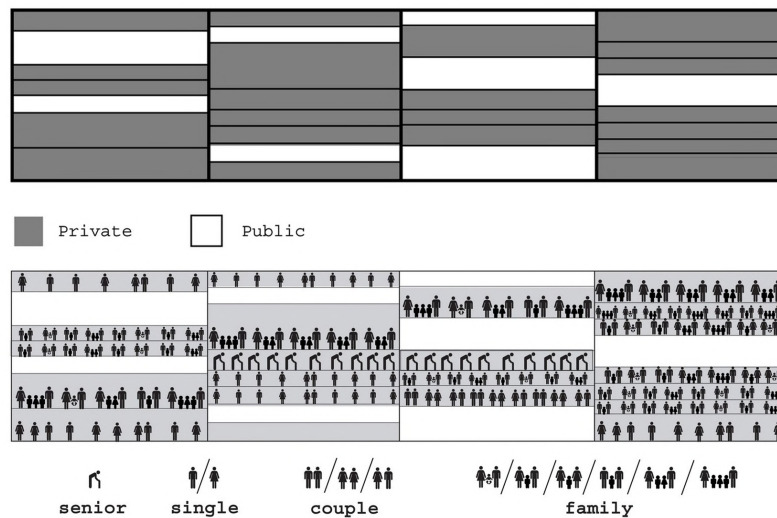


Figure 8-39 Private/Public space and Different tenants arrangement of Silodam (source from <http://silodammvrdv.blogspot.it/>)

The Parkrand (2007), as the mix of social and non social housing, these housings are completely mixed compared to the project of Silodam. According to the Jacob Van Rijs, who is the one of founding partners of MVRDV, “Even as the architect, I was unaware (at certain moments) which apartment was social and which one was not. They are, apart from some minor differences in interior finishes, identical to the apartments designed for free-market sale.” In this way, Parkrand avoids the clustering and social segregation through integration or absorption, and on the other hand, the invisibility of social housings increases the overall value of the apartments which is helpful for

reselling the property, since in the land deal of Netherland, selling of the social housing after 20 to 25 years is permitted.



Figure 8-40 The view of Parkrand (source from <http://www.mvrdv.nl>)



Figure 8-41 The process of social housing change in above three projects (made by author)

The project of Parkrand as well as the relevant process of change in mixing tenant types inspired us to think about the social housing problem in Shanghai-“Social segregation”. The social housings in Shanghai are concentrated constructed in the outskirts of the city, and the tenants are mainly lower income groups with mostly 100% social housings. From this project, we can see that integration or absorption of different tenants, as well as mixing of social and non social housings (“dotting” called from social organizations of Netherland) are needed to some extent for avoiding social segregation.

8.4.3 Auxiliary analysis

Situated in the Geuzenveld-Slotermeer suburbs with the typical blocks' neighborhood surrounding, and also besides to the Eendrachts Park, the project of Parkrand compacts the housing units in one impressive volume. The air and light pockets in this volume avoids blocking views of the neighborhood to the park.

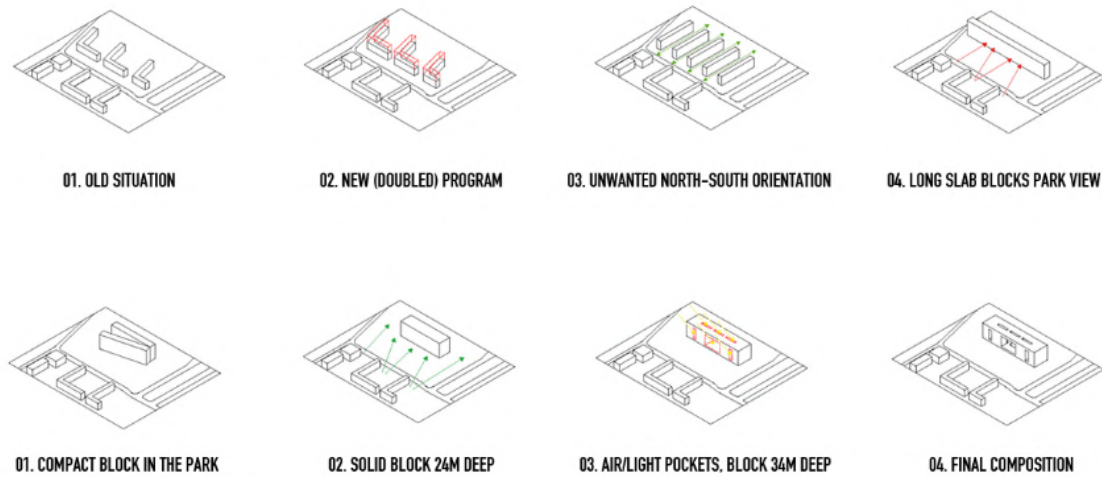


Figure 8-42 The diagram of composition process of Parkrand (source from <http://www.mvrdv.nl>)

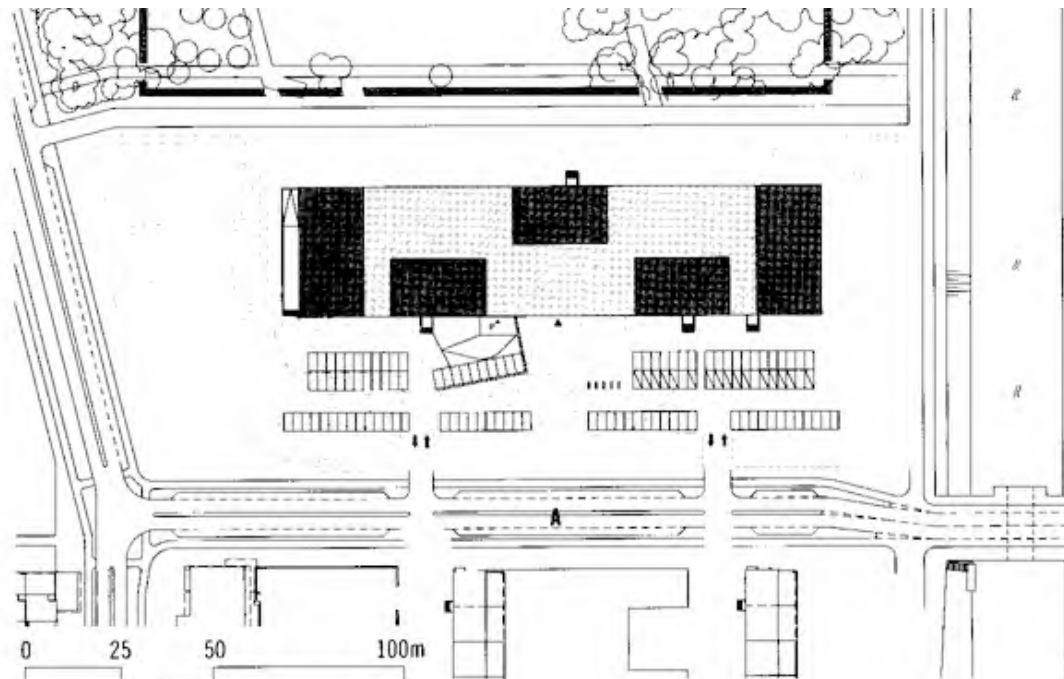


Figure 8-43 Site plan of Parkrand (source from <http://www.housingprototypes.org>)

The project has five towers with a big, raised patio and rooftop penthouses are in-between them, which not only provides air and light to the block, but also offers a variety of views with different directions. The semi-public patios are used frequently by different kind of inhabitants as a kind of outdoor living room.



Figure 8-44 Rooftop penthouses between the towers in Parkrand (source from <http://www.mvrdv.nl>)



Figure 8-45 Semi-public patio in Parkrand (source from <http://www.mvrdv.nl>)

8.5 Social housing in via Cenni, Milan, Italy 2009

“Social housing in via Cenni, Milan” is a social housing project mainly oriented the young people (some restrictions on adult applicants), which especially designed to accommodate lifestyles and ways of living of them, with some complex functions (commerce, office etc.) well integrated. The selection aims to inspire the proposal to the Shanghai’s social housing problem- “Monotonous design”, and further to inspire the construction of social housing in social and environmental sustainable way. Social housings in Shanghai present relatively monotonous form, especially with broad sense of oriented target (lower income groups), regardless of demographic characteristics as well as its corresponding demand. This project created the optimal conditions especially for young people through various aspects, to provide social animated as well as safe living.



Figure 8-46 The view of social housing in via Cenni (photo by authors)

8.5.1 Background analysis

-General introduction

The project stems from the concept of community on the principles of social and environmental sustainability. According to architect, Rossi Prodi Associates, who won the project from the competition named “Una comunità per crescere Milano, Via Cenni”, “The program includes among others 124 social dwellings, common spaces for supplementary resident services, local and urban services, paving and green area for residents and a public green park including playground for children of all ages. The project stems from the concept of community and how this can be developed and consolidated in a mono-functional urban setting. In particular, the project is based on the idea of mixed development, and on the consideration that to a typological variety correspond with a social variety. The value of public space as a place where is possible to build relationships is the basis of the proposal. This is a public green space, a metaphor for sustainability, not only a place of identification for the community that lives there, but also a magnet for the rest of the community.” (ROSSIPRODI, 2013)

-Location

The project is located between Via Domokos, Via Gabetti and Via Cenni of Milan. The distance to the city center is around 5.2 kilometers. It locates in the border area between urban and local agriculture.

-Data

The site area of this project is 30,284 SQM and the gross built floor area is 17,000 SQM. The project contains 124 units with mainly 4 types which from 50 SQM to 100 SQM. In addition, it also contains 850 SQM commercial property, 250 SQM housing services, and 1,800 SQM local services. This project initially for renting and mainly oriented the youth. Although it open to all indeed, there are some restrictions to adults like should be families with children and young newly couples, plus its design aims to the lifestyles of young people, here we introduce the project as mainly oriented to the youth.



Figure 8-47 The street view of social housing in via Cenni (source from <http://www.rossiprodi.it>)

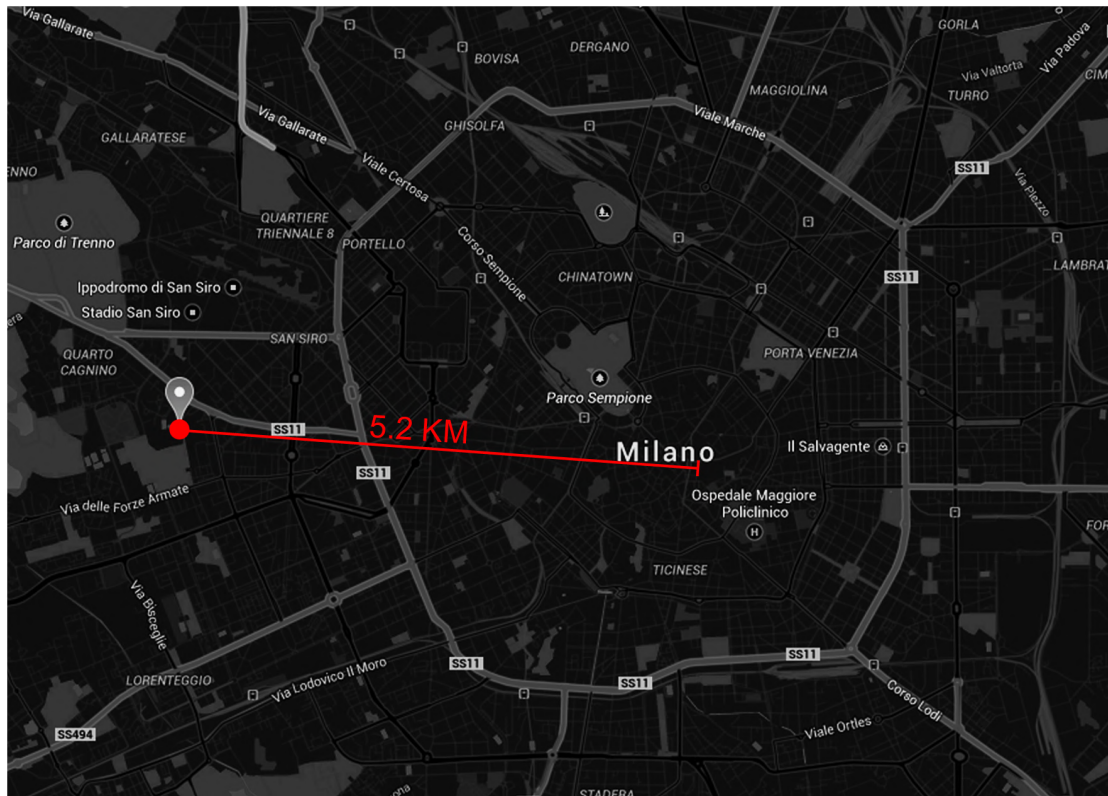


Figure 8-48 The location of social housing in via Cenni (source from google map and edited by authors)

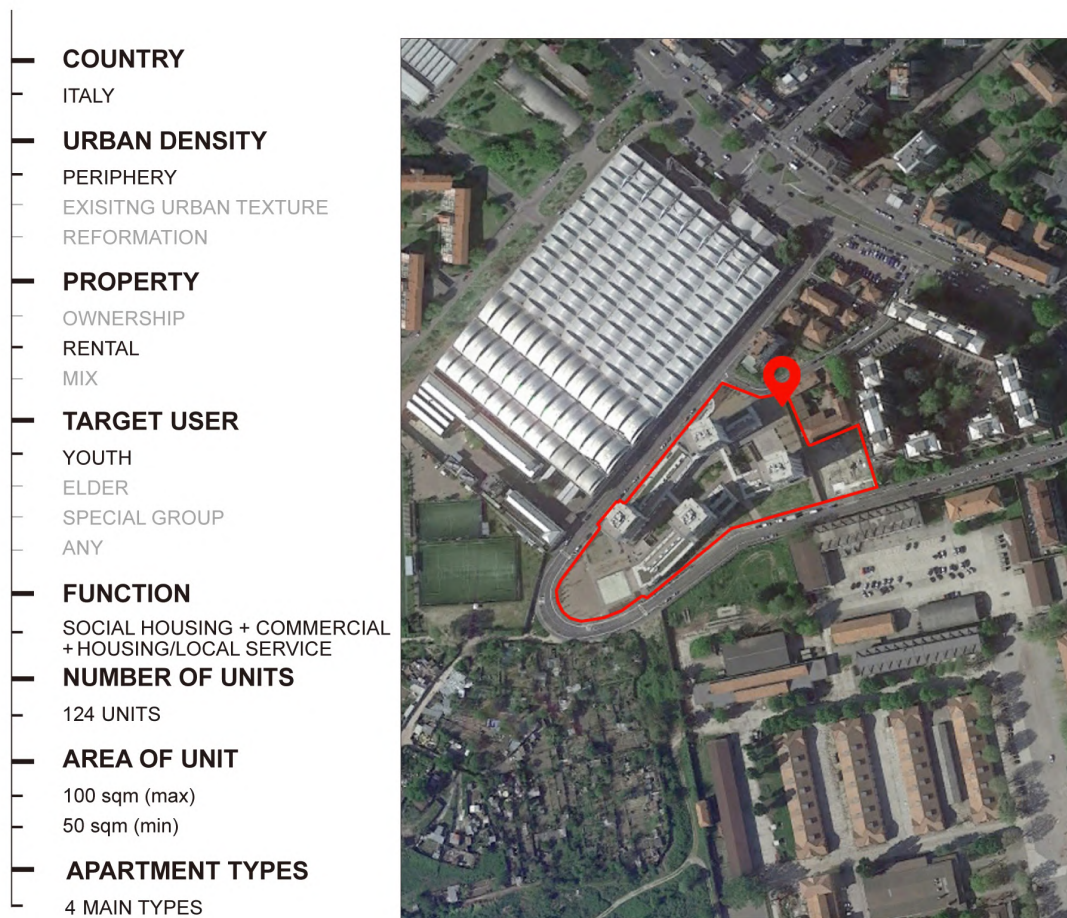


Figure 8-49 The location data of social housing in via Cenni (source from google map and edited by authors)

8.5.2 Inspiring design points analysis

The project located relatively far from the city center, where lacks of various services as well as relevant provided spaces to be enjoyed by inhabitants for enhancing their social life. Social housing in via cenni stems from the concept of community on the principles of social and environmental sustainability.

In terms of social sustainability, the project which is mainly oriented to the young people, provides a range of integration services linked together responding to the needs of inhabitants, and further through interaction with the neighborhood to enhance social relations. The services including additional housing services, local and urban services and business services

Additional housing services are self-managed by residents to satisfy their needs, interests and desires. In this way, the residents themselves will become the main protagonists in the conduct of their own lives and social housing Local and urban services are provided by associations, cooperatives or social enterprises and for the residents as well as the whole neighborhood. It will become intertwined point, and will contribute to the intersection of social fabric. Business services are for production activities or social enterprises, which also consistent with the concept of project and maintain the sustainability characteristics. (source from www.cennidicambiamento.it)

Various services open to the residents as well as neighborhood, that are located at the foot of the building, thus, the courtyard becomes gathering alive space for them, linking with another services and commercial activities.

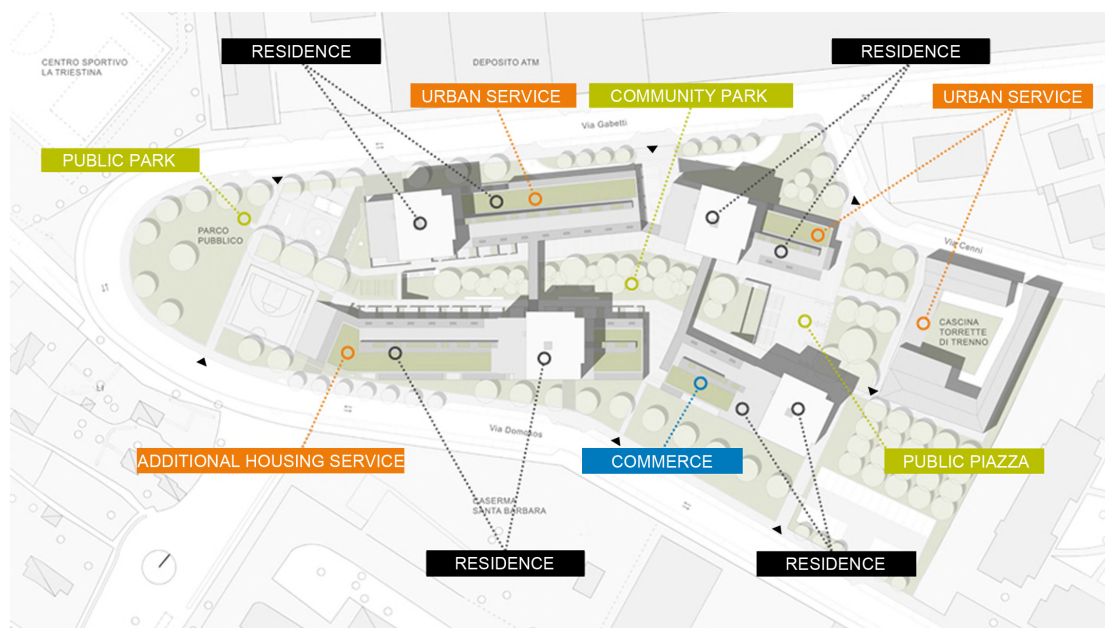


Figure 8-50 Function integration of social housing in via Cenni (source from www.cennidicambiamento.it)



Figure 8-51 Indoor activities of social housing in via Cenni (source from www.cennidicambiamento.it)



Figure 8-52 Outdoor activities of social housing in via Cenni (source from <http://www.rossiprodi.it>)

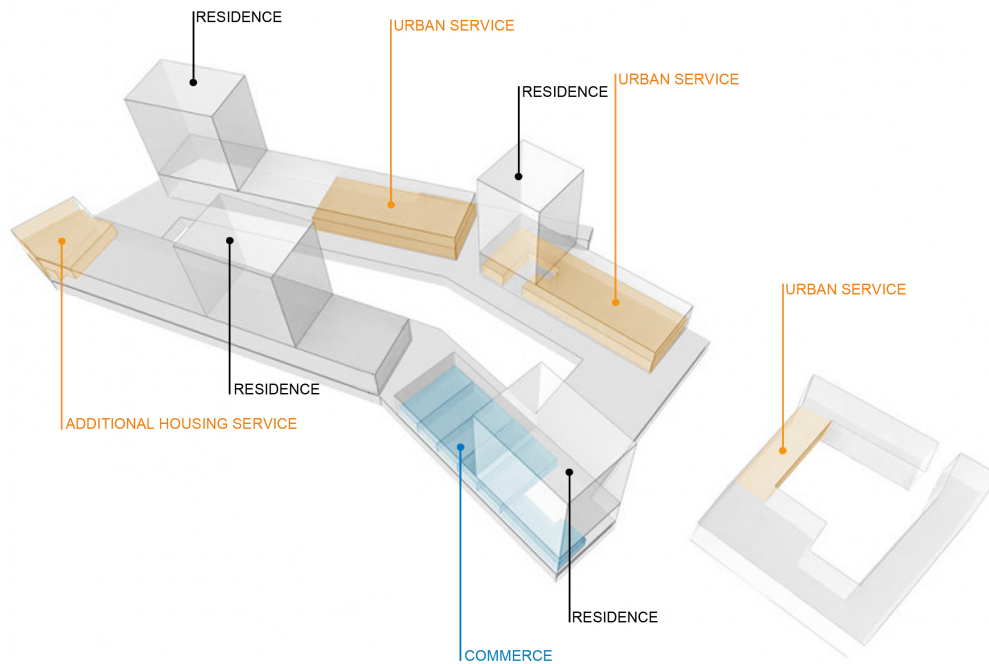


Figure 8-53 Function integration of social housing in via Cenni (edited by authors according to www.cennidicambiamento.it)

In terms of environmental sustainability, the project used wood as the construction material with cross laminated timber, a rarity in Italy. As the renewable resource, it could save considerable energy, since it not only reduces significantly the loss of heat in winter, but also protects from the summer heat. According to the official website (www.cennidicambiamento.it) of the project, "The project represents excellent performance, allowing to estimate a reduction in the consumption of 70-80%, are the result of the construction characteristics of the buildings, the devices adopted ecological and plant and equipment used (heat pumps fed by groundwater) that allowed combine great economy, high comfort and, above all, a high social identity of the people who live there."



Figure 8-54 Wood structure of social housing in via Cenni (source from <http://www.rossiprodi.it>)

Classi di isolamento termico	
Fabbisogno termico basso	Classi
Gold	$HWB_{NGF} \leq 10kWh/(m^2 \cdot a)$
A	$HWB_{NGF} \leq 30kWh/(m^2 \cdot a)$
B	$HWB_{NGF} \leq 50kWh/(m^2 \cdot a)$
C	$HWB_{NGF} \leq 70kWh/(m^2 \cdot a)$
D	$HWB_{NGF} \leq 90kWh/(m^2 \cdot a)$
E	$HWB_{NGF} \leq 120kWh/(m^2 \cdot a)$
F	$HWB_{NGF} \leq 160kWh/(m^2 \cdot a)$
G	$HWB_{NGF} > 160kWh/(m^2 \cdot a)$
Fabbisogno termico alto + indica edifici costruiti secondo criteri di bioedilizia	

Figure 8-55 Environmental performance rating of social housing in via Cenni (source from (Menis, 2013))

8.5.3 Auxiliary analysis

The project consists of 124 apartments with different sizes, which mainly including 4 types with furniture included, monocale, bilocale, trilocale, and quadrilocale. The monthly rent for fee agreement (accommodations in fee agreement are intended for families or individuals whose total income resulting from the tax return is not greater than the maximum established annually by the Lombardy Region to access equivalent to about € 90,000) is from € 400, € 420, € 590, € 845 respectively. (source from www.cennidicambiamento.it)

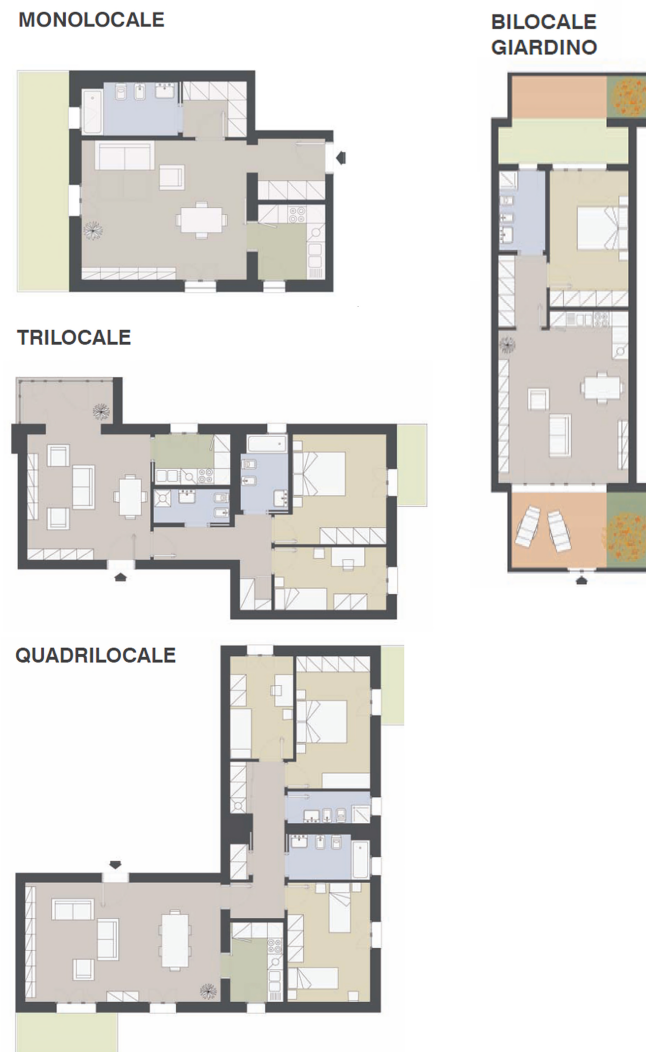


Figure 8-56 Apartment type of social housing in via Cenni (source from <http://www.cennidicambiamento.it>)

The plan of the project distributed based upon four nine-storey towers, with the green court inserted around them. The towers raise from the two-storey main buildings and all parts are successfully connected through the walking system besides the inner garden. The architecture elements, such as balconies, stairways and bridges designed to become relational spaces where the community could meet and communicate.



Figure 8-57 Ground floor plan of social housing in via Cenni (source from <http://www.cennidicambiamento.it>)

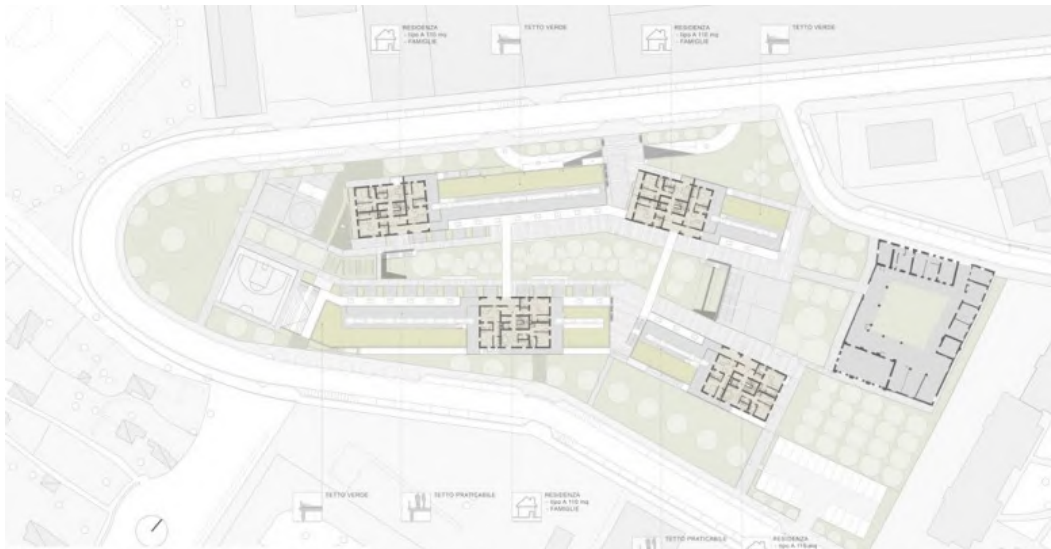


Figure 8-58 Second floor plan of social housing in via Cenni (source from <http://www.cennidicambiamento.it>)



Figure 8-59 Connecting element of social housing in via Cenni (photo by authors)

8.6 Il Borgo Sostenibile, Milan, Italy 2013

“Il Borgo Sostenibile, Milan” is a social housing project with complex using, being located on the boundary of the city and connecting with the farmland area. This project mainly intends to develop this special situation and focus on the relationship of the city and farmland area. Besides, the project provides various types of apartments considering potential residents’ demographic characteristics and its corresponding need. Also, the sustainable design is an important issue of this project. The selection aims to inspire the proposal to the Shanghai’s social housing problem- “Monotonous design”, and further to inspire the construction of social housing in social and environmental sustainable way.

“The project makes the effort to enhance the village social dimension and promote social relations networks informed by sustainable and environmentally concerned themes and lifestyles. The village quality of Figino is currently associated principally with the elderly population, who populate the public spaces during the day and nourish local interpersonal and community relations. The younger segment of the population, which is not underrepresented, tends instead to shift their focus (work, services, and recreation) to other areas of Milan. Trans-generational bonds, forged especially in the large number of clubs and associations, contribute significantly to the Figino community’s sense of place. A sustainable village also means developing points of attraction for the rest of the city via the promotion of the Figino ‘personality’, which is represented by the potentials of its relationship with green areas.” (Abitare Sociale, 2010)



Figure 8-60 The view of Il Borgo Sostenibile (source from <http://www.borgosostenibile.it>)

8.6.1 Background analysis

-General introduction

“Il Borgo Sostenibile, Milan” is a social housing project with the form of residential complex in Figino, which is the historic district located in the west of Milan. The final architecture project is the result of an international design competition sponsored by Polaris and Social Housing Foundation. The residential complex accommodates about 323 apartments, each with a parking space, and many other common areas, such as living room, laundry and tool shed to promote socialization and collaboration among residents. The initial aim of this project is “strengthening of rural identity, support for and enhancement of existing social network, expansion of area services, and preservation of the area’s permeability and ease of circulation.” (Abitare Sociale, 2010)

-Location

The project is located in via Giovanni Battista Rasario, Figino, which is the northwest corner of Milano. The distance to the city center is around 9.4 kilometers. It situated along the axis extending to the Rho, where the intensive development is planned, partially together with Expo 2015. “Figino is characterized by a distinct territorial identity, isolated among extensive green areas with a much lower building density.” (Abitare Sociale, 2010)

Although the project is relatively far from the city center, the bus line directly connect the Molino Dorino stop of M1 subway line, and it takes about 30 minutes to the city center.

-Data

The site area of this project is 47,444 SQM and contains 323 units (25,175 SQM GFA), 1,325 SQM for shops, 255 SQM for supplementary resident services, and 2,650 SQM for local and urban services. The project contains mainly 3 apartment types oriented to the different targets, with the area of 50 SQM, 75 SQM and 100 SQM respectively. This project is open to all, and offers for rental and lease agreements for future sale.



Figure 8-61 The view of Il Borgo Sostenibile (source from <http://www.borgosostenibile.it>)

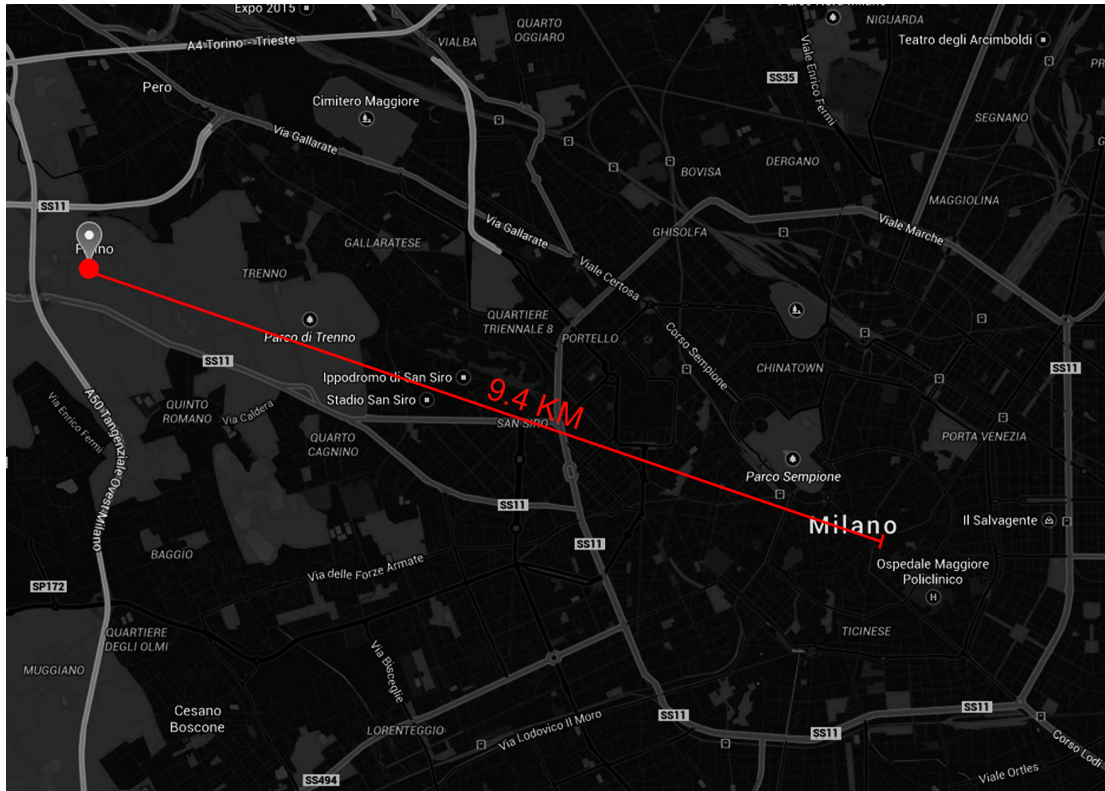


Figure 8-62 The location of Il Borgo Sostenibile (source from google map and edited by authors)



Figure 8-63 The location data of Il Borgo Sostenibile (source from google map and edited by authors)

8.6.2 Inspiring design points analysis

The project of Il Borgo Sostenibile, Milan provides mainly three types of apartment regarding the potential demographic characteristics and their corresponding needs. Generally, the residence apartments can be divided as type A (three or four rooms with GFA of 100 sqm), type B (two or three rooms with GFA of 75 sqm), type C (one or two rooms with GFA of 50 sqm) and the proportion is approximately 40%, 45% and 15% respectively.

TYPE A HOMES ~100 SQM			
WHO LIVES HERE?			
			
<p>LARGE FAMILY A 4-5 person family.</p>	<p>DAY MOTHERS A family with small children that provides daycare for other children.</p>	<p>SOLIDARY FAMILY A family willing to temporarily host children or adults in difficulty.</p>	<p>HOME-OFFICE A professional or freelancer with his or her family.</p>
HOW ARE OCCUPANTS CHOSEN?			
From the Social Administrator's lists.	The home care-giver is authorized to provide daycare for one or more children aged 0-3. This person's name is provided by the social cooperative to which he or she belongs.	Via an association of families who decide to live with others in a solidary framework on the basis of values of sobriety, hospitality and sharing.	Via a specific announcement prepared by the Social Administrator.
HOUSING TYPES			
<p>A1 3-room apt. with eat-in kitchen</p> <p>A2 4-room apt. with kitchenette</p> <p>A3 4-room apt. with eat-in kitchen</p>	A4	A5	A6 Ground floor, duplex option
DWELLING CHARACTERISTICS			
	The dwelling must be suitable for hosting children during the day and serving as a home for the family the rest of the time.	Solidary families must be able to host people for brief or medium periods, have flexible-use rooms connectable to one or more apartments, and live near one another.	The office and home must be interconnected but have independent entrances. The office must be accessible from the common areas and/or from the Co-Working area.
QUANTITIES Max. 40% of project GFA allocated as follows:			
To design	2 units	5 units	Total number of home-offices: 15 units

Figure 8-64 Analysis of type A home of Il Borgo Sostenibile (source from (Abitare Sociale, 2010))

TYPE B HOMES ~75 SQM

WHO LIVES HERE?



COUPLE
A 2 person family.



SMALL FAMILY
A young couple or a 3 person family.



HOME-OFFICE
A young couple with one or both working at home.

HOW ARE OCCUPANTS CHOSEN?

From the Social Administrator's lists.

From the Social Administrator's lists.

Via a specific announcement prepared by the Social Administrator.

HOUSING TYPES

B1
2-room apt. with eat-in kitchen

B2
3-room apt. with kitchenette

B6
Ground floor, duplex option

DWELLING CHARACTERISTICS

The office and home must be interconnected but have independent entrances.
The office must be accessible from the common areas and/or from the Co-Working area.

QUANTITIES Min. 45% of project GFA allocated as follows:

Total number of home-offices: 15 units

Figure 8-65 Analysis of type B home of Il Borgo Sostenibile (source from (Abitare Sociale, 2010))

TYPE C HOMES ~50 SQM

WHO LIVES HERE?



SINGLE
An individual or a couple.



WHEN WE ARE GONE
A self-sufficient disabled person.



ELDERLY PEOPLE
An elderly person who is fragile, single or in a couple who receives home medical care or who chooses to live in sheltered conditions.



HOME-OFFICE
A young professional or freelancer.

HOW ARE OCCUPANTS CHOSEN?

From the Social Administrator's lists.

Via an organization addressing the needs of disabled children with elderly parents.

Via the healthcare service provider who administrates the Serviced Village service system.

Via a specific announcement prepared by the Social Administrator.

HOUSING TYPES

C1
1-room apt. with kitchenette
C2
2-room apt. with kitchenette

C4
Ground floor

C5

C6
Ground floor, duplex option

DWELLING CHARACTERISTICS

The dwelling must be free of architectural barriers and the occupant must be able to easily access the condominium gathering areas.

The dwelling must be free of architectural barriers.

The office and home must be interconnected but have independent entrances. The office must be accessible from the common areas and/or from the Co-Working area.

QUANTITIES Max. 15% of project GFA allocated as follows:

To design

5 units

20 units

**Total number of home-offices:
15 units**

Figure 8-66 Analysis of type C home of Il Borgo Sostenibile (source from (Abitare Sociale, 2010))

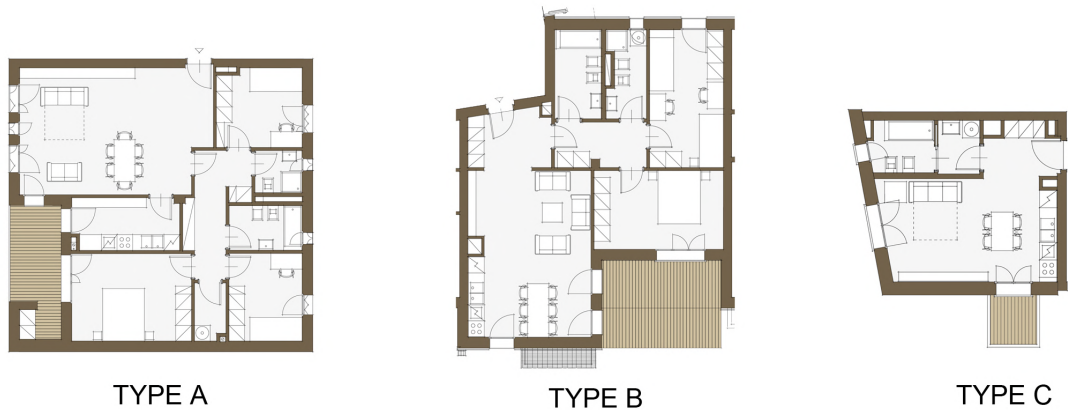


Figure 8-67 Selected apartment plan for each type (source from <http://www.borgosostenibile.it>)

In addition, the project of Il Borgo Sostenibile provides a range of integration services linked together responding to the needs of inhabitants, and further through interaction with the neighborhood to enhance social relations. The services including housing services, supplementary resident services, local and urban services and residence compatible functions (commercial functions). In this way the project of Il Borgo Sostenibile enhances its social sustainability.

The concept of service plan in the project is through the carefully need assessment. “The project area is located at the edge of Figino near Boscoincitta and surrounded by agricultural lands. The area’s rural vocation is one of the aspects that must be valorized through the creation of new services and facilities oriented toward the conservation of the natural endowment and the spread of environmental awareness. This is one of the main pillars of the project. A second service concept is the enhancement of employment opportunities in Figino. Lastly, a need which must be addressed is the lack of local healthcare facilities. These themes have guided the development of a proposal for four Service-systems.” (Abitare Sociale, 2010)

“The Figino services are organized into four service-systems composed of interconnected functions.

The first service-system mainly regards supplementary services for residents, but will also bring benefits to the larger community. It consists of the creation of a multipurpose center that functions as a place for gathering and recreation, dedicated mainly to mothers and children (Living Room).

The second service-system aims for the valorization of Figino’s rural vocation (Eco Club) and is composed of a center providing energy information and monitoring the waste-to-energy plant, flanked by a teaching garden and a small livestock operation to raise small farm animals for scholastic and extra-curricular activities associated with the nearby Boscoincitta. This service system could be coordinated and partially run by local associations, which might thus be able to set up a local unit in the

dedicated facilities. The Eco Club may also be functionally coordinated with the Living Room.

The third service-system is developed around the creation of an employment center (Co-working) that offers support to existing organizations and acts as an incubator for small high-added-value businesses, promoting local development.

The fourth service-system is oriented toward healthcare and social services (Serviced Village) and comprises the creation of a healthcare center to assist elderly residents. It has been conceived as a means for supporting home care services and is geared to allow the elderly to continue living in their own homes even if their autonomy has been partially compromised and they not only require healthcare but also assistance in everyday tasks. The healthcare services would not be strictly reserved for the elderly, but also available to the entire community, thus responding to one of the principal complaints of the inhabitants of Figino: the lack of local healthcare services. Home care for the elderly would include daily care, meal preparation, prevention programs and temporary assistance in dedicated facilities, which would make hospital stays unnecessary in many of the less serious cases.” (Abitare Sociale, 2010)

What’s more, the project of Il Borgo Sostenibile also makes efforts for environmental sustainability. All the apartments’ energy class belong to class A, EPH <29 kWh / m2a (design value), and are equipped with heating and cooling through radiant floor and ventilation for controlled mechanical ventilation. “The heating and the production of domestic hot water are centralized. On a more sustainable and energy-saving kitchens of the apartments of Borgo Sustainable will not be attached to the supply of GAS. In support of this choice, the kitchens will be accompanied by an induction plate available for the new family.”(source from <http://www.borgosostenibile.it>)

Figure 8-68 Function integration of Il Borgo Sostenibile (source from <http://www.borgosostenibile.it>)



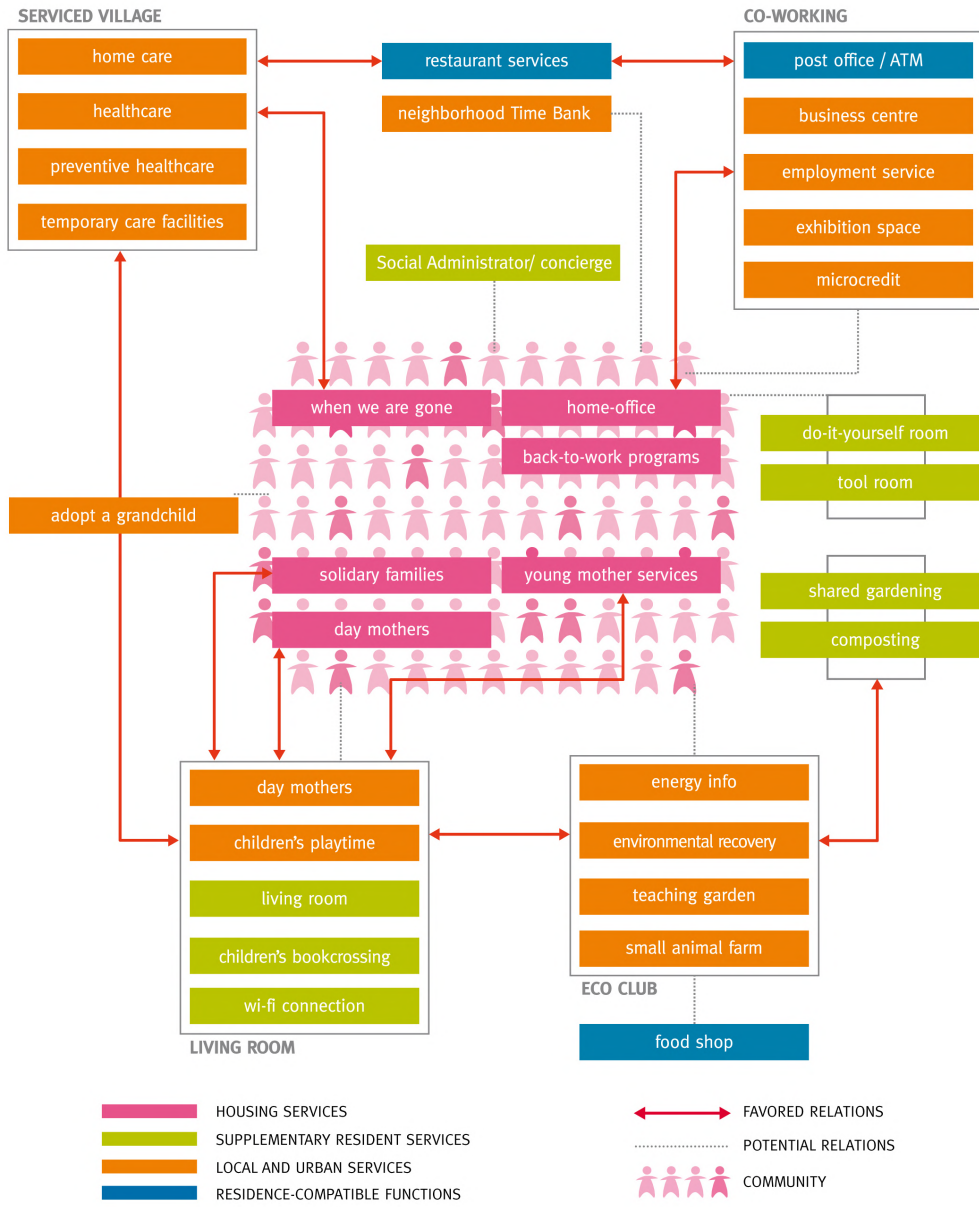


Figure 8-69 Service plan and the relationship with service system (source from (Abitare Sociale, 2010))



8.6.3 Auxiliary analysis

Since the project located in the Figino, where currently has 600-700 residents, located on the edge of the Milan with its distinctive characteristic by a strong bond with the around agriculture and the countryside surrounding village, marked by cultivated areas and woodlands. The project of Il Borgo Sostenibile then integrates the functionality of social housing with a low environmental impact. The dialogue with the existing context is ensured by building development with significant presence of low and courtyard buildings, typical of the Lombard plain. The new housing complex will be connected to the historic village from a central square and the promenade. In addition, it also will feature large areas of green with pedestrian and cycle paths, teaching garden and play areas.

The public walkway in the green is the path connects the entire area of the project. On one side situated the new pedestrian square which are mainly based commercial and service spaces, and on the other side there situated new public park. The project of Il Borgo Sostenibile contains mixed fabric to accommodate various functions to provide a range of services and activities to the residential as well as neighborhood.



Figure 8-70 The view of Il Borgo Sostenibile (source from <http://www.borgosostenibile.it>)



Figure 8-71 The view of Il Borgo Sostenibile (source from <http://www.borgosostenibile.it>)

Chapter 9 Proposal

-Proposals for social housing in Shanghai

In the previous chapters, we have researched the current social housing situation in Shanghai and pinpoint a series of problems, both in terms of policies and implementations. Further more, we also researched the current social housing situations in Europe (specifically from four typical countries: the Netherland, France, Spain and Italy). We researched both the policies and cases in these four countries. Besides, as much as possible, we analysis the inspiring points for improve the social housing situation in Shanghai.

However, according to these six significant social housing problems in Shanghai- “Inappropriate distribution (insufficient infrastructures and community services)”, “Insufficient proportion of public rental housing with improper supply”, “Lack of providers”, “Inequality of beneficiaries”, “Social segregation” and “Monotonous design (regardless of demographic characteristics)”, are there appropriate proposals inspired from the research of European social housing systems? Could the proposals adapt to the special situations in Shanghai?

In this chapter (and the last chapter of this thesis), we would introduce seven proposals (including six proposals specifically related to the six problems in Shanghai and one further general proposal in the global atmosphere), and talk about the implemental possibilities in Shanghai.

9.1 Proposal 1- Distribute appropriately and develop sufficient infrastructure and service facilities

The current social housing distribution represents inappropriate trends, that most of large scale subsidized housing communities are centrally disposed in the outside of the outer ring of Shanghai, which possesses relatively insufficient infrastructures and community services compared to the city center. In Shanghai, internal infrastructures and community services varied widely, that generally represents obvious decreasing trend from the outside of the city center. In addition, parts of small scale subsidized housings, that are also located in the outside of the outer ring dispersed, even have no convenient connection with city center and seriously lack of relevant community services.

The generation of this problem partly because of the high density of the city center, which lead to the lack of land provision for the social housing community and partly because of the increasing land cost of the city center, which would increase the pressure of the government’s financial budget.

However, there are two proposals to improve this situation:

1) Instead of the development of large-scale social housing communities, such as more than 1000 units communities, in the periphery of Shanghai, the government could develop several small individual buildings (less than 100 units) in the appropriate gaps in the city center. The properties of these social housings could belong to the public and only be offered by rent. This method could relieve the pressure of the high land cost in the city center and also could save money for the construction of infrastructures and service facilities, due to the already impeccable social system in the city center.

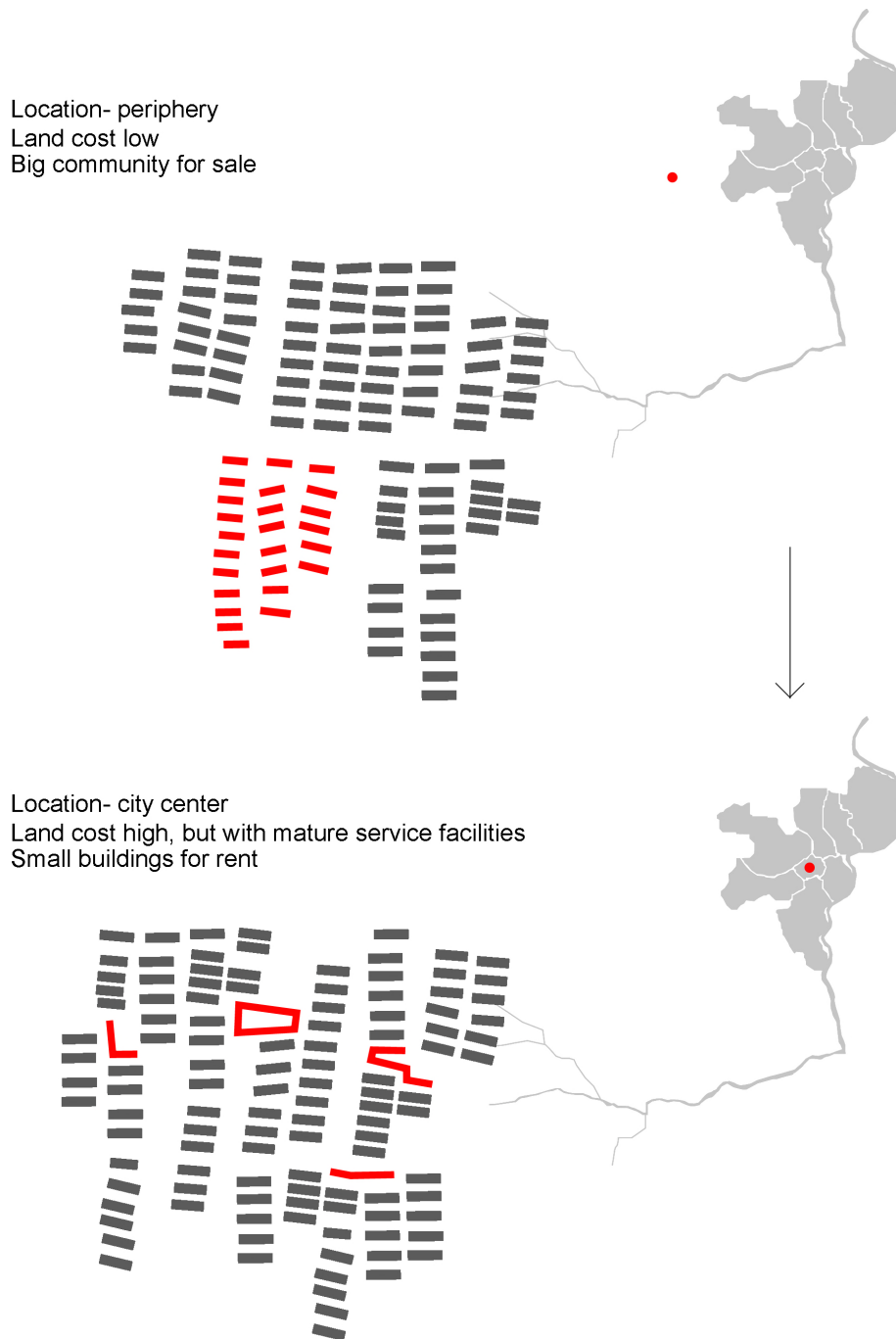
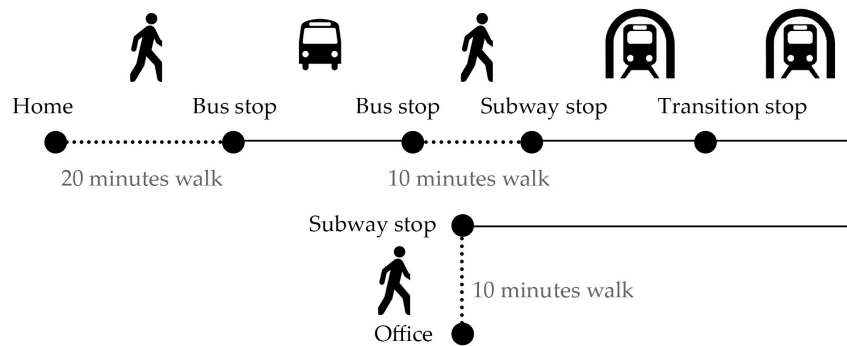


Figure 9-1 Diagram of proposal 1 (made by authors)

2) For the special housing situation in Shanghai, which the housing demands are very large, there is the necessity to build a certain amount large-social housing communities in periphery. Therefore, the convenient infrastructures and service facilities have to be built.

The convenient infrastructures mean that, there must be several public transport points surrounding the project sites, with a distance acceptable (walking within 15 minutes), and if there is a transition stop, the distance between the transition stops should be very short (walking within 5 minutes). Besides, the frequencies of the public transports should be sufficient enough.

Inconvenient infrastructure



Convenient infrastructure

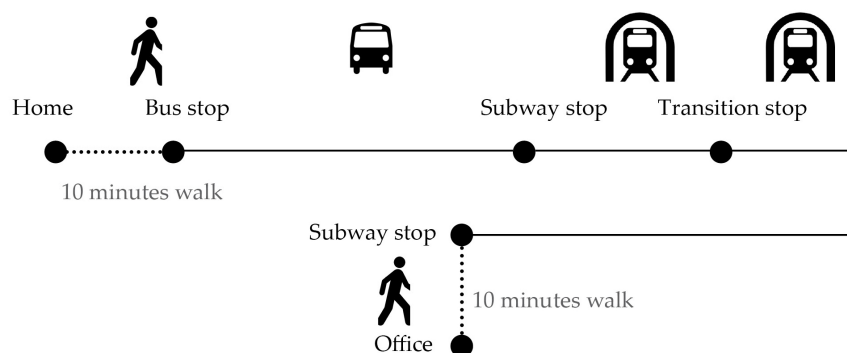


Figure 9-2 Diagram of proposal 1 (made by authors)

The convenient service facilities means that, there are sufficient public service facilities inside or near the social housing communities, such as commerce, hospital, entertainment center, schools and so on.

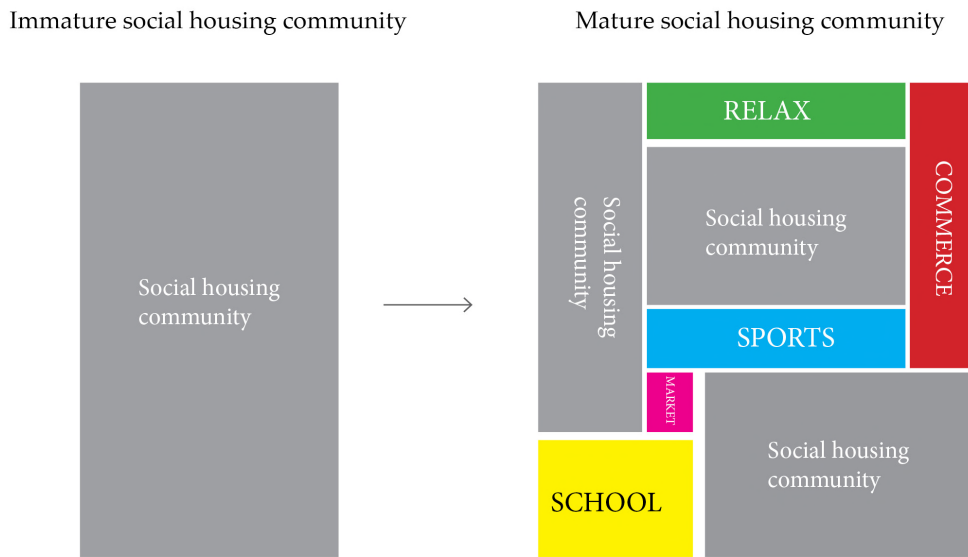


Figure 9-3 Diagram of proposal 1 (made by authors)

9.2 Proposal 2- Provide sufficient public rental housing and appropriate apartment types

According to the statistics of residential land use planning of Shanghai in 2010, the public rental housing only accounts for 1.8% of the total social housing provision in Shanghai. Although its proportion is in increasing trend, it still could not satisfy the large potential demand in Shanghai. The reason of the lack of public rental housings is mainly because this kind of project is nearly no-profit and the government has to provide comprehensive financial and policy support on that.

Additionally, even though there are several completed public rental housing projects in Shanghai (mainly since 2012), the application rate is less than 40%. The reason of the phenomenon is that the rental apartment type is not sufficient (too big and not special for the specific rental using) to satisfy the rental demands.

However, there are two proposals to improve this situation:

1) Increase the construction of the public rental housings. The public rental housing sectors in the European countries, those have developed the most advanced social housing systems (the Netherland and France) are very high, accounting for 32% and 17%, respectively. Besides, in the most European countries, the tenures of social housing are mainly referred to public rental housings. Actually, since 2013, the government of Shanghai has started to provide more land for the rental housing constructions. But more actions still should be taken in terms of this aspect.

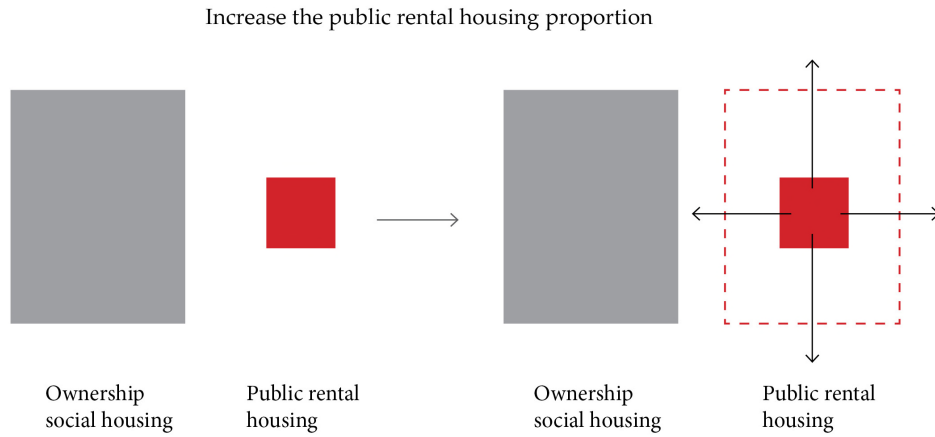


Figure 9-4 Diagram of proposal 2 (made by authors)

2) Concern more about the rental apartment design. We could see the existing apartment plans of the public rental housing, such as “Xin Yue Gong Yu” (馨越公寓) in the previous chapter that, the apartment design has not much differences from the normal commercial housings, even though the areas are much smaller and contains more small type apartment. This could not decrease the rental fees effectively and led to the lack of applicants rate (less than 40%). If the apartment could be divided more flexible and could make some opportunities for joint rent, it could more adapt to the demands of the rental people groups.

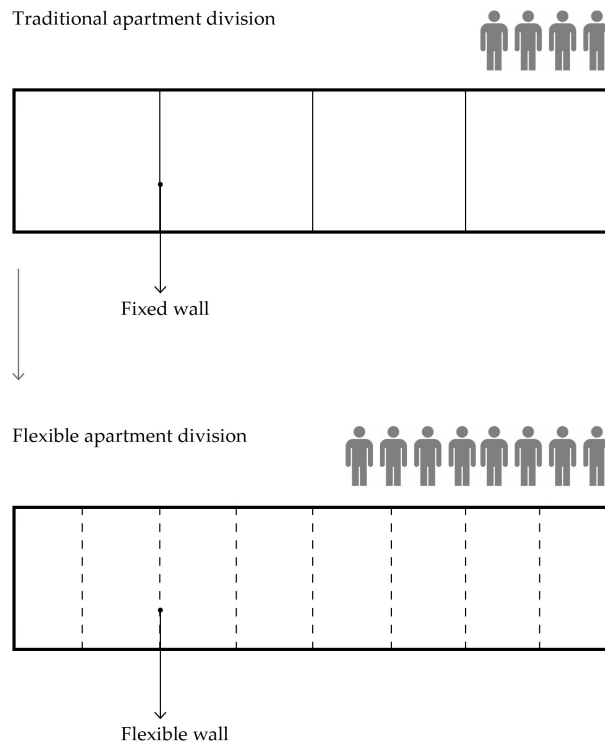


Figure 9-5 Diagram of proposal 2 (made by authors)

9.3 Proposal 3- Encouragement of multi-provider mode

At present, the provider of social housing in Shanghai is kind of monotonous, mainly by the government, including only the central government and local government. This kind of mono-provider mode in social housing construction results high financial expenditure which aggravated the burden of government.

Thus, in order to improve the situation of lacking of providers, the encouragement of multi-provider mode is highly recommended which undoubtedly could play a positive role in social housing construction and development as well as ease the burden of government. From the advanced experiences of the European social housing construction, the providers exist as diversification such as “local authorities”, “public companies”, “non-profit or limited-profit associations and companies” and “private for profit developers and investors”. In addition, in terms of social housing construction, generally, the government gradually plays the guaranteeing as well as supporting role instead of the main provider in Europe.

Combined the advanced experience in Europe with the existing situation of Shanghai, in terms of social housing provider, the mono-provider mode with government should be gradually replaced with multi-provider mode like “non-profit or limited-profit associations and companies”, “profit cooperatives”, and “private for profit developers and investors” combine together with government.

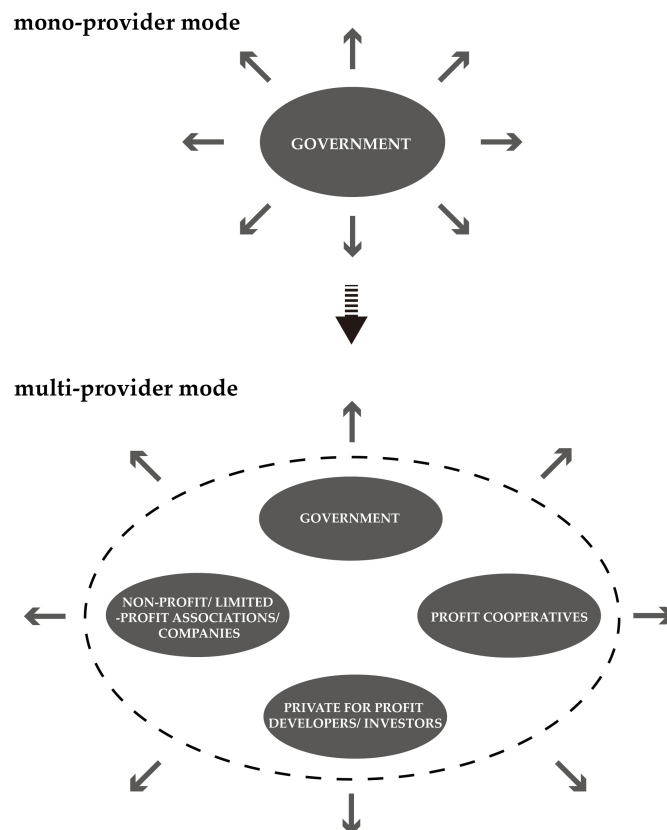


Figure 9-6 Diagram of proposal 3 (made by authors)

Since the less profitable characteristics of social housing construction itself, the government should make various efforts to stimulate initiatives of different providers to take part in the social housing construction.

In order to attract different providers, encouraging the mixed social housing construction mode, which combines with non-social housings, through offering various kinds of preferential policies by the government is highly recommended. It means if the developers would construct the residential communities (non-social housings) including proper proportion of social housings, they could be enjoy the relevant preferential subsidies by the government, such as development priority, tax incentives as well as discount price of land purchase.

In addition, under these preferential subsidies provide by the government, the social housing community construction also could combine with specific functions bringing the profits, such as commerce, sports center, gallery and hotel which would counterbalance deficits on the social housing project and further potentially brings even more profits to the developers.

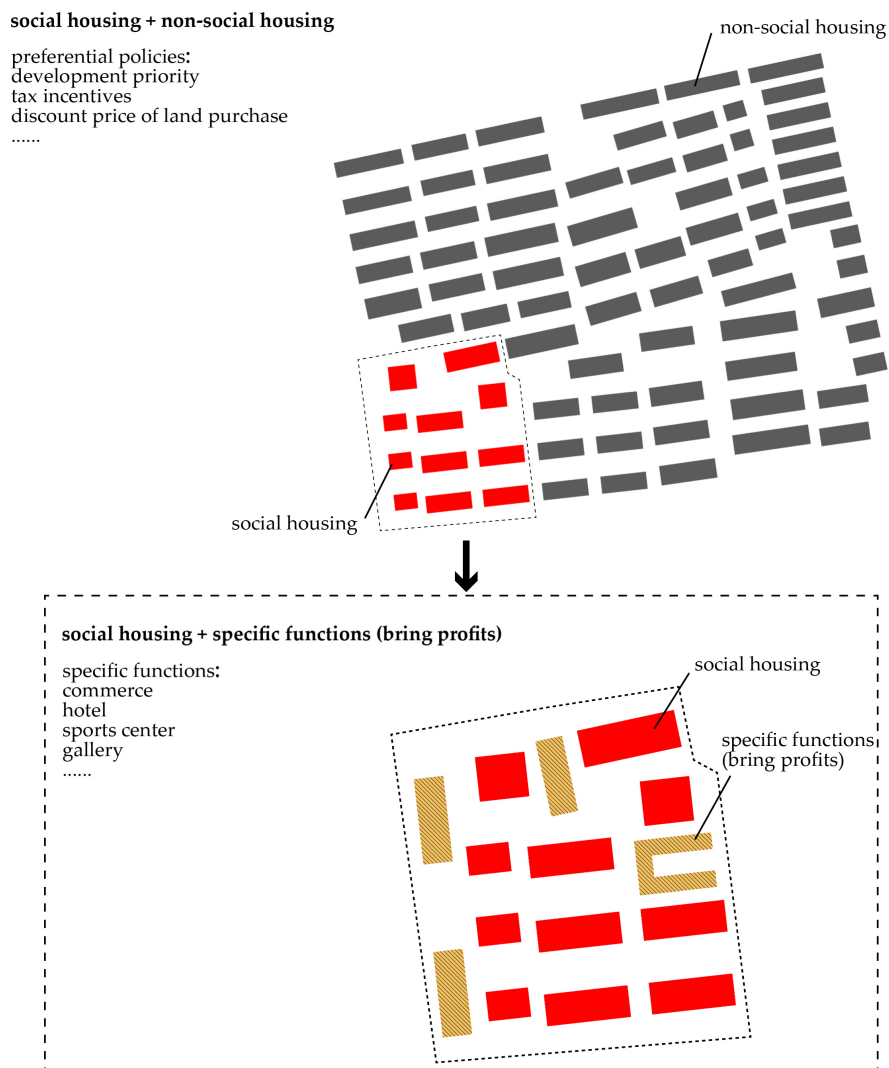


Figure 9-7 Diagram of proposal 3 (made by authors)

9.4 Proposal 4- Ensure comprehensive beneficiaries

For the social housing beneficiaries in Shanghai, there are strict and precise standards, and among them, all the social housings (low rental housing, public rental housing, economic housing, removal and relocation housing) require the beneficiaries should have the resident accounts of Shanghai (Hukou). It means the lower income groups without resident accounts of Shanghai (Hukou) will be excluded from social housing provisions, mainly including majority of migrants as well as large numbers of university graduates who decided to stay Shanghai.

Current social housing beneficiaries in Shanghai, that are lack of comprehensiveness, have excluded majority of targets who need it most, that would increase the widespread discontent of the society and increase the social contradictions, that all hinder social stability and harmonious development. In this sense, ensuring comprehensive beneficiaries, especially removing relevant restrictions in terms of household registration (Hukou) in social housing beneficiaries is highly recommended.

In fact, some places in China have gradually improved social housing beneficiaries in terms of household registration (Hukou) restrictions from last year, which means majority of migrants as well as large numbers of university graduates also could benefits from social housing policies.

For example, according to the new regulations in social housing policy in Shandong Province (China), "By the end of 2014, realization of unified planning and construction, unified admittance and distribution, unified operation and management of public rental housing and low rental housing should be achieved. In addition, abolishment of household registration (Hukou) restrictions should be fully implemented, in order to achieve the equal treatment in social housing beneficiaries." (Jingfang, 2014)

Recently, many other places such as Hubei Province (China), Hebei Province (China), and even several pilot areas in Beijing are all gradually tend to implement abolishment of household registration (Hukou) restrictions in public rental housing and low rental housing. Shanghai, also tends to be comprehensive in social housing beneficiaries through now making efforts to abolish household registration (Hukou) restrictions especially in terms of public rental housing.

The "Opinions of Implementation" (2014) of public rental housing in Shanghai, clears that "The coverage of housing security of public rental housing should expand to the people who have the permanent resident status with stable work. It means besides the residents with household registration (Hukou), the stable working residents who hold 'Shanghai residence permit' and paid prescribed years of the social insurance also could apply for the public rental housing." Although there are many attempts to ensure comprehensive beneficiaries, there is still no actual implementation by now, which should be improved as soon as possible.

9.5 Proposal 5- Mixed and scattered construction to prevent social segregation

In Shanghai, the current social housing construction is mainly formed in large scale as well as concentrated mode, which could result the gathering of the lower income groups, relatively isolated from other social groups with inconvenient social life due to the insufficient supporting infrastructures and community services. This kind of construction mode could lead to social segregation. The expansion of social segregation will bring a variety of harms to the society, such as increasing class differentiation, unfair social distribution, growing difficulty in social governance, decreasing social integration, that all seriously affect the social stability and harmony.

In order to prevent social segregation in the social housing construction, mixed and scattered construction mode is highly recommended, instead of large-scale and concentrated construction, which mainly due to the fast and economic reasons. In addition, during the procedure of social housing planning, considering the complementary between different social structures is needed to avoid the appearance of monotonous social structure and further enhance the social integration.

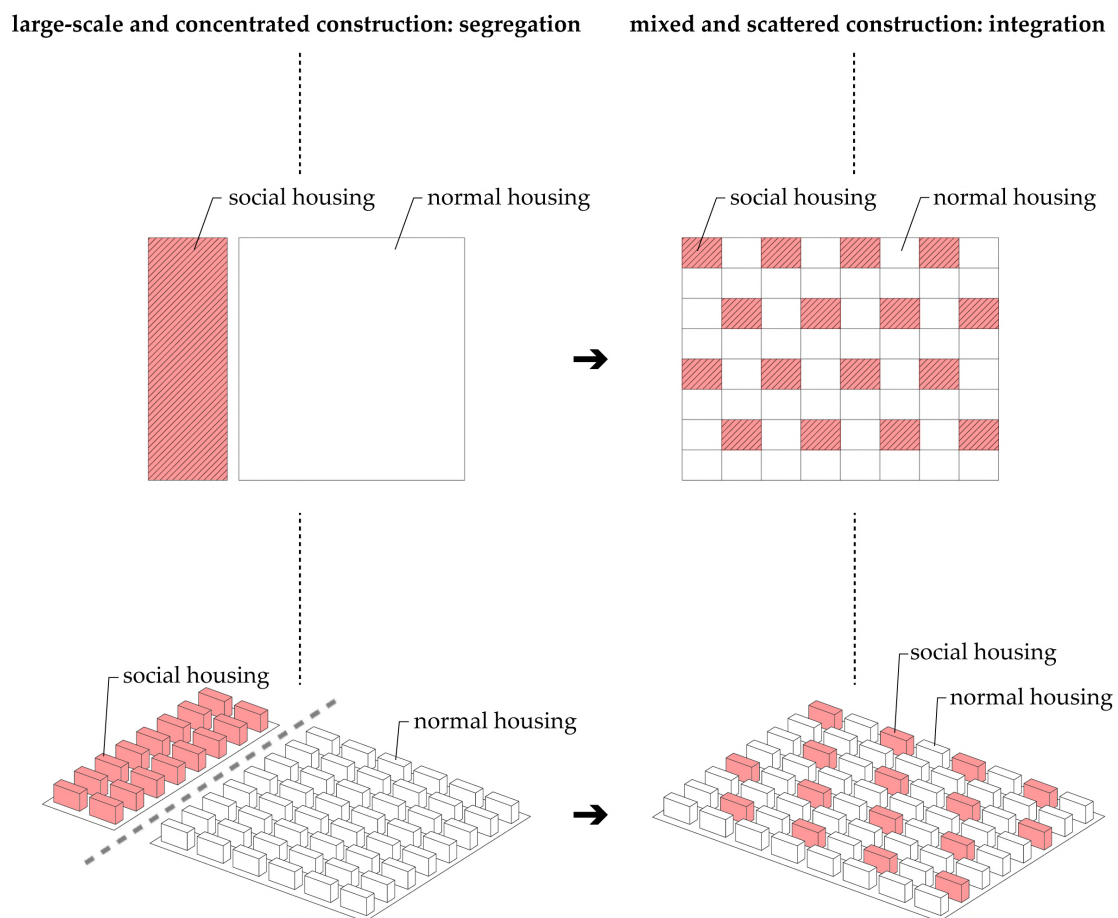


Figure 9-8 Diagram of proposal 5 (made by authors)

9.6 Proposal 6- Optimum design considering demographic characteristics of benefit targets

In general, social housings in Shanghai present monotonous design in terms of planning as well as unit design, regardless of its different categories like public rental housing, economic housing and removal and relocation housing. More importantly, social housing design in Shanghai lack of concerning of demographic characteristics of potential benefit targets.

The government always constructs the social housing with its general term defining its potential benefit targets as lower income groups, without analysis of particular demographic profile of them. However, demographic differences will undoubtedly bring different housing demand as well as different dwelling characteristics that have close relationship with the social housing design. Without these understanding, the social housing design could not satisfy the real demand of benefit targets.

Thus, optimum social housing design considering demographic characteristics of benefit targets is needed, through analysis of different demographic profiles of each resident type with their specific demands as well as dwelling characteristics which would become one of the important considerable factors in social housing design, especially in unit design. In addition, the estimated quantities of different housing types as well as related necessary facilities and supplementary services are also would contribute to the social housing design, particularly in terms of planning.

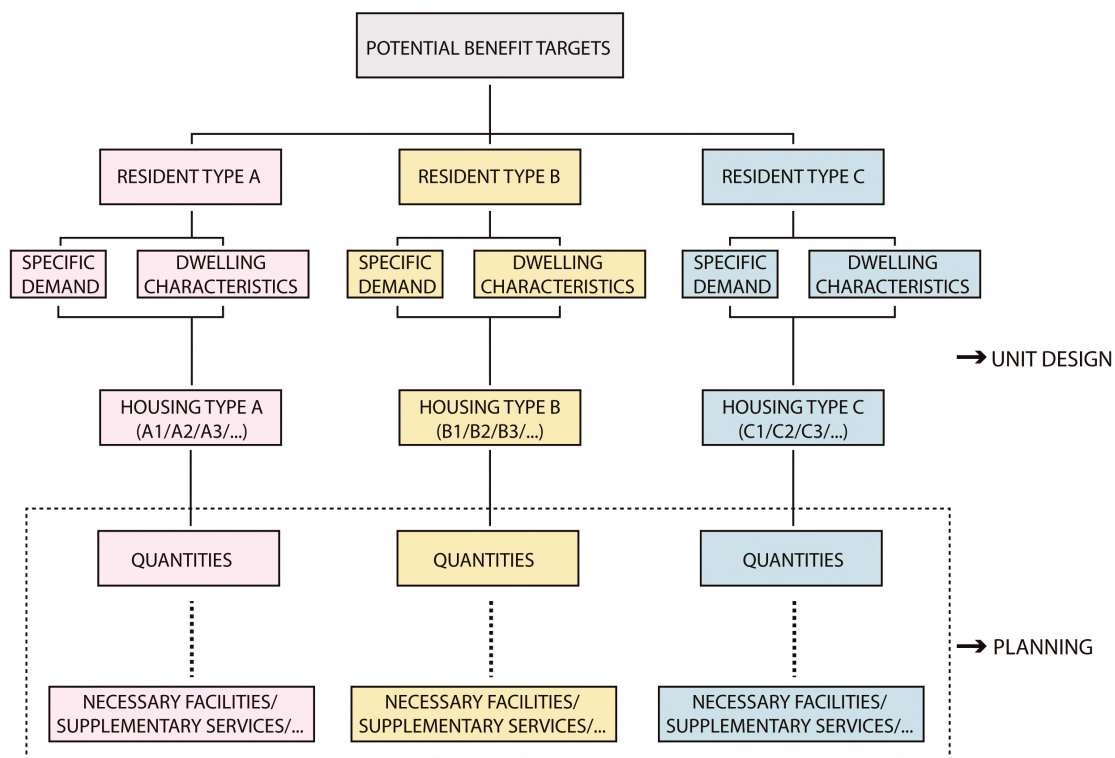


Figure 9-9 Diagram of proposal 6 (made by authors)

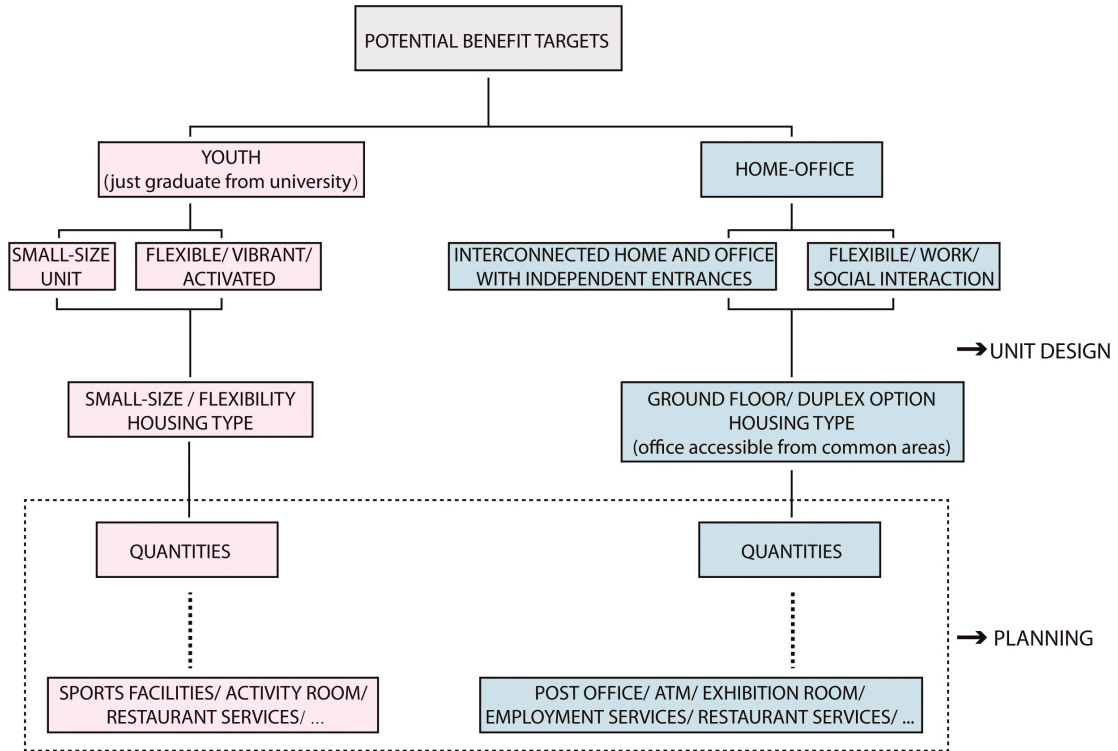


Figure 9-10 Example of proposal 6 (made by authors)

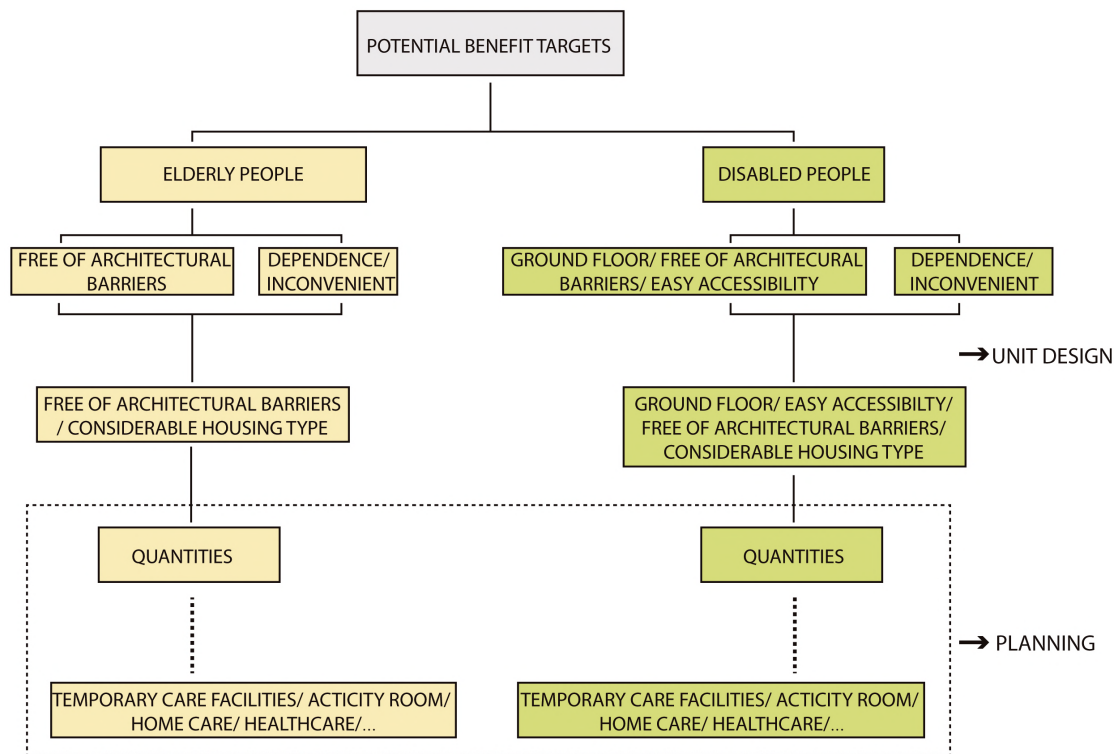


Figure 9-11 Example of proposal 6 (made by authors)

9.7 Proposal 7- Promote sustainability in social housing construction

Current social housing construction in Shanghai has developed rapidly under the urgent and increasing demand. Since several constraints such as time, budget and land shortage exist in social housing construction, the government pays little consideration for its durability, sustainability as well as environmental factors, which may result in low construction quality, high maintenance cost and short life spans in turn.

However, as we introduced before, in Europe, the social housing construction pays more and more attention on the environmental sustainability. Two case studies, "social housing in via Cenni" and "Il Borgo Sostenibile" in Milan (Italy) all make various efforts to enhance environmental sustainability, in terms of construction materials, equipments, management and individual usage. In addition, in France, "under the so called 'Grenelle de l'Environnement', HLMs are engaged in a plan to renovate (by 2020) 800,000 social housing units in order to improve their energy efficiency." (Laino, 2011) Also, "The government has recently introduced incentives for the construction of sustainable dwellings, and some social developers are focusing on using sustainable materials and innovative energy systems." (J., 2007)

Complying with the worldwide tendency of sustainability, social housing construction in Shanghai also should tend to promote sustainability, that means develop and verify the various sustainable approaches in terms of design criteria and construction practices as well as further to its effective management and usage.

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